STATE OF SOUTH CAROLINA
In the Court of Appeals

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SC Court of Appeals

APPEAL FROM ADMINISTRATIVE LAW COURT

The Honorable Carolyn C. Matthews, Administrative Law Judge

Case Nos. 06-ALJ-11-0562-AP and 06-ALJ-11-0563-AP

Anonymous No. 1, R.D.H., and
Anonymous No. 2, R.D.H.,

Appellants,

v.

South Carolina Department of Labor,
Licensing and Regulation, State Board
of Dentistry,

Respondents.

RECORD ON APPEAL

VOLUME II

Desa Ballard
P. Christopher Smith, Jr.
Law Offices of Desa Ballard
226 State Street
West Columbia, South Carolina 29169
Telephone: (803)796.9299
ATTORNEYS FOR APPELLANTS

Kenneth P. Woodington, Esquire
Davidson, Morrison & Lindemann
Post Office Box 8568
Columbia, South Carolina 29202
Telephone: (803) 806.8222

Lynne W. Rogers, Esquire
South Carolina Department of Labor, Licensing
& Regulation
Post Office Box 11329
Columbia, South Carolina 29211
Telephone: (803) 896.4470

ATTORNEYS FOR RESPONDENTS

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A: No.

Q: Okay. That's all I have Dr. Ackerman, thank you.

DR. ACKERMAN - CROSS EXAMINATION BY MS. BALLARD:

Q: Dr. Ackerman, you've been a critic of the school-based dental hygienist program for some time, have you not?

A: I wouldn't say so much the program, no, ma'am.

Q: What have you been a critic of?

A: Of the sealants that were placed on the teeth.

Q: What's your objection to sealants?

A: I don't have an objection to sealants.

Q: What's your objection to what has been done by the program?

A: The ... some of the patients that I've seen have had sealants improperly applied and applied over the decay, and some to the effect where the patient has actually had to have the tooth extracted because of such gross decay.

Q: And so you filed a complaint against at least one ...

MR. WOODINGTON: Objection.

Q: ... of the hygienists, correct?

MR. WOODINGTON: Objection, Mr. Chairman.

CHAIRMAN RAWLS: Objection sustained.

MS. BALLARD: We've already preserved our objection on this?

CHAIRMAN RAWLS: Yes.

Q: You've written a number of letters to the Board of Dentistry complaining about the various employees at HPS, haven't you?

MR. WOODINGTON: I object to that too, Mr. Chairman.

MS. BALLARD: I'm not asking if he filed any complaints. I'm asking if he's written letters complaining about. Complaints are official affidavit forms, which I'm not asking about.

CHAIRMAN RAWLS: Do you understand the question, Dr. Ackerman?

A: No, I don't.

Q: You've written a number of letters or communications of other kinds, not affidavits, but you've written a number of letters to the Dental Board complaining about one or more of the hygienists employed by HPS through the years, have you not?

A: Probably, yes.

Q: Okay. So if I have copies of letters on at least three patients that you've written to the Board complaining about one aspect or another, you wouldn't disagree with that, correct?

A: Correct.
Q: You want this program stopped, do you not?
A: No.
Q: So does it do any good?
A: Parts of it are excellent.
Q: In fact, it gets patients like F.B. to the dentist for the first time, doesn't it?
A: Quite possibly for the first time.
Q: He'd never seen you before, had he?
A: No.
Q: As far as you know, he'd never seen a dentist before in his life, correct?
A: Correct.
Q: And in fact, they saw him on, HPS saw him on November 8th of 2002 and ten days later he was in your office to seek dental care, is that correct?
A: Uh-huh (affirmative response).
Q: Say yes for the record, please.
A: Yes.
Q: So to the extent that one goal of the program is to get children who have never seen dentists before to see dentists, the program has been successful insofar as F.B. is concerned, correct?

A: That goal has been fulfilled.
Q: Okay. And in fact, if a further goal of the program is to provide a degree of preventative dentistry in the event that further dental care in the future is not sought, that goal has also been accomplished, has it not?
A: That is ... preventive dentistry would have been attained in most instances as long as the prevention doesn't cause more detriment to the tooth than helping the tooth.
Q: In the case of F.B., what detriment was caused to F.B. as a result of placement of sealants on the teeth, the four teeth that were sealed by HPS?
A: I would say that it did not help the decay process and probably made the decay a little bit worse.
Q: How? How did it make the decay worse?
A: Well, you seal decay up under a tooth, it's going to proliferate because you cannot, you've lost all topical application of fluoride that's in the water, the dentist can't apply topical fluoride to the tooth where it will do any good anymore.
Q: If he's seeing a dentist?

A: If he's seeing a dentist.
Q: All right. So how has the tooth been harmed?
A: In my ... in the patients that I've seen ...
Q: I'm asking you about F.B.
A: I don't have the records specifically relating to that patient on how it caused harm.
Q: So the placement of the sealant in the F.B. case caused no harm, correct?
A: I can't say that.
Q: Can you articulate any harm that it caused?
A: All I can tell you is the sealants were placed and there was decay up under the sealants.
Q: And the resulting harm was what?
A: The resulting harm is ... I cannot tell you precisely because it is not an exact art. We don't measure this in millimeters as engineers do. It's a fact that, you know, through the twenty-nine years I've been in practice, it's not an accepted technique to put sealants over decay because of the resulting action of the sealants.
Q: Action of the sealants. Can you be more specific?
A: It causes the decay to worsen in the instances that I have seen.

Q: The instances that you've seen. F.B., I assume, is not one of them?

A: I don't know. I saw this patient three years ago, so I really can't tell you anymore than is written right here on this chart.

Q: Can you point me to some literature that suggests the placement of sealants on decay causes it to worsen?

A: I can point you to literature at the American Dental Association that says it is not recommended.

Q: What citations would those be, please?

A: I have a letter from the American Dental Association stating that preventive type sealants, which these would fall under, should only be diagnosed and followed by a dentist.

Q: I'm asking about research, Dr. Ackerman. What research ...

A: Well, this ...

Q: Let me finish my question. What research do you have, scientific research, that backs up your statement that the presence of sealants causes decay to increase?

A: Well, I would hope that the American Dental Association, which the, I hope that the

hygienists practice under and I practice under, their scientific research program would be adequate and, you know, all I can tell you is I got a letter from them, from the American Dental Association stating that their research says that this is not an appropriate thing to do.

Q: Can you produce that letter to me?

A: Yeah.

Q: Let me see it.

A: (Witness complies).

MR. WOODINGTON: I haven't seen it. Can I see it?

MS. BALLARD: Neither have I.

Q: Are you referring, in response to my question, to a letter addressed to you dated November 4th, 2002 from Dan Creed, the manager of State Legislation and Regulation, Department of State Government Affairs with the American Dental Association?

A: Yes.

MS. BALLARD: I'd like to introduce this into evidence as Exhibit Number Thirteen.

MR. WOODINGTON: No objection.

(Respondents' Exhibit Number Thirteen was entered into evidence.)

MS. BALLARD: If you'll bear with us just a minute.
Q: Well, I can ask some other questions while we're waiting on that and then we'll come back to that if that's okay. In fact, your real objection to sealant use, the school-based sealant program is in fact that if the sealants are placed on the teeth and decay is prevented, you don't get to bill for putting a restorative ...
A: (Witness laughs).
Q: Let me finish my question, Dr. Ackerman. You don't get to place restorative dentistry and bill for it, is that correct?
A: That's totally incorrect.
Q: Totally incorrect. Why would you fill a baby tooth that's about to fall out?
A: Well, generally you would not.
Q: Well, let's talk about this case that we just dropped the charges on this morning, M.H. He was your patient, was he not?
A: I assume so.
Q: Well, let me show you the record on M.H. Does this appear to be your record on M.H.?
A: Yes, ma'am.
Q: Okay. And you would agree with me that you

filled baby tooth number B, letter B, on that patient, M.H., on some month we can't tell, date 16/03, correct?

A: Yes, ma'am.

Q: All right. And is this your Panorex from that same patient?

A: Well, it does not have my name on it, so I can't tell you for sure that it is or is not.

Q: All right. If this was provided to me by the ... did you provide this ... did you provide a Panorex on M.H. to ...

A: I don't know.

Q: ... LLR?

A: I don't know.

Q: All right. If this has been provided to me by LLR and represented to me as being the Panorex that you performed on M.H., would you disagree with that?

A: No, I wouldn't disagree with it.

Q: Look with me if you would on tooth number B, the one that you filled the day that this Panorex was done. Do you see any roots on that tooth? In fact, if I'd bumped it a little bit, it would have fallen out, wouldn't it?

A: Well, I don't know about that.

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Q: You billed for that, didn't you?
A: Well, I would suppose. I don't know. I haven't got the billing statement in front of me.
Q: Well, you don't do it for free, do you?
A: No.
Q: Why would you do that if not to bill for it?
A: Do we have a ...
Q: I served a subpoena on you to bring your records. Perhaps you have them.
A: (No response.)
Q: Do you have your billing records on M.H.?
A: Billing records?
Q: Yes.
A: No, I don't have billing records.
Q: We can assume, can we not, that if you performed the service for M.H. you billed for it, correct?
A: Correct.
Q: Okay. How long do you think before that tooth was going to fall out, tooth number B?
A: It's variable. Probably within six months at least.
Q: With no roots at all?
A: Well, sometimes they stay in there that long.

Q: Okay.

MS. BALLARD: I'd like to introduce the records on M.H. and the Panorex on M.H. as Respondents' Exhibit Number Fourteen.

MR. WOODINGTON: I'm going to object because the issue is whether F.B.'s teeth were ...

MS. BALLARD: You've offered this witness as an expert in the field of general dentistry and the management ...

MR. WOODINGTON: I ...

MS. BALLARD: Let me finish my ...

MR. WOODINGTON: I haven't finished my objection yet.

MS. BALLARD: Well, finish your objection and I'll finish my response.

MR. WOODINGTON: My objection is this witness has testified about the procedures that were done on F.B., and whatever he may have done on M.H. is not particularly relevant to the issues before this panel.

MS. BALLARD: He has been offered as an expert witness in the field of general dentistry, and his rash decision to fill a tooth that was about to fall out of the mouth is something that I think is directly relevant to his credentials as an expert witness. He's

testified that, yeah, it was ... there were some roots, perhaps some roots there, but not much. And I think it's directly relevant to this panel, this board, and the appellate court's review of his qualifications as an expert and a dentist.

CHAIRMAN RAWLS: We'll accept that.

MS. BALLARD: Okay. This is introduced into evidence as Respondents' Exhibit Number Fourteen. I have put the records and the Panorex in a single exhibit and we'll get copies of them.

(Respondents' Exhibit Number Fourteen was entered into evidence.)

Q: All right. Let's talk about this letter from the ADA that you say, as you described it to me, you said that it ... explain it to me again. What did it supposedly say?

MR. WOODINGTON: If he can refer to the letter, Mr. Chairman.

MS. BALLARD: Well, he wasn't referring to it when he told me what it said. I'm asking him what he told me it said.

Q: What did you tell me it said?

MR. WOODINGTON: I think he has the right to refer to it.

MS. BALLARD: He referred to it without looking ...
CHAIRMAN RAWLS: I think you're getting close to badgering the witness.
MS. BALLARD: Mr. Chairman, he told me what the letter said before he looked at it. I'm asking him what he told me the letter said.
CHAIRMAN RAWLS: I think he can look at the letter.
Q: What did you tell me the letter said?
MR. WOODINGTON: Mr. Chairman, this isn't a memory contest. If he needs to have his answer read back, I would submit that would be the appropriate steps to take on that.
MS. BALLARD: And he can change his mind if that's what he wants to do.
A: I thought that I said what it states here.
Q: Which is?
A: That therapeutic sealants should be diagnosed by a dentist before they're placed, in essence.
Q: Didn't have anything to do with whether sealants should be put on decay, did it?
A: Well, therapeutic sealants are by definition sealants that are placed over decay.
Q: This is responding to a question from you as to whether or not it's appropriate to have hygienists apply sealants in the absence of a

dentist looking over her shoulder, correct? This is in your continuing opposition to the school-based ...

A: I'm ...

Q: Let me finish my question. This is your continuing opposition to the school-based dental hygienist program, is it not? You're objecting to the fact that a dentist is not in the school when these sealants were applied, correct?

MR. WOODINGTON: I object to that because there's no basis in the record for that question.

Q: I would defer to Exhibit Number Thirteen which begins, when we spoke by phone on Monday, November 4th, you indicated that a question has arisen regarding the application of therapeutic sealants as compared to mere sealants by dental hygienists. You gave me the impression that in order for a dental health professional to apply therapeutics sealants, a diagnosis is required in order to determine if tooth decay will be arrested as a result of the application. You asked what the ADA says about dental hygienists making these kind of diagnostic determinations. That was your question, wasn't it?

A: If that's what it says in the letter.
Q: I'm sorry? What was your answer?
A: I said, if that's what it says in the letter.
Q: So you called to talk to them about whether or not it was appropriate for dental hygienists to make a determination as to whether to place a sealant, not whether a sealant should be placed on incipient or other types of decay, correct? You don't like them doing this, do you?
A: What? Placing sealants?
Q: Right.
A: Sealants are no problem. I don't like sealants being placed over decay.
Q: Why?
A: Because it worsens the decay.
Q: Now, you told me a minute ago that that's what you had, a letter from the ADA that said that. You've got another letter from the ADA?
A: No, I don't have another letter from the ADA.
Q: F.B. didn't come back to see you, did he?
A: No.
Q: So if in fact sealants were placed on teeth with incipient or other decay, those teeth still have the benefit of the sealants that you didn't remove, correct?

A: If they're still there.
Q: And if they're not, he's no worse off than he was to start with, is he?
A: Well, if the sealants are placed correctly, they're generally still there.
Q: And if they're not, he's no worse off than he would have been had they not been put there, correct?
MR. WOODINGTON: I object to the question. Calls for speculation. He hasn't seen the patient in three years.
MS. BALLARD: He's been qualified as an expert.
MR. WOODINGTON: He still hasn't seen the patient in three years.
CHAIRMAN RAWLS: The objection is sustained in this case.
MS. BALLARD: I have nothing further.
MR. WOODINGTON: I have no further questions.
CHAIRMAN RAWLS: Does anybody on panel have any questions?
DR. JETT: Do you have any idea how old the patient, M.H., the fellow we're looking at in the Panorex, do we have any idea how old he is?
MS. BALLARD: He was born in 1992.
A: So he would be ten years old then.

MR. WOODINGTON: I think that chart is now in evidence as part of that package, and it's have his birth date and the day he visited.

MS. BALLARD: I don't believe his birth date is on the chart. It might be. It's on the HPS records. In fact, tomorrow was his birthday.

CHAIRMAN RAWLS: Any other questions from the panel? (No response.) Okay. Dr. Ackerman, you're dismissed.

MR. WOODINGTON: Okay. I now call Dr. Padgett, again in the Anonymous No. 3 case.

MS. BALLARD: I have Dr. Ackerman under subpoena, may he be released?

MR. WOODINGTON: I'd like him to stick around until the conclusion of this hearing.

MS. BALLARD: Okay.

JAMES G. PADGETT. JR., D.M.D., being duly sworn, testifies as follows:

MR. WOODINGTON: Again, if you'll bear with me just a second. This is the witness chair.

DR. PADGETT: Oh, I'm sorry.

MR. WOODINGTON: For this patient, we'll be looking at the Padgett chart which is two pages for B.W., Dr. Padgett's chart, which is Exhibit Twenty-one.

MS. BALLARD: And the HPS chart is Exhibit Number what?

MR. WOODINGTON: Twenty-two.

MS. BALLARD: Thank you.

MR. WOODINGTON: The x-rays are not numbered on this, but they should be Twenty-three.

DR. JAMES G. PADGETT, JR. - DIRECT EXAMINATION BY MR. WOODINGTON:

Q: Dr. Padgett, could you ...

MS. BALLARD: Hold on a minute. Do you have more than three x-rays? I was only provided with three x-rays on this patient.

MR. WOODINGTON: I have ...

A: I've got some more if you want to see them.

MR. WOODINGTON: ... introduced everything I'm going to introduce from him.

MS. BALLARD: Well, if there's some additional x-rays that were not provided to me, I'd like to see them before they're introduced.

MR. WOODINGTON: Okay.

A: They're not duplicate.

MS. BALLARD: All right. So you've introduced all of the x-rays as Exhibit Number Twenty-three?

MR. WOODINGTON: I have no problem with introducing that set in your right hand. I would just as

soon introduce that, to tell you the truth, but I didn't see it until this morning.

MS. BALLARD: My question is, are you introducing all eleven x-rays as Exhibit Number Twenty-three?

MR. WOODINGTON: I would propose their introduction.

MS. BALLARD: If I can be provided with a copy of these, I'll have no objection, and I don't mean today.

MR. WOODINGTON: Okay. We'll get you a copy down the road.

MS. BALLARD: All right. So how are we going to identify which is which?

MR. WOODINGTON: Do we want to call the one with eight Number Twenty-three or the next number?

MS. BALLARD: You've said all eleven are Twenty-three.

MR. WOODINGTON: Okay. Twenty-three A has got three pictures, Twenty-three B has got eight pictures.

MS. BALLARD: Okay.

MR. WOODINGTON: Has he been sworn yet?

COURT REPORTER: Yes, sir.

Q: Dr. Padgett, could you state your name and address, please?

A: James G. Padgett, Jr., D.M.D. I practice in Greenwood, South Carolina.

Q: How long have you been practicing?
A: Thirty-two years.
Q: Okay. What's your educational background?
A: BS in pre-med from Clemson University and a D.M.D. degree from MUSC College of Dental Medicine.
Q: And when did you graduate?
A: 1973.
Q: And you've been practicing in Greenwood ever since?
A: No. The first two years after dental school I was a clinical dentist in the United States Army as a captain. I spent two years there. After two years, I spent one year as a clinical dentist at DHEC in Florence and Darlington Counties, then I went into private practice after that.
Q: Did you do public health work?
A: Yes. Yes, I did. Clinical public health work.
Q: Okay. And you've been in Greenwood since 1970-...
A: 1977.
Q: Are you here under subpoena?
A: Yes.
Q: Okay.

MR. WOODINGTON: I would follow the standard, offer Dr. Padgett as an expert in general dentistry including diagnosis and treatment of tooth decay.

MS. BALLARD: No objection.

Q: Again, as I did earlier, I'd like to call attention to the HPS record on B.W. which would be towards the bottom of your stack.

MS. BALLARD: Exhibit Number Twenty-two.

MR. WOODINGTON: Twenty-two. And that will show ... the second page of that will show ... let's see. On 12/6/02 Anonymous No. 3 says 3 and 30 need to be examined by the dentist; sealants, 3, 14, 19, and 30, sealed only part of 3 and 30. That's the background for our ...

MS. BALLARD: Would you read the remainder of that?

MR. WOODINGTON: Left areas in question unsealed.

MS. BALLARD: Thank you.

Q: So Dr. Padgett, let's now look at your chart which picks up the story both before and after that. And tell me how your chart begins.

A: On 2/5/03 the date ...

Q: Let's go back. She was a patient of yours before '03, was she not?

A: She was a patient. I first saw her 3/15/00 for

prophy exam, fluoride, Panolipse, and the only decay we found at that time was on the primary teeth. The permanent six year molars had not fully erupted at that time. So we had done a restoration on J, M-O-L-I resin and scheduled her for the other primary teeth. She cancelled on 5/17/00, same day. We did not see her again until 5/31/00 when we did the restorations for the primary teeth. Then for some reason or another, she did not respond to our recall notices. And we did not see her again until 2/5/03 when we did an exam, prophy, fluoride, bitewing x-rays. Sealant, we noticed that sealants were done. I asked the mother where she had the sealants done and she said she had had them done at Hodges Elementary School around November of 2002 or December of 2002. We called the school to see who placed these sealants and they told us.

Q: Okay. Now, the bitewings, are those the A part of the exhibit we're talking about, the three pictures?

A: Yes.

Q: Okay.

A: Actually, no. These are periapicals.

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Q: Okay. When were those taken?
A: Okay. These were taken on 2/12/03.
Q: Okay. On 2/12/03 what were you able to observe about decay in the teeth of this particular patient?
A: On examination of the x-rays I noticed gross decay underneath the partially placed sealants.
Q: Which teeth?
A: Three and 30. And at this time, I actually ... do you want me to demonstrate? I do my examination. I take my explorer, my dental instrument, and I go around each tooth, go into the crevices, and on these particular teeth I put my explorer in the crevice of these teeth and I took my hand away and I showed the mother, I showed the mother that this is a hole. This is decay.
Q: Which tooth are you talking about?
A: Both 3 and 30.
Q: Okay. Now then, you're doing a little visual show there. You have a little plastic tooth and an explorer, I think, right?
A: Yes.
Q: And when you say you took your hand away just now, what happened with the explorer?

A: The explorer stayed in the hole.
Q: Okay. What did that tell you about the hole?
A: That tells me there's decay underneath.
Q: Was this the part of the sealant, the part of the tooth that the sealant was not applied to or was it the part the sealant was applied to?
A: That was part of the sealant that was not there.
Q: Was not there?
A: Was not there.
Q: Okay. Was there decay under the part that was there?
A: Yes.
Q: Okay. How far down did the decay under the sealant go?
A: Through the dentin almost to the pulp.
Q: Okay. And what teeth are we ... are we talking about one or two teeth?
A: We're talking about two teeth, number 3 and number 30.
Q: Okay. What cued you into the possibility that there might be decay on those teeth?
A: Well, two things -- the explorer sticking in the hole and the radiographic evidence was irrefutable.

Q: How about just visual? Could you tell anything about the sealants ...
A: Well, I could tell there was a spot, there was a dark spot on the top of the tooth.
Q: Okay. In your opinion, should the decay have been obvious to the hygienist who placed the sealants?
A: Yes.
Q: Okay. And again, was sealant placed over decay?
A: Yes.
MR. WOODINGTON: I'd like to just take this and pass it around as we've been doing.
A: You can take this too.
Q: Not yet.
MR. WOODINGTON: This is the 2/12/03 x-rays, the A part of the exhibit.
Q: What did you recommend to the parent?
A: I recommended to the parent that the child needed to have the remaining sealant taken out and the decay removed, all of the decay removed, and recommended we place a permanent restoration to each tooth.
Q: And then, I hate to keep asking you, but which tooth are we talking about?

A: Number 3 and number 30.
Q: Okay. Was that done?
A: Yes.
Q: Did you do it?
A: Yes.
Q: When did you do it?
A: I did it on, let's see, 2/26/03.
Q: Okay. Is that eight picture radiograph that's in your hand is Twenty-three B, Exhibit Twenty-three B, does that show that?
A: Yes.
Q: When was that taken?
A: We did follow-up x-rays on 10/29/03 when she came in for a recall and also on 8/2/04 when she came in on her next six month recall.
Q: And what did those show about numbers 3 and 30?
A: It shows large silver amalgam restorations that I had to place that were very close to the pulp, although thank goodness we did not get a pulp exposure. But these were large silver amalgam fillings that I had to place in order to preserve this tooth. If I hadn't, if we had waited much longer, I would have probably had to remove these teeth. And it's happened in thirty-two years of practice that I've seen

this.

Q: Okay. And those pictures again, were they taken ... no, excuse me. The fillings were done, that you're talking about, the silver restoration was done in February '03?

A: The fillings were done 2/26/03.

Q: Okay.

MR. WOODINGTON: Let me just pass this around, too. Okay. Mr. Chairman, I see we've got a page, a second page, to his record here that I wasn't aware of. Are there any objections of making a copy of it?

MS. BALLARD: Not if I can get a copy it.

MR. WOODINGTON: Okay.

A: I think that was long after I made the complaint. I made the complaint on February the 12th.

MR. WOODINGTON: Let's make copies of this.

MS. BALLARD: We're just going to append this to Twenty-one?

MR. WOODINGTON: Might as well, yes, because it's got a second page.

Q: Okay. We have your records out being copied, so let me ask you these questions and if you need your records to answer them, we'll wait.

A: Okay.
Q: Did you know who applied the sealants?
A: No.
Q: Okay. Were you ever contacted by the hygienist that placed the sealants?
A: No.
Q: And is this person still your patient or did they stop in '03?
A: As far as I know ... well, after 8/4/03, for someone reason she has not responded to our recall notices.
Q: Have you ever declined to see this patient?
A: No.
Q: Okay.
MR. WOODINGTON: I think that's all I have for this witness, Mr. Chairman.
CHAIRMAN RAWLS: Ms. Ballard?
DR. PADGETT - CROSS EXAMINATION BY MS. BALLARD:
Q: Dr. Padgett, you say on your chart, Number Twenty-one, that on 2/12/03 you took four of those little x-rays. Where's the fourth one?
A: Fourteen, 19, 30. I believe I sent that to the South Carolina Dental Association.
Q: The South Carolina Dental Association?
A: Uh-huh (affirmative response).

Q: Why did you send it to the South Carolina Dental Association?

A: Well, I sent that along with the complaint. I didn't know exactly the procedure that I should undergo, so I sent it to them.

Q: So you filed a complaint as a result of seeing this patient?

MR. WOODINGTON: Mr. Chairman, he has used the word "complaint" in here. I don't know whether he's using it as a term of art, meaning a formal complaint or an affidavit or what, but I would request that the question on that point be allowed to go no further than what's already been stated.

MS. BALLARD: He volunteered during Mr. Woodington's questioning that he had provided his record, quote, before he filed the complaint, unquote. He has volunteered the fact that he filed a complaint against somebody with someone. He has now said that he filed a complaint with the Dental Association, which is not this Board, so it's certainly not covered by the statute. If he filed a complaint with someone or some other entity, I am fully entitled to question him about it.

MR. WOODINGTON: I would ask, Mr. Chairman, that he clarify first of all what he's really talking about, the Dental Association which is a private group or if he's talking about the Board which is a State agency.

CHAIRMAN RAWLS: Yes. Dr. Padgett, was it the South Carolina Dental Association or the State Board of Dentistry?

A: At first I sent one x-ray to the South Carolina Dental Association. I didn't know the procedure that you should go, undergo to file a complaint, so I just sent that one x-ray to the South Carolina Dental Association.

CHAIRMAN RAWLS: You can proceed with this line of questioning.

Q: So why did you file a complaint with the South Carolina Dental Association?

A: Because I didn't know the proper procedure to undergo to file a complaint.

Q: Why did you file a complaint?

MR. WOODINGTON: Again, I object to this whole line of questioning, Mr. Chairman. He said what he said and it doesn't need to go any further.

MS. BALLARD: I'm asking him about ...

CHAIRMAN RAWLS: You're using the term "file a

complaint".

MS. **BALLARD**: I'm using his term to the South Carolina Dental Association, which is clearly not covered by the statute.

MR. **WOODINGTON**: And he answered the question, too, I would submit.

MS. **BALLARD**: And I said why did you complain.

Q: Why did you complain?

A: Because I saw decay underneath an improperly placed sealant.

Q: So?

A: So that's not the standard of care.

Q: What is the standard of care?

A: The standard of care is that first you look at an x-ray, you have an x-ray interpreted by a dentist and if he can tell there's no decay underneath that tooth, then a sealant should be placed on that tooth.

Q: So you have an objection to the school-based dental hygienist program at all, correct?

A: I don't have an objection at all to the school dental program. I am a proponent of the school dental program.

Q: Only if a dentist is there first?

A: Only if decay is detected before a sealant is

placed.

Q: Say that again.

A: If decay is detected before a sealant is placed, then a sealant should not be placed. And only ...

Q: Detected by whom?

A: By a dentist.

Q: Okay. So your objection to the school-based dental hygienist program is that a dentist doesn't first see the students before the preventative dentistry work is performed, right?

A: Yes.

Q: That is your objective?

A: Yes.

Q: And you're aware, are you not, that the South Carolina General Assembly specifically has passed ... let me finish my question. That the South Carolina General Assembly has specifically passed legislation that prevents the school-based dental hygienist program to operate under, quote, general supervision, which has been defined by the legislature, correct?

A: I am aware of that.

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Q: And you don't like it?
A: Well, let me read you the statutes ...
Q: Well, answer my question. You don't like it, do you?
A: I like it fine.
Q: Okay. Read me the statute then. That would be good.
A: All right.
MR. WOODINGTON: Mr. Chairman, I don't know that we need to read the statute here. We're talking about the standard of care and not the issue of general supervision and dentists' presence and so forth.
CHAIRMAN RAWLS: I agree.
Q: So your objection is that the sealant was placed without a dentist having determined through the use of an x-ray whether caries were present, correct?
A: Correct.
Q: Okay. Even though the law allows under general supervision the dental hygienist program to, if they believe a sealant is appropriate, to apply sealant, correct?
A: I don't make the law.
Q: I understand that. So if you disagree with the

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law, you're going to complain about it anyway to the licencing authorities?

A: If I see there's a substandard of care, I complain.

Q: What was the substandard of care?

A: Gross decay underneath an improperly placed sealant.

Q: Well, let's look at that. Look at Exhibit Number Twenty-two, Dr. Padgett. She says ... you're welcome to look at it with me, if you'd like. She says ... 12/6/02, got me?

A: Yeah.

Q: Number 3 and number 30 need to be examined by the dentist. You agree with that, don't you?

A: Uh-huh (affirmative response).

Q: Say yes for the record.

A: Yes.

Q: And she sealed only part of 3 and 30, left the areas in question unsealed, correct?

A: That is ...

Q: Is that correct?

A: That's correct, but it's not the standard of care.

Q: So in your mind she should have done what?

A: She shouldn't have sealed it at all.

Q: At all?
A: At all.
Q: What harm did she cause by getting this child to a dentist?
A: She caused fraud to the Medicaid system because she filed for a sealant and Medicaid ...
Q: When she placed ...
A: ... which Medicaid paid. And I then I had to turn around and do a restoration, which I had to file Medicaid and Medicaid paid for the restorations. They paid twice for something that shouldn't have been done in the first place.
Q: But we got this child to a dentist, Dr. Padgett.
A: That makes no difference. She could have gotten the child to a dentist without placing a sealant.
Q: And so ...
A: She could have gotten the child ...
Q: So your objection is Medicaid fraud, correct?
A: That's one of my beefs, yes.
Q: Okay. Tell me the rest of them.
A: Well ...
Q: Tell me all of them.

A: We don't have enough time.
Q: I'll wait.
A: They are ...
MR. WOODINGTON: I object, Your Honor. I don't know that his complaint ... he's testified as to what this case involves, and any other complaints that he might have or any other theories are not particularly relevant to this proceeding.
MS. BALLARD: I'm absolutely entitled to explore bias. He obviously has a great deal.
A: I disagree. I disagree.
MS. BALLARD: He gets to rule first.
CHAIRMAN RAWLS: You can explore bias.
Q: Tell me all of your complaints.
A: Okay.
Q: And we'll take them down, right or wrong.
A: It wasn't fair to this child.
Q: Not fair?
A: Not fair to this child.
Q: Okay.
A: To do a sealant on a tooth that had gross decay underneath it and file for Medicaid. Medicaid had to pay for that sealant that did absolutely no good.

Q: Okay. That's number one.
A: Yes. There wasn't a dentist to take an x-ray and to diagnose decay on that tooth before a sealant was placed.
Q: Well, I thought you told me that if there was decay you're not going to put a sealant on it?
A: Exactly. The dentist would not, he would have said this tooth needs a restoration, it does not need a sealant. You don't need to file Medicaid fraud for a sealant and have Medicaid pay for that sealant and then have a child go to a dentist and the dentist obviously has to take the sealant out and place the restoration and bill Medicaid and Medicaid had to pay for that restoration.
Q: What would have happened if that child hadn't gone to a dentist? And we'll come back, that's number two. We'll come back.
A: That decay would have progressed over a period time. I've seen it in my thirty-two years of dental practice.
Q: I'm sure you have.
A: And I've done it. I've had to remove teeth that have had sealants placed on grossly decayed teeth.

Q: And that decay would have continued regardless of whether a sealant was placed on that tooth or not, wouldn't it?
A: It would have.
Q: Right.
A: And Medicaid would have had to pay for it.
Q: For the sealant.
A: For the sealant.
Q: Which slowed ...
A: Which was absolutely did no good.
Q: Which slowed down ...
A: Huh-uh (negative response).
Q: Let me finish my question. Which down the progress of that decay, correct?
A: It did not slow down the progress of that decay.
Q: How do you know?
A: Dental sealants only prevent pit and fissure decay. Dental sealants do not do anything for smooth surface decay.
Q: I'm not asking about that. I'm asking about the existence of caries.
A: It didn't slow it down at all.
Q: How do you know that?
A: Because I've seen it.

Q: What's the research for that?
A: I don't know what the research is. I'm a clinical dentist for over thirty-two years.
Q: That's ... okay. That's, we got that. What's number three?
A: Okay. I have seen several cases from several schools in Greenwood where this is happening.
Q: Okay.
A: There are several ... I've seen it in Oakland Schools. I've seen it in ...
Q: Seen what? Define for me "it".
A: I've got a picture if you'd like to see it.
Q: I'd like to know what "it" is first.
A: Okay. This picture ...
Q: I'd like to know what it is.
A: It is an improperly placed sealant.
Q: Got it. You've seen it happen in schools in Greenwood.
A: Yes, ma'am.
Q: All right. What's number four?
A: Well, let's see. I've got many. They are not ... the hygienist's, for one thing, are not, they're not qualified to diagnose a treatment plan, therefore they're missing undiagnosed dental disease that should be diagnosed by a

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dentist and sent to a dentist for treatment, such as, retain primary teeth that need to be removed, other dental anomalies like high lingual frenums, it causes tongue-tied, other dental diseases that a child, that a dental hygienist is not qualified to diagnose, and can't diagnose.

Q: What's number five?

A: Gosh, I've got so many.

Q: I'll wait here as long as you like.

A: They're not asking the patients' parents if they have a dentist that they have seen in the last six months, and if they did, they haven't asked them if they've had a cleaning with fluoride, because ...

Q: Is that seven or is that part of six?

A: It's probably ten.

Q: Okay. So what's number eleven?

A: They're not working in tandem with the dentists of the community. They need to work with the dentists in the community, not against them.

Q: Well, let me ask you this. Are the dentists working with them?

A: Trying to.

Q: How?

A: I'm trying to.
Q: How?
A: Well, if I see a child that, you know, has been to ... that they've had some, you know, sealants done improperly, we call the schools to see who the hygienist was.
Q: And done what, complained about them?
A: I was trying to speak with the hygienist, but the hygienist wasn't there and I didn't know how to get in touch with them.
Q: Did you ask?
A: Yes.
Q: Okay. So you made a phone call. That's how you work with the hygienists?
A: We made a phone call to the school.
Q: Okay. What's number twelve?
A: That's about it for right now.
Q: That's it right now?
A: Yes.
Q: Well, I've got all the time in the world. Any others?
A: Well, that should be enough.
Q: Okay. So are dental ... what's the standard of care for dental hygienists in a public school setting?

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A: Well, I know what they can't do in a public school setting.
Q: That's not what I asked you.
A: Well, the standard of care, the only thing a hygienist can do in a public school setting ...
Q: I'm not asking what they can do. I'm asking what the standard of care is.
A: Standard of care?
Q: Do you understand that is?
A: I certainly do.
Q: Tell me it is for a hygienist in a public school setting.
A: The standard of care is they can do a prophylaxis, dental prophylaxis ...
Q: You're telling me what they can do.
A: Yeah.
Q: I want to know what the standard of care is for a dental hygienist in a public school setting.
A: According to sealants?
Q: Generally.
A: They can only place sealants on teeth that do not have visible decay.
Q: That's the standard of care?
A: That's the standard of care.
Q: What happened ... what response did you get

from the Dental Association when you filed this complaint against the Respondent in this case?

A: They told me that I needed to make, file a complaint with the State Board of Dentistry.

Q: How many other complaints have you filed with the Dental Association?

A: One other.

Q: And who was that one against?

MR. WOODINGTON: Object, Your Honor. It's not relevant to this case.

MS. BALLARD: It's relevant to bias.

CHAIRMAN RAWLS: What question ... the question was?

MS. BALLARD: Who has he filed a complaint with the Dental Association against.

CHAIRMAN RAWLS: With the Dental Association?

MS. BALLARD: Dental Association.

MR. WOODINGTON: Oh, the Dental Association.

MS. BALLARD: Yes.

A: No other.

Q: Okay. So once you found out where to file them, you've been doing it right?

A: Uh-huh (affirmative response).

Q: Got you. B.W. has not come back to see you, has she?

A: She has not responded to our recall.

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Q: That happens a lot, doesn't it?
A: It does.
Q: Thank you.
CHAIRMAN RAWLS: Mr. Woodington, do you have ...
MR. WOODINGTON: I assume she's finished. I have no further questions.
CHAIRMAN RAWLS: Does anybody on the panel have any questions? If not, then Dr. Padgett, you're dismissed.
MS. BALLARD: I have Dr. Padgett under subpoena, may he be released?
MR. WOODINGTON: He's still to come up in the next case also.
CHAIRMAN RAWLS: Okay. So stick around Dr. Padgett.
MR. WOODINGTON: With that, and with the incorporation of our reference ... well, can we take a break for just a minute before I rest?
CHAIRMAN RAWLS: Okay. Five minute break.
(Off the record, 10:50 a.m. to 10:56 a.m.)
MR. WOODINGTON: With the understanding that all of the previous testimony by Dr. Sneed, we rest at this point in the Anonymous No. 3 matter.
MS. BALLARD: And the other witnesses.
MR. WOODINGTON: Well obviously. We rest at this point on the Anonymous No. 3 matters.

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CHAIRMAN RAWLS: Thank you. Ms. Ramsy?

MS. BALLARD: We call Dr. Simonsen, please.

DR. SIMONSEN - DIRECT EXAMINATION BY MS. BALLARD:

Q: Dr. Simonsen, we have incorporated your testimony from yesterday, but if you would briefly for the benefit of those who weren't here yesterday, give us a brief background and describe what it is you specialize in.

A: I am the associate dean of Pre-Clinical Affairs and Research at the Arizona School of Dentistry and Oral Health. My research area over the years has been into minimally invasive dentistry, conservation of tooth structure, pit and fissure sealants, preventative resin and restoration, that kind of an area.

Q: Are you expert in the area of cariology?

A: I did ... part of my postgraduate education was an NIH fellowship in cariology at the University of Minnesota. It was a three year postdoctoral fellowship exclusively designed in the area of cariology, with a certificate in Cariology at the end. I also obtained a master's degree in Epidemiology.

Q: And you have experience with school-based dental hygienist programs?

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A: I do.
Q: You had an opportunity to review the records on B.W. and F.B.?
A: I did.
Q: Can you speak to, in the context of the school-based dental hygienist program, whether Anonymous No. 3 deviated from the standard of care in connection with the care she provided for those students in the school-based dental hygienist program?
A: I don't believe she did.
Q: Why is that?
A: She noted in the chart that caries was present. She sealed parts of the tooth, teeth, that she deemed non-carious, made a note in the chart to that affect, referred the patient to a dentist for treatment. I understand the dentist treated that patient with an amalgam restoration. Had the dentist decided to use composite, it is very possible, if not extremely likely, that the sealant that was placed could have been left in place, did not to have been removed, and would have served to prevent caries in an area that otherwise may not have been part of the restorative

procedure.
Q: So is it appropriate to seal then parts of the tooth prior to restoration?
A: It would depend on the individual situation.
Q: Okay.
A: But I would say that is a distinct possibility that that would be a benefit.
Q: And if a student receives sealants and then doesn't thereafter receive dental care, what benefit has the student received?
A: That areas of the tooth that are not carious are prevented from becoming carious.
Q: And if a sealant has been placed over an incipient or otherwise carious lesion, what benefit if any has the student received if no followup dental care is received?
A: That lesion remains dormant as long as that area remains sealed. So the caries would not spread or become worse.
Q: So in the school-based dental hygienist program, where we don't know the likelihood of a student receiving followup dental care, is it appropriate to place sealants over teeth with caries?
A: It is appropriate. And I might add that in the

case that Anonymous No. 3 sealed, I might very well have sealed the whole tooth.

Q: Why is that?

A: Because had the child not followed up and gone to see Dr. Padgett, that tooth would not have gotten any worse. The caries would not have progressed until such a time that she did see a dentist. Leaving that area open is perfectly acceptable, but it does mean that lesion will continue to spread at the normal rate.

Q: Part of the key of the school-based dental hygienist program is the referrals made to a dentist, correct?

A: Correct.

MS. BALLARD: That's all I've got. Thank you.

CHAIRMAN RAWLS: Mr. Woodington, would you like to cross-examine?

DR. SIMONSEN - CROSS EXAMINATION BY MR. WOODINGTON:

Q: Dr. Simonsen, just a fairly obvious question, I guess. What's ... you've expressed some opinions about this particular patient, I think, B.W. What records have you reviewed, patient records have you reviewed to make that determination?

A: I've only reviewed what was made available to

me.

Q: And what was that?

MS. BALLARD: That would be Exhibit Twenty-two.

MR. WOODINGTON: Which is the HPS records?

MS. BALLARD: And Dr. Padgett's records which are Twenty-three. I'm sorry, it's not Twenty-three. The x-rays he saw, the three x-rays that we have, Twenty-three A, and he saw he saw Twenty-one, which were Dr. Padgett's records on this patient. He's seen all the records any of us have seen.

Q: Would you agree with the testimony of your lawyer on that point?

A: I assume so, yes.

Q: Obviously you've not seen the patient yourself?

A: No, I have not.

Q: And just as obviously, you didn't see her before the sealants were placed?

A: That's correct.

Q: In fact, everything you've seen about her has probably been today or yesterday, right?

A: That's correct, yes.

Q: Okay.

MR. WOODINGTON: That's all I have, Mr. Chairman.

DR. SIMONSEN - RE-DIRECT EXAMINATION BY MS. BALLARD:

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Q: Let me just clarify something, Dr. Simonsen. You in fact were provided with all these records before yesterday, weren't you?

A: Well, not the x-rays.

Q: Not the x-rays, but the medical records themselves, you've seen all of those as long ago as a month ago?

A: Something like that.

Q: Okay. Thank you.

CHAIRMAN RAWLS: Panel members have any questions?

DR. JETT: What is the standard of care for school ... and I ask this not knowing. What is the standard of care for school-based programs in regards to sealing decayed pits? I'm not talking about gross decay where it extends beyond the pit, but much like what we saw here. And I'm wondering why that ... I'll stick to the first question.

A: Okay. Well, Dr. Jett, I'm not sure it's written in stone anywhere, but I do believe there is a different standard because of the concern that the child is being seen for the first time and it may be a considerable time before the child is seen again. So whereas in your office, it would be perfectly appropriate

and normal to seal only non-carious or minimally incipient lesions, and to restore caries in the public health setting where these children may not go to see a dentist, I think it is absolutely appropriate and indicated that the standard of care should include sealing caries that is visible, unless the lesion is of such an extent that it is clearly not going to be retained. If the lesion is open and cavitated, you can't put sealant over that, but if it is hidden caries or if it is so small that it can easily be sealed and encompassed, then benefit can be obtained by sealing the tooth.

DR. JETT: And I'm not trying to leave a question here. I'm truly trying to understand your standard, or the standard of care.

A: Right.

DR. JETT: It sounds to me like in this particular case, and I'm not trying to make a statement about her on this, but I'm trying to understand the standard of care, that she may have deviated from the standard of care which you would say is the standard of care for pit and fissures, of sealing decay in this case because

she did not seal that, is that ... I mean, would you say that?

A: Well, I said if there's ...

DR. JETT: I mean, do we seal that or not? I'm trying to figure out what the standard of care is here that y'all, that you have set for us. I'm truly trying to figure out what that is.

A: Right. I think, like I said in my answer, if the lesion is small enough that it can be completely encompassed ...

DR. JETT: Which that one could, wouldn't ... ?

A: Well, I don't know. But from the x-ray of that one, it would seem to me that there might have been some areas on the surface that were broken down, and that would not be, should not be sealed. So my reading of what I've seen with what this young lady did, is that there is absolutely nothing wrong with what she did. And that the benefit could have been ... in the event that a composite was used, the sealant would not necessarily, that was placed, would not necessarily have to have been completely removed. Some of it would have been removed in order to form a bond between the composite and the sealant.

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CHAIRMAN RAWLS: Any other questions? Following up on that, would you like to see the x-rays?

DR. JETT: Sure thing, Dr. Rawls. Thank you.

MS. BALLARD: These are Twenty-three B, which are the subsequent x-rays.

CHAIRMAN RAWLS: It appears that, you know, particularly tooth number 30, there's fairly significant decay there.

A: Yes, there is.

CHAIRMAN RAWLS: And sealing part of the tooth when there's that much decay ... you know, I practiced a long time myself, I understand that it may not be very visible in some cases. But she did recognize that there was decay there.

A: Right. I think she ... I haven't spoken with her about this particular example, but it would seem to me that maybe she saw that there was extensive decay on the distal, which as you're correct, it's probably an opening on the distal occlusal surface, decided to seal the mesial portion. Had I been the restorative dentist there, I would have excavated the caries, placed a composite. We saw yesterday several dentists testifying to putting flowables. I don't think that's probably in my mind an

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adequate restorative occlusal, for an occlusal surface, but a posterior composite certainly is. There's plenty of research to document that. And then I would have been able to leave the mesial part of the tooth sealed, would not have had to ... I would not extend into that fissure if it were caries free. And I would not have had to have had the sealant at the time of the restoration, which I normally would. We saw yesterday where a tooth similar to this was restored, not ... the adjacent fissures were not sealed, and the dentist had to restore another part of the tooth six months later, which is exactly what sealants are designed to prevent.

CHAIRMAN RAWLS: But lower molars generally have, would not be ... in my mind it would be questionable to seal part of that tooth if you're using the public health model of sealing over decay, you would seal the whole tooth and not part of it.

A: That's correct, but if one is assuming that an amalgam would be placed, the sealant would not necessarily have to be completely removed. It's up to the individual choice of the

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clinician providing the, providing the service. But it would depend on the individual clinical situation. If you're just going to put a tiny little bit of sealant on and the tooth is going to have to be restored, sure, maybe you're wasting time. But if there's a significant portion of the fissure system that is apparently caries free and that you cannot tell that it would have to be removed in order to restore the tooth, it is perfectly appropriate, and I think a positive benefit, to seal that and then use composite as a restorative treatment, and the composite and the sealant will actually chemically bond together.

CHAIRMAN RAWLS: I think we have one other question. Ms. Baker?

MS. BAKER: Yes. I just wanted to ask, Dr. Simonsen, just to make sure I understand, that you're saying that if you place a sealant on a tooth that has a carious lesion, that that caries is not going to progress at all?

A: If the sealant entirely encompasses and is sealed around that lesion, the research that I quoted yesterday indicates that that caries will become dormant and will not progress.

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DR. JETT: I have another question. Do you feel like that in talking about a properly sealed tooth, in your practice do you feel like that can be accomplished with just two hands in a setting without a rubber dam?

A: Well, I addressed both options in the lectures that I give on sealants. I do think that, obviously, rubber dam is the best for restorative dentistry, but how many dentists use it, one percent, I don't know. Clearly we know that it's best for operative dentistry. It is the best isolation method that we have. Whether it's practical in attempts to try to help as many children as possible in this kind of a program, I don't believe it is, and I mention that in my lectures. I'm not changing anything different from what I would say in a lecture. A rubber dam is the best, but is it the most practical when you're talking about possibly having to anaesthetize the teeth, having to talk fearful children into treatment, the best thing to use is cotton rolls and you can isolate successfully ... well, cotton rolls, there's other systems available also in terms of ...

DR. JETT: And I guess specifically I'm thinking about with just two hands, not having the four hands, because I know how it is for me to isolate, and yet I've got two other hands helping me do that and not using a rubber dam when I'm doing that. I'm not opposed to that.

A: Right. Yeah.

DR. JETT: I'm just wondering how ...

A: I would, I would agree that four hands are going to work better than two; however, if you develop a system and if you use let's say a light cured sealant where you don't have to release your hands during the isolation to actually just applying the sealant to mix it, I think it's perfectly appropriate to use two hands, but four hands would be better.

DR. JETT: Two hands could be used without a dam, in your mind, and create a proper ... I mean, it's so significant to have a proper seal ...

A: Right.

DR. JETT: ... especially if we're going to be closing up this decay that you're saying is going to be sealed out. I mean, it's imperative that it be a proper seal and that's why I asked that, and do you feel that it can

be accomplished?

A: It's a very good question because ...

DR. JETT: Because we're putting all these things in, and under ideal ... most of the research that we see is under ideal situations.

A: Correct.

DR. JETT: And so I'm just trying to make an application into that.

A: Right. Correct. Well, I think if they were using chemically cured sealant, which happens to be my personal favorite, if you like, in terms of personal preference, four handed would almost be essential, but I did ask that question of them and they said they were using light cured sealant which is what I would recommend if working two handed.

CHAIRMAN RAWLS: Any other questions? (No Response.) Dr. Simonsen, you may be excused.

MS. BALLARD: We'll call the Respondent.

ANONYMOUS NO. 3, R.D.H., being duly sworn, testifies as follows:

ANONYMOUS NO.3 - DIRECT EXAMINATION BY MS. BALLARD:

Q: Would you state your full name, please?

A: Anonymous No. 3.

Q: All right. You're known in these proceedings

and the formal charges in these proceedings as Anonymous No. 3, is that correct?

A: That's right.

Q: So you are the Respondent in these proceedings?

A: I am.

Q: Okay. Would you give us ... tell us where you live, please.

A: I live in Greenwood, South Carolina.

Q: And how long have you lived in that area?

A: Well, I was born there and worked there for ten years and then I moved to Charleston for eleven years, worked in Charleston, and then I moved back to Greenwood to be closer to my family.

Q: What's your educational background in the context of dental hygienist?

A: I went to school at Florence-Darlington Tech. I graduated in 1980. Then I received my bachelor's degree from the Medical University. As I was working, I was going to school at night and received that degree in 1994.

Q: What's that degree in, Anonymous No. 3?

A: Health Sciences.

Q: Okay.

A: And I've also obtained my Anaesthesia license, which was in 1996, I believe.

Q: All right. After your Florence-Darlington Tech, after you graduated from Florence-Darlington Tech, were you registered as a hygienist?
A: Yes.
Q: And what was the context of your practice for the next few years?
A: I worked in general dentistry in Greenwood.
Q: Who did you work with?
A: I worked for ... well, in Greenwood, I say Laurens too. I worked for Dr. Ray, Speed Ray, and Louis Moss, and Vaughan Bullard.
Q: How long did you work with those dentists?
A: Well, for those ten years, because I would work for one and then ... like with Dr. Moss and Dr. Bullard, I split the time. I worked for both of them.
Q: Okay. That was a private practice setting?
A: Yes.
Q: Okay. And after them, where did you go in '91?
A: I was in Charleston.
Q: Who did you work for there?
A: I was at Dr. Randy Hefrin and Dr. Robert Keith, and Don Kay and Eddie White. That was two prosthedontists and two general dentists.

Q: And again, you were working in a private practice setting as a hygienist?
A: Right.
Q: Okay. After Dr. Hefrin, where did you work?
A: I worked for Dalton Key, who's a periodontist.
Q: Okay.
A: Until I, until I came to HPS.
Q: So you were with Dr. Key from about '94 through 2001?
A: 2000, December of 2000.
Q: December of 2000?
A: Uh-huh (affirmative response).
Q: And why did you leave at that point?
A: Well, I was a single parent and I wanted to get closer to my family so that I could have some help with raising my son and to take a job with HPS.
Q: And what did you understand the job with HPS to be?
A: A job where I would take mobile equipment out into the schools and provide preventative services for children in a school setting.
Q: Now, what was your experience up until the time you joined HPS with the sealant programs?
A: None.

Q: Okay. So what research did you undertake in connection with changing the focus of your practice from the private practice setting to the public health school-based practice?

A: Well, the research that is in the literature from our American Dental Hygiene Association and the materials that we have been provided through continuing education, through DHEC, Dr. Lala has come and spoken with us, and Chris Veschuscio on matters about sealants and how to place sealants, when to place them, that sort of thing.

Q: Have you studied the proper application of sealants as well?

A: Yes. I've also read the directions on them.

Q: Tell us what you do in the course of applying sealants. What's the first thing you do when you see a patient, not any of these particular, but generally what do you do when you see a patient?

A: Well, I talk to them and get to know them a little bit and ask them when was the last time they had their teeth cleaned. Some can remember, some don't have a clue, because we try not to duplicate services, you know, as

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much as some people may not think we do, we do try to get that, access that information. And then I talk to them about their brushing habits. I lay the patient back, after I look over their medical history and consent form and everything, make sure it's signed. I lay them back and, you know, just look at them first and before I pick up any instruments, I use air. I like to use a lot of air because it changes the look of the tooth; from a wet tooth to a dry tooth, things look different. And then, you know, I will use my mirror and explorer to look at the tooth. Sometimes if they're dark grooves in the teeth, which we see a lot with pits and fissures, I will run the explorer along the grooves of the tooth.

Q: For what purpose?

A: To see if they're solid or if they're in fact just stained grooves.

Q: And you typically, do you perform a cleaning?

A: Yes.

Q: And fluoride?

A: Yes. Sometimes I will do the sealants first. I will clean the grooves out of the teeth with a brush, using a pumice paste, and then I'll

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take ... sometimes I have to go back with the explorer and also clean out those grooves to makes sure they are, and blow air because sometimes even after you do that you still see a little residue in the groove and you want to make sure it's clean. I apply an etch and leave that on for about thirty seconds and then rinse it off, and then go back and dry the sealant off to make sure you get that chalky look before I apply the sealant.

Q: Okay. What's the purpose of that?

A: Well, you're not going to get a good bond if you don't have that chalkiness on the tooth.

Q: Which indicates that it's dry?

A: Well, not that it's dry but that the etch is actually done in fact what it's supposed to do, just to kind of roughen the tooth. I explain it to the patient like it's a fingernail file and it sort of, to make it sort of realistic to them because it usually has a pretty nasty taste and they, you know ... sometimes they taste it and sometimes they don't. I will isolate the tooth with dry angles and cotton rolls. And I have found that to be sufficient, but I ... you know, that's the way I do it.

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Q: In the course of providing care to a patient, do you often seal baby teeth?
A: I do sometimes, yes.
Q: And how do you make that determination?
A: Well, if I'm going to be sealing some permanent teeth and the child just has some stained grooves, I'm going to try to minimize, you know, possibly what the child has to ... to prevent them from getting cavities in those other teeth. If I'm already there, I will go ahead and seal some of the baby teeth.
Q: Are y'all able to bill for sealing the baby teeth?
A: No.
Q: Is that something you do just as a complimentary service?
A: Yes.
Q: And you do that based on your determination of what's best for that particular child?
A: Right.
Q: Let's talk about these two children. Let's talk about B.W. first, if we could. I'm showing you Exhibit Number Twenty-two which is your treatment. You may have it in front of you. Is that the same thing?

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A: Yes.
Q: Okay. Let's look at Number Twenty-two. When did you see B.W.?
A: I saw her on December the 6th, 2002.
Q: Okay. And what history did you obtain at that point regarding her past dental care?
A: Well, on the consent form it had, child's dentist, it had P-A-G-G-E-T, which I assume that was Dr. Padgett.
Q: So you were aware that the child had in fact seen a dentist in the past?
A: Uh-huh (affirmative response).
Q: This is ...
A: There's no date as far as her, date of child's last cleaning, and she could not, you know, she did not know when her last cleaning was.
Q: Okay. But you knew that she had received dental care in the past?
A: Yes. Well, she had some amalgam fillings in her mouth.
Q: All right. So this is not the typical patient that you see, that's never seen a dentist before?
A: Right.
Q: Okay. Now when you evaluated tooth number 3

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and tooth number 30, what did you determine?
A: That she had some grooves in the teeth and she also had a lesion on the distal portion of those teeth.
Q: A carious lesion?
A: A carious lesion.
Q: She had decay?
A: Yes.
Q: Okay.
A: In my opinion, yes.
Q: And how did you determine what portions of those teeth to seal?
A: Well, the mesial portion did not seem to be affected. We're not allowed to take x-rays, so we don't know the extent of the decay when we're looking at a child. We only can see visually and by, you know, looking with our mirror. I don't go digging in a hole that I see. She had some grooves on the mesial portion of that tooth, and I've worked with ... I've done a lot of filling work with many dentists and one dentist that I have a lot of respect for, Dr. Bane, who is in Charleston, also believes that any sort of groove or pit in a tooth is a pathway for bacteria, and he has

had a lot of success with minimizing the restorative procedures with these patients. And when we see grooves in teeth, we are, you know, we were told and we were, by our employer, that it is okay to seal those areas.

Q: Now in B.W.'s case, you chose not to seal a portion of the tooth. Was that because you knew she had already seen a dentist and was likely to receive followup dental care?

A: No.

Q: Why did you chose not to seal that portion of the tooth?

A: Well, because I knew that ... well, if I would have sealed it, then I knew I would have ended up here, you know, that it was not the correct thing to do.

Q: How did you know that? Had you had experience with people criticizing your work in the past?

A: Well, I just knew from past experience that I wanted the child, I was hoping that the child would seek some restorative care. I had already spoken to her mother earlier about a matter of a heart murmur on this child, and I had informed her that she had some suspicious areas and I sent home a letter.

Q: Which you always do?
A: Yes, which I always do, hoping that the child ... and I had spoken to the mother about returning to see Dr. Padgett, her dentist that she had seen before.
Q: And in your work as a hygienist with HPS, have you had occasion to be leery about how you, the services are received by dentists set in private practice?
A: Say that again.
Q: In your work as a dental hygienist for HPS, have you had reason to be leery of the attitudes and views of dentists who are in private practice, as to the work that you do?
MR. WOODINGTON: I object, Your Honor. I don't think it's relevant.
MS. BALLARD: It's relevant to her determination as to whether to seal a tooth or leave it unsealed.
A: Yes.
CHAIRMAN RAWLS: We'll let you proceed.
Q: Why are you leery about that, Anonymous No. 3?
A: Well, even though you may not see someone face-to-face, I have heard from people in the community, and I've also heard ...

MR. WOODINGTON: Object to the hearsay.

MS. BALLARD: I'm asking for the reason she ... I'm not asking for the truth of the hearsay, I'm asking for why she believed what she believed, which is admissible under the hearsay rule.

A: That some ...

MR. WOODINGTON: Excuse me, I don't think the Chairman ruled on that.

CHAIRMAN RAWLS: We'll allow you to give your general background as to why you ...

Q: Okay. Why are you leery, Anonymous No. 3?

A: Because of some of the things, like I said, that some people in the community have come to me and said that some dentists, these particular dentists have vocalized to them or to their staff or to the patient about our program, and also the letter. I had received some letters that were sent too. And it just seemed like ... I felt like I couldn't ... I mean, almost I had to question everything I did.

Q: Who did you receive letters from?

A: Some of the letters that ... well, I don't have them. I've got them in my notebook.

Q: That's all right. Letters from who?

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A: That were sent to DHEC.
Q: Okay. Complaining about the program?
A: Uh-huh (affirmative response). Well, complaining about me specifically.
Q: Okay. All right. Let's talk about F.B. Is it F.B.?
A: F.B.
Q: F.B. All right. When you saw F.B., and again, we're referring to Exhibit Number Nineteen, what history did you obtain from him about his prior history with a dentist?
A: There was nothing listed on his consent form as far as that he'd ever seen a dentist. And I have not seen ... B.W., I have not seen again. I'm not in the school that she goes to anymore because now I share the territory where I am with another hygienist, so I have not seen her again and I have not ... F.B. has moved to Georgia, so I've not seen him either.
Q: Okay.
A: On his consent form when I initially saw him, there was nothing about him seeing a dentist.
Q: Did you see any evidence that he had received prior dental care?
A: No.

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Q: So what did you do for F.B.?
A: Well, the first ... on 11/8/02 I cleaned his teeth and I placed some therapeutic sealants on K, L, S, and T at no charge and ...
Q: Those are baby teeth?
A: Right. Correct.
Q: Okay. Go ahead.
A: And I stated that T may need a filling and that I would refer him. And coded him out as a code eleven, which means that he has ... needed to be ... I mean, all of our patients are referred to a dentist whether we deemed that they needed restorative treatment or not. We send a letter home that states that they need to see their dentist at least once a year for an exam and x-rays.
Q: Okay. And when you saw him on 11/12 what did you do?
A: I did another prophy at no charge and I did sealants on A and J, therapeutic sealants on A and J at no charge.
Q: Again, baby teeth?
A: Correct. And you know, referred him again and then placed sealants on 3 and 14.
Q: Your determination to place sealants on 3, 14,

19, and 30 was based on what?

A: Well, the fact that I hoped he would keep these teeth decay free for a lifetime.

Q: And the fact that he'd not previously received any dental care?

A: Correct.

Q: Anonymous No. 3, are you proud of the work that you do with HPS?

A: I am.

Q: Why?

A: Because I believe it's a very valuable asset to these types of children that we see. Even if we can't help them, if we can just make a referral, get them to the dentist. We might be the only contact that is sharing with them, giving them education, treating them with respect, that they may have. They love the attention and I try to help them as well as ... some of them have beautiful teeth, beautiful dentition even though they've not had the kind of care that I have certainly had all my life. Although I've had six root canals and six crowns, I've been to the dentist all my life. But I've been through quite a lot with my teeth and that's a lot for a child to have to go

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through, a lot of restorative ... I've seen it all my life. The first dentist I worked for saw a lot Medicaid, so we saw a lot of children that had major restorative things. I really, it hurts me, it hurts my heart to think that that's their first experience. I want their first experience to be a positive experience. And I hope that I can help provide a link from what I do to what the dentist does and make them realize that we're trying to help them.

Q: How does the school setting differ from the private practice setting in your experience?

A: Well, I feel like that the children are a little bit more at ease. They're in a familiar setting. The first time, you know, when you see them they don't always ... they don't know who you are, they're seeing you for the first time, and things that they've heard, they've heard from their siblings, you know, they're gonna pull your teeth. You know, everybody in the classroom always says, they're going to pull your teeth out, you know. And I say, no, no, I don't pull teeth out. And so they're scared when they're coming in there, but they're a little bit more ... I guess they feel

like they can jump up and run back to their classroom maybe if they have to. I don't know.

Q: What about the time restriction on seeing these children? How is that different?

A: I'm not pushed into a thirty minute or a fifteen minute slot for how long I can see that child.

Q: You don't have a quota of the number of patients you have to see?

A: No.

Q: You're not paid based on the number of patients that you see?

A: No, I'm not.

Q: You're not paid on the number of sealants that you apply?

A: No.

Q: You're paid based on straight salary?

A: Correct.

Q: Whether you see one patient or ten?

A: That's correct.

Q: Answer any questions that Mr. Woodington might have.

A: Can I add ... I apologize. Can I add one thing too?

Q: Go ahead.

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A: I'm sorry.
Q: Go ahead.
MR. WOODINGTON: I would ask what question this is responsive to, because I don't know what she's getting ready to say here.
A: I just wanted to show something that I also send out with the patients.
Q: Okay. What is that?
A: That provides ... it's for the families. It lets them know what dental sealants are. I mean, when I send home a sheet that's says I cleaned their teeth and applied fluoride and put sealants, the parents, this may be the first time they've ever heard of sealants and this is just an explanation of what sealants are and how they're applied and why we apply them and what the benefit is.
Q: Is this something you send home with all students?
A: Yes. I send home a list of all the pediatric dentists as well as the general ... we don't have any pediatric dentists in our area, but I send home a list of the pediatric dentists and the ones that see Medicaid and ones that don't, and I also send home a list of all the general

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dentists.

MS. BALLARD: We'd offer this into evidence as Exhibit Number Fifteen.

MR. WOODINGTON: Let me see it, please.

MS. BALLARD: Sure.

MR. WOODINGTON: I'll just ask her a question or two about it.

MS. BALLARD: Okay.

MR. WOODINGTON: No objection.

MS. BALLARD: This is Respondents' Fifteen.

(Respondents' Exhibit Number Fifteen was entered into evidence.)

Q: Now you may answer any questions Mr. Woodington has.

A: Okay.

ANONYMOUS NO.3 - CROSS EXAMINATION BY MR. WOODINGTON:

Q: Okay. Anonymous No. 3, just a few questions. When did you actually start with HPS?

A: In January of 1991. I'm sorry, 2001. I'm sorry, they all run together these days.

Q: Tell me about it. January of 2001?

A: That's right.

Q: That's almost five years ago now?

A: Uh-huh (affirmative response).

Q: How many patients do you think you've seen,

separate patients, if you can compute it that way? Maybe you can do it otherwise, how many visits, either way?

A: I couldn't ... I do not know.

Q: Would you say it runs over several thousand?

A: Possibly. I really could not answer that. I don't know.

Q: What counties do you actually practice in?

A: Greenwood County and McCormick County.

Q: Just those two?

A: Yes, sir.

Q: Okay.

A: But however, ahead of time, I had practiced in others.

Q: I know. With HPS, have you only practiced in Greenwood and McCormick with HPS?

A: Now I do, only.

Q: At any time in the past with HPS, were you with any other counties?

A: Yes.

Q: Which ones?

A: Whitmire, Saluda, Ware Shoals, Ninety-Six.

Q: Counties? Saluda County. The other places I think you named are all in Greenwood County.

A: Yes. Whitmire ...

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Q: Did you say Union? I'm sorry.
A: I did not say Union. I said Whitmire. I don't know what county that's in, but Whitmire Schools.
Q: Okay. How about Newberry County?
MS. BALLARD: Whitmire is in Newberry.
A: Whitmire is Newberry?
MS. BALLARD: Yes.
Q: I'm getting a geography lesson here. That's good enough. How many students ... how many students do you see in the course of a day, a typical day?
A: Average, eight to ten.
Q: And over what time frame are we talking about, in the course of a day? What time do you start?
A: About 8:15.
Q: And when do you finish?
A: If I'm in an elementary school I usually finish about two ... different schools let out at different times, but roughly on the average about 2:10.
Q: So what would that boil down to? Do you take a lunch break?
A: Most of the time I do not.

Q: Okay. I'm trying to get a feel for how much time per child, per visit.

A: Well, that always varies. I mean, it just depends on what the needs are of the child.

Q: If it's a prophy and a fluoride and four sealants on the four teeth that are generally 3, 30, 14, and 19, how long would that take?

A: For a patient who's very cooperative, that I don't have to redo the sealant, or do you mean just ...

Q: Well, just take sort of a neutral patient who's not real good and not real bad.

A: I would sometimes it takes about forty-five minutes.

Q: Okay. You would admit, wouldn't you, that gross decay through the enamel into the dentin is present and visible on top of the tooth, you should be able to spot it, would you not admit that?

A: Absolutely.

Q: Okay. Now, of course, these two formal accusations came out in the fall of '04 which is about a year ago and the two children that we are still going on, F.B. and B.W., you treated them in, I think, November of '02, if

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I remember correctly. About two years before the complaints were filed, is that right?

A: Yeah. Yes, 2002 for F.B. and 2002 for B.W.

Q: Were you able to recall when you got these complaints the condition of the teeth of these kids or did you have to go back and look at the records?

A: Of these children?

Q: Right.

A: Well, yeah, I had to go back and look at the records. I was not a hundred percent sure because I do see a lot of children.

Q: And one other thing, you said you were not allowed to take x-rays.

A: That's correct.

Q: Who does not allow you take x-rays?

A: It's in the ... we're not allowed as a ... well, we don't have x-ray equipment number one, but that is, I believe, is in the law that we're not allowed to take x-rays in a public health setting.

Q: Okay. Thank you very much.

A: You're welcome.

MS. BALLARD: I don't have any redirect.

CHAIRMAN RAWLS: Does the panel have any questions?

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DR. COOMBS: I've got a couple. Anonymous No. 3, if you could help us to understand the practice in the public school system. You've testified you take mobile equipment into the school.

A: Right.

DR. COOMBS: What does that consist of?

A: Just come and see sometimes.

DR. COOMBS: Well, I want you to paint me a picture.

A: I have compressor that looks like a suitcase on wheels. It has my hand piece, my air and water syringe. It has several tanks in it for suction. It has a tank for water. And all that can be folded up and locked and you just wheel it in. And I have a chair that folds up, which is much ... similar to a beach chair, but it's sturdier than a beach chair, but I mean, if you sit on the end of it, you're going to flip it over. I have a light, a mobile light.

DR. COOMBS: That's the patient's chair or that's your chair?

A: That's the patient's chair.

DR. COOMBS: Okay.

A: My chair is on wheels, which also folds up. I carry that in. I have ... all of my supplies are in carts that have wheels on them that have

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drawers, you know, the little plastic carts, and I wheel those in and out. I also have big tubs that I keep extra supplies of gloves and, you know, tooth brushes, prizes that I give out to the children, you know, all of my extra supplies are in a big tub.

DR. COOMBS: So all of that you have to carry in each day?

A: Not each day, no. We usually ... the principal finds a spot or whoever is in charge, the nurse or the principal, finds us an area, about eight by ten area, and we go in and setup our mobile equipment and then we get started.

DR. COOMBS: So you have a room in the school?

A: In a room, yes. It could be a classroom. It could be a .... right now I'm set up behind a stage in a dressing room. It's a small area, but I have a bathroom next door, because you do need to empty your tank, your sputum tank, if you will.

DR. COOMBS: Did you say you have a portable light that you bring also?

A: Correct.

DR. COOMBS: Okay. How would you compare working under those conditions with that equipment as

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to when you were in private practice?

A: It is ... well, carrying the equipment in is not an easy job. My husband fortunately is very good to help me every time I move. He helps me so that I don't pull my back out or something. But as far as the equipment itself, it's very comparable to what I used in a dental office. The suction is not always as strong, but I don't need a lot of suction, so you know, when I'm doing sealants.

DR. COOMBS: I guess that was a question that I was concerned about, is your ability to maintain a dry field. Did you feel like your suction was adequate?

A: Well, I don't use a suction when I'm applying those sealants because there's no ... I mean, I can isolate with dry angles and cotton rolls and air without having to use my suction. I've found it to be very cumbersome to have all that in the mouth at one time.

DR. COOMBS: Did you purchase that equipment yourself or is that provided for you?

A: It's provided for me.

DR. COOMBS: And who provides that for you?

A: HPS.

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DR. COOMBS: How about maintenance on that equipment, is that done by you?

A: Uh-huh (affirmative response).

MS. BALLARD: Say yes for the record.

A: Yes. I'm sorry.

DR. COOMBS: My second area I want to address, in the testimony I see that there, in the HPS forms, there's a Code 10, Code 11. How many codes do you have available to you?

A: For general purposes of coding out a patient each day, three. Code 12 is urgent care.

DR. COOMBS: Can you run through those codes for us, please?

A: Uh-huh (affirmative response). Code 10 means that we don't see any obvious problems, and sometimes I'll ... or no obvious decay. Code 11 is that we see some areas that need to be referred to in a reasonable amount of time. The one we would check there would be, obvious problems, on the paper that I send home to the parent, that x-rays and an appointment with a dentist are needed. The urgent care needed is a Code 12 and that is, please take your child to a dentist immediately. And I will try to ... sometimes these children don't have phones

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or their phones have been disconnected. The child may not have the phone, I'll have to go to the teacher or I'd go to the case manager. We have managers ... we're lucky that we have case managers in each of our schools in Greenwood. And I speak with the case manager about if she's going to make a home visit or I speak with her about possibly making a home visit to talk with the parent, to see if the parent can get this child to a dentist. If they have transportation problems, we can get the case manager to transport them to the dentist. And so that is a big benefit for me to be able to work with them and have them in the schools.

DR. COOMBS: Thank you. I don't have any further questions, Mr. Chairman.

DR. WADE: Just one in follow-up. Can you describe the lighting in this closet or the room that you said you were working in? What is it like? What kind of lighting is it?

A: It's very ... these same type flourescent bulbs.

DR. JETT: I have one question. I'm stuck on this pit and sealing and not sealing it. Can you

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give me a criteria, whether it's specific or just in general, that would make you decide not to seal a decayed pit, something we know that's decayed, whether you're going to seal it or not? What ... because there's an area here that you did not seal.

A: Correct.

DR. JETT: And it's been proposed to us that sealing, which is not ... it's foreign to us to seal over decay. What is your criteria for not sealing over that decay?

A: Well, in the case of B.W., I did not seal that area on the distal portion of her tooth because I believed that there was decay there. There was a dark area.

DR. JETT: You believed there was decay there?

A: Correct, on the distal portion of the tooth. The part that I did not seal.

DR. JETT: Do you seal teeth that you know there's decay on?

A: No, I do not. Now, am I not answering your question?

DR. JETT: No, you're answering my question. I'm just a little perplexed. So do you consider it a standard of care in the public school system

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to seal over decay or not to seal over decay?

A: I generally do not.

DR. JETT: Okay.

CHAIRMAN RAWLS: Just to followup on that, in the training that you've had by DHEC and so forth ...

A: Yes, sir.

CHAIRMAN RAWLS: ... have they ... have any instructions been given regarding sealing over decay or not sealing over decay?

A: I believe the instruction that Dr. Lala had given us was cavitation of one millimeter, if there's cavitation of one millimeter you do not seal that tooth. So that's what, you know, that's what we generally use is cavitation of one millimeter. That's what I use anyway.

DR. WADE: Just one more followup on equipment. Would you describe the compressor? What kind of a compressor is it and is it oil based or ...

A: I'm sorry. Is it what?

DR. WADE: Is it an oil compressor or what type of compressor is it?

A: I don't know what kind of compressor you just described.

DR. WADE: Well, just describe the compressor. What kind ...

A: It's an Aseptico. I don't know. Are you familiar with mobile dental units?

DR. WADE: Huh-uh (negative response).

A: It's an Aseptico Mini II, type II unit. It's ... this side has the controls and all the panels, and this side has where you set up your hand piece and your air and water. It has a place for a high speed hand piece, although we don't use that. And it has a high speed suction and a low speed suction.

DR. WADE: Is it noisy?

A: This type of one cycles on and off, so only when I use the air. When I'm providing the cleaning, there's no noise, just a little fan running.

DR. WADE: I mean, it's easy to communicate with the patient then?

A: Oh, yes. Yes.

DR. WADE: Because the noise of the compressor doesn't affect what they hear?

A: No, it's not running all the time, no. I don't think it would last very long if it did.

DR. WADE: Is there any problem with oil in the air

line with that type of compressor?

A: I've never seen any oil in the air line. I've had problems with water coming out of the air line. So what I do is, there is a switch where I can turn my water off, completely off. When I'm applying sealants, I turn my water completely off so that nothing but air, I know nothing but air is coming out.

DR. WADE: Okay. But when you rinse, obviously you turn it ...

A: That's right.

DR. WADE: You know, when you rinse the etching off, you turn it back on?

A: Right.

DR. WADE: But then do you use that suction at that time full speed when you're rinsing?

A: I use just a low speed suction.

DR. WADE: Okay.

A: I mean, it's strong enough to suction that out.

DR. WADE: Blue tip suction?

A: Yes. Clear, blue tip. It's the one I prefer.

MR. WOODINGTON: Mr. Chairman, I know I've already sat down and finished my cross examination, but there was this document that came in at the end and ...

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MS. BALLARD: Help yourself.

MR. WOODINGTON: ... I'd like to ask her about it if I may.

MS. BALLARD: Help yourself.

ANONYMOUS NO.3 - CONT. CROSS EXAMINATION BY MR. WOODINGTON:

Q: This document that you handed out ...

MS. BALLARD: That's Number Fifteen.

A: That's mine, I think.

MS. BALLARD: Number Fifteen.

Q: Do you have one?

A: I don't. They took mine.

Q: Here we go. Let me just ask you, is that something that you prepared or is that something HPS prepares?

A: HPS provided this.

Q: Okay. And you actually, you just hand that out to all the children?

A: That's correct, yes.

Q: And do you know how old that is, how far back that goes?

A: I do not.

Q: But it's ... well, it's current anyway, right?

A: Yes.

Q: It's the current sheet?

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A: I believe so.
Q: Do you know one way or another whether it was around in 2002 when you saw these kids?
A: I do not know.
Q: Okay. That's all I wanted to ask you.
A: Okay.

ANONYMOUS NO. 3 - RE-DIRECT EXAMINATION BY MS. BALLARD:

Q: Did you have some type of information about sealants that you ...
A: Well, you can order them ...
Q: ... sent home in the past?
A: You can order publications from the ... you know, this is one of the publications here. There's also another one that you can order that you can hand out to patients. Then there's just general Colgate and some of the other pharmaceutical companies put out, brochures.
Q: Can you identify what we'll mark as Number Sixteen?
A: This is from the Department of Health and Human Services. It says, Seal Out Tooth Decay, A Booklet for Parents.
Q: Is this typical of the kind of thing ...

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MR. WOODINGTON: Can I see that?
Q: ... you have in the past handed out?
A: Yes. This is a newer version.
Q: Right.
A: We've got one that's call Milk Matters that we can send out to the parents, too. Milk Bottle Caries, because we also do some education with adults in the school system. In McCormick, I was involved with the adults that were going, you know, going to back to school to get their GED's and I would try to educate them because a lot of those, a lot of them have children, young children in the school and they're children themselves, some of them. So, you know, we try to educate them on things that will be relevant to them and the care of their children.
MS. BALLARD: We'd introduce this as Respondents' Exhibit Number Sixteen, which is an example of some of the things that she has sent out.
MR. WOODINGTON: No objection.
(Respondents' Exhibit Number Sixteen was entered into evidence.)
MS. BALLARD: This is Number Sixteen. I don't have anything further.

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CHAIRMAN RAWLS: Any other questions?

MS. BAKER: I have one. Anonymous No. 3, you just mentioned Dr., is it Lala?

A: Lala. Uh-huh (affirmative response).

MS. BAKER: And who is that?

A: He was the head of DHEC. He's not now.

MS. BAKER: Okay.

A: But he was.

CHAIRMAN RAWLS: South Carolina's Public Health dentist.

MS. BAKER: Who is now?

CHAIRMAN RAWLS: Dr. David Lees.

A: I haven't met the new one.

MS. BAKER: Is he brand new?

A: I guess. I think for awhile they did not have anyone.

MS. BALLARD: Are there any further questions for Anonymous No. 3? (No response.) Okay. You can step down.

CHAIRMAN RAWLS: You're dismissed, Anonymous No. 3.

A: Thank you.

MS. BALLARD: We'll call Tammi Byrd.

TAMMI BYRD, being duly sworn, testifies as follows:

MS. BYRD - DIRECT EXAMINATION BY MS. BALLARD:

Q: Would you state your full name for the panel,

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please?
A: Tammi Oxner Byrd.
Q: What's your, briefly, what's your educational background?
A: I have an associate in science and dental hygiene.
Q: And where is that from?
A: Midlands Technical College.
Q: What year?
A: 1979.
Q: Okay. What is your position with HPS?
A: I am clinical director and CO and part owner.
Q: And how long have you operated HPS? When did it see its first patients?
A: January 2001.
Q: In the course of your duties as clinical director, do you maintain statistics on retention rates for sealants that are placed on teeth of the students that you all see?
A: Yes, we do. That just started happening last year, for the first time we were able to get it into our system.
Q: How do you do it? How do you track that information?
A: Well, production is turned in each day for each

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hygienist, and if they have to replace a sealant that is noted when they turn in the production, so it's tracked back to the individual that actually originally placed the sealant, because we do have some hygienist, that may have moved or whatever, so it's actually tracked back to the one that placed the sealant and noted that it had to be reapplied.

Q: So you're able to determine this because you see these patients more than once?

A: Correct.

MR. WOODINGTON: Object on the leading.

MS. BALLARD: I'm sorry.

Q: How is it you're able to determine retention rates?

A: By doing the ... by them turning in production, we follow that, it's put into the computer, our staff that places it in the computer looks at when the sealant was placed, who placed it, and it gets coded so that it does track with sealant retention rates.

Q: In determining sealant retention rates, is it necessary for you to see a patient more than once?

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A: Yes. We would need to be seeing them on a recurring basis, which is really good for us also. As Dr. Simonsen pointed out, you need to make sure that sealants stay intact so that they do prevent decay, and if we were unable to tell and it was not visible to the naked eye that there was some incipient decay when we placed a sealant, we check that. Every six to eight months we see these children, if we get a consent form on them again, we see them on a recurring basis. And so a lot of the children we see, we have seen every six to eight months. If we have to patch it up or replace it, we document that. If it's not, it's documented that it's still in place.

CHAIRMAN RAWLS: Mr. Woodington?

MR. WOODINGTON: Mr. Chairman, I would object to this line of questioning unless it's going to come around to any of the specific patients we've discussed so far.

Q: Are any of the patients that we're here ...

MR. WOODINGTON: I'm sorry. We have no ruling.

CHAIRMAN RAWLS: Is it going to come around to ...

MS. BALLARD: I was about to ask that question.

CHAIRMAN RAWLS: Okay.

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Q: In the course of your maintaining records on retention rates, have any of the patients that we've talked about here been repeat patients?

A: Yes, they have.

Q: And in the course of maintaining the documentation on these patients that we're here about today, as well as others, what kind of retention rate has HPS maintained historically?

MR. WOODINGTON: Object to the historical rate here. We don't have this identified as to patients at all.

MS. BALLARD: We've identified that at least one of these patients is a repeat patient. We keep statistics on all patients so we can track retention rates. As we've heard from the testimony, retention rate is a key as to how well we apply sealants. Since we now have been operating since 2001, we have the ability to provide retention rate information, and it's clearly relevant to the quality of the seals that are applied.

MR. WOODINGTON: Mr. Chairman, if they did ten thousand sealants and nine thousand were retained and one thousand fell of, the nine thousand wouldn't be relevant to the one

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thousand that fell off. We're not even alleging that any fell off in this case, I don't believe. I would object to it on relevancy.

CHAIRMAN RAWLS: Mr. Woodington, with all due respect, I think this would be information that the panel might be interested in.

MR. WOODINGTON: Thank you.

Q: Do you recall my question?

A: No.

Q: Let me try it again. And I'll try my best to repeat it as I did before. In the course of maintaining the records on the retention rate since you've started keeping records for this, what have you been able to determine about the overall retention rate of the sealants that have been placed by the HPS program?

A: We have a very good track record of sealant retention. Every one of the hygienists that we have currently working and the ones involved in this case have anywhere from ninety to a hundred percent retention rate over the course. And when we ran this, we ran it for the first time last year, so it actually looked at retention rate not just over the one year

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period, but over since January of 2001. And so we had a very, very good retention rate on these sealants, and any ones that had come loose, we were able to replace.

Q: In the course of the continuing education that you provide for the hygienists that are employed by HPS, do you provide continuing education on the technique and quality of application technique?

A: As any new information that we get, we do have individuals come in and give CE on techniques, materials, we even have product individuals come in and they present their different products, and of course we look at the merits because they're going to tend to be biased, but we look at all that information. We have a lot of various continuing education courses, from technique to, you know, cultural competency to command Spanish. We do a wide variety of continuing education for our staff.

Q: That's all I've got. Answer any questions Mr. Woodington or the panel might have.

A: Okay.

CHAIRMAN RAWLS: Mr. Woodington?

MS. BYRD - CROSS EXAMINATION BY MR. WOODINGTON:

Q: Ms. Byrd, would you name ... you say somebody had a one hundred percent retention rate. Do you know how many sealants that person applied?

A: I would have to go back and look in the record, but they had ... I can tell you the person's name, but they're not involved in this.

Q: Okay. Well, do you recall whether it was a lot, say, one of your long-term employees or just worked for a few weeks?

A: No, this one, she was fairly long-term, but it was like 99 point something, so ...

MR. WOODINGTON: That's all I have.

CHAIRMAN RAWLS: Okay. Does the panel have any questions? Ms. Byrd, do you think a self-assessment might be biased in retention of the, percentage of retention of sealants?

A: Well, it was something that DHEC asked us to start tracking through our computer system, and so that's why we do that.

CHAIRMAN RAWLS: Right. And DHEC is ...

A: And we ...

CHAIRMAN RAWLS: They gather statistics on it?

A: And so, but if you look back historically, the Newberry Sealant Project that was in place that also provided the same type of sealants, of

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course the equipment was not nearly as up-to-date as what our equipment is now, they had a 96.87 percent success rate with two-handed sealant placement using lounge chairs and literally beach chairs. And so we've got historical data showing that this type of sealant placement does have a good retention rate with it and just personally speaking, I applied sealants on my daughter when she was five and she's eighteen, almost 19 now, and she still has those sealants, providing it the same way that we do now. So I think we've got a track record and we are doing ... the hygienist who comes in, and it's tracked back to whoever did it. But we are ... we asked if they would like to track it, but they don't have the capability, but with some ... we have a very honest staff.

CHAIRMAN RAWLS: You've been in operation since, did you say, 2001?

A: Yes, sir.

CHAIRMAN RAWLS: The statistics that you're mentioning, is that over that entire period?

A: Yes, sir.

CHAIRMAN RAWLS: So, four years?

A: Yes, sir.
CHAIRMAN RAWLS: Almost five years.
A: Yes, sir.
DR. JETT: I have a question. Could you speak to ... my decay/pit question. Could you speak to the standard of care for school-based programs regarding sealing decayed pits and what you are, what your philosophy is with this program?
A: We have reviewed the research and we discuss this at practically every staff meeting we have, but the research states that even caries can be sealed. The hygienists are very well aware of what the research says, however, we are also aware of letters that have been sent to DHEC complaining if we did seal something. So Dr. Lala, that is when he came in and said, well, let's look at a tooth and try to figure out how much cavitation it has. And he at that time recommended, if it was over one millimeter cavitation, do not seal it. So that is ... hygienists have been looking at that as something he told them, but we know that the research says we should do it, but out of fear, even recently at our last staff meeting our hygienists still, they're scared to do sealants

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on a lot of teeth now for a fear that someone will bring charges against for something like this. And I think if you were to interview every single one of them, they would tell you they're afraid to seal teeth at times. Some teeth, if they even question stains in the grooves, they're afraid if they seal it, somebody is going to bring charges against them and they don't want to have to go through this process.

CHAIRMAN RAWLS: How do you determine over one millimeter cavitation?

A: That was my question too. He was not able to tell them how to do that, so they're just using their best judgement as to whether they feel it's something they can accurately get a seal on and whether it is something that is just obviously glaring decay. And that's a personal judgement that they're having to make each and every day, knowing that their license may be questioned, and what's in the best interest of that child.

CHAIRMAN RAWLS: No more questions.

MS. BYRD - RE-DIRECT EXAMINATION BY MS. BALLARD:

Q: Could I followup on the questions that Dr. Jett

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asked you? You've provided the research about sealing incipient caries and you've provided all that, but do you defer to the individual hygienist based on her, the fact that she's the one who holds the license as to what she prefers to do?

A: Exactly. We refer to the data and tell them that this is what it states, but you have to make that decision on your own, you have to make your own clinical decisions because you are the licensee.

Q: Thank you.

CHAIRMAN RAWLS: Any other questions? (No response.) Ms. Byrd, you're dismissed.

MS. BALLARD: We don't have any further witnesses on this particular case.

MR. WOODINGTON: We have no reply, so that ends this case.

CHAIRMAN RAWLS: Are you ready to proceed in the next ...

MS. BALLARD: If I could have ...

CHAIRMAN RAWLS: After a short break.

MS. BALLARD: ... a short break. Yes, we'll be ready.

CHAIRMAN RAWLS: Okay. All right, Ms. Ballard, a ten

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minute break.

(There being no further questions, the hearing was adjourned at 12:02 p.m.)

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CERTIFICATE

This is to certify that the within panel hearing consisting of One Hundred Twenty (121) pages, is a true and correct transcript of the testimony given by said witnesses after being duly sworn; said hearing was reported by the method of Stenomask with Backup.

I further certify that I am neither employed by nor related to any of the parties in this matter or their counsel; nor do I have any interest, financial or otherwise, in the outcome of same.

IN WITNESS WHEREOF I have hereunto set my hand and seal on August 23, 2006.

Robin K. Reibold
Court Reporter

Notary Public for South Carolina
My Commission Expires: May 11, 2011

THE STATE OF SOUTH CAROLINA
Administrative Law Court

APPEAL FROM THE SOUTH CAROLINA
STATE BOARD OF DENTISTRY

Docket No. 06-ALJ-11-0562-AP
[In Re: Case No. 04-45]
Docket No. 06-ALJ-11-0563-AP
[In Re: Case No. 03-104]

Anonymous No. 1, R.D.H., and Anonymous No. 2, R.D.H. ..... Appellants,

v.

South Carolina Department of Labor, Licensing and Regulation,
South Carolina Board of Dentistry, ... Respondent.

CONSENT ORDER FOR JOINT RECORD ON APPEAL AND FOR REDACTION OF RECORD ON APPEAL

In this case, the Board of Dentistry elected to issue an anonymous public sanction to the two Appellants, who are licensed dental hygienists. The parties have agreed to, and the Court approves, the following procedures to be used in connection with the Record on Appeal in these cases:

1. These cases and two others (not the subject of any appeal) were tried at the same set of hearings, with a stipulation that the evidence in any of the four cases could be

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used in any other of the cases. As a result, it is appropriate that there be only one Record on Appeal for these two cases, and the Court so orders. The record shall include all evidence arguably relevant to the two Appellants, but need not include such evidence as pertains solely to the two nonappealing hygienists unless necessary to make the record comprehensible to the Court.

2 In order for the confidentiality of the names of the anonymous Appellants, as well as the names of the nonappealing hygienists and the patients involved in these cases, the parties shall redact the names of the hygienists and of their patients from the Record on Appeal and from the briefs. Hygienists shall be referred to as "Hygienist 1," etc. Patients shall be referred to by their initials. With the review and consent of appellants, the Board may arrange for the court reporter(s) of the hearing to provide substitute transcripts with these redactions made, but the Board shall retain its original versions of the transcripts as they existed prior to redaction, with copy to appellants. The parties understand that the Court may require the Record on Appeal to be amended if there are difficulties in understanding which persons are being referred to.

3. The Record on Appeal shall be filed on or before August 21, 2006, unless this date is extended by the Court.

AND IT IS SO ORDERED.

Carolyn C. Matthews
Administrative Law Judge

Columbia, South Carolina

August 2, 2006

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WE SO MOVE AND CONSENT:

Desa Ballard
Attorney for Appellants 7.28.06

Kenneth P. Woodington
Attorney for Respondent 8/1/06

CERTIFICATE OF SERVICE
This is to certify that the undersigned has this date served this order in the above styled action upon all parties to this cause by depositing a copy hereof, in the United States mail, postage paid, or in the interagency Mail Service addressed to the party(ies) or their attorney(s).

This 8th day of Aug. 2006

By: Amina F. Quraishi
Judicial Law Clerk

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SOUTH CAROLINA DEPARTMENT OF LABOR,
LICENSING & REGULATION
BEFORE THE SOUTH CAROLINA STATE BOARD OF DENTISTRY

In the Matter of:	) REVISED TRANSCRIPT
	) WITH REDACTED NAMES
ANONYMOUS NO. 4, R.D.H.	) PURSUANT TO ORDER OF
License No. 2303	) CAROLYN C. MATTHEWS,
	) ADMINISTRATIVE LAW
Respondent.	) JUDGE, DATED
----------	) AUGUST 2, 2006
	(Order attached)

COPY

PANEL HEARING

****

Saturday, December 3, 2005
12:20 p.m. - 1:30 p.m.

The Panel Hearing before the South Carolina State Board of Dentistry was held at the Synergy Office Park, Kingstree Building, Room 113, 110 Centerview Drive, Columbia, South Carolina, on the 3rd day of December, 2005 before Robin K. Reibold, Court Reporter and Notary Public in and for the State of South Carolina.

APPEARANCES

BOARD MEMBERS:
Douglas S. Rawls, D.M.D., Chairman
Ben Jett, D.M.D.
Paul Coombs, D.M.D.
Charles Wade, D.M.D.
Deborah P. Baker, R.D.H.

ADVISING THE BOARD:
Louis Rosen, Esquire

Kenneth P. Woodington, Esquire
Davidson, Morrison & Lindemann, PA
Post Office Box 8568
Columbia, South Carolina 29202
Attorney for the South Carolina LLR, State Board of Dentistry

Desa A. Ballard, Esquire
Michelle Love, Paralegal
Law Offices of Desa Ballard, PA
226 State Street
West Columbia, South Carolina 29169
Attorney for the Respondent

Creighton B. Coleman, Esquire
Coleman & Tolen, LLC
Post Office Box 1006
Winnsboro, South Carolina 29180
Attorney for the Respondent

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EXHIBITS

Petitioner's Exhibit Number Fifteen 4
(K.W. Chart - Padgett)
Petitioner's Exhibit Number Sixteen 4
(K.W. - X-rays)
Petitioner's Exhibit Number Seventeen 4
(K.W. Records - HPS)
Respondents' Exhibit Number Seventeen 4
(Photograph, K.W.)
Respondents' Exhibit Number Eighteen 4
(K.W. Chart - HPS)

STIPULATIONS

Upon stipulation and agreement by all parties, Petitioner's Exhibit Numbers One through Fourteen and Eighteen through Twenty-three and Respondents' Exhibit Numbers One through Sixteen are to be incorporated into this hearing.

It is further stipulated and agreed that this hearing is being taken pursuant to the Administrative Procedures Act, the Practice Act and Regulations of the Board.

(Petitioner's Exhibit Numbers Fifteen, Sixteen, and Seventeen and Respondents' Exhibit Numbers Seventeen and Eighteen were marked and entered into the record prior to the hearing by stipulation and agreement by both parties.)

MR. WOODINGTON: Mr. Chairman, this is the case of Anonymous No. 4, and if you look at the formal allegations in the Complaint, paragraph ... paragraphs three and four. In paragraph ...

MS. BALLARD: Let me get there. Okay.

MR. WOODINGTON: There's just an error in it, to tell you the truth. We're going to go forward with the case, but there's an error in it. Three says, upon examination by the dentist it was found the sealant was placed over gross caries on tooth 3; we're planning to go forward on that. On point number four where it says, the sealant was removed from tooth 3 and restorations were placed, that is not correct and I withdraw that statement. That was ... that's just a mistake on the part of the Board, or the LLR people that brought that accusation. Nevertheless, we submit that the sealant was placed over gross caries on tooth number 3 and we're ready to go forward and show that. So

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with that in mind, I would call Dr. Padgett.

COURT REPORTER: Just to remind you that you're still under oath, Doctor.

MR. WOODINGTON: Now, Mr. Chairman, I can do one of two things, I can go through his qualifications again, or we can just incorporate his prior testimony by reference.

MS. BALLARD: No objection.

MR. WOODINGTON: Incorporate it by reference?

CHAIRMAN RAWLS: Incorporate it by reference.

MR. WOODINGTON: All right.

MS. BALLARD: I assume you're incorporating by reference the qualification as an expert in the field of general dentistry and the diagnosis and treatment of decay?

MR. WOODINGTON: Diagnosis and treatment of tooth decay.

DR. PADGETT - DIRECT EXAMINATION BY MR. WOODINGTON:

Q: I'm handing you Exhibits Fifteen, Sixteen, and Seventeen ...

MS. BALLARD: Which one is which please?

MR. WOODINGTON: Do you have the list where they're identified?

MS. BALLARD: Which one is Fifteen?

MR. WOODINGTON: Fifteen is the Padgett chart, Sixteen

is the x-ray, Seventeen is HPS records for this patient K.W.

Q: Okay, now as I did with the last patient, what I'd like to do is just point out that this ... the HPS record, which is Number Seventeen, indicates that on some date in '03, it looks like 4/7/03, the sealants were placed by Anonymous No. 4 on 3, 14, 19, and 30. I mean, in April of '03. I also just call the panel's attention to the formal complaint. We're only talking about tooth number 3 in this particular case. Dr. Padgett, would you look at your chart please, Exhibit Number ...

MS. BALLARD: Fifteen.

MR. WOODINGTON: Fifteen, second page, and tell me about K.W..

A: Well, on 2/28/04 we did an initial exam, Panolipse, and two bitewing x-rays, a prophy, and fluoride ...

Q: That's cut off on ours, excuse me, that's on the left-hand side, that should be 2/28/04?

A: Right. Well, I'm looking at my original records here.

Q: Okay, but I ... that's early '04 in any event.

A: Okay, I took a periapical of number 3 also

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because on the bitewing x-rays I saw a ... what appeared to me a carious lesion on tooth number 3. We appointed him to restore that, we also ... I saw a partially placed sealant and we was ... we appointed him to do a restoration, he broke that appointment and he's not responded to our recall.

Q: Okay, now you did x-ray, right, which is Exhibit Sixteen, that's in that envelope in front of you? Can you look at that and tell me what you see?

A: I see carious lesion on number 3.

Q: Would that decay have been apparent to the hygienist before the sealant was placed?

A: I think it would have.

Q: Let me show you Respondents' Exhibit Number Seventeen and ask you to identify that if you can. You've sort of been told ...

A: Yeah, it looks like tooth number 3 with a ... I can't tell if it's a partially placed or fully placed sealant.

Q: And we're given to understand that that was taken I think in late '04.

MR. WOODINGTON: Is that right, Ms. Ballard?

MS. BALLARD: That was taken in December '04;

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correct.

Q: Okay. And what do you deduce from that particular photograph about the ... about the evidence of decay?

A: Well, it's difficult to tell. The photograph is not in the best quality. But, again, when I do my exam...

Q: Did you do the exam with the explorer that you demonstrated for us in the last case?

A: Yes.

Q: Did the explorer stick in there and stay stuck when you took your hand off?

A: Yes.

Q: And this is tooth number 3 of this particular patient?

MS. BALLARD: Here's the original, if that will help you.

A: Okay, that's a little better, yeah.

Q: What does that tell you?

A: There's still a little pit there, but it happens to be right above where the x-ray shows there's decay.

Q: Okay, let me take ... where did the x-ray go? Okay, I'll just pass the x-ray around on this one. Okay, I believe that you already

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testified that you had proposed to do a restoration on tooth number 3, is that correct, and the patient did not keep the appointment?

A: Correct.

Q: And you've never seen the patient again?

A: He hasn't responded to our recall.

Q: Did you ... did you ever talk to the hygienist that did this particular sealant?

A: No.

Q: Anonymous No. 4? Have you ever declined to see this patient after this appointment?

A: No.

Q: Okay. That's all I have.

DR. PADGETT - CROSS EXAMINATION BY MS. BALLARD:

Q: Dr. Padgett, when you saw K.W., you said 2/28/04?

A: If my original records serve me right, yes, ma'am.

Q: 2/28, you think?

A: Yeah.

Q: Did you note anything at that point about decay?

A: No.

Q: All right, did you take x-rays at that point?

A: Yes, we took two bitewing x-rays, Panolipse,

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and a periapical x-ray.
Q: All right, this x-ray that we've admitted into evidence as Number Sixteen was taken when? This was taken when?
A: Does it have the date on it?
Q: It says 7/28/04.
A: Okay, that's when it was, 7/28/04.
Q: All right, where is the x-ray that you took on 2/28/04?
A: This obviously was 7/28, I'm sorry, it's cut off, it's obviously 7/28/04.
Q: All right, so you think that you saw him just once?
A: That is correct.
Q: Okay.
A: Well, no, we saw him twice, on 7/29 he came back for a periapical on number 3.
Q: All right, so this should say 7/28?
A: Yes.
Q: And the one below it should say what?
A: 7/29.
Q: 7/29. Okay. So, there is only one x-ray, correct?
A: Yes.
Q: Okay, then that clears that up. When you saw

him on 7/28 or 7/29, did you remove the sealant that was on tooth number 3?

A: No, ma'am.

Q: Why did you not remove the sealant?

A: Because I scheduled him to do a final permanent restoration because of the decay underneath.

Q: Okay. And in fact, showing you Respondents' Exhibit Number Seventeen, which is this photograph here, assuming that was in fact taken on ... in December of 2004, the sealant is still there, correct?

A: Yes.

Q: So am I correct that K.W. has had the benefit of that sealant since it was placed in 2003?

A: Yes.

Q: That's all I've got.

MR. WOODINGTON: I have no further questions.

MS. BALLARD: I do have copies of Seventeen for you all, I'm sorry. This is Respondents' Seventeen.

CHAIRMAN RAWLS: While she's passing those out, does any member of the panel have any questions for Dr. Padgett?

DR. WADE: What was the date on those photos?

MS. BALLARD: Mace Koenig who took the photo is going

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to testify to it, but in December of '04.

DR. WADE: All right.

DR. PADGETT - CONTINUED CROSS EXAMINATION BY MS. BALLARD:

Q: I do have one follow up question. You testified in the earlier case that the only case you had sent to the ADA, the American Dental Association, was the one involving Anonymous No. 3, correct?

A: I believe so.

Q: What does it say on Exhibit Number Fifteen, it says 7/29/04 pax 3 to the ADA?

A: That, that was a mistake. It ... that was not the ADA.

Q: Who did you send that one to?

A: Probably the same place I sent the other ones.

Q: Okay. That's all I've got.

CHAIRMAN RAWLS: No other questions? (No response.) Dr. Padgett, you're dismissed.

MR. WOODINGTON: I'd like to call Dr. Sneed back for just a minute.

CHAIRMAN RAWLS: Sure.

COURT REPORTER: Please remember you're still under oath.

DR. SNEED - DIRECT EXAMINATION BY MR. WOODINGTON:

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Q: Dr. Sneed, I'm going to ask you if you've reviewed the exhibits that are in front of you there, which are the photograph, Respondents' Number Seventeen and the other photograph, which is the State's Number ...

MS. BALLARD: The other is his x-ray.

Q: Sixteen, the x-ray?

A: Yes.

Q: Have you reviewed those? What does the x-ray, first of all, depict?

A: The x-ray depicts what I would term frank obvious decay into the ... well progressed into the dentin.

Q: Okay, now what does the photograph taken, we're given to understand, in December of '04, depict?

A: What I see here is what appears to be a well placed sealant on a first molar, first permanent molar. If you look at it carefully, you get a hint of that dark trans- ... looking through the enamel, and partially through that opaque ... the opaque sealant, you can see a darkness under the enamel. Now that is certainly not vivid and is not diagnostic because it is difficult to see it through the

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sealant primarily.
Q: Well, you're looking at it through the sealant, I mean ...
A: Trying to see it.
Q: The sealant is blocking things, is that right?
A: But looking at this, you see it on the distal, you see the darkness on the distal and you see the decay primarily on the distal, the larger areas on the distal, this radiograph. But it appears to be a very well placed sealant.
Q: What can happen to even a well placed sealant over decay of this type?
A: This is what I testified yesterday about, in my opinion, this is the reason I don't feel the standard of care is to place sealants over frankly cavitated lesions -- it's difficult to get a good seal on an incipient lesion; it's even more difficult to get a good seal on one that is cavitated and is extended even into the dentin, so it's more difficult. Now, if this ... if this seal, if this sealant springs a leak, that decay is going to move extremely rapidly, and that is well documented. As long as it doesn't spring a leak, assuming this is well sealed, and as long as that maintains that

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seal, that decay probably will not advance, even though there is contradictory literature to say that it will.

Q: All right.

A: Okay, now what I'm concerned about, and I think what the Defense's expert witness will agree to is that, over time this is going to wear down, chip off, whatever, partially it's going to become dislodged, I think it's going to wear, or maybe take a year, it may take three years, it may take four years. When that happens, I didn't say if because I think it will happen, it's a matter of time, when it does, the advancing rapidity of that decay could be catastrophic, catastrophic to that tooth.

Q: Let me show you an exhibit, and I don't know what number it is, but it's a Respondents' exhibit and it's Dr. Simonsen's article called Pit and Fissure Sealant: Then, Now, and Next Steps.

MS. BALLARD: I think that's Number Twelve.

MR. WOODINGTON: The panel should already have this exhibit up there somewhere.

COURT REPORTER: In Six, behind tab eight.

MR. WOODINGTON: Let's ... excuse me. It's in the

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notebook.

COURT REPORTER: Number ... their Number Six.

MS. BALLARD: No seven and eight were taken out. Seven and eight were taken out of the notebook because they had already been introduced.

MR. WOODINGTON: Okay, so this is in evidence then?

MS. BALLARD: It is.

A: It's Exhibit Number Four.

Q: Okay, all right. If ... I'm going to hand you page 20, or turn that to page 20 and ask you to look at the paragraph at the bottom of the first column and just ... just read that, first of all.

A: Applying sealant to small carious lesions is certainly justifiable. The literature is clear on this subject. However, when the sealant wears down, any fissure that was previously sealed becomes partially uncovered and the oral fluids are free once again to migrate down the fissure, under ...

Q: Dr. Sneed, let me interrupt you for a minute and make sure we're all on the same page before you go any farther. I don't mean to interrupt, but I notice some of us are still looking around.

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MR. WOODINGTON: Page 20, bottom paragraph, left hand column for those who're following.

A: And I know I'm speaking loud, but I have a hearing deficit too and if it's too loud let me know.

Q: Okay, all right. Proceed, it's the paragraph that starts with "applying sealant". Go ahead, you were in the middle of it a little bit.

A: Okay, it says, however, when the sealant wears down and a fissure that was previously sealed becomes partially uncovered and the oral fluids are free once again to migrate down the fissure under the sealant and thus possibly interact with the bacteria and the dormant carious lesion once again, the carious process would once again become active. Depending upon on when the sealant is applied the resulting damage could be limited or severe. It would seem to me to be more prudent to seal caries-susceptible caries-free teeth, and once caries is diagnosed, to remove the caries and place a preventive resin restoration.

Q: Okay, do you think that that tooth there ... there on that picture is susceptible to this situation ...

A: I do.

Q: ... you described? Do you care to elaborate any more or you've already said all you want to?

A: I personally, in my experience, it's a matter of time. As long as it stays sealed, I agree with the literature, the preponderance of the literature, that it would not ... would remain dormant.

Q: Okay. Thank you very much.

DR. SNEED - CROSS EXAMINATION BY MS. BALLARD:

Q: And in fact if a restoration had been placed, that restoration can wear down as well, can it not?

A: Yes, but let me elaborate.

Q: Go ahead.

A: Okay. In my lectures when I teach management of the deep carious lesion, i.e. one similar to this, let's say it's extremely deep, as a matter of fact the decay may have actually reached the pulp ...

Q: Are we talking about this one?

A: Could be this one. Let's talk about one even more severe ...

Q: No, I want to talk about this one.

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A: Okay, we'll talk about this one, because it's within that potential.
Q: All right. So the restoration in this would ... could possibly wear down as well, correct?
A: Let me finish please, ma'am.
Q: Okay.
A: When you would treat this with a restoration, you would gain access with a burr, remove the decay, and as you approach the pulp, you would stop. You would however, and this is the crucial fact, from the margin, are you familiar with the term "the margin"?
Q: I am.
A: Okay, from the margin down every peripheral wall, now we're talking about a Class I occlusal preparation, every peripheral wall from the margin down, must be absolutely decay-free for a great distance, as a matter of fact as far down as you can possibly get without having an exposure ...
Q: Got you.
A: Okay. Then you are right over the nerve and there is still a little bit of what we call affected dentin, that's the advanced part of the carious lesion, the outer part is the

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infected, the outer ... inner part is the affected, which is not caries ... which is not bacteria ridden as the infected is. So you leave a little bit, rather than dig it out, dig that last little bit of decay out and have an exposure, you stop.

Q: Uh-huh (affirmative response).

A: Okay, then you put antimicrobials, chlorahexodine, then you put a calcium hydroxide cap on ... indirect cap on that, which is highly alkaline, kills the bugs. Then you place a well sealed filling or restoration, now that filling goes from the margin, four or five or six millimeters down a solid wall. The likelihood of that wearing six millimeters is impossible. That restoration ...

Q: Impossible?

A: Yes, ma'am. You will not wear, in a lifetime a restoration will not wear, wear six millimeters ...

Q: So, is that the only way, the way you've just described, is that the only way we should ever restore a tooth?

A: That is the proper way to restore an extensive lesion, yes, ma'am.

Q: Is that the only way?
A: That is the only proper way.
Q: So people do it lots of other ways, don't they?
A: Of course.
Q: Okay, so if the ones that didn't do it your way ...
A: Uh-huh (affirmative response).
Q: ... have put in a restoration and it came out, and we've got that little tiny bit of bacteria still there ...
A: Uh-huh (affirmative response).
Q: ... same thing happens as you've described with the sealant we the placed, correct?
A: That's correct.
Q: So what do we do, we just pull the tooth?
A: Placed restorations don't fall out and they don't leak.
Q: Okay, and how many people do that?
A: The majority of these dentists have been telling you.
Q: Well, you just told me a whole bunch of people don't do it the way you just described.
A: Well, they do it in different manners, and I've described the way that I think is the standard of care based upon the evidence. And I think

that's what the dentists that you've been interviewing have tried to explain in their way, and I'm trying to explain it my way.

Q: Okay. I appreciate that.

A: Thank you.

DR. JETT: I have a question. Regarding the article you just read, in your opinion is the advancement of decay underneath an old leaky sealant greater than ...

A: An old leaky filling?

DR. JETT: Sealant.

A: Sealant, okay.

DR. JETT: Sealant. ... greater than if the sealant had never been placed?

A: What kind of ... what kind of lesion have we sealed? An incipient lesion or a ...

DR. JETT: No.

A: ... frank lesion?

DR. JETT: A frank lesion.

A: Frank lesion. Once that ... once that sealant leaked, once it begins leaking, I would think it would be the same or worse. Now, the literature indicates it would not be worse, but it would be the same. Now ... but now you have an opaque thing over this, you can't see it, I

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couldn't see it on this photograph, and the dentist would have hard time seeing it. It could leak just a ... it doesn't need much, bacteria aren't very big, they can hold hands and walk through a twenty micron gap, and certainly the parents' going to look in there and say, oh, something's white on that tooth, that's the sealant, the tooth's fine. Well, the tooth might not be fine, that's my opinion.

CHAIRMAN RAWLS: Any more questions? (No response.) Okay, Dr. Sneed, you're dismissed.

A: Thank you.

MR. WOODINGTON: Okay, that ... in this case, with the usual incorporation by reference of Dr. Sneed's previous testimony and other testimony, we rest in this case.

MS. BALLARD: I'm sorry, did you rest?

CHAIRMAN RAWLS: He did. Ms. Ballard?

MR. WOODINGTON: I rest.

MS. BALLARD: Okay, yes. We would call Dr. Simonsen, please.

DR. SIMONSEN - DIRECT EXAMINATION BY MS. BALLARD:

Q: Dr. Simonsen, have you had an opportunity to review the photograph that is marked as Respondents' Exhibit Number Seventeen?

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A: I have.
Q: And the x-ray that is supposedly marked as the State's Exhibit Number Sixteen?
A: I don't believe I've seen the x-ray.
MR. WOODINGTON: Sixteen.
Q: Sixteen. All right. With reference to the standard of care for a dental hygienist in the school setting, what should Anonymous No. 4 have done when she saw that tooth in April of 2003, when she examined K.W.?
A: She should have ... well, it would depend on whether she diagnosed caries. Although it's readily apparent on the x-ray, it's impossible at this time to say what the clinical situation looked like. The caries could have been invisible from the surface. This could have been hidden by a lot of factors. So if she diagnosed the tooth as caries free, she should have sealed it. If she was suspicious or diagnosed caries, she should have put that in the record, notified the parent, tried to get the child to a dentist, and seal it.
Q: All right. Do you agree that the ... with Dr. Sneed's testimony that we've greatly increased the problem if a sealant falls out as opposed

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to a restoration falls out?

A: I'm not quite sure of the context of that.

Q: All right. Dr. Sneed just testified that if a sealant is broken or falls out, that we have a sudden reactivity of the bacteria in the tooth.

DR. SIMONSEN: Uh-huh (affirmative response), no. If ... the literature is pretty clear on this, that if a sealant is partially lost the tooth is better off than had it been not placed, than if the sealant had not been placed. If there was caries under the sealant and it now becomes open again and communicative, the caries should resume at the same rate, maybe even less, because the sealant will somewhat cut down the flow of oral fluids to that area. So, I certainly can see no evidence or reason to suppose it would be worse.

Q: Dr. Simonsen, how do we resolve ... how do dentists resolve the existence of a school-based hygienist program for the promotion of ... for preventative tooth care? How can we resolve this at all? What ... what's the solution?

A: I don't know the solution. Like many things, this is one of the problems that we have in the

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profession today, and I ... like I said yesterday, I'm very saddened by the reason that we're ... the fact that we're all here. I see ... what I ... as an outsider coming in here, unbiased to either of the parties, with my colleagues here and hygienists on the other side, I see everyone trying to do the best for their patients. I've seen four hygienists speak to us, I have no reason to doubt their sincerity, in fact, I've seen ... I think great passion. And for example Anonymous No. 1 yesterday, you know, she was very passionate, she sincerely believes, as do all of them, that they're doing the best for their patients. And there is no way we can challenge that, in my opinion. There is no evidence that I've seen that they're over-applying sealants, that there's Medicaid fraud, or anything like that. And Anonymous No. 1, I know, I was told yesterday, lost a 19 year old son a little over a year ago, or actually he was on the way to President Bush's inauguration. Soon after that she was accused of this. In watching her yesterday and feeling her passion and her sincerity in how she treated her patients, I

was just struck by how sad that is that someone ... I mean, I can't imagine what it's like to lose a child; that has to be the worse tragedy that anyone can experience. But then to be threatened with your livelihood by well-meaning people not understanding what the program is all about, and I would hope that my colleagues could visit these programs, provide input to how it could be improved if they think it could be improved, but not try to shut it down, as it appears to be what's going on here.

Q: In other states do you see hostility toward school-based dental hygienist programs?

MR. WOODINGTON: I object. We're going down the road that has nothing to do with the standard of care at this point.

CHAIRMAN RAWLS: Objection is sustained.

MS. BALLARD: I don't have further ... anything further for Dr. Simonsen.

MR. WOODINGTON: I have no questions for Dr. Simonsen at this time.

CHAIRMAN RAWLS: Does the panel have any questions? (No response.) Dr. Simonsen, one question. As an expert in cariology, would you see any relationship between decay that occurs under

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say a bridge abutment, where the bridge is still in place, where the one abutment comes loose and you get leakage under it, and a sealant over decay which becomes leaky?

A: Well, the difference I think would be that the bridge abutment may well be, and probably is, subgingival, so it's not visible. The sealant, if there is leakage, you can see leakage, you can see leakage of a sealant. So, a dentist ... plus, of course, on x-ray on a bridge abutment, you wouldn't necessarily pick up caries because the crown is very allusive. If you ... or, you know, you can't ... if it comes out you can't see through it obviously. But I mean, dentists are taking x-rays and you can look at the x-ray, so even if there is, even if the white opaque sealant is blocking the visibility of caries progression, you should be able to see it on the x-ray. So, I ....I don't see a parallel in those two situations.

CHAIRMAN RAWLS: As far as the advancement of decay?

A: As far as the advancement of decay. Any time you have active caries that has access to the oral fluids, that caries will continue; it will continue under a sealant that is leaking, it

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will continue under a bridge abutment that is leaking. The rate, I think a lot of people have the mistaken impression according to the literature, based on perhaps some individual experiences of having seen unusual cases where caries progresses rapidly. The literature is clear that caries is not a rapid process. The literature reports that it takes about four years for caries to penetrate enamel, and another four to seven years for it to penetrate dentin to the point where it's ... there's an exposure. Now, that's literature based, it's ... of course, it's different from the clinical practice where you're going to see cases where things happen more rapidly. But if you were to allow caries to progress, in a large number of situations in your practice you would see that kind of trend. Of course, we don't do that, so you don't see it.

CHAIRMAN RAWLS: No other questions? Dr. Simonsen you're dismissed.

A: Thank you Dr. Rawls.

MS. BALLARD: We call Mace Koenig please.

DR. MACE KOENIG, being duly sworn, deposes and testifies as follows:

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DR. KOENIG - DIRECT EXAMINATION BY MS. BALLARD:

Q: Dr. Koenig, would you identify yourself for the panel please?

A: Yes, my name is Mace Thomas Koenig and I live here in Columbia, and I graduated with a DMD from the Medical University of South Carolina in Charleston.

Q: How did you become employed when you first graduated?

A: Initially, I worked for about a month taking a doctor's place in Bluffton, South Carolina while he was out for a short period of time.

Q: Since then, have you ... have you engaged in private practice?

A: Yes, I have.

Q: In addition to your private practice, do you hold any positions with HPS?

A: Yes, I am a consulting dentist.

Q: And what did ... what are your duties involve as consulting dentist?

A: I make myself available to them for any questions or concerns that they have. I can go where they need me to go or look up answers to questions that they may have.

Q: Is this a full-time position?

A: No, it is not.
Q: Are you essential ... are you supposed to be available to them essentially though at any time?
A: Yes.
Q: Okay. Did you have occasion in December of 2004 to go to Ninety Six, South Carolina and examine K.W.?
A: Yes, I did.
Q: And what was the purpose of your examination?
A: To assess the condition of a tooth that had supposedly had a sealant placed on it and that sealant had been placed in question, and we had been notified that a dentist had removed the sealant and placed a restoration there, and the patient had returned and what we saw did not look like a restoration. And seeing that it had gotten to the point of someone's license being at risk, we took that very seriously and worked ... wanted to document what we saw.
Q: And looking at Respondents' Exhibit Number Seventeen, this is the marked one, this is the original photograph. Did you take that photograph?
A: Yes I did.

Q: And you took that photograph on December 10, 2004?
A: Yes.
Q: Using the photograph, as well as your recollection of your observations at that time, would you describe what you saw with tooth number 3 on K.W. on December 10, 2004?
A: There appears to be a very well placed sealant in the grooves, the pits and fissures of this tooth.
Q: Was there any restoration present that you can see?
A: Not that I ... not that I could determine, no.
Q: Okay, let me ask you something, Dr. Koenig. When you got out of school, what education had you been provided with about sealants?
A: Certainly I cannot recall every single thing that I was taught about sealants, but what I recall at this point is that we were taught that they were primarily as a preventive measure and to be placed to prevent decay. Most of the things that we were taught with regard to ... well, we were taught about PRRs, the preventive restorative resin which is, you know, if you see something that is questionable

and you're not sure if there is decay under there or not, but you suspect there may be, that you remove the area of question to determine whether or not there is decay under there and then place a composite restoration. I don't recall a great deal of education on the value of a sealant in ... in the case of incipient decay.

Q: Have you learned a lot more about sealants with incipient decay since you've gone into practice?

A: Yes I have.

Q: In your experience, is the knowledge base of dentists in general about the use of ... well, before he gets up and objects, let me withdraw that question. In your experience, do most dentists understand as much about sealants as you've learned in the last couple of years?

A: I would say definitely not.

Q: And when you got out of school, you didn't either, correct?

A: No, I didn't.

Q: What have you concluded as a result of your work with sealants and the HPS program as to the efficacy of placing sealants on incipient

caries, or even unknowingly placing it on cavitated caries?

A: I think that it's a very valuable service.

Q: Why?

A: Well, I think the best way that I can explain the value of that is an analogy that is similar to when I see a patient in my practice and, because I am starting my own practice I don't have a hygienist and I'm doing it all myself, I'm doing the cleanings and I know that I have limitations in terms of what I am capable of. And I may do a cleaning on someone and notice that there are pocket depths that I feel would be better treated by a periodontist. I do still go in there and do the best I can at that cleaning, knowing well that I may have removed everything and it may be fine, and I may not have. But I know that that is my limitation. So I will tell the patient, you've just received a cleaning, there are pockets of concern here, I have done the best that I can, but you truly need to seek the services of a periodontist, and let me ... let me give you the name and number and make that appointment for you. I think that the service that I

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render when I do that gives the patient some reduction in risk. If they don't ever go see that periodontist, which they ... they may have gotten a false sense of security from the fact that they received the cleaning and they go, we'll, she probably gone it all. But that's not really my responsibility. My responsibility was to do my job and to educate the patient, which I have done. If they postpone going to the periodontist, then perhaps I've removed enough stuff that it doesn't get a whole lot worse before they go. And then if they do, and the periodontist finds, whenever he does his surgical scaling and root cleaning or whatever he feels is more appropriate that I do not feel that I am qualified to do, I would certainly hope that he would not bring up my license to question for not having gotten that last bit of calculus. And I believe that these hygienists are providing a service that, at the very least, prolongs the amount of time that the patient has to seek the appropriate care. Particularly since they do not have the advantage of a radiograph to see the extent of what they may

suspect is there.

Q: In your experience, is the appropriate standard of care for any professional to do the best job they can and then refer to a more experienced professional?

A: Absolutely.

Q: That's all I've got, thank you.

CHAIRMAN RAWLS: Mr. Woodington?

DR. KOENIG - CROSS EXAMINATION BY MR. WOODINGTON:

Q: Dr. Koenig, just a couple of questions. How old ... when did you graduate from the Medical ... MUSC?

A: May of 2003.

Q: 2003. So you've been practicing about two and a half years?

A: Yes, sir.

Q: And what did you ... what caused you to learn more about sealants after you got out of school than when you were in school?

A: Well, I do a lot of reading and did ... and I've learned a lot from Dr. Simonsen just in the last few days. I have to be very honest about that. I have learned an awful lot, and I do believe in evidence-based dentistry.

Q: Evidence-based what?

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A: Dentistry.

Q: Dentistry. Have you been consulted by anybody? How long have you been a consultant for HPS?

A: A little over a year. I would ... it was about a year in October.

Q: Has anybody ever called you up there ... has a hygienist ever called you up and said, look, I've got a question about a sealant placement and asked for your opinion about that?

A: No, they have not.

Q: They have not. Okay. Thank you.

MS. BALLARD: I do not have any re-direct.

CHAIRMAN RAWLS: Any questions from the panel? (No response.) Ms. Koenig, you're dismissed.

DR. KOENIG: Thank you.

MS. BALLARD: I need to recall Dr. Simonsen, is there any objection to that? I forgot to ask him one question.

DR. SIMONSEN - CONTINUED DIRECT EXAMINATION BY MS. BALLARD:

Q: I thought the last one was your last, but I apologize. Looking at your article, Pit and Fissure Sealants, which is Exhibit Number Four, Dr. Sneed made a quotation from your article on page 20, do you recall that?

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A: Yes.
Q: Would you tell us what the setting was for the study and the comments that were made there?
A: Well, it wasn't a study, I was just referring to the standard of care in private practice.
Q: In private practice?
A: Yes.
Q: And how is that different from the standard of care in the public health setting?
A: In the case of the descriptive paragraph here talking about sealants, whereas ... as I mentioned yesterday, I think, and I'm just clarifying what I said yesterday, the ideal in a private practice is to remove caries, but in the event you suspect a patient is ... may not return, it would be of benefit to apply sealant over a carious lesion and not remove it if you don't have the capability of removing it.
Q: Okay, so with that qualification, you stand by that statement?
A: Oh, yes, I stand by that statement.
Q: That's all I've got. Thank you Dr. Simonsen.
CHAIRMAN RAWLS: Mr. Woodington.
DR. SIMONSEN - CROSS EXAMINATION BY MR. WOODINGTON:
Q: Unfortunately I do have one more question, and

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that is, is that made clear anywhere in the course of the article?

A: I don't know, it's been along time since I read it.

Q: That's okay, we can abandon that question. Thank you.

CHAIRMAN RAWLS: You don't have any questions, do you? Thank you, Dr. Simonsen.

MS. BALLARD: We would call Anonymous No. 4.

ANONYMOUS NO. 4, R.D.H., being duly sworn, testifies as follows:

ANONYMOUS NO.4 - DIRECT EXAMINATION BY MS. BALLARD:

Q: Anonymous No. 4, would you identify yourself for the panel please?

A: My name is Anonymous No. 4. I'm a resident of Clinton, South Carolina and I've lived there practically all of my life.

Q: Are you a licensed dental hygienist?

A: Yes, I am.

Q: Give us your educational background please.

A: I received an associate's degree in Allied Health Sciences with an emphasis on dental hygiene from Greenville Technical College.

Q: And when was that?

A: December of 1993.

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Q: How long was that program?
A: It took me approximately three years.
Q: Since you got your degree and are licensed, how have you been employed?
A: I worked from April of 1994 until April of 2001 for Dr. Erwin Baker in Newberry, South Carolina as his hygienist, and then in April of 2001 I went to work with Health Promotion Specialists.
Q: All right, now before you actually went and got your degree, you also worked in the dental field, did you not?
A: I did. I was a dental assistant from 1995 until I went to school to become a hygienist.
Q: From 1985?
A: I'm sorry, yes, 1985, excuse me.
Q: Okay. So you were a ... you were a dental assistant for who?
A: Dr. Daniel Hartley in Clinton.
Q: Now, you said you were with Dr. Baker for ... from '94 to about 2001?
A: Yes.
Q: Is that right? In the course of your work in private practice, did you have occasion to have any experience with the application of sealants?

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A: Yes.
Q: And we've heard reference to the two-handed versus the four-handed version of the application process. In the private practice, how were sealants applied in your experience?
A: In my experience, sealants are applied the exact same way that we do them in the school. I have never been fortunate enough to have an assistant to help me in any office that I've worked, either when I worked as an assistant, or when I worked for Dr. Baker as a hygienist, or in any office that I've ever, you know, filled in for. And I have found that to be the case with every hygienist I've ever worked with in any office.
Q: In comparing your experiences in seeing patients and applying sealants and doing other prophylactic work in a private setting versus the public setting, what are the differences?
A: I don't provide care any differently. I take care of that child in the school with no one around, no dentist anywhere in sight, just as I have always taken care of children in private practice with the dentist in the room next door.

Q: The only difference being you don't have another one waiting 30 minutes later?

A: Exactly.

Q: So, are ... do you have a schedule that requires you to see a certain number of patients in the day?

A: No.

Q: How do you determine the number of patients that you'll see in a day or the amount of time that you'll spend with a particular child?

A: It depends on each individual child. What I normally do, what I have found is the easiest way is I group children by classroom, you know, there ... if I have seven kids to see, you know, if I have received seven consent forms from a child in one particular classroom, I try to work on that classroom until I'm finished. Sometimes I finish all the children in that classroom, sometimes I don't. It just ... like I said, it just depends on things that are happening. You may have a child that you have to spend more time with. You know, you may have one that's just relaxed and will let you do just about anything, but you know, you just ... just work on them until you're finished.

When it's ... when it's time for the school day to be over, I'm done. You know, whether I've seen five patients or eight or whatever.

Q: Dr. Coombs had a question about the ... the equipment that you use. Would you describe briefly the equipment that you're provided by your employer that you bring with you for work in schools?

A: Yes, I have a ... I have a folding chair. Thankfully mine is a little bit different from Anonymous No. 3's, and it's a different brand. If you sit on the end, it will not tip over, which is a plus. I have the ... like she described, the folding beach chair for the patient, it will ... I can raise and lower the back if I need for better visibility. I also have a, operator's stool which is on wheels. I have a patient light which is on a tripod and it is adjustable. I can raise it and lower it as I need, and the ... you can also dim it. I usually prefer to keep mine fairly bright because, you know, some areas, I think, you asked the question about the lighting in the rooms where we are in. The lighting in the rooms that we are in is not always the best,

that's why we have the light, you know, so that we can zone in on ... on the mouth. And then we also have the compressor, it's in ... mine is in a black, it looks like a suitcase on wheels. The compressor is inside and the collection tank for the saliva and the water, the waste, is inside this tank, which is all enclosed and locked. My water tank is on the outside, separate, it's on the outside; and then my hand pieces, air, water, syringe, and suction all hang above the compressor.

Q: Now I realize you work in different schools, but what kind of facilities are you usually provided with? What kind of space?

A: We usually have, you know, they give us the best that they can. Most of my settings, I'm either on a stage where there is very bright light and lots of space. The last ... the school I just left on Wednesday, I was in a corner in the nurse's office. I have been fortunate enough to have empty classrooms that I can use. You know, so it varies really from school to school. You know, but it's usually an okay, a workable, doable space.

Q: Okay. Do you ... have you learned, or have you

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determined whether you have preference for working as a hygienist in a school setting versus the private setting?

A: I would much rather work in the school setting.

Q: Why?

A: Well, several reasons. And I think one, you know, a couple of them have been mentioned, the burn out, I think, in a dental office. You know, when you ... when you've just started a patient and you hear someone say your next patient is here and you're like, oh, you know, and you know when you go to get the next patient they're going to be yelling at you because they've sat there for 30 minutes waiting on their appointment. And then I have always ... I have always preferred to work with children. Dr. Baker was not a pediatric dentist, but he saw a lot of children in his practice. And one thing that I found very rewarding was to take a child who was maybe afraid, a child who gagged and who couldn't fit the fluoride trays in his mouth, and just be able to work with that child until he was at a comfort level that we could achieve what we were trying to achieve. One of the great

things about working in the school district is being able to work directly with speech therapists and the teachers, the school nurses. I always go to them and say, you know, I'm here, I'm available, if you have any questions, because we all know that your tongue, your teeth all can affect your speech. There was a situation very recently, this year actually, a speech therapist came to me and said, this child has been in speech forever and nothing is getting better, and this child happened to be ... had filled out a consent form, I checked and she had an open bite. No amount of speech therapy would probably correct that. So I called, you know, worked with the office, we were able to get this child into see an orthodontist. And we can also work with Children's Rehabilitative Services to try to find funds that may be available to help some of these children that otherwise maybe the speech therapist, the nurse, the parent may not even be aware are available. You know, we've just learned from ... from checking and researching that, you know, we can maybe find options for these children. And also, the

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first couple of years I was in the school district, I spent a lot of time on the telephone trying to arrange transportation, trying to make appointments. What I have found was with working with some of these parents, is that I think sometimes they don't have the social skills to pick up the phone and call, I'm ... and call to make an appointment, because many times, if I would contact the parent, offer to make the appointment, they were open to the child going. A lot of times it was a transportation issue and many of them did not know that we could arrange transportation through the school district. And I've worked on that for the fist couple of years, and now I have found I don't have to do that near as often anymore. Because a lot of these problems have been taken care of. And just to me, I just find that extremely, extremely rewarding. You know, you're not seeing kids who are going to be seen every six months, who are probably going to be taken back every six months to a dentist. You're actually doing something that ... that's going to be beneficial to this child and improve their

quality of life forever.

Q: In the course of your work with HPS and the continuing education that you have received, what have you been instructed about the placement of sealant on incipient lesions or other types of lesions on the tooth, what have you learned?

A: I have learned through our CEs and through literature that has been provided to us and through professional magazines that it will ... you know, you seal off that decay, you stop the oxygen, you stop the food supply, and that decay will not get any larger.

Q: And have you ... have you reviewed, personally reviewed literature ...

A: Yes.

Q: ... supporting of that?

A: Yes.

Q: In your employment, are you allowed to make the final determination as to whether to seal or not seal the tooth?

A: Yes.

Q: And you exercise that discretion on a case by case basis?

A: Yes.

Q: Did you see K.W. on ... I can't see the date.
A: 4/7/03.
Q: That's what I thought. How did you happen to see him? How did you come to see him?
A: He was a ... he was a student, a fifth grader at this time at Ninety Six Elementary School...
MS. BALLARD: And I'm sorry, for the record, we're referring to Exhibit Number Seventeen. State's Exhibit Number Seventeen.
Q: Go ahead.
A: Okay. He ... he was a fifth grader at this time at Ninety Six Elementary School, I ... we sent out our consent form to every child in the school district. His parent, his mother had ... had filled out, completed the consent form and it was returned to me.
Q: All right. In looking at Exhibit Number Seventeen, did you understand, is it not here? You can look at mine. This is a different Seventeen.
A: Oh, I'm sorry.
Q: Looking at the State's Exhibit Number Seventeen, what if anything were you advised of about whether or not K.W. had an existing dentist?

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A: From looking at this consent form, in the space where it says child's dentist, and also date of child's last cleaning, his mother had drawn a slash, a line, which I took to mean that he had no dentist and had not had a cleaning.

Q: When you examined him, what did you find?

A: I found teeth that were in good condition, according to ... yeah, he had no deciduous teeth, all of his deciduous teeth were exfoliated, and he had ... his permanent teeth were in place, I noted no decay.

Q: All right, and how did you go about evaluating to determine whether you had any decay present based on your visual inspection?

A: I ... I looked, you know, I checked with my mirror, looked with my mirror, used my light, and sprayed air to check for difference, you know, differences in the enamel.

Q: Okay.

A: And finding none, I placed the sealant.

Q: Okay. In a ... describe the process of placing the sealant, what do you do, what did you do in K.W.'s case?

A: First of all, I used a ... a proxy brush, I'm sorry, not a proxy brush, a prophy brush. It's

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a ... it's similar to the rubber cup that you use when your clean ... when you have your teeth cleaned and polished, but this one is ... is like a brush so that those tips get down in ... into the grooves and clean out those grooves. So I first clean out the grooves, rinse ... rinse the mouth, then I isolate the tooth with cotton rolls, sometimes I use dry angles, which are just little triangular shaped things, I don't like to use the dry angles if I don't have to because they do tend to stick to the cheek and they're kind of uncomfortable to the child. But I isolate the tooth, apply etch for 30 seconds, rinse that, change my cotton rolls, apply the sealant, and cure it with the sealant light.

Q: And are you cognizant of the ... the dry ... maintaining a dry field in placing the sealant?

A: Yeah if ... it's been my experience, if you don't maintain the dry field, the sealant's not going to ... it won't be there by the time he gets out of my chair. It just will not stick.

Q: When ... after you applied the sealants to K.W.'s teeth, and I understand you applied it to four teeth, is that correct?

A: On that day, yes.
Q: Okay, did you send home any literature with K.W.?
A: Yes, I always send ... I use the booklet ...
Q: That we've introduced into evidence?
A: Yes, from the Institute of ...
MS. BALLARD: I'll call the number of this, Number Sixteen.
A: This is from the National Institute of Dental and Craniofacial Research, it's a little booklet that I've ... I use to send home. I use this usually on elementary school children because they think it's cute, its bright, it's colorful. The letter that Anonymous No. 3 sends out, I use for older kids who probably wouldn't want to carry this around the lot. But I sent this booklet home explaining what sealants are and how they were applied, to his mother. I also use the form letter that we have, and you check ... you just check on there what you did that day and if there are any obvious problems, no obvious problems, or urgent care needed, and I ... on this one, I have him as a code 10, which meant I saw no obvious decay, so I would have checked no

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obvious decay, child needs an appointment with the dentist for x-rays and an exam.

Q: So did you recommend then that K.W. see a dentist?

A: Yes, I did.

Q: Is that standard in all the letters that you send home?

A: Yes, it is.

Q: That's all I've got, Anonymous No. 4. Answer any questions that Mr. Woodington or the panel members might have.

A: Okay, thank you.

CHAIRMAN RAWLS: Mr. Woodington.

MR. WOODINGTON: Very quickly, Mr. Chairman. I'll ask Anonymous No. 4 the same questions that I've been asking basically.

ANONYMOUS NO.4 - CROSS EXAMINATION BY MR. WOODINGTON:

Q: I do not ... do you remember how many patients you've seen since '01 when you went with HPS?

A: You know, I probably have a patient base, I'm ... I'm in nine different schools. I also work in Ninety Six ... I work in Ninety Six and I also work in District 56, which is Clinton, where I live.

Q: Okay.

A: Between those two counties, I probably have a patient base of approximately 800 to 1,000 patients.
Q: Okay, all of whom you would've seen somewhere along the line?
A: Yes.
Q: Okay. Is this a full-time job for you?
A: Yes.
Q: Did you remember K.W. when this formal Complaint came in? I think he had been done about a year and a half before?
A: Yes, I actually did. And probably the reason he stuck in my mind is because he had a ... he also has a twin.
Q: Okay.
A: And you know, I just kind of remember seeing the two boys and the differences in the two.
Q: Okay. And did you ... have you consulted with a dentist about the question, about whether to apply sealants in a given case?
A: No.
Q: Okay, that's all I have.
MS. BALLARD: I don't have any re-direct.
CHAIRMAN RAWLS: Any panel members have any questions? No? You're dismissed.

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MS. BALLARD: Thank you, Anonymous No. 4. We don't have any further evidence in this case.

MR. WOODINGTON: No reply.

CHAIRMAN RAWLS: We will now have closing arguments.

MR. WOODINGTON: I don't need to take a break, Mr. Chairman, but could you give me about 30 seconds to get a few documents out?

CHAIRMAN RAWLS: How long do you anticipate closing arguments to be?

MR. WOODINGTON: Five minutes, max.

MS. BALLARD: Four.

MR. WOODINGTON: All right, I can proceed if you would like.

CHAIRMAN RAWLS: Yes.

MR. WOODINGTON: I want to ask a question, if I may? I assume procedurally, the panel will go and deliberate and do like a medical board panel does, and we won't hear about the results of this for some time to come.

CHAIRMAN RAWLS: Right. We will really, you know, we'll make a recommendation to the State Board ...

MR. WOODINGTON: We won't ... we won't know what you've recommended until the written order comes out on that?

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CHAIRMAN RAWLS: That's right.

MR. WOODINGTON: Okay, that's fine.

CHAIRMAN RAWLS: I mean, if ...

MR. WOODINGTON: So we get to leave.

CHAIRMAN RAWLS: Yeah, you're a real professional.

MR. WOODINGTON: That's the real professional. Okay. To turn serious, because this is a serious matter. Certainly we don't dispute, or I don't dispute that the hygienists were sincerely concerned about the welfare of the many school kids they see and there's been, despite what you've heard, there's certainly been no effort to impugn or attack the program of these ... of the employer of these hygienists, or anybody else for that matter, even these ... these individual hygienists. But even ... even a well intentioned hygienist or professional can make a mistake sometimes, and in these cases we submit all involved mistakes and I, as a professional, I hate to call anybody up on the question of making a mistake, but it does happen from time to time. We certainly ... and the mistake of course was placing sealants over gross caries. We don't suggest that these hygienists' licenses, at least to the extent

that it's within my power as a prosecutor in these cases, I don't plan to argue to the full Board, if you find that there's been a violation, I don't plan to argue that anybody's license should be lifted as a result of this. This is ... this is more in the reprimand and fine area probably, if it's anything. But it is a mistake and it's ... and it's my position that it should be recognized as such and that whatever discipline, if any is imposed, should recognize the mistake that's been made. We've heard about the absence of harm, just taking points up almost at random here, the absence of harm to the children. In the sense of damage lawsuits, if ... obviously if somebody gets sued for malpractice, the person has to prove that there's been an injury and harm and damage to the patient. In a case ... in a professional licensing case, that's not the case because if the mistake was done in the practice and the patient walks out the door, it is now beyond the control of the professional, whether the mistake was made or not. The mistake has been made, whether it's cured, whether it hurts; what happens down the road is

not a relevant issue insofar as the question about whether the standard of care was met in that particular case. This is not a damage suit obviously, these are not damage cases. And obviously also, as you've heard from so many of the witnesses, in many cases the sealants were removed within days or weeks after being placed anyway, so there's not going to be any damage from those sealants in any event. I'd said at the beginning that this ... that these were simple cases. I would still submit despite all the time we've spent here today and yesterday that they still are simple cases, and in fact, to my lay mind they're no more complicated than a rusty fender on a car and a can of spray paint being applied over it. If it's rusty enough, the spray paint's not going to do any good, it's going to come off and it's just not going to help. And that's about the appropriate analogy I would submit for this type of situation and these gross caries. Dr. Sneed testified, I would submit quite cogently and credibly, that you don't put sealants over gross decay. And many of the practicing dentists, if not all of them, said

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the same thing. Common sense tells you there's poor adhesion. There's been testimony about decay getting between a poorly bonded sealant and growing. Dr. Simonsen has pretty much said the same thing in his article, in his e-mail to Dr. Sneed of a year and a half ago, that a poorly placed sealant will give a false sense of security, that the cavities ... caries can grow under decay, and it doesn't seem as if ... as if there's as much disagreement about the ... between the experts as it may appear; I think we have a lot of terminology differences and so forth. But again, Dr. Sneed testified, and I would submit it's ... it's the position this panel should take, that the standard of care simply does not include the placement of sealants over obvious gross cavitated lesions, frankly cavitated gross decay, gross caries, whatever you want to call it technically, it's inappropriate and it's not within the standard of care. In addition to Dr. Sneed's testimony though, you don't have ... there's several indications in South Carolina that were put up by the Respondents, and I know several panel members noticed this tab five here, the

guidelines with the yellow highlighting. This is one of the Respondents' exhibits, interim sealants, so-called interim sealants, and the application of interim sealants, only when a dentist is going to examine the patient and so forth. These were never applied under any truth, nobody's used the word "interim sealants" I don't believe for any of the these hygienists, there's no ... there's been no argument that these were placed as interim sealants, which is the DHEC standard. If you flip over to this decision tree, The Pit and Fissure Treatment Decision Tree, which is not only in this, it's also in one of the learned articles that the Respondents introduced, you'll see that the questionable category about ... about applying sealants falls between Caries-free and Enamel Caries. If it's dentin caries, as the testimony's been in all these cases, the decision tree says restore. So there doesn't ... it doesn't seem to be that much question about what the appropriate standard of care is. Dr. Simonsen obviously is a very learned expert, and I'm somewhat chagrined to stand here and take the slightest

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bit of exception to him, but nevertheless he's ... he got a little vague at times and he said, well, sometimes it's hard to make the judgment call and so forth, and sometimes no doubt it is. But I would submit that in these cases, the judgment call of the teeth that were placed in front of these hygienists was not a tough call to make. It was a situation where a carie ... where a sealant shouldn't have been placed. Now, just two or three last points. The idea that there are two standards of care -- one for the public health sector and the other one for the private sector -- well, from what I've understood so far from everything we've heard is that the so-called public health standard of care is, when in doubt, seal it. But it ... if you examine that more closely, as with that decision tree, you see that when in doubt means when in doubt about whether it's incipient decay or whether it's enamel caries, not ... not when there is a doubt about whether it's gross caries; you don't seal in that situation. There's nothing in the materials that's in this notebook, in the South Carolina materials that say seal gross lesions when in doubt. So, if

that's the case, then there's really probably only one standard of care to begin with, don't seal gross caries. Very simple. And in the four ... and instead of sealing them, refer them, which was done in all these cases, they were referred with sealants; but our position is they should have been referred without sealants. The argument has been made also that sealants are better than nothing, and Dr. Sneed has testified quite thoroughly that sealants in many cases can be worse than nothing, it can be ... it can be worse than doing nothing because ... because of the false sense of security, the fact that you hide the decay behind the opaque sealants, and so forth, and that's what he said to Dr. Sneed a year ago, a year and a half ago in his e-mail, Dr. Simonsen said. Of the four cases, I will not, unless there are questions, comment on any of the four specific cases. Each practicing dentist stood up and testified that in his opinion gross caries was present in the teeth, and it was confirmed by x-rays in many cases. In most of the cases the dentists were faced with a tough call because there were already opaque sealants over the cavities. And

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that's obviously a somewhat difficult perhaps question that has to be answered in the panel's recommendations, is that the case or not? We're all in ... we're having to Monday morning quarterback and we don't have exactly the same evidence in a lot of cases that the hygienists saw because the sealant ... the opaque sealant was over the tooth. Nevertheless, and I will conclude with this, that I would submit that the panel should do the following, make the following findings and conclusions. Number one, the gross decay and frank cavitation, or whatever you want to call it, was indeed present in each of these cases, with each of these patients. Number two, that if the hygienists had acted within the standard of care, they should have seen the presence of that decay in those teeth. Number three is that the appropriate standard of care is the sealants should not be placed over decay of this nature, as Dr. Sneed testified. Appropriate standard of care is that sealant should not be placed over decay of this type. Number four, well which is obvious, that the placement of sealants over this decay was

outside the standard of care. And Number five, and finally, that the panel should recommend to the Board that some form of sanction be issued in these cases. As I say, I would not ... I certainly am not, nor would not go after the license so to speak, but would submit that some form of sanction is appropriate. This is a difficult question for the state of South Carolina, for the patients. We've heard all the health testimony, I don't need to refer to it anymore, but the standards need to be established and perhaps these cases will serve as a method of doing that. I appreciate the panel's attention and concern, these have been two long days. And I'll be happy to answer any questions or I'll just sit down.

CHAIRMAN RAWLS: Thank you, Mr. Woodington. Any questions? (No response.) Ms. Ballard?

MS. BALLARD: Like it or not, this panel has the unenviable task of making new law. I've had the unenviable task in my 20 some-odd years at the Bar being involved in that on a couple of occasions. When I was a law clerk for Chief Justice Ness, he had the task of writing an opinion to abolish charitable immunity in the

state of South Carolina, which ruffled quite a few feathers at the time, and tied the legislature up for a couple of years in trying to come up with something that we're all familiar with called the Tort Claims Act. New law is always difficult, it's always painful, it always goes through growing pains, and like it or not, this panel has a much more serious job before it than determining whether it's okay to sand a rusty fender before you put a coat of spray paint on it. This panel's decision is going to determine the future or the death of the school-based dental hygienist program. Now, we have to look at that knowing that there's this underlying hostility that's been out there since this program started. The Dental Board doesn't want it; the dentists don't want it; it's different; as you said, Dr. Jett, it's introducing new issues to you about the concept of placing sealants over decay. That's a new ... a new animal for you. But this panel has a job, to a) define the standard of care in a school-based public health program for dental hygiene. And you can't even begin to do what Mr. Woodington wants you to do,

which is to determine that there's been a deviation from the standard of care until you first define it, and I challenge you, that is the difficult job that you have before you, is to define the standard of care in these cases. Nobody's done that before, so we've had to reach out to people who have expertise in that field, Dr. Simonsen for one, to bring in to educate all of us about what that standard of care should be and how to determine in a school-based public health dental hygiene program, with the limitations on what dental hygienists can do and the limitations on the equipment that they lawfully can use in the schools, how to determine whether or not there's been a deviation from the standard of care. In doing that, it is critical that you understand the setting in which this is applied. We don't know if these students will ever see dentists. We ask them all to go, but Dr. Padgett, Dr. Ackerman, they've all had patients that they tell to come back, and they don't come back. And that's why this program is out there, because people don't always do what you tell them to do. You all have to

define the standard of care, and I promise you, you're making new law. Because this won't end here. Whatever your decision is, whatever the Board does with it, the appellate court's going to have to look at this and they're going to have to decide what the standard of care is in this case. Otherwise, your decision will shut down the entire school-based dental hygiene program. The legislature wants it out there. They have been very clear about that. And unfortunately we have to find a way to let that program live with the private practice setting. And if you listen to Dr. Simonsen, we can do that, we can work together, we just have to be willing to do that. I would submit to you that once you define the standard of care and examine the literature that's been introduced into evidence, you will have no conclusion other than these hygienists have not deviated from the standard of care and in fact have rendered a very valuable public service to these students, as well as thousands of others. Thank you.

CHAIRMAN RAWLS: With that, this hearing will adjourn.

(There being nothing further, the hearing was

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concluded at 1:30 p.m.)

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CERTIFICATE

This is to certify that the within panel hearing consisting of Sixty-Eight (68) pages, is a true and correct transcript of the testimony given by said witnesses after being duly sworn; said hearing was reported by the method of Stenomask with Backup.

I further certify that I am neither employed by nor related to any of the parties in this matter or their counsel; nor do I have any interest, financial or otherwise, in the outcome of same.

IN WITNESS WHEREOF I have hereunto set my hand and seal on August 23, 2006.

Robin K. Reibold
Court Reporter

Notary Public for South Carolina
My Commission Expires: May 11, 2011

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THE STATE OF SOUTH CAROLINA
Administrative Law Court

APPEAL FROM THE SOUTH CAROLINA
STATE BOARD OF DENTISTRY

Docket No. 06-ALJ-11-0562-AP
[In Re: Case No. 04-45]
Docket No. 06-ALJ-11-0563-AP
[In Re: Case No. 03-104]

Anonymous No. 1, R.D.H., and Anonymous No. 2, R.D.H. ..... Appellants,

v.

South Carolina Department of Labor, Licensing and Regulation,
South Carolina Board of Dentistry,.....Respondent.

CONSENT ORDER FOR JOINT RECORD ON APPEAL AND FOR REDACTION OF RECORD ON APPEAL

In this case, the Board of Dentistry elected to issue an anonymous public sanction to the two Appellants, who are licensed dental hygienists. The parties have agreed to, and the Court approves, the following procedures to be used in connection with the Record on Appeal in these cases:

1. These cases and two others (not the subject of any appeal) were tried at the same set of hearings, with a stipulation that the evidence in any of the four cases could be

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used in any other of the cases. As a result, it is appropriate that there be only one Record on Appeal for these two cases, and the Court so orders. The record shall include all evidence arguably relevant to the two Appellants, but need not include such evidence as pertains solely to the two nonappealing hygienists unless necessary to make the record comprehensible to the Court.

2. In order for the confidentiality of the names of the anonymous Appellants, as well as the names of the nonappealing hygienists and the patients involved in these cases, the parties shall redact the names of the hygienists and of their patients from the Record on Appeal and from the briefs. Hygienists shall be referred to as "Hygienist 1," etc. Patients shall be referred to by their initials. With the review and consent of appellants, the Board may arrange for the court reporter(s) of the hearing to provide substitute transcripts with these redactions made, but the Board shall retain its original versions of the transcripts as they existed prior to redaction, with copy to appellants. The parties understand that the Court may require the Record on Appeal to be amended if there are difficulties in understanding which persons are being referred to.

3. The Record on Appeal shall be filed on or before August 21, 2006, unless this date is extended by the Court.

AND IT IS SO ORDERED.

Carolyn C. Matthews
Administrative Law Judge

Columbia, South Carolina

August 2
July ___, 2006

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WE SO MOVE AND CONSENT:

Desa Ballard 7.28.06
Attorney for Appellants

Kenneth P. Woodington 8/1/06
Attorney for Respondent

CERTIFICATE OF SERVICE

This is to certify that the undersigned has this date served this order in the above entitled action upon all parties to this cause by depositing a copy hereof, in the United States mail, postage paid, or in the Interagency Mail Service addressed to the party(ies) or their attorney(s).

This 8th day of Aug. 2006

By: _____
Judicial Law Clerk

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MEDICAL UNIVERSITY OF SOUTH CAROLINA
COLLEGE OF DENTAL MEDICINE
CURRICULUM VITAE

Name:	William Daniel Sneed
Date:	June 1, 2000
Citizenship:	USA
Office Address:	MUSC College of Dental Medicine 173 Ashley Ave. STE 341 PO Box 250507 Charleston, South Carolina 29425 Office Phone: 843-792-3761 Office FAX: 843-792-2847 E-mail: sneedd@musc.edu

Education:

1965-1969	(A.B.) Erskine College Due West, South Carolina Honor Council, Vice President, Philomathean Literary Society, Vice President
1969-1973	(D.M.D.) College of Dental Medicine, Medical University of South Carolina, Charleston, Carolina
1976-1979	(M.A.T.) The Citadel, Charleston, South Carolina
1981-1985	(M.H.S.) College of Health Related Professions, Medical University of South Carolina, Charleston, South Carolina

Licensure:

1973-Present	South Carolina, #1771
1973	National Boards

Military Service:

Position/Station:

1973-1975	Lieutenant, U.S. Navy Cherry Point Marine Corps Air Station Cherry Point, North Carolina

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1976-1983	Captain, U.S. Army Reserve 350th Medical Detachment Charleston, South Carolina Training Officer, Supply Officer
1995.	Retired

Promotion History:

1983	Major, U.S. Army Reserve 350th Medical Detachment Charleston, South Carolina
1986-1989	Director, Clinical Team, 350th Medical Detachment, Ft. Jackson, S.C.
1986	Advanced Officer's Course Completion
1990	Lt. Col., U.S. Army Reserve 350th Medical Detachment Charleston, South Carolina
1992	Executive Officer 350th Medical Detachment Charleston, South Carolina

Military Decorations:

1989	Army Commendation Medal
1995	Meritorious Service Medal

Faculty Appointments:

1976	Associate of Operative Dentistry College of Dental Medicine Medical University of South Carolina Charleston, South Carolina
1978-1981	Assistant Professor of Operative Dentistry College of Dental Medicine Medical University of South Carolina Charleston, South Carolina
1982-1988	Associate Professor of Operative Dentistry College of Dental Medicine Medical University of South Carolina Charleston, South Carolina
1986	Tenure Granted
1988	Professor of Operative Dentistry College of Dental Medicine Medical University of South Carolina Charleston, South Carolina

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Administrative Appointments:

1983-1984	Assistant Chairman, Department of Operative Dentistry College of Dental Medicine Medical University of South Carolina, Charleston, South Carolina
1984-1986	Acting Chairman, Department of Operative Dentistry College of Dental Medicine Medical University of South Carolina, Charleston, South Carolina
1986-Present	Chairman, Department of General Dentistry College of Dental Medicine, Medical University of South Carolina Charleston, South Carolina

Other Professional Appointments/Employment:

1975-1976	Private Practice, Hemingway, South Carolina
1976-Present	Dental Faculty Practice, MUSC, Charleston, South Carolina

Hospital Appointments:

1975-1976	Lower Florence County Hospital, Staff Dentist Hemingway, South Carolina

Other Professional Activities:

1976	Administrator, Dental Admissions Test
1978 - 1980	Consultant to Association of American Colleges of National Library of Medicine
1980 - 1985	Administrator, National Board Examination
1986 - 1992	Consultant, Medical College of Georgia Mock Board
1990 - Present	Consultant to Council on Scientific Affairs, ADA
1994 - Present	Consultant, Holiday Dental Conference Foundation
1990 - 1993	Consultant, VA Hospital GPR Residency, Charleston, SC
1996 - Present	Consultant, Sybron/Kerr Round Table

Editorial Positions:

1987	Contributing Editor, SCDA Bulletin
1994 - Present	Editorial Board, Journal of Operative Dentistry
1985 - 1990	Reviewer for Dental Materials
1991 - 1995	Contributing Editor - Dental Study Club Magazine
1997 - 2002	Section Editor, Quintessence International
1997 - 2004	Editorial Board, Quintessence International
1998 - Present	Manuscript reviewer for General Dentistry
1998 - Present	Editorial Board, Journal of Esthetic Dentistry
1999 - 2003	Audio reviewer, Practical Reviews in Cosmetic Dentistry

Awards, Honors, Membership in Honorary Societies:

1982 - Present	OKU, Zeta Eta Chapter Vice President, 1992 President Elect, 1993 President, 1994
1983 - 1984	Outstanding Clinical Lecturer Award (student selection)
1983 - 1984	Outstanding Clinical Department Award (student selection) Acting Chairman
1985 1986	Outstanding Clinical Department Award (student selection) Chairman
1984	Chairman, OKU Membership Committee
1987 - Present	American College of Dentists
1988 - 1989	Outstanding Overall Department Award (student selection) Chairman
1989 – 1990	Chairman, Auditing Committee, OKU
1991	Chairman, Membership Committee, OKU

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1993	Chairman, Nominating Committee, OKU
1990 - 1991	Outstanding Overall Department Award (student selection) Chairman
1991 - Present	International College of Dentists
1991 - 2003	Pierre Fauchard Academy
1993	Professor of the Year, Medical University of South Carolina
1993	Governor's Distinguished Professor Award
1995	Who's Who in Dental Education
1996	Outstanding Clinical Professor Award (student selection)
2000	Meritorious Achievement Award, South Carolina Dental Association Board of Governors
2002-2003	Dentist of the Year: Charleston Dental Society
2004-2005	Dentist of the Year: SC Pierre Fauchard Academy

Membership in Professional/Scientific Organizations:

1973 - Present	American Dental Association
1975 - 1976	Pee Dee District Dental Society
1976 - Present	South Carolina Dental Association
1976 - Present	Coastal District Dental Society
1976 - Present	Cherry Point Study Club
1982 - Present	Academy of Operative Dentistry
1984 - Present	American Association of Dental Schools
1985 -1989	Member, Council on Dental Materials and Devices, Research, and Therapeutics Committee, SCDA
2000 - Present	Member, Academy of General Dentistry

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1986 - Present	Chairman, Dental Materials and Devices, Research, and Therapeutics Committee, SCDA
1986	Alternate Delegate, SCDA
1986-1990	Appointed to ADA Council of Dental Materials, Instruments and Equipment, 6th District
1986	Deputized by SC State Board as supervisor for state sealant program
1986 - 1987	Member, Joint Alumni Board, MUSC Alumni Association
1987	Chairman, Table Clinics Committee, S.C. State Convention
1987	Delegate - SCDA
1987	Ex officio member of Board of Directors, Coastal Dental Society
1988 - 1990	Peer Review Committee of Coastal District Dental Society
1989 - 1990	SCDA/DHEC Task Force to study dental needs in South Carolina
1989 - 1990	Served as evaluation sponsor of Interactive Video Disk Program
1990	Host, Southeastern Section Conference of Operative Dental Educators
1989 - Present	International Association of Dental Research
1989 - 2004	American Association of Dental Research
1989 - 1990	Appointed to SCDA/DHEC Oral Health Task Force
1989 - 1991	Member - Oral Biology Journal Study Club
1989	Chairman, Conference of Operative Dentistry Educators, Southeast Region
1992 - 1993	Chairman, Peer Review Committee, Coastal District Dental Society

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1996	Host Committee, SCDA Convention,
1997	Host Committee, SCDA Convention
1996-1999	Program Chairman, SCDA Convention, 1999
1997	Appointed alternate to the Joint Commission on National Dental Examinations 1997 Test Construction Committee in Operative Dentistry
1997 - 1999	Member, Professional Education Committee, SCDA
1997 - Present	Elected representative to AADS from CDM, MUSC
1999 - Present	Board, Section on Operative Dentistry, AADS
1999 - Present	Chair, Professional Education Committee, SCDA
2000	Host Committee, SCDA Convention, 2000
1999 - Present	Academy of General Dentistry
2002 - Present	Chair Task Force on Waste Water Issues SCDA
2001 - Present	Councilor, Academy of Operative Dentistry

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Major Teaching Responsibilities:

1976 - 1978	Coordinator, Preclinical Amalgam Course
1976 - Present	Lecture as part of team teaching Operative Courses
1976 - Present	Clinical Supervision in Operative Dentistry
1978 - 1984	Course Director, Dental Morphology
1982 - 1985	Course Director, Special Seminars (senior class)
1983 - 1985	Course Director, Laboratory Review of Clinical Practice (senior class)
1983 - 1986	Course Director, Advanced Lectures in Operative Dentistry (junior class)
1981, 1983	Examiner, Mock Board of Dental Hygiene Program, College of Health related Professions.
1984 - 1989	Course Director, Direct Gold and Expanded Applications for Tooth Colored Restoratives
1990 - Present	Mentor, lecturer in applied dental materials for graduate dental programs, MUSC

Academic Committee Activity:

<u>MUSC - University Level Committees</u>

1978 - 1980	Faculty Senate Representative, Electoral Unit Steering Committee, Chairman Faculty Affairs Committee Governance Committee
1983 - 1985	Faculty Senate Representative Faculty Affairs Committee
1984 – 1985	University Grievance Committee
1990	University Productivity Committee
1990	University Honorary Degree Committee
1990 - 1992	Faculty Senate Representative Faculty Affairs Committee

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1994 – 1996	University Tenure Committee
1996 – Present	University Classroom Upgrade Committee
1997	Member, University Grant Review Committee for Healthy S.C. Initiative
1998	Chairman, University Grant Review Committee for Healthy S.C. Initiative
1998	University Review Committee for Chairman, Department of Medicine
1998 - Present	Subcommittee on Educational Facilities
1998 - Present	University Continuing Education Committee
1999 - Present	University Convocation Committee
1999	Teaching Awards Committee
2000 -2002	Faculty Hearing Committee
2000	Consultancy Task Force
2002-present	Steering Committee for James B. Edwards College of Dental Medicine

MUSC - College of Dental Medicine

1976 – 1981	Preventive Dentistry Committee
1976 – 1981	Admissions Committee
1976 – 1978	Student Affairs
1977 - 1980	Operative Study Club
1978 - Present	Faculty Advisor Program
1980 - 1983	Faculty Representative for American Red Cross Blood Drives
1977 – 1981	Appointments and Promotions
1982 - 1983	Director of Comprehensive Care Program (senior class)

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1987 – 1997	Appointments and Promotions
1981 – 1985	Faculty Representative to Honor Council
1984	Search Committee for Chairman of Removable Prosthodontics
1984 – 1985	Clinical Affairs Committee
1988 – Present	Clinical Affairs Committee
1984 – Present	Curriculum Committee
1984 – 1986	Promotions Board (students)
1985 - 1986	Curriculum Review Committee
1985 – 1986	Research Committee
1985 – 1986	Continuing Education Committee
1985	Subcommittee of Curriculum Committee Coordination of Basic, Clinical and Behavioral Sciences
1986	Site Visit Review Committee
1986 – 1987	Chairman, Committee on Sterilization and Disinfection
1986 – 1987	Self-Study Subcommittee on Relationships and Administration
1986 – 1991	Health Matters Advisory Board
1986 –1988	Occlusion Committee
1987	Adhoc Committee on Simulated General Practice
1988	Dean's Advisory Committee
1989 – 1990	Chairman, Infection Control Subcommittee, Adhoc to Clinical Affairs Committee
1989 – Present	Academic Performance Committee
1989	College Grievance Committee
1990	Search Committee for Chairman, Orthodontic/Pedodontics

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1988 – Present	Alumni Committee
1989 – 1990	Executive Planning Committee
1991 – 1996	Chairman, Faculty Practice Committee
1991 – Present	Dean's Executive Advisory Board
1991 – 1993	Infection Control Committee
1991 – 1992	Planning Committee
1991	Adhoc Committee on Space
1991 - 1995	Treatment Planning Board
1992	Steering Committee for DMD/PhD Program
1993	Search Committee for Dean, CDM
1993	Search Committee for Chairman, Oral and Maxillofacial Surgery
1994	Strategic Planning Committee
1994	Accreditation Steering Committee
1994 – 1995	Chairman, Physical Plant Accreditation Subcommittee
1997 - Present	Chairman, Continuing Education Committee
1998 - 1999	Sealant Task Force, SCDA
1999 - Present	Facilities Planning Committee Chair, Predoctoral Clinic Design Committee for new clinical bldg.
2003 - Present	Liaison for CDM with Southern Regional Testing Association

Extramural Funded Research:

1991 $1,600 grant from L.D. Caulk Co. to study shear bond strengths

1992 – 1995 NIH Grant Administrator for $290,000 grant to establish AEGD Graduate Program

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Conference Grants Received:

2000 $22,000.00 NIDCR (Carious Lesions: Management Alternatives)

2000 $12,000.00 Centers for Disease Control (Carious Lesions: Management Alternatives)

Intramural Funded Research:

1980 $1,000 to study solubility of cements

Publications:

Articles in Peer-Reviewed Journals:

1. Lawson BF, Stout FW, Ahern DE, and Sneed WD: The incidence of enamel hypoplasia associated with chronic pediatric lead poisoning. S.C. Dent. J. 29:5-9, Nov., 1978. Abstract: Journal of Dental Research, Vol. 50, 1971, Abstract #723.

2. Sneed WD, Draughn RA: Effect of 70% Isopropyl Alcohol on the Strength of a Composite Restorative Material. Journal of Operative Dentistry, Vol. 5, Spring,1980.

3. Sneed WD, Draughn RA: Effect of Alcohol on the Strength of a Composite Resin. Dental Abstracts, Vol. 26, No. 2, 67, Feb., 1981.

4. Sneed WD, Miller R, Olson J: Tear Strengths of Ten Elastomeric Impression Materials. J. Prosthet. Dent. , 36:511, 1983.5

5. Sneed WD, Miller R, Olson J: Tear Strengths of Ten Elastomeric Impression Materials, Dental Abstracts, Vol. 28, No. 7, 376, April, 1983.

6. Sneed W.D., Hembree, J.H., Welsh, E.L.: Effectiveness of Three Cavity Liners in the Leakage of a High Copper Amalgam. Journal of Operative Dentistry, Vol. 9, Winter, 1984.

7. Sneed WD, Finkbine D: Compressive Strengths of Dispersalloy and Tytin Related to Condensation Technique. Quintessence International, No. 12, 1299, Dec., 1984.

8. Sneed WD, Taylor TJ, Hembree JH: Proximal Margin Adaptation: A Comparison Between Conventional and Slice Inlay Preparations. Quintessence International, Vol. 16, 545-546, August, 1985.

9. Sneed WD, Looper SW: Shear Bond Strength of a Composite to an Etched Glass Ionomer. Dental Materials, Vol. I, No. 4, 127-128, August, 1985.

10. Hembree JH, Sneed WD, Looper S: Infiltrazione Marginale in Vitro Di Corone Fuse Fissate con Resine Composite A Superfici Mordenzate. (Reprint in Italian) Dental Digest Quintessence International, Vol. 7, 615-619, 1986.

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11. Sneed WD, Finkbine D: Resistenza Alla Compressione dell'Amalgama Dispersalloy e Tytin in Rapporta Alla Tecnica di Condesazione. (Reprint in Italian) Dental Digest Quintessence International, Vol. 5, 551-553, 1985.

12. Sneed WD, Taylor TJ and Hembree JH.: Inlay Preparations: Conventional or Slice Design . Dental Abstracts, Vol. 30, No. II, 750-751, November, 1985.

13. Sneed WD, Taylor TJ, Hembree JH: Proximal Margin Adaptation: A Comparison Between Conventional and Slice Inlay Preparations. General Dentistry, Vol. 34, No. 2, 166, March-April, 1986. (Reprint)

14. Hembree, J.H., Sneed, W.D., Looper, S.: In Vitro Marginal Leakage of Acid-Etched Composite Resin Bonded Castings. Quintessence International, Vol. 17, No. 8, 479-482, 1986.

15. Sneed, W.D., Taylor, T.J., Hembree, J.H.: Slice vs. Conventional Inlay Preparations, Compendium of Continuing Education, Vol. VII, No. 8, 542, 1986. (Reprint)

16. Holmes RH, Sneed WD: Treatment of Severe Chemomechanical Erosion Using Castable Ceramic Restorations and a New Dentin/Enamel Bonding System. Quintessence International,Vol. 21, No. 11, 863-867, 1990.

17. Kays BT, Sneed WD, Nuckles DN: Microhardness of Class II Composite Resin Restorations with Different Matrices and Light Positions, Journal of Prosthetic Dentistry, Vol. 65, No.4, 487-490, 1991.

18. Nuckles DB, Sneed WD, et al.: Faculty Differences in Replacement Decisions for Amalgam Restorations. Quintessence International, Vol. 22, No. 7, 533-540, 1991.

19. Holmes, R., Sneed, W.D.: Tratamiento de las erosiones quimicomecanicas severas con restauraciones coladas de ceramica y un nuevo sistema de adhesion dentina-esmalte: presentacion de un caso, Quintessence International, Vol. 5, No. 7, 388-391, 1992.

20. Wakefield C, Sneed, WD, Draughn RA, Davis TN: Bonding Composite To Dentin and Enamel: Effect of Humidity. General Dentistry, November-December, 1996.

21. Wakefield C, Draughn R, Sneed D, Davis T: Shear Bond Strengths of Six Bonding Systems Using the Pushout Method of In Vitro Testing. Operative Dentistry, March-April, Vol. 23, No. 2, 69-76, 1998.

22. Knight JS, Sneed WD: Restoration of Extensive Erosion Areas Using an Indirect Composite Technique. J Esth Dent, Vol. 12, No. 1, 5-9, 2000.

23. Knight JS, Sneed WD: Strength of Composite Bonded to Base Metal Alloy Using Dentin Bonding Systems. J Pros Dent, August, Vol 84, No. 2, 149-153, 2000.

24. Updyke J, Sneed WD: Placement of a preformed indirect resin composite shell crown: A case report. Pediatric Dent, 23:2, 143-144, 2001

25. Sneed WD, Knight JS: Simple Technique to Fabricate Provisional Restorations for Porcelain Veneers. J Esthet Dent 13:115-119, 2001.

26. Sneed WD, Knight JS. Critical Appraisal—Xylitol. J Esth Rest Dent, Vol 16, No 2, 137 142, 2004.

27. SneedWD: Commentary on Effect of Leucite Content of Porcelain, Types of Etchant and the Etching Time on Porcelain-Composite Bond (manuscript J Esth Rest Dent, 2006) Accepted.

Chapters in Textbooks and Monographs:

1. Hembree, J.H., Sneed, W.D.: Dental Hygiene Examination Review. 2nd Edition, Section on Dental Materials, Edited by Thomas H. Armstrong and Caren M. Barnes, Arco Publishing, Inc., New York, New York, 1983.

Reviews and Letters to the Editor:

1. Sneed, W.D.: The Integrity of the Institution, Quintessence International, Vol 27, 725-726, 1996.

2. Sneed, W.D.: Adhesive, Metal-Free Restorations, Quintessence Publishing Co., Reviewed for Journal of Operative Dentistry.

2. Sneed, W.D.: Ask the Expert Column. Journal of Esthetic Dentistry, Vol 11, No 6, 289-290, 2000.

3. Sneed WD: Commentary. Journal of Esthetic Dentistry, Vol 17 (5).

Other Publications:

1. Sneed, W.D., Nuckles, D.B.: Shade Determination Prior to Field Isolation. Dent. Survey, April, 1978.

2. Hembree, J.H., Fowler, L.T., Heffron, R.G., Kays, B.T., Sneed, W.D.: Relative Accuracy of Elastomer Impression Materials. S.C. Dent. J., Summer, 1980.

3. Sneed, W.D., Finkbine, D.: Strength of Amalgam Influenced by Compaction Technique (reprint). Clinical Research Associates Newsletter. Vol. 9, Issue 6, June, 1985.

4. Collins, D.E., Hook, C.R., **Sneed, W.D.**, Welsh, E.L.: Tooth Colored Restoratives - A Summary of Current Concepts and Applications. DMD Magazine, Spring,1985.

5. **Sneed, W.D.**: Dentin Hypersensitivity - Cause and Treatment. The Contact - MUSC Newsletter, Nov. 1991.

6. **Sneed, W.D.**: Management of the Carious Lesion Part I. Cosmetic Dentistry Select. June, 2002 Vol 2, No 8.

7. **Sneed, W.D.**: Management of the Carious Lesion Part II. Cosmetic Dentistry Select. July, 2002, Vo. 2, No 9.

8. **Sneed, W.D.**: Dentin Hypersensitivity - Cause and Treatment. The Contact - MUSC Newsletter, Nov. 1991.

Instruction Manuals:

1979	Laboratory Manual for Dental Morphology
1979	Developed Manual Dexterity Test

Audio/Video Tapes:

1978	Video Tape: "Condensation and Carving of a Class II Amalgam", MUSC,
1980	"Anterior Restoratives", ETV, Oct. 9, 1980
1989	Video Tape: "Introduction to the Operative Clinic"
1991	Video Tape: "Direct Composite Veneering", HCN T.V. Network
1988	"Direct Composite Veneering" HCN Statewide T.V. production , April 18, 1988
1999-2004	Produce continual audio review tapes for "Practical Reviews in Cosmetic Dentistry". Oakstone Publishing.

Other:

1989 Developed a cosmetic dentoform, lab exercises, audiovisuals and literature to support the course "Direct Gold and Expanded Applications for Tooth Colored

Restoratives".

2000 Organized and produced an international conference on "Carious Lesions: Management Alternatives" in Charleston, South Carolina, September 15-17, 2000.

2001 Management Alternatives for the Carious Lesion. Supplement 6, Journal of Operative Dentistry, 2001

Professional Presentations:

Continuing Education Program Presentations:

1. "Review of General Dentistry", South Carolina Dental Assistants' Association, Charleston, SC, Sept. 18, 1976.

2. "Current Concepts in Operative Dentistry", Edisto Study Club, Orangeburg, S.C., Jan. 12, 1979.

3. "Current Concepts in Composite Resins", Pee Dee Study Club, Florence, S.C., Aug. 7,1979.

4. "Current Concepts in Composite Resins", Sumter Study Club, Sumter, S.C., Sept.,1979.

5. "Anterior Restoratives, An Overview", Cherry Point Study Club, Sept. 12-15, 1980, Boston, Mass.

6. "Anterior Restoratives, An Overview", Edisto Study Club, Orangeburg, S.C., Oct.14,1980.

7. "Contemporary Cavity Preparations", Anderson Dental Society, Anderson, S.C., May 12, 1981.

8. "Preparation Design for Single Unit Restorations", ASDA Clinic Day, Charleston, S.C., April 16, 1982.

12. "Contemporary Cavity Preparations", Greater Columbia Dental Society, Columbia, S.C., November 15, 1982.

13. "Update in Operative Dentistry", Cauldwell Dental Clinic, Ft. Jackson, Columbia, S.C., DENTAC, Feb., 1983.

14. "Acid Etch Retained Metal Bridges." Charleston Dental Hygiene Association, Charleston, S.C., Oct. 6, 1983.

15. "Expanded Applications of Anterior Restoratives", Tri-County Study Club, Rock Hill, S.C., Feb. 10, 1984. (1/2 day)

16. "Expanded Applications of Anterior Restoratives", Edisto Study Club,Orangeburg, S.C., April 10, 1984.
14. "The Cervically Abraded/Eroded Lesion", Charleston Dental Society, Charleston, S.C., November 2, 1984.

15. "Introduction to Dental Anatomy", U.S. Army Reserve, Charleston, S.C., Nov., 1,1984.

16. "Update on the Maryland Bridge", Tri-County Dental Study Club, Marriott Hotel, North Charleston, S.C., Feb. 18, 1985.

17. "Current Concepts in Adhesive Dentistry", Spartanburg County Dental Society, Spartanburg, S.C., March 4, 1985.

18. "Clinical Management of the Cosmetically Compromised Tooth", Upper Savannah AHEC, Greenwood, S.C., May 14, 1985.

19. "An Update on Bonding", Greater Charleston Dental Study Club, Charleston, S.C., Nov.12,1985.

20. "Expanded Applications for Tooth Colored Restoratives", South Carolina Society of Dentistry for Children, Columbia, S.C., Feb. 8, 1986.

21. "Expanded Applications for Tooth Colored Restoratives", Piedmont District Dental Society, Clemson, S.C., Feb. 21, 1986.

22. "Cosmetic Contouring," Anderson Dental Society, Anderson, S.C., March 11, 1986.

23. "Glass Ionomers and the Posterior Composite Restoration", Pee Dee DistrictDental Society, Myrtle Beach, S.C., March 14, 1986.

24. "Operative Dentistry - An Update of a Dynamic Science - A Limited Participation Course", College of Dental Medicine, MUSC, Charleston, S.C., May 17, 1986.

25. "Dental Cements and Composite Resins - The Materials", Coastal District Dental Society, Charleston, S.C., Oct. 10, 1986.

26. "Expanded Applications of Tooth Colored Materials and Esthetics in Dentistry" – Tri-County Study Club, Rock Hill, S. C., May 22, 1987.

27. "Operative Dentistry, Update of a Dynamic Science" - Participation course, Department of Continuing Education, MUSC., June 5-6, 1987.

28. "Posterior Composites" - Grand Strand Study Club, Myrtle Beach, S.C., June 23, 1987.

29. "Adhesive Dentistry" - Coastal Study Club, Charleston, S.C., November 4, 1987.

30. "Adhesive Dentistry" - MUSC Alumni Weekend, Charleston, S.C., November 7, 1987.

31. "Adhesive Dentistry" - Charleston Dental Society, Charleston, S.C., March 25, 1988.

32. "Adhesive Dentistry" - Spartanburg County Dental Society, Spartanburg, S.C., February 1, 1988.

33. "Adhesive Dentistry" - Florence Dental Society - Florence, S. C., April 12, 1988.

34. "Posterior Composite Restorations" - General Practice Residents, V.A. Hospital, Charleston, S.C., May 11, 1988.

35. (Course Director for a 72 hour participation course for the Academy of General Dentistry offered August 18,19,20, and 21, 1988)

36. "Color, Contouring and Esthetics" - MUSC Mini-series, Greenville, S.C., October 24, 1988.

37. "Expanded Applications for Tooth Colored Materials" - University of Mississippi Medical Center, Jackson, Mississippi, February 11, 1989.

38. "Glass Ionomer Materials and Resin Retained Metal Bridges" - V.A. Hospital, Charleston, S.C., March 28, 1989.

39. "Porcelain Veneers and Porcelain Repair" - V.A. Hospital, Charleston, S.C., May 23, 1989.

40. "Resin Retained Metal Bridges" - Low Country Study Club, Beaufort, S.C., June14, 1989.

41. "Porcelain and Metal Adhesion" - AGD Mastership Program, Charleston, S.C., August 18, 1989.

42. "Adhesive Dentistry" - Darlington Dental Society, Florence, S.C., September 5, 1989.

43. "Adhesive Dentistry" - Edisto Study Club, Orangeburg, S.C., September 12, 1989.

44. "Adhesive Dentistry" - VA Hospital, Charleston, S.C., October 11, 1989.

45. "Update on Modern Operative Dental Materials" - Dental Assistants Association, Charleston, S.C., December 4, 1989.

46. "Update on Modern Operative Dental Materials" - East Cooper Dental Study Club, Mt. Pleasant, S.C., January 11, 1990.

47. "Adhesive Dentistry" - MUSC Mini-Series, Rock Hill, S.C., February 5, 1990.

48. "Adhesive Materials to Dentin" - Florence Dental Society, Florence, S.C., February 13, 1990.

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49. "Adhesive Dentistry" - North Carolina Academy of General Dentistry, Charleston, S.C., February 24, 1990.

50. "Overview of Operative Dentistry" - Charleston Dental Assistants Society, Charleston, S.C., March 24, 1990.

51. "Conservative Alternatives in Operative Dentistry" - Charleston Dental Society, Charleston, S.C., March 27, 1990.

52. "Dentin Adhesives" - Pee Dee Dental Study Club, Florence, S.C., April 3, 1990.

53. "Dentin Adhesives" - Low Country Study Club, Beaufort, S.C., April 18, 1990.

54. "Adhesion in Dentistry" - Catawba Dental Study Club, Rock Hill, S.C., June 26, 1990.

55. "Dentin Adhesives" - V.A. Hospital, August 20, 1990.

56. "Vital Bleaching and Other Conservative Operative Techniques" - Pee Dee Dental Study Club, Florence, S.C., September 4, 1990.

57. "Color and Contouring" - Chas. Naval Dental Clinic, Charleston, S.C. Nov. 2, 1990.

58. "Adhesive Dentistry" - Holiday Dental Conference, Charlotte, N.C., Dec. 1, 1990.

59. "Color and Contouring in Dentistry" - Holiday Dental Conference, Charlotte, N.C., Dec. 2, 1990.

60. "Adhesive Dentistry" - Academy of General Dentistry, Columbia, S.C., Dec. 7, 1990. 6 hours.

61. "Dentin Adhesives" - Isothermal Dental Society, Forest City, N.C., Jan. 22, 1991. (1 hr.)

62. "Biomechanical Principles of Operative Dentistry" - V.A. Hospital, Charleston, S.C., Feb. 6, 1991. (1 hr.)

63. "Operative Dental Materials" - Tulsa Study Club, Tulsa, Okla., March 3, 1991. (1 hr.)

64. "Hands on Course in Operative Dental Materials and Techniques" - Sherer Dental Laboratory, Rock Hill, S.C., April 27, 1991. (8 hrs.)

65. "Operative Dental Materials" - S.C. State Dental Convention, Charleston, S.C., May 3, 1991. (3 hr.)

66. "Metal Adhesives and Porcelain Repair" - Low Country Study Club, Beaufort, S.C., June 20, 1991. (1 hr.)

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67. "What is Operative Dentistry?" - Health Careers Opportunity Program, Charleston, S.C., July 8, 1991. (1 hr.)

68. "OSHA, Practical Office Walkthrough" - Rock Hill, S.C., October 18, 1991. (6 hrs.)

68. "Update in Adhesive Dentistry" - The Charleston Dental Society, Charleston, S.C., October 22, 1991. (1 hr.)

70. "Current Techniques and Materials in Operative Dentistry" - AHEC Mini Series, Greenville, S.C., March 25, 1992. (2 hrs.)

71. "Update in Composite Resin, Porcelain Veneers, and Tooth Colored Inlays" – Huffman Dental Labs, Charleston, S.C., April 1, 1992. (1 hr.)

72. "Current Techniques and Materials in Operative Dentistry" - Anderson County Dental Society, Anderson, S.C., April 14, 1992. (1 hr.)

73. "Current Techniques and Materials in Operative Dentistry" - AHEC Mini Series, Columbia, S.C., April 15, 1992. (2 hrs.)

74. "Adhesive Dentistry" - Coastal Dental Society, Savannah, GA, September 12, 1992. (4 hrs.)

75. "Adhesive Dentistry" - Spartanburg District Dental Society, Spartanburg, S.C., November 2, 1992. (1 hr.)

76. "Dentin Adhesion" - Practical Applications for Modern Materials", Tennessee Dental Society, Murfreesboro, TN, December 7, 1992. (1 hr.)

77. "Minimal Intervention Dentistry" and "Adhesive Dentistry" - Pee Dee District Dental Society, Florence, S.C., January 9, 1993. (6 hrs.)

78. "Dentin Adhesion, Practical Applications for Modern Materials", American Academy of Restorative Dentistry, Chicago, IL, February 20, 1993. (1 hr.)

79. "Dentin Adhesion", College of Dental Medicine Alumni Weekend, Charleston, S.C., February 27, 1993. (1 hr.)

80. "Dentin Adhesion", Edisto Dental Society, Orangeburg, S.C., March 11, 1993. (1 hr.)

81. "Adhesive Dentistry - Practical Applications for Modern Materials", Sherer Lab Seminar, Beach Cove Resort, Myrtle Beach, S.C., March 12, 1993. (4 hrs.)

82. "Adhesive Dentistry, Practical Applications for Modern Materials", Coastal District Dental Society, Charleston, S.C., March 19, 1993. (3 hrs.)

83. "Esthetic Dentistry", Rock Hill/Lancaster Study Club, The Omni, Charleston, S.C., April 16-17, 1993. (4hrs).

84. "Four Day, Hands-on Participation Course, Academy of General Dentistry, Medical University of South Carolina, Charleston, SC, August 21-24, 1993.

85. "Dentin Adhesives", Greenwood AHEC, Greenwood, SC, September 14, 1993.

86. " Dentin Adhesives", Kershaw County Dental Society. Lugoff, SC , September 29,1993.

87. "Cervically Eroded Lesions", "Caries Management", Management of the Deep Carious Lesion Through Adhesive Dentistry," Rock Hill Study Club, 3 hours, Rock Hill, SC, October 15, 1993.

88. "Resin Retained Adhesive Metal Bridges", Coastal Study Club, Charleston, S.C., December 1, 1993.

89. "Adhesive Dentistry: Practical Applications for Modern Materials", St Paul, Minn., March 25, 1994. 6 hours:

90. "Expanded Applications for Tooth Colored Materials Through Adhesive Dentistry", The Hinman Meeting (Special Lecturer), Atlanta, GA. March 18 &19, 1994. 6 hours.

91. "Expanded Applications for Tooth Colored Materials Through Adhesive Dentistry", Rock Hill Study Club, Charleston, S.C., March 25, 1994. 3 hours.

92. "Expanded Applications for Tooth Colored Materials Through Adhesive Dentistry", South Carolina State Dental Convention, Myrtle Beach, S.C., April 30, 1994. 3 hours.

93. "Dentin Adhesion", Low Country Study Club, Beaufort, S.C., June 15, 1994. 1 hour.

94. "Expanded Applications for Tooth Colored Materials Through Adhesive Dentistry", Bogota, Columbia, S.A., - IX Congress of the International Academy of Gnathology, Latin Section Bogata, Columbia, S.A., September 13-16, 1994. 5 hours.

95. "Update on Modern Dental Materials", S.C. Dental Assistants Association, Columbia, S.C., November 28, 1994. 2 hours.

96. "Tips and Tidbits for the Operative Dentist", Holiday Dental Conference, Charlotte, N.C., December 1, 1994. 1.5 hours.

97. "Erosion, Cause and Cure", Holiday Dental Conference, Charlotte, N.C., December 3, 1994. 1.5 hours.

97. "Comprehensive Update on Adhesive Dentistry", Holiday Dental Conference, Charlotte, N.C., December 4, 1994. 3.5 hours.

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99. "Dentin Adhesion," Four Corners Study Club, Kinston, N.C., January 4, 1995. 2 hours.

100. "Materials and Techniques in Operative Dentistry", Greater Columbia Dental Society, Columbia, S.C., January 16, 1995. 1 hour.

101. "Composite Resins, Dentin Adhesives and Glass Ionomers", Sales Force for Thompson Dental Co. (S.C., Ga., Fla., N.C.) Charleston, S.C., January 27, 1995. 1.5 hours.

102. "Operative Pearls", Florence Dental Society, Florence, S.C., 2/14/95. 1 hour.

102. "Operative Pearls" MUSC, Dental Alumni Association, Charleston, S. C., 2/25/95, Panel of Speakers.

103. "Dentin Adhesives, Glass Ionomers, and Cements", Pee Dee Study Club, Florence, S.C. April 4, 1995. 1 hour.

104. "Resin Bonding, State of the Art", Central, Eastern and Southern Georgia Dental Societies, St. Simon's Island, Georgia. April 21-22, 1995. 7 hours.

105. "Resin Bonding, State of the Art", Carl O. Boucher Prosthodontics Society, Columbus, Ohio. April 28, 1995. Keynote Speaker 1.5 hours.

106. "Resin Bonding, State of the Art", South Carolina Dental Association Convention. Charleston, S.C. May 6, 1995. 3 hours.

107. "Resin Bonding, State of the Art", Bowman Gray Dental Series, Bowman Gray Medical University, Kiawah Island, S.C. June 24, 1995. (4 hrs)

108. "Expanded Applications for Modern Materials Using Adhesive Systems to Optimize Esthetics and Function" The Centre de Perfedtionnement en Odonto-Stomatologie, Marseille, France, October 12-14, 1995. (18 hrs)

109. "Adhesive Dentistry, the Materials and Techniques that have Changed the Face of Dentistry", Greater New York Dental Meeting, New York, New York, November 27, 1995. (2.5 hrs)

111. "Update in Operative Dentistry", Edisto Study Club, Orangeburg, S.C., January 9, 1996. (1 hr)

112. "Dental Materials and Techniques - Making It Stick" American College of Dentists, Carolinas Section. Charlotte, N.C. February 3, 1996. (4 hrs)

113. "Luting Cements" - Charleston Dental Society. Charleston, S.C. February 27, 1996. (1 hr).

114. "Luting Cements" - Spartanburg Dental Society. Spartanburg, S.C. March 5, 1996. (1 hr.)

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115. "Making It Stick" - Ernest M. Jones Memorial Lectureship. 50th Anniversary of the University of Washington Dental Alumni Association. Seattle, Washington. March 21, 1996. (6 hrs.)

116. "Resin-Ionomers, Restorations and Cements" - Florence Dental Society. Florence, S.C. April 9, 1996. (1 hr.)

117. "Resin-Ionomers, Restorations and Cements" - SNDA Alumni Meeting. Charleston, S.C. April 11, 1996.

118. "Making It Stick - The Many Practical Uses for Adhesive Dental Materials" - The Harrell Symposium, Alumni Weekend, University of North Carolina School of Dentistry. Chapel Hill, N.C. April 20, 1996. (3 hrs)

119. "Making It Stick - The Many Practical Uses for Adhesive Dental Materials" - Ohio State Alumni Weekend, Columbus, Ohio. April 27, 1996. (3 hrs)

120. "One-Bottle Bonding Agents and Resin-ionomers", East Regional L.D. Caulk Sales Force, Charleston, S.C. July 17, 1996. (1.5 hrs)

121. "Restorative Dental Materials - The Art and Science Required for Success", New England Master Track, Portland, Maine. October 18-19,1996. (16 hours).

122. "Update in Operative Dentistry - Dentin Adhesion, Cements, and C-Posts", Greenwood Dental Society, Greenwood, S.C. January 14, 1997. (1.5 hours).

123. "Dentin Adhesion, Posterior Tooth-colored Restoratives, and C-Posts", Greater Florence Dental Study Club, Florence, S.C. February 8, 1997. (4 hours).

124. "Posterior Tooth-colored Restoratives and C-Posts", Edisto Study Club, Orangeburg, S.C. February 11, 1997. (1 hour).

125. "Adhesive Operative Dentistry", New England Mastertrack, Hartford, Conn. March 16, 1997. (6 hours).

125. "Making It Stick - The Many Practical Applications for Adhesive Dental Materials". California Dental Association State Convention, Anaheim, CA. April 19, 1997. (5 hours).

127. "Making It Stick". Charleston Dental Society, Charleston, S.C., May 27, 1997. (1 hour).

128. "Operative Dentistry Update", Central District Dental Society, Columbia, S.C., September 26, 1997. (3 hours).

129. "Materials and Techniques for Esthetic Operative Dentistry", Tulsa County Dental Society, Tulsa, Oklahoma. November 7, 1997 (6 hours).

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130. "Posterior Tooth-Colored Materials." Low Country Study Club, Beaufort, S.C. January 4, 1998. (1 hour).

131."Posterior Tooth-Colored Materials", Aiken County Dental Society, Aiken, S.C. January 5, 1998, (1 hour).

132."Aesthetics and Operative Overview." New England Master Track, Mystic, Connecticut. March 27-28, 1998, (16 hours).

133."Adhesive Dentistry", South Carolina State Dental Convention, Myrtle Beach, S.C. May 2, 1998. (4 hours).

134."Practical Applications for Aesthetic Dental Materials", Department of Health and the College of Dental Surgeons of Hong Kong, Hong Kong; May 13, 1998. (2 hours).

135."Practical Applications for Aesthetic Dental Materials", Philippine Dental Association, Manila, Philippines, May 15-16, 1998. (6 hours).

136."Indirect Resin Restorations", Sumter Dental Study Club, Sumter, S.C. May 19, 1998, (1 hour).

137."Indirect Resin Restorations", Florence Dental Society, Florence, S.C. June 9, 1998, (1 hour).

138."Overview of Dental Aesthetics", Wake Forest University, Hilton Head, S.C. June 27, 1998. (2 hours).

139."Aesthetic Dentistry for the New Millennium", MUSC Charleston, S.C., August 13-16, 1998. (2 hours). Co-Director and Organizer for this Three Day Meeting with over 200 dentists in attendance.

140. "Adhesive, Non-metalic Restorations," Inforam, Atlanta, GA, October 16, 1998. (6 hours).

141. Mentor for New England AGD Master Track Program, Hotel Intercontinental, Montreal, Canada, October 18, 1998. (6 hours).

142. "Erosion, Cause and Cure", Aiken County Dental Society, Aiken, South Carolina, January 21, 1999. (1 hour).

143. "Advances in Operative Dentistry", Catawba Dental Study Club, Charleston, South Carolina, January 29, 1999. (4 hours).

144. "Posterior, Indirect Resin Restorations", Greenwood County Dental Society, Greenwood, South Carolina, February 9, 1999. (1 hour)

145."Advances in Operative Dentistry", Pee Dee District Dental Society, Myrtle Beach, South

Carolina, February 20, 1999. (6 hours)

146. "Posterior, Indirect Resin Restorations", Charleston Dental Society, Charleston, South Carolina, February 23, 1999. (1 hour).

147. "Erosion, Cause and Cure", Spartanburg Dental Society, Spartanburg, South Carolina, May 3, 1999. (1 hour).

148. "Indirect, Posterior, Metal Free Restorations", Greenville County Dental Society, Greenville, South Carolina, May 17, 1999. (1 hour).

149. "Adhesive, Metal Free Restorations", Delta Dental of Tennessee, Nashville, Tennessee, June 5, 1999. (6 hours)

150. "Indirect, Posterior, Metal Free Restorations", Aesthetic Dentistry for the New Mellinnium, Charleston, SC, August 14, 1999. (2.5 hours).

151. "Indirect, Posterior, Metal Free Restorations", Pee Dee District Dental Society, Myrtle Beach, SC, October 29, 1999. (1.5 hours).

152. "Adhesives and Posterior, Metal Free Restorations", Holiday Dental Conference, Charlotte, NC, December 2, 1999. (3 hours).

153. "Update on Bleaching and Indirect Tooth Colored Restorations", Edisto Study Club, Orangeburg, SC, January 11, 2000. (1 hour).

154. "Posterior Tooth Colored Restorations and Adhesives in Dentistry", South Carolina Dental Assistants Society, Charleston, SC, January 22, 2000. (4 hours).

155. "Recent Developments in Operative Dentistry", Anderson Dental Society, Anderson, SC, March 14, 2000. (1 hour).

156. "Cements and Cementation", Aiken Dental Society, Aiken, SC, March 16, 2000. (1 hour).

157. "Posterior Tooth Colored Restorations", Greater Columbia Dental Society, Columbia, SC, April 17, 2000. (1 hour).

158. "Erosion, Cause and Cure" Greenwood Dental Society. Greenwood, SC, May 9, 2000. (1 hour).

159. "International Conference on Alternatives to the Management of Carious Lesions" Conference Moderator, Charleston, SC, September 15-17, 2000. (24 hours)

160. "Esthetic Dentistry" Catawba Study Club. Rock Hill, SC, Feb 2, 2001. (6 hours).

161. "Recent Developments in Operative Dentistry" Spartanburg, SC, March 5, 2001. (1 hour).

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162. "Operative Pearls and Procedures" USA Section - International College of Dentists, Charleston, SC, July 27, 2001, (3 hours).

163. "Practical Applications for Modern Materials" New England AGD Masters Study Club, Concord, NH, November 2-3, 2001, (16 hours).

164. "Naturally Shaded Anterior Composite Restorations, a Hand's-on Course" SC Academy of General Dentistry Annual Meeting, Charleston, SC, January 12, 2002. (3 hours).

165. "Potpourri of Operative Pearls and Procedures" Southeastern Dental Society, Savannah, GA, January 25, 2002, 6 hours.

166. "Adhesives, Resin Composites, Sensitivity and Cements" Hinman Members Meeting, Atlanta, GA, September 23, 2002, 3 hours.

167. "Adhesive Dentistry" Drake Dental Labs, Charlotte, NC, October 11, 2002, 1 hour.

168. "Adhesive Dentistry" Charleston Dental Society, Charleston, SC, October 22, 2002, 1 hour.

169. "Adhesive Dentistry" Edisto Study Club, Orangeburg, SC, November 13, 2002, 1 hour.

170. "Esthetics with Anterior Composites" Pee Dee District Dental Society, Camden, SC, March 6, 2003. 3 hours.

171. "Esthetics with Anterior Composites" SC Dental Convention, Charleston, SC, May 3, 2003

172. "Esthetics with Anterior Composites, Post Composites, Adhesives, Posts and Cores, Managing the Deep Carious Lesion" Combined meetings of Georgia Dental Association, St. Simons Island, Georgia, May 16-17, 2003. 6 hours.

173. "Advances in Dentistry" Association of Retired University Faculty. Charleston, SC, November 18, 2003. 1 hour.

174. "Anterior Resin Composites" Greater Columbia Dental Society. April 19, 2004. 1 hour.

175. "Multi-topics in Operative Dentistry" AEGD Residency - Ft. Jackson, S.C. April 22-23, 2004. 6 hours.

176. "Multi-topics in Operative Dentistry" North Carolina Dental Society - Myrtle Beach, SC. May 14, 2004 6 hours.

177. "Multi-topics in Operative Dentistry" Seminar at Sea (Alaskan Cruise Norwegian Star). July 18-25, 2004 12 hours.

178. "Best Management Practices for Amalgam Waste" Wastewater Treatment Managers Meeting. Columbia, SC. Nov 3, 2004, 1 hour.

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179. "Best Management Practices for Amalgam Waste" Edisto Study Club, Orangeburg, SC.,Nov. 9, 2004. 1 hour
180. "Multi-topics in Operative Dentistry" Clemson Dental Alumni Meeting, Nov, 2004. 3 hours.
181. "Cements" Florence Study Club, Florence Country Club, February 1, 2005, 1 hour.
182. "Anterior and Posterior Composite Resins", Implant Study Club, Columbia, SC, February 17, 2005, 2 hours.
183. "Anterior and Posterior Composites, Adhesion, and Caries Management" A Seminar at Sea. Georgia Dental Study Group. Caribbean Cruise. July 9-16, 2005. 6 hours.

Table Clinics:

1. Sneed, W.D. and Hembree, J.H. - "The Acid Etch Retained Metal Bridge", S.C. State Dental Association Convention, Charleston, S.C. May 14, 1983.

Other Presentations:

1. "Dentistry, Present and Future" - Health Professions Advisors Workshop, MUSC, Charleston, S.C., October 17, 1986 .

2. (Moderator) "Advancements in Cosmetic Dentistry" - Program by Jim Cason, National Field Sales Manager, Kulzer, MUSC, Charleston, S.C., Nov. 5, 1986.

3. (Moderator) "Advancements in Cosmetic Dentistry" - Program by Mr. Jim Cason, National Field Sales Manager, Kulzer, Savannah, Georgia, Nov. 6, 1986.

3. "Dental Materials Committee Report to the SCDA House of Delegates" - Myrtle Beach, S.C., May 14, 1988.

Community Activities:

1975-1976 St. Paul's Presbyterian Church, Hemingway, South Carolina, Youth Director

1976-1979 Harborview Presbyterian, Charleston, South Carolina, Youth Work

1979 Representative to Presbytery's Camp

1980-1984 Elder – Harborview Presbyterian Church
Clerk of Session 1984

1981 Served on Pulpit Search Committee, Harborview Presbyterian Church

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1984-1986 United Way Solicitor

1986-1988 Hollywood Exchange Club

1988- Present Ashley River Baptist Church, member

1988-Present Carolina Children's Charity volunteer

1992-1993 Finance Committee, Ashley River Baptist Church

Appendix A:

Date of Birth:	December 11, 1946
Place of Birth:	Greenville, South Carolina
Social Security #:	251-78-4081
Marital Status:	Married: January 31, 1969 Spouse: Cherrie Children: William Daniel Sneed, Jr., July 31, 1970 John Meador Sneed, October 5, 1975-April 28, 1990 (deceased)
Home Address:	5634 Church Flats Road Meggett, South Carolina 29449

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PATIENT NAME M Q

DATE	TOOTH	SURF.	PROCEDURE	INIT	FEE
5-8-03			RTH, NP Exam, Prophy - Rt to mod, Gingival plaque - Lt Lt tartar present. Polished. Opposed Panorex @ Box		
5/8/03	2	OB	RTH, 3 Comps 2Ms LDJ 1.00, 1.00		
	2	L			
	3	OB	L-Bite, TMJ Flow A2 Cent		
	3	L			
	4	O			
	5	O			
	5	L			
	28	O			
	29	O			
	30	OL			
	30	B			
	31	OL	Comp Pt TMJ ? MS Stable		
	31	B			
5/29/03	12	O	RTH, 3 Comps 2Ms LDJ 1.00, 1.00		
	13	O			
	14	OB	L-Bite, TMJ Flow A2		
	15	OB			
	15	L	Comp		
	14	L			
	18	OL			
	18	B			
	19	OL			
	19	B			
	20	O	Surface Coat		
	21	O			
3/1/04			Exam, Prophy, Bwx, Flt Lt Moderate plaque, bleeding Lt tartar	Comp	JLC
			RTH, 2 comps 4% Septo 1:100K Epi		
6/1/04	19	B	> comp, Lt post. point & A2		PN
	30	OL	recall ??		

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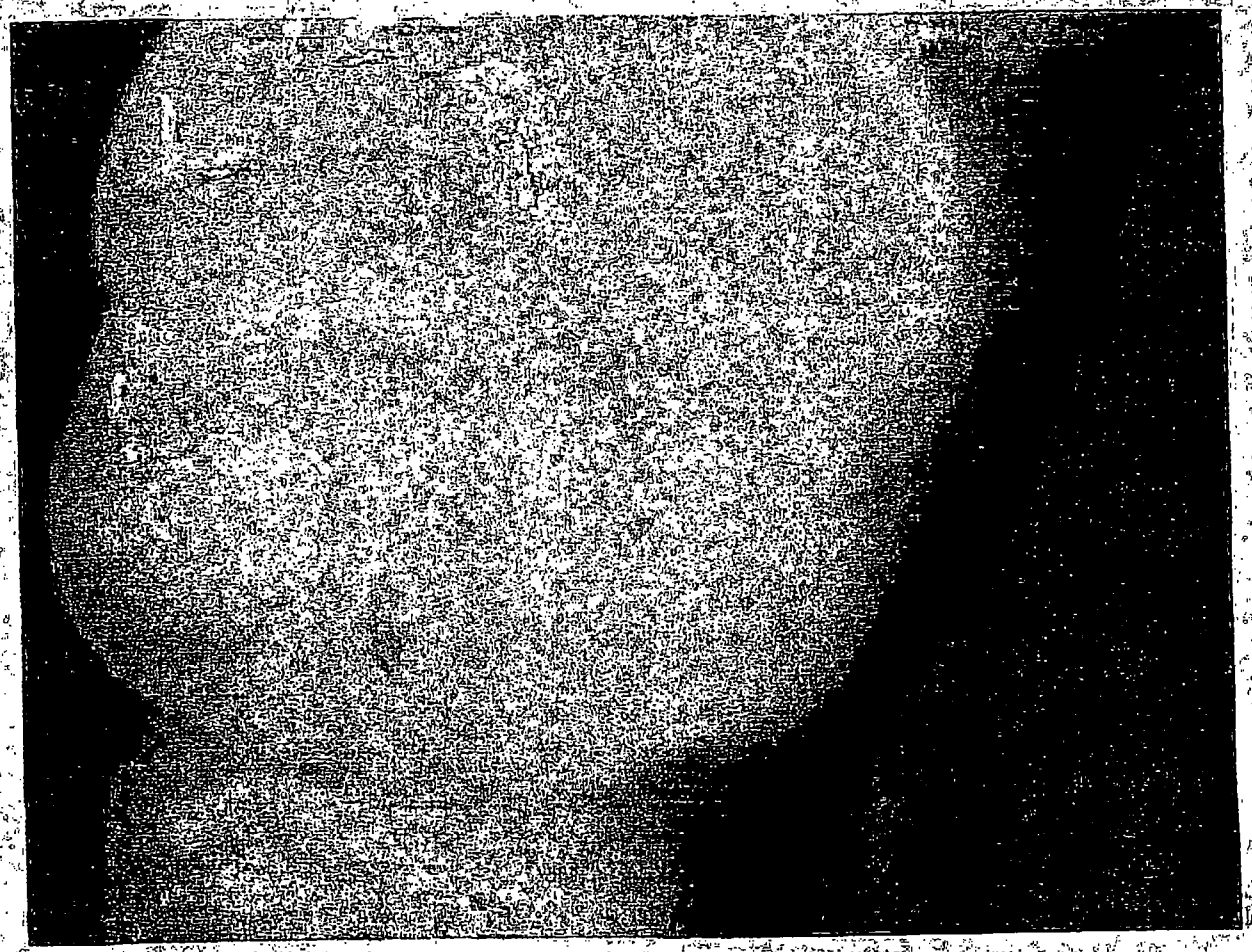
000711

Patient

[redacted]

Practice

Modern Family Dentistry
1818 Remount Rd.
Hanahan, SC 29406
843-744-6971



05/08/2003 14

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PETITIONER'S EXHIBIT

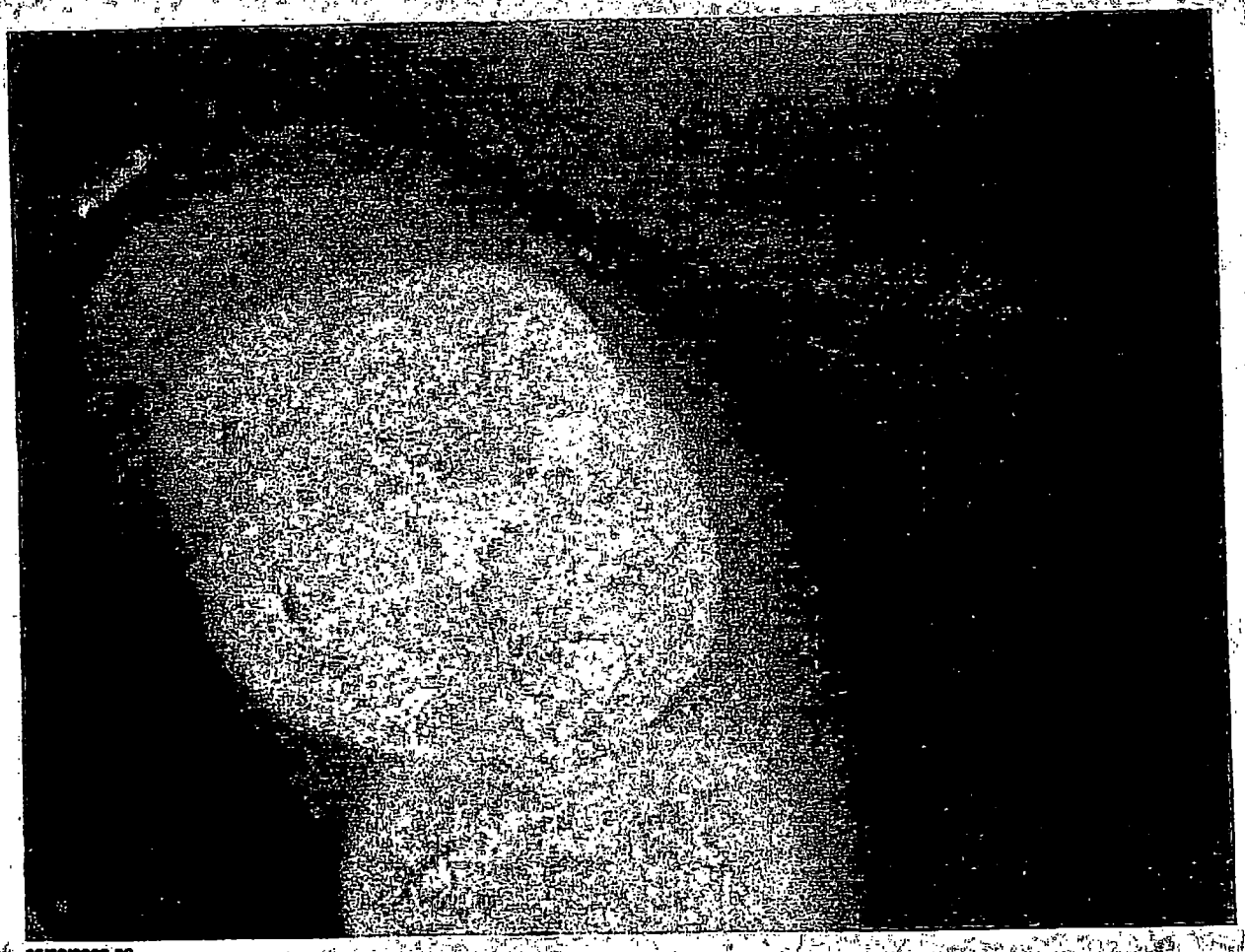
ROA Ct. of Appeals
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Patient

A [redacted] M

Practice

Modern Family Dentistry
1818 Remount Rd.
Hanahan, SC 29406
843-744-6971



05/08/2003 02

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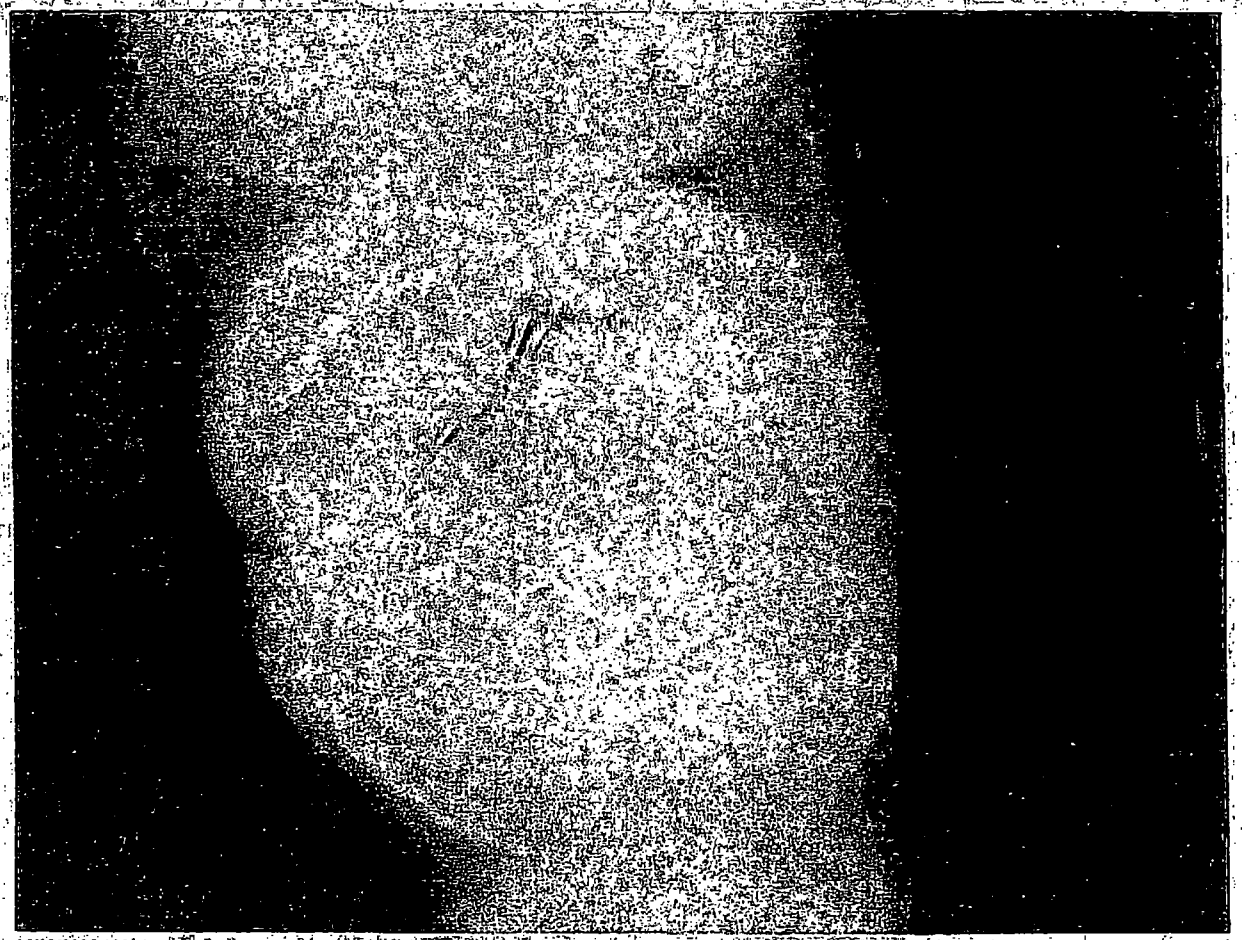
Patient

[redacted] M [redacted] M

[redacted]

Practice

Modern Family Dentistry
1818 Remount Rd.
Hanahan, SC 29406
843-744-6971



05/08/2003 03:

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HPS

DENTAL TREATMENT

Patient Name [redacted] School: Berkey Middle

Date of Birth: [redacted] Age: _____

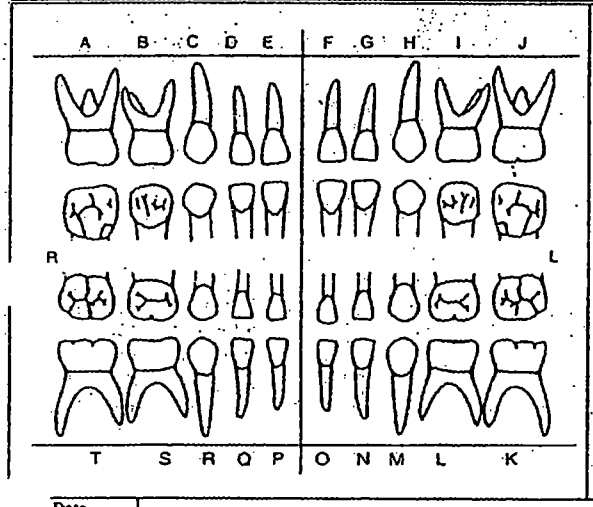
Social Security #: _____

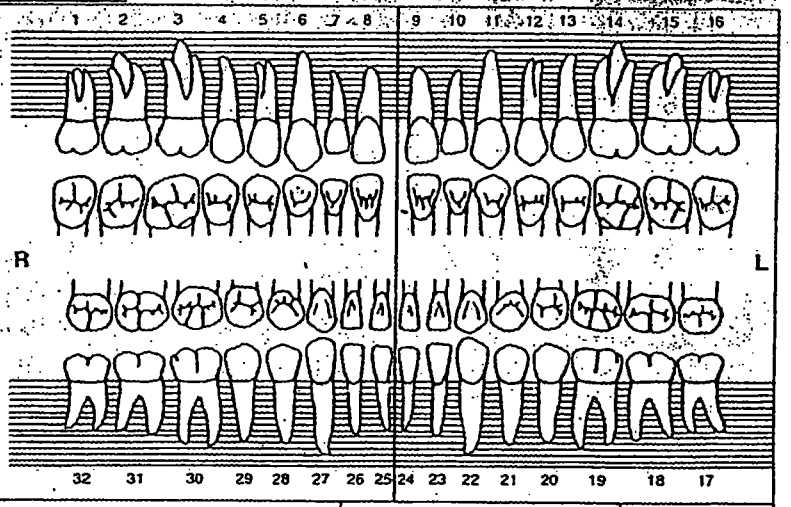
• Medicaid #: [redacted]

MEDICAL ALERT / Precautions / Medications

• Allergic to

• Pre-Med • Heart Condition • Diabetic • Asthma
• Epileptic • Hypertension • Sodium Restricted
• Other





Date Completed	Treatment	Signature	License #
4/7/03	Reviewed MHx, Prophy, Fl_2, Sealants 2, 3, 14, 15, 18, 19, 30, 31 Referred for restorative needs: letter/list sent — (#7 is Stained, decay sticky sometimes)	[redacted]	
5/20/03	Rec'd call Chris Chadwick re: decay on		
	medial — several areas — involving more		
	than just molars — concerned about		
	sealant on areas of decay. Expl'd		
	no x-rays — areas sticky + stained but no signs		
	of gross (unsealable decay) —		

Screened by MD today

PETITIONER'S EXHIBIT 4 Stark

DHEC
PROMOTE PROTECT PROSPER

Healthy Smiles
Patient Information Form

School Name ABMS

Student's Name [redacted] Student's Birthdate [redacted]

Student's Social Security Number [redacted] Home Phone # [redacted]

Address [redacted]
Street City State Zip

Student's Dentist [redacted] Student's Doctor [redacted]

Please Check Yes, No, or Don't Know for the following:

Does your child require antibiotics to have his/her teeth cleaned?
☐ Yes ☒ No ☐ Don't Know

Does your child have allergies? ☐ Yes ☒ No ☐ Don't Know
If yes, allergy to what? _____

Has your child ever had serious health problems? ☐ Yes ☒ No ☐ Don't Know
If yes, explain _____

Is your child taking any medicine now? ☐ Yes ☒ No ☐ Don't Know
If yes, what medicine (s) _____

Medicaid Information

Medicaid Number 12- [redacted]

Insurance Information

Name of Employee or Person who has insurance *(Insured)*: [redacted]
Insured's Birth Date: [redacted] Social Security # [redacted] Group #: [redacted]
Insured's Address: [redacted]
Insured's Employer: [redacted]
Employer's Address: [redacted]
Employer Phone #: [redacted]
Student's Relationship to insured: ☐ Self ☒ Child ☐ Other 3-18-03
Insurance Company Plan Name and Address: _____
Insurance Company Phone #: _____

3-15-03

By my signature below as parent or guardian, I request that payment of Medicaid or other Third Party Insurance benefits be made to Healthy Smiles partnering providers for services provided to my child. I request and authorize the release of any information on this form or acquired in the course of treatment for these purposes.

[redacted] 3-18-03
Parent/Guardian Signature Date

[redacted] Mother
Print Name Relationship to Child

MUSC DENTAL SERVICES
Discovering Understanding Healing

smiles 678

Health Promotion Specialists

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D H E C
MOTE PROTECT PROSPER

Healthy Smiles
Consent and Disclaimer Form



[redacted]
Print Name of Child

[redacted]
Address

[redacted]
Telephone

I _____, do hereby consent to having my child participate in the Healthy Smiles mobile dental program. I give consent to any necessary dental treatment as listed below. Treatment will be performed by licensed dentists, dental hygienists, and supervised dental students who have partnered with the Department of Health and Environmental Control (DHEC). The purpose of this program is to increase access to oral health and dental care.

Program procedures include:

- o Education for home care
- o Screening exam of the mouth and teeth
- o Cleanings
- o Topical Fluoride treatment
- o Dental Sealants
- o Emergency treatment
- o Fillings
- o Extractions (removal of teeth)
- o Referral to partnering dentist for follow-up care.

I certify that my child is not presently under the care of a dentist.

[redacted]
Signature

3-18-03
Date

_____
Witness Signature

3-18-03
Date

MUSC
DENTAL SERVICES
Discovering Understanding Healing.

smiles
for life 679

Health Promotion Specialists
HPS

RECEIVED
SEP 15 2004

[redacted]

9/10/04

Jay,
I remembered
M[redacted] A[redacted]
I had to look
back further —
than 4-04 —
I slipped her copies
into envelope —
I was just about to
mail — [redacted]

September 11, 2004

Jay Evans
P.O. Box 11329
Columbia, SC 29211

Dear Jay,

I have enclosed a copy of the records that you requested from me as per our telephone conversation on Wednesday, September 8, 2004. Jay, please note that I cannot find anywhere in the HPS records information on M[redacted] A[redacted] and [redacted]. It is probable that neither child was ever treated by me or anyone at HPS.

I would like to respond to your questions posed to me during that same phone conversation.

1. The dental hygiene services I provide are according to my standing orders signed by Dr. Lala and Dr. Herschaft.
2. As I understand it, statute nor regulation require an exam for any procedures performed under standing orders.
3. On the copy of the treatment record provided, you will see the DOS as 2/17/04. My entries are as follows:

Reviewed MHx - finding nothing remarkable, except the child did not have a Dentist
Prophy performed and fluoride administered
Sealants were placed on the distal of #3 and occlusals of 14,19, and 30.
I had noted decay on the mesial occlusal of #3
NIC means the child presented with No Initial Complaint
Oral Hygiene Instructions were given
Letter/List sent with child refers to the list of Dentists in the area, including addresses and telephone numbers and a form letter informing the parent that the child has an obvious problem and that x-rays and an appointment with a dentist are needed.

Entry date 2/20/04 are my notes after Principal, Susan Miles made me aware that a parent had complained about me. I called the parent, [redacted], to hear what her specific complaint was. According to Mrs. [redacted] Katie, the hygienist at Modern Family Dentistry, told [redacted] that [redacted] tooth should not have been sealed. Decay was present and could grow under the sealant causing possible nerve damage. According to [redacted], Katie proceeded to say very inflammatory things about my work in general. I tried to explain to [redacted] why the sealant was placed and sent her a packet of the research I had to back up my actions. When I called her later to see if she had received the packet, she said she had not. I sent her another packet. I also sent Drs. Chadwick and Kolmodin a copy of the same packet. I asked that they share the information with Katie. I apologize that I don't remember her last name. I called Dr. Kolmodin to tell him that Katie was unprofessional in her direct public statements about me to a patient's mother. He said she was very outspoken and that he would talk to her. I have never heard from any of those mentioned above since.

PETITIONER'S EXHIBIT 45
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Jay, I find that the rationale for treatment procedures in the public health setting can be so different from those in the private practice setting. I have been a hygienist for 23 years, the bulk of that time in private practice settings. These practices are two different animals in many respects. I would love to see dentists and hygienists alike take continuing education courses on public health dentistry, so that they would be able to learn the difference and we would not be so misunderstood. I would also like to see guidelines from SC in regards to when to place sealants. I was instructed, based on research, that when in doubt, err on the side to seal. This can starve off necessary oxygen, thereby buying the child some time to get to a dentist. I was pleased [redacted] took her child to the dentist. That to me is success for the program. I was also trained to seal decay with a stick of a millimeter or less. I have found that sometimes that little stick may have huge underlying decay. In the reverse of that, I have found hideously stained and sticky surfaces to have very little decay. All of this is discovered through x-rays. I tried to explain to [redacted] and Katie that the decisions I make based are made with lack of radiographic aid, and the need for the child to follow up with a dentist so x-rays can be taken, with the appropriate treatment to follow. This was the area that Katie expressed to me as to why she didn't like our program. I am still concerned about Katie's lack of judgment in defaming publicly the work of another hygienist to patients. I will repeat to you what I repeated to [redacted] and Katie. I in no way ever sought to perform a procedure on [redacted] child that I thought would bring harm. I acted according to the guidelines available to me for sealant placement. I would like to reiterate that going through this uncomfortable investigation process has made me want more a South Carolina standard guideline for sealant use.

Below is a website for sealant fact sheets.
http://www.nidcr.nih.gov/HealthInformation/OralHealthInformationIndex/Sealants/SealOut

If I can be of further assistance in this matter, please feel free to call me.

Respectfully

[redacted]

HPS

DENTAL TREATMENT

Patient Name: [redacted] School: MPE

Date of Birth: [redacted] Age:

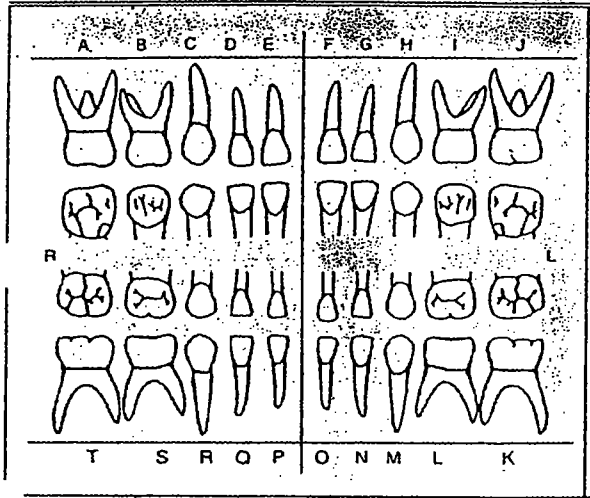
MEDICAL ALERT / Precautions / Medications

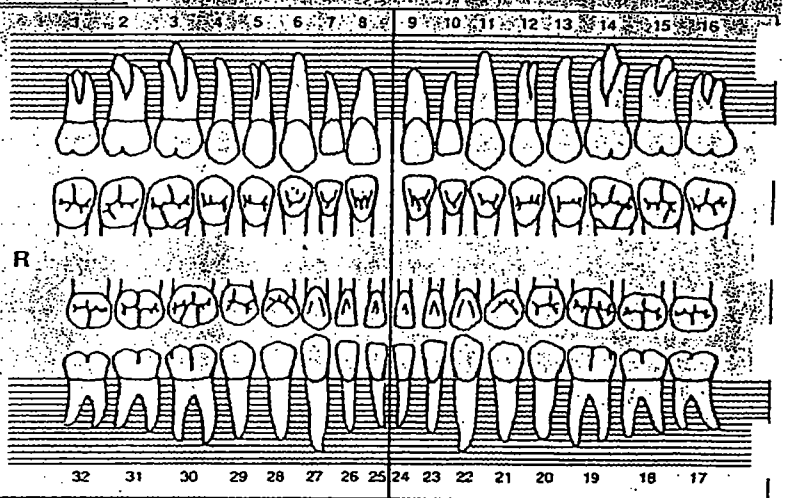
☐ Allergic to:

Social Security #: [redacted]

☐ Medicaid #: [redacted]

☐ Pre-Med ☐ Heart Condition ☐ Diabetic ☐ Asthma
☐ Epileptic ☐ Hypertension ☐ Sodium Restricted
☐ Other Ritalin





Date Completed	Treatment	Signature	License #
2/11/04	Reviewed MHx, Prophy, Fl_2, Sealants 3,14,19,30 ✓ slight stuck question mark Referred for restorative needs: (1) letter/last visit NIC, Oh:	[redacted]	
2/20/04	parent ask that U not even see her → Child b/c She believes sealants are harmful if Decay is present	Complaint relayed to me from Principal per phone Conv. * [redacted]	

Please see reverse of this page for Cont'd entry notes

-Thanks-

PETITIONER'S EXHIBIT

5/04/04 straightway recalled mom + hygienist (Karen) at Chadwick / Kolmoden office sent sealant research to both mom + C/K office apologized to mother privately - trying to calm her down due to emotional [redacted] Karen - spoke to Katie [redacted] Katie [redacted] a tooth w/ div decay [redacted] have blown up over it - Dismayed for [redacted] mother then told me that Patricia Almazan Spahi to Dr. Kolmoden - He [redacted] he would talk to her re: diff [redacted]

[redacted]

[redacted]

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Health Promotion Specialists

Consent for Services Form

HPS use only
IC_____
CC_____
AX_____

Student Information
(PLEASE PRINT ALL INFORMATION in blue or black ink)

ent Name: [redacted] H [redacted], T [redacted] M Date: 1/15/04
Last Name Middle

ıle Female Student's Birth Date: [redacted] Student's Social Security# [redacted]

ıe Phone# [redacted] Parent's Work# [redacted]

ıe Room Teacher's Name: Myrtle School: Midland Davis School

ress: [redacted]

[redacted] State Zip

ent/Guardian: [redacted] Relationship to child: Mother

Medical Questions
(PLEASE PRINT ALL INFORMATION)

ld's Dentist: Ehmann towne Dent | Date of child's last teeth cleaning: / /

ld's Doctor:	YES	NO	Don't Know
our child have allergies(including Latex)? es please list:		✓	
s your child ever had an artificial joint replacement?		✓	
s your child ever been diagnosed with rheumatic fever?		✓	
s your child ever been diagnosed with a heart murmur?		✓	
es your child require antibiotics before they can have their teeth cleaned?		✓	
s your child ever had a serious health problem? es please list:		✓	
our child taking any medications at this time? es please list: Ritalin / A 20 MG Methylphenidate 5mg	✓		At home
at type of water service do you currently use at home? (circle one)	Public Water	Well Water	Don't Know

Medicaid Information

dicaid ID # 12 - [redacted] ✓ *(child's ten digit individual number)*

Dental Insurance Information
(PLEASE PRINT ALL INFORMATION)

ne of Parent or Guardian Who Has Insurance: Same as above

Address: _____

Birth Date: ____/____/____ Social Security# ____-____-____

Employer Name: _____

Employer's Address: _____

ntal Insurance Company Name and Address: _____

ntal Insurance Company Phone #: (____)_____ Group# _____

I have no Medicaid or Dental Insurance

quest and authorize HPS, their contracting dentists, and staff, duly licensed as Doctors of Dentistry or licensed dental gienists, to perform any diagnostic procedures, preventive procedures or treatment procedures on my child. I derstand that preventive services do not take the place of an examination by a licensed dentist. I understand that slides y be taken for educational purposes. I further understand that if my child is not enrolled in Medicaid, I am financially ponsible to HPS for services performed. I authorize payment of Medicaid or Insurance benefits directly to HPS and ir partner dentists. I request and authorize the release of any information on this form or acquired in the course of atment for payment, referral purposes, and to all appropriate school personnel, as deemed nece

[redacted] 1-15-04

Parent/Guardian Signature Date

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PATIENT NAME [redacted]

DATE	TOOTH	SURF.	PROCEDURE	INIT	FEE
2/19/04			RVH NP Exam, Prophy - Alt. Generalized plaque. Polished, Waxed & covered. Bwx #7. Low	KM CC	
3/4/04	3	L	Comp. L-pop. Retic. Fibr. A.		
	3	OR			
	A	L			
	A	OB			
	B	L			
	B	OB			
	T	B			
	T	OL			
	I	~~OB~~ DO	RVH, 2 carpules 2% Xylo. 1:100K Epi.		
	~~[illegible]~~	~~[illegible]~~			
	J	OB			
	J	L			
	K	B			
	K	OL			
			NPO @ 3pm. 10 min Rx		
3-26-04			Drop Pan + BWS x 4 y's Asst TDO		
9/2/04			Exam, Prophy, Bwx, FMX		
			OK O.H. Unmedicated plaque. Lt bleeding lingivae	JL KM	

PETITIONER'S EXHIBIT 1

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NAME [redacted] "[redacted]"

ADDRESS [redacted] PHONE [redacted] BIRTH DATE [redacted] SEX M S M D W C

SPONSOR [redacted] ADDRESS

OCCUPATION STUDENT REF. BY

ESTIMATE

GINGIVA GINGIVITIS

OCCLUSION

PERIODONT

ABNORMALITIES —

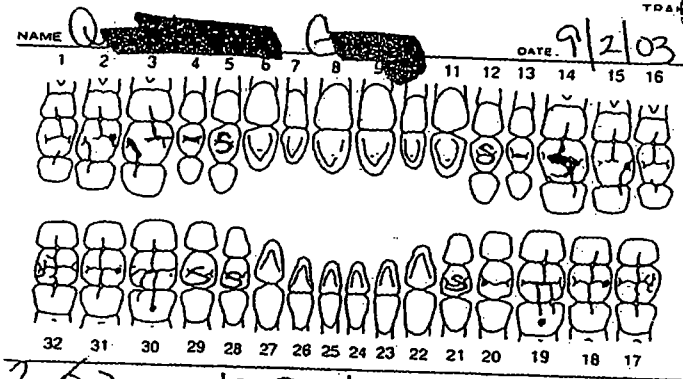
X-RAYS

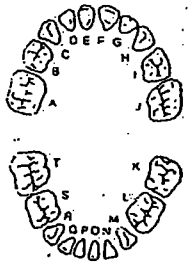
REMARKS

PETITIONER'S EXHIBIT 1 Dkt. 24 XE

VITALITY TESTS

NAME [redacted] DATE 9/2/03 AGE





2-O		12-Seal	18-O	28-Seal
3-O	w/L	13-O	19-O	29-seal
4-O	@3:30	14-~~Seal~~ 0-C	19-B	30-O
5-Seal		15-O	20-O	30-B
			21-Seal	31-O

ITEM 07-0527739 1129 COLWELL 1.800.537.1140

NAME

ADDRESS

DATE	TOOTH	SERVICE RENDERED
2/27/03		Int Exam, Child Prophy, 1 flz, 4 Bwx, heavy plaque, Mod black subcalc, OHI TB, floss, Rinse (BWX) Additions
3/4/03	J	(2X) LIDO. ; EXT Root tips #J ; Post Op Instructions ;
	30	30-O-C w/ GC LINER, P: B, -d "Heliomolar Flow A2
4/2/03		Exam, Child Prophy, 4 flz, mod-heavy calculus w/ Mod calc. pt has rampant decay (2BW) Adds
		N.V. 2-O, 3-O, 4-O, : 5-SLNT
10/7/03	2,3, 4,5	(3X) LIDO. ; 2-O-C, 3-O/OL-C, 4-O-C : 5-SEALANT #2 : 4 w/ GLUMABOND : FLOWLINE "A2" ; #3 w/ GC LINER, GLUMABOND, : TPH "B2" ; Pt and mom informed me that pt saw a "HYGIENIST" at his school (BECK MIDDLE SCHOOL) who put sealants on his teeth about a month ago ; SLNTs were placed on teeth #3, 14, 19, 30 ; These teeth were diagnosed as having decay : needing a filling ; After removing SLNT #3 and performing a foramotomy decay was noted : photographed ; & removed the decay : then placed filling ; Wrote : sent complaint letter to the S.C. LLR w/ chart

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Q[redacted] G[redacted] 10·7·03

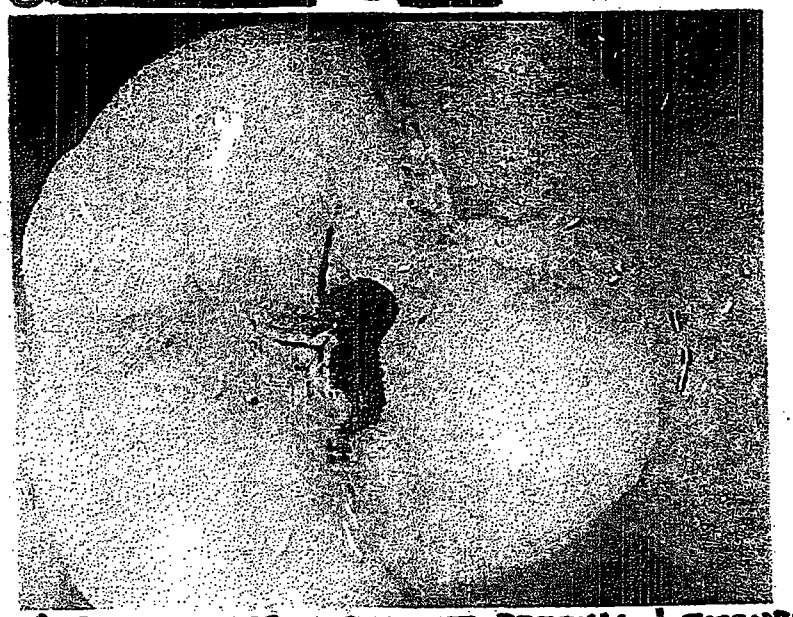


#3 AFTER FURTHER CARIES EXCAVATION

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Q[redacted] G[redacted] 10.7.03



#3 AFTER SEALANT REMOVAL ! FISSURECTOMY

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HPS use only
IC
CC
AX

Health Promotion Specialists

Consent for Services Form

Student Information

(Please Print Information in Blue or Black Ink)

Student Name: [redacted] Date: 8/24/03
Last Name Middle

☐Male ☐Female Student's Birth Date: [redacted] Student's Social Security#: [redacted]

Home Phone#: [redacted] Parent's Work#: [redacted]

Home Room Teacher's Name: Mrs. Edward School: Beck Academy 301

Address: [redacted]
City State Zip

Parent/Guardian: [redacted] Relationship to child: mother

Health & Medical Questionnaire

Child's Dentist: Dr. Adams Date of child's last teeth cleaning: 6/15/03

Child's Doctor: Dr. Whitehead

	YES	NO	Don't Know
Does your child have allergies(including Latex)? If yes please list:		✓	
Has your child ever had an artificial joint replacement?		✓	
Has your child ever been diagnosed with rheumatic fever?		✓	
Has your child ever been diagnosed with a heart murmur?		✓	
Does your child require antibiotics before they can have their teeth cleaned?		✓	
Has your child ever had a serious health problem? If yes please list:	—	✓	
Is your child taking any medications at this time? If yes please list:		✓	

What type of water service do you currently use at home? (circle one) (Public Water) Well Water Don't Know

Medicaid Information

Medicaid ID # 12- [redacted] *(child's ten digit individual number)*

Dental Insurance Information

(Please Print Information)

Name of Parent or Guardian Who Has Insurance: [redacted]

Address: [redacted]

Birth Date: [redacted] Social Security#: [redacted]

Employer Name: [redacted]

Employer's Address: [redacted]

Dental Insurance Company Name and Address: Premier Health Sol. PO Box 16440 Columbia 29202

Dental Insurance Company Phone #: (864) 451-0882 Group# 24755415

☐ **I have no Medicaid or Dental Insurance**

I request and authorize HPS, their contracting dentists, and staff, duly licensed as Doctors of Dentistry or licensed dental hygienists, to perform any diagnostic procedures, preventive procedures or treatment procedures on my child. I understand that preventive services do not take the place of an examination by a licensed dentist. I understand that slides may be taken for educational purposes. I further understand that if my child is not enrolled in Medicaid, I am financially responsible to HPS for services performed. I authorize payment of Medicaid or Insurance benefits directly to HPS and their partner dentists. I request and authorize the release of any information on this form or acquired in the course of treatment for payment, referral purposes, and to all appropriate school personnel, as deemed necessary by HPS.

[redacted] 8/24/03

Parent/Guardian Signature Date

PETITIONER'S EXHIBIT 6
1-20-06
KK

PENGAD-Bayonne, N. J.

HPS

DENTAL TREATMENT

Patient Name [redacted] School: Beck

Date of Birth: [redacted] Age: _____

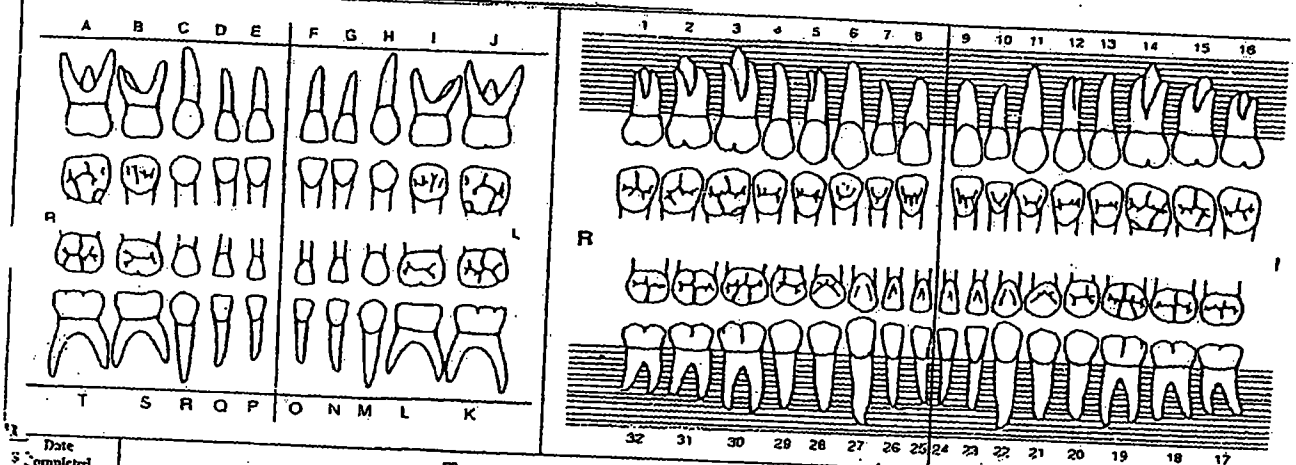
Social Security #: [redacted]

• Medicaid #: Insurance

MEDICAL ALERT / Precautions / Medications

• Allergic to

• Pre-Med. • Heart Condition • Diabetic • Asthma
• Epileptic • Hypertension • Sodium Restricted
• Other



Date Completed	Treatment	Signature	License #
	Reviewed MHx Prophy. Flx Scalants) #3, 14, 19, 30		
	Referred for restorative needs:		
9-18-03	NIC - OHI Dietet pt. Code 10	[redacted]	[redacted]
4-5-04	did not show up		
4-12-04	Absent		

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Chart#: UUU128 FOR OFFICE USE ONLY

Patient Information

Patient Name: [redacted] Date: 12/15/2004

Gender(M/F): M Marital Status: Child Birth Date: [redacted] Social Security #: [redacted]

Driver's License #: E-Mail Address:

Address: [redacted]

Phone #'s: Home [redacted] Work Ext Best time to call:

FAX Pager Other

Referral Information

Name of person, office or other source referring you to our practice:

Adams

Spouse or Responsible Party Information

Name: [redacted] Date: 12/15/2004

Gender(M/F): F Marital Status: Single Birth Date: [redacted] Social Security #: [redacted]

Driver's License #: E-Mail Address:

Address: [redacted]

Phone #'s: Home [redacted] Work [redacted] Ext Best time to call:

FAX Pager Other

Employment Information

The following is for: [X] the patient [ ] the person responsible for payment

Employer Name: Beck Academy

Address: 2301029

Insurance Information

Primary Name of Insured: [redacted]

Insured's Birth Date: [redacted] ID #: [redacted] Group #: [redacted]

Insured's Address: [redacted] 29[redacted]

Insured's Employer Name: [redacted]

Address:

Patient's relationship to insured: [ ] Self [ ] Spouse [X] Child [ ] Other

Insurance Plan Name and Address: Kanawha, P O Box 1000,

Lancaster, SC, 29721

Secondary Name of Insured:

Insured's Birth Date: ID #: Group #:

Insured's Address:

Insured's Employer Name:

Address:

Patient's relationship to insured: [ ] Self [ ] Spouse [ ] Child [ ] Other

Insurance Plan Name and Address:

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SINGLE FAMILY LEDGER

Health Promotion Specialists, Inc.

Date: 03/30/2005 Page: 1

Guar Name: [redacted] Chart Number: DA1199

Billing Type: 1

DATE	TEETH	DESCRIPTION	PATIENT	CHARGE	PAYMENT	BALANCE
09/17/2003		Balance Forward		0.00		0.00
* 09/18/2003		No Tx Needed		0.00		0.00
* 09/18/2003		Prophylaxis-adult		53.00		53.00
* 09/18/2003		Fluoride -adult		21.00		74.00
* 09/18/2003	3	Sealant-per tooth		29.00		103.00
* 09/18/2003	14	Sealant-per tooth		29.00		132.00
* 09/18/2003	19	Sealant-per tooth		29.00		161.00
* 09/18/2003	30	Sealant-per tooth		29.00		190.00
10/17/2003		Payment - Kanawha			-190.00	0.00

TOTAL FAMILY BALANCE AS OF 03/30/2005:	0.00
YTD Finance Charges:	0.00
YTD Late Charges:	0.00
YTD Guarantor Payments:	0.00
YTD Insurance Payments:	0.00

rocedures that have been placed in History.

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Docket No. 9311

OPINION AND ORDER OF THE COMMISSION

By Thompson, Commissioner:

I. INTRODUCTION

This case presents the important question of whether the South Carolina State Board of Dentistry ("Respondent" or "the Board") violated federal antitrust law by enacting a regulation that contravened legislation designed to improve access to dental care for South Carolina's most vulnerable citizens -- children of low-income families. The Board is the regulatory authority for dentists and dental hygienists in South Carolina and this case is before the Federal Trade Commission on the Board's Motion to Dismiss the Complaint. As required by law, we accept the factual allegations in the Complaint as true for purposes of ruling on the Board's motion. Unless otherwise noted, all statements of fact in this opinion are based directly on the Complaint.

More than 40 percent of children in South Carolina are Medicaid-eligible and, in the early 1990s, only 12 percent of those received preventive dental care. According to the South Carolina Administrative Law Judge's Report, this problem is especially acute in rural areas. In 1988, the South Carolina legislature sought to remedy this problem by amending the state dental law to permit dental hygienists to provide preventive dental care to children in schools. However, the amended law did not significantly improve preventive dental care in schools, principally because it required a dentist to examine each student before performing the services. In 2000, the state legislature again amended its law to make it easier for dental hygienists to provide oral health care in schools. The amendments removed the requirement that "a supervising dentist [examine] the patient no more than 45 days before the [hygienist's] treatment," and added the requirement that the hygienist work "under general supervision." The

EXHIBIT 1
Anonymous
No. 1, R.D.H

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Governor of South Carolina stated that the 2000 law "remove[d] a regulation that hindered access to dental care."

Following the 2000 amendments, in July 2001, the Board enacted an emergency temporary regulation that reinstated the preexamination requirement. As a result, thousands fewer children in South Carolina received preventive dental care in the latter half of 2001 than in the first half of that year. In 2003, the South Carolina legislature amended the law to state expressly that the dental examination requirements applicable in some settings do not apply to hygienists' work in public health settings. In March 2003, the Board restated its position that a dentist must see a patient and provide a treatment plan before a hygienist provides care. Thereafter, the Commission issued a complaint to enjoin the Board from requiring a dental preexamination in school settings.

The Board asserts two arguments in support of its Motion to Dismiss. The first raises the legal issue of whether the state action doctrine protects the Board's conduct from antitrust liability. We cannot conclude that the state action doctrine protects the Board's reinstatement of the preexamination requirement because the Board's actions appear to directly conflict with a specific legislative mandate. Accordingly, we deny Respondent's Motion to Dismiss the Complaint on this ground.

The Board's second argument, that changes to South Carolina law have rendered the case moot, raises a question of disputed fact that we cannot resolve given the record at this early stage of the proceedings. In light of the narrow scope of this factual question, however, the Commission has decided to retain jurisdiction at this time and to refer this matter to the administrative law judge for a limited inquiry on the issue of whether there is a reasonable likelihood

that the challenged conduct will recur. If, after this inquiry, we decide that the case is moot, the Commission can dismiss the Complaint. Absent such a determination, this matter will proceed to an administrative trial on the merits.

II. PROCEDURAL BACKGROUND

On September 12, 2003, the Commission issued an administrative complaint against the Board, alleging that the Board violated Section 5 of the Federal Trade Commission Act by "restrain[ing] competition in the provision of preventive dental care services by unreasonably restricting the delivery of dental cleanings, sealants, and topical fluoride treatments in school settings by licensed dental hygienists." Compl. ¶ 1. Specifically, the Complaint points to the Board's July 2001 adoption of an "emergency regulation" that allegedly reimposed a requirement that dentists preexamine patients before dental hygienists provide treatment in school settings. *Id.* ¶ 25. The Complaint asserts that the Board's action "deprive[d] thousands of school children -- particularly economically disadvantaged children -- of the benefits of preventive oral health care services." *Id.* ¶ 1. The Complaint also alleges that, despite subsequent actions by the state legislature, the Board presents a current threat to the delivery of preventive dental services in South Carolina. *Id.* ¶ 38.

The Commission has retained adjudicative responsibility for this matter pursuant to Rule 3.42 of the Commission's Rules of Practice, 16 C.F.R. § 3.42 (2004). The Board filed its Motion to Dismiss the Complaint on October 21, 2003, and the Commission heard oral argument on the motion on January 13, 2004.

III. STANDARD OF REVIEW

For purposes of this review, the Commission regards the Board's motion as a motion to dismiss for failure to state a claim and applies the standard used by federal courts under Fed. R. Civ. P. 12(b)(6). *See, e.g., Schering-Plough Corp.*, 2001 FTC LEXIS 198, at *10-13 (Oct. 31, 2001). This is a high standard that requires the Respondent to show that Complaint Counsel can prove no set of facts that would entitle them to relief. *Id.* at *12 (*citing McLain v. Real Estate Bd. of New Orleans, Inc.*, 444 U.S. 232, 246 (1980)). In evaluating whether a complaint withstands a motion to dismiss, the Commission must accept as true all of the complaint's well-pled factual allegations and must construe all inferences in the light most favorable to Complaint Counsel. *See, e.g., Scheuer v. Rhodes*, 416 U.S. 232, 236 (1974); *TK-7 Corp. and Moshe Tal*, 1989 FTC LEXIS 32, at *3 (May 3, 1989). Moreover, the Commission should not dismiss the complaint if the motion, or Complaint Counsel's opposition to the same, raises disputed issues of material fact. *Schering-Plough Corp.*, 2001 FTC LEXIS 198, at *12.

IV. FACTUAL ALLEGATIONS AND STATUTORY FRAMEWORK

Set forth below are the relevant facts alleged in the Complaint, together with the pertinent South Carolina statutes, regulations and any additional material properly presented for our consideration.

A. Dental Hygienists and the Board

In South Carolina, dental hygienists are "licensed health care professionals who specialize in providing preventive oral health services . . . includ[ing] cleaning teeth, taking x-rays, . . . providing fluoride treatments, and applying dental sealants." Compl. ¶ 11; *see also* S.C. Code Ann. § 40-15-80 (2003). Dental hygienists "practice in collaboration with a

supervising dentist or under the direction of the South Carolina Department of Health and Environmental Control's public health dentist." Compl. ¶ 12; *see also* S.C. Code Ann. §§ 40-15-85; 40-15-102 ; 40-15-110.

The Board is South Carolina's regulatory authority for dentists and dental hygienists, Compl. ¶¶ 7, 9; S.C. Code Ann. § 40-15-10, and "is composed of seven dentists, one dental hygienist, and one public member." Compl. ¶ 5; *see also* S.C. Code Ann. § 40-15-20. Licensed dentists elect six of the Board's dentists, while licensed hygienists elect the Board's sole hygienist. § 40-15-20. The Governor appoints one dentist member and the public "lay" member and may "reject" any elected members based on their "unfitness," in which case additional nominees may be elected in the same manner. *Id.* Dentists that serve as members of the Board "continue to engage in the business of providing dental services for a fee." Compl. ¶ 6.

B. Statutory Framework

1. 1988 to 2000

Children in South Carolina, especially those from low-income families, have suffered from oral health problems due to inadequate access to preventive dental care. Compl. ¶ 14. The need for preventive dental care for underprivileged children is partly due to the unavailability of dentists and is especially acute in rural areas. Pub. Hr'g Report of the Admin. Law Judge, *In re: Proposed Regulation*, Doc. No. 2644, Docket No. 01-ALJ-11-0348-RH, at 17-18 (S.C. A.L.J. Feb. 11, 2002) (RX-10) ("ALJ Report"). In 1988, the South Carolina General Assembly amended the state law relating to dentists, dental hygienists and dental technicians (referred to herein as the "Dental Practice Act" or the "DPA") to authorize, subject to certain restrictions, dental hygienists to provide various oral health services in public settings, including schools.

Compl. ¶ 15; 1988 S.C. Act No. 439. Section § 40-15-80 of this legislation authorized hygienists to apply topical fluoride and to perform oral screenings in a school setting "without the presence of a dentist on the premises." S.C. Code Ann. § 40-15-80(B)(1999).

Additionally, this law permitted dental hygienists to apply sealants and oral prophylaxis in a school setting upon satisfaction of the following conditions: (1) the student had written permission from a parent or guardian; (2) the treatments were authorized by a licensed dentist; (3) the student was not an active patient of another dentist; and (4) the authorizing dentist had examined the student and given written authorization within 45 days before application of the sealant or oral prophylaxis. Compl. ¶ 18; § 40-15-80(C)(1)-(3) (1999). The Complaint alleges that, despite this authorization, the 1988 law "did not significantly increase the delivery of dental hygienists' services in school settings." Compl. ¶ 15.

2. The 2000 Dental Practice Act Amendments

In 2000, South Carolina increased Medicaid reimbursement for dental services. Compl. ¶ 16. The legislature also "amended its statutes to make it easier for dental hygienists to deliver preventive dental care services in school settings." Compl. ¶ 18; *see also* 2000 S.C. Act No. 298. For example, Section 40-15-80(B) of the DPA, as amended in 2000, permitted dental hygienists to apply sealants, topical fluoride, and oral prophylaxis[1] in a school setting, provided they had "written permission" from the student's parent or guardian and that such treatment by the dental hygienist was done "under general supervision." *See also* Compl. ¶ 19. The amended

[1] Oral prophylaxis is defined as "the removal of any and all hard and soft deposits, accretions, toxins, and stain from any natural or restored surfaces of teeth or prosthetic devices by scaling and polishing as a preventive measure for the control of local irritational factors." § 40-15-85(3) (2003).

DPA defined "general supervision" to require that either a licensed dentist or a state public health dentist "has authorized the procedures to be performed but does not require that a dentist be present when the procedures are performed." S.C. Code Ann. § 40-15-85(B) (2000).[2] The amended statute did not include, or indeed make any reference to, the 45-day dentist preexamination requirement set forth in the prior version of § 40-15-80(C)(3). Compl. ¶ 19; *see* S.C. Code Ann. § 40-15-80(B) (2000).

The Complaint asserts that the 2000 amendments prevented the Board from requiring "a dentist examination as a condition of a dental hygienist's providing preventive services in a school setting." Compl. ¶ 19; *see also infra* at 24-27. In signing the 2000 amendments, the South Carolina Governor's office stated that the "new law removes a regulation that hindered access to dental care" and noted that doing so would "allow[] dental hygienists to offer preventive dental care in places such as schools . . . [where] [d]entists rarely practice full-time." Compl. ¶ 20; State of S.C., Office of the Governor, *New Law Makes Children's Dental Care More Accessible* (May 26, 2000) (press release) (cited in Resp. Ex. ("RX")-4 (ex. 7)).

Following enactment of the 2000 amendments, Health Promotion Specialists ("HPS"), an organization composed of dental hygienists that contracted with supervising dentists, began

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[2] In contrast, a hygienist in a private office setting required "direct supervision" by a dentist that included that the dentist "personally diagnoses the condition to be treated . . . ." § 40-15-85(A) (2000). The 2000 amendments also clarified that the DPA was "not intended to establish independent dental hygiene practice," § 40-15-80(F) (2000), and required dental hygienists in public health settings to have professional liability insurance, § 40-15-80(G) (2000). Further, the 2000 law permitted dental hygienists "employed within the public health system" to provide "primary preventive care" services "under the direction and control of the State Director of Public Health Dentistry but [did] not require that the director be present when authorized services are provided. If a licensed dentist is available, an examination and diagnosis must be made by him before a sealant is placed on a tooth." § 40-15-110 (2000).

using dental hygienists to provide preventive dental care on-site to children in South Carolina schools. Compl. ¶ 22. By July 2001, HPS had screened over 19,000 children and had provided services to over 4,000, of whom almost 3,000 were Medicaid-eligible. Compl. ¶ 23.

3. The Board's 2001 Emergency Regulation and Subsequent Actions

On July 13, 2001, the Board promulgated emergency regulation 39-18 (the "Emergency Regulation") to "clarify the type of authorization" required for dental hygienists to administer care in school settings under Section 40-15-85(B) of the amended DPA. 25-7 S.C. Reg. 79; Compl. ¶ 25. The Emergency Regulation needed only the approval of the Board, a majority of whose members were dentists with a financial interest in reimposing the preexamination requirement. Compl. ¶ 26; § 40-15-20.

Through the Emergency Regulation, the Board interpreted the general supervision standard of Section 40-15-85(B) as it applied to dental hygienists and specified that this standard required a licensed dentist to examine clinically each patient and actually determine the need for any treatment "not more than forty-five (45) days prior to the date the dental hygienist is to perform the procedure for the patient." 25-7 S.C. Reg. 79, 39-18(A); Compl. ¶ 25. The Complaint alleges that the Board's Emergency Regulation "re-imposed the same examination requirement that the General Assembly removed in 2000: that a supervising dentist had to examine the patient no more than 45 days prior to treatment." Compl. ¶ 25. The Complaint further alleges that this action "reduce[d] substantially the number of children (particularly economically disadvantaged children) who received preventive dental care." Compl. ¶ 28.

In 2001, HPS challenged the Emergency Regulation in state court. The state court denied HPS's motion for a temporary restraining order because HPS had not exhausted its

administrative remedies, and because the court agreed with the Board that the Emergency Regulation reasonably clarified the term "general supervision" in the 2000 amendments to include dental preexaminations. *Health Promotion Specialists, LLC v. South Carolina Bd. of Dentistry,* No. 01-CP-40-3148 (S.C.C.P. County of Richland Aug. 24, 2001). However, the state appellate court affirmed the decision solely on the exhaustion grounds. *Health Promotion Specialists, LLC v. South Carolina Bd. of Dentistry,* No. 2003-UP-232 (S.C. Ct. App. Mar. 26, 2003).

In August 2001, the Board published a proposed permanent regulation that was substantially identical to the Emergency Regulation. Compl. ¶ 30; ALJ Report at 2-4. As required by state law, a South Carolina administrative law judge ("ALJ") held a public hearing to determine whether the proposed permanent regulation was "a reasonable exercise of the Board's authority." Compl. ¶ 31; ALJ Report at 2, 17. The state ALJ's determination would guide the General Assembly in determining whether to effectuate the proposed permanent regulation. *Id.* In February 2002, the ALJ issued his conclusion that "the Board's proposed permanent regulation was unreasonable and contravened state policy to the extent it reinstated the dentist preexamination requirement that the legislature had eliminated in 2000." Compl. ¶ 32; *see also* ALJ Report at 17-18. The ALJ held that the state legislature intended through the 2000 amendments to delete the preexamination requirement in order "to increase access to preventive oral health care for low-income children." Compl. ¶ 33; *see also* ALJ Report at 17-18.

The Board did not submit the proposed permanent regulation to the General Assembly for review, and the permanent regulation did not take effect. Compl. ¶ 34. In accordance with South Carolina state law, the Emergency Regulation terminated in January 2002, 180 days after

adoption. Compl. ¶ 26. Following the Emergency Regulation's termination, several firms, including HPS, resumed providing preventive dental care to thousands of school children in South Carolina. Compl. ¶¶ 35-36.

4. 2003 DPA Amendments

In May 2003, the General Assembly again amended the DPA, altering the supervision requirements for dental hygienists operating in certain settings and specifically referencing their authority to provide preventive dental care in certain public health settings without a requirement for preexamination by a dentist. The new S.C. Code Ann. § 40-15-110 (A)(10) (2003), expressly provides that "[n]othing in this chapter may be construed to prevent . . . a licensed dental hygienist employed within or contracted through the public health system from providing . . . primary preventive care that is reversible." This section further states that the services that may be provided in a public health setting include "oral prophylaxis, application of topical fluoride including varnish, and the application of dental sealants." *Id.* Although such services "are to be performed under the direction of" a specified state official or his designee, the new section does not require a dentist's presence and there is no reference to a preexamination requirement. *Id.*[3]

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[3] The 2003 statute retains the basic definition of "general supervision" (§ 40-15-85(2)), but expands the range of settings in which it may apply -- including, *e.g.*, private office settings. Another new provision, § 40-15-102, further defines the services that may be performed under "general supervision" in a private office and in some school settings and imposes further "restrictions" on the provision of those services in those settings. §§ 40-15-102(B)-(D). Such restrictions relate principally to examination by a dentist. § 40-15-102(C). Nevertheless, consistent with § 40-15-110's express allowance of hygienist services in public health settings, such settings are specifically exempted from the additional restrictions of § 40-15-102. *See* § 40-15-102(D).

5. The Board's March 2003 Meeting and the October 2003 Resolution

In March 2003, two months before the General Assembly enacted the 2003 amendments, the Board met to consider the statutory revisions. The Complaint alleges that at this meeting, the Board "maintained that *in all settings where a dental hygienist provides treatment -- whether public health or private practice -- a licensed dentist has to see the patient and provide a treatment plan.*" Compl. ¶ 38 (emphasis added); *see also* S.C. Bd. of Dentistry, Mins. from Conference Call, 4 (Mar. 6, 2003) (RX-13 (attach. B)).

On October 16, 2003, following the Commission's issuance of the Complaint in this matter, the Board issued a resolution (the "Resolution") stating that preexaminations of a patient were *not* required as a precondition to a dental hygienist's working in a public health setting, and that the Board would not seek any change to that policy. *See* RX-13 (attach. A).

V. MATERIALS BEFORE THE COMMISSION

The Commission is limited in what it may consider to resolve a motion to dismiss for failure to state a claim. In addition to the complaint, the Commission may consider documents attached to or referenced in the complaint whose authenticity is unchallenged, as well as matters of official or judicial notice that are "not subject to reasonable dispute," without converting the motion to one for summary judgment. *United States v. Ritchie*, 342 F.3d 903, 908-09 (9th Cir. 2003) (citing Fed. R. Evid. 201(b)); *In re K-Tel Int'l, Inc. Secs. Litig.*, 300 F.3d 881, 889 (8th Cir. 2002) (in addition to pleadings, the court may consider "materials 'embraced by the pleadings' and materials that are part of the public record") (citation omitted); *Pryor v. NCAA*, 288 F.3d 548, 559-60 (3d Cir. 2002). Matters of official notice include those contained in public records,

such as judicial decisions, statutes, regulations, and "records and reports of administrative bodies." *Ritchie*, 342 F.3d at 909 (citation omitted).

Here, state statutes, regulations, court decisions, and other official government records material to the issues are properly referenced in the Complaint and/or are properly the subject of judicial notice.[4] The Commission may also consider material reflecting an industry's understanding or definition of technical or scientific terms at the time legislation is enacted as possible indicia of the legislature's understanding of the term. *See Order of Ry. Conductors of America v. Swan*, 329 U.S. 520, 525 (1947). Thus, we may consider the American Dental Association's ("ADA") Comprehensive Policy Statement on Dental Auxiliaries in effect in 2000, RX-3 (ex. C, attach.), which includes the ADA's various standards for supervision of dental auxiliaries.

In addition to these submissions, the Board has made a number of factual assertions in its briefs and has referenced several documents, including affidavits, letters, brochures, and Internet websites, that discuss factual issues that the Complaint does not reference and that are not

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[4] These materials include: the 2000 amendments to the South Carolina DPA (RX-2); the 2003 amendments to the DPA (RX-12); the Board's Emergency Regulation 39-18 and proposed permanent regulation 39-18 (RX-3 (ex. B)); the Office of the Governor's 2000 press release (RX-4 (ex. 7)); the order in *Health Promotion Specialists, LLC v. South Carolina Bd. of Dentistry*, *supra* (RX-8); the ALJ Report (RX-10); and the minutes of the Board's March 6, 2003, conference call (RX-13 (attach. B)). Additionally, the Board has proffered its October 16, 2003 Resolution (RX-13 (attach. A)). This post-complaint document relates to the Board's mootness defense, and the Commission can judicially notice such a document as an official government record. However, we will not give the document any particular weight at this time, much less resolve the Board's mootness defense on the basis of this one submission. We consider this document only in the context of our discussion in Part VI.B., *infra*, referring the case to the FTC administrative law judge for more complete discovery relating to the mootness issue.

appropriate subjects of judicial notice.[5] The Board explains that it submitted some of these materials to provide "background information," while the rest were "submitted not for the truth of the matters asserted therein," but for some other undisclosed purpose. *See* Resp.'s Reply Mem. in Support of Mot. to Dismiss ("Reply"), Appendix A. Although the Commission always has discretion to consider extra-pleading material and to convert a motion to dismiss to one for summary judgment, *see. e.g., Poole v. County of Otero*, 271 F.3d 955, 957 n.2 (10th Cir. 2001); 5A Charles Alan Wright & Arthur R. Miller, *Federal Practice & Procedure* § 1366 (2d ed. 1990 & Supp. 2004), we decline to do so here. We believe that it would be inappropriate to consider the Board's proffered limited evidence at this stage. The Board's factual material is not comprehensive and can best be described as "scanty, incomplete, or inconclusive" and unlikely "to facilitate the disposition of the action" at this stage. Wright & Miller, § 1366, at 493 and 676 n.16.1. Permitting selective evidence at this stage would also unfairly prejudice Complaint Counsel, who have not yet had an opportunity to conduct discovery or respond to the proffered evidence. The Board may instead submit any relevant material -- whether it relates to the case's general "background," the Board's mootness defense, or some other relevant issue -- following discovery at the summary judgment stage or at trial.[6]

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[5] Complaint Counsel specifically object to the following documents attached to the Board's motion to dismiss: RX-1 (and attachments A, B and C); RX-3 (and attached exhibit A and a portion of exhibit C); RX-4 (and attached exhibits 2 and 6); and RX-5, RX-6 and RX-7. Compl. Counsel's Opp'n to Resp't Mot. to Dismiss, App. A.

[6] The mere fact that the Commission perused the materials submitted by the Board to determine whether to consider them does not automatically convert the Board's Motion to Dismiss into one for summary judgment. *See Homart Dev. Co. v. Sigman*, 868 F.2d 1556, 1561-62 (11th Cir. 1989).

VI. CONCLUSIONS OF LAW

A. Whether the State Action Doctrine Applies to the Board's Actions

The Board asserts that the challenged acts were those of the State of South Carolina and, as such, are exempt from federal antitrust liability under the state action doctrine. First, the Board claims that its status as an agency of the state of South Carolina necessarily or "*ipso facto*" makes its actions those of the state. Alternatively, the Board argues that it is covered by the state action doctrine because it acted pursuant to a "clearly articulated" state policy to displace competition. The Board also argues that, even if it erred by adopting the Emergency Regulation, such error did not deprive it of state action protection. We are unpersuaded by these arguments and therefore deny the Motion to Dismiss on this ground.

1. The State Action Doctrine

It is well-settled that the state action doctrine protects a state government, acting as sovereign, from liability under the federal antitrust laws. The Supreme Court first articulated this doctrine in *Parker v. Brown*, 317 U.S. 341 (1943), where the Court upheld California's Agricultural Prorate Act against a Sherman Act challenge. Although the legislation at issue clearly restricted competition among California's agricultural commodities growers, the Court concluded that the Sherman Act did not restrain the state, acting through its legislature, from undertaking anticompetitive actions. The Court based its holding on the recognition that, under a dual system of government, the state is "sovereign, save only as Congress may constitutionally subtract from [its] authority," and the Court would not lightly infer Congressional intention to "nullify a state's control over its officers and agents." *Id.* at 351. Where the Sherman Act was

silent and gave "no hint that it was intended to restrain state action or official action directed by a state," the Court refused to read such intent into the act. *Id.*

Subsequent Supreme Court case law has confirmed and elaborated on the state's ability to restrain competition. In *Hoover v. Ronwin*, the Supreme Court explained that *Parker* imparts automatic, or *ipso facto*, protection from antitrust liability to state legislative acts. *Hoover v. Ronwin*, 466 U.S. 558, 567-68 (1984) ("when a state legislature adopts legislation, its actions constitute those of the State . . . and *ipso facto* are exempt from the operation of the antitrust laws") (citation omitted). The Court has also extended this *ipso facto* treatment to a state's supreme court when the court acts in a legislative, rather than in a judicial, capacity. *Id.* at 568 (*citing Bates v. State Bar of Arizona*, 433 U.S. 350, 360 (1977)). *See also Southern Motor Carriers Rate Conference, Inc. v. United States*, 471 U.S. 48, 63 (1985) ("*Parker* immunity is available only when the challenged activity is undertaken pursuant to a clearly articulated policy of the State itself, such as a policy approved by a state legislature . . . or a State Supreme Court . . .") (citations omitted).

Where the actor is neither the state legislature nor the supreme court, but is instead a political subdivision of a state or a private party ostensibly acting pursuant to state authorization, the Court has applied a more rigorous analysis to determine whether the entity is excluded from the federal antitrust laws. In such cases, the Court has held that the party is not *ipso facto* entitled to state action protection; rather, the party must demonstrate that it acted pursuant to a "clearly articulated and affirmatively expressed" state policy to displace competition in favor of regulation and that the state actively supervised the actions. *Cal. Retail Liquor Dealers Ass'n v. Midcal Alum., Inc.*, 445 U.S. 97, 105 (1980) (citations omitted). *Midcal*'s analytical framework

provides guidance as to when state action protection is applicable to private parties as well as to nonsovereign state entities regulating private parties. *See, e.g., Southern Motor Carriers*, 471 U.S. at 57-66 (applying standard); *FTC v. Ticor Title Ins. Co.*, 504 U.S. 621, 631-40 (1992) (applying *Midcal* analysis to state-licensed title insurance rate bureaus).

2. The Board Is Not *Ipso Facto* Protected by *Parker* and Its Progeny

The Board is undoubtedly a state regulatory agency with broad powers to supervise the fields of dentistry and dental hygiene in South Carolina.[7] As discussed above, however, the Supreme Court has accorded *ipso facto* state action status only to state legislatures or supreme courts. The Court has not decided whether a state Governor may ever be sovereign for state action purposes. *See Hoover*, 466 U.S. at 568 n.17. However, it has indicated that "state agencies" regulating private parties are not *ipso facto* excluded from antitrust scrutiny. *See Southern Motor Carriers*, 471 U.S. at 57 ("[t]he circumstances in which *Parker* immunity is available to private parties, *and to state agencies or officials regulating the conduct of private parties*, are defined most specifically by our decision in [*Midcal*]," applying its two-part test) (emphasis added). For those "nonsovereign state representative[s]," [c]loser analysis is required . . . to ensure that the anticompetitive conduct of the State's representative was contemplated by the State." *Hoover*, 466 U.S. at 568-69.

Despite this clear precedent limiting the application of *ipso facto* state action coverage, the Board maintains that its actions are automatically exempt from federal antitrust law because

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[7] "The practice of dentistry and dental hygiene . . . shall be under the supervision of [the Board]." S.C. Code Ann. § 40-15-10. Section 40-15-40 authorizes the Board to "adopt rules and regulations not inconsistent with this chapter for its own organization and for the practice of dentistry and dental hygiene . . . and for carrying out the provisions of this chapter, and [to] amend, modify and repeal any rules and regulations from time to time."

of its status as a state agency. The Board points to the fact that it is a body created by state statute, S.C. Code Ann. § 40-15-10 *et seq.*, whose members are appointed and removed by the Governor, § 40-15-20, and are required by state law to hold regular meetings, and whose financial and employment matters are regulated by the Director of the Department of Labor, Licensing and Regulation. § 40-1-50(D). Mem. in Support of Mot. to Dismiss at 24-25. The Commission, however, concludes that the Board is not sufficiently sovereign to be necessarily exempt from the antitrust laws.

The Board relies on several cases holding that state executive departments may be entitled to *ipso facto* protection in the same manner as a state legislature or supreme court. *See, e.g., Neo Gen Screening, Inc. v. New England Newborn Screening Program*, 187 F.3d 24, 28-29 (1st Cir. 1999) (regarding "full fledged" state executive departments); *Charley's Taxi Radio Dispatch Corp. v. SIDA of Hawaii, Inc.*, 810 F.2d 869, 875-76 (9th Cir. 1987) (state executive agency *ipso facto* exempt); *Deak-Perera Hawaii, Inc. v. Dept. of Transp.*, 745.F.2d 1281 (9th Cir. 1984) (same). Some courts and commentators would limit this exception to the Governor's office, 1 Phillip E. Areeda and Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and their Application* ¶ 224, at 405 (2d ed. 2000), or to the Governor himself and not other executive branch agencies. *See, e.g.*, William H. Page, *Interest Groups, Antitrust, and State Regulation: Parker v. Brown in the Economic Theory of Legislation*, 1987 Duke L.J. 618, 637 n.113 (1987). We need not, however, determine whether state executives or departments are ever *ipso facto* covered by the state action doctrine because that issue is not before us. Instead, the Board is best characterized as a "subordinate" state special purpose instrumentality or industry regulatory body.

Further, courts have long rejected extending *ipso facto* state action treatment to such governmental entities because they lack sufficient attributes of state sovereignty. *See, e.g., Southern Motor Carriers*, 471 U.S. at 62-63 (state Public Service Commissions that set intrastate motor common carriers' rates, "[a]cting alone," are not sovereign and cannot immunize private anticompetitive conduct); *Goldfarb v. Virginia State Bar*, 421 U.S. 773, 790-92 (1975) (state bar association, which was a state agency for certain purposes, was not the "State" under the *Parker* doctrine); *Cine 42nd Street Theater Corp. v. Nederlander Org., Inc.*, 790 F.2d 1032, 1044 (2d Cir. 1986) (state Urban Development Corporation, created by statute and designated a "governmental agency" and a "political subdivision," was not "sovereign" for *Parker* purposes). Declining to treat such non-elected governmental entities as equivalent to the state itself comports fully with the policies of the state action doctrine because such entities lack the political accountability to formulate state competition policy. *See, e.g.*, William H. Page & John E. Lopatka, *State Regulation in the Shadow of Antitrust: FTC v. Ticor Title Insurance Co.*, 3 Sup. Ct. Econ. Rev. 189, 205-07 (1993) (state action protection based on "political legitimacy" of state entity).

Courts have also consistently declined to afford *ipso facto* state action status to state licensing or regulatory boards that are composed at least in part of members of the regulated industry. *See Earles v. State Bd. of Certified Pub. Accountants of Louisiana*, 139 F.3d 1033, 1040-41 (5th Cir. 1998) (state licensing board consisting of private accountants not the "state," and its actions "subjected to greater scrutiny" under the *Midcal* clear articulation analysis); *FTC v. Monahan*, 832 F.2d 688, 689-90 (1st Cir. 1987) (Breyer, J.) (state pharmacy board, consisting of private pharmacists, is a "subordinate governmental unit" and therefore undeserving of *ipso facto* state action status); *Massachusetts Bd. of Registration in Optometry*, 110 F.T.C. 549, 612-

13 (1988) (state optometric licensing board not entitled to *ipso facto* state action treatment). In fact, the Supreme Court has noted that, other than the legal profession, it was unaware of "any trade or other profession in which the licensing of its members is determined directly by the sovereign itself . . . ." *Hoover*, 466 U.S. at 580 n.34.[8]

For these reasons, we reject the Board's contention that it is entitled to *ipso facto* state action treatment and turn to whether the Board's challenged action -- enacting the Emergency Regulation that required dental preexaminations -- was taken pursuant to a "clearly articulated" state legislative policy.

3. The Board's Emergency Regulation Does Not Satisfy the Clear Articulation Test

As discussed above, the Supreme Court in *Midcal* articulated the test for determining whether the actions of a private party or a nonsovereign state entity like the Board are exempt from antitrust law under the state action doctrine. This test requires, first, that the challenged conduct proceed from a "clearly articulated and affirmatively expressed" state policy to *displace* competition and, second, that the state "actively supervise[ ]" the conduct. *Midcal*, 445 U.S. at 105 (citations omitted). These two elements together address the economic and federalism concerns underlying the state action doctrine by "reconcil[ing] the interests of the states in adopting noncompetitive policies with the strong national policy favoring competition," Areeda & Hovenkamp, *supra*, ¶ 221, at 374, and by ensuring that the antitrust laws will be displaced only where there is a "a deliberate and intended state policy." *Ticor Title Ins. Co.*, 504 U.S. at

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[8] Moreover, the Board's reliance on other cases, *see, e.g., Neuwirth v. Louisiana State Bd. of Dentistry*, 845 F.2d 553, 556 (5th Cir. 1988), is misplaced because state action treatment is not dependent on Eleventh Amendment standards, and, in any event, the Eleventh Amendment is not a bar to suit such as this one brought by the federal government.

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636. This principle also ensures that the state entity is held politically accountable for its anticompetitive policies.

In *Midcal*, the Court reviewed a California wine pricing system that required all wine producers and wholesalers in the state to file fair trade contracts or price schedules with the state. *Midcal*, 445 U.S. at 99. The California system specifically barred any state-licensed wine merchant from selling wine to a retailer at a price below the scheduled price. Because the "legislative policy is forthrightly stated and clear in its purpose to permit resale price maintenance," *id.* at 105, the Court held that the pricing system satisfied the clear articulation test.[9]

A line of post-*Midcal* cases more fully defines the parameters of the clear articulation standard. In *Community Communications Co., Inc. v. City of Boulder*, 455 U.S. 40 (1982), the Court held that the City of Boulder's moratorium on cable television expansions did not meet the clear articulation standard, even though Colorado's constitution vested municipalities with

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[9] The *Midcal* Court held, however, that the state pricing scheme did not satisfy the "active supervision" requirement and affirmed the California state court ruling that the scheme violated the Sherman Act. *Id.* The "active supervision" test requires that "the State has exercised sufficient independent judgment and control so that the details of the [restraint] have been established as a product of deliberate state intervention, not simply by agreement among private parties." *Ticor Title Ins. Co.*, 504 U.S. at 634-35.

The Board argues that the active supervision test does not apply to any governmental entity. The Supreme Court has held that municipalities, unlike private parties, are not subject to the active supervision requirement and are protected by the state action doctrine if they are acting pursuant to a clearly articulated state policy. *Town of Hallie v. City of Eau Claire*, 471 U.S. 34, 46-47 (1985). The Court indicated in dicta that "it is likely that active state supervision would also not be required" when the relevant actor is a "state agency," but declined to resolve the issue. *Id.* at 46 n.10. Thus, the role of active supervision for the myriad varieties of governmental and quasi-governmental entities, including state regulatory boards, remains unclear. *See* FTC, Office of Policy Planning, Report of the State Action Task Force 15-19, 37-40, 55-56 (Sept. 2003) ("FTC Staff Report"). Because our analysis of the clear articulation requirement provides sufficient reason to deny the Board's motion to dismiss, we need not address whether active supervision is required under these circumstances.

extensive powers of self-government in local and municipal matters. The Court found that despite the state's broad grant of power to localities, Colorado's position was "one of mere *neutrality*" with respect to the challenged conduct. *Boulder*, 455 U.S. at 55 (emphasis in the original). Consequently, the Court refused to find that "the general grant of power to enact ordinances necessarily implies state authorization to enact specific anticompetitive ordinances." *Id.* at 56.

By contrast, the Court in *Southern Motor Carriers* analyzed a Mississippi statute that authorized a state commission to regulate common carriers. In directing the commission to establish "just and reasonable" rates for intrastate transportation of commodities, the legislature clearly articulated "that intrastate rates would be determined by a regulatory agency, rather than by the market." *Southern Motor Carriers*, 471 U.S. at 63-64 (citation omitted). The Court found that the challenged rate-setting program followed a clearly articulated policy to displace competition, even though the details of the rate-setting were under the agency's discretion. In doing so, the Court stated that the clear articulation test does not require "express authorization for every action that an agency might find necessary to effectuate state policy." *Id.* at 64.

Within the clear articulation parameters set forth in *Boulder* and *Southern Motor Carriers*, the Court has described factors relevant to determining whether a nonsovereign entity's anticompetitive conduct follows a clear state policy. In *City of Columbia v. Omni Outdoor Advertising, Inc.*, 499 U.S. 365, 370-73 (1991), for example, the Court held that a city council's ordinance restricting "the size, location, and spacing of billboards" met the clear articulation standard because the anticompetitive effects of such zoning restrictions were a "foreseeable result" of the statutes authorizing the city to regulate the use and construction of

structures on city land. This test was satisfied because "[t]he very purpose of zoning regulation is to displace unfettered business freedom in a manner that regularly has the effect of preventing normal acts of competition, particularly on the part of new entrants." 499 U.S. at 373.. The Court also found foreseeability a useful tool in determining clear articulation in *Town of Hallie*, 471 U.S. at 41-42, where state law specifically authorized Wisconsin cities to delineate the area within which they would provide certain sewage services.[10] Unincorporated townships located next to the City of Eau Claire alleged that the city had "used its monopoly over sewage treatment to gain an unlawful monopoly over the provision of sewage collection and transportation services." *Id.* at 37. The Court rejected this contention and concluded that "the statutes clearly contemplate that a city may engage in anticompetitive conduct. Such conduct is a foreseeable result of empowering the City to refuse to serve unannexed areas." *Id.* at 42.[11]

Based on these post-*Midcal* cases, we can conclude that, while clear articulation does not require a state entity to show "express authorization" for every specific anticompetitive act, *Southern Motors Carriers*, 471 U.S. at 64, it does anticipate that the anticompetitive action will have a significant nexus to, or degree of "foreseeability" stemming from, an identifiable state policy. *City of Columbia*, 499 U.S. at 373. "Foreseeability" in this context, however, must be

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[10] *Southern Motor Carriers* -- decided the same day as *Town of Hallie* -- did not apply the foreseeability analysis, indicating that such analysis, while relevant, is not always necessary to determine clear articulation.

[11] Two pre-*Midcal* cases that denied state action treatment also provide insight into the clear articulation analysis. *See Goldfarb*, 421 U.S. at 790-92 (denying state action exemption because, although lawyers were subject to ethical codes issued by the state Supreme Court, the state court did not require or approve of state bar opinions placing minimum fee schedules for title searches); *Cantor v. Detroit Edison Co.*, 428 U.S. 579, 584-85 (1976) (denying state action exemption for a public utility that distributed free light bulbs as part of a light bulb exchange program, despite state's approval of utility's tariff that included the exchange program, where, at most, state policy was "neutral" with respect to the program).

restricted to only those regulatory schemes in which the anticompetitive conduct would "ordinarily or routinely result" from the authorizing legislation in order to ensure that there was a deliberate and intended state policy. *See* FTC Staff Report 33-34. In any event, a state's "general grant of power" to a political subdivision, without more, is insufficient for purposes of clear articulation under the state action doctrine. *Boulder*, 455 U.S. at 56.[12]

Here, the Board contends that its enactment of the Emergency Regulation satisfies the *Midcal* test, arguing that "[w]hen a state regulatory board has been given comprehensive authority to regulate a profession, such broad grant of authority has been held sufficient to satisfy the 'clear articulation' requirement for state action immunity." Mem. in Support of Mot. to Dismiss at 33 (*citing Earles, supra*). The Board further asserts that its enactment of the Emergency Regulation was the "foreseeable result" of South Carolina's grant of "comprehensive power to regulate both the practice of dentistry and the auxiliary practice of dental hygiene." *Id.* We do not agree that the Board has established grounds for dismissal based on these assertions.

It is undisputed that South Carolina's statutory regime gives the Board broad general authority to regulate the fields of dentistry and dental hygiene. *See, e.g.*, S.C. Code Ann.§§ 40-15-10; 40-15-40 (2003). South Carolina law also vests the Board with authority to regulate many specific aspects of dentistry and dental hygiene in the state, including licensing,

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[12] Certain lower courts have confused general authority to regulate with a state policy to displace competition. *See, e.g., Earles*, 139 F.3d at 1042; *Sandy River Nursing Care v. Aetna Casualty*, 985 F.2d 1138 (1st Cir. 1993). Other courts have made this distinction, analyzing whether the state intended to displace competition concerning the particular conduct at issue in addition to whether the governmental body was provided regulatory authority. *See, e.g., Cost Management Sêrvs., Inc. v. Washington Natural Gas Co.*, 99 F.3d 937 (9th Cir. 1996); *Yeager's Fuel, Inc. v. Pennsylvania Power & Light Co.*, 22 F.3d 1260, 1267-68 (3d Cir. 1994); *see also* Areeda & Hovenkamp, *supra*, ¶ 225, at 437.

specialization, advertising, and disciplining improper conduct.[13] This comprehensive legislative scheme necessarily allows the Board to displace competition in the provision of dentistry and dental hygiene services. For example, it is certainly an ordinary and foreseeable consequence of such a scheme that the Board will limit those practices to persons with adequate training and upon successful examination and will bar lay persons from such practices, even though doing so clearly limits in some sense "competition" for dental services.

Nevertheless, it cannot similarly be shown that the particular conduct alleged to be improper here -- imposition of the preexamination requirement by the Board in its Emergency Regulation -- was the foreseeable result of the DPA as amended in 2000. Prior to 2000, dental hygienists in South Carolina could apply sealants and oral prophylaxis in school settings only if four specific requirements were met: written parental permission; authorization from a licensed dentist; that the student not be the active patient of another dentist; and preexamination by the authorizing dentist within 45 days of treatment. S.C. Code Ann. § 40-15-80(C) (1999); Compl. ¶ 18. In 2000, the General Assembly amended the law to permit such treatment only with written parental permission and under the "general supervision" of a dentist. S.C. Code Ann. § 40-15-80(B) (2000); Compl. ¶ 19. "General supervision," in turn, required only that a dentist "has authorized the procedures to be performed but [did] not require that a dentist be present when the procedures are performed." S.C. Code Ann. § 40-15-85(B)(2000). Whatever room

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[13] For example, the DPA requires that a license can be issued only after examination, §§ 40-15-100, 40-15-140; provides various grounds to discipline dentists and dental hygienists, §§ 40-15-190(A), 40-15-140; regulates the manner in which dentists may advertise, § 40-15-130; imposes additional requirements on dentists who want to specialize in areas of practice, § 40-15-220; and requires that only dentists may control the use of dental equipment in a dental office and that dentists retain control over the selection of a course of treatment of a patient. § 40-15-135.

these amendments left for regulation by the Board, the one thing that is clear is that the General Assembly sought "to make it easier for dental hygienists to deliver preventive dental care services in school settings," Compl. ¶ 18, by deleting the 45-day preexamination requirement.

By removing this specific impediment to the ability of dental hygienists to provide preventive treatment in schools, South Carolina's legislature has recast the boundaries between two sets of regulated professionals -- the dentists and the hygienists -- in order to promote rather than displace competition between them in the provision of these services. This result is evidenced by the statement of the South Carolina's Governor's Office that the 2000 amendments "remove[d] a regulation that hindered access to dental care" and would "allow[] dental hygienists to offer preventive dental care in places such as schools . . . [where] [d]entists rarely practice full-time." State of S.C., Office of the Governor, *New Law Makes Children's Dental Care More Accessible*, RX-4 (ex.7).

The Board's primary basis for asserting that it reimposed the 45-day preexamination requirement pursuant to a "clearly articulated" state policy is the statute's "general supervision" standard that requires a dentist's authorization, § 40-15-85(B) (2000). As noted above, however, the "general supervision" provision does not, on its face, impose a requirement of prior examination by a dentist, much less "clearly articulate" a state policy that hygienists' ability to offer preventive dental services in school settings was to be subject to such a restriction. In parsing the General Assembly's 2000 enactment, we of course read the statute as "a symmetrical and coherent regulatory scheme" and "an harmonious whole." *See, e.g., FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) (citations omitted). We find it relevant that while the 2000 enactment added the "general supervision" requirement, it simultaneously

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and expressly eliminated the preexamination requirement that existed previously. Applying the "commonplace of statutory construction that the specific governs the general," *Morales v. Trans World Airlines, Inc.*, 504 U.S. 374, 384 (1992), we can only conclude that the "general supervision" requirement does not authorize reimposition of the preexamination requirement that the Assembly had just eliminated.[14]

The Board attempts to bolster its argument by referring to widely-available industry standards issued by the ADA as they existed in 2000, on the apparent supposition that the South Carolina legislature intended to use the term "general supervision" in conformity with those standards. As a general matter, the courts have recognized that the state action doctrine "involves a question of law, generally an issue of statutory construction." *Euster v. Eagle Downs Racing Ass'n*, 677 F.2d 992, 997 (3d Cir. 1982); *see Telecor Communs., Inc. v. Southwestern Bell Tel. Co.*, 305 F.3d 1124, 1139 (10th Cir. 2002); *cert. denied*, 538 U.S. 1031 (2003); *Trigen-Oklahoma City Energy Corp. v. Okla. Gas & Elec. Co.*, 244 F.3d 1220, 1225 (10th Cir.), *cert. denied*, 534 U.S. 993 (2001). Nevertheless, as discussed above, in limited circumstances it is

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[14] Moreover, any consideration of the 2003 amendments -- although of minimal value in interpreting the prior enactment, *see* 2A Norman J. Singer, *Statutes and Statutory Construction* § 48:20, at 488-89 (6th ed. 2000) -- would only reinforce our view of the meaning of "general supervision" in both versions of the statute. While the legislature essentially left the definition of "general supervision" unchanged in 2003 (§ 40-15-85(2)), it addressed the issue of the need for dentist examination by imposing *additional* requirements for the provision of services under "general supervision" in certain settings. *See* § 40-15-102(C). Such additional requirements would be unnecessary if, as the Board supposed, the "general supervision" requirement itself mandated prior examination by a dentist. Moreover, the 2003 statute also specifically provided for the provision of certain hygienist services in public health settings without any preexamination requirement, *see* §§ 40-15-102(D), 40-15-110(10), while leaving in place the overall requirement that services provided in school settings be subject to "general supervision" (§ 40-15-80(B)). Again, the clear inference to be drawn from this combination of provisions is that the South Carolina legislature has not understood "general supervision" to encompass a prior examination requirement.

appropriate, even in addressing the meaning of a statutory enactment, to look to extrinsic sources that may have a bearing on the way in which the legislature used a particular term. *See* pp. 11-12, *supra*. The Board's reliance on the ADA's use of the term "general supervision," however, cannot overcome the statutory analysis set forth above, because there is no reason to conclude that the South Carolina legislature adopted the ADA's "general supervision" standard. Indeed, all indications are to the contrary. While the ADA's definition of that term specifically requires that the dentist "has personally diagnosed the condition to be treated," *ADA Comprehensive Policy on Dental Auxiliaries* (attached to RX-3 (ex. C)), S.C. Code Ann.§ 40-15-85(B) (2000) strikingly omits this language from its provision defining "general supervision." By contrast, when the South Carolina legislature has intended to adopt an ADA definition *in toto*, it has done so expressly, as in its nearly verbatim incorporation of the ADA's definition of "direct supervision." *Compare, e.g.*, S.C. Code Ann. § 40-15-85(A) (2000) *with* RX-3 (ex. C at 8).[15]

The Board has not shown that its enactment of the Emergency Regulation reimposing the 45-day preexamination requirement was the foreseeable result of the 2000 amendments. *See Telecor Communs.*, 305 F.3d at 1139-40 (state action protection did not apply to private party defendant because its activities, rather than expressly permitted by a state policy, were contrary to the state's policy of fostering competition in the pay phone market). On the contrary, the Board's regulation appears to be in direct conflict with the South Carolina statute and inconsistent with the policy ideals behind the state action doctrine: that federalism permits the state as sovereign to displace the national policy of open competition with regulation, but only if

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[15] Indeed, certain provisions in the DPA (concerning the licensing of dental specialties) specifically refer to ADA standards or requirements. *See, e.g.*, S.C. Code Ann. §§ 40-15-220, 40-15-250, 40-15-260 (2003).

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such anticompetitive intent is clearly shown. In this way, federal antitrust policy will not be "unnecessarily and inappropriately subordinated to state policy." *Bates*, 433 U.S. at 362.

The Board's reliance on case law concluding that a state licensing board's broad grant of regulatory power necessarily contemplates certain anticompetitive conduct, *see, e.g. Earles*, 139 F.3d at 1042, is misplaced and does not cure the basic defect in its argument. Although the Board continued to have general authority over the practice of dentistry and dental hygiene, the 2000 amendments facially eliminated the preexamination requirement. We therefore cannot conclude that the Board's Emergency Regulation reinstituting such a requirement was an action pursuant to a clearly articulated state policy to displace competition. Instead, the South Carolina legislature's specific direction to permit dental hygienists to provide preventive dental care in schools without preexaminations represents a discrete, pro-competitive "carve-out" from the Board's general authority over the practice of dentistry and dental hygiene. *See, e.g., Cost Management Servs.*, 99 F.3d at 942-43 (fact that state had displaced competition in the market for sale of natural gas with a regulatory structure did not provide a state action exemption for off-tariff pricing).

Finally, we also disagree with the Board's argument that the 2000 amendments maintained the state's "clearly articulated" policy to require dental preexaminations because the 2000 law removed only the requirement that a dentist be physically present when a hygienist performs certain services in schools. Mem. in Support of Mot. to Dismiss at 27-28. It is far from clear, however, whether a dentist was required to be physically present in school settings prior to 2000: the pre-2000 law made no reference to a physical presence requirement in the provision specifically governing the application of sealants and oral prophylaxis in school

settings, § 40-15-80(C) (1999), and the law expressly permitted oral screenings and the application of topical fluoride "without the presence of a dentist on the premises." § 40-15-80(B) (1999). If the aim of the 2000 statute was to delete the physical presence requirement, one would have expected such a requirement to be clearly shown in the pre-2000 law, such as by including it in its list of other requirements for the application of sealants and oral prophylaxis -- *e.g.*, parental consent, dentist preexamination – set forth in Section 40-15-80(C). Further, the Board's interpretation of the 2000 law would create anomalous conditions, such as requiring preexaminations under the "general supervision" provision for fluoride treatments in school settings even though no such requirement existed before 2000.

Contrary to the Board's arguments, the plain language of the 2000 amendments indicates that the state General Assembly intended to allow dental hygienists to perform certain preventive dental treatments in schools without a prior dental examination. After all, the Assembly deleted specific language that had imposed a preexamination requirement. Moreover, as shown above, the Board has failed to show that the "general supervision" language provides a basis for its actions. In light of the 2000 statutory amendments, we cannot agree with the Board's argument that its Emergency Regulation was "clearly articulated" by state policy.[16]

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[16] The Board asserts that the state court finding that the 2000 amendments required a dental preexamination, *see Health Promotion Specialists, supra,* constitutes an interpretation of state law that binds the Commission. We reject this argument. Although the Commission may consider state trial court interpretations of state law, we -- like federal courts -- are not bound by such interpretations. *See, e.g., King v. Order of United Commercial Travelers*, 333 U.S. 153, 159-62 (1948). This rule is particularly applicable where the state decision was based, in part, on the argument (now abandoned by the Board) that the 2000 law effected no substantive change in the law.

4. The Board's 2001 Emergency Regulation That Contravened South Carolina's Legislative Policy Was More Than a Mere "Error" of State Administrative Law

The Board also argues that, even if it erred in interpreting the 2000 amendments, its promulgation of the Emergency Regulation did not so far exceed the bounds of its statutory authority to regulate as to constitute the kind of "egregious level of error" necessary to lose its state action protection. Mem. in Support of Mot. to Dismiss at 28-31; Reply at 12-19. To support its argument, the Board relies on a statement in *City of Columbia* that, under the state action doctrine, "it is necessary to adopt a concept of authority broader than what is applied to determine the legality of the [political subdivision's] action under state law." *City of Columbia*, 499 U.S. at 372. Thus, a political subdivision would still be entitled to state action protection if it "possess[ed] the power to engage in the challenged conduct" through delegated statutory authority, even if its actual implementation of this authority were substantively or procedurally defective. *Id.* (citation omitted).

This argument is based upon a fundamental misreading of the cited *City of Columbia* passage. There the Court distinguished carefully between, on the one hand, the basic "authority to regulate" and, on the other hand, the specific authority "to suppress competition." *Id.* With respect to the former, the Court recognized that the authority of state bodies had to be read broadly, lest *any* state law error in the defendant's actions render those actions "unauthorized," and thus subject to antitrust attack. The Court rejected a rule that would thus "'transform[] . . . state administrative review into a federal antitrust job.'" *Id.* (quoting Areeda & Hovemkamp, *Antitrust Law* ¶ 212.3b (Supp. 1989)). With respect to the authority to suppress competition, however, the Court emphasized the necessity of a clearly articulated state policy that authorizes the political subdivision to engage in anticompetitive conduct.

The Board's argument in the present case ignores this distinction and would eviscerate the "clear articulation" standard. Complaint Counsel have not argued that the 2001 Emergency Regulation was simply "unauthorized" under state law, in the sense of being procedurally defective or substantively incorrect in a manner that is not directly related to competitive concerns. Rather, Complaint Counsel challenge the Emergency Regulation because it is *contrary* to a specific directive of the state legislature -- one that placed an express limitation on how far the Board was permitted to go in suppressing competition. If an action of this sort could be written off as a "mere error" of state law, such a theory would swallow the clear articulation rule. An action of a subordinate state entity that ignores an express legislative limitation of this sort must fall outside the state action exemption.

5. State Action Holding

Based on the above analysis, we cannot conclude that the Board's enactment of the 2001 Emergency Regulation was protected state action. We have no reason to conclude that the Board's actions are those of the state as sovereign, so as to be *ipso facto* exempt state action. Nor can we conclude that the Board acted pursuant to a clearly articulated policy of the South Carolina legislature to displace competition. On the contrary, its actions appear to have contravened the clear legislative intent in the 2000 amendments to eliminate the preexamination requirement. Finally, the apparent flaw in the Board's actions is not a mere error of state administrative law, but relates directly to the limitations the state legislature has imposed on the Board's authority to restrict competition.

For all these reasons, we deny the Board's Motion to Dismiss on state action grounds. In so doing, we do not foreclose entirely further proceedings on the state action issue. Although the

fundamental principles of statutory construction discussed above negate rather than support the defense in this situation, it remains conceivable, for reasons discussed previously, that the Board could adduce additional materials relevant to the interpretation of the 2000 statute. *See* pp. 11-12, 26-27, *supra*.[17] We leave any further consideration of this issue, along with other issues on the merits, to be addressed in such future administrative proceedings as may be necessary in the event we find a live controversy, after the limited inquiry described below regarding possible mootness.

B. Whether This Case Is Moot

The issue of whether this case is moot raises a question of disputed fact that the Commission cannot properly resolve on Respondent's Motion to Dismiss. For the reasons set forth below, however, we refer this matter to the administrative law judge for limited discovery on the issue of whether the challenged conduct is likely to recur.

1. Respondent's Mootness Claim

The Board asserts that the Commission should dismiss this case as moot because the 2003 amendments to the DPA, combined with the Emergency Regulation's expiration and the Board's actions since 2002, now ensure that hygienists are not subject to the dentist preexamination requirement and preclude the Board from engaging in the challenged conduct. In addition, the Board argues that, even if the matter is not technically moot, the Commission

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[17] As emphasized above, any such inquiry must be narrow, in light of the legal nature of the issues of statutory interpretation to be addressed. In particular, post-enactment statements, particularly those from nonofficial sources (such as from the South Carolina Dental Hygiene Association website, RX-5), are not to be considered in the course of interpreting a statute. Singer, *supra* note 14, §§ 48:11, 48:20, at 456-62, 488-89.

should still dismiss the Complaint because there is no need for the relief contemplated by the Complaint.

2. Mootness Claims and Analysis

To prove that a case is moot, the moving party must show more than just that the challenged conduct has ceased; rather, the movant must establish that there is no reasonable expectation that the conduct could recur. *See United States v. W.T. Grant Co.*, 345 U.S. 629, 632 (1953) ("voluntary cessation of allegedly illegal conduct does not deprive the tribunal of power to hear and determine the case, *i.e.*, does not make the case moot"). Where the respondent contends that it will not repeat prior conduct, it bears a heavy burden to establish that a proceeding is moot. *See The Coca-Cola Co.*, 117 F.T.C. 795, 917 (1994).

In order to meet this burden, the Board primarily relies upon the changes to the statutory framework in South Carolina. The Board specifically cites the 2003 amendments to the DPA, which it contends now prevent it from imposing a dentist preexamination requirement on hygienists offering treatment in public settings. It also cites the expiration of the Emergency Regulation, which the Board has not attempted to revive. The Board relies on several cases, *e.g.*, *Native Village of Noatak v. Blatchford*, 38 F.3d 1505, 1510 (9th Cir. 1994), finding cases moot where allegedly discriminatory or unconstitutional state statutes were repealed. However, this case does not involve the repeal of a challenged law and the 2003 amendments did not change some area of the 2000 law that formed the basis of the Complaint. Instead, the Complaint alleges violative conduct by the Board under the 2000 law -- conduct that would similarly violate the 2003 law. Moreover, the Complaint alleges facts that suggest that the Board may again

engage in the type of conduct the Complaint challenges. *See* Compl. ¶ 38. Accordingly, we cannot find this action moot at this time.

The Complaint alleges that the Board met in March 2003 and considered the proposed revisions to the DPA that the General Assembly thereafter enacted. Under the heading "The Current Threat to the Delivery of Preventive Dental Services in South Carolina," Paragraph 38 of the Complaint alleges that the Board "maintained that in all settings where a dental hygienist provides treatment -- whether public health or private practice -- *a licensed dentist has to see the patient and provide a treatment plan*" (emphasis added). *See also* S.C. Bd. of Dentistry, Mins. From Conference Call (RX-13 (attach. B at 4)).

In ruling on a motion to dismiss, the Commission must accept all well-pled factual allegations as true and must construe all inferences in Complaint Counsel's favor. *See supra* Section III. We therefore accept as true that the Board met to discuss what would become the 2003 amendments and interpreted these statutory revisions to require a preexamination by a dentist in all settings before a dental hygienist can provide treatment. The Board similarly found a preexamination requirement in the 2000 amendments, which led it to enact the Emergency Regulation. Paragraph 38 thus raises the inference that the Board will once again restrict, through some emergency enactment or other action, the ability of dental hygienists to provide treatment in school settings. In other words, the Complaint alleges facts that would clearly justify the Commission in ordering relief.

The Board's October 16, 2003, Resolution (RX-13 (attach. A)) does not alter the inference that the Board may engage in the challenged conduct in the future. First, we note that the Board did not adopt the Resolution until after the Commission had issued the Complaint, and

the Board could abandon the Resolution at any time. More important, to the extent that the Resolution offers an explanation or context for Paragraph 38 of the Complaint, we find that it simply raises a question of disputed fact that the Commission cannot resolve in a motion to dismiss. *See, e.g., Schering-Plough Corp.*, 2001 FTC LEXIS 198 (Oct. 31, 2001).

Finally, the Board argues that there is no need for relief even if the matter is not "technically" moot. Motion to Dismiss at 22. We reject this argument. Because Paragraph 38 of the Complaint suggests that the Board will again engage in actions similar to those challenged, we find that the Complaint sets forth grounds for injunctive relief to address such actions. We thus decline to dismiss the Complaint on such grounds at this stage of these proceedings. *See FTC v. Citigroup Inc.*, 239 F. Supp. 2d 1302, 1306 (N.D. Ga. 2001) (denying Rule 12(b)(6) motion to dismiss and stating that an injunction may be issued if a violation is ongoing or likely to recur).

3. Mootness Holding

Accepting, as we must, all of the Complaint's factual allegations and construing all inferences in the light most favorable to Complaint Counsel, we find that the Board has not met its burden of establishing that Complaint Counsel can prove no set of facts that would entitle them to relief. Accordingly, this case does not appear to be moot or otherwise subject to dismissal for failure to state a claim. However, our conclusion regarding mootness is based primarily on the factual allegations and inferences raised by Paragraph 38 of the Complaint, which raises the relatively narrow issue of whether there is a meaningful chance for recurrence of the challenged conduct.

During oral argument on this Motion, Respondent's counsel agreed to engage in limited discovery to assist the Commission in resolving the mootness issue. *South Carolina State Bd. of Dentistry,* Oral Argument on Mot. to Dismiss, Hr'g Tr. 71, 75-76 (Jan. 13, 2004). We find this suggestion helpful. Thus, based upon each party's interest in avoiding a potentially unnecessary trial, we exercise our discretion to refer this matter to the administrative law judge for limited discovery for ninety (90) days and an initial assessment of the likelihood that the Board may engage in future unlawful conduct under the 2003 statute. In particular, the Commission requests that the administrative law judge make findings of fact and resolve the context and significance of the Board's March 2003 meeting and the Board's October 2003 Resolution. We leave to the administrative law judge's discretion whether to hold a hearing or to request a briefing to assist the Commission in resolving the Board's mootness defense. Apart from this limited referral, we retain jurisdiction over this matter.

VII. CONCLUSION

For all the reasons stated above, the Commission denies the Board's Motion to Dismiss on state action grounds. Further, we will retain jurisdiction over this case and hold in abeyance the Board's Motion to Dismiss on mootness grounds. We refer the matter to the administrative law judge to conduct limited discovery and to make findings of fact and an initial decision regarding the Board's mootness defense.

South Carolina
Department of Labor, Licensing and Regulation

Office of Investigations and Enforcement
Board of Dentistry

Telephone: (803) 896-4770
Fax: (803) 896-4656

LLR
Synergy Business Park
110 Centerview Drive
P.O. Box 11329
Columbia, South Carolina
29211-1329

Complaint Form

Please type or print legibly.

Complainant

Name:_____

Address:_____
(Number and Street)

City: _____ State:_____ Zip Code:_____

Daytime Phone: (____)_____ Fax: (____)_____

Evening Phone: (____)_____

What is the best way to reach you? ☐ Daytime Phone ☐ Evening Phone ☐ E-mail: _____

Complaint Information

Board or Profession:_____

Name: _____
(Last) (First) (Middle Initial)

Business Name:_____

Address: _____
(Number and Street)

City: _____ State. _____ Zip Code:_____

Business Phone: _(____)_____

If your complaint is about more than one licensee, please provide the information on the additional licensee below. (*Attach additional sheets, if necessary*).

Board or Profession:_____

Name: _____

Business Name:_____

Address: _____
(Number and Street)

City: _____ State: _____Zip Code_____

Business Phone: (____)_____

EXHIBIT 2
Anonymous
No. 1, R.D.H.

Statement of Complaint

Date and Location of Alleged Violation: _____

Please provide a statement of facts, allegations and/or, concerns. Attach a copy of each document you possess that can substantiate any facts in your complaint. These documents will not be returned. Please attach additional sheets, if necessary

Please list all witnesses, providing names, addresses, and telephone numbers.

Have you attempted to contact the licensee concerning your complaint ___Yes ___No If yes, When?_____
What was the result?

I attest that the information provided is true, correct, and complete to the best of my knowledge.

_____ _____
Complainant Signature (Date)

_____ _____ _____
Notary Public (Expiration Date) (Date)

For Office Use Only

Date Received __/__/____ Receiving Board:_____
License Number_____ License Type_____
How Received _____ Date Reviewed __/__/____
Acknowledgement letter sent __/__/____ Category_____

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2004

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EXHIBIT 3
Anonymous No. 1, R.D.H.

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EDITOR
Scott L. Tomar, DMD, DrPH
University of Florida College of Dentistry
Division of Public Health Services & Research
1600 SW Archer Rd., Box 100404, Rm. D8-38
Gainesville, FL 32610-0404
Tel: 352-846-1860; Fax: 352-392-2672
E-mail: stomar@dental.ufl.edu

ASSOCIATE EDITOR
FOR COMMUNITY ACTION REPORTS
Myron Allukian, Jr., DDS, MPH
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E-mail: MyAlluk@aol.com

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E-mail: mremer@dental.ufl.edu

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Chicago, IL 60601
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E-mail: sgeiermann@hrsa.gov

Historian
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PUBLICATIONS MANAGER
Gabriele Glang
Bonwiedenweg 21
73312 Geislingen-Tuerkheim, Germany
Tel: 011-49-7331-43695; Fax: 011-49-7331-400148
E-mail: gabi.glang@arcor.de

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San Francisco, CA 94143-1361
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E-mail: janew@itsa.ucsf.edu

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Div. of Pediatric & Developmental Dental Sci.
Univ. of Pittsburgh School of Dental Medicine
3501 Terrace Street
Pittsburgh, PA 15261
Tel: 412-648-3076; Fax: 412-383-8662
E-mail: rjwl+@pitt.edu

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University of California, Los Angeles
School of Dentistry
10833 Le Conte Avenue
Los Angeles, CA 90095-1668
Tel: 310-825-6544; Fax: 310-764-7734
E-mail: kathya@dent.ucla.edu

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666 West Baltimore Street, Room 3-E-02
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5600 Fishers Lane, Rm. 6A-30
Rockville, MD 20857
Tel: 301-443-1106; Fax: 301-594-6610
E-mail: jonesc@hqe.ihs.gov

Editor, *Communiqué*
Becky DeSpain Eden, RDH, MS
Baylor College of Dentistry
Public Health Science, PO Box 660677
Dallas, TX 75266-0677
Tel: 214-828-8402; Fax: 214-828-8449
E-mail: bdespain@tambcd.edu

AAPHD NATIONAL OFFICE
Pamela Tolson, CAE
1224 Centre West, Suite 400B
Springfield, IL 62704

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Pit and Fissure Sealant: Then, Now, and Next Steps

Richard J. Simonsen, DDS, MS

Abstract

This paper discusses the role of Herschel S. Horowitz in pit and fissure sealant research, and the data from a literature review of the subject presented at the Memorial Symposium to Herschel Horowitz. The vast body of literature presently available to students and practitioners in the area of preventive dentistry is due in large part to pioneers who forged the path in modern preventive materials such as fluorides and sealants. Uniquely, Herschel S. Horowitz stood out for his contributions to the scientific literature in both fluorides and pit and fissure sealants. His work has contributed to millions of children growing into adulthood with less disease than they would have without the benefits that Herschel Horowitz pioneered. From a careful and thorough review of the literature of peer-reviewed publications on pit and fissure sealant, it is clear that sealants are safe, effective, and underused.

For those with a penchant for preventive dentistry, Herschel Horowitz is a legend in our time. All are familiar with his huge body of work in fluorides, particularly in school-based fluoride programs. Not so many, perhaps, think of Hersh Horowitz for his work with pit and fissure sealants. But n 1975, when planning a clinical trial n pit and fissure sealants, it was the Horowitz et al. Kalispell study (1) that looked up to as a model and guide for ny work in this field. The Kalispell tudy was the classic study of the imes in pit and fissure sealant re- ch. While others at this sympo- will discuss Horowitz's work in uorides, my task is to discuss pit and ssure sealant, and it is fitting that this iscussion of sealant as a preventive gent be dedicated to the memory of erschel S. Horowitz.

iscussion

Buonocore's classic study of 1955 arked the start of a major revolution the clinical practice of dentistry (2). ie first clinical benefit from Buonore's work was the introduction of e first dental pit and fissure sealant, ava-Seal (L.D. Caulk) in February 71, along with its curing initiator d ultraviolet light source, the Caulk iva Lite. However, it took several ire years before the sealant techiue, and other clinical innovations that have resulted from Buonocore's work, began to be adopted in clinical dentistry to any significant degree. Even now, more than 30 years after the introduction of pit and fissure sealants to the dental marketplace, the profession has not embraced the procedure to the extent that available scientific data would lead one to expect.

While authors had previously attempted to find conservative ways of treating occlusal pits and fissures—such as Wilson, who used zinc phosphate cement (3); Bödecker, who proposed enamel fissure eradication (4); and Kline and Knutson, who used ammoniacal silver nitrate to treat pits and fissures (5)—none achieved any great measure of success. An invasive operative procedure, the prophylactic odontotomy, introduced in the 1920s (6) by Hyatt, remained the treatment of choice for many clinicians well into the 1970s. But with Buonocore's visionary procedure came the ability, as he predicted in 1955, to successfully prevent caries by sealing pits and fissures with a bonded resin material.

By the mid-1970s, many early clinical studies showed excellent retention and great promise in terms of potential caries prevention (7). It was recognized in the 1970s that one of the deficiencies of early sealants was the difficulty in assessing sealant presence with the clear resin materials used. Thus, in 1976, 3M Dental Products introduced the first colored sealant, Concise White Sealant, a chemically cured material, white in color from the addition of titanium dioxide, that was still on the market as of a short time ago. Whether this roughly 25-year duration marks the great longevity of a fine material, or a lack of innovation in development of new sealants (certainly as compared to the dentin bonding systems)—or perhaps a combination of both factors—is a matter of opinion. In 2001, both 3M (now 3M ESPE) and Ivoclar Vivadent introduced new sealants with color-changing capability. Whether there is any clinical benefit to color change or it is merely a cosmetic marketing tactic remains to be seen.

There are literally hundreds of reports documenting and discussing the retention of pit and fissure sealants. Apart from the early reports already mentioned, the first report over a significant period of time was Horowitz's landmark Kalispell study (1). In the five-year report of this study, the authors reported 42 percent complete retention at five years (8). Horowitz also noted that teeth with sealant partially missing had a lower incidence of caries (7%) than paired unsealed control teeth that were not sealed (41% caries). Thus, from the results of this pioneering clinical trial, one can conclude that even partially sealed teeth are considerably less susceptible to caries than unsealed teeth. Horowitz concluded, "The findings of this study clearly show that when this pit and fissure sealant is retained, it is effective in preventing caries in sealed tooth surfaces." Charbeneau et al. also commented on partially lost sealant, noting "Sealant loss from a surface did not appear to initiate pit and fissure caries..." (9).

Thylstrup and Poulsen looked at caries reduction and found a 70 percent reduction in caries over one year (10). At two years, the caries reduction

Simonsen is associate dean, Arizona School of Dentistry and Oral Health, 5850 East Still Circle, Mesa, AZ 85206. E-mail: rsimonsen@atsu.edu. Website: www.asdoh.atsu.edu. [J Public Health Dent 2004;64(Spec Iss 1):17-22]

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was 98 percent in sealed pairs where the material was fully retained (11). A report on Nuva-Seal, the first sealant marketed, noting an 84 percent caries decrease over one year, and 53 percent two years after application (12). The caries reduction was similar for primary and permanent enamel.

Additional studies reported retention rates of 50 percent at 48 months (13); 60 percent after 5 years (14); 85 percent after 24 months(15); 72 percent at 54 months (16); 92 percent at 2 years (17); 63 percent after 23 months (18); 67 percent after 6 years (19); 97 percent at 2 years (20); 94 percent after one year in a Guatemalan public health clinic (21); Delton sealant in a Danish school dental service 40 percent after 6–7 years with caries reduction of 32 percent for girls and 25 percent for boys (22); and 85 percent at 2 years (23).

A meta-analysis carried out by Llodra et al. showed that the overall effectiveness of autopolymerized resin was 71 percent and the authors concluded that "autopolymerizing sealants should be used" (24). Ismail and coworkers reported in an evaluation of the Saskatchewan dental program that sealed teeth experienced 46 percent fewer carious lesions than unsealed teeth four years after the application of sealants (25).

The longest studies in pit and fissure sealant retention have been reported for 10 years or longer. Wendt and Koch reported on teeth sealed over a 10-year period (the title of their paper is somewhat confusing as it sounds like it is a 10-year study, but not all teeth were sealed for 10 years; teeth were sealed on an ongoing basis and the longest retentive period for any tooth was 10 years). They found that after 8 years, about 80 percent of the sealed fissures showed total sealant retention and no caries. Another 16 percent of the sealed occlusal surfaces showed partial retention and no caries. After 10 years only 6 percent of the sealed occlusal surfaces showed caries or restorations. The authors noted the results underline that fissure sealing is an effective treatment and has a low failure rate (26). A later follow-up noted that this long-term retrospective study indicates that a structured fissure sealing program is of great benefit for oral health (27). Up to 20 years after sealant had been applied, a surprisingly high 65 percent showed complete retention, 22 percent partial retention without caries, and 13 percent caries or restoration in the occlusal fissures or buccal pits (28).

Another long study by Romcke et al. showed an overall annual sealant success of 96 percent after one year and 85 percent after 8–10 years. The authors concluded that the results support the careful application of chemically cured sealants under field conditions and the use of annual examination to allow minimal sealant maintenance (29).

A 15-year study of the single application of a colored (white) autopolymerizing pit and fissure sealant found 28 percent complete retention and 35 percent partial (noncarious) retention on permanent first molars. In a matched pair analysis, carious, or restored surfaces made up 31 percent of the surfaces in the sealed group and 83 percent in the unsealed group (30). The author predicted that with routine maintenance, the 31 percent of sealed teeth that became carious could be brought down close to nil if partially missing sealant was replaced at regular intervals.

The late Eva Mertz-Fairhurst completed several important studies in the area of pit and fissure sealant before her untimely passing. In a 1981 report in the *Journal of the American Dental Association* (16), she reported on the retention of Delton, probably the most popular sealant on the market, compared to the older ultraviolet light-initiated Nuva-Seal. While the Nuva-Seal was completely retained on 35 percent of all paired permanent molars, Delton was retained on 72 percent. Improved sealants and curing methods, along with a better understanding of the technique, was leading to improved retention rates compared to the original materials. Mertz-Fairhurst concluded, "Occlusal caries protection on permanent molars is assured if the sealant is completely retained on the tooth. Delton was four times more effective in providing protection against pit and fissure caries than Nuva-Seal."

Stephen et al. reported that 25 percent of baseline unsealed surfaces were carious compared to 15 percent of those originally sealed ($P<.001$), although for molars, the equivalent figures were 49 percent and 24 percent ($P<.001$) (31).

In a review, Weintraub reported that based on the literature reviewed, following one application of autopolymerized or visible-light-cured sealant, the median percent effectiveness declines from 83 percent after one year to 55 percent after seven years. Similarly, the median complete retention declines from 92 percent after one year to 66 percent after seven years. Conversely, the median percent of sealed first molars becoming carious and/or restored increases from 4 percent after one year to 31 percent after seven years. It was further noted that large differences in sealant effectiveness are not apparent between studies performed in fluoridated and fluoride-deficient communities (32).

Messer and coauthors showed that regardless of sealant retention, caries experience was low under partially retained or missing sealants (5%) and completely retained sealants (<1%) (33).

Regarding retreatment, sealants placed in first permanent molars in 6-, 7-, and 8-year-olds required more retreatment than those in older children. Those placed initially in second molars in 11- and 12-year-olds required more reapplication than those placed in older children. It was concluded that sealants are a successful preventive procedure, but the failures of early-age placement leave some doubt as to the best time to place sealants (34).

It has been documented for decades that sealants are safe, effective, and underused. The latest data available indicate that in the United States only 15 percent of children aged 6–17 years have dental sealants (35). Another report indicates just 10 percent of the sample had sealants on their permanent molars (36).

Why there is underusage of a proven preventive material is hard to explain. Dentists continue to identify lack of insurance coverage for sealant application as a major barrier to patients receiving the service (37). Chapko promoted the two-stage, or opinion-leader, model of diffusion and suggested that new technologies can be promoted by first influencing dentists who consistently adopt early (38), while Farsi concluded that continuing education courses were more likely to change dentists' knowledge than attitude and behavior (39).

Cohen and co-workers concluded that professional organizations should take a more active role in promoting

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sealants to dentists, that professional organizations and governmental agencies should increase efforts to inform patients/consumers of the benefits of sealants, that guidelines for sealant use should be developed, that state boards should permit the delegation of sealants to trained auxiliaries, and that sealant manufacturers should make more effort to advertise and promote sealants (40). In another paper, Cohen suggested that the best combination of variables predicting sealant use were preventive orientation, opinion about sealants, and patient influence (41). A study by Lang et al. suggested that dental personnel may strongly influence dissemination of information about, and utilization of, pit and fissure sealants (42). Romberg and co-workers noted that variables significantly associated with sealant use included availability of insurance, ability to delegate sealant procedures, and patient income and acceptance (43).

In a Colorado study, it was shown that a relatively high percentage of Colorado dentists are utilizing sealants on a frequent basis. Major reasons for limited usage or nonutilization of sealants relates to lack of insurance coverage and concern regarding sealing in of caries (44).

Attitudes toward certain procedures are frequently born in dental school. In another report, Cohen noted that the students' projected sealant use in practice was explained best by the combination of student attitudes toward sealants and their evaluation of the overall preventive orientation of their dental school (45).

One of the concerns with adding sealant coverage to third party dental programs was the concern about overtreatment. Corbin et al. looked at the effect of third party plans and showed that sealants can be added to third party dental programs with little overall risk of inappropriate use or abuse (46). Newbrun noted that dental sealants, which are highly effective in protecting pits and fissures when applied soon after the teeth erupt, will be more widely used in the future when insurance plans will pay for prevention (47). In the 13 or so years that have passed, little increase in usage has been ascertained.

Selwitz and others, in an analysis of 16 factors thought to be related to sealant presence, revealed that parents were more likely to obtain dental sealants for their children if dentists or their staffs recommended them, if the parents were knowledgeable about dental sealants, if the parents were more highly educated, and if the parents had dental insurance coverage. Yet they were surprised to discover that parents were less likely to obtain dental sealants for their children if they heard about them from mass media. The latter finding was unexpected and may have been influenced by conflicting or negative opinion expressed by some dental practitioners through mass media or other channels of communication (48).

It remains a clear and disappointing fact that, despite the proven benefits, pit and fissure sealant treatment is offered to just a small percentage of the at-risk population.

Penetration of sealant is, in my opinion, a key factor in improving sealants of the future. Irinoda and co-workers showed that a low viscosity sealant penetrates better and forms a resin-impregnated layer with enamel, whereas the higher viscosity sealants tested did not penetrate enough to ensure that the acid-etched enamel was infiltrated sufficiently by the sealant to ensure good marginal seal (49). This finding runs contrary to the manufacturers' tendency today to promote filled sealants or flowable materials for sealant application. There is no evidence that these filled sealants will be better; what evidence there is tends to show that they will not be retained as well (50,51). Barnes et al., on the other hand, found that viscosity and flow characteristics have no effect on sealing ability or void formation (52). The effect of a sealant that penetrates better than conventional sealants would be interesting to study clinically over the long term. My best prediction is that the sealant that penetrates the best, all other factors remaining equal, is the sealant that will be retained the longest and therefore the sealant that will prevent the initiation, or the spread, of caries the longest.

Etchant penetration goes hand in hand with sealant penetration. If we are to use penetrating agents within sealants, then we also must provide a way to etch the fissure walls as deeply as possible. The present trend of using self-etching adhesives may well be of enormous benefit if applied to pit and fissure sealant. In one study, none of the commercially available etchants studied were able to penetrate further than 17 percent of the total fissure depth in the fissure model. A surfactant-containing etchant was tested and showed complete penetration within about 1 minute and had a significantly lower surface tension and contact angle than the other products tested. Only the surfactant-containing etchant could produce a retentive pattern on the entire wall enamel of the fissure with the exception of locations blocked by debris and plaque. Surfactant-containing etchants with a low viscosity can penetrate completely into fissures and can produce an increased retentive and wettable surface which significantly increased sealant penetration into deep fissures (53).

If sealants are gradually lost over time (as all sealants are to some degree), they should be repaired when deficient if they are to be effective (54).

There is an interesting dichotomy in how sealants are used in different parts of the world. In the United States the trend today seems to be to use far more caution in applying sealant to questionable areas (carious or not). It seems that the oxymoronic invasive diagnosis is the order of the day, with aluminum oxide air abrasion and small burs leading the way. In other parts of the world, sealants are not applied until caries is diagnosed visually (without invasive treatment). There it is recognized that well-applied sealants will prevent spread of an incipient lesion, as the literature shows. Why this is so hard to get across in the United States is hard to fathom.

Clearly, our powers of diagnosis are limited, particularly where pit and fissure caries is concerned. Innovative new diagnostic tools such as the DIAGNOdent (KaVo) promise objective, rather than subjective, diagnosis of pit and fissure caries (55,56). In a recent paper, Takamori et al. expanded the use of the laser fluorescence system into detecting caries under sealants, an intriguing use indeed. They showed that this laser diagnosis system (DIAGNOdent) makes it easy to detect the existence of caries under a pit and fissure sealant during a routine checkup (57). However, the technique did not work on white sealants and the opacity of the titanium dioxide may be the confounding factor at play.

The philosophical discussion then

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revolves around whether the subjectively caries-free fissures should be cleaned and sealed, or aggressively (invasively) opened (enameloplasty) prior to sealing with small burs or aluminum oxide abrasive systems, or whether the fissures should be left untreated, or maybe preventively treated with application of a fluoride varnish? The relatively viscous fluoride varnishes would, however, not penetrate the fissures to an ideal degree.

In some European countries, particularly the Scandinavian countries, routine application of pit and fissure sealant to caries-free teeth is seen as overtreatment. This approach is supported by the study of Heller et al. "Initially sound tooth surfaces were unlikely to become decayed in five years, and did not benefit greatly from the application of sealants. Within the limitations of this study, there were clear efficiencies in sealing incipient, but not sound, surfaces. The targeting of teeth with incipient caries for sealants is therefore recommended" (58). Others would prefer to investigate the surfaces prior to sealing: the results support the practice of opening up questionably carious fissures and removing caries (if present) before sealing (59).

In this philosophy of conservative pit and fissure management, the effect would be to leave all caries-free fissures unsealed until there is evidence of caries and only then seal the fissures. This is apparently an effort to minimize overtreatment of teeth that would never become carious and thus conserve valuable resources and manpower. However, in so doing, many teeth will become carious before sealing and this becomes an ethical dilemma. Is it ethical to allow a disease to occur before instituting proven, effective preventive procedures?

Applying sealant to small carious lesions is certainly justifiable—the literature is clear on this subject (60,61). However, when the sealant wears down and a fissure that was previously sealed becomes partially uncovered and the oral fluids are free once again to migrate down the fissure, under the sealant, and thus possibly interact with the bacteria in the dormant carious lesion once again, the caries process would once again become active. Depending on when the sealant is reapplied, the resulting damage could be limited or severe. It would seem to me to be more prudent to seal caries-susceptible, caries-free teeth and, once caries is diagnosed, to remove the caries and place a preventive resin restoration (62,63). Of course, if we had etchants and sealants or a combined self-etching adhesive sealant that penetrates to the base of all fissures, this would be of lesser concern.

It has been suggested that sealants should be a targeted treatment for just the high-risk patients. Graves et al. stated in 1986, "The dental profession should shift its emphasis from the early restoration of fissured-surface defects to an expanded use of sealants for those with reduced decay and focus resources on a minority of the population with high caries levels who receive limited care" (64).

Chewing gum containing xylitol has been shown to prevent caries to a similar degree as sealants. Alanen et al. found that sealants and xylitol chewing gum are equal in caries prevention. After 5 years, no statistically significant differences between the sealant and xylitol groups were found (65).

The use of combinations of preventive techniques—such as fluoride-containing varnishes, chewing gum containing xylitol, or agents that stimulate remineralization of demineralized enamel and sealants in a multipronged attack—should be studied further.

Croll has come up with perhaps the most innovative application of a pit and fissure sealant technique to date. He described a method of placing a reinforced resin-bonded sealant. He applies a dentinal bonding agent to etched enamel (or uses the new self-etching adhesives) and compresses a posterior composite into the fissures. "When the beneficial properties of resin-bonded sealants are combined with those of preventive resin restorations, the outcome is perhaps the "quintessential sealant" (66).

In a paper where almost 1,500 references involving pit and fissure sealant or other ancillary techniques were reviewed, the following conclusions can be drawn from the available scientific evidence. The etching agent of choice for pit and fissure sealant application is 35–37 percent orthophosphoric acid. The clinical technique for pit and fissure sealant application involves strict attention to detail and to perfect isolation for maintenance of a dry field. Dry brushing, rotary brushing with pumice paste, air polishing, and air abrasion have all been used to clean the enamel surface prior to etching. Air polishing appears to offer the best surface preparation technique. Etching time has shortened over the years to 15 seconds for both permanent and primary enamel. Trained auxiliaries are equally competent at sealant application. Pit and fissure sealant is well documented in terms of retention and caries prevention.

Fluoride-containing sealants have not shown superiority to regular sealant. With regard to using sealant as one component in an intensive preventive program, one study found that basic prevention leads to virtually the same preventive effect as intensive prevention treatments, while another found that providing intensive prevention to high-risk populations was a benefit. Glass ionomer sealants have failed miserably in comparison to resin-based sealants, showing very poor retention. The major benefit of resin sealants, that of excellent retention and thus physical blocking of the fissure system, appears much more important for caries prevention than the transient benefit of fluoride release over the short time glass ionomer sealants are retained. Even though some claim remnants of the glass-ionomer sealant may inhibit caries for longer time periods, this does not compensate for the poor retentive properties of the material.

Unfilled sealants perform better than filled sealants. Colored or clear resin sealant is a matter of personal preference; however, it has been shown that the ability to assess retention properly in colored sealants is much less error prone than with clear sealants. Use of an opaque color may interfere with the potential for laser fluorescent diagnosis of caries under a sealant. This may eventually become a valuable adjunct procedure in the follow-up routine of sealants placed years earlier, and thus the opaque white sealant may not be ideal (57).

Autocured sealant appears to have equivalent documentation of performance compared to visible-light-cured sealant. The data is unequivocal that sealant can safely be placed over incipient caries and that the lesion will remain dormant as long as the sealant eliminates contact of the oral fluids

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(and thus the nutrient source) with the cariogenic bacteria. The claim from some advocates of aggressive invasive exploration of apparently caries-free, or minimally carious, fissures that bacteria remaining viable within the confines of a sealed fissure can continue to produce acid from nutrients from the dentinal tubules is unsubstantiated.

Pit and fissure sealant can be regarded as cost effective or not cost effective, depending on the study design and results (primarily the retention of the sealant). It seems that even if the data show that sealant treatment is more costly than restoring surfaces that would have become carious in the absence of sealant, one must remember the intangible benefits of preventing disease and preventing loss of tooth structure. Application of sealant, from a maximally cost-effective view, is best applied to high-risk patients. While safe and effective and (according to some studies) cost effective, sealants are an extremely underused preventive treatment. Various rationalizations have been proposed to explain the incongruity of the underuse of a known successful preventive treatment.

One study raised concern about the safety of monomers leaching out of one particular sealant. Other more recent studies have refuted this concern and the present scientific position as expressed by the American Dental Association is that parental concern about the alleged estrogenicity of sealants is unfounded based on the presently available evidence. The use of an intermediate bonding layer, or the incorporation of the benefits of the advances of the past decade in dentin bonding agents into newly formulated pit and fissure sealants, is perhaps the most exciting new potential development for the future of pit and fissure sealant materials. The use of a caries-detecting laser fluorescence system as a routine baseline caries-assessment aid, prior to sealant application, and more recently as a follow-up observation, deserves further study.

The vast body of literature that is presently available to students and practitioners in the area of preventive dentistry is due in large part to pioneers who forged the path in modern preventive materials such as fluorides and sealants. Uniquely, Herschel S. Horowitz stood out for his contributions to the scientific literature in both fluorides and pit and fissure sealants. His work has contributed to millions of children growing into adulthood with less disease than they would have had without the benefits Herschel Horowitz pioneered.

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Pit and Fissure Sealant: Then, Now, and Next Steps

EXHIBIT 4
Anonymous
No. 4, R·DH.

Richard J. Simonsen, DDS, MS

Abstract

This paper discusses the role of Herschel S. Horowitz in pit and fissure sealant research, and the data from a literature review of the subject presented at the Memorial Symposium to Herschel Horowitz. The vast body of literature presently available to students and practitioners in the area of preventive dentistry is due in large part to pioneers who forged the path in modern preventive materials such as fluorides and sealants. Uniquely, Herschel S. Horowitz stood out for his contributions to the scientific literature in both fluorides and pit and fissure sealants. His work has contributed to millions of children growing into adulthood with less disease than they would have without the benefits that Herschel Horowitz pioneered. From a careful and thorough review of the literature of peer-reviewed publications on pit and fissure sealant, it is clear that sealants are safe, effective, and underused.

For those with a penchant for preventive dentistry, Herschel Horowitz is a legend in our time. All are familiar with his huge body of work in fluorides, particularly in school-based fluoride programs. Not so many, perhaps, think of Hersh Horowitz for his work with pit and fissure sealants. But in 1975, when planning a clinical trial in pit and fissure sealants, it was the Horowitz et al. Kalispell study (1) that I looked up to as a model and guide for my work in this field. The Kalispell study was the classic study of the times in pit and fissure sealant research. While others at this symposium will discuss Horowitz's work in fluorides, my task is to discuss pit and fissure sealant, and it is fitting that this discussion of sealant as a preventive agent be dedicated to the memory of Herschel S. Horowitz.

Discussion

Buonocore's classic study of 1955 marked the start of a major revolution in the clinical practice of dentistry (2). The first clinical benefit from Buonocore's work was the introduction of the first dental pit and fissure sealant, Nuva-Seal (L.D. Caulk) in February 1971, along with its curing initiator and ultraviolet light source, the Caulk Nuva Lite. However, it took several more years before the sealant technique, and other clinical innovations that have resulted from Buonocore's work, began to be adopted in clinical dentistry to any significant degree. Even now, more than 30 years after the introduction of pit and fissure sealants to the dental marketplace, the profession has not embraced the procedure to the extent that available scientific data would lead one to expect.

While authors had previously attempted to find conservative ways of treating occlusal pits and fissures—such as Wilson, who used zinc phosphate cement (3); Bödecker, who proposed enamel fissure eradication (4); and Kline and Knutson, who used ammoniacal silver nitrate to treat pits and fissures (5)—none achieved any great measure of success. An invasive operative procedure, the prophylactic odontotomy, introduced in the 1920s (6) by Hyatt, remained the treatment of choice for many clinicians well into the 1970s. But with Buonocore's visionary procedure came the ability, as he predicted in 1955, to successfully prevent caries by sealing pits and fissures with a bonded resin material.

By the mid-1970s, many early clinical studies showed excellent retention and great promise in terms of potential caries prevention (7). It was recognized in the 1970s that one of the deficiencies of early sealants was the difficulty in assessing sealant presence with the clear resin materials used. Thus, in 1976, 3M Dental Products introduced the first colored sealant, Concise White Sealant, a chemically cured material, white in color from the addition of titanium dioxide, that was still on the market as of a short time ago. Whether this roughly 25-year duration marks the great longevity of a fine material, or a lack of innovation in development of new sealants (certainly as compared to the dentin bonding systems)—or perhaps a combination of both factors—is a matter of opinion. In 2001, both 3M (now 3M ESPE) and Ivoclar Vivadent introduced new sealants with color-changing capability. Whether there is any clinical benefit to color change or it is merely a cosmetic marketing tactic remains to be seen.

There are literally hundreds of reports documenting and discussing the retention of pit and fissure sealants. Apart from the early reports already mentioned, the first report over a significant period of time was Horowitz's landmark Kalispell study (1). In the five-year report of this study, the authors reported 42 percent complete retention at five years (8). Horowitz also noted that teeth with sealant partially missing had a lower incidence of caries (7%) than paired unsealed control teeth that were not sealed (41% caries). Thus, from the results of this pioneering clinical trial, one can conclude that even partially sealed teeth are considerably less susceptible to caries than unsealed teeth. Horowitz concluded, "The findings of this study clearly show that when this pit and fissure sealant is retained, it is effective in preventing caries in sealed tooth surfaces." Charbeneau et al. also commented on partially lost sealant, noting "Sealant loss from a surface did not appear to initiate pit and fissure caries..." (9).

Thylstrup and Poulsen looked at caries reduction and found a 70 percent reduction in caries over one year (10). At two years, the caries reduction

Dr. Simonsen is associate dean, Arizona School of Dentistry and Oral Health, 5850 East Still Circle, Mesa, AZ 85206. E-mail: rsimonsen@atsu.edu. Website: www.asdoh.atsu.edu. [J Public Health Dent 2004;64(Spec Iss 1):17-22]

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was 98 percent in sealed pairs where the material was fully retained (11). A report on Nuva-Seal, the first sealant marketed, noting an 84 percent caries decrease over one year, and 53 percent two years after application (12). The caries reduction was similar for primary and permanent enamel.

Additional studies reported retention rates of 50 percent at 48 months (13); 60 percent after 5 years (14); 85 percent after 24 months (15); 72 percent at 54 months (16); 92 percent at 2 years (17); 63 percent after 23 months (18); 67 percent after 6 years (19); 97 percent at 2 years (20); 94 percent after one year in a Guatemalan public health clinic (21); Delton sealant in a Danish school dental service 40 percent after 6–7 years with caries reduction of 32 percent for girls and 25 percent for boys (22); and 85 percent at 2 years (23).

A meta-analysis carried out by Llodra et al. showed that the overall effectiveness of autopolymerized resin was 71 percent and the authors concluded that "autopolymerizing sealants should be used" (24). Ismail and coworkers reported in an evaluation of the Saskatchewan dental program that sealed teeth experienced 46 percent fewer carious lesions than unsealed teeth four years after the application of sealants (25).

The longest studies in pit and fissure sealant retention have been reported for 10 years or longer. Wendt and Koch reported on teeth sealed over a 10-year period (the title of their paper is somewhat confusing as it sounds like it is a 10-year study, but not all teeth were sealed for 10 years; teeth were sealed on an ongoing basis and the longest retentive period for any tooth was 10 years). They found that after 8 years, about 80 percent of the sealed fissures showed total sealant retention and no caries. Another 16 percent of the sealed occlusal surfaces showed partial retention and no caries. After 10 years only 6 percent of the sealed occlusal surfaces showed caries or restorations. The authors noted the results underline that fissure sealing is an effective treatment and has a low failure rate (26). A later follow-up noted that this long-term retrospective study indicates that a structured fissure sealing program is of great benefit for oral health (27). Up to 20 years after sealant had been applied, a surprisingly high 65 percent showed complete retention, 22 percent partial retention without caries, and 13 percent caries or restoration in the occlusal fissures or buccal pits (28).

Another long study by Romcke et al. showed an overall annual sealant success of 96 percent after one year and 85 percent after 8–10 years. The authors concluded that the results support the careful application of chemically cured sealants under field conditions and the use of annual examination to allow minimal sealant maintenance (29).

A 15-year study of the single application of a colored (white) autopolymerizing pit and fissure sealant found 28 percent complete retention and 35 percent partial (noncarious) retention on permanent first molars. In a matched pair analysis, carious, or restored surfaces made up 31 percent of the surfaces in the sealed group and 83 percent in the unsealed group (30). The author predicted that with routine maintenance, the 31 percent of sealed teeth that became carious could be brought down close to nil if partially missing sealant was replaced at regular intervals.

The late Eva Mertz-Fairhurst completed several important studies in the area of pit and fissure sealant before her untimely passing. In a 1981 report in the *Journal of the American Dental Association* (16), she reported on the retention of Delton, probably the most popular sealant on the market, compared to the older ultraviolet light-initiated Nuva-Seal. While the Nuva-Seal was completely retained on 35 percent of all paired permanent molars, Delton was retained on 72 percent. Improved sealants and curing methods, along with a better understanding of the technique, was leading to improved retention rates compared to the original materials. Mertz-Fairhurst concluded, "Occlusal caries protection on permanent molars is assured if the sealant is completely retained on the tooth. Delton was four times more effective in providing protection against pit and fissure caries than Nuva-Seal."

Stephen et al. reported that 25 percent of baseline unsealed surfaces were carious compared to 15 percent of those originally sealed ($P<.001$), although for molars, the equivalent figures were 49 percent and 24 percent ($P<.001$) (31).

In a review, Weintraub reported that based on the literature reviewed, following one application of autopolymerized or visible-light-cured sealant, the median percent effectiveness declines from 83 percent after one year to 55 percent after seven years. Similarly, the median complete retention declines from 92 percent after one year to 66 percent after seven years. Conversely, the median percent of sealed first molars becoming carious and/or restored increases from 4 percent after one year to 31 percent after seven years. It was further noted that large differences in sealant effectiveness are not apparent between studies performed in fluoridated and fluoride-deficient communities (32).

Messer and coauthors showed that regardless of sealant retention, caries experience was low under partially retained or missing sealants (5%) and completely retained sealants (<1%) (33).

Regarding retreatment, sealants placed in first permanent molars in 6-, 7-, and 8-year-olds required more retreatment than those in older children. Those placed initially in second molars in 11- and 12-year-olds required more reapplication than those placed in older children. It was concluded that sealants are a successful preventive procedure, but the failures of early-age placement leave some doubt as to the best time to place sealants (34).

It has been documented for decades that sealants are safe, effective, and underused. The latest data available indicate that in the United States only 15 percent of children aged 6–17 years have dental sealants (35). Another report indicates just 10 percent of the sample had sealants on their permanent molars (36).

Why there is underusage of a proven preventive material is hard to explain. Dentists continue to identify lack of insurance coverage for sealant application as a major barrier to patients receiving the service (37). Chapko promoted the two-stage, or opinion-leader, model of diffusion and suggested that new technologies can be promoted by first influencing dentists who consistently adopt early (38), while Farsi concluded that continuing education courses were more likely to change dentists' knowledge than attitude and behavior (39).

Cohen and co-workers concluded that professional organizations should take a more active role in promoting

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sealants to dentists, that professional organizations and governmental agencies should increase efforts to inform patients/consumers of the benefits of sealants, that guidelines for sealant use should be developed, that state boards should permit the delegation of sealants to trained auxiliaries, and that sealant manufacturers should make more effort to advertise and promote sealants (40). In another paper, Cohen suggested that the best combination of variables predicting sealant use were preventive orientation, opinion about sealants, and patient influence (41). A study by Lang et al. suggested that dental personnel may strongly influence dissemination of information about, and utilization of, pit and fissure sealants (42). Romberg and co-workers noted that variables significantly associated with sealant use included availability of insurance, ability to delegate sealant procedures, and patient income and acceptance (43).

In a Colorado study, it was shown that a relatively high percentage of Colorado dentists are utilizing sealants on a frequent basis. Major reasons for limited usage or nonutilization of sealants relates to lack of insurance coverage and concern regarding sealing in of caries (44).

Attitudes toward certain procedures are frequently born in dental school. In another report, Cohen noted that the students' projected sealant use in practice was explained best by the combination of student attitudes toward sealants and their evaluation of the overall preventive orientation of their dental school (45).

One of the concerns with adding sealant coverage to third party dental programs was the concern about overtreatment. Corbin et al. looked at the effect of third party plans and showed that sealants can be added to third party dental programs with little overall risk of inappropriate use or abuse (46). Newbrun noted that dental sealants, which are highly effective in protecting pits and fissures when applied soon after the teeth erupt, will be more widely used in the future when insurance plans will pay for prevention (47). In the 13 or so years that have passed, little increase in usage has been ascertained.

Selwitz and others, in an analysis of 16 factors thought to be related to sealant presence, revealed that parents were more likely to obtain dental sealants for their children if dentists or their staffs recommended them, if the parents were knowledgeable about dental sealants, if the parents were more highly educated, and if the parents had dental insurance coverage. Yet they were surprised to discover that parents were less likely to obtain dental sealants for their children if they heard about them from mass media. The latter finding was unexpected and may have been influenced by conflicting or negative opinion expressed by some dental practitioners through mass media or other channels of communication (48).

It remains a clear and disappointing fact that, despite the proven benefits, pit and fissure sealant treatment is offered to just a small percentage of the at-risk population.

Penetration of sealant is, in my opinion, a key factor in improving sealants of the future. Irinoda and co-workers showed that a low viscosity sealant penetrates better and forms a resin-impregnated layer with enamel, whereas the higher viscosity sealants tested did not penetrate enough to ensure that the acid-etched enamel was infiltrated sufficiently by the sealant to ensure good marginal seal (49). This finding runs contrary to the manufacturers' tendency today to promote filled sealants or flowable materials for sealant application. There is no evidence that these filled sealants will be better; what evidence there is tends to show that they will not be retained as well (50,51). Barnes et al., on the other hand, found that viscosity and flow characteristics have no effect on sealing ability or void formation (52). The effect of a sealant that penetrates better than conventional sealants would be interesting to study clinically over the long term. My best prediction is that the sealant that penetrates the best, all other factors remaining equal, is the sealant that will be retained the longest and therefore the sealant that will prevent the initiation, or the spread, of caries the longest.

Etchant penetration goes hand in hand with sealant penetration. If we are to use penetrating agents within sealants, then we also must provide a way to etch the fissure walls as deeply as possible. The present trend of using self-etching adhesives may well be of enormous benefit if applied to pit and fissure sealant. In one study, none of the commercially available etchants studied were able to penetrate further than 17 percent of the total fissure depth in the fissure model. A surfactant-containing etchant was tested and showed complete penetration within about 1 minute and had a significantly lower surface tension and contact angle than the other products tested. Only the surfactant-containing etchant could produce a retentive pattern on the entire wall enamel of the fissure with the exception of locations blocked by debris and plaque. Surfactant-containing etchants with a low viscosity can penetrate completely into fissures and can produce an increased retentive and wettable surface which significantly increased sealant penetration into deep fissures (53).

If sealants are gradually lost over time (as all sealants are to some degree), they should be repaired when deficient if they are to be effective (54).

There is an interesting dichotomy in how sealants are used in different parts of the world. In the United States the trend today seems to be to use far more caution in applying sealant to questionable areas (carious or not). It seems that the oxymoronic invasive diagnosis is the order of the day, with aluminum oxide air abrasion and small burs leading the way. In other parts of the world, sealants are not applied until caries is diagnosed visually (without invasive treatment). There it is recognized that well-applied sealants will prevent spread of an incipient lesion, as the literature shows. Why this is so hard to get across in the United States is hard to fathom.

Clearly, our powers of diagnosis are limited, particularly where pit and fissure caries is concerned. Innovative new diagnostic tools such as the DIAGNOdent (KaVo) promise objective, rather than subjective, diagnosis of pit and fissure caries (55,56). In a recent paper, Takamori et al. expanded the use of the laser fluorescence system into detecting caries under sealants, an intriguing use indeed. They showed that this laser diagnosis system (DIAGNOdent) makes it easy to detect the existence of caries under a pit and fissure sealant during a routine checkup (57). However, the technique did not work on white sealants and the opacity of the titanium dioxide may be the confounding factor at play.

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revolves around whether the subjectively caries-free fissures should be cleaned and sealed, or aggressively (invasively) opened (enameloplasty) prior to sealing with small burs or aluminum oxide abrasive systems, or whether the fissures should be left untreated, or maybe preventively treated with application of a fluoride varnish? The relatively viscous fluoride varnishes would, however, not penetrate the fissures to an ideal degree.

In some European countries, particularly the Scandinavian countries, routine application of pit and fissure sealant to caries-free teeth is seen as overtreatment. This approach is supported by the study of Heller et al. "Initially sound tooth surfaces were unlikely to become decayed in five years, and did not benefit greatly from the application of sealants. Within the limitations of this study, there were clear efficiencies in sealing incipient, but not sound, surfaces. The targeting of teeth with incipient caries for sealants is therefore recommended" (58). Others would prefer to investigate the surfaces prior to sealing: the results support the practice of opening up questionably carious fissures and removing caries (if present) before sealing (59).

In this philosophy of conservative pit and fissure management, the effect would be to leave all caries-free fissures unsealed until there is evidence of caries and only then seal the fissures. This is apparently an effort to minimize overtreatment of teeth that would never become carious and thus conserve valuable resources and manpower. However, in so doing, many teeth will become carious before sealing and this becomes an ethical dilemma. Is it ethical to allow a disease to occur before instituting proven, effective preventive procedures?

Applying sealant to small carious lesions is certainly justifiable—the literature is clear on this subject (60,61). However, when the sealant wears down and a fissure that was previously sealed becomes partially uncovered and the oral fluids are free once again to migrate down the fissure, under the sealant, and thus possibly interact with the bacteria in the dormant carious lesion once again, the caries process would once again become active. Depending on when the sealant is reapplied, the resulting damage could be limited or severe. It would seem to me to be more prudent to seal caries-susceptible, caries-free teeth and, once caries is diagnosed, to remove the caries and place a preventive resin restoration (62,63). Of course, if we had etchants and sealants or a combined self-etching adhesive sealant that penetrates to the base of all fissures, this would be of lesser concern.

It has been suggested that sealants should be a targeted treatment for just the high-risk patients. Graves et al. stated in 1986, "The dental profession should shift its emphasis from the early restoration of fissured-surface defects to an expanded use of sealants for those with reduced decay and focus resources on a minority of the population with high caries levels who receive limited care" (64).

Chewing gum containing xylitol has been shown to prevent caries to a similar degree as sealants. Alanen et al. found that sealants and xylitol chewing gum are equal in caries prevention. After 5 years, no statistically significant differences between the sealant and xylitol groups were found (65).

The use of combinations of preventive techniques—such as fluoride-containing varnishes, chewing gum containing xylitol, or agents that stimulate remineralization of demineralized enamel and sealants in a multipronged attack—should be studied further.

Croll has come up with perhaps the most innovative application of a pit and fissure sealant technique to date. He described a method of placing a reinforced resin-bonded sealant. He applies a dentinal bonding agent to etched enamel (or uses the new self-etching adhesives) and compresses a posterior composite into the fissures. "When the beneficial properties of resin-bonded sealants are combined with those of preventive resin restorations, the outcome is perhaps the "quintessential sealant" (66).

In a paper where almost 1,500 references involving pit and fissure sealant or other ancillary techniques were reviewed, the following conclusions can be drawn from the available scientific evidence. The etching agent of choice for pit and fissure sealant application is 35–37 percent orthophosphoric acid. The clinical technique for pit and fissure sealant application involves strict attention to detail and to perfect isolation for maintenance of a dry field. Dry brushing, rotary brushing with pumice paste, air polishing, and air abrasion have all been used to clean the enamel surface prior to etching. Air polishing appears to offer the best surface preparation technique. Etching time has shortened over the years to 15 seconds for both permanent and primary enamel. Trained auxiliaries are equally competent at sealant application. Pit and fissure sealant is well documented in terms of retention and caries prevention.

Fluoride-containing sealants have not shown superiority to regular sealant. With regard to using sealant as one component in an intensive preventive program, one study found that basic prevention leads to virtually the same preventive effect as intensive prevention treatments, while another found that providing intensive prevention to high-risk populations was a benefit. Glass ionomer sealants have failed miserably in comparison to resin-based sealants, showing very poor retention. The major benefit of resin sealants, that of excellent retention and thus physical blocking of the fissure system, appears much more important for caries prevention than the transient benefit of fluoride release over the short time glass ionomer sealants are retained. Even though some claim remnants of the glass-ionomer sealant may inhibit caries for longer time periods, this does not compensate for the poor retentive properties of the material.

Unfilled sealants perform better than filled sealants. Colored or clear resin sealant is a matter of personal preference; however, it has been shown that the ability to assess retention properly in colored sealants is much less error prone than with clear sealants. Use of an opaque color may interfere with the potential for laser fluorescent diagnosis of caries under a sealant. This may eventually become a valuable adjunct procedure in the follow-up routine of sealants placed years earlier, and thus the opaque white sealant may not be ideal (57).

Autocured sealant appears to have equivalent documentation of performance compared to visible-light-cured sealant. The data is unequivocal that sealant can safely be placed over incipient caries and that the lesion will remain dormant as long as the sealant eliminates contact of the oral fluids

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(and thus the nutrient source) with the cariogenic bacteria. The claim from some advocates of aggressive invasive exploration of apparently caries-free, or minimally carious, fissures that bacteria remaining viable within the confines of a sealed fissure can continue to produce acid from nutrients from the dentinal tubules is unsubstantiated.

Pit and fissure sealant can be regarded as cost effective or not cost effective, depending on the study design and results (primarily the retention of the sealant). It seems that even if the data show that sealant treatment is more costly than restoring surfaces that would have become carious in the absence of sealant, one must remember the intangible benefits of preventing disease and preventing loss of tooth structure. Application of sealant, from a maximally cost-effective view, is best applied to high-risk patients. While safe and effective and (according to some studies) cost effective, sealants are an extremely underused preventive treatment. Various rationalizations have been proposed to explain the incongruity of the underuse of a known successful preventive treatment.

One study raised concern about the safety of monomers leaching out of one particular sealant. Other more recent studies have refuted this concern and the present scientific position as expressed by the American Dental Association is that parental concern about the alleged estrogenicity of sealants is unfounded based on the presently available evidence. The use of an intermediate bonding layer, or the incorporation of the benefits of the advances of the past decade in dentin bonding agents into newly formulated pit and fissure sealants, is perhaps the most exciting new potential development for the future of pit and fissure sealant materials. The use of a caries-detecting laser fluorescence system as a routine baseline caries-assessment aid, prior to sealant application, and more recently as a follow-up observation, deserves further study.

The vast body of literature that is presently available to students and practitioners in the area of preventive dentistry is due in large part to pioneers who forged the path in modern preventive materials such as fluorides and sealants. Uniquely, Herschel S. Horowitz stood out for his contribu-

fluorides and pit and fissure sealants. His work has contributed to millions of children growing into adulthood with less disease than they would have had without the benefits Herschel Horowitz pioneered.

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EDITOR
Scott L. Tomar, DMD, DrPH
University of Florida College of Dentistry
Division of Public Health Services & Research
1600 SW Archer Rd., Box 100404, Rm. D8-38
Gainesville, FL 32610-0404
Tel: 352-846-1860; Fax: 352-392-2672
E-mail: stomar@dental.ufl.edu

ASSOCIATE EDITOR
FOR COMMUNITY ACTION REPORTS
Myron Allukian, Jr., DDS, MPH
46 Louders Lane
Boston, MA 02130
Tel: 617-534-4717; Fax: 617-534-9708
E-mail: MyAlluk@aol.com

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University of Florida College of Dentistry
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Gainesville, FL 32610-0404
Tel: 352-392-2671; Fax: 352-392-2672
E-mail: mremer@dental.ufl.edu

ARCHIVES EDITOR
Steven P. Geiermann, DDS
HRSA Chicago Regional Division
233 N. Michigan Ave., Suite 200
Chicago, IL 60601
Tel: 312-353-4402; Fax: 312-353-1212
E-mail: sgeiermann@hrsa.gov

Historian
E. Joseph Alderman, DDS, MPH

PUBLICATIONS MANAGER
Gabriele Glang
Bonwiedenweg 21
73312 Geislingen-Tuerkheim, Germany
Tel: 011-49-7331-43695; Fax: 011-49-7331-400148
E-mail: gabi.glang@arcor.de

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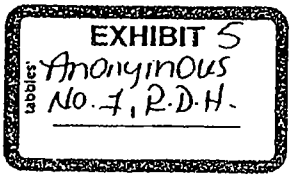
for

Richard J. Simonsen

Current: September 1, 2005

To the best of my knowledge, this document is a complete and accurate record of the academic career of Richard J. Simonsen, DDS, MS.

Richard Simonsen



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One-page Condensed Biographical Sketch

Present position:

Associate Dean for Admissions, Student Affairs and Research
Professor, Restorative Dentistry
Arizona School of Dentistry & Oral Health, Mesa, AZ 85206

Education:

BA, BS, DDS, MS (Epidemiology) University of Minnesota,
NIH Fellow in Cariology, University of Minnesota, Certificate in Cariology.

Clinical experience:

Practiced full time 1971 – 1973 and 1975 – 1978. Since then have maintained practice level of approximately four hours per week to the present time.

Editorial/publishing experience:

Authored four textbooks (translated in 8 separate foreign language volumes), 30 abstracts, 50 papers, 10 chapters in text books, 162 editorials, plus numerous foreign language editorials, and editorials reprinted in other journals by request (not all listed in full cv). Served 13 years as Editor-in-Chief of *Quintessence International*, and presently serve on numerous editorial boards, and as a reviewer. Conceptualized and developed the world's first all-electronic, peer-reviewed, online journal in dentistry *The Electronic Journal for Dentistry* 1999.

Research:

Clinical trial of a pit and fissure sealant (15 years).
First to publish concept of minimally invasive dentistry (the preventive resin restoration).
First to publish on the etching of porcelain.
All above research can be said to have had a direct application to the clinical practice of today's preventive and general dentistry.

Industry experience:

1989 – 1999: Global Professional Services Manager for 3M Company, Dental Products Division. 3M (now 3M-ESPE) is one of the world's premier, multi-national manufacturing companies with operations in over 60 countries. As Global Professional Services Manager, I served as a liaison between the corporation and dental schools, researchers, and clinicians around the world. Responsible for developing the Professional Services program and managing a group comprising both US-based, and international-based employees. Also led several cross-functional teams and organized several major educational/relationship-building meetings for influential practitioners from North America.

Lecturing/teaching experience:

Active lecturing at major national and international meetings since 1978. Presented over 400 presentations (many all-day lectures) by invitation in the US and in 28 countries.
Served as:

- Director of Research, Department of Operative Dentistry, New York University
- Chief of Operative Dentistry, University of Connecticut School of Dental Medicine
- Professor and Chairman, Department of General Dentistry (new department created by amalgamation of divisions of Operative Dentistry, Endodontics, Dental Public Health [Community Dentistry, Behavioral Science, Preventive Dentistry]), University of Tennessee, Memphis, College of Dentistry, Memphis, Tennessee

Hobbies:

Photography of wildlife, specializing in birds.
Bicycled three times across the United States raising money for charities such as the AFDH (American Fund of Dentistry for the Handicapped), the Ronald McDonald House, and Canine Companions for Independence).
England Schoolboy Champion 100 yds 1963, 220 yds 1964
Competed for England Schoolboys 1963-64, British Schoolboy Champion 220 yds 1964
Competed in track for University of Minnesota 1964-1968 (Big Ten Champion 1967)
Competed in track for Norway 1963-1973. Forty-five international representations; eight individual Norwegian Championships in 100m (1), 200m (3) and 400m (4). As of May 2005, still holder of Norwegian Junior (18 y/o) record at 400 m of 47.9 sec. set in 1964 and co-holder of Norwegian record 4 x 400 m 3:06.67 set in 1971.

Curriculum Vitae

Present Positions:
Associate Dean for Preclinical Affairs and Research
Professor, Restorative Dentistry
Arizona School of Dentistry & Oral Health
5850 E. Still Circle
Mesa, Arizona 85206
E-mail: rsimonsen@atsu.edu
Tel: 480-219-6082

Adjunct Professor, Diagnostic and Biological Sciences
School of Dentistry
University of Minnesota

Clinical Professor
Department of General Dentistry
University of Tennessee Memphis
Memphis, Tennessee

Personal:
Home address:
8919 East Minton Street
Mesa, Arizona 85207-1460
E-mail: rsimonsen@cox.net
Tel: 480-659-5441 480-203-9195 (cell)

Date / Place of Birth: August 20, 1945; Portsmouth, England
Social Security No: 477-56-XXXX (available on request)
Citizenship: United States (became naturalized US citizen May 2, 1981); previously held dual British and Norwegian citizenship

Education:

1953-1964	Portsmouth Grammar School, Portsmouth, England
1964-1967	College of Liberal Arts, University of Minnesota
1967-1971	School of Dentistry, University of Minnesota
1978-1981	School of Dentistry and School of Public Health, University of Minnesota

Degrees:

BA	1969 College of Liberal Arts, University of Minnesota
BS	1969 College of Liberal Arts, University of Minnesota
DDS	1971 School of Dentistry, University of Minnesota
MS (Epidemiology)	1981 School of Public Health, University of Minnesota
Certificate in Cariology	1981 School of Dentistry, University of Minnesota (NIH Post-doctoral Fellowship)

Licenses:
Licensed to practice dentistry in Norway, 1971
Licensed to practice dentistry in Minnesota, 1974 (License #8101)
Central Regional Boards, 1974
Licensed to practice dentistry in Tennessee, 1986 (License # DS004700)

Honors:

- 2003: Awarded Fellowship in the American Academy of Esthetic Dentistry
- 2000: Lifetime Achievement Award, World Congress of Minimally Invasive Dentistry, "In recognition and appreciation of your lifetime's exemplary contributions to the philosophy and science of Minimally Invasive Dentistry."
- 1999: Distinguished Service Award. The American Society of Dentistry for Children, "for productive research on sealants and other minimal intervention techniques."
- Honorary Member, Sociedad Odontologic de Chile, Santiago, Chile
- Member Omicron Kappa Upsilon, National Dental Honor Society

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- Elected to The Richard Doggett Dean & Marguerite Taylor Dean Honorary Odontological Society, 1989
- Outstanding Faculty Award, University of Tennessee, 1986
- Postdoctoral Fellowship in Cariology, National Institutes of Health, National Caries Program, 1978-1981
- Senior Student Award for Outstanding Achievement in Pedodontics, University of Minnesota 1971
- Dental School Honor Roll, University of Minnesota 1968, 1969, 1970, 1971
- BS and BA with distinction, University of Minnesota 1968
- Torskeklubben Fellowship, University of Minnesota 1968 -1969, 1969 -1970
- Henry L. Williams Memorial Scholarship, University of Minnesota 1966
- Four-year Athletic Scholarship (Track) to University of Minnesota, 1964-1968

Positions held:

09/00 – 08/01	Lasby Visiting Professor, School of Dentistry, University of Minnesota, Minneapolis, Minnesota
08/89 - 07/99	Global Professional Services Manager, 3M Company, Dental Products Division, St. Paul, Minnesota
07/88 - 07/89	Professor and Chairman, Department of General Dentistry (Divisions of Operative Dentistry, Endodontics, Dental Public Health [Community Dentistry, Behavioral Science, Preventive Dentistry]), University of Tennessee, Memphis, College of Dentistry, Memphis, Tennessee
12/85 - 07/88	Associate Professor and Chairman, Department of General Dentistry, University of Tennessee, Memphis, College of Dentistry, Memphis, Tennessee
10/82-12/85	Assistant Professor, Chief of Operative Dentistry, University of Connecticut School of Dental Medicine
09/81-10/82	Associate Professor and Director of Research, Department of Operative Dentistry, New York University
05/78 - 08/81	Postdoctoral Research Fellow in Cariology, School of Dentistry, University of Minnesota
05/75 - 05/78	Coordinator of Preventive Dentistry, Group Health Plan Inc.: Principal investigator in several research projects concerned with composite resins, pit and fissure sealants, and the acid etch technique
08/74 - 05/75	Clinical Instructor, Department of Operative . entistry, School of Dentistry, University of Minnesota
09/73 - 06/74	Clinical Instructor, Departments of Pedodontics and Endodontics, School of Dentistry, University of Minnesota
08/71 - 08/73	Dentist in children's dental clinic, Grim School, Kristiansand, Norway. Treatment limited to school-age children in the government/community-run school dental clinic. During this time also ran a part-time private practice for pre-school children.

Editorial Appointments:

2001 - present	Editorial Reviewer, *Medical Principles and Practice* (S. Karger, Kuwait)
2000 - present	Editorial Board, *Journal of Traumatology*
1999 - 2001	Editor-in-Chief, *The Electronic Journal for Dentistry*
1998 - present	Editorial Board, *Journal of Esthetic and Restorative Dentistry*
1998 - present	Editorial Board, *Journal of Adhesive Dentistry*
1997 - 1999	Editorial Reviewer, *Journal of Dental Research*
1994 - present	Editorial Board, *Dental Abstracts*
1983 - 1999	Editorial Reviewer, *Journal of the American Dental Association*
1984 - 1996	Editor-in-Chief, *Quintessence International*. Responsibilities included: selection of Section Editors—Gerald Barrack, DDS; David L. Cochran DDS, MS, PhD, MMSc; Anthony J. DiAngelis, DMD, MPH; William H. Douglas, BDS, MS, PhD; E. Steven Duke, DDS, MSD; Harald O. Heymann, DDS, MEd; Lee W. Graber, DDS, MS, PhD; Daniel M. Laskin, DDS, MS; John McLean OBE, FDS, MDS, DSc, MDS (Lond), Dr Odont (Lund); Ivar Mjör, BDS, MSD, MS, Dr Odont; Eric M. Rivera, DDS, MS; Herbert T. Shillingburg, Jr., DDS; Frank M. Spear, DDS, MSD; Thomas G. Wilson Jr., DDS, MS. : review of all manuscripts received; selection of reviewers for all manuscripts received; decision on acceptance or rejection of manuscripts; writing of monthly editorial; formulation of editorial policy decisions.
1989	Editorial Reviewer, *British Dental Journal*
1987	Section Editor, Restorative Dentistry Section, Clark's Clinical Dentistry, Harper & Row, Philadelphia, PA.

1985 - 1990	Editorial Advisory Board, Dental Health Adviser, Whittle Communications
1982	Editorial Reviewer, *Pediatric Dentistry*
1982	Editorial Reviewer, *Journal of Public Health Dentistry*
1981	Editorial Reviewer, *General Dentistry*, Academy of General Dentistry, Chicago, Illinois
1981	Book Reviewer for *Journal of Dental Education*
1979 - 1982	Editorial Advisory Board, *Quintessence Journal*, Quintessence Publishing Company, Chicago, Illinois
1977 - 1985	Board of Consultants, *Quintessence International*, Berlin, Federal Republic of Germany

Consultant positions:

2004 – present	Member, Expert Panel to Evaluate School-Based Sealant Programs, Centers for Disease Control, Atlanta
1993	Executive Member: The Dr. Irwin D. Mandel Research Endowment Fund
1993	Advisory Board: Charles L. Pincus Foundation
1992	American Dental Association's Council on Community Health, Hospital, Institutional and Medical Affairs
1989	National Institute of Dental Research. Chairman of Restorative Materials panel: NIDR Long-Range Research Plan for the 90s: Dental Caries, Fluorides, Nutrition, Pulp Biology, and Restorative Materials
1988	Dental Service, Veterans Administration, Memphis, Tennessee
1986 - 1989	American Fund for Dental Health. Grants and Allocations Division. Grant reviewer
1986 - 1987	AAPHD Oral Health Committee. Subcommittee on Sealants
1986	National Institute of Dental Research. Re-review contract No. N01-DE-22439
1986 - present	AADR National Affairs Committee Cohort Program
1986	National Institute of Dental Research. Chairman, Site Visit Committee to review renewal of contract No. N01-DE-22439, Cost Effectiveness of a Combined Sealant and Self-Applied Fluoride Program
1985 - 1986	Massachusetts Department of Public Health. Member working committee to examine issues regarding pit and fissure sealant use
1985 - present	ADA Subcommittee #39 on Pit and Fissure Sealants to evaluate ISO Standard 6874
1985	American Dental Association. Participant in national satellite newsfeed on the benefits of pit and fissure sealant
1984	American Association of Dental Schools. Reviewed film, The Caries Lifecycle: A Tug Of War, by The Proctor and Gamble Company, for AADS Executive Committee
1983	National Institute of Dental Research. Trained sealant application teams for field study combining use of sealant with self-administered measures of fluoride exposure for the control of dental caries in a non-fluoridated area (Nelson county, Virginia)
1983	World Health Organization. Pan American Health Organization Preventive Dentistry Conference, Havana, Cuba
1983	National Institute of Dental Research. Site visit member (Forsyth Dental Center). RFP 5-82-1R. Cost effectiveness of a combined sealant and self-applied fluoride program -- trained sealant application teams
1982	National Institute of Dental Research. Contract reviewer RFP 5-82-1R. Cost effectiveness of a combined sealant and self-applied fluoride program
1982 - present	American Dental Association. Member Subcommittee ANSC MD 156-39 on Pit and Fissure Sealants
1979	Educational Film Reviewer for American Dental Association., Chicago, Illinois
1977 - 1981	Consultant in Forensic Dentistry to Hennepin County Medical Examiner, Minneapolis, Minnesota
1976 - 1985	Dental Products Consultant, 3M Company, St. Paul, Minnesota
1972 - 1973	Consultant in Forensic Dentistry, Kristiansand Police Department, Kristiansand, Norway
1971 - 1973	Pediatric Dental Consultant to Krossen School for Handicapped Children, Kristiansand, Norway

Membership in Scientific and Professional Societies:

American Dental Association

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Academy of Operative Dentistry
Academy of Restorative Dentistry
Academy of Dental Materials
American Academy of Esthetic Dentistry (Fellow, and Member of Board of Directors)
American Association for Dental Research
American Association of Dental Schools (now American Dental Education Assoc.)
Arizona Dental Association (Central Arizona Dental Association)
International Association for Dental Research

Other Positions Held:

2005 - present	Board of Directors, American Academy of Esthetic Dentistry
2004 - present	Board of Directors, CAIC
2003 - 2004	Membership Committee, American Academy of Esthetic Dentistry
2001 - 2002	Awards Committee (Chair), American Academy of Esthetic Dentistry
2000 - 2002	Board of Directors, World Congress of Minimally Invasive Dentistry
1983 - 1985	Secretary-Treasurer, Connecticut Section, American Association for Dental Research
1989 - 1999	Executive Board, CHISA (Committee for Health in Southern Africa)

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Abstracts:

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Simonsen RJ, Schachtele CF, Joos RW: An evaluation of sterilization by autoclave in dental offices. J Dent Res 1979; 58 (special issue A):400 (abstr No. 1236).

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Simonsen RJ: Acid etched Class II composite resin restoration in the primary dentition. J Dent Res 1981; 60 (special issue A):581 (abstr No. 1087).

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Simonsen RJ: Five-year results of sealant effects on caries prevalence and treatment cost. J Dent Res 1982; 61:332 (abstr No. 1380).

Simonsen RJ, Barouch E, Gelb M: Cusp fracture resistance from composite resin in Class II restorations. J Dent Res 1983; 62:254 (abstr No. 761).

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Gilpatrick RO, Goldberg AJ, Simonsen RJ: Clinical assessment of four composite resins for posterior teeth. J Dent Res 1987; 66 (special issue):129 (abstr No. 180).

Goldberg AJ, Gilpatrick RO, Simonsen RJ: Reliability of the M-L Scale in clinical evaluations of posterior composite resins. J Dent Res 1987; 66(special issue):129 (abstr No. 181).

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Simonsen, RJ: Die Säureätztechnik in der täglichen Praxis, Quintessence Publishing Co., Berlin, 1978.*

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Simonsen RJ, Thompson VP, Barrack G: Técnica de grabado ácido en prótesis de puentes. Editorial Medica Panamericana S.A., Buenos Aires, 1984.**

Simonsen RJ, Thompson VP, Barrack G: Restaurations "collées": Techniques cliniques et de laboratoire. Editions CDP, Paris, 1985.**

Simonsen, RJ, Thompson VP, Barrack G: Restaurações adhesivas: técnicas clinica e laboratorial. Medicina Panamericana Editora do Brasil Ltda. Sao Paulo, Brazil, 1985.**

Simonsen RJ, Thompson VP, Barrack G: Protesi parziali fissate con resina (Maryland Bridge) tecniche cliniche e di laboratorio. Scienza e tecnica dentistica edizioni internazionali s.n.c., Milan, Italy, 1985.**

**(Translations of the original English text into German, Spanish, French, Portuguese, and Italian)

Simonsen RJ: Creating Foundations that Stand the Test of Time. Monograph, Dental Products, Health Care Products and Services Division, 3M Canada Inc, London, Ontario, 1990.

Simonsen RJ: Dentistry in the 21st Century: A Global Perspective. Editor, Quintessence Publishing Company, Chicago, Illinois, 1991

Chapters in other books:

Chapter 18: Acid etch as a preventive technique in dentistry. In A Textbook of Preventive Dentistry, Caldwell RC, Stallard RE (eds.), W.B. Saunders and Co., Philadelphia, 1977.

Chapter 16: Pit and fissure sealant. In A Textbook of Preventive Dentistry, Second edition, Stallard RE (ed.), W.B. Saunders and Co., Philadelphia, 1982.

Chapter 17: The acid etch technique in preventive resin restorations. In A Textbook of Preventive Dentistry, Second edition, Stallard RE (ed.), W.B. Saunders and Co., Philadelphia, 1982.

Chapter 11: Pit and fissure sealant: theoretical and clinical considerations. In Textbook of Pediatric Dentistry, Second edition, Braham RL, Morris ME, Williams and Wilkins, Baltimore, 1985.

Chapter 21B: Pit and fissure sealant and the preventive resin restoration. In Clinical Dentistry, Clark JW (ed.), Harper and Row, Philadelphia, 1985.

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Chapter 3: De techniek en de resultaten van de fisuurlakbescherming. In Fissuurlakken, Davidson CL, Eschen S: CIP-Gegevens Koninklyke Bibliotheek, The Hague, The Netherlands, 1986.

Chapter 21A: Pit and fissure sealant. In *Clinical Dentistry*, Clark JW (ed.), Mosby, Chicago, 1996.

Chapter 22A: The preventive resin restoration. In *Clinical Dentistry*, Clark JW (ed.), Mosby, Chicago, 1997.

Educational Monograph:

Preventing Pit and Fissure Caries: A guide to sealant use,
Ripa LW, et al., Massachusetts Department of Public Health, Division of Dental Health, in cooperation with Massachusetts Health Research Institute, Inc., Massachusetts, 1986.

Editorials:

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Jan	1984	With the new year . . . comes change
Feb	1984	Professionalism
Mar	1984	Continuing dental education
Apr	1984	Time to update our curricula?
May	1984	Introducing the section editors
June	1984	Dental amalgam—friend or foe?
July	1984	A commonsense approach to alloys
Aug	1984	New techniques in the dental school curriculum
Sep	1984	An invitation to participate
Oct	1984	To compromise—a necessary decision
Nov	1984	The rubber dam—dentistry's ugly duckling
Dec	1984	The end of an era. . . .

Quintessence International

Jan	1985	An obligation
Feb	1985	Glass-ionomer cement
Mar	1985	Pit and fissure sealant—anno 1895
Apr	1985	Product advertising
May	1985	A wise and ethical course
June	1985	The closing of a dental school
July	1985	The use of field magnification
Aug	1985	Hepatitis B: The hidden occupational hazard
Sep	1985	We're still growing!

Oct	1985	The dentifrice deception
Nov	1985	Protecting the public—or protecting organized dentistry?
Dec	1985	Information for readers: topic focus
Jan	1986	Quality versus quantity
Feb	1986	Continuing dental education—compulsory or voluntary?
Mar	1986	Smokeless tobacco—an oral cancer risk factor
Apr	1986	Consumer-oriented advertising—informational, or a subtle form of blackmail?
May	1986	The patient comes first
June	1986	Our international flavo(u)r
July	1986	The golden age of dentistry
Aug	1986	Tooth "plumping"
Sep	1986	The prophylactic odontotomy—dead or alive?
Oct	1986	Topic focus—the posterior composite resin
Nov	1986	Cross-contamination—beware!
Dec	1986	Freedom of movement
Jan	1987	A new year—a new look with global appeal
Feb	1987	Beauty and the beast
Mar	1987	Pit and fissure sealant—the debate (unfortunately) continues
Apr	1987	Recognizing limitations
May	1987	Ethics in publishing
June	1987	The direct gold restoration—boom or doom
July	1987	Fragmentation of the dental health care team
Aug	1987	Topic focus—posterior composite resin symposium
Sep	1987	Beauty and the beast. Reactions
Oct	1987	Topic focus—a global outlook
Nov	1987	Elitism at the expense of the public interest?
Dec	1987	Did the North Dakota State Board of Dental Examiners act in the public interest on January 16, 1987?
Jan	1988	Audiotaped lectures for sale—caveat emptor and let the speaker decline!
Feb	1988	Quality health care or financial gain?—the sleaze factor
Mar	1988	The public health versus individual rights
Apr	1988	Are we restoring, when we should be preventing?
May	1988	The by-products of selfishness
June	1988	The IADR—awards and challenges
July	1988	Corruptio optimi pessima
Aug	1988	An editor's lot
Sept	1988	Dental health care for the elderly—unavailable or unaffordable
Oct	1988	Dentistry: Caring for the World
Nov	1988	Public health, or wealth?
Dec	1988	Behind the Smile—Is the Battle Won?
Jan	1989	Quintessence International—20 years of service to dentistry
Feb	1989	Well(th) -- only for the wealthy?
Mar	1989	The Divided States of America: are state board examinations protectionist or discriminatory?
Apr	1989	The merchants of death—tobacco kills
May	1989	Freedom of expression
June	1989	Passing the buck—allowing the underqualified student to slide by
July	1989	The move is on
Aug	1989	Informed consent or induced consent—do your patients really understand?
Sep	1989	Let the teachers choose, not the politicians
Oct	1989	There's a smile born every minute
Nov	1989	Why not prevention?
Dec	1989	Third party payment—second class treatment?

Jan	1990	The tenure system—protector of academic freedom or the dinosaur of academia?
Feb	1990	Dentin: to etch, or not to etch
Mar	1990	Fraud in research
Apr	1990	Need before greed
May	1990	PAC is their name. Sops are their game
June	1990	Make a difference
July	1990	Who's teaching the teachers?
Aug	1990	The patient's right to life—a student's right to live
Sept	1990	Quo vadis, IADR?
Oct	1990	Multiple authors—an ethical dilemma
Nov	1990	AIDS—a question of informed consent
Dec	1990	Home bleaching—is there scientific support?
Jan	1991	Misrepresentation in dental advertising
Feb	1991	Forward to progress, or backward to security?
Mar	1991	The death of amalgam
Apr	1991	The amalgam controversy
May	1991	AIDS, informed consent, and the practicing dentist
June	1991	Science fiction in the ivory tower
July	1991	The American Society for Clinical Research
Aug	1991	Ralph Phillips: pragmatist, philanthropist, and just plain nice guy
Sep	1991	A responsibility in death
Oct	1991	Prison for practicing?
Nov	1991	Heads, hearts, bodies, lungs, and teeth
Dec	1991	A teacher's responsibility
Jan	1992	Conflicting goals
Feb	1992	Chewing gum as a part of preventive dentistry? Who's kidding whom?
Mar	1992	Future health care changes—be prepared
Apr	1992	The patient's right to know
May	1992	Prudence before profit—safety issues and new products
June	1992	A plea for clinical trials—belief is not enough
July	1992	Bursting the chewing gum bubble
Aug	1992	Education—who's responsible?
Sept	1992	Censorship or common sense? Not all opinions merit publication
Oct	1992	Patient protection before personal profit
Nov	1992	Addiction for sale
Dec	1992	A formula for disaster: Tenure plus the demise of mandatory retirement
Jan	1993	Dental health care—Can it be provided to all?
Feb	1993	The Golden Age of teaching—Over for some, here to stay for those who care
Mar	1993	Technology transfer—it must go faster
Apr	1993	Anecdote beats out science—popular but unfortunate
May	1993	OSHA—as the pendulum swings
June	1993	The selfish wail against change
July	1993	Funeral for a friend
Aug	1993	A balanced global journal for the global reader
Sep	1993	Much ado about resin
Oct	1993	And the door is locked
Nov	1993	The teachers must learn too
Dec	1993	Across-the-board salary increases—A reward for mediocrity
Jan	1994	Scientific misconduct and the blind eye
Feb	1994	Idealism versus realism
Mar	1994	When "I'm a businessman" says shame
Apr	1994	Need before greed

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May	1994	A three-step risk-protection strategy
June	1994	Cheating on research data—Is it really worth it?
July	1994	The triumph of good is complete
Aug	1994	Questionable coauthorship—an erosion of ethical standards
Sept	1994	And the patient suffers
Oct	1994	Dollars or discretion?
Nov	1994	The electronic journal
Dec	1994	The responsibility is yours
Jan	1995	Why crowns?
Feb	1995	What price knowledge?
Mar	1995	Move over amalgam—at last
Apr	1995	Credit where credit is due
May	1995	AIDS and dental treatment—a freedom of choice issue
June	1995	But it is time, dear Professor
July	1995	It just makes sense
Aug	1995	I was wrong—responsibility comes before freedom
Sep	1995	Where knowledge is ignored
Oct	1995	Dentistry and the Internet—enthusiasm mixed with caution
Nov	1995	Smokeless is senseless
Dec	1995	Don't confuse me. Consistency, please!
Jan	1996	Changes
Feb	1996	Codes of ethics
Mar	1996	Abstracts—sometimes useful, sometimes dangerous
Apr	1996	Madiba, man of peace
May	1996	The integrity of the institution
June	1996	The reality of nonscience-based newsletters
July	1996	Corporate-sponsored research contracts—an ethical minefield
Aug	1996	Peer review—it should mean something
Sep	1996	Conflicts of interest
Oct	1996	Word theft
Nov	1996	"When Life knocks at the door no one can wait"
Dec	1996	Thank you

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Oct	1989	Passing the buck—allowing the underqualified student to slide by (reprinted from Quintessence International)
Mar	1994	Dump the junk
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May/J	2000	It is. Are you? 45(3):100-101.

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May-June	2001	Whatever happened to Hippocrates? General Dentistry, 2001;49:232-234.

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Die Quintessenz

Feb	1984	Beständig ist nur der wandel
Feb	1985	Unsere verantwortung
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Nov	1985	Hepatitis B -- ein verstecktes berufsrisiko

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Feb.	1987	Les composites pour dents posterieures

Journal of the Dental Association of South Africa

May	1987	Beauty and the beast (reprinted from Quintessence Int, Feb. 1987)
July	1994	Need before greed (reprinted from Quintessence Int, April, 1994)

Chicago Dental Society Review

July	1987	Freedom of movement (reprinted from Quintessence International, Dec. 1986) the Quintessence (Tokyo, Japan)
Jan	1988	Ethics in publishing (reprinted from Quintessence International, May 1987)

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Dentistry today: putting profit before patients. Aust Endod J. 1999 Dec;25(3):122-3.

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Condensable posterior composite resin? J Am Dent Assoc 1986; 113:578.
Sealants in the public good. General Dentistry 1987; Mar-Apr:97.
Behind the smiles. The Commercial Appeal 1988; Jul 18.
Use of the rubber dam in the UK. Brit Dent J 1991; 170(2):48.
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Evaluation of a new intraoral isolation device. Op Dent 1992;17:36.
A plea for clarification and consistency. J Am Dent Assoc 1996;127:22-23.
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Without evidence, where goes treatment? Dental Economics, 2001; January: 14-18.
Arranged marriages are rarely very happy. Dental Abstracts, 2001; March/April: 60.
Traumatic injuries to the primary teeth. Dent Traumatol, 2003;19(2):118.

Audiotapes:

Ripa L, Simonsen RJ: Pit and Fissure Sealant. Academy of General Dentistry Update, 1982.
Simonsen RJ, Douglas WH, Posnick WP: Current Developments of Restorative Materials. Academy of General Dentistry Update, Volume 7, Issue 12, 1988.

Videotapes:

Single Bond: script writer, producer in videotape for 3M Dental, 1997.

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1989 Insight to Esthetic Dentistry. Made in conjunction with Brasseler USA, Inc.
Improve Your Smile with Cosmetic Dentistry. Dental Health Advisor Booklet, Whittle Communications, Knoxville, Tennessee, 1988.
The Posterior Composite Resin Restoration. Made for University of Tennessee live satellite videoconference, December 5, 1987.
The Porcelain Veneer. Made for University of Tennessee live satellite videoconference, December 5, 1987.
The Preventive Resin Restoration. Made in conjunction with Vivadent (USA), Inc., 1986.

Instructional brochures:
Experts Predict an Optimistic Future for Dentistry. Made in conjunction with the L. D. Caulk Company, 1987.
You Are About to Witness the Future of Restorative Dentistry. Made in conjunction with the 3M Dental Products Company, 1987.
The Preventive Resin Restoration. Made in conjunction with Vivadent (USA), Inc., 1986.
The Preventive Resin Restoration. Made in conjunction with Johnson & Johnson Dental Care Products, 1986.

Miscellaneous Articles in which clinical photographs were requested and used:
Clinical photographs in Miracles in Modern Dentistry, LIFE magazine 1983; Oct:67-85.
Clinical photographs in a Guide to Dental Health, J Am Dent Assoc 1984; 60-61(special edition):31, 60-61.
Clinical photographs in: Pit and fissure sealant use: an issue explored. J Am Dent Assoc 1984; 108:310-322.
Cover photograph, J Am Dent Assoc 1984; March.
Clinical photographs in Dentistry-Pharmacy issue, Pharmacy Times 1984; 50(7):74.
Clinical photographs in Hecht A: Sealing teeth to prevent cavities. FDA Consumer 1984; 18(3):5-7.
Clinical photographs in Self magazine 1984; Sept.
Clinical photographs in J Am Dent Assoc 1984; 109:138.
Poster photograph for US Department of Health and Human Services. "Sealants and fluorides: a winning combination for tooth protection," 1984.
Clinical photographs in USA Today 1986; May.
Clinical photographs in Good Housekeeping 1986; Jul:84.
Clinical photographs in Saturday Evening Post 1986; Sept:22.
Clinical photographs in World Book Inc., 1986.
Ripa L, Simonsen RJ: Pit and Fissure Sealant. Academy of General Dentistry Update, 1982.
Simonsen RJ, Douglas WH, Posnick WP: Current Developments of Restorative Materials. Academy of General Dentistry Update, Volume 7, Issue 12, 1988.
Clinical photographs in The Chairside Instructor, ADA Division of Communications, 1987; p18.

Foreign-language publications:
Simonsen RJ: (Japanese characters not available). Quintessence Int (Tokyo) 1977; 9:57-64.

Simonsen RJ: (Japanese characters not available). Quintessence Int (Tokyo) 1978; 2:71-76.

Simonsen RJ: (Japanese characters not available). Quintessence Int (Tokyo) 1978; 7:79-86.

Simonsen RJ: (Japanese characters not available). Quintessence Int (Tokyo) 1978; 8:73-81.

Simonsen RJ: Fissuren-sealer: haltbarkeit gefärbter sealer drei monate nach applikation. Die Quintessenz 1978; 5:139-144.

Simonsen RJ: Präventive kunststoff-füllungen (I). Die Quintenssenz 1978; 7:99-106.

Simonsen RJ: Präventive kunststoff-füllungen (II). Die Quintenssenz 1978; 8:95-103.

Simonsen RJ: Restauración de una fractura por traumatismo: una alternativa en el uso de la técnica de grabado con ácido. Quintaesencia Edicion Espanola, 1980; 2(4):21-28.

Stombaugh EF, Simonsen RJ: Vierhändiges viersiegeln von fissuren und grubchen. Quintessenz Journal 1980; 6:19-26.

Simonsen RJ: Grübchen- und fissurenversiegelung: klinische technik und untersuchungsergebnisse (I). Die Quintessenz 1980; 6:41-52.

Simonsen RJ: Grübchen- und fissurenversiegelung: klinische technik und untersuchungsergebnisse (II). Die Quintessenz 1980; 7:25-37.

Simonsen RJ: (Japanese characters not available). Quintessence Int (Tokyo) 1980; 8:15-22.

Simonsen RJ: (Japanese characters not available). Quintessence Int (Tokyo) 1982; 1:112-123.

Simonsen RJ: Die restauration traumatischer frontzahnfrakturen: eine mögliche anwendung des säure-ätz-technik-komposits. Die Quintessenz 1982; 12:2365-2372.

Thompson VP, Barrack G, Simonsen RJ: (Japanese characters not available) Quintessence Int (Tokyo) 1983; 8:45-513.

Simonsen RJ, Thompson VP, Barrack G: Considérations générales sur la configuration des armatures prothétiques et la modification des dents antérieures en prothèse collée. Odontologia 1983; 4:75-82.

Simonsen RJ: Scellement des puits et fissures: le moment est venu. Odontologia 1984; 5(4):31-33.

Simonsen RJ: Préservation de la structure dentaire en dentisterie restauratrice. Odontologia 1985; 6(1):23-32.

Simonsen RJ: Sigillanti di solchi e fessure: è guinto il momento. Quintessence Int Edizione Italiana 1985; 4:429-430.

Simonsen RJ: Sigillanti per cavità e fessure: cosa ne pensano e come li usano i dentisti del Minnesota. Quintessence Int Edizione Italiana 1985; 989-995.

Simonsen RJ: Mantenimento della struttura dentale in conservativa. Quintessence Int Edizione Italiana 1986; 469-478.

Simonsen RJ: Die erhaltung von zahnsubstanz in der restaurativen zahnheilkunde (I). Die Quintessenz 1987; 1:29-41.

Simonsen RJ: Die erhaltung von zahnsubstanz in der restaurativen zahnheilkunde (II). Die Quintessenz 1987; 2:221-225.

Simonsen RJ, Kanca J: Dureté de surface des composites postériers à la suite d'un complément de polymérisation après adjustement occlusal simulé. Odontologia 1987; 8(1):27-29.

Simonsen RJ: Relacion coste-efectividad del sellado de pozos y fisuras al cabo de 10 anos. Quintessence (Ed. Espanola) 1989; 2(10):609-617.

Simonsen RJ: Selantes de fissura: Relação custo / eficácia 10 anos após aplicação. Quintessencia Jornal de Saúde Oral (Edição em Portugues) 1990; 1(3): 155-164.

Gilpatrick RO, Ross JA, Simonsen RJ: Resin-to-enamel bond strengths with various etching times. Quintessence (Russian edit.) 1991;1:217-220.

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Simonsen RJ: La odontologia estadounidense hoy: aanteposicion del lucro a los intereses del paciente. (Editorial) Dental Abstracts en Espanol. 1999; 6:168-170.

All of the previously listed foreign-language publications are translations of articles or editorials previously published in English.
The following is an original foreign language publication:

Afseth J, Ullsfoss BN, Simonsen RJ: Restaurering av kronefraktur med det originale tannfragment. Den norske tannlægeforenings tidende 1983; 93:193-195.

Film/Video Reviewer:
Adhesive Sealants for the Prevention of Dental Caries. National Caries Program, National Institute for Dental Research, J Am Dent Assoc 1979; 98:739.

Fluorides in Dentistry. Review for Academy of General Dentistry.

The Caries Lifecycle: a Tug of War. Review for American Association of Dental Schools.

Dental Report. Whittle Communications.

Grants and Contracts:

1976 Co-Principal Investigator
Clinical Effectiveness of Pit and Fissure Sealant,
3M Company
Cumulative Support: $6,000

1981 Principal Investigator
Five Year Results: Clinical Effectiveness of Pit and Fissure Sealant 3M Company
Cumulative Support: $5,000

1982 Co-Principal Investigator
Clinical Effectiveness of Den-Temp
The Majestic Drug Company
Cumulative Support: $10,000

1983 Principal Organizer
Symposium on Pit and Fissure Sealants
ADA Annual Meeting, Anaheim, California
Participating Companies: The L.D. Caulk Company, Den-Mat Corp.; ESPE Premier Sales Corp., Johnson and Johnson Dental Products, Kulzer Inc., 3M Dental Company Dental Products, and Vivadent (USA) Inc.
Cumulative Support: $10,000

1983 Principal Investigator
Posterior Composite Resin Trial
The Den-Mat Corporation
Cumulative Support: $31,946

1984 Co-Principal Investigator, Posterior Composite Resin Trial
The Johnson and Johnson Dental Products Company
Cumulative Support: $32,000

1985 Co-Principal Investigator
Case Control and Clinical Trial Evaluation of "Maryland Bridges" on the Periodontium
The University of Connecticut Health Foundation
Cumulative Support: $9,800

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1986 Principal Investigator
Ten-Year Results: Clinical Effectiveness of Pit and Fissure Sealant
3M Company
Cumulative Support: $4,910

1987 Principal Investigator
Clinical Assessment of a Fissure Sealant
Imperial Chemical Industries (ICI PCL), Macclesfield, England
Cumulative Support: $33,480

1988 Principal Investigator
Clinical Performance of a Fissure Sealant with Different Sealant Viscosities, Different Etching Times, and Different Enamel Pretreatment. Imperial Chemical Industries (ICI PCL), Macclesfield, England
Cumulative Support: $12,500

1989 Principal Investigator
Clinical Comparisons of the Class I amalgam restoration to the preventive resin restoration. Dental Alumni Fund Research Grant, University of Tennessee, College of Dentistry.
Cumulative Support: $8,465

Committee Assignments:
(University and Industry Committees too numerous to list)
AADR National Affairs Cohort Committee
Charles L. Pincus Foundation
Consultant on Subcommittee on Sealants (AAPHD Oral Health Committee)
Irwin D. Mandel Foundation Committee
Ralph W. Phillips Memorial Committee

Table clinics:

1976, '77, '78	Minnesota State Dental Meeting
1977	American Dental Association Annual Meeting, Miami
1978	Chicago Dental Society Mid-Winter Meeting, Chicago
1980	American Academy of Restorative Dentistry, Chicago
1982	The American Dental Society of Europe, Sandefjord, Norway
1983	Academy of Operative Dentistry, Chicago

Selected Guest Lectures and Seminars Presented (194 of 410)
(* Indicates all-day presentation)

1978 Acid Etch Technique. Faculty of Creighton University, Omaha, Nebraska
1978 Scientific Session Lecture, American Dental Association Annual Meeting, Anaheim, California

1979 Limited Attendance Clinics (two) and Breakfast Seminar Moderator, Chicago Dental Society Mid-Winter Meeting, Chicago, Illinois
1979 Acid Etch Technique and Composite Resin Systems. Tokyo, Japan*
1979 Acid Etch Technique and Composite Resin Systems. Osaka, Japan*
1979 Acid Etch Technique. Virginia Department of Public Health, Virginia Beach, Virginia*
1979 Acid Etch Technique. University of Leuven, Brussels, Belgium*
1979 Acid Etch Technique. U.K. Chapter Alpha Omega Fraternity, London, England*
1979 Preventive Resin Restorations, (scientific communication) Federation Dentaire Internationale, Annual Meeting, Paris, France

1980 Composite Resins. American Academy of Restorative Dentistry, Chicago, Illinois
1980 Acid Etch Technique and Composite Resins. Baylor University School of Dentistry, Dallas, Texas*
1980 Acid Etch Technique and Composite Resins. University of the Pacific, San Francisco, California*
1980 Acid Etch Technique and Composite Resins. Loma Linda University, California*

1981 Two-day program of lectures and demonstrations on the acid etch technique, pit and fissure sealants and composite resins. The Karl Haüpl Institute for Postgraduate Education in Dentistry, Dusseldorf, Federal Republic of Germany**
1981 Caries: Seminar Leader, Chicago Mid-Winter Meeting, Chicago, Illinois
1981 Composite Resin Restorations, Limited Attendance Lectures (2), Chicago Mid-Winter Meeting, Chicago, Illinois
1981 The Acid Etch Technique and Composite Resins. University of Connecticut, Farmington, Connecticut*
1981 The Acid Etch Technique: It's Past, Present and Future Contributions to Dentistry. New York University, New York, New York
1981 The Acid Etch Technique and Composite Resins. University of Florida Continuing Education Program, Gainesville, Florida*

1982 The Acid Etch Technique and Composite Resins. Medical University of South Carolina, Charleston, South Carolina*
1982 The Acid Etch Technique and Composite Resins. Loma Linda University Continuing Education Program, Loma Linda, California*
1982 (Mar) The Acid Etch Technique and Composite Resins. Massachusetts Academy of General Dentistry, Framingham, Massachusetts*
1982 (Apr) The Acid Etch Technique and Composite Resins. American Society of Dentistry for Children Annual Meeting Speaker, New York City, New York*
1982 (May) The Acid Etch Technique and Composite Resins. Connecticut State Dental Association Annual Meeting, Participation Course, Stamford, Connecticut
1982 (June) The Resin Bonded Etched Alloy Fixed Prosthesis. The American Dental Society of Europe, 88th Meeting, Sandefjord, Norway
1982 (June) The Clinical and Laboratory Technique for Etched Cast Prostheses. Group Health Plan Incorporated, St. Paul, Minnesota
1982 (Oct) Etched Cast Prostheses. New York University Alumni Day, New York, New York
1982 (Nov) The Acid Etch Technique: Composite Resins and Etched Cast Restorations. Massachusetts Academy of General Dentistry, Springfield, Massachusetts*
1982 (Dec) The Acid Etch Technique and Composite Resin. Caribbean Atlantic Regional Dental Association, Biennial Conference, Barbados*

1983 (Apr) The Acid Etch Technique and Etched Cast Restorations: Update on Uses in Pediatric Dentistry. Annual Meeting Speaker American Society of Dentistry for Children, San Francisco, California*

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1983 (Aug) Composite Resins, Acid Etch Technique and Etched Cast Restorations. Medical College of Virginia, Virginia Commonwealth University, Virginia Beach, Virginia*

1983 (Aug) Composite Resin Systems in Dentistry. Gordon Research Conferences, Adhesion Conference, New Hampton, New Hampshire

1983 (Sept) Etched Cast Restorations. Studiodent, West Berlin, Federal Republic of Germany*

1983 (Oct) The cost-effectiveness of pit and fissure sealant. Eastman Dental Institute, Rochester, New York

1984 (Jan) The Etched Cast Restoration. Puerto Rico Dental Association, San Juan, Puerto Rico

1984 (Jan) The Future of Posterior Composite Resin Restorations. Congreso Dominicano de Odontologia Pediatrica, Santo Domingo, Dominican Republic

1984 (Mar) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Dusseldorf, Federal Republic of Germany*

1984 (Mar) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. West Berlin, Federal Republic of Germany*

1984 (Apr) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Annual Meeting Speaker, American Society of Dentistry for Children, Chicago, Illinois*

1984 (Apr) Futoro Presente in Odontoiatria e Odontotecnica. Giornate di Clinica e Scienza Merceologica. Associazione Nazionale Commercianti Internazionali Dentali e Sanitari, Venice, Italy

1984 (June) Clinical Considerations of the Acid Etch Technique: Preventive Resin Restorations, Class II Composite Resin Restorations and Etched Cast Restorations. 104th Annual British Dental Association Meeting and Third International Quintessence Symposium, London, England

1984 (Aug) Ultrastructure of Enamel and Dentin: Bonding of Resins to Enamel and Dentin. The University of Illinois at Chicago, Latin American Course, Chicago, Illinois*

1984 (Aug) The Acid Etch Technique's Impact on Esthetic Dentistry. American Academy of Esthetic Dentistry, Bermuda

1985 (Jan) Rationale, Effectiveness and Implications for the Clinical Use of Pit and Fissure Sealant in the Private and the Public Sector. Georgetown University, Washington, D.C.

1985 (Feb) Dental Caries Decline: Implications for Private Practitioners and Public Programs. McGill University/Canadian Dental Association, Montreal, Canada

1985 (Feb) The Clinical Use of Pit and Fissure Sealant: Uses in the Public and Private Health Care Sectors. National Health Service Corps, Western Regional Meeting, San Diego, California

1985 (Mar) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Societe Francophone Belge de Medecine Dentaire, Brussels, Belgium*

1985 (Mar) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. N.W.T.A. Foundation for Continuing Education, Utrecht University, Utrecht, Holland*

1985 (Mar) Conservative Restorative Dentistry: From the Preventive Resin Restoration to the "Maryland" Bridge. Fourth Annual International Quintessence Symposium, Karlsruhe, Federal Republic of Germany

1985 (Apr) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Two days of lectures to students, faculty and practitioners at the University of Puerto Rico, School of Dentistry, San Juan, Puerto Rico**

1985 (May) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Texas Dental Association Annual Meeting, San Antonio, Texas*

1985 (Jun) Pit and Fissure Sealant and the Preventive Resin Restoration. University of the Pacific, San Francisco, California

1985 (Jul) Clinical Applications of the Acid Etch Technique. The University of Pretoria, Pretoria, South Africa*

1985 (Jul) The Acid Etch Technique in Paedodontics and Periodontics. The Paedodontic Society of Pretoria, Pretoria, South Africa

1985 (Jul) The Preventive Resin Restoration. Medical University of Southern Africa, Medunsa, South Africa

1985 (Aug) The Preventive Resin Restoration. University of the Witwatersrand, Johannesburg,South Africa

1985 (Aug) The Preventive Resin Restoration. University of Stellenbosch and University of the Western Cape, Cape Town, South Africa

1985 (Aug) The Acid Etch Technique in Paedondontics and Periodontics. Groote Schuur Hospital, Cape Town, South Africa

1985 (Oct) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. 24th Annual Congress of the Argentine Dental Association and the Vth Congreso Odontologico Hispano Latinoamericano (Dental Associations of Argentina, Colombia, Chile, Paraguay, Peru and Uruguay). Buenos Aires, Argentina**

1985 (Nov) The Preventive Resin Restoration and Class II Composite Resin Restorations. American Dental Association Annual Meeting, San Francisco, California

1985 (Nov) 1. The Preventive Resin Restoration 2. The Etched Cast Restoration. Scientific Co-Chairman at The First International Beijing Symposium on Dentistry, Beijing, People's Republic of China

1986 (Mar) 1. Clinical Applications of the Acid Etch technique.* 2. Conservative Operative Dentistry Utilizing Composite Resins 3. Clinical Hints for Success with the Etched Cast Restoration. Thomas P. Hinman Dental Meeting, Atlanta, Georgia

1986 (Apr) Preventive Dentistry: Sealants. Lecture to the Ninth Annual Migrant Health Conference, National Association of Community Health Centers, Minneapolis, Minnesota

1986 (Aug) Posterior Composite Resins and Etched Cast Restorations. The Australian Prosthodontic Society, Melbourne, Australia

1986 (Aug) Pit and Fissure Sealant, Preventive Resin Restorations, Class II Composite Resin Restorations, Developmental Defect Restoration and Etched Cast Restorations. Also two clinical demonstrations of pit and fissure sealant technique. The New Zealand Dental Association Biennial Meeting, Wellington, New Zealand

1986 (Sep) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Dalhousie University, Halifax, Nova Scotia, Canada*

1986 (Oct) Pit and Fissure Sealant and Preventive Resin Restorations. International Quintessence Symposium, Milan, Italy

1986 (Oct) Class I and Class II Composite Resin Restorations. Annual meeting of the American Dental Association, Miami Beach, Florida

1986 (Nov) Pit and Fissure Sealant. All-day lecture and clinical demonstration. South Carolina Department of Health and Environmental Control. Columbia, South Carolina*

1986 (Nov) The Acid Etch Technique and Composite Resin Systems in Pediatric Dentistry. Children's Hospital Medical Center, Cincinnati, Ohio*

1987 (Jan) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. Pacific Dental Conference, Honolulu, Hawaii

1987 (Jan) Update on Pit and Fissure Sealant and the Preventive Resin Restoration. University of Southern California, Los Angeles, California

1987 (Apr) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. National Medical and Dental Association Annual Conference, Cape Town, South Africa*

1987 (Apr) The Future of Restorative Dentistry. NAMDA Durban Branch, Durban, South Africa

1987 (Apr) The Preventive Resin Restoration and Posterior Composite Resins. The University of the Western Cape, Cape Town, South Africa

1987 (June) Posterior Composite Resins and Porcelain Veneers. Participation course, University of Tennessee, Memphis, Memphis, Tennessee*

1987 (July) Why Must We Be So Destructive in Restorative Dentistry? Conservative Options in Operative Dentistry. British Dental Association, Annual Meeting, Glasgow, Scotland

1987 (Sept) The Acid Etch Technique, Composite Resins and Etched Cast Restorations. ADPAC, Baton Rouge, Louisiana

1987 (Oct) Advances in Clinical Dentistry: From Sealants to Veneers, From Posterior Composite Resins to the "Maryland" Bridge. American Dental Association Annual Session, Las Vegas, Nevada*

1987 (Dec) Advanced Clinical Bonding: Porcelain Veneers/Posterior Composites. A live interactive videoconference, University of Tennessee, Memphis, Memphis, Tennessee

1987 (Dec) Porcelain Veneers. Shelby County Dental Society, Memphis, Tennessee

1988 (Jan) From Sealants to Veneers -- Clinical Bonding Procedures. Yankee Dental Congress, Massachusetts Dental Society, Boston, Mass.

1988 (Jan) Twelve-hour course on The Clinical Applications of the Acid Etch Technique; one-hour lecture on The present Status of Composite Resin Systems. XIII Congresso Paulista de Odontologia, Sao Paulo, Brazil**

1988 (Feb) Invited Speaker: Which Material for Posterior Restoration: Amalgam or Composite Resin? American Academy of Restorative Dentistry Annual Meeting. Chicago, Illinois

1988 (May) Individual lectures on Class II Composite Resin Restorations, Aesthetic Uses of Composite Resin Systems, The Porcelain Veneer. Invited Major Speaker, Australian Dental Congress, Australian Dental Association, Sydney, Australia

1988 (Jul) Pit and Fissure Sealant -- The Keys to Successful Clinical Application, The Posterior Composite Resin Restoration: The conservative Treatment Option for Posterior Teeth, and The Porcelain Veneer. The Florida Dental Society Annual Meeting, Orlando, Florida*

1988 (Jul) Clinical Applications of Resins in General Dentistry. The Academy of General Dentistry Annual meeting, Chicago, Illinois*

1988 (Sep) Restorative Dentistry Update for the 1990s. Three Rivers Dental conference, University of Pittsburgh, Pittsburgh, Pennsylvania*

1988 (Dec) Recent Developments in the Use of Composite Resin Systems in Esthetic and Restorative Dentistry. University of Maryland and the Baltimore City Dental Society, Baltimore, Maryland*

1989 (Jan) Resins in General Dentistry. Seminar sponsored by the South Carolina Dental Association to benefit ADPAC, Columbia, South Carolina

1989 (Feb) Bonded Restorations, Past, Present, and Future. American Academy of Crown and Bridge Prosthodontics Annual Meeting, Chicago, Illinois

1989 (Apr) Conservation of Tooth Structure in Restorative Dentistry: The Key to Minimizing Future Restorative/Periodontal Treatment. The Third International Symposium on Periodontics and Restorative Dentistry, Boston, Massachusetts

1989 (May) Clinical Applications of the Acid Etch Technique in Pediatric Dentistry. American Academy of Pediatric Dentistry, Annual Meeting, Orlando, Florida

1989 (Aug) Bonded Restorations, Past, Present, and Future. Georgia Dental Association, Hilton Head, South Carolina

1990 (Jan) Clinical Advances in Esthetic Adhesive Bonding. Yankee Dental Meeting, Boston, Massachusetts

1990 (Mar) Esthetics in the 90's (Two-day meeting with Dr. Ronald Goldstein), Madrid, Spain*

1990 (Apr) Clinical applications of the acid etch technique in preventive and restorative dentistry. Charité Hospital, Humboldt University, Berlin, German Democratic Republic

1990 (Jun) Clinical applications of the acid etch technique in preventive and restorative dentistry. Sociedad Odontologica de Chile, Santiago, Chile *

1990 (Jun) Clinical applications of the acid etch technique in preventive and restorative dentistry. Buenos Aires, Argentina

1990 (Jun) Clinical applications of the acid etch technique in preventive and restorative dentistry. Universidade Federal de Santa Catarina, Florianópolis, Brazil

1990 (Jul) Advances in Dental Materials. National Medical and Dental Association (NAMDA) Annual Meeting, Durban, South Africa *

1990 (Oct) The changing world of preventive and restorative dentistry; and Pit and Fissure Sealants and the Preventive Resin Restoration
University of Göteborg, Göteborg, Sweden

1990 (Oct) 1) Pit and fissure sealants and the preventive resin restoration.
2) Dentinal bonding agents and glass-ionomer bases/liners in restorative dentistry. 3) The Porcelain veneer. Norwegian Dental Association Annual Meeting, Oslo, Norway

1990 (Oct) Adhesives in dentistry: clinical update. American Dental Association, Annual Meeting, Boston, MA*

1990 (Oct) New restorative concepts: Dentinal bonding agents in conservative restorative dentistry; and, Posterior restorations -- direct or indirect? What is the future? American Dental Association, Post-ADA Meeting, Montreal, Canada*

1990 (Oct) The changing world of preventive and restorative dentistry. University of Manitoba, Winnipeg, Manitoba, Canada

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1990 (Oct) The preventive resin restoration; and The changing world of preventive and restorative dentistry. University of Toronto, Toronto, Canada

1990 (Oct) The total etch debate. University of Western Ontario, London, Ontario, Canada

1990 (Nov) Clinical research methodology; and The changing world of preventive and restorative dentistry. Université de Montréal, Montréal, Québec, Canada

1990 (Nov) The changing world of preventive and restorative dentistry. Université Laval, Québec, Québec, Canada

1990 (Dec) Pit and fissure sealant and the preventive resin restoration. University of Padova, Padova, Italy

1990 (Dec) Pit and fissure sealant and the preventive resin restoration. University La Sapienza, Rome, Italy

1990 (Dec) The preventive resin restoration and future restorative dentistry trends. Oscar Hoffer Prize Lecture, Siena, Italy

1991 (Mar) 1. Recent advances in dental restorative materials -- clinical applications. 2. Dentinal bonding -- applications in Class III and V restorations. 3. The total etch technique: fact or fallacy? 4. Esthetic dentistry: porcelain veneers. 5. Preventive dentistry: what every parent should know. Denticlinics, University of Minnesota, St. Petersburg, Florida

1991 (Jun) The changing world of preventive, restorative, and esthetic dentistry. Harvard University, Boston, Massachusetts

1991 (Jun) The changing world of preventive, restorative, and esthetic dentistry. American Dental Society of Europe, Helsingør, Denmark

1991 (Oct) The mercury controversy and the future of dental amalgam. University of Minnesota, Minneapolis, Minnesota

1991 (Nov) (1) The changing world of preventive, restorative, and esthetic dentistry; and (2) Esthetic uses of composite resin systems. VI Congresso Luso Espanol de Estomatologia, Cirurgia Maxilofacial e Medicina Dentaria, Universidade do Minho, Braga, Portugal

1991 (Nov) The changing world of preventive, restorative, and esthetic dentistry. University of Warsaw, Warsaw, Poland

1991 (Nov) (1) The changing world of preventive, restorative, and esthetic dentistry; and (2) The "Maryland" Bridge. University of Helsinki, Helsinki, Finland

1992 (Jan) Recent advances in restorative and esthetic dentistry. International Quintessence Symposium, Lisbon, Portugal

1992 (Feb) The changing world of preventive, restorative, and esthetic dentistry. Utah Dental Association annual meeting. Salt Lake City, Utah*

1992 (Mar) The changing world of preventive, restorative, and esthetic dentistry. Lecture to 3rd-, 4th-, and 5th-year students and faculty at the University of Sydney at United Dental Hospital, Sydney, Australia

1992 (Mar) The changing world of preventive, restorative, and esthetic dentistry. Lecture to the Australian Society of Dental Aesthetics (NSW Branch), Sydney, Australia

1992 (Mar) The changing world of preventive, restorative, and esthetic dentistry. Lecture to students and staff, University of Melbourne, Melbourne, Australia

1992 (Mar) The changing world of preventive, restorative, and esthetic dentistry. Lecture to the Australian Society of Dental Aesthetics (Victoria Branch), Melbourne, Australia

1992 (Mar) The changing world of preventive, restorative, and esthetic dentistry. Lecture to the South Australian Dental Service, Adelaide, Australia

1992 (Mar) The changing world of preventive, restorative, and esthetic dentistry. Lecture to South Australian Dental School, Adelaide, Australia

1993 (Jun) The changing world of preventive, restorative, and esthetic dentistry. International Quintessence Symposium, Madrid, Spain.

1992 (Oct) The changing world of preventive, restorative, and esthetic dentistry. The Dentist's University, Sofia, Bulgaria

1992 (Oct) The changing world of preventive, restorative, and esthetic dentistry. First Greater International Bulgarian Dental Congress, Plovdiv, Bulgaria

1992 (Nov) The changing world of preventive, restorative, and esthetic dentistry. Dunedin University and New Zealand Dental Association, Dunedin, New Zealand

1992 (Nov) The changing world of preventive, restorative, and esthetic dentistry. University of Adelaide, Adelaide, Australia

1992 (Nov) The changing world of preventive, restorative, and esthetic dentistry. Queensland University, Brisbane, Australia

1993 (Jan) The changing world of preventive, restorative, and esthetic dentistry. Tokyo Medical and Dental University, Tokyo, Japan

1993 (Jan) The changing role of adhesion in preventive, restorative, and esthetic dentistry. Yokohama Dental Association, Yokohama, Japan

1993 (Apr) Pit and fissure sealants. Seoul National University, Seoul, Korea

1993 (Apr) The changing world of preventive, restorative, and esthetic dentistry. KyungHee Dental School, Seoul, Korea

1993 (Apr) The changing world of preventive, restorative, and esthetic dentistry. KyungBuk Dental School, Taegu, Korea

1993 (Apr) Adhesion in conservative restorative dentistry. The Korean Society of Conservative Dentistry, Taegu, Korea

1993 (May) The effect of new materials and techniques on pediatric preventive and restorative dentistry. Chun-San Dental Association, Taipei, Taiwan

1993 (May) The changing world of preventive, restorative, and esthetic dentistry. McKay Memorial Hospital, Taipei, Taiwan

1993 (May) The changing world of preventive, restorative, and esthetic dentistry. National Taiwan University Hospital, Taipei, Taiwan

1993 (May) The changing world of preventive, restorative, and esthetic dentistry. Lecture to Mahidol and Chulalongkorn Universities, Bangkok, Thailand

1993 (May) The changing world of preventive, restorative, and esthetic dentistry. British Dental Society, Portsmouth, England

1993 (Jun) Adhesive dentistry. VI Congresso Internacional Odontologia de Odonto-Estomatologia. Zaragoza, Spain

1993 (Jun) Restoration of esthetics following dental trauma. International Association for Dental Traumatology, London, England

1993 (Jun) The changing world of preventive, restorative, and esthetic dentistry. British Dental Society, Tunbridge Wells, England

1993 (Aug) Conservative restorative dentistry. American Academy of Esthetic Dentistry, Annual Meeting, Los Angeles, California

1993 (Oct) The changing world of preventive, restorative, and esthetic dentistry. American Society of Dentistry for Children, Annual Meeting, Chicago, Illinois

1993 (Oct) The changing world of preventive, restorative, and esthetic dentistry. Univercidade de Santa Catarina, Florianopolis, Brazil

1993 (Oct) The changing world of preventive, restorative, and esthetic dentistry. Univercidade de Sao Paulo, Sao Paulo, Brazil

1994 (Feb) The 10th Annual Charles Sweet Memorial Lecture, University of the Pacific, San Francisco, California

1994 (Mar) The Changing World of Preventive, Restorative, and Esthetic Dentistry, Danish Dental Association, Copenhagen, Denmark

1994 (Mar) The Changing World of Preventive, Restorative, and Esthetic Dentistry, Shanghai, Beijing, Cheng Du, and Guangzhou, China

1994 (May) The changing world of preventive, restorative, and esthetic dentistry. China International Symposium in Dentistry, Shanghai, China

1994 (Aug) Pit and fissure sealant. Sealant conference for public health programs, Cincinnati, Ohio

1994 (Oct) The changing world of preventive, restorative, and esthetic dentistry. Turkish Association of Restorative Dentistry, Istanbul, Turkey

1994 (Oct) The changing world of preventive, restorative, and esthetic dentistry. University of Perth, Perth, Australia

1994 (Oct) The changing world of preventive, restorative, and esthetic dentistry. Darwin Dental Society, Darwin, Australia

1994 (Oct) The changing world of preventive, restorative, and esthetic dentistry. University of Adelaide, Adelaide, Australia

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1995 (Jan) Update on resin composites (1): Adhesives in Restorative Dentistry (2): Glass-ionomer materials in dentistry (3): Conservative restorative dentistry. The University of Minnesota Department of Continuing Education, Huatulco, Mexico

1995 (Feb) Update on Restorative Materials for Clinical Practice. St Mary's Hospital, Portsmouth, England

1995 (Mar) Electronic Anesthesia, DC Dental Society, Washington DC

1995 (Apr) New materials for pediatric dentistry. California Society of Pediatric Dentistry, Ojai, California

1995 (May) The changing world of preventive, restorative, and esthetic dentistry. Shanghai, China

1995 (May) The changing world of preventive, restorative, and esthetic dentistry. University of Chiang Mai, Chiang Mai, Thailand

1995 (May) The changing world of preventive, restorative, and esthetic dentistry. Chulalongkorn University, Bangkok, Thailand

1995 (June) The changing world of preventive, restorative, and esthetic dentistry. Kaohsiung and Taipei, Taiwan

1995 (Aug) The changing world of preventive, restorative, and esthetic dentistry. Johannesburg, Durban, and Cape Town, South Africa

1995 (Sept) The changing world of preventive, restorative, and esthetic dentistry. Harare, Zimbabwe

1995 (Sept) The changing world of preventive, restorative, and esthetic dentistry. Chicago Dental Society, Chicago, Illinois

1995 (Sept) New developments in conservative restorative dentistry and electronic anesthesia. Canada/China Child health Foundation, Guangzhou, China

1995 (Oct) The changing world of preventive, restorative, and esthetic dentistry. British Society of general Dental Practitioners, Portsmouth, England

1995 (Oct) New materials for esthetic and restorative dentistry. University of Iowa, Iowa City, Iowa

1995 (Oct) The changing world of preventive, restorative, and esthetic dentistry. Academy of Stomatology, Philadelphia, Pennsylvania

1995 (Oct) The changing world of preventive, restorative, and esthetic dentistry. Arizona Dental Society, Phoenix, Arizona

1995 (Oct/Nov) The changing world of preventive, restorative, and esthetic dentistry. Bogota, Cali, and Medellin, Colombia

1995 (Nov) The changing world of preventive, restorative, and esthetic dentistry. Buenos Aires, Argentina

1995 (Nov) Preventive, Restorative and Esthetic Dentistry in Pediatric Care. California Society of Pediatric Dentistry

1996 (Jan) Glass-ionomer materials in restorative dentistry. Indian Dental Association, Bombay, India

1996 (Jan) Conservative restorative dentistry, Indian Dental Association, Bombay, India

1996 (Jan) Glass-ionomer materials in restorative dentistry, Johannesburg, Cape Town, and Durban, South Africa

1996 (March) Electronic anesthesia, DC Spring Meeting, Washington DC

1996 (March) The changing world of preventive, restorative, and esthetic dentistry. Newport harbor Academy of Dentistry, Newport Beach, California

1996 (April) Modern adhesive techniques. The First Annual Meeting of Male Dentists, Parnu, Estonia

1996 (April) The changing world of preventive, restorative, and esthetic dentistry. WTA, Stichting voor Wetenschappelijk Tandheelkunduge Arbeid, Ede, The Netherlands

1996 (April) The changing world of preventive, restorative, and esthetic dentistry. Stockholm, Sweden

1996 (May) The changing world of preventive, restorative, and esthetic dentistry. The University of Bergen, Bergen, Norway

1996 (May) New developments in adhesive restorative dentistry. The University of Bergen, Bergen, Norway

1996 (May) The changing world of preventive, restorative, and esthetic dentistry. The University of Oslo, Oslo, Norway

1996 (May) The changing world of preventive, restorative, and esthetic dentistry. Oslo Tannlegeselskap, Oslo, Norway

1996 (May) The changing world of preventive, restorative, and esthetic dentistry. Vestfold Tannlegeforening, Tjöme, Norway

1996 (May) The changing world of preventive, restorative, and esthetic dentistry. Journée Dentaire du Quebec, Montreal, Canada

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1996 (August) The changing world of preventive, restorative, and esthetic dentistry. Chunbuk University, Chun-ju, Korea

1996 (August) The changing world of preventive, restorative, and esthetic dentistry. Pusan Dental Association, Pusan, Korea

1996 (August) The changing world of preventive, restorative, and esthetic dentistry. Masan Dental Association, Masan, Korea

1996 (August) How modern dental materials affect your practice. Darwin Dental Association, Darwin, Australia

1996 (August) How modern dental materials affect your practice. Quintessence International Symposium, Sydney, Australia

1996 (October) Update in dental procedures with composites. Bilbao Medical Society, Bilbao, Spain

1997 (February) The changing world of preventive, restorative, and esthetic dentistry. Chicago Dental Society, Chicago, Illinois

1997 (April) The changing world of preventive, restorative, and esthetic dentistry. Multiple lectures in Ho Chi Minh City, and Can Tho, Vietnam

1997 (April) The changing world of preventive, restorative, and esthetic dentistry. Bilbao Dental Society, Bilbao, Spain

1997 (May) Getting the most out of modern restorative materials. Keynote speaker, British Dental Association, Brighton, England

1997 (August) Pit and fissure Sealants; Modern restorative materials; Esthetic dentistry. Dental Association of South Africa, Sun City, South Africa

1997 (August) Modern restorative materials and esthetic dentistry, University of Durban Westville, Durban South Africa

1997 (September) Minimal intervention: conservation of tooth structure. Goldman Symposium, Boston University, Boston, Massachusetts

1997 (October) New restorative materials in clinical practice. Norwegian Dental Association, Annual Meeting, Trondheim, Norway

1998 (March) New developments and controversies in dentistry. Hampshire Dental Society, Portsmouth, England

1998 (April) New materials in restorative dentistry. Baylor University, Dallas, Texas

1998 (April) New materials and controversies in pediatric dentistry. American Society of Dentistry for Children, Kohler, Wisconsin

1998 (April) Operative dentistry in the next millennium. Invited speaker, inaugural meeting of the Academy of Operative Dentistry, European Section, Riva del Garda, Italy

1998 (May) Current controversies in restorative dentistry. Ontario Dental Society and Canadian Dental Association joint meeting, Toronto, Canada

1998 (May) New materials in preventive and restorative dentistry. Vietnam Dental Congress, Hanoi, Vietnam

1998 (June) New materials and controversies in restorative dentistry. International College of Dentists, Bergen, Norway

1998 (August) Evidence or marketing hype: which will you use to choose dental materials? American Academy of Esthetic Dentistry, annual meeting, Philadelphia, Pennsylvania

1998 (November) Preventive and minimally invasive dentistry: Class II and Class IV composite restorations: Latest developments in esthetic and restorative dentistry. Asociación Mexicana de Odontología Pediatrica, Mexico City, Mexico

1998 (November) Future developments of tooth colored restorative materials. Danish Dental Association, Århus, Denmark

1999 (April) The changing world of preventive, restorative, and esthetic dentistry. California Dental Association annual meeting, Anaheim, California*

1999 (April) Esthetic dentistry— yesterday, today, and tomorrow. Oslo Dental Society, 100-year anniversary invited speaker, Oslo, Norway

1999 (April) The changing world of preventive, restorative and esthetic dentistry in pediatric dentistry. New Jersey Academy of Pediatric Dentistry, Garden State Art Center, New Jersey

1999 (May) The ethics in esthetics. European Academy of Esthetic Dentistry, Bergen, Norway

1999 (July) Pit and fissure management, University of Minnesota Department of Pediatric Dentistry, Minneapolis, Minnesota

1999 (September) 1. Esthetic materials and techniques: how to separate fact from fiction. 2. Preventive and minimally invasive dentistry. Dental Fair 1999, Odense, Denmark

1999 (October) The declining ethical standards in dental manufacturing, dental publishing, and dental practice. Norwegian Dental Association Annual Meeting, Oslo, Norway

2000 (June) Etiology and treatment of erosive lesions in pediatric dentistry, European Academy of Pediatric Dentistry, Bergen, Norway

2000 (June) The origins of microdentistry, World Congress of Microdentistry, Skaneatles, New York

2000 (June) Materials 2000: Are you using evidence or marketing hype to choose new materials? Pacific Coast Society of Prosthodontists, Seattle, Washington

2000 (August) Stained pits and fissures: to restore or not to restore? Academy of Esthetic Dentistry, Kauai, Hawaii

2000 (August) The Internet: uses in dentistry for the future. Latin American Congress of Pediatric Dentistry, Santiago, Chile

2000 (August) Diagnosis, prevention and treatment of occlusal caries. Latin American Congress of Pediatric Dentistry, Santiago, Chile

2000 (September) The evolution of dental materials marketing: an insider's perspective. CAIC Annual Meeting, Jackson Hole, Wyoming

2001 (January) Will you use evidence or marketing hype to choose materials and techniques for your patient treatment? A warning to sharpen your critical thinking skills. University of the Pacific, San Francisco, California*

2001 (March) What's better, what's not? A restorative clinician's dilemma: how to choose from the plethora of new materials based on evidence, not hype. Keynote Speaker, Danish Dental Association, Annual Meeting, Copenhagen, Denmark*

2001 (April) What's better, what's not? A restorative clinician's dilemma: how to choose from the plethora of new materials based on evidence, not hype. California Dental Association Annual Meeting, Anaheim, California*

2001 (August) Evidence-based dentistry: (Keynote address). Academy of General Dentistry Annual Meeting, New York, New York

2001 (August) What's better, what's not? A restorative clinician's dilemma: how to choose from the plethora of new materials based on evidence, not hype. Academy of General Dentistry Annual Meeting, New York, New York*

2001 (August) Caries; diagnosis, prevention and remineralization: Treatment of occlusal pits and fissures—when, how, and why?: Materials for restorative and esthetic dentistry: Trends in dentistry: the ethics of elective esthetic treatment. University of Otago, School of Dentistry, Dunedin, New Zealand

2001 (August) Evidence-based Dentistry - Marketing Hype or Researched Evidence. Auckland Dental Association, Auckland, New Zealand*

2002 (February) Powerful presentations with digital photography. The American Academy of Restorative Dentistry, Chicago, Illinois

2003 (January) Evidence-based dentistry or marketing hype? Rocky Mountain Dental Convention, Denver, Colorado*

2003 (September) Tucker Symposium. Moderator: Changes & Trends in the 21st Century, Vancouver BC, Canada

2003 (December) Horowitz memorial. Pit and Fissure Sealant. NIH, Bethesda, MD

2004 (January) The Ethics of Materials Choice, Dallas Southwestern, Dallas, TX

2004 (June) CDC Panel on Prevention, Pit and Fissure Sealant. Centers for Disease Control and Prevention, Atlanta, GA

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2004 (July) Prevention. Society of American Indian Dentists, Missoula, MT
2004 (September) International Restorative Dentistry Symposium, Moderator. Vancouver, BC, Canada

2004 (December) How to choose materials based on evidence not hype. Greater New York Academy of Prosthodontists, New York, NY

2005 (February) Academic Responsibility for Ethics in the Dental Profession. Consortium of Operative Dentistry Educators, Chicago, IL

2005 (April) CDC Panel on Prevention (part II), Pit and Fissure Sealant. Centers for Disease Control and Prevention, Atlanta, GA

2005 (May) The Ethics of Digital Manipulation of Images, Academy of Prosthodontics, Annual Meeting, Scottsdale, AZ

Symposia: Presentations by Invitation

1979 Invited Lecturer: The Acid Etch Technique. International Quintessence Symposium, West Berlin, Federal Republic of Germany

1981 Invited Lecturer: Caries Control and Prevention: Sealants and Related Aspects. Chicago Mid-Winter meeting, Chicago, Illinois
1981 Invited Lecturer: Pit and Fissure Sealants: Why Their Limited Usage? American Dental Association Council on Dental Materials, Instruments and Equipment, Chicago, Illinois
1981 Invited Lecturer: Sealants, Innovative Use in Restorative Dentistry as Preventive Resin Restorations. Prevention Convention '81, Chicago, Illinois
1981 Invited Lecturer: The Clinical Applications of the Acid Etch Technique. International Quintessence Symposium, Kyoto, Japan
1981 Invited Lecturer: Pit and Fissure Sealants: Is It Time for a New Initiative? Sponsored by IADR and AADR Committees on Health Promotion, 60th General Session, IADR, New Orleans, Louisiana

1982 Invited Major Speaker: Minnesota Conference: Dental Caries Prevention in Public Health Programs. Sponsored by Minnesota Department of Health, Minneapolis, Minnesota

1983 (Jun) Invited Lecturer: Dental Adhesives: Opportunities for New Treatment Modalities Symposium. Sponsored by 3M Company Dental Products, St. Paul, Minnesota
1983 (Sep) Invited Speaker: Conference on Preventive Dentistry. Pan American Health Organization, Havana, Cuba
1983 (Oct) Conference Organizer and Moderator: Symposium on the Use of Pit and Fissure Sealant. American Dental Association, Annual Meeting, Anaheim, California
1983 (Dec) Invited Speaker: Dental Sealants in the Prevention of Tooth Decay. NIH Consensus Development Conference, Bethesda, Maryland

1984 (Jun) Invited Speaker and Panelist: 104th Annual British Dental Association Meeting and Third International Quintessence Symposium, London, UK
1984 (Oct) Invited Speaker and Panelist: Pit and Fissure Sealant Symposium. American Dental Association Annual Meeting, Atlanta, Georgia
1985 (Jan) Invited Speaker: Posterior Composite Resin Symposium. 3M Company, St. Maarten, Netherlands Antilles

1985 (Feb) Workshop Participant: Plaque Control Symposium. National Institutes of Health, Bethesda, Maryland
1985 (Nov) Program Selector and Scientific Co-Chairman: The First International Beijing Symposium on Dentistry. Beijing, People's Republic of China

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1986 (Jan) Speaker and Participant: The Present Status of Posterior Composite Resin Systems. Sponsored by the Johnson and Johnson Dental Products Company, Boca Raton, Florida

1986 (Feb) Invited Major Speaker: Pit and Fissure Sealant Symposium. Organized by The Netherlands Dental Association, Utrecht, The Netherlands

1986 (May) Moderator: Restorative Margins Can Be Made to Fit -- True or False? Second International Symposium on Periodontics and Restorative Dentistry, Boston, Massachusetts

1986 (Sep) Moderator and Symposium Organizer: Restorative Dentistry: Challenges for the 90's. Invited Lecturers: Rafael Bowen, Ralph Phillips, Ronald Jordan, William Douglas, Karl Leinfelder, Herbert Shillingburg, Jack Preston and Gerald Barrack. Co-sponsored by Quintessence Publishing Co. and the University of Tennessee, Memphis, Tennessee. Proceeds to student scholarship fund

1986 (Oct) Moderator: International Quintessence Symposium. Milan, Italy

1987 (Aug) Conference Organizer and Moderator: Second Annual Symposium on Restorative Dentistry: Challenges for the 90's. Invited Lecturers: Rafael Bowen, Ralph Phillips, William Douglas, Gerald Barrack, Mark Friedman and Theodore Croll. University of Tennessee, Memphis, Tennessee. Proceeds to student scholarship fund

1987 (Oct) Invited Lecturer: Symposium: Esthetic Materials and Techniques in Restorative Dentistry. Newport Harbor Academy of Dentistry, Newport Beach, California

1987 (Oct) Invited Lecturer: Criteria for Placement and Evaluation of Sealants and Preventive Resins. International Symposium on Criteria for Placement and Replacement of Dental Restorations. University of Florida, Orlando, Florida

1987 (Oct) Invited Speaker: The Periodontal Restorative Relationship: Considerations in Biomaterial Selection in Restorative Dentistry. Sponsored by the Ontario Dental Association and the Institute for Advanced Dental Studies, Toronto, Canada

1988 (Jan) Invited Speaker: The Future of the Posterior Composite Resin Restoration: Present Status in the United States of America. XIII Congresso Paulista de Odontologia, Sao Paulo, Brazil

1988 (Mar) Invited Speaker: Biomaterials -- Are We Teaching Students What They Need To Know? American Association of Dental Schools Meeting, Biomaterials Section Symposium, Montreal, Canada

1988 (Mar) Invited Speaker: Dentin Bonding Systems Symposium. Sponsored by the 3M Company, Phoenix, Arizona

1988 (Apr) Invited Speaker: Information Transfer in Dentistry. Dunning Symposium, Columbia University, New York, New York

1988 (May) Invited Moderator: The Present Status of Posterior Composite Resin Systems. Sponsored by the Australian Dental Standards Laboratory, Sydney, Australia

1988 (Oct) Conference Organizer and Moderator: Third Annual General Dentistry Symposium. Invited Lecturers: Gordon Christensen, William Douglas,

1989 (Sept) Chairman, International Symposium on Dentistry in the 21st Century. Berlin, Germany

1989 (Dec) Conference Organizer and Moderator: Fourth Annual General Dentistry Symposium. Invited Lecturers: Karl Leinfelder, E. Dianne Rekow, Reuben Roach, Theodore Croll. University of Tennessee, Memphis, Memphis, Tennessee. Proceeds to James T. Andrews Scholarship Fund

1990 (Nov) Conference Organizer and Moderator: Fifth Annual General Dentistry Symposium. Invited lecturers: David Garber, Linda Miles, Robert Gorlin. Nashville, Tennessee. Proceeds to James T. Andrews Scholarship Fund

1991 (Apr) Invited Speaker Special Symposium on Pit and Fissure Sealants, IADR, Acapulco, Mexico

1991 (Apr) Invited Speaker, Scientific Frontiers in Clinical Dentistry: An Update at the National Institute of Dental Research. Lecture title: New Materials on the Horizon. National Institutes of Health, Bethesda, Maryland

1991 (Sep) Conference Organizer and Moderator: Sixth Annual General Dentistry Symposium. Invited lecturers: William Douglas, Karl Leinfelder, Theodore Croll. Nashville, Tennessee. Proceeds to James T. Andrews Scholarship Fund

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1991 (Nov) Invited speaker, Symposium on Esthetic Restorative Materials, sponsored by NIDR and ADA. Lecture title: What is the role of pit and fissure sealants? American Dental Association, Chicago, Illinois

1991 (Nov) Invited speaker and Chairman, The Second Greater Moscow Dental Congress. Lecture title: The changing world of preventive, restorative, and esthetic dentistry. Moscow, Russia

1995 (June) Invited speaker, IADR symposium on Minimal Restorative Dentistry, Title: Glass-ionomer materials as sealants. Singapore

1997 (Feb) Invited Speaker panel discussion on Restorative Dental Materials, Chicago Dental Society, Chicago, Illinois

1999 (October) Keynote speaker, Declining Ethical Standards in Dentistry, at Symposium on the Ethics in Dentistry, Norwegian Dental Association, Oslo, Norway

2000 (June) Conservative restoration of posterior teeth. Restorative Dentistry Symposium, speaker and moderator, University of Southern California, Los Angeles, California

2001 (March) Esthetics: the ethics of elective treatment. Restorative Dentistry Symposium, University of Southern California, Los Angeles, California

2001 (April) Restorative Materials Symposium, California Dental Association, Anaheim, California

2001 (October) The Essentials of a Successful Dental Practice, Symposium moderator (individual presentation, The Ethics of Elective Dental Therapy. American Dental Association, Annual Meeting, Kansas City, Missouri

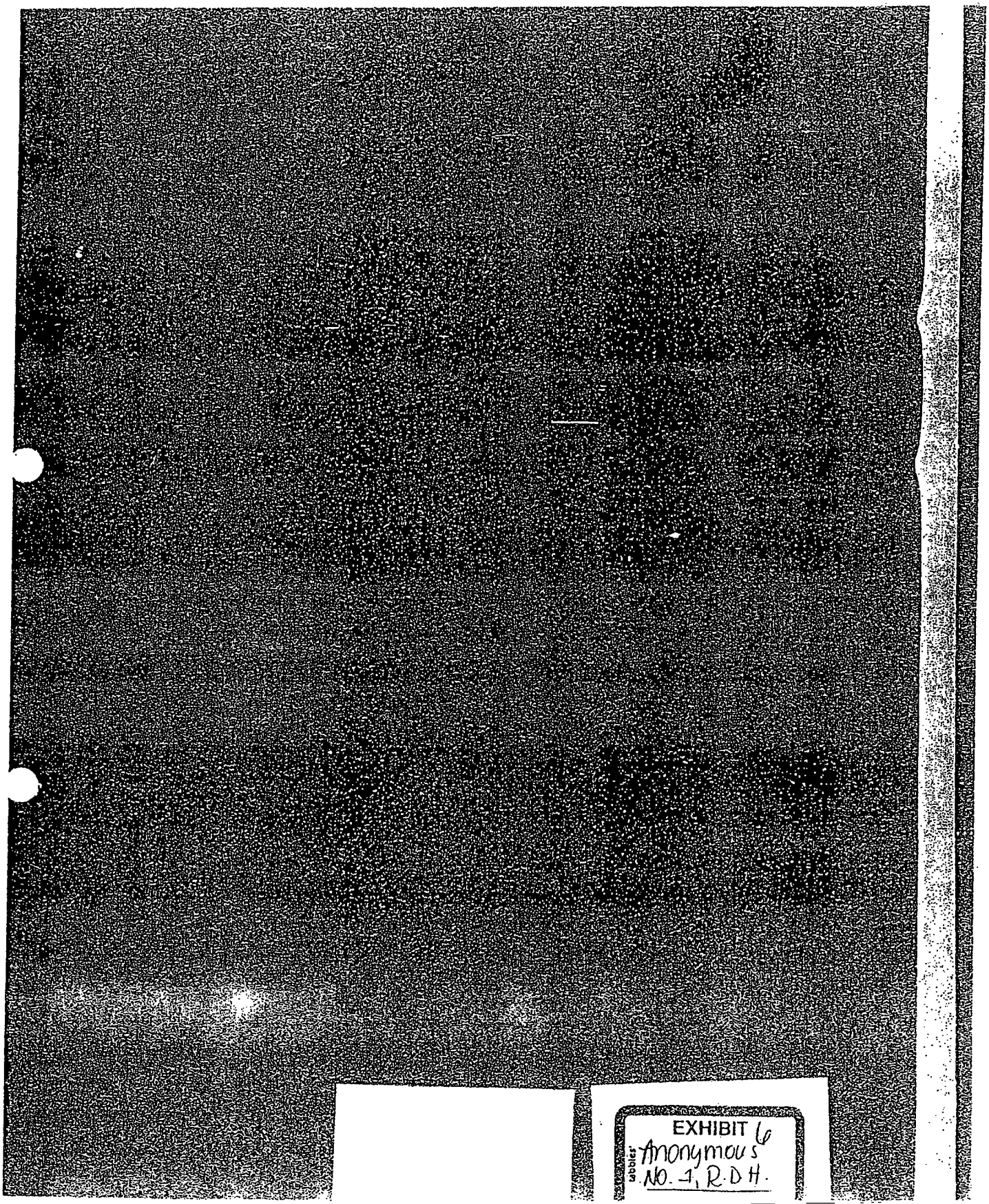
2004 (August) Esthetic Dentistry—Technical Management and Ethical Considerations. Moderator, American Academy of Esthetic Dentistry Annual Meeting, Beaver Creek, Colorado

2004 (January) Symposium on Controversies in Dentistry. Panel discussant, Rocky Mountain Dental Convention, Denver, Colorado

2004 (August) Esthetic Dentistry—Reaching New Heights in Esthetic Dentistry. Moderator, American Academy of Esthetic Dentistry Annual Meeting, Banff Springs, Calgary, Canada

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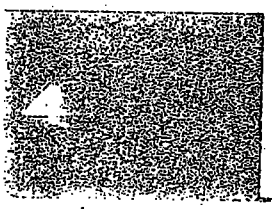
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HPS Procedure Manual

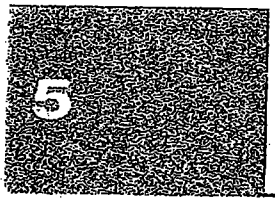
Dental Hygiene Code of Ethics



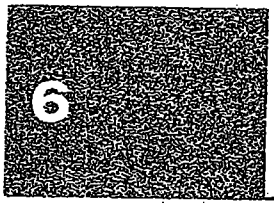
Memorandum of Agreement Between HPS and DHEC



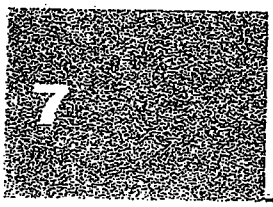
HPS Standing Orders



Guidelines for SC School-Based Dental Prevention Programs



Decision Tree for Pit and Fissure Treatment



NIH Consensus Statement – Diagnosis and Management of Dental Caries Throughout Life

Pit and Fissure Sealant: Then, Now, and Next Steps

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Tab 1

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CDC Guidelines for Infection Control in Dental Health Care Settings — 2003 Recommendations

Each recommendation is categorized on the basis of existing scientific data, theoretical rationale, and applicability. Rankings are based on the system used by CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC) to categorize recommendations:

Category IA. Strongly recommended for implementation and strongly supported by well-designed experimental, clinical, or epidemiologic studies.

Category IB. Strongly recommended for implementation and supported by experimental, clinical, or epidemiologic studies and a strong theoretical rationale.

Category IC. Required for implementation as mandated by federal or state regulation or standard. When IC is used, a second rating can be included to provide the basis of existing scientific data, theoretical rationale, and applicability. Because of state differences, the reader should not assume that the absence of a IC implies the absence of state regulations.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiologic studies or a theoretical rationale.

Unresolved issue. No recommendation. Insufficient evidence or no consensus regarding efficacy exists.

I. Personnel Health Elements of an Infection-Control Program

A. General Recommendations

1. Develop a written health program for DHCP that includes policies, procedures, and guidelines for education and training; immunizations; exposure prevention and postexposure management; medical conditions, work-related illness, and associated work restrictions; contact dermatitis and latex hypersensitivity; and maintenance of records, data management, and confidentiality (IB) (*5,16--18,22*).
2. Establish referral arrangements with qualified health-care professionals to ensure prompt and appropriate provision of preventive services, occupationally related medical services, and postexposure management with medical follow-up (IB, IC) (*5,13,19,22*).

B. Education and Training

1. Provide DHCP 1) on initial employment, 2) when new tasks or procedures affect the employee's occupational exposure, and 3) at a minimum, annually, with education and training regarding occupational exposure to potentially infectious agents and infection-control procedures/protocols appropriate for and specific to their assigned duties (IB, IC) (*5,11,13, 14,16,19,22*).
2. Provide educational information appropriate in content and vocabulary to the educational level, literacy, and language of DHCP (IB, IC) (*5,13*).

C. Immunization Programs

1. Develop a written comprehensive policy regarding immunizing DHCP, including a list of all required and recommended immunizations (IB) (*5,17,18*).
2. Refer DHCP to a prearranged qualified health-care professional or to their own health-care professional to receive all appropriate immunizations based on the latest recommendations as well as their medical history

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D. Exposure Prevention and Postexposure Management

1. Develop a comprehensive postexposure management and medical follow-up program (IB, IC) (*5,13,14,19*).

a. Include policies and procedures for prompt reporting, evaluation, counseling, treatment, and medical follow-up of occupational exposures.
b. Establish mechanisms for referral to a qualified health-care professional for medical evaluation and follow-up.
c. Conduct a baseline TST, preferably by using a two-step test, for all DHCP who might have contact with persons with suspected or confirmed infectious TB, regardless of the risk classification of the setting (IB) (*20*).

E. Medical Conditions, Work-Related Illness, and Work Restrictions

1. Develop and have readily available to all DHCP comprehensive written policies regarding work restriction and exclusion that include a statement of authority defining who can implement such policies (IB) (*5,22*).
2. Develop policies for work restriction and exclusion that encourage DHCP to seek appropriate preventive and curative care and report their illnesses, medical conditions, or treatments that can render them more susceptible to opportunistic infection or exposures; do not penalize DHCP with loss of wages, benefits, or job status (IB) (*5,22*).
3. Develop policies and procedures for evaluation, diagnosis, and management of DHCP with suspected or known occupational contact dermatitis (IB) (*32*).
4. Seek definitive diagnosis by a qualified health-care professional for any DHCP with suspected latex allergy to carefully determine its specific etiology and appropriate treatment as well as work restrictions and accommodations (IB) (*32*).

F. Records Maintenance, Data Management, and Confidentiality

1. Establish and maintain confidential medical records (e.g., immunization records and documentation of tests received as a result of occupational exposure) for all DHCP (IB, IC) (*5,13*).
2. Ensure that the practice complies with all applicable federal, state, and local laws regarding medical recordkeeping and confidentiality (IC) (*13,34*).

II. Preventing Transmission of Bloodborne Pathogens

A. HBV Vaccination

1. Offer the HBV vaccination series to all DHCP with potential occupational exposure to blood or other potentially infectious material (IA, IC) (*2,13,14,19*).
2. Always follow U.S. Public Health Service/CDC recommendations for hepatitis B vaccination, serologic testing, follow-up, and booster dosing (IA, IC) (*13,14,19*).
3. Test DHCP for anti-HBs 1--2 months after completion of the 3-dose vaccination series (IA, IC) (*14,19*).
4. DHCP should complete a second 3-dose vaccine series or be evaluated to determine if they are HBsAg-positive if no antibody response occurs to the primary vaccine series (IA, IC) (*14,19*).
5. Retest for anti-HBs at the completion of the second vaccine series. If no response to the second 3-dose series occurs, nonresponders should be tested for HBsAg (IC) (*14,19*).
6. Counsel nonresponders to vaccination who are HBsAg-negative regarding their susceptibility to HBV infection and precautions to take (IA, IC) (*14,19*).
7. Provide employees appropriate education regarding the risks of HBV transmission and the availability of the vaccine. Employees who decline the vaccination should sign a declination form to be kept on file with the employer (IC) (*13*).

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B. Preventing Exposures to Blood and OPIM

1. General recommendations

a. Use standard precautions (OSHA's bloodborne pathogen standard retains the term universal precautions) for all patient encounters (IA, IC) (*11,13,19,53*).
b. Consider sharp items (e.g., needles, scalers, burs, lab knives, and wires) that are contaminated with patient blood and saliva as potentially infective and establish engineering controls and work practices to prevent injuries (IB, IC) (*6,13,113*).
c. Implement a written, comprehensive program designed to minimize and manage DHCP exposures to blood and body fluids (IB, IC). (*13,14,19,97*).

2. Engineering and work-practice controls

a. Identify, evaluate, and select devices with engineered safety features at least annually and as they become available on the market (e.g., safer anesthetic syringes, blunt suture needle, retractable scalpel, or needleless IV systems) (IC) (*13,97,110--112*).
b. Place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers located as close as feasible to the area in which the items are used (IA, IC) (*2,7,13,19,113, 115*).
c. Do not recap used needles by using both hands or any other technique that involves directing the point of a needle toward any part of the body. Do not bend, break, or remove needles before disposal (IA, IC) (*2,7,8,13,97,113*).
d. Use either a one-handed scoop technique or a mechanical device designed for holding the needle cap when recapping needles (e.g., between multiple injections and before removing from a nondisposable aspirating syringe) (IA, IC) (*2,7,8,13,14,113*).

3. Postexposure management and prophylaxis

a. Follow CDC recommendations after percutaneous, mucous membrane, or nonintact skin exposure to blood or other potentially infectious material (IA, IC) (*13,14,19*).

III. Hand Hygiene

A. General Considerations

1. Perform hand hygiene with either a nonantimicrobial or antimicrobial soap and water when hands are visibly dirty or contaminated with blood or other potentially infectious material. If hands are not visibly soiled, an alcohol-based hand rub can also be used. Follow the manufacturer's instructions (IA) (*123*).
2. Indications for hand hygiene include
   a. when hands are visibly soiled (IA, IC);
   b. after barehanded touching of inanimate objects likely to be contaminated by blood, saliva, or respiratory secretions
   (IA, IC);
   c. before and after treating each patient (IB);
   d. before donning gloves (IB); and
   e. immediately after removing gloves (IB, IC) (*7--9,11,13,113,120--123,125,126,138*).
3. For oral surgical procedures, perform surgical hand antisepsis before donning sterile surgeon's gloves. Follow the manufacturer's instructions by using either an antimicrobial soap and water, or soap and water followed by drying hands and application of an alcohol-based surgical hand-scrub product with persistent activity (IB) (*121--123,127--133,144,145*).
4. Store liquid hand-care products in either disposable closed containers or closed containers that can be

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washed and dried before refilling. Do not add soap or lotion to (i.e., top off) a partially empty dispenser (IA) (*9,120,122,149,150*).

B. Special Considerations for Hand Hygiene and Glove Use

1. Use hand lotions to prevent skin dryness associated with handwashing (IA) (*153,154*).
2. Consider the compatibility of lotion and antiseptic products and the effect of petroleum or other oil emollients on the integrity of gloves during product selection and glove use (IB) (*2,14,122,155*).
3. Keep fingernails short with smooth, filed edges to allow thorough cleaning and prevent glove tears (II) (*122,123,156*).
4. Do not wear artificial fingernails or extenders when having direct contact with patients at high risk (e.g., those in intensive care units or operating rooms) (IA) (*123,157--160*).
5. Use of artificial fingernails is usually not recommended (II) (*157--160*).
6. Do not wear hand or nail jewelry if it makes donning gloves more difficult or compromises the fit and integrity of the glove (II) (*123,142, 143*).

IV. PPE

A. Masks, Protective Eyewear, and Face Shields

1. Wear a surgical mask and eye protection with solid side shields or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures likely to generate splashing or spattering of blood or other body fluids (IB, IC) (*1,2,7,8,11,13,137*).
2. Change masks between patients or during patient treatment if the mask becomes wet (IB) (*2*).
3. Clean with soap and water, or if visibly soiled, clean and disinfect reusable facial protective equipment (e.g., clinician and patient protective eyewear or face shields) between patients (II) (*2*).

B. Protective Clothing

1. Wear protective clothing (e.g., reusable or disposable gown, laboratory coat, or uniform) that covers personal clothing and skin (e.g., forearms) likely to be soiled with blood, saliva, or OPIM (IB, IC) (*7,8,11,13,137*).
2. Change protective clothing if visibly soiled (*134*); change immediately or as soon as feasible if penetrated by blood or other potentially infectious fluids (IB, IC) (*13*).
3. Remove barrier protection, including gloves, mask, eyewear, and gown before departing work area (e.g., dental patient care, instrument processing, or laboratory areas) (IC) (*13*).

C. Gloves

1. Wear medical gloves when a potential exists for contacting blood, saliva, OPIM, or mucous membranes (IB, IC) (*1,2,7,8,13*).
2. Wear a new pair of medical gloves for each patient, remove them promptly after use, and wash hands immediately to avoid transfer of microorganisms to other patients or environments (IB) (*1,7,8,123*).
3. Remove gloves that are torn, cut, or punctured as soon as feasible and wash hands before regloving (IB, IC) (*13,210,211*).
4. Do not wash surgeon's or patient examination gloves before use or wash, disinfect, or sterilize gloves for reuse (IB, IC) (*13,138,177,212,213*).
5. Ensure that appropriate gloves in the correct size are readily accessible (IC) (*13*).
6. Use appropriate gloves (e.g., puncture- and chemical-resistant utility gloves) when cleaning instruments and performing housekeeping tasks involving contact with blood or OPIM (IB, IC) (*7,13,15*).
7. Consult with glove manufacturers regarding the chemical compatibility of glove material and dental materials used (II).

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D. Sterile Surgeon's Gloves and Double Gloving During Oral Surgical Procedures

1. Wear sterile surgeon's gloves when performing oral surgical procedures (IB) (*2,8,137*).
2. No recommendation is offered regarding the effectiveness of wearing two pairs of gloves to prevent disease transmission during oral surgical procedures. The majority of studies among HCP and DHCP have demonstrated a lower frequency of inner glove perforation and visible blood on the surgeon's hands when double gloves are worn; however, the effectiveness of wearing two pairs of gloves in preventing disease transmission has not been demonstrated (Unresolved issue).

V. Contact Dermatitis and Latex Hypersensitivity

A. General Recommendations

1. Educate DHCP regarding the signs, symptoms, and diagnoses of skin reactions associated with frequent hand hygiene and glove use (IB) (*5,31,32*).
2. Screen all patients for latex allergy (e.g., take health history and refer for medical consultation when latex allergy is suspected) (IB) (*32*).
3. Ensure a latex-safe environment for patients and DHCP with latex allergy (IB) (*32*).
4. Have emergency treatment kits with latex-free products available at all times (II) (*32*).

VI. Sterilization and Disinfection of Patient-Care Items

A. General Recommendations

1. Use only FDA-cleared medical devices for sterilization and follow the manufacturer's instructions for correct use (IB) (*248*).
2. Clean and heat-sterilize critical dental instruments before each use (IA) (*2,137,243,244, 246,249,407*).
3. Clean and heat-sterilize semicritical items before each use (IB) (*2,249,260,407*).
4. Allow packages to dry in the sterilizer before they are handled to avoid contamination (IB) (*247*).
5. Use of heat-stable semicritical alternatives is encouraged (IB) (*2*).
6. Reprocess heat-sensitive critical and semi-critical instruments by using FDA-cleared sterilant/high-level disinfectants or an FDA-cleared low-temperature sterilization method (e.g., ethylene oxide). Follow manufacturer's instructions for use of chemical sterilants/high-level disinfectants (IB) (*243*).
7. Single-use disposable instruments are acceptable alternatives if they are used only once and disposed of correctly (IB, IC) (*243,383*).
8. Do not use liquid chemical sterilants/high-level disinfectants for environmental surface disinfection or as holding solutions (IB, IC) (*243,245*).
9. Ensure that noncritical patient-care items are barrier-protected or cleaned, or if visibly soiled, cleaned and disinfected after each use with an EPA-registered hospital disinfectant. If visibly contaminated with blood, use an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., intermediate level) (IB) (*2,243,244*).
10. Inform DHCP of all OSHA guidelines for exposure to chemical agents used for disinfection and sterilization. Using this report, identify areas and tasks that have potential for exposure (IC) (*15*).

B. Instrument Processing Area

1. Designate a central processing area. Divide the instrument processing area, physically or, at a minimum, spatially, into distinct areas for 1) receiving, cleaning, and decontamination; 2) preparation and packaging; 3) sterilization; and 4) storage. Do not store instruments in an area where contaminated instruments are held or cleaned (II) (*173,247,248*).
2. Train DHCP to employ work practices that prevent contamination of clean areas (II).

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C. Receiving, Cleaning, and Decontamination Work Area

1. Minimize handling of loose contaminated instruments during transport to the instrument processing area. Use work-practice controls (e.g., carry instruments in a covered container) to minimize exposure potential (II). Clean all visible blood and other contamination from dental instruments and devices before sterilization or disinfection procedures (IA) (*243,249--252*).
2. Use automated cleaning equipment (e.g., ultrasonic cleaner or washer-disinfector) to remove debris to improve cleaning effectiveness and decrease worker exposure to blood (IB) (*2,253*).
3. Use work-practice controls that minimize contact with sharp instruments if manual cleaning is necessary (e.g., long-handled brush) (IC) (*14*).
4. Wear puncture- and chemical-resistant/heavy-duty utility gloves for instrument cleaning and decontamination procedures (IB) (*7*).
5. Wear appropriate PPE (e.g., mask, protective eyewear, and gown) when splashing or spraying is anticipated during cleaning (IC) (*13*).

D. Preparation and Packaging

1. Use an internal chemical indicator in each package. If the internal indicator cannot be seen from outside the package, also use an external indicator (II) (*243,254,257*).

2. Use a container system or wrapping compatible with the type of sterilization process used and that has received FDA clearance (IB) (*243,247, 256*).

3. Before sterilization of critical and semicritical instruments, inspect instruments for cleanliness, then wrap or place them in containers designed to maintain sterility during storage (e.g., cassettes and organizing trays) (IA) (*2,247,255,256*).

E. Sterilization of Unwrapped Instruments

1. Clean and dry instruments before the unwrapped sterilization cycle (IB) (*248*).
2. Use mechanical and chemical indicators for each unwrapped sterilization cycle (i.e., place an internal chemical indicator among the instruments or items to be sterilized) (IB) (*243,258*).
3. Allow unwrapped instruments to dry and cool in the sterilizer before they are handled to avoid contamination and thermal injury (II) (*260*).
4. Semicritical instruments that will be used immediately or within a short time can be sterilized unwrapped on a tray or in a container system, provided that the instruments are handled aseptically during removal from the sterilizer and transport to the point of use (II).
5. Critical instruments intended for immediate reuse can be sterilized unwrapped if the instruments are maintained sterile during removal from the sterilizer and transport to the point of use (e.g., transported in a sterile covered container) (IB) (*258*).
6. Do not sterilize implantable devices unwrapped (IB) (*243,247*).
7. Do not store critical instruments unwrapped (IB) (*248*).

F. Sterilization Monitoring

1. Use mechanical, chemical, and biological monitors according to the manufacturer's instructions to ensure the effectiveness of the sterilization process (IB) (*248,278,279*).
2. Monitor each load with mechanical (e.g., time, temperature, and pressure) and chemical indicators (II) (*243,248*).
3. Place a chemical indicator on the inside of each package. If the internal indicator is not visible from the outside, also place an exterior chemical indicator on the package (II) (*243,254,257*).
4. Place items/packages correctly and loosely into the sterilizer so as not to impede penetration of the sterilant

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(IB) (*243*).
5. Do not use instrument packs if mechanical or chemical indicators indicate inadequate processing (IB) (*243,247,248*).
6. Monitor sterilizers at least weekly by using a biological indicator with a matching control (i.e., biological indicator and control from same lot number) (IB) (*2,9,243,247,278,279*).
7. Use a biological indicator for every sterilizer load that contains an implantable device. Verify results before using the implantable device, whenever possible (IB) (*243,248*).
8. The following are recommended in the case of a positive spore test:

a. Remove the sterilizer from service and review sterilization procedures (e.g., work practices and use of mechanical and chemical indicators) to determine whether operator error could be responsible (II) (*8*).
b. Retest the sterilizer by using biological, mechanical, and chemical indicators after correcting any identified procedural problems (II).
c. If the repeat spore test is negative, and mechanical and chemical indicators are within normal limits, put the sterilizer back in service (II) (*9,243*).

9. The following are recommended if the repeat spore test is positive:

a. Do not use the sterilizer until it has been inspected or repaired or the exact reason for the positive test has been determined (II) (*9,243*).
b. Recall, to the extent possible, and reprocess all items processed since the last negative spore test (II) (*9,243,283*).
c. Before placing the sterilizer back in service, rechallenge the sterilizer with biological indicator tests in three consecutive empty chamber sterilization cycles after the cause of the sterilizer failure has been determined and corrected (II) (*9,243,283*).

10. Maintain sterilization records (i.e., mechanical, chemical, and biological) in compliance with state and local regulations (IB) (*243*).

G. Storage Area for Sterilized Items and Clean Dental Supplies

1. Implement practices on the basis of date- or event-related shelf-life for storage of wrapped, sterilized instruments and devices (IB) (*243, 284*).
2. Even for event-related packaging, at a minimum, place the date of sterilization, and if multiple sterilizers are used in the facility, the sterilizer used, on the outside of the packaging material to facilitate the retrieval of processed items in the event of a sterilization failure (IB) (*243,247*).
3. Examine wrapped packages of sterilized instruments before opening them to ensure the barrier wrap has not been compromised during storage (II) (*243,284*).
4. Reclean, repack, and resterilize any instrument package that has been compromised (II).
5. Store sterile items and dental supplies in covered or closed cabinets, if possible (II) (*285*).

VII. Environmental Infection Control

A. General Recommendations

1. Follow the manufacturers' instructions for correct use of cleaning and EPA-registered hospital disinfecting products (IB, IC) (*243–245*).
2. Do not use liquid chemical sterilants/high-level disinfectants for disinfection of environmental surfaces (clinical contact or housekeeping) (IB, IC) (*243–245*).
3. Use PPE, as appropriate, when cleaning and disinfecting environmental surfaces. Such equipment might include gloves (e.g., puncture- and chemical-resistant utility), protective clothing (e.g., gown, jacket, or lab coat), and protective eyewear/face shield, and mask (IC) (*13,15*).

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B. Clinical Contact Surfaces

1. Use surface barriers to protect clinical contact surfaces, particularly those that are difficult to clean (e.g., switches on dental chairs) and change surface barriers between patients (II) (*1,2,260, 288*).
2. Clean and disinfect clinical contact surfaces that are not barrier-protected, by using an EPA-registered hospital disinfectant with a low- (i.e., HIV and HBV label claims) to intermediate-level (i.e., tuberculocidal claim) activity after each patient. Use an intermediate-level disinfectant if visibly contaminated with blood (IB) (*2,243,244*).

C. Housekeeping Surfaces

1. Clean housekeeping surfaces (e.g., floors, walls, and sinks) with a detergent and water or an EPA-registered hospital disinfectant/detergent on a routine basis, depending on the nature of the surface and type and degree of contamination, and as appropriate, based on the location in the facility, and when visibly soiled (IB) (*243,244*).
2. Clean mops and cloths after use and allow to dry before reuse; or use single-use, disposable mop heads or cloths (II) (*243,244*).
3. Prepare fresh cleaning or EPA-registered disinfecting solutions daily and as instructed by the manufacturer. (II) (*243,244*).
4. Clean walls, blinds, and window curtains in patient-care areas when they are visibly dusty or soiled (II) (*9,244*).

D. Spills of Blood and Body Substances

1. Clean spills of blood or OPIM and decontaminate surface with an EPA-registered hospital disinfectant with low- (i.e., HBV and HIV label claims) to intermediate-level (i.e., tuberculocidal claim) activity, depending on size of spill and surface porosity (IB, IC) (*13,113*).

E. Carpet and Cloth Furnishings

1. Avoid using carpeting and cloth-upholstered furnishings in dental operatories, laboratories, and instrument processing areas (II) (*9,293–295*).

F. Regulated Medical Waste

1. General Recommendations

a. Develop a medical waste management program. Disposal of regulated medical waste must follow federal, state, and local regulations (IC) (*13,301*).
b. Ensure that DHCP who handle and dispose of regulated medical waste are trained in appropriate handling and disposal methods and informed of the possible health and safety hazards (IC) (*13*).

2. Management of Regulated Medical Waste in Dental Health-Care Facilities

a. Use a color-coded or labeled container that prevents leakage (e.g., biohazard bag) to contain nonsharp regulated medical waste (IC) (*13*).
b. Place sharp items (e.g., needles, scalpel blades, orthodontic bands, broken metal instruments, and burs) in an appropriate sharps container (e.g., puncture resistant, color-coded, and leakproof). Close container immediately before removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping (IC) (*2,8,13,113,115*).
c. Pour blood, suctioned fluids or other liquid waste carefully into a drain connected to a sanitary sewer

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system, if local sewage discharge requirements are met and the state has declared this an acceptable method of disposal. Wear appropriate PPE while performing this task (IC) (*7,9,13*).

VIII. Dental Unit Waterlines, Biofilm, and Water Quality

A. General Recommendations

1. Use water that meets EPA regulatory standards for drinking water (i.e., ≤500 CFU/mL of heterotrophic water bacteria) for routine dental treatment output water (IB, IC) (*341,342*).
2. Consult with the dental unit manufacturer for appropriate methods and equipment to maintain the recommended quality of dental water (II) (*339*).
3. Follow recommendations for monitoring water quality provided by the manufacturer of the unit or waterline treatment product (II).
4. Discharge water and air for a minimum of 20--30 seconds after each patient, from any device connected to the dental water system that enters the patient's mouth (e.g., handpieces, ultrasonic scalers, and air/water syringes) (II) (*2,311,344*).
5. Consult with the dental unit manufacturer on the need for periodic maintenance of antiretraction mechanisms (IB) (*2,311*).

B. Boil-Water Advisories

1. The following apply while a boil-water advisory is in effect:

a. Do not deliver water from the public water system to the patient through the dental operative unit, ultrasonic scaler, or other dental equipment that uses the public water system (IB, IC) (*341,342,346,349,350*).
b. Do not use water from the public water system for dental treatment, patient rinsing, or handwashing (IB, IC) (*341,342,346,349, 350*).
c. For handwashing, use antimicrobial-containing products that do not require water for use (e.g., alcohol-based hand rubs). If hands are visibly contaminated, use bottled water, if available, and soap for handwashing or an antiseptic towelette (IB, IC) (*13,122*).

2. The following apply when the boil-water advisory is cancelled:

a. Follow guidance given by the local water utility regarding adequate flushing of waterlines. If no guidance is provided, flush dental waterlines and faucets for 1--5 minutes before using for patient care (IC) (*244,346, 351,352*).
b. Disinfect dental waterlines as recommended by the dental unit manufacturer (II).

IX. Special Considerations

A. Dental Handpieces and Other Devices Attached to Air and Waterlines

1. Clean and heat-sterilize handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units between patients (IB, IC) (*2,246,275,356,357,360,407*).
2. Follow the manufacturer's instructions for cleaning, lubrication, and sterilization of handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units (IB) (*361--363*).
3. Do not surface-disinfect, use liquid chemical sterilants, or ethylene oxide on handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units (IC) (*2,246,250,275*).
4. Do not advise patients to close their lips tightly around the tip of the saliva ejector to evacuate oral fluids (II) (*364--366*).

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B. Dental Radiology

1. Wear gloves when exposing radiographs and handling contaminated film packets. Use other PPE (e.g., protective eyewear, mask, and gown) as appropriate if spattering of blood or other body fluids is likely (IA, IC) (*11,13*).
2. Use heat-tolerant or disposable intraoral devices whenever possible (e.g., film-holding and positioning devices). Clean and heat-sterilize heat-tolerant devices between patients. At a minimum, high-level disinfect semicritical heat-sensitive devices, according to manufacturer's instructions (IB) (*243*).
3. Transport and handle exposed radiographs in an aseptic manner to prevent contamination of developing equipment (II).
4. The following apply for digital radiography sensors:

a. Use FDA-cleared barriers (IB) (*243*).
b. Clean and heat-sterilize, or high-level disinfect, between patients, barrier-protected semicritical items. If the item cannot tolerate these procedures then, at a minimum, protect with an FDA-cleared barrier and clean and disinfect with an EPA-registered hospital disinfectant with intermediate-level (i.e., tuberculocidal claim) activity, between patients. Consult with the manufacturer for methods of disinfection and sterilization of digital radiology sensors and for protection of associated computer hardware (IB) (*243*).

C. Aseptic Technique for Parenteral Medications

1. Do not administer medication from a syringe to multiple patients, even if the needle on the syringe is changed (IA) (*378*). 2. Use single-dose vials for parenteral medications when possible (II) (*376,377*).
3. Do not combine the leftover contents of single-use vials for later use (IA) (*376,377*).
4. The following apply if multidose vials are used:

a. Cleanse the access diaphragm with 70% alcohol before inserting a device into the vial (IA) (*380,381*).
b. Use a sterile device to access a multiple-dose vial and avoid touching the access diaphragm. Both the needle and syringe used to access the multidose vial should be sterile. Do not reuse a syringe even if the needle is changed (IA) (*380,381*).
c. Keep multidose vials away from the immediate patient treatment area to prevent inadvertent contamination by spray or spatter (II).
d. Discard the multidose vial if sterility is compromised (IA) (*380,381*).

5. Use fluid infusion and administration sets (i.e., IV bags, tubings and connections) for one patient only and dispose of appropriately (IB) (*378*).

D. Single-Use (Disposable) Devices

1. Use single-use devices for one patient only and dispose of them appropriately (IC) (*383*).

E. Preprocedural Mouth Rinses

1. No recommendation is offered regarding use of preprocedural antimicrobial mouth rinses to prevent clinical infections among DHCP or patients. Although studies have demonstrated that a preprocedural antimicrobial rinse (e.g., chlorhexidine gluconate, essential oils, or povidone-iodine) can reduce the level of oral microorganisms in aerosols and spatter generated during routine dental procedures and can decrease the number of microorganisms introduced in the patient's bloodstream during invasive dental procedures (*391--399*), the scientific evidence is inconclusive that using these rinses prevents clinical infections among DHCP or patients (see discussion, Preprocedural Mouth Rinses) (Unresolved issue).

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F. Oral Surgical Procedures

1. The following apply when performing oral surgical procedures:

a. Perform surgical hand antisepsis by using an antimicrobial product (e.g., antimicrobial soap and water, or soap and water followed by alcohol-based hand scrub with persistent activity) before donning sterile surgeon's gloves (IB) (*127–132,137*). b. Use sterile surgeon's gloves (IB) (*2,7,121, 123,137*).
c. Use sterile saline or sterile water as a coolant/irrigatant when performing oral surgical procedures. Use devices specifically designed for delivering sterile irrigating fluids (e.g., bulb syringe, single-use disposable products, and sterilizable tubing) (IB) (*2,121*).

G. Handling of Biopsy Specimens

1. During transport, place biopsy specimens in a sturdy, leakproof container labeled with the biohazard symbol (IC) (*2,13,14*).
2. If a biopsy specimen container is visibly contaminated, clean and disinfest the outside of a container or place it in an impervious bag labeled with the biohazard symbol, (IC) (*2,13*).

H. Handling of Extracted Teeth

1. Dispose of extracted teeth as regulated medical waste unless returned to the patient (IC) (*13,14*).
2. Do not dispose of extracted teeth containing amalgam in regulated medical waste intended for incineration (II).
3. Clean and place extracted teeth in a leakproof container, labeled with a biohazard symbol, and maintain hydration for transport to educational institutions or a dental laboratory (IC) (*13,14*).
4. Heat-sterilize teeth that do not contain amalgam before they are used for educational purposes (IB) (*403,405,406*).

I. Dental Laboratory

1. Use PPE when handling items received in the laboratory until they have been decontaminated (IA, IC) (*2,7,11,13,113*). 2. Before they are handled in the laboratory, clean, disinfect, and rinse all dental prostheses and prosthodontic materials (e.g., impressions, bite registrations, occlusal rims, and extracted teeth) by using an EPA-registered hospital disinfectant having at least an intermediate-level (i.e., tuberculocidal claim) activity (IB) (*2,249,252,407*).
3. Consult with manufacturers regarding the stability of specific materials (e.g., impression materials) relative to disinfection procedures (II).
4. Include specific information regarding disinfection techniques used (e.g., solution used and duration), when laboratory cases are sent off-site and on their return (II) (*2,407,409*).
5. Clean and heat-sterilize heat-tolerant items used in the mouth (e.g., metal impression trays and face-bow forks) (IB) (*2,407*).
6. Follow manufacturers' instructions for cleaning and sterilizing or disinfecting items that become contaminated but do not normally contact the patient (e.g., burs, polishing points, rag wheels, articulators, case pans, and lathes). If manufacturer instructions are unavailable, clean and heat-sterilize heat-tolerant items or clean and disinfect with an EPA-registered hospital disinfectant with low- (HIV, HBV effectiveness claim) to intermediate-level (tuberculocidal claim) activity, depending on the degree of contamination (II).

J. Laser/Electrosurgery Plumes/Surgical Smoke

1. No recommendation is offered regarding practices to reduce DHCP exposure to laser plumes/surgical

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full face shields) (*437*); b) central room suction units with in-line filters to collect particulate matter from minimal plumes; and c) dedicated mechanical smoke exhaust systems with a high-efficiency filter to remove substantial amounts of laser-plume particles. The effect of the exposure (e.g., disease transmission or adverse respiratory effects) on DHCP from dental applications of lasers has not been adequately evaluated (see previous discussion, Laser/Electrosurgery Plumes or Surgical Smoke) (Unresolved issue).

K. *Mycobacterium tuberculosis*

1. General Recommendations

a. Educate all DHCP regarding the recognition of signs, symptoms, and transmission of TB (IB) (*20,21*).
b. Conduct a baseline TST, preferably by using a two-step test, for all DHCP who might have contact with persons with suspected or confirmed active TB, regardless of the risk classification of the setting (IB) (*20*).
c. Assess each patient for a history of TB as well as symptoms indicative of TB and document on the medical history form (IB) (*20,21*).
d. Follow CDC recommendations for 1) developing, maintaining, and implementing a written TB infection-control plan; 2) managing a patient with suspected or active TB; 3) completing a community risk-assessment to guide employee TSTs and follow-up; and 4) managing DHCP with TB disease (IB) (*2,21*).

2. The following apply for patients known or suspected to have active TB:

a. Evaluate the patient away from other patients and DHCP. When not being evaluated, the patient should wear a surgical mask or be instructed to cover mouth and nose when coughing or sneezing (IB) (*20,21*).
b. Defer elective dental treatment until the patient is noninfectious (IB) (*20,21*).
c. Refer patients requiring urgent dental treatment to a previously identified facility with TB engineering controls and a respiratory protection program (IB) (*20,21*).

L. Creutzfeldt-Jakob Disease (CJD) and Other Prion Diseases

1. No recommendation is offered regarding use of special precautions in addition to standard precautions when treating known CJD or vCJD patients. Potential infectivity of oral tissues in CJD or vCJD patients is an unresolved issue. Scientific data indicate the risk, if any, of sporadic CJD transmission during dental and oral surgical procedures is low to nil. Until additional information exists regarding the transmissibility of CJD or vCJD during dental procedures, special precautions in addition to standard precautions might be indicated when treating known CJD or vCJD patients; a list of such precautions is provided for consideration without recommendation (see Creutzfeldt-Jakob Disease and Other Prion Diseases) (Unresolved issue).

M. Program Evaluation

1. Establish routine evaluation of the infection-control program, including evaluation of performance indicators, at an established frequency (II) (*470-471*).

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1. PURPOSE

To ensure that all clinical procedures are done in accordance to applicable guidelines and in a manner that will ensure quality services are delivered in a safe environment.

2. GENERAL

All clinical procedures delineated in the HPS "Standing Orders for Dental Hygienists" are to be done in accordance to *Guidelines For Infection Control in Dental Health-Care Settings---2003* and delivered in compliance with OSHA Standards. Each clinician should be familiar with the *Guidelines for SC School-Based Dental Prevention Programs.*

3. PROCEDURE

3.1 Sealant Application

3.1.1 Sealants are applied to permanent molars that are selected for sealants as outlined in the *Guidelines for SC School-Based Dental Prevention Programs.*

3.1.2 The tooth surface to be sealed should be cleaned thoroughly and isolated with cotton rolls.

3.1.3 The site should be dried with compressed air which is free of oil and moisture.

3.1.4 Apply phosphoric acid to the clean, dry surface. The etch should be applied for one minute. The success of sealant retention is dependent upon proper etching.

3.1.4.1 Liquid etch – apply with a brush.

3.1.4.2 Gel etch – apply gel and leave undisturbed.

3.1.5 Rinse etched surfaces for 10-15 seconds. If gel is used the surface should be rinsed for an additional 30 seconds.

3.1.6 Dry the surface for 10 seconds and evaluate etched surface. The surface should appear white, dull, and frosty.

3.1.7 Apply sealant over the pits, fissures, and inclined planes.

3.1.8 With photopolymerized sealants, apply light to each portion of the sealant for 20-30 seconds as per manufacturing instructions.

3.1.9 Evaluate the sealant with an explorer.

3.1.9.1 If imperfections are noted (incomplete coverage, air bubbles, etc.), reapplication of the sealant is necessary.

3.1.9.2 Re-etch tooth for 10 seconds, wash and dry, and apply additional sealant.

3.2 Topical Fluoride Application

3.2.1 Topical Fluoride should be applied after sealant application.

3.2.2 In the case of partially erupted molars, it is best to swab fluoride varnish under the tissue. This gives added protection until full eruption and sealants can be placed. All students will be given an instruction sheet relative to the fluoride varnish application.

4. RESPONSIBILITIES

It is the responsibility of each RDH to adhere to all requirements related to each clinical procedure.

5. REFERENCES/EXHIBITS

Exhibit A – *Guidelines for SC School-Based Dental Prevention Programs*

Exhibit B – *Guidelines For Infection Control in Dental-Health Care Settings---2003*

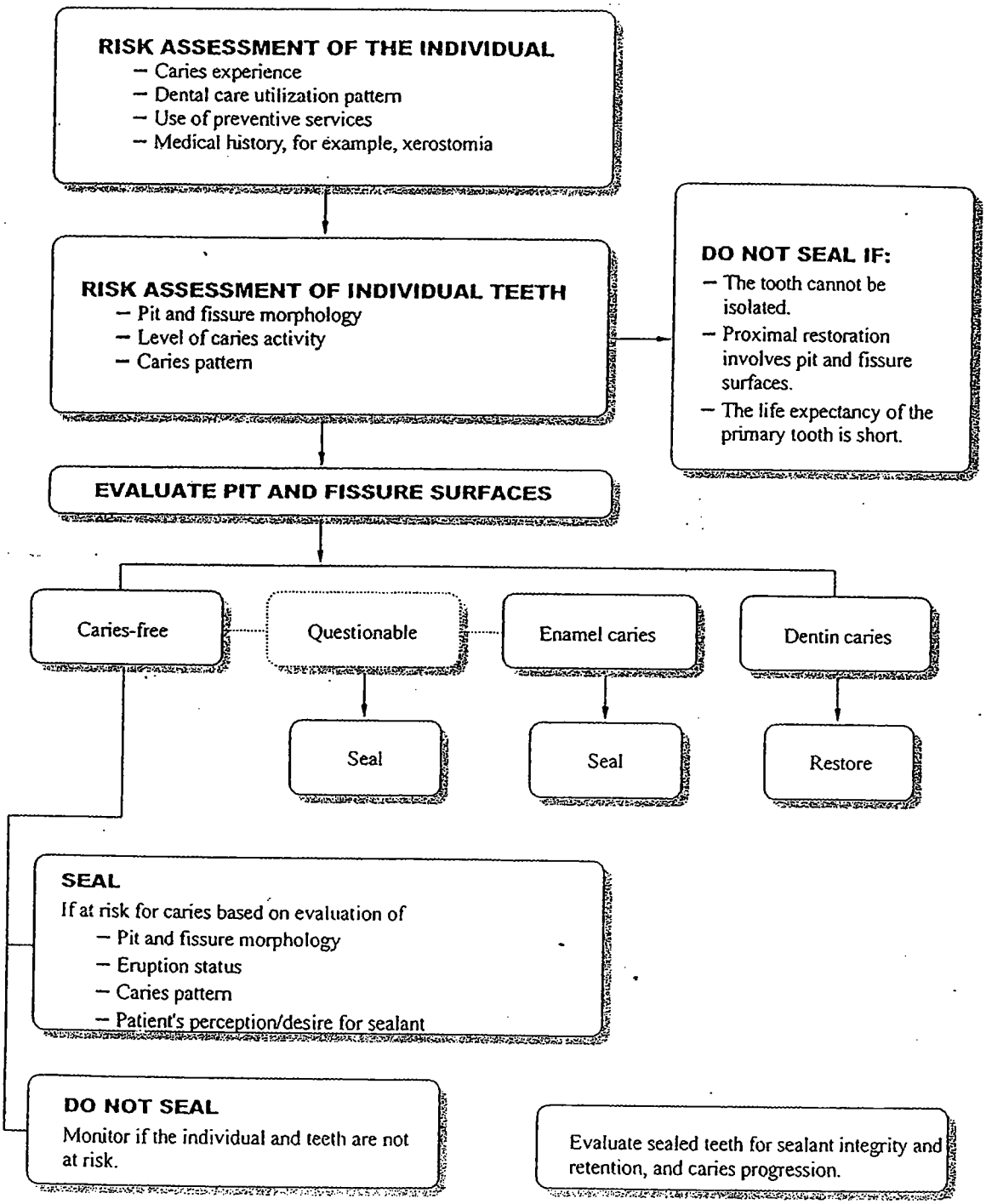
Exhibit C – *HPS Standing Orders for Dental Hygienists*

Reference – HPS RDH OSHA Manual

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Decision - Tree
for
Pit and Fissure Treatment



Adapted from: Workshop on guidelines for sealant use—recommendations, *J Public Health Dent* 55(5 Spec No):263-73. 1995.

	DEPARTMENT PROCEDURE		
HPS	HYGIENE		
	ANTIBIOTIC PROPHYLAXIS	HYG-003	Rev. No. 1
	Prepared by: T. Byrd	Date Issued: 4/1/02	Page 1 of 1

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1. PURPOSE

To ensure the health of all children receiving a prophylaxis by Health Promotion Specialists in a school-based setting.

2. GENERAL

Some medical conditions require prophylactic antibiotics before certain dental procedures are performed. Antibiotic prophylaxis should be determined by referencing the American Heart Association, the American Association of Orthpaedic Surgeon's, and the American Academy of Pediatric Dentistry guidelines (Exhibit A, B, & C) in consultation with the child's physician. Antibiotic prophylaxis is not indicated for the application of dental sealants or fluoride.

3. PROCEDURE

3.1. The medical history of every child shall be thoroughly reviewed by the registered dental hygienist prior to delivering any services.

3.2. When a parent/guardian indicates a medical condition that requires antibiotic prophylaxis, the child's physician should be contacted to confirm the necessity and to prescribe the antibiotics. The intake of the antibiotics at the appropriate time should be coordinated with the parent, and if necessary, the school nurse.

3.3. When a parent/guardian indicates the child has had an artificial joint replacement, a diagnosis of rheumatic heart fever or heart murmur, sickle cell anemia, or other serious illness that could precipitate antibiotic prophylaxis, and states that no premedication is necessary, this should be confirmed with the parent and/or physician.

3.4. When a parent indicates the need for antibiotic prophylaxis, but there is no apparent indication of a need, this should be confirmed with the parent, and if necessary, the child's physician. (i.e., a child that was prescribed antibiotics before a prior dental visit involving an abscessed tooth.)

3.5. When a physician indicates a medical condition that requires antibiotic prophylaxis, the child's physician should prescribe the antibiotics. The intake of the antibiotics at the appropriate time should be coordinated with the parent, and if necessary, the school nurse.

4. RESPONSIBILITIES

It is the responsibility of the licensed practitioner to follow all antibiotic prophylaxis recommendations. There are no exceptions to the rule.

5. DEFINITIONS

"Antibiotic Prophylaxis" means the prescribing of an antibiotic to prevent inflammation from occurring as a result of a dental procedure.

6. REFERENCES/EXHIBITS

EXHIBIT A – The American Heart Association's scientific statement, "Prevention of Bacterial Endocarditis"

EXHIBIT B – The American Academy of Orthopaedic Surgeons' advisory statement, " Antibiotic Prophylaxis for Dental Patients with Total Joint Replacements"

EXHIBIT C – The American Academy of Pediatric Dentistry's white paper, "Guidelines for Antibiotic Prophylaxis for Patient's at Risk"

EXHIBIT D – Prophylactic Regimens for Dental, Oral, Respiratory Tract, or Esophageal Procedures

EXHIBIT E- Sickle Cell Premedication Advice

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EXHIBIT A

AHA Scientific Statements

Prevention of Bacterial Endocarditis

The American Heart Association has issued new guidelines for the prevention of bacterial endocarditis. These guidelines are published in the June 11, 1997 issue of the Journal of the American Medical Association (JAMA vol. 277, pp1794-1801) and the July 1, 1997 issue of Circulation. They will also be published in an upcoming issue of the Journal of the American Dental Association. **A summary of the new recommendations is listed below.**

The statement was prepared by an ad hoc writing group appointed by the American Heart Association with liaison members representing the American Dental Association, the Infectious Diseases Society of America, the American Academy of Pediatrics, and the American Society for Gastrointestinal Endoscopy. The authors are: Adnan S. Dajani, MD(Chairman); Kathryn A. Taubert, PhD; Walter Wilson, MD; Ann F. Bolger, MD; Arnold Bayer, MD; Patricia Ferrari, MD; Michael H. Gewitz, MD; Stanford T. Shulman, MD; Soraya Nouri, MD; Jane W. Newburger, MD; Cecelia Hutto, MD; Thomas J. Pallasch, DDS, MS (liaison, American Dental Association); Tommy W. Gage, DDS, PhD (liaison, American Dental Association); Matthew E. Levison, MD (liaison, Infectious Diseases Society of America); Georges Peter, MD (liaison, American Academy of Pediatrics);Gregory Zuccaro, MD (liaison, American Society for Gastrointestinal Endoscopy).

The recommendations reflect analyses of relevant literature regarding procedure-related endocarditis, in vitro susceptibility data of pathogens causing endocarditis, results of prophylactic studies in animal models of endocarditis, and retrospective analyses of human endocarditis cases in terms of antibiotic prophylaxis usage patterns and apparent prophylaxis failures.

The guidelines are meant to aid practitioners, but are not intended as the standard of care or as a substitute for clinical judgment. The recommendations were formulated by the writing group after specific therapeutic regimens were discussed. The consensus statement was subsequently reviewed by outside experts not affiliated with the writing group and by the Science Advisory and Coordinating Committee of the American Heart Association.

Major changes in the updated recommendations include the following: a) emphasis that most cases of endocarditis are not attributable to an invasive procedure; b) cardiac conditions are stratified into high, moderate, and negligible risk categories based on potential outcome if endocarditis develops; c) procedures that may cause bacteremia and for which prophylaxis is recommended are more clearly specified; d) an algorithm was developed to more clearly define when prophylaxis is recommended for patients with mitral valve prolapse; e) **for oral/dental procedures the initial amoxicillin dose is reduced to 2g, a follow-up antibiotic dose is no longer recommended, erythromycin is no longer recommended for penicillin-allergic individuals but Clindamycin and other alternatives are offered;** f) for GI/GU procedures, the

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prophylactic regimens have been simplified. These changes were instituted to more clearly define when prophylaxis is/is not recommended, improve practitioner and patient compliance, reduce cost and potential GI side-effects, and approach more uniform world-wide recommendations.

TABLE 2. DENTAL PROCEDURES FOR WHICH PROPHYLAXIS IS OR IS NOT RECOMMENDED

Endocarditis Prophylaxis Not Recommended

Restorative dentistry^ (operative and prosthodontic) with/without retraction cord#
Local anesthetic injections (nonintraligamentary)
Intracanal endodontic treatment; post placement and buildup
Placement of rubber dams
Postoperative suture removal
Placement of removable prosthodontic/orthodontic appliances
Electrosurgery after postoperative suture removal
Taking of oral impressions
Fluoride treatments
Taking of oral radiographs
Orthodontic appliance adjustment
Shedding of primary teeth

Endocarditis Prophylaxis Recommended*

Dental extractions
Periodontal procedures including surgery, scaling and root planing, probing, recall maintenance
Dental implant placement and reimplantation of avulsed teeth
Endodontic (root canal) instrumentation or surgery only beyond the apex
Subgingival placement of antibiotic fibers/strips
Initial placement of orthodontic bands but not brackets
Intraligamentary local anesthetic injections
Prophylactic cleaning of teeth or implants where bleeding is anticipated

* Prophylaxis is recommended for patients with high and moderate risk cardiac conditions.

^ This includes restoration of decayed teeth (filling cavities) and replacement of missing teeth

Clinical judgment may indicate antibiotic use in selected circumstances that may create significant bleeding

EXHIBIT B

American Academy of Orthopaedic Surgeons | AAOS American Association of Orthopaedic Surgeons

Advisory Statement

Antibiotic Prophylaxis for Dental Patients with Total Joint Replacements

American Dental Association; American Academy of Orthopaedic Surgeons

An expert panel of dentists, orthopaedic surgeons and infectious disease specialists, convened by the American Dental Association (ADA) and the American Academy of Orthopaedic Surgeons (AAOS) performed a thorough review of all available data to determine the need for antibiotic prophylaxis to prevent hematogenous prosthetic joint infections in dental patients who have undergone total joint arthroplasties. The result is this report, which has been adopted by both organizations as an advisory statement.

The panel's conclusion: Antibiotic prophylaxis is not indicated for dental patients with pins, plates and screws, nor is it routinely indicated for most dental patients with total joint replacements. However, it is advisable to consider premedication in a small number of patients (Table 1) who may be at potential increased risk of hematogenous total joint infection.

Approximately 450,000 total joint arthroplasties are performed annually in the United States. Deep infections of these total joint replacements usually result in failure of the initial operation and the need for extensive revision. Due to the use of perioperative antibiotic prophylaxis and other technical advances, deep infection occurring in the immediate postoperative period resulting from intraoperative contamination has been markedly reduced in the past 20 years.

Patients who are about to have a total joint arthroplasty should be in good dental health prior to surgery and should be encouraged to seek professional dental care if necessary. Patients who already have had a total joint arthroplasty should perform effective daily oral hygiene procedures to remove plaque (e.g. manual or powered toothbrushes, interdental cleaners, oral irrigators) to establish and maintain good oral health. The risk of bacteremia is far more substantial in a mouth with ongoing inflammation than in one that is healthy and employing these home-oral hygiene devices.[1]

Bacteremias can cause hematogenous seeding of total joint implants, both in the early postoperative period and for many years following implantation.[2] It appears that the most critical period is up to two years after joint placement.[3] In addition, bacteremias may occur in the course of normal daily life[4-6] and concurrently with dental and medical procedures.[6] It is likely that many more oral bacteremias are spontaneously induced by daily events than are dental treatment-induced.[6] Presently, no scientific evidence supports the position that antibiotic prophylaxis to prevent hematogenous infections is required prior to dental treatment in patients with total joint prostheses.[1] The risk/benefit[7,8] and cost/effectiveness[7,9] ratios fail to justify the administration of routine antibiotic prophylaxis. The analogy of late prosthetic joint infections with infective endocarditis is invalid as the anatomy, blood supply, microorganisms and mechanisms of infection are all different.[10]

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It is likely that bacteremias associated with acute infection in the oral cavity,[11,12] skin, respiratory, gastrointestinal and urogenital systems and/or other sites can and do cause late implant infection.[12] Any patient with a total joint prosthesis with acute orofacial infection should be vigorously treated as any other patient with elimination of the source of the infection (incision and drainage, endodontics, extraction) and appropriate therapeutic antibiotics when indicated.[1,12] Practitioners should maintain a high index of suspicion for any unusual signs and symptoms (e.g. fever, swelling, pain, joint warm to touch) in patients with total joint prostheses.

Antibiotic prophylaxis is not indicated for dental patients with pins, plates and screws, nor is it routinely indicated for most dental patients with total joint replacements. This position agrees with that taken by the Council on Dental Therapeutics,[13] the American Academy of Oral Medicine,[14] and is similar to that taken by the British Society for Antimicrobial Chemotherapy.[15] There is limited evidence that some immunocompromised patients with total joint replacements (Table 1) may be at higher risk for hematogenous infections.[13, 16-21] Antibiotic prophylaxis for such patients undergoing dental procedures with a higher bacteremic risk (as defined in Table 2), should be considered using an empirical regimen (Table 3). In addition, antibiotic prophylaxis may be considered when the higher risk dental procedures (as defined in Table 2) are performed on dental patients within two years post implant surgery,[3] on those who have had previous prosthetic joint infections, and on those with some other conditions (Table 1).

Occasionally, a patient with a total joint prosthesis may present to the dentist with a recommendation from his/her physician that is not consistent with these guidelines. This could be due to lack of familiarity with the guidelines or to special considerations about the patient's medical condition, which are not known to the dentist. In this situation, the dentist is encouraged to consult with the physician to determine if there are any special considerations that might affect the dentist's decision on whether or not to premedicate, and may wish to share a copy of these guidelines with the physician, if appropriate. After this consultation, the dentist may decide to follow the physician's recommendation, or, if in the dentist's professional judgment, antibiotic prophylaxis is not indicated, may decide to proceed without antibiotic prophylaxis. The dentist is ultimately responsible for making treatment recommendations for his/her patients based on the dentist's professional judgment. Any perceived potential benefit of antibiotic prophylaxis must be weighed against the known risks of antibiotic toxicity, allergy, and development, selection and transmission of microbial resistance.

This statement provides guidelines to supplement practitioners in their clinical judgment regarding antibiotic prophylaxis for dental patients with a total joint prosthesis. It is not intended as the standard of care nor as a substitute for clinical judgment as it is impossible to make recommendations for all conceivable clinical situations in which bacteremias originating from the oral cavity may occur. Practitioners must exercise their own clinical judgment in determining whether or not antibiotic prophylaxis is appropriate.

The ADA/AAOS Expert Panel consisted of: Robert H. Fitzgerald Jr., MD; Jed J. Jacobson, DDS, MS, MPH; James V. Luck Jr., MD; Carl L. Nelson, MD; J. Phillip Nelson, MD; Douglas R. Osmon, MD; and Thomas J. Pallasch, DDS. Staff Liaisons: ADA-Clifford W. Whall Jr., PhD; AAOS-William W. Tipton Jr., MD.

Table 1. Patients at Potential Increased Risk of Hematogenous Total Joint Infection[12,16-21]

A. Immunocompromised/immunosupressed patients

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- Disease, drug or radiation-induced immunosuppression

B. Other Patients

- Insulin-dependent (Type 1) diabetes
- First two years following joint placement
- Previous prosthetic joint infections
- Malnourishment
- Hemophilia

Table 2. Incidence Stratification of Bacteremic Dental Procedures*

HIGHER INCIDENCE[1]

- Dental extractions
- Periodontal procedures including surgery, subgingival placement of antibiotic fibers/strips, scaling and root planing, probing, recall maintenance
- Dental implant placement and reimplantation of avulsed teeth
- Endodontic (root canal) instrumentation or surgery only beyond the apex Initial placement of orthodontic bands but not brackets
- Intraligamentary local anesthetic injections
- Prophylactic cleaning of teeth or implants where bleeding is anticipated

LOWER INCIDENCE[2]

- Restorative dentistry[3] (operative and prosthodontic) with/without retraction cord[4]
- Local anesthetic injections (nonintraligamentary)
- Intracanal endodontic treatment; post-placement and buildup
- Placement of rubber dam
- Postoperative suture removal
- Placement of removable prosthodontic/orthodontic appliances
- Taking of oral impressions
- Fluoride treatments
- Taking of oral radiographs
- Orthodontic appliance adjustment

1. **Prophylaxis should be considered for patients with total joint replacement that meet the criteria in Table 1. No other patients with orthopaedic implants should be considered for antibiotic prophylaxis prior to dental treatment/procedures.**
2. **Prophylaxis not indicated.**
3. **This includes restoration of carious (decayed) or missing teeth.**
4. **Clinical judgment may indicate antibiotic use in selected circumstances that may create significant bleeding.**

*Adapted from: Prevention of Bacterial Endocarditis: Recommendations by the American Heart Association, from the Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, Council on Cardiovascular Disease in the Young. Reprinted with permission of the *Journal of the American Medical Association*.[22]

Table 3. Suggested antibiotic prophylaxis regimens*

Patients not allergic to penicillin: cephalexin, cephradine or amoxicillin: 2 grams orally 1

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Patients not allergic to penicillin and unable to take oral medications: cefazolin 1 gram or ampicillin 2 grams IM/IV 1 hour prior to the procedure.

Patients allergic to penicillin: clindamycin: 600 mg orally 1 hour prior to the dental procedure.

Patients allergic to penicillin and unable to take oral medications: clindamycin 600 mg IM/IV 1 hour prior to the procedure.

*No second doses are recommended for any of these dosing regimens.

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EXHIBIT C

Guidelines for Antibiotic Prophylaxis for Patients At Risk

Adopted May, 1999 American Academy of Pediatric Dentistry

Overview

Numerous medical conditions predispose patients to bacteremia-induced infections. These patients should establish optimal oral health to reduce the likelihood of bacteremia even in the absence of dental procedures. Because it is not possible to predict when a susceptible patient will develop an infection, prophylactic antibiotics are recommended when these patients undergo procedures most likely to produce bacteremia. Bacteremia is anticipated following invasive dental procedures. Only a limited number of bacterial species commonly are implicated in resultant post-operative infections. An effective regimen should be directed against the most likely infecting organism. Antibiotics should be administered shortly before the procedure. When procedures involve infected tissues, additional doses may be necessary. Practitioners must keep in mind that overuse of antibiotics may result in development of resistant organism. Utilization of antibiotic prophylaxis for patients at risk does not provide absolute immunity from infection. A high index of suspicion must exist with post-procedural symptoms of acute infection (fever, malaise, weakness or lethargy).

Appropriateness of antibiotic prophylaxis should be decided on an individual basis. Some medical conditions that may predispose patients to post-procedural infections are discussed below. This is not intended to be an exhaustive list; rather, the categorization should help practitioners identify children who may be at increased risk. If a patient reports a syndrome or medical condition with which the practitioner is not familiar, it is appropriate to contact the child's physician to determine susceptibility to bacteremia- induced infections.

I. Patients with cardiac conditions associated with endocarditis

Numerous cardiac conditions place patients at risk for endocarditis following dental manipulation. The American Academy of Pediatric Dentistry endorses the American Heart Association's guidelines for prevention of bacterial endocarditis. In addition to those diagnoses listed in the AHA guidelines, patients with a history of intravenous drug abuse and certain syndromes (e.g., Down's, Marfan's) may be at risk for developing bacterial endocarditis due to associated cardiac anomalies.

II. Patients with compromised immunity

Patients with a compromised immune system may not be able to tolerate a transient bacteremia following invasive dental procedures. Discussion of antibiotic prophylaxis for patients undergoing chemotherapy, irradiation, and bone marrow transplantation appears in a separate AAPD guideline. This category includes, but is not limited to, patients with the following conditions: HIV, Severe combined immunodeficiency (SCIDS), Neutropenia Immunosuppression, Sickle cell anemia, Status post splenectomy, chronic steroid usage, Lupus erythematosus, Diabetes, and status post organ transplantation.

III. Patients with shunts, indwelling vascular catheters, or medical devices

A bacteremia following an invasive dental procedure may lead to colonization of shunts or indwelling vascular catheters. Ventriculoatrial or ventriculovenous shunts for hydrocephalus are at risk for bacteremia-induced infections. Vascular catheters such as those required by patients undergoing dialysis, chemotherapy, or frequent administration of blood products are also susceptible. The AAPD endorses the recommendations of the American Dental Association and the American Academy of Orthopedic Surgeons for management of patients with prosthetic joints. Consultation with the child's physician may be necessary for management of patients with other implanted devices (Harrington rods, external fixation devices, etc.).

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EXHIBIT E

Dental Work /SICKLE CELL

Question: Please inform me what are the precautions for dental cleanings-prophylaxis without deep subgingival scaling of children with sickle cell anemia?

Answer: 1) Based on theoretical concerns about bacteremia, we give children antibiotic prophylaxis for SBE, using Amoxicillin dosages according to the American Heart Association guidelines. The theoretical concerns are: (a) children with sickle cell have some immunocompromise toward encapsulated bacteria and are required to take penicillin prophylaxis at least through age 5 (b) their hearts are moderately dilated to compensate for anemia so there may be some turbulent flow around heart valves.
2) We also recommend that any dental care be done with local anesthesia rather than conscious sedation or general anesthesia, because of worry about the risks of low oxygen and sickling in the chest when breathing shallowly under anesthetic.
3) It is wise to check with the child's physician(s) for any additional individual concerns -- most children with sickle cell are in overall good shape, but some have major complications/health issues such as stroke, chronic lung disease, central venous line, anaphylaxing allergies, bone marrow transplant, splenectomy, etc.
4) We strongly encourage regular dental care as a part of good health. To my knowledge, hardly any specific studies have been done on dental problems and sickle cell disease. A blood flow study showed that gingival and dental microcirculatory blood flow is abnormal in adults with sickle cell. A cross-sectional dental exam of 132 children at the sickle cell center in Children's National Medical Center in DC found 20-30% fewer decayed filled teeth than national averages, adjusted for race and socioeconomic status (J MacDonald DMD (2002) Sickle Cell Disease and Dental Caries, abstract 90 at the National Sickle Cell Meeting Sept 2002 in Washington, DC).
5) All of these concerns are greater for children with Hemoglobin SS and Hemoglobin S-beta-zero thalassemia, than for those with other types of sickle cell disease (Hemoglobin SC, Hemoglobin S-beta-plus-thalassemia)

Sponsorship: *This Sickle Cell Information Web Site is sponsored by the following partners:*

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The Sickle Cell Foundation of Georgia Inc.

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The Atlanta Sickle Cell Consortium

The Winship Cancer Institute of Emory University School of Medicine

Mailing Address - The Sickle Cell Information Center, PO Box 109, Grady Memorial Hospital, 80 Jessie Hill Jr Drive SE, Atlanta, GA 30303 **Email Address** - aplatt@emory.edu **Phone** - 404-616-3572

Fax - 404-616-5998

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PROPHYLACTIC REGIMENS FOR DENTAL, ORAL, RESPIRATORY TRACT, OR ESOPHAGEAL PROCEDURES (NO FOLLOW-UP DOSE RECOMMENDED)

Standard general prophylaxis:
Amoxicillin
Adults: 2.0 g; Children: 50 mg/kg PO I hour before procedure
Unable to take medications:
Ampicillin
Adults: 2.0 g IM or IV; Children: 50 mg/kg IM or IV within 30 minutes before procedure
Penicillin-allergic:
Clindamycin
Adults: 600 ma; Children: 20 mg/kg PO 1 hour before procedure
OR
Cephalexin* or Cefadroxil*
Adults: 2.0 g; Children: 50 mg/kg PO 1 hour before procedure
OR
Azithromycin or Clarithromycin
Adults: 500 ma; Children: 15 mg/kg PO 1 hour before procedure
Penicillin-allergic and unable to take medications:
Clindamycin
Adults: 600 ma; Children: 20 mg/kg IV within 30 minutes oral before procedure
OR
Cefazolin*
Adults: 1.0 g; Children: 25 mg/kg IM or IV within 30 minutes before procedure
Total children's dose should not exceed adult dose.
* Cephalosporins should not be used in individuals with immediate type hypersensitivity reaction (urticaria, angioedema, or anaphylaxis) to penicillins.

PROPHYLACTIC REGIMENS FOR DENTAL, ORAL, RESPIRATORY TRACT, OR ESOPHAGEAL PROCEDURES (NO FOLLOW-UP DOSE RECOMMENDED)

Standard general prophylaxis:
Amoxicillin
Adults: 2.0 g; Children: 50 mg/kg PO I hour before procedure
Unable to take medications:
Ampicillin
Adults: 2.0 g IM or IV; Children: 50 mg/kg IM or IV within 30 minutes before procedure
Penicillin-allergic:
Clindamycin
Adults: 600 ma; Children: 20 mg/kg PO 1 hour before procedure
OR
Cephalexin* or Cefadroxil*
Adults: 2.0 g; Children: 50 mg/kg PO 1 hour before procedure
OR
Azithromycin or Clarithromycin
Adults: 500 ma; Children: 15 mg/kg PO 1 hour before procedure
Penicillin-allergic and unable to take medications:
Clindamycin
Adults: 600 ma; Children: 20 mg/kg IV within 30 minutes oral before procedure
OR
Cefazolin*
Adults: 1.0 g; Children: 25 mg/kg IM or IV within 30 minutes before procedure
Total children's dose should not exceed adult dose.
* Cephalosporins should not be used in individuals with immediate type hypersensitivity reaction (urticaria, angioedema, or anaphylaxis) to penicillins.

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	DEPARTMENT PROCEDURE		
HPS	HYGIENE		
	Recording and Reporting	HYG-002	Rev. No. 1
	Prepared by: Linda Clemenz	Date Issued: 4/1/02	Page 1 of 1

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1. PURPOSE
To ensure accurate, timely and comprehensive treatment records.

2. GENERAL
To comply with statute and ensure quality care, it is imperative that all treatment is accurately recorded and files are maintained. The viability of HPS is directly related to treatment records and the reporting of such treatment.

3. PROCEDURE

3.1. Recording Treatment

3.1.1. Consent Forms

3.1.1.1. No treatment can be performed on ANY child without a completed and signed consent form.

3.1.1.2. Consent forms should be copied and originals mailed to the office. (Reference Consent Form Management)

3.1.2. Treatment Forms

3.1.2.1. Treatment forms are to be obtained from the office prior to starting at a school.

3.1.2.2. All treatment forms are to be accurate and comprehensive, as records can and will be audited. Pertinent notes should be dated and written on the back of the treatment form. Charting should be performed on all patients receiving treatment.

3.1.3. Treatment Form Transfer

When a RDH becomes aware that a child has moved to a school, from another school that HPS provides service for, the RDH should immediately contact the office for transfer of the child's records and verification of the date of services delivered. This should be documented on the treatment record.

3.1.4. Treatment Notebooks

3.1.4.1. Notebooks are to be ordered/obtained from the office and labeled with the school name.

3.1.4.2. Notebooks should be assembled as follows: Treatment forms in alphabetical order with consent form immediately following the treatment form and insurance information or any other pertinent documents should be placed behind the consent form. The notebook should be arranged in a manner that allows the RDH to track consents returned per teacher.

3.1.4.3. Treatment forms/notebooks are to be used each visit.

3.1.4.4. Upon completion of a school, remove sections and put all forms in alphabetical order.

3.1.4.5. Notebooks will be turned in for completed schools at staff meetings.

3.2. Reporting Treatment

3.2.1. All treatment will be emailed to the office at the end of each workday.

3.2.1.1. All treatment reports must contain: (1)RDH's name, (2)school name, (3)patient name (as listed on consent form), (4)procedures performed, (5)referral code (see Referrals), (6)referral updates specifying the child's name and outcome, and (7)any transfer of records requested. If the child does not present with swelling and/or pain, it should be indicated on the treatment form that there was no initial complaint, designated on the record as NIC. If a child is seen and noted to be a Code 12 referral – the child is not to be treated by the hygienist, but the referral process must start immediately.

3.2.2. Reports are due to the office each workday outlining activities if minimal or no treatment was rendered.

4. RESPONSIBILITIES - It is the registered dental hygienist's responsibility to maintain accurate records in a timely and professional manner.

5. EXHIBITS –Form 202 T and Form 202 R.

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	DEPARTMENT PROCEDURE		
	HYGIENE		
HPS	Urgent Care Referral Mangement	HYG-005	Rev. No. 1
	Prepared by: Linda Clemenz	Date Issued: 4/1/02	Page 1 of 1

HPS Confidential

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1. PURPOSE

The purpose of this procedure is to outline the referral process for children with dental needs.

2. GENERAL

HPS desires to locate restorative care for all children in need and will strive to assure that every child with urgent needs is seen in a timely manner to address the urgent care concern. The development of a process will help track referrals to ensure follow-up care is recommended with the goal being to increase the number of children receiving comprehensive care.

3. PROCEDURE

3.1. Document the type of referral made on treatment form and on treatment report. The referral codes are internal codes developed to be consistent with the ASTDD Basic Screening Survey.

Code 10 – No Obvious Needs
Code 11 – Needs Care Soon
Code 12 – Urgent Needs (Pain)

3.2 Client in Need of Urgent Care:

3.2.1 Document referral on "Restorative Referral Management" sheet.

3.2.2 Contact parent. (By phone, if possible.) If contact by phone is not an option, send a letter noting the IMMEDIATE need for a dental visit and a list of local providers (Available from office, see supplies).

3.2.3 Collaborate with the school nurse and FSS on dental and transportation resources available.

3.2.4 Follow-up with parent and school nurse to verify the need was addressed.

3.2.5 Document results on treatment record and treatment report. All contact and results should be documented on treatment report that is sent to the office each day. This should include the patient's name, person contacted, results of the contact, etc.

Code 14 – Appointment made with a dental office
Code 15 – Treatment Complete
Code 16 – Referred to FSS/DSS
Code 17 – No Show Appointment at Dental Office
Code 26 – School nurse to handle referral
Code 30 – Unable to contact parent

3.2.6 If parent /guardian does not follow through on obtaining care for a child after three contacts and FSS intervention, notify school nurse and make a referral to DDS, send a copy of the management sheet to the office.

3.3 Client in need of care soon.

3.3.1 Document referral on "Restorative Referral Management" sheet.

3.3.2 Document need on treatment complete form that is sent home to the parent.

3.3.3 Provide a list of local dentists. (Available from office, see supplies)

3.3.4 When time permits, follow-up with parent and school nurse to verify if need was addressed.

3.3.5 Document results on treatment record and treatment report. All contact and results should be documented on treatment report that is sent to the office each day. This should include the patient's name, person contacted, results of the contact, etc. It is understood that there will not be contact each day with these referrals. Contact should be reported as it occurs.

4. RESPONSIBILITIES

It is the responsibility of the registered dental hygienist to ensure referral of all urgent care needs.

5. REFERENCES/EXHIBITS

Form 203 R and Form 203 U.

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HPS	DEPARTMENT PROCEDURE		
	HYGIENE		
	Equipment Set-Up	HYG-006	Rev. No. 1
	Prepared by: L. Hancock	Date Issued: 4/1/02	Page 1 of 1

1. PURPOSE

To ensure the ease of equipment set-up and to minimize complications and/or failures of equipment. Each individual dental hygienist is responsible for setting up and maintaining equipment efficiently and safely.

2. GENERAL

Setting up and maintaining equipment properly will minimize equipment complications and/or failures. This minimizes costs and maximizes potential.

3. PROCEDURE

3.1. Compressor

3.1.1. Determine placement of compressor; i.e. closet bathroom, etc

3.1.2. Only plug cord directly into outlet if possible on its own circuit. NO EXTENSION CORD

3.1.3. Morning Preparation.

3.1.3.3. Leave top open.

3.1.3.4. Plug in cord.

3.1.3.5. Flip switch from off to auto.

3.1.3.6. Make sure release valve is closed.

3.1.3.7. After pressure has built up, plug in gray hose from gray box after set-up with suction bottle and water bottle.

3.1.4. End of Day.

3.1.4.3. Unplug gray hose from compressor.

3.1.4.4. Flip switch from auto to off.

3.1.4.5. Open release valve.

3.1.4.6. Unplug cord from wall.

3.1.4.7. After release valve has finished, carefully tip over and let water drain from release valve.

3.2. Evacuation System

3.5.1 Morning Preparation.

3.5.1.1 Put distilled water in silver water container and plug into socket.

3.5.1.2 Put suction bottle together.

3.5.1.3 Plug gray cord into compressor (See Compressor step 3.1.3.7)

3.5.2 End of Day.

3.5.2.1 Empty and rinse suction bottle and empty into toilet if possible.

3.5.2.2 Hook back up and run one part Clorox to ten parts water through suction.

3.5.2.3 Unhook gray hose from compressor.

3.5.2.4 Unhook lid with suction hose over hang over light to let drain into trashcan or bucket.

3.5.2.5 Unhook water bottle and leave top and bottom separate to dry.

3.7. Lights

3.7.1. Curing Light.

3.7.1.1. Place in a stable position away from walking path.

3.7.1.2. Plug into heavy-duty extension cord, if necessary.

3.7.2. Chair Light.

3.7.2.1. Plug into heavy-duty extension cord, if necessary.

3.8. Handpieces.

3.8.1. All handpieces are to be cleaned according to the manufacturer's specifications.

3.9. Curettes and Scalers.

3.9.1. All hand instruments should be thoroughly scrubbed and sterilized after each use.

3.10. ALL EQUIPMENT SHOULD BE WIPED DOWN DAILY AND KEPT IN A PROFESSIONAL MANNER. EQUIPMENT SET-UP SHOULD TAKE NO MORE THAN A FEW HOURS. Time should be spent responsibly. CDC RECOMMENDED INFECTION-CONTROL PRACTICES FOR DENTISTRY ARE TO BE FOLLOWED.

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	DEPARTMENT PROCEDURE		
HPS	HYGIENE		
	Equipment Maintenance	HYG-007	Rev. No. 1
	Prepared by: B. Clemenz	Date Issued: 4/1/02	Page 1 of 2

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1. **PURPOSE**
This procedure is to insure the proper equipment maintenance including storage techniques and cleaning procedures.

2. **GENERAL**
By establishing proper equipment maintenance guideline there will be less equipment downtime. By following the procedure we can greatly reduce equipment problems and therefore be more productive.

3. **PROCEDURE**
3.1. ADU-10 AseptiMini
- 3.1.1. Bleed the system monthly by emptying the water supply tank and operate the air/water syringe and high speed hand piece with water coolant 'on' until just air comes out through the water lines.
- 3.1.2. Flush handpiece for 5 seconds after every patient, and about 20 seconds at the beginning of each day.
- 3.1.3. Clean external surfaces of case with mild detergent.
- 3.1.4. Clean external surfaces of the unit that are contacted during use with disinfectant at the beginning of each day and between each patient.
- 3.1.5. Store Evacuation hose fully extended and the patient end up.

3.2. AA-74 AirPac Compressor
- 3.2.1. To avoid the risk of moisture in the air lines or tank failure, drain the tank after every use or every four hours of running time.
  - 3.2.1.1. To drain tank allow the compressor to fully pressurize and then turn the AUTO/OFF lever to OFF.
  - 3.2.1.2. Remove power cord then turn the compressor on end with the tank in the lowest position.
  - 3.2.1.3. Turn the drain fitting and tip unit toward drain and allow water to drain out with the air.
- 3.2.2. If the compressor overheats or shuts itself off leave it off until the motor is cool, drain tank as Stated above and restart.
- 3.2.3. DO NOT PLUG COMPRESSOR INTO AN EXTENSION CORD.

3.3. M9D Autoclave
- 3.3.1. Weekly maintenance
  - 3.3.1.1. Clean external surfaces with mild detergent and then a soft dry cloth.
  - 3.3.1.2. Drain water from reservoir using drain tube located in the front of the unit.
  - 3.3.1.3. Clean inside of chamber and door with a mild detergent.
  - 3.3.1.4. Refill reservoir with clean, distilled water.
- 3.3.2. Monthly maintenance
  - 3.3.2.1. Drain reservoir and fill with cleaning solution (2 quarts of clean, distilled water mixed with 4 oz. of Speed Clean Sterilizer Cleaner)
  - 3.3.2.2. Run one PACKS cycle (30 minute cycle at 270 degrees Fahrenheit). No Instruments.
  - 3.3.2.3. Drain cleaning solution from reservoir. Then refill with clean, distilled water and run one UNWRAPPED cycle (3 minute cycle at 270 degrees Fahrenheit).
  - 3.3.2.4. Drain reservoir and allow sterilizer to cool to room temperature.
  - 3.3.2.5. Remove door and dam gaskets from gasket housing channel then clean with mil detergent. Use a small stiff brush to clean and inspect gaskets for cracks. Reinstall gaskets.

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3.3.2.6. Remove trays, tray rack, and tray plate. This is accomplished by grasping tray plate on both sides and gently lifting up and pulling outward. The tray rack and plate should slide out together.

3.3.2.7. Locate chamber filter on bottom of chamber. Grasp chamber filter and pull upwards while twisting slightly. The filter should be cleaned with mild detergent. Rinse filter with clean, distilled water. Insert filter into hole in chamber bottom while pressing downwards and twisting slightly.

3.4. Handpieces

3.4.1. All handpieces are to be cleaned according to the manufacturer's specifications.

3.5. Curettes and Scalers

3.5.1. All hand instruments should be thoroughly scrubbed and sterilized after each use.

3.6. ALL EQUIPMENT SHOULD BE WIPED DOWN DAILY AND KEPT IN A PROFESSIONAL MANNER BY THE HYGIENIST.

3.7. If there are any problems with the equipment it should be reported to the Maintenance Coordinator AS SOON AS POOSIBLE.

4. RESPONSIBILITIES

It is the responsibility of each dental hygienist to maintain equipment according to specifications in a professional and sanitary manner.

5. DEFINITIONS

6. REFERENCES/EXHIBITS

6.1. Aseptico information was obtained from their website: www.aseptico.com

6.2. MidMark Autoclave information was obtained from M9 Operator Maintenance Sheet.

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	DEPARTMENT PROCEDURE		
HPS	HYGIENE		
	Supplies	HYG-008	Rev. No. 2
	Prepared by: Shana Burchell	Date Issued: 4/1/02	Page 1 of 1

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1. **PURPOSE**

To give information on where, when, and from whom to order hygiene supplies and HPS forms.

2. **GENERAL**

The hygiene supplies and forms will be ordered directly by the hygienist, with exeception to new hire start up supplies. Those orders will be the responsibility of the materials manager. Supplies will not include fluoride varnish, instruments, patient giveaways, and toothbrushes.

3. **PROCEDURE**

Hygiene Supplies

3.1.1. Hygienist will place supply order directly to Roy Damron at Patterson Dental Company (1-800-845-8833).

3.1.2. Invoices will be sent by Patterson to HPS and paid accordingly.

3.1.3. Hygienist will contact Customer Service at OMNII Oral Pharmaceuticals at 1-800-445-3386 for fluoride varnish needed

3.1.4. Hygienist will contact Clark Wyly at Colgate Oral Pharmaceuticals regarding toothbrush order at 1-800-821-2880 x6408, and email Materials Manager (sburchell@hps-sc.com), regarding the order.

3.1.5. Hygienist will contact Brenda McCarson at Brasseler USA regarding new instrument orders or for repair of instruments at 1-800-841-4522 x4024, and email Materials Manager (sburchell@hps-sc.com), regarding the order.

3.1.6. Hygienist will contact Materials Manger regarding patient giveaways and health fair giveaways atleast two weeks prior to need.

3.2. Forms

3.2.1. All form orders will be emailed or phones to Melony Stuckey at Pine Press (803-359-9162; melonystuckey@alltel.net).

3.2.2. Materials Manager (sburchell@hps-sc.com) will be copied on all emails pertaining to Pine Press orders, by hygienist and Melony.

3.2.3. Pine Press will ship forms directly to hygienist.

3.2.4. Invoices will be sent to Materials Manager to be paid accordingly.

4. **RESPONSIBILITIES**

It is the responsibility of the HPS hygienist to make sure supplies and forms are ordered and shipped.

5. **REFERENCES/EXHIBITS**

See HPS Forms (Forms list used to ordered from Pine Press)

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Tab 2

Code of Ethics for Dental Hygienists

1. Preamble

As dental hygienists, we are a community of professionals devoted to the prevention of disease and the promotion and improvement of the public's health. We are preventive oral health professionals who provide educational, clinical, and therapeutic services to the public. We strive to live meaningful, productive, satisfying lives that simultaneously serve us, our profession, our society, and the world. Our actions, behaviors, and attitudes are consistent with our commitment to public service. We endorse and incorporate the Code into our daily lives.

2. Purpose

The purpose of a professional code of ethics is to achieve high levels of ethical consciousness, decision making, and practice by the members of the profession. Specific objectives of the Dental Hygiene Code of Ethics are

- to increase our professional and ethical consciousness and sense of ethical responsibility.
- to lead us to recognize ethical issues and choices and to guide us in making more informed ethical decisions.
- to establish a standard for professional judgement and conduct.
- to provide a statement of the ethical behavior the public can expect from us.

The Dental Hygiene Code of Ethics is meant to influence us throughout our careers. It stimulates our continuing study of ethical issues and challenges us to explore our ethical responsibilities. The Code establishes concise standards of behavior to guide the public's expectations of our profession and supports existing dental hygiene practice, laws, and regulations. By holding ourselves accountable to meeting the standards stated in the Code, we enhance the public's trust on which our professional privilege and status are founded.

3. Key Concepts

Our beliefs, principles, values, and ethics are concepts reflected in the Code. They are the essential elements of our comprehensive and definitive code of ethics, and are interrelated and mutually dependent.

4. Basic Beliefs

We recognize the importance of the following beliefs that guide our practice and provide context for our ethics:

- The services we provide contribute to the health and well being of society.
- Our education and licensure qualify us to serve the public by preventing and treating oral disease and helping individuals achieve and maintain optimal health.
- Individuals have intrinsic worth, are responsible for their own health, and are entitled to make choices regarding their health.
- Dental hygiene care is an essential component of overall healthcare and we function interdependently with other healthcare providers.
- All people should have access to healthcare, including oral healthcare.
- We are individually responsible for our actions and the quality of care we provide.

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5. Fundamental Principles

These fundamental principles, universal concepts, and general laws of conduct provide the foundation for our ethics.

Universality
The principle of universality assumes that, if one individual judges an action to be right or wrong in a given situation, other people considering the same action in the same situation would make the same judgement.

Complementarity
The principle of complementarity assumes the existence of an obligation to justice and basic human rights. It requires us to act toward others in the same way they would act toward us if roles were reversed. In all relationships, it means considering the values and perspective of others before making decisions or taking actions affecting them.

Ethics
Ethics are the general standards of right and wrong that guide behavior within society. As generally accepted actions, they can be judged by determining the extent to which they promote good and minimize harm. Ethics compel us to engage in health promotion/disease prevention activities.

Community
This principle expresses our concern for the bond between individuals, the community, and society in general. It leads us to preserve natural resources and inspires us to show concern for the global environment.

Responsibility
Responsibility is central to our ethics. We recognize that there are guidelines for making ethical choices and accept responsibility for knowing and applying them. We accept the consequences of our actions or the failure to act and are willing to make ethical choices and publicly affirm them.

6. Core Values

We acknowledge these values as general guides for our choices and actions.

Individual autonomy and respect for human beings
People have the right to be treated with respect. They have the right to informed consent prior to treatment, and they have the right to full disclosure of all relevant information so that they can make informed choices about their care.

Confidentiality
We respect the confidentiality of client information and relationships as a demonstration of the value we place on individual autonomy. We acknowledge our obligation to justify any violation of a confidence.

Societal Trust
We value client trust and understand that public trust in our profession is based on our actions and behavior.

Nonmaleficence
We accept our fundamental obligation to provide services in a manner that protects all clients and minimizes harm to them and others involved in their treatment.

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Beneficence
We have a primary role in promoting the well being of individuals and the public by engaging in health promotion/disease prevention activities.

Justice and Fairness
We value justice and support the fair and equitable distribution of healthcare resources. We believe all people should have access to high-quality, affordable oral healthcare.

Veracity
We accept our obligation to tell the truth and assume that others will do the same. We value self-knowledge and seek truth and honesty in all relationships.

7. Standards of Professional Responsibility

We are obligated to practice our profession in a manner that supports our purpose, beliefs, and values in accordance with the fundamental principles that support our ethics. We acknowledge the following responsibilities:

To Ourselves as Individuals...

- Avoid self-deception, and continually strive for knowledge and personal growth.
- Establish and maintain a lifestyle that supports optimal health.
- Create a safe work environment.
- Assert our own interests in ways that are fair and equitable.
- Seek the advice and counsel of others when challenged with ethical dilemmas.
- Have realistic expectations of ourselves and recognize our limitations.

To Ourselves as Professionals...

- Enhance professional competencies through continuous learning in order to practice according to high standards of care.
- Support dental hygiene peer-review systems and quality-assurance measures.
- Develop collaborative professional relationships and exchange knowledge to enhance our own life-long professional development.

To Family and Friends

- Support the efforts of others to establish and maintain healthy lifestyles and respect the rights of friends and family.

To Clients...

- Provide oral healthcare utilizing high levels of professional knowledge, judgement, and skill.
- Maintain a work environment that minimizes the risk of harm.
- Serve all clients without discrimination and avoid action toward any individual or group that may be interpreted as discriminatory.
- Hold professional client relationships confidential.
- Communicate with clients in a respectful manner.
- Promote ethical behavior and high standards of care by all dental hygienists.
- Serve as an advocate for the welfare of clients.
- Provide clients with the information necessary to make informed decisions about their oral health and encourage their full participation in treatment decisions and goals.

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- Refer clients to other healthcare providers when their needs are beyond our ability or scope of practice.
- Educate clients about high-quality oral healthcare.

To Colleagues...

- Conduct professional activities and programs, and develop relationships in ways that are honest, responsible, and appropriately open and candid.
- Encourage a work environment that promotes individual professional growth and development.
- Collaborate with others to create a work environment that minimizes risk to the personal health and safety of our colleagues.
- Manage conflicts constructively.
- Support the efforts of other dental hygienists to communicate the dental hygiene philosophy of preventive oral care.
- Inform other healthcare professionals about the relationship between general and oral health.
- Promote human relationships that are mutually beneficial, including those with other healthcare professionals.

To Employees and Employers...

- Conduct professional activities and programs, and develop relationships in ways that are honest, responsible, open, and candid.
- Manage conflicts constructively.
- Support the right of our employees and employers to work in an environment that promotes wellness.
- Respect the employment rights of our employers and employees.

To the Dental Hygiene Profession...

- Participate in the development and advancement of our profession.
- Avoid conflicts of interest and declare them when they occur.
- Seek opportunities to increase public awareness and understanding of oral health practices.
- Act in ways that bring credit to our profession while demonstrating appropriate respect for colleagues in other professions.
- Contribute time, talent, and financial resources to support and promote our profession.
- Promote a positive image for our profession.
- Promote a framework for professional education that develops dental hygiene competencies to meet the oral and overall health needs of the public.

To the Community and Society...

- Recognize and uphold the laws and regulations governing our profession.
- Document and report inappropriate, inadequate, or substandard care and/or illegal activities by any healthcare provider, to the responsible authorities.
- Use peer review as a mechanism for identifying inappropriate, inadequate, or substandard care and for modifying and improving the care provided by dental hygienists.
- Comply with local, state, and federal statutes that promote public health and safety.
- Develop support systems and quality-assurance programs in the workplace to assist dental hygienists in providing the appropriate standard of care.

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- Promote access to dental hygiene services for all, supporting justice and fairness in the distribution of healthcare resources.
- Act consistently with the ethics of the global scientific community of which our profession is a part.
- Create a healthful workplace ecosystem to support a healthy environment.
- Recognize and uphold our obligation to provide pro bono service.

To Scientific Investigation...

We accept responsibility for conducting research according to the fundamental principles underlying our ethical beliefs in compliance with universal codes, governmental standards, and professional guidelines for the care and management of experimental subjects. We acknowledge our ethical obligations to the scientific community:

- Conduct research that contributes knowledge that is valid and useful to our clients and society.
- Use research methods that meet accepted scientific standards.
- Use research resources appropriately.
- Systematically review and justify research in progress to insure the most favorable benefit-to-risk ratio to research subjects.
- Submit all proposals involving human subjects to an appropriate human subject review committee.
- Secure appropriate institutional committee approval for the conduct of research involving animals.
- Obtain informed consent from human subjects participating in research that is based on specifications published in Title 21 Code of Federal Regulations Part 46.
- Respect the confidentiality and privacy of data.
- Seek opportunities to advance dental hygiene knowledge through research by providing financial, human, and technical resources whenever possible.
- Report research results in a timely manner.
- Report research findings completely and honestly, drawing only those conclusions that are supported by the data presented.
- Report the names of investigators fairly and accurately.
- Interpret the research and the research of others accurately and objectively, drawing conclusions that are supported by the data presented and seeking clarity when uncertain.
- Critically evaluate research methods and results before applying new theory and technology in practice.
- Be knowledgeable concerning currently accepted preventive and therapeutic methods, products, and technology and their application to our practice.

Approved and ratified by the 1995 ADHA House of Delegates.

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Tab 3

MEMORANDUM OF AGREEMENT

BETWEEN

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

AND

HEALTH PROMOTION SPECIALISTS

RECEIVED
FEB 15 2002
Office of Commissioner
SC DHEC

I. PURPOSE:

The South Carolina Department of Health and Environmental Control (hereafter referred to as DHEC) and Health Promotion Specialists (hereafter referred to as HPS) hereby enter into this Memorandum of Agreement (hereafter MOA) for the purpose of establishing a school based dental program in Union County Schools to provide dental assessment, treatment and/or referral, follow-up and case management.

II. SCOPE OF SERVICES:

A. Responsibilities of DHEC. Under the terms of this MOA, DHEC shall be responsible for working with HPS and local schools to conduct a needs and resources assessment for the development of a health services plan. The DHEC Oral Health Division shall review and approve written policies and procedures for all aspects of the program in accordance with the current "Guidelines for S.C. School-Based Dental Prevention Programs" (APPENDIX I). DHEC will provide Family Support Services for clients referred by the contracting party and attempt to secure a written agreement with at least one practicing dentist, or a designated dentist or dental provider, to provide dental care identified as urgent by the Association of State and Territorial Dental Directors (ASTDD) Basic Screening Survey (BSS). Copies of any written agreements with local dental providers will be forwarded to HPS. Upon receipt of screening data, DHEC will provide a roster of students eligible for school-based preventive dental services.

Any reports, documents, analyses or other written materials published or otherwise distributed to third parties using data and other information acquired through or from HPS will acknowledge HPS as the originator, and as such, is considered HPS' property, and that all proceeds there from are the sole property of HPS. Any lectures or speeches, which are given referencing data and information, acquired through or from HPS will acknowledge the origination of the information, and any proceeds there from shall be the sole property of HPS.

B. Responsibilities of HPS. Under the terms of this MOA, HPS shall be responsible for operating a school based dental program in accordance with the current "Guidelines for S.C. School-Based Dental Prevention Programs" (APPENDIX I). The program shall include services recommended in the Bright Futures in Oral Health guidelines.

a) HPS will deliver (within 30 days) to DHEC Oral Health Division screening data (by student) collected for schools where HPS provided services this year.
b) All school-based prevention services will be targeted, but not limited, to Medicaid eligible children as the first priority.
c) HPS will offer (initially and at least bi-annually in subsequent years at the same school) the Association of State and Territorial Dental Directors (ASTDD) Basic Screening Survey (BSS) or an enhanced version for children enrolled in kindergarten, third, and seventh grades in schools where HPS is providing services. The results of these screenings will be delivered to DHEC Oral Health Division within 15 days of completion.
d) HPS will maintain copies of the applicable written agreements with local or designated dentist(s) to provide care for needs identified as urgent by the ASTDD Basic Screening Survey and to assure continuity of care. The dentist adopting a school will immediately treat students identified for urgent care.
e) All students identified with urgent needs must receive treatment for the urgent conditions before receiving school-based preventive services.
f) HPS or its designee will provide an annual financial audit for review by program staff.
g) HPS will support the efforts of local schools to implement the new oral health curriculum as well as educational programs and materials for parents and communities.
h) HPS will provide a copy of agreements with individual schools at the beginning of each MOA period. Additional agreements will be forwarded to DHEC, Oral Health Division before initiation of school-based activities. Deletions will be forwarded as soon as known.
i) HPS will verify credentials of each licensed provider, maintain credential files on each, and execute the appropriate Standing Orders for Dental Hygienists (Appendix II).

III. TERMS AND CONDITIONS:

A. Effective Dates.

This MOA shall be effective on February 15, 2002, or when all parties have signed, whichever is later, and will terminate on June 30, 2006. This MOA will be reviewed semi-annually based on the criteria outlined under III. I., Evaluation of MOA.

B. Termination.

a) Subject to the provisions contained below, this MOA may be terminated by either party providing thirty (30) days advance written notice of termination.

b) Funding to support performance of this MOA may be payable from State and/or Federal and/or other appropriations. In the event sufficient appropriations are not made to

support performance under this MOA, it shall terminate without further obligations of the parties except as set forth herein. Should sufficient appropriations not be available, HPS will not be prohibited by DHEC from providing services in public settings.

c) DHEC may terminate this MOA for cause, default or negligence on the part of HPS at any time without thirty days advance written notice.

C. Amendment

Any changes to this MOA, which are mutually agreed upon between DHEC and HPS, shall be incorporated in written amendment to this MOA and will not become effective until the amendment is signed by each party.

D. Confidentiality.

a) HPS agrees to abide by DHEC's statement of confidentiality which states that all information as to personal facts and circumstances given or made available to employees/volunteers and/or contractors of DHEC in administration of programs shall be held confidential and shall not be divulged without consent of the programs and services and individual(s) to which it pertains. Confidential agency information and action shall not be divulged.

b) Information, which is otherwise available to the public under the Freedom of Information Act, may be released in accordance with state law. Should information be linked specifically to a client or employee then it may only be released to physicians and attorneys outside the agency only upon receipt of a properly completed release signed by the individual or his/her guardian. If a release is duly executed and submitted, then it must be properly documented in the continuation sheet of that client's health record, or other applicable record to reflect the disclosure of confidential information, and a copy of the properly completed authorization must also be included therein. Audits of health records may routinely be performed to insure compliance with this procedure.

c) State law prohibits the disclosure of data regarding Vital Records, the South Carolina Cancer Registry, or sexually transmitted disease records to anyone other than an entitled person in accordance with South Carolina Code of Laws. Copies of applicable statutes, regulations and policies will be provided upon request.

d) Any unauthorized disclosure of confidential information may result in termination of this MOA and may be grounds for fines, penalties, imprisonment, or civil suit.

e) Employees/agents of HPS will be required to sign DHEC's Confidentiality Statement, a copy of which will be provided.

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f) Health Service Administration staff and DHEC employees that are privileged to HPS information shall not, directly or indirectly, acting on behalf of himself individually or as an owner, partner, investor, principal, officer or any corporation or other business entity;

i. Disclose to any person, firm, corporation or other entity, customer lists or any trade, technical, operational, management or other secrets of HPS, or any details of its organization, operation or activities.

ii. Request, directly or indirectly, that any present or future clients of or other persons sharing a business relationship with HPS curtail or cancel their business with HPS; and

iii. Induce or actively attempt to influence any other employee of HPS to terminate their employment with HPS.

g) All Health Service Administration staff and DHEC employees that are privileged to HPS information will be required to sign HPS' statement of confidentiality, a copy of which will be provided.

E. Records.

Records with respect to all matters covered by this MOA must be retained for 4-years after the end of the period of this MOA and shall be available for audit and inspection at any time such audit is deemed necessary by DHEC. If audit has begun but is not completed at the end of the 4-year period, the records shall be retained until resolution of the audit findings.

F. Liability.

Neither party shall be liable for any claims, demands, expenses, liabilities and losses (including reasonable attorney's fees) which may arise out of any acts or failures to act by the other party, its employee or agents, in connection with the performance of services pursuant to this MOA.

G. Non-Discrimination.

No person shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination in relation to any activities carried out under this MOA on the grounds of race, handicap, color, sex, religion, age, health status or national origin.

H. Controlled Substance Statement.

HPS certifies that he/she will not engage in the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance in the performance of this MOA.

I. Evaluation of MOA

a) Appropriate staff of HPS and DHEC will meet on a semi-annual basis at DHEC central office to evaluate this MOA based on the following perspectives and indicators. An annual report on the operation of the program shall be submitted by HPS to the Oral Health Division by June 1. This report will at a minimum contain:

1) Total number of students enrolled by grade, school, district, and county
2) Total number of schools served by district and county
3) Number and percentage of children eligible for reduced and free lunch program by school, district, and county
4) Total number of students receiving a dental screening by grade, school, district and county
5) Total number of caries free children by grade, school, district and county
6) Number of third grade children with at least one molar sealant at screening by school, district, and county
7) Total number children referred for school-based preventive care by school
8) Number and grade level of students receiving dental sealants by school, district, and county
9) Number and grade level of students referred for comprehensive care by school, district, and county
10) Number and grade level of referrals for comprehensive care that are completed by school, district, and county.
11) Number and grade level of students referred for urgent care only by school, district, and county.
12) Number and grade level of referrals for urgent care that are completed by school, district, and county.

b) Annual customer satisfaction surveys conducted by DHEC with help of school social workers.
-Survey of parents (guardians)
-Survey of school administrators and teachers

c) An annual site visit to review program operations will be conducted by the Oral Health Division.
- Review HPS policies and procedures
- Interviews with HPS staff and school personnel
- Inspection of equipment and records
- Review credentialing process and files
- Review evidence of cultural awareness

J. Governing Law.

This MOA shall be construed and enforced in accordance with the laws of the State of South Carolina.

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K. Insurance

Each of the parties agrees to maintain professional and general liability insurance, and HPS is required to provide satisfactory evidence of such coverage. Neither party will provide individual coverage for the other party's employees and each party shall be responsible for coverage of its respective employees.

L. Licenses.

The parties agree that during the term of this MOA, each party shall maintain its respective federal and state licenses, certifications, and accreditations required for the provision of services herein.

M. Each party shall bear and be responsible solely for its own costs and expenses necessary to comply with this MOA.

APPROVED AND ACCEPTED
FOR
DIVISION OF ORAL HEALTH

BY: _____
Name Raymond Lala, DDS
Title State Dental Coordinator

Date: 2/13/2002

APPROVED AND ACCEPTED
FOR
HEALTH PROMOTION SPECIALISTS

BY: Tammi Byrd RDH
Name Tammi Byrd, RDH
Title Chief Executive Officer

Date: 2-13-02

APPROVED AND ACCEPTED
FOR
HEALTH SERVICES

BY: _____
for Matthew Petrofes
Director, Health Services Administration
S.C. Dept. of Health and Environmental Control

Date: 2/14/02

MAILING ADDRESS: PO Box 988
Irmo SC 29063

IF AN INDIVIDUAL: SOCIAL SECURITY # _____

IF A GROUP, ETC.: EMPLOYER ID # 571108338

PROFESSIONAL LICENSE # 0927

THIS AGREEMENT IS NOT OFFICIAL AND BINDING UNTIL SIGNED BY THE CHIEF OPERATING OFFICER FOR THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

_____

Date: FEB 15 2002

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V. Standing Orders

[redacted] RDH is authorized to perform the following procedures in a school setting according to the accepted methods of the *ADA Accreditation Standards for Dental Hygiene Education Programs* and *the ADEA Core Competencies for Entry into the Dental Hygiene Profession* and the Oral Health Division of the SC Department of Health and Environmental Control.

Procedure	Requested	Program Approved (Dentist)	DHEC Review
Expose Intraoral radiographs			
Expose panoramic radiographs			
Diagnostic casts			
Perform oral prophylaxis	✓	✓	
Apply topical fluoride	✓	✓	
Provide nutritional counseling			
Provide prevention plan and education			
Check and provide oral hygiene instruction			
Provide tobacco use intervention			
Apply or re-apply sealants	✓	✓	
Perform oral screening			
Provide hypertension screening			
Apply desensitizing agents	✓	✓	

[redacted]
Dental Hygienist — Date

Program Dentist — Date 5/28/03

Program Director — Date 8-26-03

Reviewing Public Health Dentist (DHEC Designee) — Date

9/2002

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V. Standing Orders

[redacted] RDH is authorized to perform the following procedures in a school setting according to the accepted methods of the *ADA Accreditation Standards for Dental Hygiene Education Programs* and *the ADEA Core Competencies for Entry into the Dental Hygiene Profession* and the Oral Health Division of the SC Department of Health and Environmental Control.

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Apply topical fluoride	✓	✓	
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Provide prevention plan and education			
Check and provide oral hygiene instruction			
Provide tobacco use intervention			
Apply or re-apply sealants	✓	✓	
Perform oral screening			
Provide hypertension screening			
Apply desensitizing agents	✓	✓	

[redacted]
Dental Hygienist — Date

Program Dentist — Date 5/28/03

Program Director — Date 8-26-03

Reviewing Public Health Dentist (DHEC Designee) — Date

9/2002

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V. Standing Orders

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Procedure	Requested	Program Approved (Dentist)	DHEC Review
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Expose panoramic radiographs			
Diagnostic casts			
Perform oral prophylaxis	✓	✓	
Apply topical fluoride	✓	✓	
Provide nutritional counseling			
Provide prevention plan and education			
Check and provide oral hygiene instruction			
Provide tobacco use intervention			
Apply or re-apply sealants	✓	✓	
Perform oral screening			
Provide hypertension screening			
Apply desensitizing agents	✓	✓	

[redacted]
Dental Hygienist — Date: 9-9-03

Program Dentist — Date: 5/28/03

Program Director — Date: 8-26-03

Reviewing Public Health Dentist (DHEC Designee) — Date

9/2002

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V. Standing Orders

[redacted] RDH is authorized to perform the following procedures in a school setting according to the accepted methods of the *ADA Accreditation Standards for Dental Hygiene Education Programs* and *the ADEA Core Competencies for Entry into the Dental Hygiene Profession* and the Oral Health Division of the SC Department of Health and Environmental Control.

Procedure	Requested	Program Approved (Dentist)	DHEC Review
Expose Intraoral radiographs			
Expose panoramic radiographs			
Diagnostic casts			
Perform oral prophylaxis	✓	✓	
Apply topical fluoride	✓	✓	
Provide nutritional counseling			
Provide prevention plan and education			
Check and provide oral hygiene instruction			
Provide tobacco use intervention			
Apply or re-apply sealants	✓	✓	
Perform oral screening			
Provide hypertension screening			
Apply desensitizing agents	✓	✓	

[redacted]
Dental Hygienist — Date: 9/9/03

Program Dentist — Date: 5/28/03

Program Director — Date: 8-26-03

Reviewing Public Health Dentist (DHEC Designee) — Date

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Guidelines for SC School-Based Dental Prevention Programs

Based on:

1994 Workshop on Guidelines for Sealant Use Recommendations

2001 Recommendations for Clinical Practice: Fissure Caries

Draft School Health Center Guidelines. AAP. 2001.

Bright Futures in Practice: Oral Health.

Introduction

While the prevalence of dental caries has decreased dramatically over the last two decades, it still affects the majority of children. The amount and severity of caries occurs disproportionately in children from low income and minority families. Studies have shown that up to 85 percent of all decay occurs in the pits and fissures of teeth. The rest of the decay occurs on smooth surfaces. Dental sealants are proven by numerous studies to be effective preventive interventions for decay of the pits and fissures, their use by private dentists falls short of expectations. Topical fluorides are proven effective in fighting decay on smooth surfaces. These two interventions are the cornerstones for any dental prevention program.

These guidelines recognize the recent changes in caries epidemiology as mentioned in the Surgeon General's Year 2000 Report on Oral Health in America. The overall philosophy behind such guidelines is the same as in the 1994 Workshop on Guidelines for Sealant Use: Preface, "Themes of risk-based caries prevention and conservative methods for diagnosing and treating pit and fissure caries underlay all discussions."

Guiding Principles

- Prevention of dental caries is better than treatment. Sound, non-diseased teeth are more highly valued than adequately restored teeth.
- The least invasive approach, using the simplest intervention for managing caries is preferred.
- Minimizing the cost of preventing or controlling decay is desirable.
- Strategies for prevention may differ between individual care and community programs.

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Scope of Work
School-based dental prevention programs should address the following areas:

1. Assess disease burden in the population served and school's needs.
    - Select population-targeting method (reduced and free lunch programs etc)
    - Target program based on risk of disease
    - Target school and participants according to economic need.
2. Deliver dental preventive services including oral hygiene instructions, oral prophylaxis, topical fluoride (gel or varnish), the application of dental sealants, and dental radiographs (if possible).
3. Increase education efforts for individual and community awareness of the importance of oral health and the benefits of dental sealants.
4. Referral to and follow up with community dentists for definitive restorative care.
    - Follow up with school nurse to evaluate number of referrals completed.
    - Follow up with local health department for compliance issues and outreach efforts.
5. Quality Assurance program including follow up.

I. Assess disease burden in the population served and school's needs

Needs Assessment
Work with the school to conduct a needs and resources assessment before developing a health services plan. The assessment should take into account the number of students enrolled, their needs, resources available in school (including space, personnel, and financial resources), community resources, and parent expectations for the program, as well as state and local regulations and policies that might affect the program. School based health program staff should include a dentist and dental hygienist. The needs should be re-assessed periodically along with the effectiveness of the program through established evaluation and quality assurance processes.

Written policies and procedures for all aspects of the program should be developed and approved by the district health service coordinator and the DHEC Oral Health Division.

Selection of Services
Locally determine the selection of oral health services based on an assessment of community characteristics, needs, and services available. Design program to meet the specific needs of the community - Local solutions for local problems (target specific populations). Program should include services recommended in the Bright Futures in Oral Health guidelines.

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Certain services are inherent in school based programs, dental assessment, treatment and/or referral, follow-up and case management. Schools may be the only place where students receive dental care. Inclusion of the community in planning and development of any school based dental program is necessary for success. The program's services should be integrated with the overall community public health and oral health systems.

Collaboration
Oral Health providers will collaborate with other health services staff and regular school personnel to assess and meet the health, developmental, and educational needs of the students. Dental providers will actively participate on school health teams to establish and maintain effective team relationships.

Health Assessment
A complete health assessment including oral health should be completed prior to entry into school.

The dental hygienist will work with the local school nurse or other school official to arrange dental screenings using the DHEC recognized survey instrument as needed.

Periodically the Oral Health Division will conduct state oral health surveys. Programs should coordinate such activities with the health assessments to prevent duplication of effort and minimize disruption for the school. The data from such screenings will be delivered to the Oral Health Division within 30 days. Results will be shared with the school officials.

II. Dental preventive services including oral hygiene instructions, oral prophylaxis, topical fluoride (gel or varnish), the application of dental sealants, and dental radiographs (if possible).

Updated Health Information
School nurse or other school official will provide updated health information, including oral health information, at start of each school year and at any time a significant change occurs. Information will be collected from parents at least annually and should include known allergies, details of chronic health conditions, any medications, emergency contact information, and the name and phone number of the child's primary health care providers. This information must be available for review by health service professionals.

Cultural Sensitivity
All persons who provide oral health services to children shall do so in a caring, culturally sensitive, and respectful manner.

Confidentiality
Program should develop written policies for sharing of health information with relevant school staff when necessary. Policy should be consistent with school's privacy policies.

Standing Orders
All activities of the dental hygienists in school settings will be approved and authorized by a licensed dentist with review by a DHEC official before any activities begin. A sample of standing orders is included.

Direct Services
Program should provide preventive care and assure access to restorative dental care. School based health personnel have an important role in education and screening of children to ensure that they receive the oral health care they need.

Critical Scientific Facts Related to Sealant Use

- Sealants have been demonstrated to be a safe and effective long-term method to prevent pit and fissure caries (11-13).
- Pit and fissure caries attack begins in early childhood and continues through adolescence and into adulthood (14-16).
- In addition to preventing carious lesions, sealants can arrest caries progression (17-20).
- Effective sealant use requires meticulous application technique, particularly moisture control (7, 10). Sealant retention should be checked within one year of application (7).

Dental Sealants
All patients that have teeth with structural characteristics that place them at risk for decay should be considered for preventive sealants. Patients that have teeth with questionable decay should also be considered for sealants (therapeutic sealants) (17-20). A third type of dental sealant, interim sealant, may be used in community and school based programs. These sealants are used to slow down the decay process in some teeth that have dentinal caries. Interim sealants are not recommended unless a dentist examines the patient and determines that the patient is unlikely to access restorative services in the near future and the size of the lesion is not too large to preclude the procedure.

According to the proceedings of the workshop on sealant guidelines, "The goal of preventing caries through widespread use of sealants will be accomplished best by providing preventive sealants to individuals at high risk and placing therapeutic sealants on carious lesions that are limited to enamel."

Topical Fluoride (varnish, gel, rinse)
As mentioned in the introduction, topical fluorides are proven effective in the prevention of smooth surface caries. The March, 2001 National Institutes of

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Health sponsored Consensus Conference on Dental Caries Prevention verified this effectiveness. The Conference noted in its report the proven effectiveness of fluoride varnishes in the prevention of caries in permanent dentition. A November 2001 CDC report on the use of fluoride in the prevention of dental caries recommends the use of fluoride varnish in a preventive program.

Written Protocols
The program should provide written protocols and procedures for common dental procedures. These should reflect the procedures indicated in the standing orders.

III. Increase education efforts for individual and community awareness of the importance of oral health and the benefits of dental sealants.

Oral Health Education
Program should coordinate oral health education with the school's approved health curriculum. Education is a necessary component to prevention. Any program should support the oral health education curriculum taught in the school. Oral health program staff should advocate for the establishment and retention of oral health education in the school's overall curriculum (link to math, science etc.).

The program should assist schools and community organizations in providing oral health educational programs for parents and community members.

IV. Referral to and follow up with community dentists for definitive restorative care.

Coordination of Services
Program should coordinate services delivered at the school with those delivered in the community. Student needs can be met more comprehensively when school based programs coordinate and integrate their efforts with existing oral health systems of care in the community.

Coordination of care helps to optimize complementary programs, improve the continuity of care, reduce fragmentation, prevent duplication, and maintain affordable resources.

V. Quality Assurance program should include a follow up clinical evaluation.

Effective sealant use
Requires meticulous application technique, particularly moisture control (7, 10). Sealant retention should be checked within one year of application (7).

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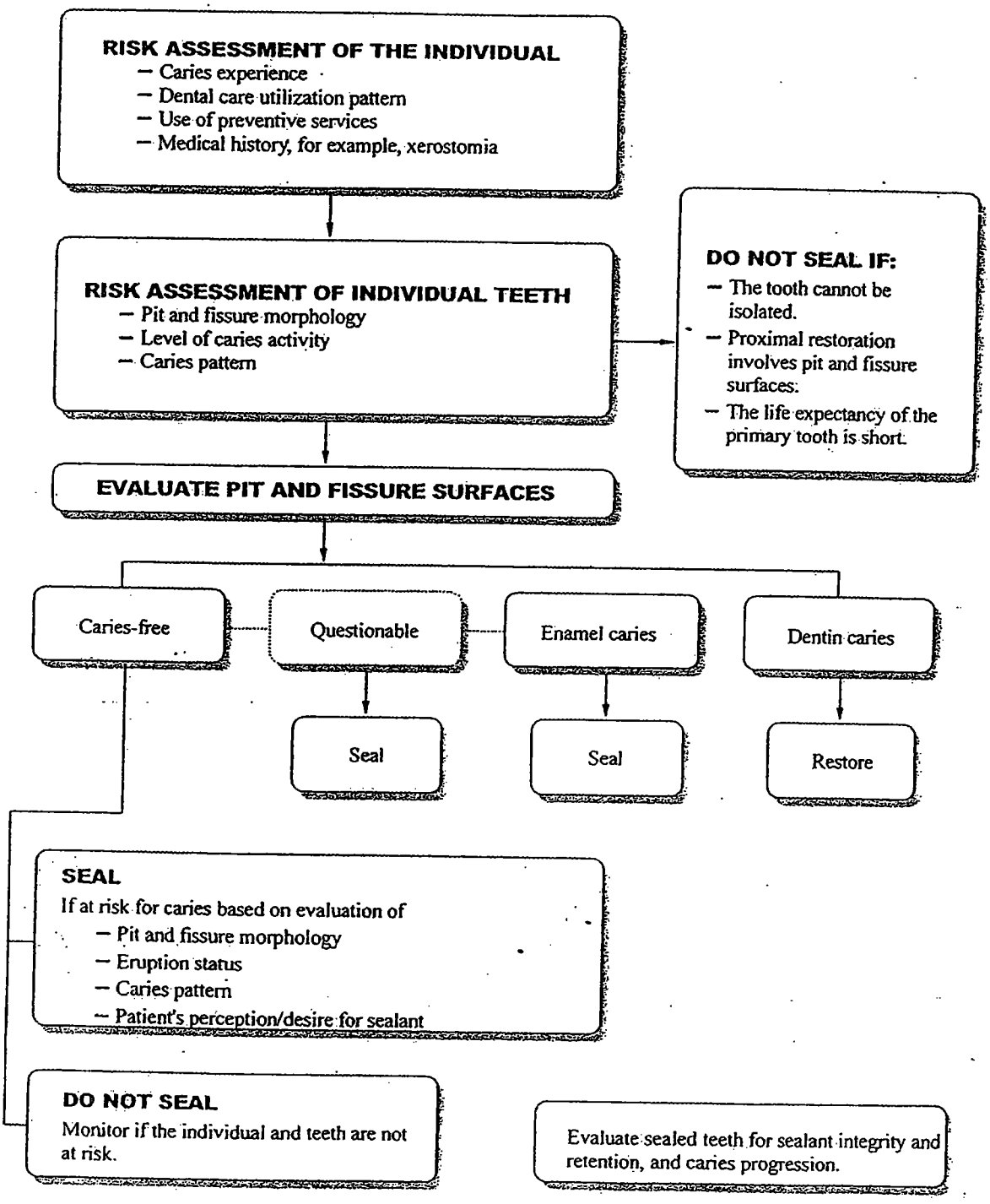
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Decision - Tree
for
Pit and Fissure Treatment



Adapted from: Workshop on guidelines for sealant use—recommendations, *J Public Health Dent* 55(5 Spec No):263-73, 1995.

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THE STATE OF SOUTH CAROLINA
Administrative Law Court

APPEAL FROM THE SOUTH CAROLINA
STATE BOARD OF DENTISTRY

Docket No. 06-ALJ-11-0562-AP
[In Re: Case No. 04-45]
Docket No. 06-ALJ-11-0563-AP
[In Re: Case No. 03-104]

Anonymous No. 1, R.D.H., and Anonymous No. 2, R.D.H. ..... Appellants,

v.

South Carolina Department of Labor, Licensing and Regulation,
South Carolina Board of Dentistry, ... Respondent.

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Respondents' Exhibit 16, Seal Out Tooth Decay Booklet 887

Transcript of Final Order Hearing, April 28, 2006 897

Anonymous No. 1, R.D.H. and Anonymous No. 2, R.D.H. by the Board 997, 1008

Tammi Byrd Direct Testimony (In Response) by the Board 1007

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Respondent's Exhibit 1. Five Directories from the South Carolina Dental Association - Membership Rosters.....

2001-2002 1016

2002-2003 1064

2003-2004 1114

2004-2005 1159

2005-2006 1206

State's Exhibit 1. Decision-Tree 1253

Respondent's Exhibit 2, Lobbying Reports 1254

Certificate of Service 1287

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Hey Dan,

Good talking to you. If you get out this way, be sure to stop by and visit our new school.

> Richard. Thank you for speaking with me. Below is the email that I sent to
> Frank Coughman. Please briefly answer the questions in the text after the
> questions. I will get you the other information. Thanks, Dan
>
> Frank: I just had a meeting with two investigators from the SC State
> Board. They are concerned about a business enterprise of hygienists who
> are in our public schools placing sealants.

Just a comment, that the "business enterprise" description worries me. If the intent of this enterprise is primarily to make money with only secondary thoughts directed to doing good for the kids getting sealant (and maybe not worrying about doing harm to them providing they get paid) then I may modify my criteria for supporting the use of sealant under these circumstances.

> They bill Medicaid and it is
> quite lucrative and widespread. They have a dentist on staff, for
> practical purposes, in name only. The overall program is actually run by
> SC Public Health. The problem is that these hygienists do no exam other
> than a mirror screening. No x-rays; no proper dentist exam etc.
>
> The Board is receiving complaints from dentists whose patients of record
> are receiving these sealants. Sealants are often placed over frankly (and
> grossly) cavitated Cl I lesions. The Board is asking, what is the standard
> of care and should it be applied the same to dentists in their offices as
> well as public health programs in the schools.
>
> We all know of Eva-Mertz Fairhurst's studies, and also Richard Simonsen's
> work as well as others. It is recognized that if decay is completely
> sealed, the decay becomes dormant. Most things I read say if the pit is
> questionable it is ok to seal it. It there is frank decay, it should not
> be sealed. The question is, without an exam by a dentist, x-rays,
> Diagnodent, etc. How do you know if it is cavitated?
>
>
>
> So, Here are my questions:
>
> 1. Should sealants be placed without x-rays, exams or other diagnostic
> aids in a school setting?

Without radiographs?--OK by me. Without an intraoral exam by a dentist?--no. Now, you could argue that sealants do no harm, so why not place them without an exam. Well, would you spend resources on placing a cast on someone's arm without an examination for need?

>
> 2. May sealants be placed over incipient occlusal decay?

Yes. That is well-documented in the literature.
>

EXHIBIT 8
Anonymous No. 1, 12-D-H.

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> 3. May sealants be placed over frankly cavitated occlusal lesions?

Yes, in some cases, but not advisable in anyone where the option for alternative conservative restorative treatment is available.

>
> 4. May hygienists place sealants on undiagnosed occlusal surfaces under
> general supervision?

The word "undiagnosed" makes me a little uncomfortable. I would have to say "no" if pushed.

>
> 5. Are we doing any harm by placing sealants on these teeth or is it an
> innocuous practice? Some would say if it is sealed, the lesion stops, and
> if the bond and seal is defective, the sealant is lost, so no harm is done.

The potential for limited harm is there if, let's say an opaque sealant is inadequately placed over active caries. This would allow the caries to continue to progress under the sealant (this is assuming the worst case scenario where the sealant is poorly placed allowing for leakage of the sealant). A false sense of security could be acquired by patient and parent. The major issue to me would be a waste of valuable resources if sealants are placed on teeth (carious) where no benefit is accrued. That's more of an issue than the devil's advocate position I took in answering this scenario.

>
> 6. Should there be a different standard for schools and practices.
>

Very interesting question. I need to think about this one for a while.

Dan I must get going now but let's talk more if you like. Please keep me in the loop as to where this all goes and what happens.

All the best ,

Richard

>
> I talked to Rob Kovarik on the phone. They teach that if, after an exam,
> the dentists is "on the fence" it is ok to seal. They do not seal over
> frank decay, but He feels that in a public health setting, it might be ok
> to place sealants on everything. Socio-economically disadvantaged children
> might benefit.
>
> This is longer than I intended, but I would appreciate any insight and
> opinion that you may have. I am also asking Richard Simonsen and Ed Swift.
>
> Thanks, Dan
>
>

HPS

HEALTH PROMOTION SPECIALISTS

100 Old Cherokee Road, Suite F, PMB#14 Lexington, SC 29072 · 800-276-2398

Dear Parent/Guardian:

I am a registered dental hygienist (RDH) and I saw your child, _____, today at school. I did the following treatment:

____ Cleaned his/her teeth, ____ Applied fluoride, _____ Put sealants on his/her permanent back teeth.

If your child got sealants, he/she should not eat hard, sticky candy (Now 'n laters, Jolly Ranchers, etc.). It can pull the sealants off of the teeth.

During your child's appointment, it was noted that your child had:

- ☐ No noticeable problems. X-rays and an exam by a dentist are needed at least once a year. Because we do not take x-rays, your child could have problems that cannot be seen without x-rays.
- ☐ Your child's gums are infected. He/she needs to brush and floss better, at least two times a day. If your child is younger than 8 years old, you need to help them brush at least once a day.
- ☐ URGENT CARE NEEDED. Please take your child to a dentist immediately.
- ☐ Obvious Problems. X-rays and an appointment with a dentist are needed.
  - o Baby teeth are very important too. Some will not fall out until your child is 11-12 years old. If they lose them too soon, it could cause problems with his/her permanent teeth and they may have pain if they are not fixed.

If you do not have a dentist, a list of dentists that are in your area is attached for you to choose from. WHEN SCHEDULING AN APPOINTMENT FOR YOUR CHILD, TELL THE OFFICE HIS/HER TEETH HAVE ALREADY BEEN CLEANED.

If you have Medicaid and have given us that information, it has been billed and there will be no charge to you. If you have private dental insurance and you have given us that information, we will file a claim and after your insurance pays, if there is any balance, it will be billed to you.

If payment is a problem, you may qualify for the SC State Children's Health Insurance Program. Please contact our office and we will get an application for you, or make payment arrangements for you.

If you have any questions, please contact me at _____ or our main office at (800) 276-2398.

We will provide a cleaning for your child at school every 6 to 9 months. A new consent form must be filled out each school year.

EXHIBIT 9
Anonymous No. 1, R.D.H.

"promoting health with a smile"

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Appendix II

Reprinted from

Vol. 55, No. 5, Special Issue 1995

JOURNAL OF PUBLIC HEALTH DENTISTRY

Workshop on Guidelines for Sealant Use: Preface and Recommendations

Official Journal of the American Association of Public Health Dentistry

EXHIBIT 10
Anonymous
No. 1, R.D.H.

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Workshop on Guidelines for Sealant Use: Preface

Mark D. Siegal, DDS, MPH; Jayanth V. Kumar, DDS, MPH

Although dental caries prevalence has decreased dramatically in the United States, the disease still affects more than 50 percent of school-aged children and almost all adults. Children from low socioeconomic status families, as well as minorities, American Indians, and Alaska Natives are at higher risk for caries and are less likely than others to receive dental care. Because most childhood caries occurs on tooth surfaces with pits and fissures, the use of dental sealants seems to be a logical approach for further improving children's oral health. Sealant use by dentists, however, continues to fall short of expectations.

While several attempts have been made to increase sealant use both in private practices and public programs, the nation's ability to achieve the Healthy People 2000 objective for sealants is in doubt. The past decade saw several sealant promotion efforts, including the Massachusetts Department of Public Health's 1986 monograph, "Preventing Pit and Fissure Caries: A Guide to Sealant Use." The monograph described sealant application technique and provided guidelines for using sealants in individual office programs and in community programs, especially those that were school-based.

Since publication of the sealant guide, additional information about dental caries epidemiology, clinical characteristics, and conservative treatment options has emerged. Some of this new information, along with concerns about health care costs, have resulted in uncertainties about clinical decisions regarding sealant use in public and private settings. In situations such as this, expert analysis of available information often is a useful approach for addressing uncertainties and establishing guidelines that will improve the quality of care.

With this in mind, the Association of State and Territorial Dental Directors, the New York State Department of Health, the Ohio Department of Health, and the School of Public Health, University of Albany, State University of New York, convened the "Workshop on Guidelines for Sealant Use" in April 1994 to evaluate and update guidelines for sealant use, specifically those contained in the 1986 sealant guide. The workshop did not address all of the aspects of sealant use that were covered in the Massachusetts sealant guide, e.g., sealant application technique, but narrowly focused on the process for selecting patients and teeth to receive sealants. Twenty-two invited participants attended the workshop. Participants included clinicians, policy makers, program administrators, and researchers in both clinical dentistry and oral epidemiology.

Themes of risk-based caries prevention and conservative methods for diagnosing and treating pit and fissure caries underlay all discussions.

A background paper on recent changes in caries epidemiology and their potential impact on sealant use was written for the workshop by Drs. L. Jackson Brown and Robert H. Selwitz of the National Institute of Dental Research. The paper was distributed to participants in advance of the workshop. A reaction paper from an epidemiologist's viewpoint was presented by Dr. R. Gary Rozier of the University of North Carolina, School of Public Health, followed by Dr. Karl-Johan Söderholm's (University of Florida, College of Dentistry) reaction paper prepared from a clinical perspective. Prior to a general discussion of the papers, several participants made brief presentations on sealant-related data that they had gathered in their own programs. Workshop participants then formed two work groups, one for individual patient care and one for community programs, to evaluate and revise the guidelines, as necessary. At various points during the process, the workshop reconvened to hear and discuss work group reports in progress. The final recommendations were drafted from discussion held at the workshop and through subsequent commentary by workshop participants on multiple drafts of the document. Dental public health practitioners who did not participate in the workshop reviewed and commented on a late draft, as well.

Recommendations for sealant use were approached, as they were in the Massachusetts sealant guide, separately for individual care programs (mostly private practices) and for community programs. This approach should not suggest that the workshop participants considered the teeth of individuals who receive their dental care in these two settings to be somehow different, but rather that differing risk factors and clinical circumstances might justify altering treatment planning decisions. In fact, the decision-making process—once the patient is in the chair—is very similar in both settings.

The guidelines developed at the workshop do not differ greatly from those in the Massachusetts sealant guide; they should be viewed as refinements of the earlier guidelines. The most notable difference is that the community programs section has been expanded to include the program planning process that precedes the need for clinical decision making. Themes of risk-based caries prevention and conservative methods for diagnosing and treating pit and fissure caries underlay all discussions. It was

Dr. Siegal is chief, Bureau of Oral Health Services, Ohio Department of Health, 246 North High Street, Columbus, OH 43266-0588. Internet: mark_siegal@health.ohio.gov. Dr. Kumar is with the Bureau of Dental Health, New York State Department of H

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acknowledged that realizing the full potential for practicing conservative dentistry and improving cost effectiveness in the prevention and control of dental caries will require improvements in the state of the science both for caries diagnosis and risk prediction, and that all recommendations made at the workshop will evolve as new information emerges. While the recommendations represent the consensus of the 22 individuals who participated in the workshop, they do not represent official policy of any agency, institution, or organization.

Several workshop participants commented on the need for other means to address sealant issues not considered in the workshop. For example, more than one participant felt that a concise, straightforward description of the sealant application technique would be of value to dental care providers, regardless of practice setting. Furthermore, a variety of vehicles for communicating the workshop recommendations and other sealant information are needed.

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Workshop on Guidelines for Sealant Use: Recommendations

The United States Public Health Service established a national health objective for the year 2000 that 50 percent of 8- and 14-year-old children should have pit and fissure sealants on one or more permanent molar teeth (1). To meet this objective, considerably more than the 11 percent of 8-year-old and 8 percent of 14-year-old children found to have sealants in 1986 must be reached (2). Although there is evidence of some increase in the percent of children with sealants since 1986 (3-5), a significant gap remains between sealant prevalence and the year 2000 objective. Furthermore, public awareness and knowledge of sealants remain low (6). In an effort to improve provider knowledge about the appropriate use of sealants, the Massachusetts Department of Public Health published a monograph, "Preventing Pit and Fissure Caries: A Guide to Sealant Use" (7), in 1986. The monograph described sealant application techniques and provided guidelines for using sealants in individual office programs and in community programs, specifically those that were school-based.

Since publication of the sealant guide, additional information about dental caries epidemiology, clinical characteristics, and conservative treatment options has come to light. The Association of State and Territorial Dental Directors, the New York State Health Department, the Ohio Department of Health, and the School of Public Health, University at Albany, State University of New York, convened the two-day Workshop on Guidelines for Sealant Use in April 1994 to reconsider and update the guidelines from the 1986 monograph. A background paper (8) and two reaction papers (9,10) were presented and discussed by the 22 workshop participants (listed in the Appendix) prior to work sessions to revise the guidelines.

Like the previous guide, decisions about when to apply sealants in individual care programs were addressed separately from community programs. Figure 1 illustrates differences between the two settings with regard to determinants for an individual presenting for sealants and the primary influences on clinical decisions. The two situations are distinguished by assumptions about the availability of diagnostic and treatment options and utilization of dental care by patients. Individual care providers, whether in private practice or public settings, are more likely to provide continuous care, with a comprehensive range of caries diagnostic and treatment options available. Generally, the people treated in community sealant programs are more likely to be episodic users of primary dental care services. Individual patient care usually is provided in private dental offices, but also can take place in community primary dental care programs such as community health centers or neighborhood clinics. Community primary care programs that meet the assumptions used for individual care programs should employ those guidelines within the context of available resources and knowledge of risk factors in the population served. Programs that generally do not provide continuous care nor have access to a full array of caries diagnostic and treatment options must take such factors into consideration when determining individual patient caries risk and the most appropriate clinical decisions.

Individual care providers, whether in private practice or public settings, are more likely to provide continuous care, with a comprehensive range of caries diagnostic and treatment options available. Generally, the people treated in community sealant programs are more likely to be episodic users of primary dental care services.

Sealants are an important dental caries prevention technology, ideally used in combination with patient education, effective personal oral hygiene, fluorides, and regular dental visits. The following principles and scientific facts should underlie the use of pit and fissure sealants in public and private programs:

- Prevention of dental caries is better than treatment. Therefore, sound, nondiseased teeth are more highly valued than adequately restored teeth.
- For equivalent outcomes, the least invasive approach, using the simplest intervention for managing dental caries, is preferred.
- Minimizing the cost of preventing or controlling pit and fissure caries is desirable.
- Strategies for sealant use (e.g., patient selection, clinical decision making) may differ between individual care and community programs.

Some critical scientific facts related to sealant use follow:

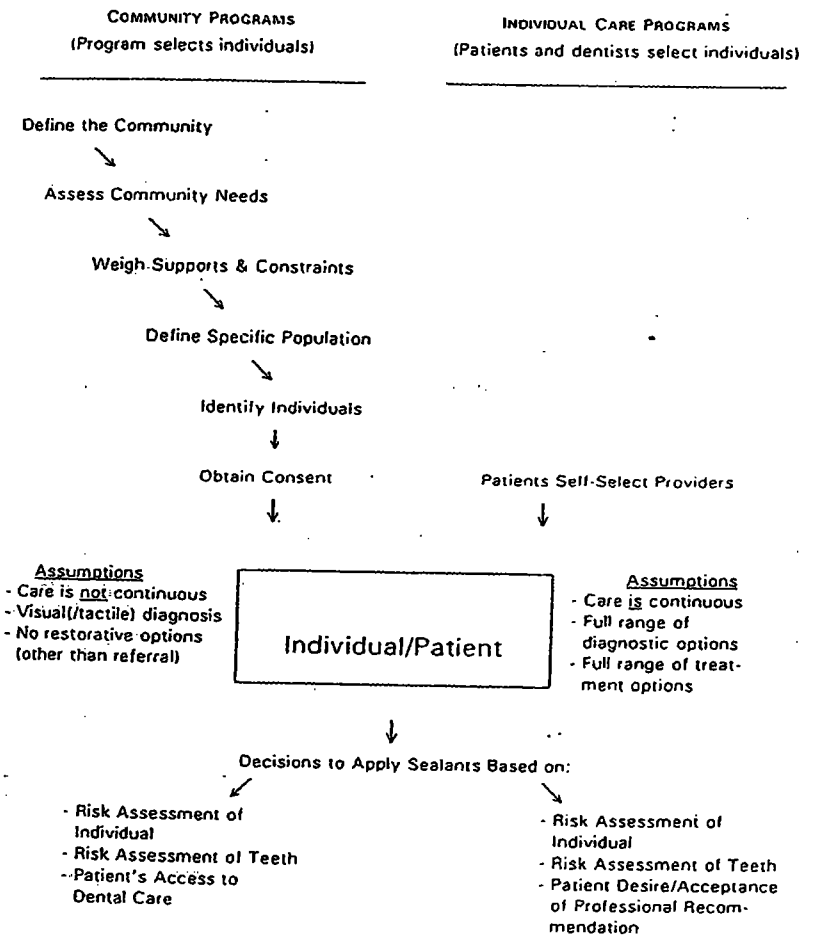
- Sealants have been demonstrated to be a safe and effective long-term method to prevent pit and fissure caries (11-13).
- Pit and fissure caries attack begins in childhood and continues through adolescence and into adulthood (14-16).
- In addition to preventing carious lesions, sealants can arrest caries progression (17-20).
- Effective sealant use requires meticulous application technique, particularly moisture control (7,10). Sealant retention should be checked within one year of application (7).

The following guide is an updated and expanded approach to selecting communities, individuals, teeth, and tooth surfaces to receive sealants. It does not, however, address all aspects of sealant use. The discussions of caries diagnosis, risk assessment, and the expanded use of sealants as therapy for caries confined to the enamel should be of particular interest to dental care providers who treat patients in individual care programs. For those working in community sealant programs, the expanded discussion of the role of community needs assessment in program design and the concept of interim sealants in specific situations should be helpful.

The reader should consult other

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FIGURE 1
Determinants of Sealant Delivery in Individual Care and Community Programs



sources for the most current information about aspects of sealant use not addressed in this document (7,8,21-27). Sealant application technique was well described in "Preventing Pit and Fissure Caries: A Guide to Sealant Use" (7). Since that time, however, research has indicated the effectiveness of reduced etch time (15–20 seconds) from the one-minute standard in 1986 (24), and other research on tooth preparation has opened the door for alternatives to the pumice prophylaxis using a rotary instrument (25-26). Söderholm addressed some clinical aspects of sealant use in his paper presented at the workshop (10). The American Dental Association provides information on sealant materials accepted by its Council on Dental Materials, Instruments, and Equipment (27). A detailed guide for planning and implementing community sealant programs has been developed by the American Association of Community Dental Programs (21).

While this document represents the consensus of the 22 individuals who participated in the workshop, it does not represent official policy of any agency, institution, or organization.

Sealant Use in Individual Care Programs

The goal of individual patient care programs is to achieve and maintain optimal oral health, which includes the prevention of oral diseases and, when treatment is necessary, conservation of tooth structure consistent with patient desires. Unlike community sealant programs, as defined for this workshop, individual care programs provide for continuity of care and incorporate comprehensive approaches to diagnosis, treatment planning, treatment, and follow-up. The changes observed over recent years in caries rates, patterns, and lesion progression allow for more effective and judicious use of sealants in individual care programs (8-10). Also, differences in caries risk among individuals, teeth and/or tooth surfaces have presented opportunities for the development of risk assessment models (28,29). Although a practical risk assessment model that can be applied at the individual level is not yet available, substantial progress has been made in assessing one's risk for dental caries (30-33). The following guidelines are provided to assist practitioners in determining the appropriate use of sealants.

All patients having teeth with morphologic characteristics that place them at risk of developing dental caries should be considered for preventive sealant applications. Under certain circumstances, patients having caries in pits and fissures also are candidates for sealants, referred to as therapeutic sealants.

All patients having teeth with morphologic characteristics that place them at risk of developing dental caries should be considered for preventive sealant applications. Under certain circumstances, patients having caries in pits and fissures also are candidates for sealants (17-20). Such sealants will be referred to as therapeutic sealants. Although the majority of sealants used to date have been placed in children, recent studies suggest that the risk for pit and fissure caries extends into and well beyond adolescence (14-16). Adults who are at risk for developing lesions in pits and fissures that were previously caries free, as well as those who may require sealant replacements, also should be evaluated for sealants. The goal of preventing caries through the more wide-

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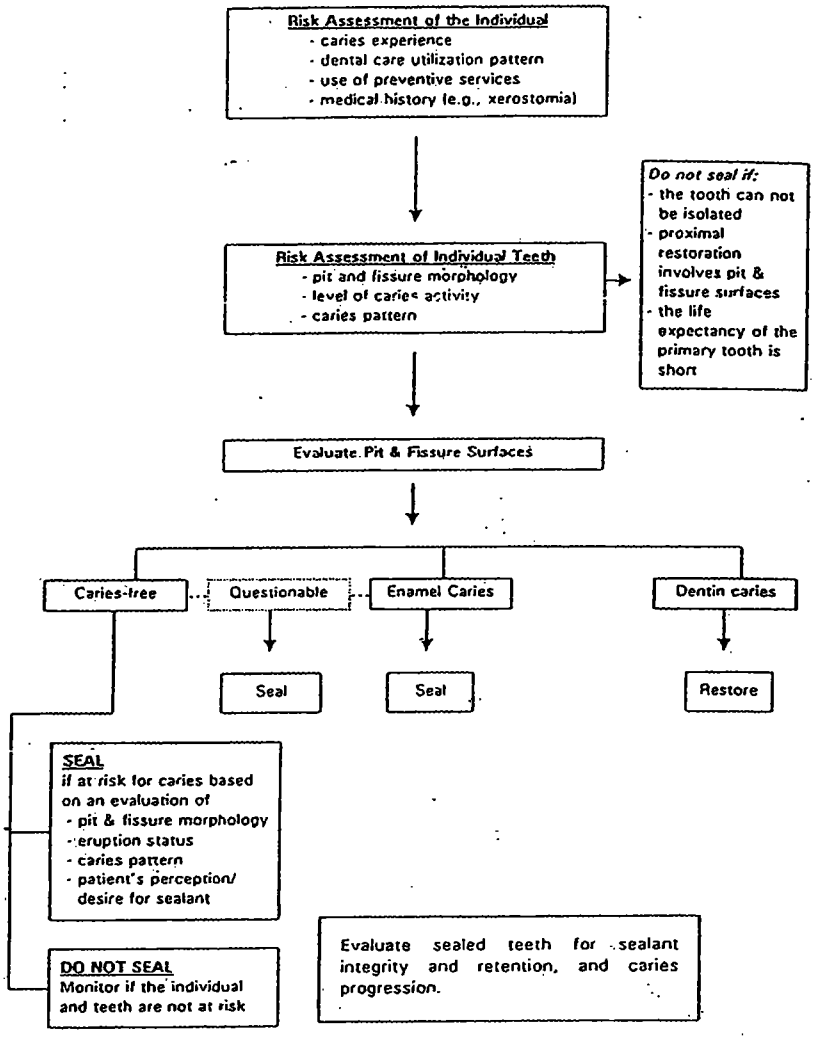
spread use of sealants will be accomplished best by providing preventive sealants to individuals at high risk and placing therapeutic sealants on carious lesions that are limited to the enamel.

Individual care providers have considerable influence on patients' decisions about sealants. The recommendation of a dentist or office staff member is more likely to influence parents to have sealants placed on their children's teeth than learning about sealants through the media (34). The dental office, therefore, is a critical place for sealant promotion and another avenue for increasing sealant prevalence. Promotional materials for patients are available from governmental agencies and through the American Dental Association catalog (35).

Risk Assessment of Individuals. Determination of the need for sealants begins with an assessment of the individual's risk for dental caries (Figure 2). Factors contributing to an individual's caries risk include caries history in primary and permanent teeth, previous dental care, use of preventive practices, and family and medical history, among others (30-33). Risk for pit and fissure caries varies from one patient to another, and within the same patient from one point in time to another. Changes in habits, life circumstances, health status, and medication use (e.g., antisialogogues or sweetened syrups) are known to influence risk for caries (36,37). The different and changing risk profiles among patients in individual patient care programs require continuous monitoring.

Risk Assessment of Teeth. Assessment at the tooth level is performed to determine the need for a sealant. Factors that should be considered are the individual's risk for developing dental caries, level of caries activity, pit and fissure morphology, caries pattern, and life expectancy of primary teeth. Use of sealants also depends on the status of proximal surfaces of the tooth selected for sealing, the eruption status, and the ability to isolate the tooth adequately. Furthermore, the distribution of caries by tooth type provides a clear indication of susceptibility of different teeth to caries. Studies suggest that first and second permanent molars are at greatest risk for pit and fissure caries (7-10,38). Primary molars, premolars, and permanent maxillary incisors that are at high risk also might need to be sealed.

FIGURE 2
Guidelines for Sealant Use in Individual Care Programs

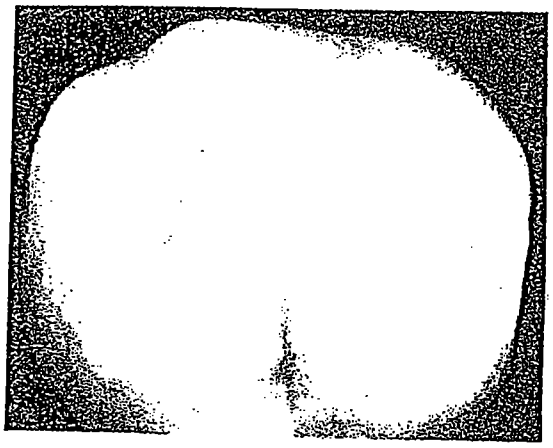


Evaluation of teeth results in pit and fissure surfaces being classified into one of three categories: caries free, enamel caries, and dentin caries. Figure 3 provides clinical presentations of each of the three categories. Although caries diagnosis historically has been performed by a visual-tactile examination using a mirror and explorer, studies suggest that visual examination of air-dried teeth alone, with or without magnification, may provide comparable or superior diagnoses (39-48). Moreover, probing for dental caries using a sharp explorer with firm pressure may damage noncavitated carious enamel (41,48). Diagnostic techniques now under development may improve our ability to identify dental caries with greater accuracy in the future and reduce patient risk (10). There is a need to establish standards for the diagnosis of dental caries, perhaps through a consensus development conference or other forum. At this time, a prudent approach for caries diagnosis would be to use light to moderate pressure if using an explorer.

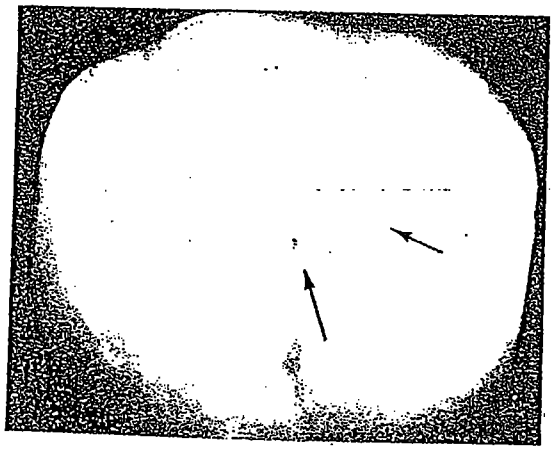
Caries-free Teeth. The decision to seal a sound or caries-free surface is based principally upon considerations of caries risk as influenced by pit and fissure morphology, eruption status, and car-

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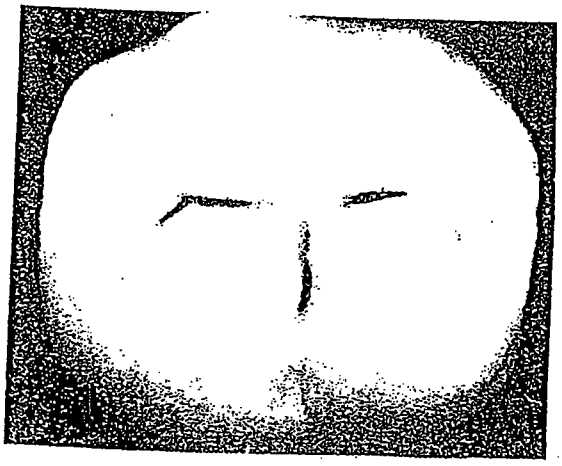
FIGURE 3
Clinical Presentation of Pit and Fissure Tooth Surfaces According to Category of Dental Caries: Caries free, Enamel Caries, Dentin Caries
(photos courtesy of Professor Ivar Espelid, University of Bergen, Norway)



Caries free



Enamel caries



Dentin caries

ies activity in the mouth (Figure 2).

Pit and Fissure Morphology: Pit and fissure morphology has been shown to be a significant factor in predicting caries risk (30). Previous guidelines have stated clearly that teeth with well-coalesced pits and fissures and wide, easily cleaned grooves usually do not require sealing (7,49-51). Teeth with deep pits and fissures that catch an explorer are ideal candidates for sealants.

Permanent molars have the most susceptible pits and fissures. Premolars are much less susceptible to occlusal caries than permanent molars (8-10,38). Therefore, fewer premolars will be indicated for sealant application than permanent molars. The need for sealant use in first and second primary molars also is determined by the pit and fissure morphology and the life expectancy of the tooth. Primary molars, particularly second molars, can demonstrate deep pits and fissures. Sealants may be indicated on primary molars with clear evidence of pit and fissure caries activity or deep and/or stained fissures, particularly if proximal tooth contact does not exist. In such cases, sealant application is indicated consistent with the overall assessment of the individual's risk and the life expectancy of the tooth.

Questionable Caries: Sometimes it is difficult to distinguish sound pits and fissures from those with caries limited to enamel. In this situation, commonly referred to as questionable caries (7), a tooth would be considered at risk for dental caries and should receive a sealant. A sealant placed over a carious lesion limited to enamel will prevent the progression of undiagnosed caries, should it be present. This approach is justified, since it has been shown that if a diagnostic error occurs and caries is sealed, the lesion will not progress, but will arrest, provided the sealant remains intact (17-20).

Eruption Status: Previous guidelines have stressed the need to seal the tooth immediately after eruption (7,49,50). However, studies have suggested that adequate isolation is essential for sealant retention and that sealant success is positively associated with the eruption status of the teeth and the operator's ability to maintain a dry field (13). Whenever possible, therefore, it is recommended that the sealant placement be delayed until the tooth is sufficiently erupted.

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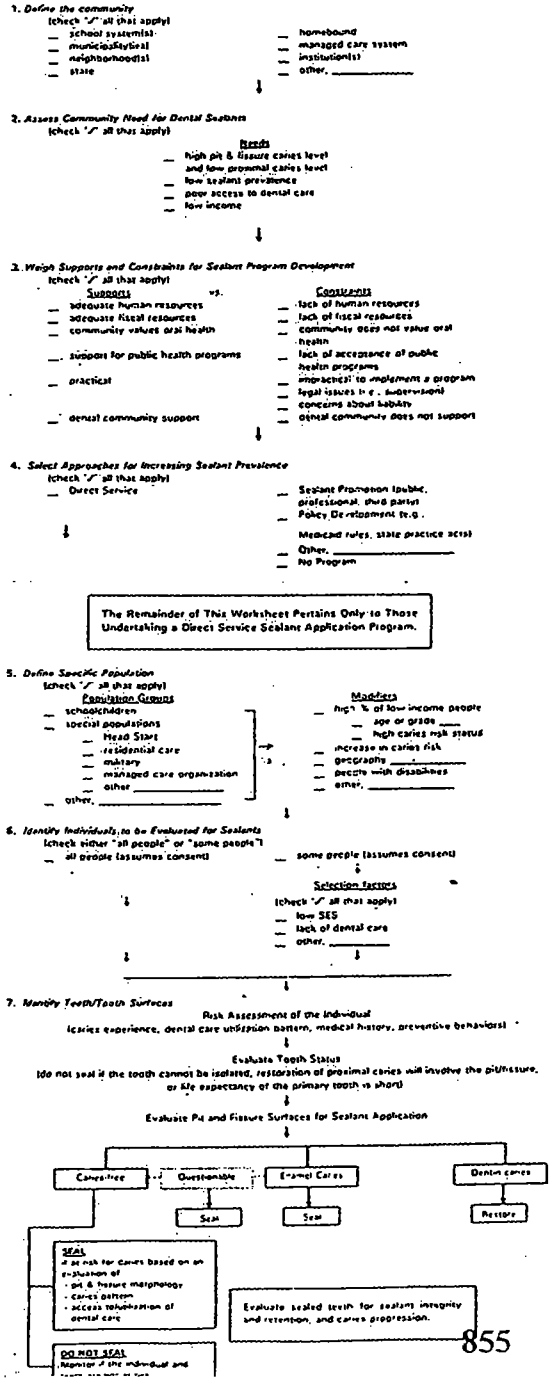
In the past, most pit and fissure caries on permanent molar teeth was thought to occur within four to six years after eruption (49,50). Therefore, most existing sealant guidelines recommend that pit and fissure surfaces that have remained caries free for four years or more do not require sealants (49,50). Based on clinical and epidemiologic data, posteruptive age alone should no longer be used as a major criterion for deciding whether a tooth should be sealed. The primary consideration should be the risk of the pit and fissure surface to caries consistent with an individual's overall caries risk at the time of evaluation.

Caries Pattern: If the pattern of caries indicates susceptibility to pit and fissure caries, as evidenced by the occurrence of one or more lesions per year, it is advised that the remaining caries-free pit and fissure surfaces of teeth at greatest risk be sealed. If an individual demonstrates proximal caries activity, sealants still may be indicated for noncarious occlusal surfaces. The conservation of occlusal surfaces always should be considered when restoration of proximal surfaces of teeth is undertaken. Several conservative approaches to managing posterior proximal caries can allow independent management of the proximal and occlusal aspects of the same tooth. Conservative procedures for management of proximal caries on posterior teeth can range from remineralization protocols to direct access restorations, including posterior Class III glass ionomer restorations and slot preparations combined with conventional restorative materials (10,52-60).

Enamel Caries. Enamel lesions are those in which demineralization is confined to the enamel. Upon visual examination, the tooth demonstrates a white halo of opacity or chalkiness surrounding the air-dried pit or fissure. Current radiographic methods cannot detect enamel caries in pits and fissures until the lesion has reached the dentin. Sealants can be placed safely on enamel lesions without jeopardizing the health of the tooth (17-20).

Dentin Caries. Usually the progression of the lesion into the dentin results in the collapse of at least part of the overlying enamel, producing a readily identifiable clinical cavity. Recent studies report lesion progression into the dentin under apparently intact surface enamel, thus making it more difficult to detect lesions in dentin by clinical means (61,62). The visual clues to the presence of a dentin lesion include changes in color, opacity, or translucency of the tooth (44). Radiographs show radiolucency beyond the

FIGURE 4
Worksheet for Determining the Need for Community Sealant Programs and Designing a Direct Service Community Sealant Program



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dentino-enamel junction. A pit or fissure surface with definite caries involving dentin should have the caries removed and restored conservatively. This treatment may include the use of sealants, in conjunction with composite restorative materials, in preventive resin restorations (53-60).

Evaluation of Sealants. Reported complete sealant retention after 10 years ranges from 41 to 57 percent (63). Failure of a sealant to be retained on a tooth surface primarily is related to operator technique—specifically, moisture contamination at a critical point during the sealant application process. Because most sealant failures occur relatively soon after application, sealants should be evaluated clinically within one year of placement (7).

Guidelines for Sealant Use in Community Programs

For the past two decades in the United States, community programs, most often either school-based or school-linked, have provided direct service by applying sealants to children's teeth. Community or public health options for reducing pit and fissure caries through sealant use, however, go beyond the direct service approach (64). Additional options include sealant promotion to increase their use in private dental practices and the development of public policies that foster sealant use (e.g., through Medicaid rules or dental practice acts). The guidelines that follow are in two parts: developing a community strategy for sealant use, and program design options for communities that select the direct service approach. It should be noted that even among direct service programs, settings other than schools may be feasible and appropriate for sealant application, as demonstrated with young adults in military service (15).

Designing a community sealant program involves a series of decisions for which there are few hard and fast rules. Some of these decisions must be made by assessing population needs and balancing them with supports and constraints in resources and other factors. Figure 4 illustrates seven major decisions that should be made when designing a community sealant program—there may be others, as well. The figure is presented in the form of a worksheet that may be helpful in identifying issues and making planning decisions. The narrative provides additional information to help identify the factors to weigh when making program design decisions.

The community program guidelines recognize that all communities are not the same. They often vary with respect to caries levels, dental treatment resources, public health systems, and the value placed on oral health and dental caries prevention. Therefore, the early steps have been designed to help assess community need for sealant programs and do not assume that a program will be implemented in every instance.

Because several direct service sealant program models have been operated successfully over the years, the guidelines offer flexibility for designing such programs. Community goals and other considerations will influence the path chosen. Program objectives should be established in advance of program design decisions. For example, one community may choose to offer sealants to the greatest number of people, while another may target specific population groups (e.g., low income). Dental disease patterns continue to evolve, as do the programs designed to meet community needs. Therefore, ongoing monitoring and evaluation of program operations and design are important.

Develop a Community Strategy for Sealant Use

1. Define the Community

The community to be served first must be defined. For these guidelines the term "community" is broadly defined as any group with shared characteristics. For example, the community can be one or more municipalities, neighborhoods, school systems, managed care organization memberships, or other populations. In some instances, a state's population may meet the definition of a community.

2. Assess Community Need for Dental Sealants

Once the community has been defined, the next step is to assess the need for a sealant program. Verification of need (e.g., prevalence of untreated pit and fissure caries and filled occlusal surfaces, level of control of proximal caries, sealant prevalence) can come from a variety of sources. This verification can result from an epidemiologic survey or can be determined informally from observations reported by teachers, school nurses, or dental clinic staff. If direct assessment of the caries level is not possible, proxy measures for selecting populations with high caries risk may be used (e.g., low income).

The Association of State and Territorial Dental Directors' "Assessing Oral Health Needs: ASTDD's Seven-step Model" (65) is a useful tool for assessing community oral health, including sealant needs. The ASTDD model offers a choice of data collection methods suitable for different levels of available resources. Options include secondary data, clinical program data, questionnaires, screenings, and epidemiologic surveys. The model provides detailed descriptions of needs assessments methods. However assessed, the community need for sealants should help to determine the approach(es) for addressing the problem.

3. Weigh Support and Constraints for Sealant Program Development

Once need has been established, a decision on how to increase sealant prevalence requires consideration of support for program development and constraints that could interfere. Support and constraints can be as general as the value that the community places on oral health or as specific as the availability of people to work on the project and funding for implementation. By identifying support and constraints early, a rationale approach can be selected. For example, if a state's dental practice act does not permit dental hygienists or assistants to apply sealants without an on-site dentist, it will be much more costly to operate a direct service sealant program unless dentists are willing to donate their time.

4. Select Approaches for Increasing Sealant Prevalence

Given a community's needs, support, and constraints, decision makers must assess the necessity and practicality of a sealant program. If there is sufficient need and the balance of support and constraints tips toward the ability to initiate a program, selecting one or more of several approaches for increasing sealant use is the next step.

Direct service programs, in which sealants are applied to individuals' teeth, traditionally have operated in school settings. Transporting a mobile dental clinic and setting up portable dental equipment at schools are common program models. Sometimes, children are enrolled and screened at

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school, but receive sealants at an off-site dental clinic. Other potential sites are institutions (e.g., correctional, residential programs for people with mental retardation or other developmental disabilities), military installations, and—where needs assessment has shown primary molars of young children to be appropriate targets for sealants—Head Start programs.

A variety of sealant promotion efforts offers the potential for increasing sealant use in dental offices (66,67). The recommendation of a dentist or office staff member is more likely to influence parents to have sealants placed on their children's teeth than learning about sealants through the media (34). The sealant promotion approach may target the dental profession, the public, individuals responsible for administering health benefit plans, or a combination thereof.

A policy development approach relates to policies likely to increase sealant use. For example, raising Medicaid fees and broadening or eliminating age restrictions for sealant application could increase appropriate sealant use. In addition, a coalition of agencies and organizations could review the problem of dental practice act requirements that restrict sealant placement by dental auxiliaries and work toward modifying those requirements.

Design Options for Direct Service Sealant Programs

5. Define Specific Population(s)

Specific populations to receive sealants may be targeted further, or "modified," by a variety of factors to reach those in greatest need. Some degree of targeting probably will be unavoidable unless resources are unlimited. Traditionally, sealant programs have been for schoolchildren; however, other special populations may be candidates, as well.

School-based or school-linked programs usually operate in second and sixth grades, as suggested in "Preventing Pit and Fissure Caries: A Guide to Sealant Use" (7). Often, the programs reexamine the children the next school year to place sealants on newly erupted teeth and tooth surfaces, and to replace missing sealants. Although reexamination can reduce the time available to see new children, it is very important for quality assurance and program evaluation. Other grades may be selected to coincide with program objectives or school considerations (e.g., whether sixth grades are in elementary or middle school). Selection of higher grade levels usually represents a trade-off between identifying a greater number of sufficiently erupted teeth and diminishing participation by older students. Alternately, a program may be offered to all schools or only those with high numbers or percents of children from low-income families. Such programs, however, may offer sealants to all children in the grades selected at a particular school. Low-income families generally have more dental caries and less access to dental care, making them a frequently targeted population group for sealant programs. For children, eligibility for free or reduced-cost school lunch programs is often used as a proxy for low income (68,69).

Research has shown that the clinical progression of caries is slower today than in the 1960s and 1970s, and that teeth are at risk for pit and fissure caries for a longer time (10). Although school-based or school-linked programs still may be highly appropriate, other possibilities now exist. Some examples of special populations that could be targeted are listed in Figure 4.

6. Identify Individuals to be Evaluated for Sealants

Once a specific population has been selected, including any modifiers to further target the program, a decision must be made whether to offer the program to all or selected individuals. Even in schools in low-income areas, all individuals at a given grade level may be offered sealants, or only those who qualify for the lunch program or who do not have a dentist. Information on utilization of dental care can be obtained on consent forms or health histories. Many times schools will be unwilling to select individual children on this basis for fear of stigmatizing them or as an equity issue relative to other children. It usually is acceptable, however, to select schools according to some indicator of economic need. All these decisions should be made according to program goals and community considerations. Participation in a community sealant program is contingent upon consent of a parent or guardian in accordance with local standards.

7. Identify Teeth/Tooth Surfaces

Not all individuals within a population are equally appropriate candidates for dental sealants. There are dental conditions that either place them at very low caries risk (e.g., no past caries history combined with well-coalesced pits and grooves) or preclude sealant use (e.g., large proximal caries or restorations on all teeth with fissured surfaces). The individual care guidelines for sealant use (Figure 2) are the basis for tooth selection in targeted community programs. However, since community programs generally lack both the continuity of care and comprehensive array of caries di-

TABLE 1
Availability for Sealant Application of Occlusal Surfaces of First and Second Permanent Molar Teeth, According to Grade Level, Ohio 1987–88 (70)

	Percent of Students with All 4 Occlusal Surfaces Sufficiently Erupted* for Sealant Application and with No Occlusal Sufaces Sufficiently Erupted*			
	First Permanent Molars		Second Permanent Molars	
Grade Level	All 4	None	All 4	None
First	57.2	18.8	—	—
Second	88.5	1.8	—	—
Third	96.8	0.0	—	—
Sixth	—	—	23.6	37.6
Seventh	—	—	55.5	11.8
Eighth	—	—	75.8	3.6

*Sufficiently erupted means that the occlusal surface was completely exposed and clear of gingival tissue. This does not indicate eruption status of buccal and lingual surfaces with pits and fissures, which can contribute to overall caries levels.

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agnostic and treatment options, these individual care guidelines have been adapted for community programs.

While current models for identifying individuals who are at high risk for dental caries require further development, knowledge about surface-specific caries attack rates and the relationship of tooth eruption to age can help in the design of a program that conserves limited resources and maximizes effectiveness (8,67). Studies suggest that first and second permanent molars are at greatest risk for pit and fissure caries and that primary molars, premolars, and permanent maxillary incisors are at much lower risk (7-10,38). Table 1 lists the likelihood of the occlusal surfaces of first and second permanent molars being erupted suitably for sealant application at different grade levels (70). While occlusal surfaces are the first to be suitably erupted for sealant application, buccal pits of lower molars and lingual grooves of upper molars also are at substantial risk for caries and should be sealed when they meet sealant need criteria, including the requirement to maintain a dry operating field. It is possible to delay sealant application for these surfaces until a child is seen on follow-up during the next school year.

Unlike the model for tooth and tooth surface selection in individual care programs, risk assessment of individuals in community sealant programs should give considerable weight to the likelihood of the individual receiving future dental care. This factor can be assessed by observing the presence of caries and restorations or by a questionnaire. It is possible, therefore, that sealants will be applied to a greater proportion of sound teeth and teeth with questionable caries in community programs than in individual care programs because of our inability to monitor teeth over time in the former and a consequent need to "err on the safe side."

Another adaptation of the individual care model is the proposed use of interim sealants in community programs for some teeth judged to have dentin caries. An interim sealant is one placed over suspected dentin caries when definitive diagnostic and restorative care are not expected to occur in the near future. Use of interim sealants for caries control is similar to the decades-old use of Intermediate Restorative Material (IRM). The use of interim sealants includes notification of the patient and parent or guardian of the need for restorative care. Interim sealants are recommended only in instances where the examining dentist in a community sealant program believes that the patient is unlikely to complete a restorative care referral in the near future and the size of the carious lesion(s) is not too large to preclude the procedure. Interim sealants are intended to arrest dentin caries until the tooth or teeth can be evaluated and more appropriately treated. The procedure is justified in community sealant programs in light of reports of children with significant dental caries being found, upon follow-up examination, who have not received care despite previous referral, and by studies in which frankly carious teeth were sealed successfully for many years (17,19,71,72).

The success of a community sealant program strategy that employs interim sealants would be enhanced greatly by the availability of a different color sealant (e.g., red or pink) along with education of, and communication with, local dentists on the meaning of the color-marked sealant. These steps would alert dentists to the need for careful diagnosis and treatment planning of teeth with color-marked sealants. Manufacturers of dental sealants should develop a different color (other than white or clear) sealant specifically for use in community sealant programs. In the absence of the availability of the color-marked sealant, programs using interim sealants must be committed to communication among patients, parents or guardians, and the dental community.

Evaluation. Community needs, caries patterns, and dental technology are all dynamic factors that could affect the appropriateness of a sealant strategy over time. Just as communities should assess needs before embarking on a sealant strategy, they also should reevaluate those needs periodically along with the effectiveness of the programs they have developed. Likewise, sealant programs should undergo periodic evaluation to determine whether they are meeting their goals efficiently.

Evaluation should focus on the need for sealants, program quality and costs, and the extent to which established programs are meeting the sealant needs of the community. An established program can document sealant need with programmatic data. For example, participation rates in a direct service sealant program might reflect a community's expressed interest in sealants. The number of children found by the program to be lacking sealants and at sufficient risk for pit and fissure caries to require sealant application indicates unmet need.

Another evaluation component should be the assessment of program quality (73,74). For example, data on retention rates of sealants placed, comparison of program practices with established standards for infection control, and sealant application technique may be used to evaluate programs. A reexamination component will provide the opportunity for determining sealant retention rates. Program efficiency can be measured in terms of cost per individual, per tooth sealed, or per number of carious lesions prevented.

Other approaches to increasing sealant use also can be evaluated. The effects of sealant promotion programs could be evaluated through surveys of dentists and parents, as well as through the kinds of needs assessment activities mentioned previously. Impacts resulting from policy changes in Medicaid can be assessed through program data on the number of sealant claims submitted. The following list may be useful in deciding which factors to include in an evaluation of a program:

- change in dental caries experience,
- number of sealants placed,
- number of children receiving sealants,
- community support demonstrated,
- number of children with prior dental caries experience,
- retention rate of sealants,
- sealant program costs, and
- number of Medicaid recipients served.

Conclusions

The guidelines developed at the Workshop on Guidelines for Sealant Use, although similar to those presented in the 1986 Massachusetts sealant guide, should be viewed as refinements of the earlier guidelines. The guidelines for deciding which patients and teeth should receive sealants in individual care programs were

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adopted and modified for community programs because of differences in clinical circumstances and patient risk factors rather than characteristics of teeth. It was acknowledged that realizing the full potential for practicing conservative dentistry and improving cost effectiveness in the prevention and control of dental caries will require improvements in the state of the science both for caries diagnosis and risk prediction.

Caries Diagnosis. Pit and fissure caries confined to enamel generally can be distinguished from caries that has progressed into dentin; the preferred treatment differs for the two. Visual examination of air-dried teeth alone may provide a comparable or superior diagnosis to the traditional visual-tactile examination using mirror and explorer. Diagnostic techniques under development may improve our ability to diagnose dental caries with greater accuracy in the future. At this time, a prudent approach would be to apply only light to moderate pressure if using an explorer. There is a need to establish standards for the diagnosis of dental caries, perhaps through a consensus development conference or other forum.

Caries Risk Assessment. "Modern" dentistry calls for an assessment of individual patient risk for dental caries to determine the most appropriate and conservative plan for preventive and restorative care. While the current science of risk assessment—at the levels of the community, the individual, and the tooth—requires improvement, there are several basic risk assessment principles that providers should apply at this time.

Sealant Use in Individual Care Programs (care is comprehensive and continuous). Caries risk assessment should have a strong influence in determining who receives sealants. Sealants should be used to prevent caries in at-risk teeth (preventive sealants) and to treat teeth with questionable or definite caries confined to the enamel of pits and fissures (therapeutic sealants).

Sealant Use in Community Programs (care is neither comprehensive nor continuous). The design of a community sealant program should be based on an assessment of the oral health needs and resources of a community. Because comprehensiveness and continuity of care cannot be assumed for community sealant programs, as defined in the workshop, it would be prudent to use sealants more liberally on sound and questionable teeth observed in those programs. The use of interim sealants was proposed, under specific circumstances, in community programs. Interim sealants, ideally of a color different from other sealants, would be placed to arrest dentin caries in children who are unlikely to receive dental care in an individual care program in the foreseeable future. Additional protocols and mate-

APPENDIX

Participants in the Workshop on Guidelines for Sealant Use, Albany, NY, 1994 (I=Individual Care Program Group, C=Community Program Group)

Ronald Billings, DDS (I)
Eastman Dental Center
Rochester, NY

John P. Brown, BDS, PhD (C)
School of Dentistry
Univ. of Texas Health Science Center
San Antonio, TX

L. Jackson Brown, DDS, PhD (C)
National Institute of Dental Research
Bethesda, MD

Myles Brown, DMD (C)
New Mexico Department of Health
Santa Fe, NM

Stephen B. Corbin, DDS, MPH (C, chair)
Centers for Disease Control
and Prevention
Rockville, MD

Burton Edelstein, DDS, MPH (I)
New London, Connecticut
(representing the American Academy
of Pediatric Dentistry)

Stephen A. Eklund, DDS, DrPH (I)
School of Public Health
University of Michigan
Ann Arbor, MI

A. Isabel Garcia, DDS, MPH (C)
Agency for Health Care Policy and Research
US Public Health Service
Rockville, MD

Elmer L. Green, DDS, MPH (C)
New York State Health Department
Albany, NY

Lawrence F. Hill, DDS, MPH (C)
Cincinnati Health Department
Cincinnati, OH

Joseph G. Kalil, DDS (I)
Methuen, MA
(representing the American Dental
Association)

Jayanth Kumar, DDS, MPH (I)
New York State Health Department
Albany, NY

Raymond A. Kuthy, DDS, MPH (C)
College of Dentistry
Ohio State University
Columbus, OH

Barbara Park, RDH, MPH (I)
Centers for Disease Control and Prevention
Atlanta, GA

R. Gary Rozier, DDS, MPH, (I, chair)
School of Public Health
University of North Carolina
Chapel Hill, NC

Mark D. Siegal, DDS, MPH (C)
Ohio Department of Health
Columbus, OH

Karl-Johan M. Söderholm, DDS, PhD (I)
College of Dentistry
University of Florida
Gainesville, FL

Robert H. Selwitz, DDS, MPH (I)
National Institute of Dental Research
Bethesda, MD

Gene Sterritt, DDS, MPH (C)
Centers for Disease Control and Prevention
Atlanta, GA

William Waggoner, DDS, MS (I)
College of Dentistry
Ohio State University
Columbus, OH

Jane A. Weintraub, DDS, MPH (C)
School of Dentistry
University of North Carolina
Chapel Hill, NC

Georgina P. Zabos, DDS, MPH (I)
Columbus University
School of Dentistry and Oral Surgery
New York, NY

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rials development, such as color marking, would facilitate the use of interim sealants in community programs.

Participants in the Workshop on Guidelines for Sealant Use were unanimous in their support for increasing the appropriate use of pit and fissure sealants in both individual patient care and community programs. Only through continued efforts by all segments of the dental community can the benefits of sealants significantly enhance the oral health of all.

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Dental Sealants in the Prevention of Tooth Decay

National Institutes of Health
Consensus Development
Conference Summary
Volume 4 Number 11

Introduction and Conclusions

Introduction

The chewing surfaces of children's teeth are the most susceptible to decay and least benefited by fluorides. In recent years scientists have developed plastic films that are applied to these chewing surfaces to seal the pits and grooves where food and bacteria can be trapped. These dental sealants offer a new approach to the prevention of dental caries.

The National Institutes of Health convened a Consensus Development Conference on December 5-7, 1983, to evaluate the effectiveness, safety, and implementation of the sealant procedure. After hearing a day and a half of presentations by experts of data on dental sealants, a Consensus Panel of biomedical investigators, practicing dentists, academicians, a dental hygienist, a statistician, and representatives from public interest groups considered the evidence and agreed on answers to the following questions:

1. *With the current widespread use of fluorides and the generalized decrease in caries experience among children, is there a need for sealants?*
2. *How effective are sealants?*
3. *Are there risks associated with the use of sealants?*
4. *What are the indications for using sealants in individual and community-based caries preventive programs?*
5. *What are the clinical procedures involved in successful sealant application, and what training and education are required?*
6. *What factors have influenced and should influence the adoption and utilization of sealants for caries prevention?*
7. *What is the current status of sealant research and what should be the research priorities for sealants and their implementation?*

The National Institutes of Health urges that this summary statement be posted, duplicated, and distributed to interested staff.

Panel's Conclusions

The placement of sealants is a highly effective means of preventing pit and fissure caries. It is safe. It is currently underused in both private and public dental health care delivery systems. The reasons for such underuse are complex, but intensive efforts should be undertaken to increase sealant use. Expanding the use of sealants would substantially reduce the occurrence of dental caries in the population beyond that already achieved by fluorides and other preventive measures. Because dental

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caries is still a disease common to most young people in the United States and in other countries of the world, such reductions would substantially improve the health of the public and reduce the expenditures for treatment of dental disease.

Practitioners, dental health agency directors, and dental educators are urged to incorporate the appropriate use of sealants into their practices and programs.

It must be emphasized that the substantial reductions in dental decay that have occurred in the young population in the United States are due, for the most part, to the use of systemic and topical fluorides. These programs should be continued and expanded if we are to maintain and continue the trend in caries reduction. Indeed, the control of smooth surface caries that is provided by fluorides is of critical importance to the additional effectiveness of sealants.

1.
With the current widespread use of fluorides and the generalized decrease in caries experience among children, is there a need for sealants?

The panel believes that the answer to this question is yes. Recent studies have indicated that the prevalence of coronal caries in children and adolescents is declining, due mainly to the beneficial effect of water fluoridation and other methods of fluoride delivery. Nevertheless, by age 16, American children have an average of nearly 10 decayed, missing (extracted), or filled tooth surfaces. In other industrialized countries, caries scores have also declined but are still substantial. In a few industrialized countries and many of the developing nations, caries scores are still increasing. The vast majority of young people in the world have dental decay. Prevention of the disease is a much better objective than treatment. Worse yet is nontreatment—with the pain and impaired function that follow. Thus, the need for additional or improved preventive methods is still compelling.

It is of particular interest that dental caries is today largely a disease of pits and fissures of the teeth as opposed to lesions in smooth tooth surfaces. The National Dental Caries Prevalence Survey (1979-1980) revealed that only 16 percent of the caries experience of 5- to 17-year-old children occurred in approximal (smooth) surfaces, while 84 percent involved surfaces with pits and fissures. Systemic and topical fluorides have a less profound caries preventive effect on the pit and fissure tooth surfaces than on smooth surfaces. The major remaining need in the young population is to reduce or eliminate the carious process occurring in pits and fissures. These areas include primarily the occlusal or chewing surfaces of primary and permanent molars and of premolars.

Certain population groups have an especially urgent need for preventive measures, including sealants. These groups include immigrant populations, people who are institutionalized, disabled people, those with a low income, and others.

2.
How effective are sealants?

Sealants are highly effective in preventing pit and fissure caries. The effectiveness of dental sealants in the prevention of tooth decay has been demonstrated in a variety of research findings covering a span of 16 years. In the last several years, investigators in several countries have repeatedly demonstrated that caries protection is 100% in pits and fissures that remain completely sealed. Complete retention rates after one year are 85% or better and after five years are at least 50%. These trials have shown that a close correlation exists between retention of sealants and their effectiveness, regardless of how the latter is defined and measured.

Acid-etch resin sealants are classified into three types, based on the method by which they are cured (hardened): ultraviolet light-cured, chemically or self-cured, and visible light-cured. Research studies have demonstrated that self-cured sealants are somewhat more effective than ultraviolet light-cured sealants. More research is required to establish the relative long-term effectiveness of the visible light-cured sealants.

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although retention rates after two years look favorable. Sealants have been demonstrated to be effective in communities both with and without fluoridated water.

Effectiveness is further increased if lost or partially lost sealants are replaced or repaired at visits subsequent to initial placement. The typical recall system in a private dental practice makes such replacement and repair convenient. Although recall is more difficult in community-based programs, it would enhance effectiveness in these settings as well.

The effectiveness of sealants appears to be equal whether applied by dentists, dental hygienists, or dental assistants, provided that they have received appropriate training. The use of hygienist/assistant teams has proven to be particularly effective in public health settings.

While the subject of the conference was the prevention of dental caries, it is suggested that sealants may also be used to arrest the progress of incipient or small pit and fissure lesions. Further exploration of this approach through careful clinical studies is to be encouraged.

3.
Are there risks associated with the use of sealants?

The risks associated with the use of pit and fissure sealants are minimal, and sealants are safe when properly placed using state-of-the-art materials and procedures.

In considering the risks associated with the use of sealants, the panel evaluated both the possible systemic and local effects of the procedure. No systemic toxicity from the clinical use of sealants has been reported. The sealants currently classified as acceptable or provisionally acceptable by the Council on Dental Materials, Instruments, and Equipment of the American Dental Association contain no known toxic materials or carcinogenic agents. Sealants have also received favorable evaluation by the Food and Drug Administration. The chemical compositions of resin formulations used for sealing developmental pits and fissures are similar to, or the same as, monomeric resins that have been used for other dental purposes for many years.

Some concern has been expressed about the local tissue effects from the phosphoric acid solution used to prepare the enamel for bonding of the sealant resins. There is no evidence to indicate that this has been a significant problem when the etchant is used properly.

Questions regarding the possibility of the progression of dental caries beneath properly applied sealants have been answered by clinical studies. The evidence is overwhelming that the vitality of the dental pulp is not endangered by incidental placing of sealants over small pit and fissure lesions. In fact, minor carious lesions covered by sealants seem to become inactive, and the process of tooth decay is apparently arrested by the sealant. Investigators have reported negative or reduced bacterial cultures following several years of sealing. No studies have identified significant caries progression beneath an intact sealant. Sealants apparently seal off residual bacteria from their principal nutrient supply, thus preventing the accumulation of acid in cariogenic concentrations.

The fear that the enamel will become more susceptible to caries if the sealant is lost seems unfounded. Studies have shown that a tooth which has been treated and then lost its sealant is no more susceptible to caries than a tooth that has not been treated.

Concern has been expressed that the placement of sealants in excessive thickness could cause occlusal disharmonies. However, there are no reports of such problems in the extensive clinical trials that have been conducted.

In addition to the risk to the patient, the panel considered possible risks to dental professionals, especially those placing sealants on a regular basis. No evidence was reported for mutagenic or other systemic risks to such personnel. The panel recommends that protective glasses be worn by operators when

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using either the ultraviolet or visible light-cured materials.

There are social and economic risks in the widespread adoption of any new technology. For example, if a society emphasizes one technology, it runs the risk of deemphasizing others or of not having resources available to support them. These issues of social resource allocation risks or the relative importance of dental sealants and other social needs are beyond the scope of this panel.

4.
What are the indications for using sealants in individual and community-based caries preventive programs?

Individual Programs

Patients or their guardians should be made aware of the availability of sealants and, except where sealing is clearly inappropriate, given the opportunity to have sealants placed. Those individuals who can benefit from such treatment are:

a. Children with newly erupted teeth with pits and fissures.

b. Children whose lifestyle, developmental or behavioral patterns, or lack of fluoride exposure put them at high risk for dental caries.

c. Children with teeth that have pits and fissures that are anatomically susceptible to caries.

d. Other persons who desire sealant application and for whom sealant therapy is technically feasible.

In addition, evidence has been presented that children may benefit from having small carious lesions sealed, but further studies should be conducted to define the utility of this approach. Informed dentists and guardians should have the opportunity to make such a choice.

Community-Based Programs

Ideally, children should have access to sealant application on the same basis whether they are in individual or in community-based programs. However, when resources do not permit this, priorities should be established. Sealant programs should be implemented in communities where the preventive effect will be optimal, with consideration for prevalence of approximal caries, fluoridation status, and unique features of the population.

Within these communities, priorities may be established on the basis of eruptive patterns, control of smooth surface caries through the use of fluorides, known population groups with special needs (for example, institutionalized persons or ethnic and cultural groups with demonstrated high caries rates) and those who do not have access to restorative dental care.

Sealants should be a part of state Medicaid funding programs where dental services for children are provided. Recommended priorities for sealant application among the Medicaid population are as follows:

Priority 1: Permanent first molars for children ages 6 through 8 and permanent second molars for children ages 11 through 13.

Priority 2: Premolars in high-risk children and primary molars.

The various agencies responsible for other government-funded programs should develop priorities to ensure the most effective use of sealants for their service beneficiaries.

Minority Opinion—Robert M. Veatch, Ph.D.

The establishing of priorities in community-based programs can be based on either the principle of maximizing the good in the community per unit of investment, or the principle of justice that requires treating all citizens equally, regardless of whether that will maximize efficiency. The majority has opted for the utilitarian strategy. Critics of utilitarianism have recognized that its principles can compromise the just claims and rights of some members of the community.

I accept that priorities can be established ethically but do not believe it is the place of this panel to propose ways in which the needs, welfare, and rights of patients should be

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compromised. If priorities are established, they must be based on the just claims of individuals regardless of whether honoring their rights will maximize community welfare. I accept priorities that are based on age or eruption status. Since all members of the community pass through an age progression and experience eruption of teeth, priorities can be established on this basis in a nondiscriminatory way. Priorities based on sex, race, ethnic group, socioeconomic status, the socioeconomic status of a school, fluoridation status of the patient's community, or the community approximal caries rate should be rejected. Giving priority on the basis of any of these criteria discriminates against those children who, through no fault of their own, are in social groups that will produce less efficient investment payoffs. They will be discriminated against even if in their own cases sealant treatment predictably will produce great benefit. For example, under the utilitarian strategy of giving priority to communities with fluoridation, a child in a nonfluoridated community with low approximal caries whose parents have obtained fluoride treatment for him or her (through professional or self-application) would be excluded from a community-based sealant program. A child in a fluoridated community, who is in all morally relevant respects identical, would receive sealant treatment benefits.

In my opinion, dental sealants for at least some teeth are an essential part of an adequate minimum of health care and are thus a basic right of all citizens.

5.

What are the clinical procedures involved in successful sealant application, and what training and education are required?

The procedure of properly applying a sealant is conceptually uncomplicated. Under actual clinical conditions, however, it may be simple or difficult to execute correctly. Clinical procedures for successful sealant application are as follows:

1. The tooth must be isolated so that adequate access is established to observe the field and to reach tooth surfaces with the appropriate instruments. This isolation must also ensure that saliva contamination of the surfaces to be sealed can be prevented at critical points in the procedure.
2. The surfaces should be cleaned with a prophylaxis brush or rubber cup and a cleansing agent that contains no oil or other substance that cannot be completely and quickly washed from the surfaces with water. The cleansing agent should be carefully washed from the surfaces using a water syringe and aspiration or high-speed evacuation.
3. When the teeth are effectively isolated from saliva contamination, the surfaces are dried and etched by application of a 30- to 50-percent phosphoric acid solution for one minute. The solution is gently agitated during the application. It should cover all of the areas to be sealed.
4. The acid should be washed away with water and aspiration or high-speed evacuation. The surfaces are carefully dried and inspected to ensure that the frosty-appearing etch covers the area intended. The absolute avoidance of contamination with saliva or air-line moisture or oil is critical from the time of acid removal and drying until the sealant is cured. If contamination is suspected, re-etching of the surface for 20 seconds is indicated.
5. The sealant should be applied according to the manufacturers' instructions. Care should be taken to avoid entrapment of air bubbles, to extend the sealant into all the grooves and pits, and to avoid extention of the sealant onto unetched smooth surfaces or soft tissues. The sealant must remain uncontaminated and undisturbed until it is cured to hardness.
6. The sealant should be examined to ensure that underextension, overextension, undercuring, or voids have not occurred. A reasonable attempt should be made to remove the sealant to determine if adequate bond strength has been established.

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Fluoride should not be applied to the enamel surface immediately before a sealant procedure is initiated. Fluoride may be applied immediately after sealant application.

The most common reason for sealant failure is contamination of the etched surface with saliva or air-line moisture or oil. Adequate isolation from saliva for the time required is usually the most difficult step. Inability to do so is the most frequent reason why sealants cannot be placed on surfaces where they would be of benefit.

Only sealant products classified as acceptable or provisionally acceptable by the Council on Dental Materials, Instruments, and Equipment of the American Dental Association and thus having documented clinical effectiveness should be used.

As in any clinical method, exacting execution of the method and use of proven materials is required to obtain the desired result.

Research has proven that the efficacy of sealants is based on the retention of the sealant. Retention of sealants is definitely technique-related. Anyone being trained—whether dentist, hygienist, assistant, student, or experienced practitioner—should have the same understanding and competence in the technique of application. To accomplish this, the panel recommends that all training programs consist of three components:

1. A didactic program consisting of lectures and readings on the histologic and microbiologic implications of sealants, the rationale and indications for their use, their clinical usefulness in individual and community-based caries preventive programs, and the technique of application.
2. A laboratory or preclinical program to familiarize the trainee with the materials and methods.
3. A clinical program involving actual application of sealants to patients' teeth. During this time it is important to have the steps in the procedure as well as the end product monitored by experienced personnel.

Sealant technique should be taught and used as one component of a total preventive program including systemic and topical fluorides, oral hygiene instruction, dietary counseling, and periodic examinations.

The amount of time to be devoted to the foregoing education program will depend on the previous knowledge and clinical experience of the trainee. Skilled practitioners with experience in patient management and related clinical techniques may require as few as one or two patients to demonstrate adequate proficiency, whereas three to five days of clinical experience should be expected for students or less experienced professionals.

6.
What factors have influenced and should influence the adoption and utilization of sealants for caries prevention?

Various factors have been reported as contributing to the underutilization of sealants by dental professionals. Some of the concerns which have apparently discouraged adoption and use of sealants are related to:

a. Perceived lack of data demonstrating efficacy.
b. Possibility of sealing in decay with subsequent progression of the lesion.
c. Lack of retention of sealants.
d. Unfamiliarity with technique.
e. Difficulty in explaining the rationale and procedure to patients and parents.
f. Lack of third-party payment.
g. Belief that amalgam restorations are better and more economical.
h. Insufficient instruction in curricula for dental personnel.
i. Restrictive state dental practice acts.
j. Lack of availability of public information about the method and its benefits, and a resulting lack of public awareness.

In reviewing information on each of the above factors, the panel noted:

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a. An extensive body of knowledge has firmly established the scientific basis for the use of sealants. With the changing pattern of caries in the direction of occlusal caries, sealants are specifically targeted to prevent most of the remaining decay in the young population.

b. With respect to sealing in decay, there is no evidence that placing a sealant over small lesions has resulted in progression of decay. To the contrary, it appears to have prevented further progress of such lesions.

c. Well-controlled clinical studies have demonstrated the retention of sealants for five or more years and these data clearly support the caries preventive effect. Current materials and methods are remarkably improved over first-generation sealants.

d. The method is standardized and widely published in the scientific literature.

e. Better printed and audiovisual material should be made readily available to the profession to assist in explaining to the public the method, rationale, effectiveness, and safety of using sealants to prevent caries.

f. An effort should be undertaken to prepare guidelines for the use of sealants that are acceptable to third-party payers. The reimbursement situation for sealants is analogous to the situation with topical fluoride treatments 15 years ago.

g. Recent studies have shown that a properly placed sealant will last for a period of time approximating that of a typical amalgam restoration and the cost is usually less. The noninvasive nature of sealant application is exceedingly attractive. No significant amount of tooth structure is removed and application of the sealant is usually not uncomfortable.

h. It has been reported that recent dental graduates will use sealants in practice when they have been previously exposed to enthusiastic, comprehensive instruction by their faculty.

i. Trends to broaden state dental practice acts allowing dental auxiliaries to place sealants are positive steps. These trends should continue so that dental auxiliaries can place sealants in all states. Personnel costs can be reduced in this manner.

j. A vigorous effort should be undertaken to inform all sectors of the public about sealants, their effectiveness and safety, and the rationale for their use. Educational materials should be developed and disseminated by government agencies and professional organizations.

k. The inclusion of sealants in government-funded programs would serve as an example and be influential in increasing the adoption and use of this technique in private practice and other community-based settings.

The dental profession has been a leader in advancing research on, and advocating primary efforts in, the prevention of dental caries. A-prime example is the success of fluoridation programs. The preventive, noninvasive features of sealant application are important advantages. Application is usually easy and comfortable for the patient. In an era when the public has an ever-increasing consciousness about the prevention of disease, it behooves the dental profession to explain the success of sealants to the public and thereby promote yet another advance that will further reduce one of the chronic diseases of our society.

7.

What is the current status of sealant research and what should be the research priorities for sealants and their implementation?

Basic and clinical research supports the extensive use of sealants. The details of the acid-etch technique and the subsequent bonding of sealants to the etched enamel are well understood. The basic chemistry of the sealant resins and the reactions by which they are cured are defined. Clinical investigations have shown repeatedly that sealants are a highly effective means of preventing

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pit and fissure caries. Studies have established the safety of the method with a high degree of confidence.

Continuing research on sealants should be directed to the following objectives:

- Improvement of current sealant technology.
  - Improvement of acid-etch methods.
  - Improvement of the properties of the sealant resins, possibly including more hydrophilic resins.
  - Improvement of methods of preventing saliva and other contamination of the etched surface.
  - Development of high-quality fluoride-releasing resins.
  - Studies on newer materials, including toxicology, tissue compatibility, and mutagenicity.
- More complete understanding of the effect of sealants on cariogenic bacteria in carious lesions.
- Obtaining more useful data on the cost-effectiveness of using sealants in community programs under a variety of circumstances and employing various strategies with respect to personnel and target populations.
- Development of new technologies for bonding sealants to enamel that would not require acid etching of the enamel or the strict avoidance of enamel surface contamination prior to application of the sealant.
- Further understanding of the reason for sealant underutilization.
- Development of low-cost screening methods to identify children at high risk of getting pit and fissure caries.

Members of the Consensus Development Panel were:

James W. Bawden, DDS, MS, PhD (Chairman)
Alumni Distinguished Professor
Department of Pedodontics
School of Dentistry
The University of North Carolina
Chapel Hill, North Carolina

D. Walter Cohen, DDS
Professor of Periodontics
Dean Emeritus, School of Dental Medicine
University of Pennsylvania
Philadelphia, Pennsylvania

Durward R. Collier, DDS, MPH
Director, Division of Dental Health Services
Tennessee Department of Health and Environment
Nashville, Tennessee

Gay-wynn Pitcher Cooper, RDH, MEd
Dental Hygiene Practitioner
Albuquerque, New Mexico

Irving W. Eichenbaum, DDS, FACD
Associate Professor of Pediatric Dentistry
University of Connecticut Health Center
Pedodontist, Private Practitioner
New Britain, Connecticut

Caswell A. Evans, Jr., DDS, MPH
Director, County Health Services Division
Seattle-King County Department of Public Health
Seattle, Washington

Marilyn C. Farray, JD, MHA
Senior Health Specialist
The Children's Defense Fund
Washington, D.C.

Joseph L. Fleiss, PhD
Professor of Biostatistics
Columbia University
New York, New York

Elverne M. Tonn, DDS, FACD
Associate Professor of Pediatric Dentistry
School of Dentistry
University of the Pacific
Pedodontist, Private Practitioner
San Francisco, California

Robert M. Veatch, PhD
Professor of Medical Ethics
Kennedy Institute of Ethics
Georgetown University
Washington, D.C.

Members of the Planning Committee were:

Alice M. Horowitz, RDH, MA (Chairperson)
Coordinator, Health Education and Promotion Activities
National Caries Program
National Institute of Dental Research
National Institutes of Health
Bethesda, Maryland

Pui Luen Fan, BSc, MS, PhD
Assistant Secretary
Council on Dental Materials, Instruments, and Equipment
American Dental Association
Chicago, Illinois

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Donald J. Galagan, DDS, MPH
Former Assistant Surgeon General and
Director of Dental Public Health and
Dean, College of Dentistry
University of Iowa
Iowa City, Iowa

Robert J. Musselman, DDS, MSD
Professor and Head
Department of Pedodontics
School of Dentistry
Louisiana State University
New Orleans, Louisiana

Louis W. Ripa, DDS, MS
Chairman and Professor
Department of Children's Dentistry
School of Dental Medicine
State University of New York at Stony Brook
Stony Brook, New York

Leon M. Silverstone, DDSc, PhD, BChD, LDS RCS(Eng)
Associate Dean for Research
School of Dentistry
University of Colorado Health Sciences Center
Denver, Colorado

Monica Walters, MHS
Office of Medical Applications of Research
National Institutes of Health
Bethesda, Maryland

Lydia S. Burroughs
Public Affairs Specialist
Office of Scientific and Health Reports
National Institute of Dental Research
National Institutes of Health
Bethesda, Maryland

Michael J. Bernstein
Director of Communications
Office of Medical Applications of Research
National Institutes of Health
Bethesda, Maryland

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The Surgeon General of the
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Rockville MD 20857

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PHS POLICY STATEMENT ON DENTAL SEALANTS

Advances in dental science and technology make it possible for the vast majority of Americans to be protected from dental caries (tooth decay). Nonetheless, effective preventive measures such as community water fluoridation, fluoride-containing dental products, and dental sealants are not available to many Americans. As a result, too many individuals still suffer needlessly from dental caries and its effects -- 85 percent of 17-year-olds and virtually all adults. Particularly hard hit are racial and ethnic minorities, those of minimal economic means, and the dentally uninsured who constitute approximately two-thirds of the U.S. population.

Between 80 and 90 percent of dental caries in children occur in the pits and fissures of teeth, mostly on the chewing surfaces. Pits and fissures, compared to smooth surfaces, do not benefit as much from the protective effects of fluoride. Dental sealants, however, have the potential to eliminate dental caries on these surfaces. Sealants are thin plastic coatings that provide a physical barrier to decay-causing bacteria. Their application does not require cutting of tooth structure or anesthesia. To maximize their ability to prevent caries, sealants should be placed on the chewing surfaces of the molar teeth soon after eruption of the teeth. The cost of preventing tooth decay by placing dental sealants is much less than that of treating the disease once it has developed, and the savings realized over a lifetime can be substantial.

Extensive research indicates that sealants are effective and reliable. Easily applied by dentists, dental hygienists, and other specially trained auxiliaries, sealants can be incorporated into both public programs and private dental practices. Nevertheless, in spite of their ease of application and effectiveness, dental sealants continue to be under used. In 1989, less than 11 percent of American children had benefitted from this preventive procedure. Lower income populations, which often include ethnic and racial minorities, are only half as likely to have received sealants -- a particular concern since these are the very populations least likely to receive treatment when caries occur.

The U.S. Public Health Service, as part of the *Healthy People 2000* initiative, has set a national objective that at least 50 percent of school children will have protective sealants on the chewing surfaces of permanent molar teeth by the Year 2000. Therefore, we strongly recommend the increased use of sealants by dental personnel in private, local, State, and Federal dental programs. We ask other health care and social service providers to assist in improving the oral health of today's children and tomorrow's adults by encouraging parents and caretakers to have their children's teeth examined to determine whether they could benefit from receiving sealants. It is important that *we seal today so that we may save for tomorrow.*

M. Joycelyn Elders, M.D.

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NIDR Fact Sheet

National Institute of
Dental Research

U.S. Department of Health
and Human Services
Public Health Service
National Institutes of Health
Bethesda, MD 20205

Seal Out Dental Decay

The use of fluoride has sharply reduced the number of cavities in the teeth of children and young adults. But the battle against tooth decay isn't over. Rarely does a person go through childhood without some cavities and fillings. Now there is a way to avoid most of this need for repair. Nearly 90 percent of cavities in school children occur in the surfaces of teeth with vulnerable pits and grooves. These surfaces are least benefited by fluorides. Such tooth decay can be prevented by sealing the teeth with a plastic film or resin to protect them from bacterial products produced when sugary foods are eaten. The plastic resins, which are applied by dentists or their auxiliaries, prevent the destructive process by which bacteria convert sugars into decay-producing acids.

The acids first attack the enamel, then the softer dentin beneath, finally penetrating to the living pulp at the tooth's core. If left untreated, the tooth may have to be removed.

Sealants are made of polymethyl-methacrylate (BIS-GMA) resins, similar to material used for other dental procedures, such as to repair broken edges of front teeth, attach orthodontic brackets without unsightly bands, and splint loose teeth to firm ones.

Today, the two kinds of sealant most often used are cured (hardened) either chemically or with a light source.

- Chemically-cured sealants are made from two liquid materials that are mixed together just before their application. Mixing the two liquid materials together causes the mixture to harden in about a minute.
- Light-cured sealants are applied as liquids that harden when exposed to a hand-held white-light source.

Sealants may be clear or tinted white, or pale yellow or pink. Regardless of the color, sealants

Sealants protect teeth from decay. Many studies have demonstrated that sealants are very effective in preventing decay as long as they are retained. Proper application techniques make the difference. If lost or worn away, the sealant can be reapplied easily.

The procedure is simple. The surfaces of molars and premolars to be sealed are first cleaned, etched with a mild acid to improve adhesion, washed, and thoroughly dried. Then the sealant is painted on, much in the way that nail polish is applied.

Ask your dentist whether this decay-preventive method is suitable for your child. In your discussions, consider the likelikhood and consequences of decay.

Once a full-fledged cavity develops, the tooth cannot repair itself. The dentist, then must drill out the diseased part—and often some healthy structure as well—and fill the tooth with a restorative material, usually a metallic alloy. In contrast, sealants keep healthy tooth surfaces free of decay.

The teeth that should be protected with sealants are important to your child. Six-year and twelve-year molars, for example, are permanent teeth which should last a lifetime. The primary molars, which erupt around age two and are replaced by permanent teeth around 10 and 12 years of age, are important for chewing food and help reserve space for the permanent teeth. If primary molars are lost too soon, other teeth may drift into the open space and create orthodontic problems. The permanent tooth may come in very crooked or be completely blocked.

Today, tooth decay can be nearly eliminated with the combined use of sealants and fluorides. Such new developments as plastic sealants are representative of the continuing efforts by the National Institute of Dental Research to make better oral health possible for you and your family.

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RETENTION AND EFFECTIVENESS OF DENTAL SEALANT AFTER 15 YEARS

RICHARD J. SIMONSEN, D.D.S., M.S.



This study clinically assesses the long-term caries prevention and sealant retention 15 years after a single application of a colored pit and fissure sealant to the four permanent first molars of children living in a fluoridated area.

The following report documents the status of a test and a control group of children 15 years after one group had a single application of pit and fissure sealant applied to all permanent first molars. The other group, a control group without sealant on permanent molars, was retrospectively selected in 1981 matched on age, gender, residence and health plan membership.

Four published studies concerning sealant retention at 10 years[1-4] offer positive results. One is from a private practice and reports after eight years that "about 80 percent of the sealed fissures showed total sealant retention and no caries."[2] A study from a public health setting showed 60 percent retention after seven to nine years.[4] Both these studies are during, not after, 10 years. The other two reports are earlier results from this study.[1,3]

The high caries susceptibility of the pit and fissure surfaces of posterior teeth has been recognized for many years. In 1803, Hunter noted that caries "is often observed on the hollow parts of the *Molares*."[5] In 1895, Wilson documented the use of cement for blocking fissures in permanent molars.[6] In 1923, Hyatt proposed a technique he called the prophylactic odontotomy that involved Class I amalgam restorations in caries-susceptible pits and fissures.[7]

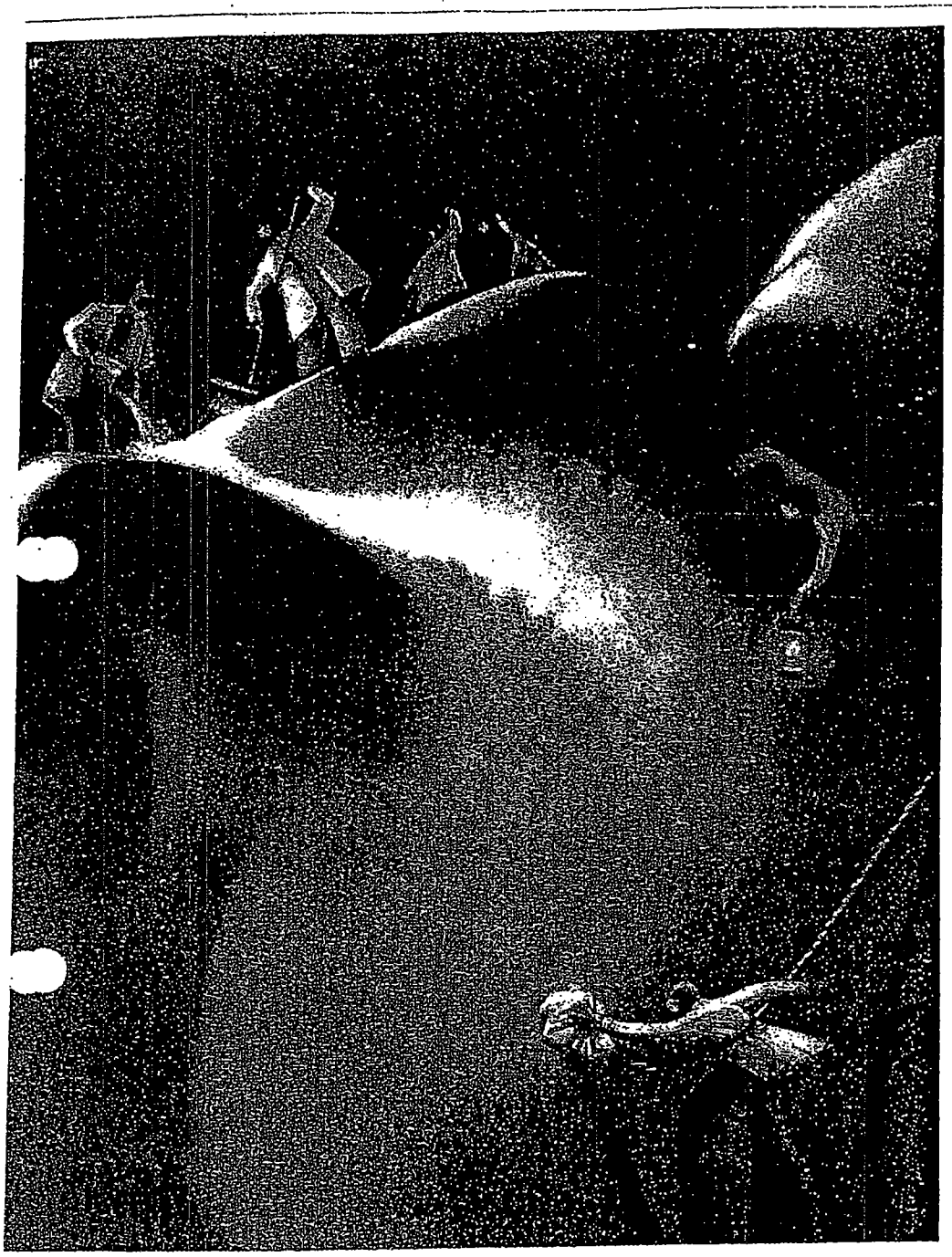
In 1926, Bodecker proposed the principle of fissure eradication.[8] In 1942, Kline and Knutson used silver nitrate to decrease enamel solubility of pits and fissures,[9] and Ast and others used different chemicals in similar attempts at caries prevention.[10] None of these attempts was successful in attacking the problem of pit and fissure caries.

It was not until the advent of the acid-etch technique by Buonocore in 1955 that a viable means of long-term pit and

EXHIBIT 11
Anonymous
No. 1, R.D.H.

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ABSTRACT

This landmark study of a pit and fissure sealant found 27.6 percent complete retention and 35.4 percent partial retention on permanent first molars. In the matched pair analysis, carious or restored surfaces made up 31.3 percent of the surfaces in the sealed group and 82.8 percent in the unsealed group.

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Figure 1a: Maxillary permanent first molar one year after application of Concise White Sealant. 1b: Two years after sealant application.

fissure protection became possible.[4] In this paper, Buonocore predicted the potential benefits of the use of the acid-etch technique for caries prevention in pits and fissures. The first investigation with sealant was conducted using cyanoacrylates.[5,6] In 1983, the National Institutes of Health held a Consensus Development Conference where all current literature and knowledge about pit and fissure sealant were reviewed.[4]

MATERIALS AND METHODS

The study group was randomly selected from 200 patients who received pit and fissure sealant at Group Health Medical Center in Bloomington, Minnesota, between Feb. 1 and Aug. 31, 1976. The caries-susceptible posterior teeth of the test group were sealed with auto-cured Concise White Sealant (3M Company, Dental Products Division) by a single operator in a fully equipped operatory with one trained assistant. The sealant application technique used has been previously documented.[4]

After sealant application, the study subjects continued with routine dental care with their primary care providers. Thus, oth subsequent treatment, either sealant reapplication to permane first molars, sealant application to newly erupted teeth, or restoratio was not included in this study.

From the group of 200 patients aged 5 to 15 years, all those who ha the four permanent first molars sealed at the same appointment were selected. From this group of 9 one-third, or 33 patients, were randomly selected using a table of random numbers. These patients were recalled periodically. At five years, 24 patients were examined. A 10 years, 28 were examined, and at 15 years 24 patients were examined

This highly successful retention rate may be caused by four factors:
- subject "buy-in" through education and motivation;
- financial remuneration at each recall;
- a determined study coordinator who tracked down the subjects;
- the willingness of the recall team at 15 years to go to the subjects, rather than insist that the subjects come to a clinic.

Subjects were examined and photographed at eight different locations, including colleges, private homes, a major university, and even a hospital delivery room, for the collection of 15-year data.

The control group was selected at random from the pool of available patients at Group Health, Inc. Patients with sealant on permanent first molars were ineligible for the study. The criteria for member selection in the contr group were chosen to minimize selection bias that could lead to invalid comparisons. The member of the control group were age and gender matched. They had lived in the Twin Cities metropolitan or suburban areas, since at least the

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ginning of 1976, in the same
loridated areas as those receiving
alant. They were also required to
ve been Group Health members
ce 1976 with the opportunity for
milar dental care. We chose 41
ndomly selected people as
ntrols to obtain agreement from
for participation.

Because one person did not
rive for the retest, 29 patients
re examined at five years. Of the
iginal 30 controls, 14 were
amined at 10 years and 13 at 15
ars. Three of the remaining
ntrols who could not be
ntacted at 15 years had all pit and
faces of permanent first
rious or restored at the
year examination. Thus, since
r status could not have changed
tively, their data were included
the 15-year analysis.

he 15-year results, therefore, in-
data from 24 of the original 33
group patients randomly
ted at five years, and 16 of the
al 30 controls who agreed to
ipate at the five-year follow-
ch test patient was matched
n age- and gender-matched
l. To maintain age and gender
e–age balance is important
es status comparison–only
examined at five years
alyzed at 10 and 15 years.
e analyzed comparison data
ears were made for 24 pairs,
rs for 12 pairs, and at 15
16 pairs. Fifteen-year
etention data are reported
patients of the original
33.

five-year examination,
ing radiographs were
ach patient. No caries
ted from radiographic
on of the sealed
The five-year bitewing
hs did not add any
information to the data
o radiographs were not
and 15 years. Each
posterior quadrant for each patient was photographed in color.

Patients were monetarily compensated for participation which probably assisted greatly in obtaining the high recall percentage of the group receiving sealant. As the recall percentage was not as high in the control group, however, participation as a patient receiving sealant, and thus having a personal interest in the study aims, may have boosted the recall rate. The crucial factor in securing high recall rates was the persistence and skill of the research coordinator in tracking the study participants and in refusing to take "no" for an answer after the patients had been contacted.

Every surface of each permanent first molar was examined and diagnosed as either carious (D), filled (F) or sound (N). The criteria as reported by Radike[9] were used as the basis for diagnosing caries. In the test group, every posterior pit and fissure surface of each tooth

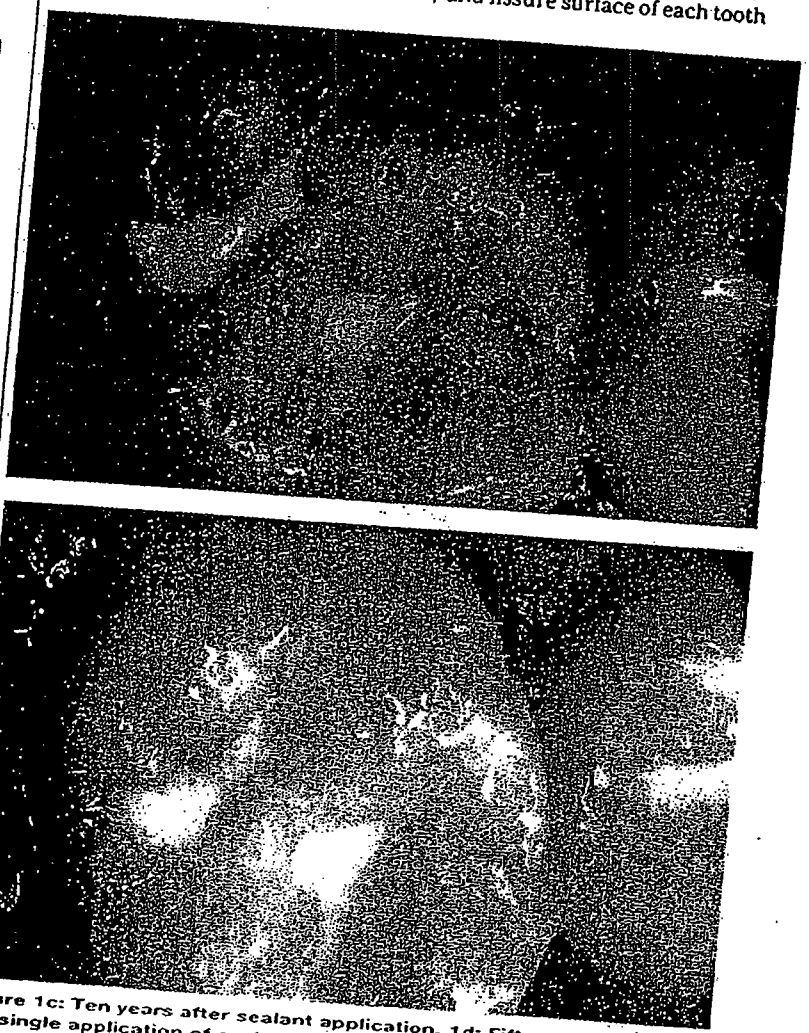


Figure 1c: Ten years after sealant application. 1d: Fifteen years after the single application of sealant. At 15 years the sealant was assessed as complete on the lingual surface, and partially present on both occlusal (mesial and distal) surfaces.

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with visible sealant was examined for sealant.

Sealant was classified as either completely present (C), partially present (P) or completely missing (M). In addition, a box (D) was provided on each examination form to record caries.

The criteria used were:

Complete retention. This category did not analyze the amount of sealant wear as all sealants will show wear after 15 years in vivo. If some peripheral areas were uncovered as a result of sealant wear, the sealant could still be classified as completely present, if no sealant ledges were present. Ledges indicate loss of some adjacent sealant in bulk. If any pit or fissure was exposed as a result of sealant wear or loss, the sealant could not be classified as completely present even if the majority of the sealant was present.

Partial retention. The sealant is present, but as a result of either wear, or loss of the material, part of a previously sealed pit or fissure, or both, has been exposed.

Missing. No trace of sealant can be detected.

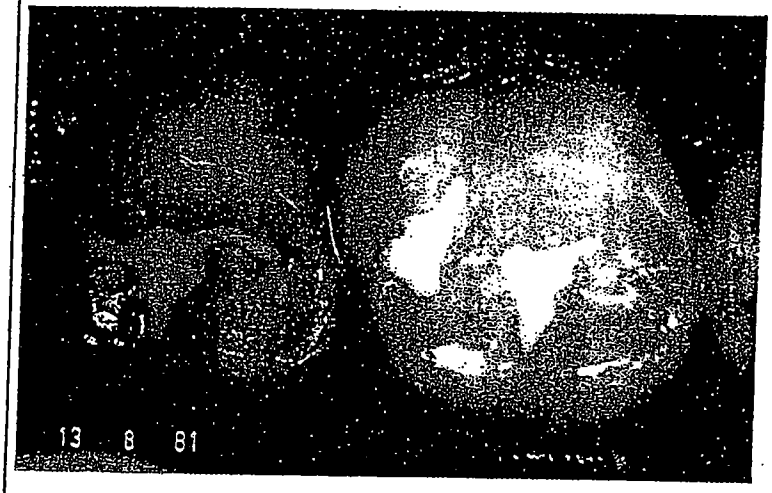




Figure 2a and 2b: Maxillary permanent first molars five years after sealant application.

For the maxillary molars, the lingual, occlusal (distal) and occlusal (mesial) surfaces were analyzed separately. For the mandibular molars, the occlusal surface was examined. Buccal surfaces of mandibular molars were not scored because many of the surfaces were smooth and difficult to assess. Even if sealant had been applied, many surfaces would not fit into the partially present category as no pits or fissures were exposed. Thus, for data analysis for permanent first molars, eight surfaces were analyzed for each patient.

RESULTS

In the sealed group, 24 patients and 192 surfaces were examined 15 years after the single application of a pit and fissure sealant. In the matched pair comparisons, 128 surfaces were analyzed for each group of 16 patients to assess caries or restoration prevalence in the two groups.

The comparison of sealant retention at five, 10 and 15 years is shown in Table 1. The sealant was completely retained at 15 years on 27.6 percent of the pit and fissure surfaces of permanent first molars and partially retained on 35.4 percent. None of the surfaces showing partial sealant retention were carious. The sealant was completely missing on 10.9 percent of the surfaces, and 26 percent of the surfaces either had been restored or were carious.

In the group of 24 patients with sealant, 74 percent of the pit and fissure surfaces were sound. This figure was 94 percent at five years and 84 percent at 10 years. A matched pair analysis was performed on the 16 control patients without sealant with their 16 age-, gender- and residence-matched pairs with sealant. In the group with sealant, 68.8 percent (88 of 128) of the surfaces were sound

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ears after the single application
pit and fissure sealant, whereas
percent (40 surfaces) were
ious or restored. In the group
thout sealant, 17.2 percent (22) of
surfaces were sound, whereas
percent (106) were carious or
ored (Table 2).

For statistical analysis, odds ratio
ulations were performed for each
face of each permanent first
lar in the matched pair analysis
ween the sealed and unsealed
hed pairs. The odds ratio—in
ase, the odds of a tooth or sur-
coming carious or restored if
oth is not sealed relative to the
—when the tooth is sealed—is an
portant measure of the degree of
ciation between the application
ealant and the presence or ab-
of caries or restorations. The
ratio is calculated by dividing
number of surfaces where caries
restoration is present in the un-
l pair but not in the sealed pair,
number where caries or a
oration is present in the sealed
not in the unsealed pair. The
s ratio was 1:7.5. Therefore, it is
times more likely that a pit and
surface on a permanent first
ill become carious or res-
after 15 years if it is not sealed,
if it is sealed with a single
lication of pit and fissure sealant.
A χ^2 analysis was also performed
the odds ratios ($\chi^2 = 48.19$).
al values of the χ^2 distribution
ate that for one degree of
om, $P < .001$ ($\chi^2 > 10.83$).
is possible to hypothesize that
40) = 66 surfaces were saved
caries or restoration during a
ar period by sealing 128
ces. The 66 surfaces saved
caries or restoration can be
ssed as 4.1 surfaces per child
figure is from sealing only the
anent first molars, or eight
ces per child). As 66 surfaces
protected by sealing 128
ces, the benefit-to-effort ratio

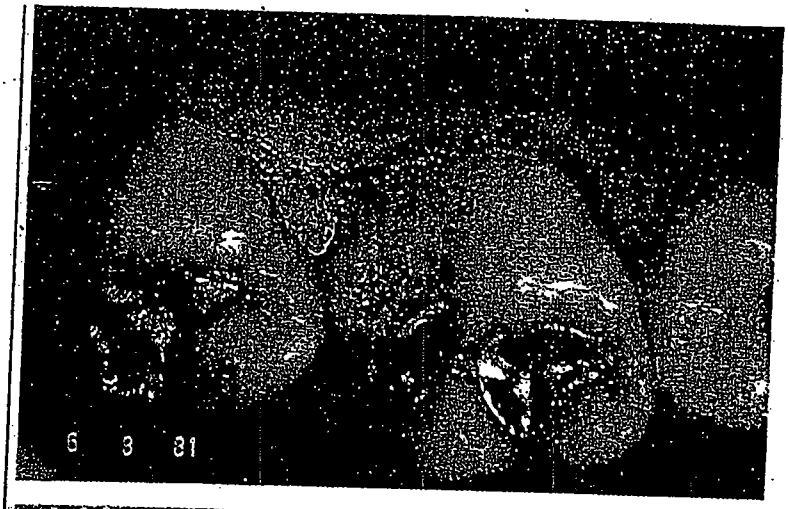




Figure 2c and 2d: Maxillary quadrants of age-, gender-, residence-matched control of 2a and 2b. Amalgam restorations are already present in the control molars.

is 1:1.9. Thus, for the effort of every two surfaces sealed, the children were benefited by one surface saved from caries or restoration.

If we look at individual teeth, rather than surfaces, we can see that in the sealed group 25 of the 64 teeth were carious or restored after 15 years. In the unsealed control group 60 of the 64 teeth were carious or restored. Interestingly, the remaining four caries- and restoration-free teeth in the control group were all on one patient. So while only one of the 16 unsealed patients remained caries-free after 15 years, in the sealed group six patients remained caries-free.

DISCUSSION

The major advantage of the particular sealant used in this study in assessing sealant retention is the white color incorporated into the sealant by the addition of 1 percent titanium dioxide to the resin. This color makes sealant retention easier to assess and makes possible the accurate documentation of sealant retention over time through

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TABLE 1

RETENTION OF WHITE SEALANT BY SURFACE ON PERMANENT FIRST MOLARS AT 5, 10 AND 15 YEARS.

	5 years		10 years		15 years	
Complete retention	82%	(173)	56.7%	(131)	27.6%	(53)
Partial retention	10.9%	(23)	20.8%	(48)	35.4%	(68)
Missing	0.5%	(1)	6.9%	(16)	10.9%	(21)
Restored/carious	6.6%	(14)	15.6%	(36)	26%	(50)
Total	100%	(211)	100%	(231)	100%	(192)

TABLE 2

SOUND VS. CARIOUS OR RESTORED SURFACES ON PERMANENT FIRST MOLARS AT 15 YEARS.

Matched pair analysis (n = 128 surfaces, 16 subject pairs).

	Group with sealant		Group without sealant	
Sound surfaces	68.8%	(88)	17.2%	(22)
Carious or restored surfaces	31.3%	(40)	82.8%	(106)
Total surfaces	100%	(128)	100%	(128)

the use of clinical photographs (Figures 1 a-d).

One major pitfall of clear sealant has been the difficulty of judging retention because the sealant, after some time in the mouth, is almost impossible to see. Rock and others compared the error in reporting retention for clear or colored sealant and reported that the "identification error rate for opaque sealant was only 1.4 percent, whilst for clear resin it was 22.8 percent."[18]



Dr. Simonsen is on a leave of absence as professor, department of general dentistry, University of Tennessee, Memphis. Currently he is Professional Services Manager, US and International, 3M Company, Dental Products Division, Bldg. 275-2SE-03, St. Paul, MN 55144-1000. Address requests for reprints to the author.

All surfaces were checked for sealant retention intraorally under 3.5x magnification. Postoperatively, the color slides were examined under 8x magnification. Photographic documentation checked the clinical examination. The relatively high rate of retention reported at five, 10 and 15 years in this study could be a result of several factors, such as that the sealant is easily seen because of its color. This makes application easier and also a tooth surface is not listed as missing sealant simply because the sealant is not visible.

Additionally, the sealant was applied in a consistent manner according to the established principles of the acid-etch technique. It has been well established that application technique is critical to the longevity of the sealant material.

Some sealant studies have been performed in undesirable conditions, for example, in mobile clinics or in temporary facilities in very warm climates. This study reflects the performance of the material as would be expected in a normal private practice or public health clinic where the material is applied by a trained operator under ideal conditions. Excessive time was not spent during the application procedure to ensure success, nor was a rubber dam used for isolation. The average time taken to apply sealant to four permanent first molars (sealed one at a time) was 15 minutes.

Most instances of partial sealant retention would have been assessed as being completely retained without the benefit of magnification for accurate analysis. For example, in Figure 1, the occlusal surfaces (mesial and distal segments) were assessed as partially retained since some previously sealed fissures could be seen. However, without magnification, it would have been difficult to see the exposed fissures.

In assessing caries prevalence, two assumptions must be made: first, that the two groups of children/young adults were subject to similar decay-producing factors during the study period; second, that any amalgam restoration placed was placed as a result of caries. As the controls were matched by age, gender and residence in a fluoridated area, the major variables in dental caries were eliminated. Although it

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cannot be proved that the different groups were subject to similar caries-producing factors, matching by age, gender and residential location, and further assuring that all of the children had similar dental health care opportunities, should minimize any potential bias between the groups.

It is not possible to be certain that all amalgam restorations placed were the result of caries. It is possible that some restorations placed in the unsealed control group were placed as prophylactic odontotomy procedures, or for other unknown reasons. Equally, it is not certain that every amalgam placed in an occlusal surface of a sealed tooth was placed because of occlusal caries. Thus, the data of caries prevalence in either group could be somewhat skewed but there is no reason to believe that the comparisons between the groups should be affected.

Clearly, sealant application prevents restorations, and thus also may prevent subsequent, more radical, re-restoration. Figures 2 and 3 show an example at five and 15 years of the matched maxillary quadrants of one study subject (a and b) and one control subject (c and d). The single application of sealant successfully prevented caries or restorations, but in the control subject, the mesiobuccal cusp of the maxillary right molar (all photographs are mirror views) has fractured as a result of the weakening effect of the preparation of the tooth for amalgam restoration. This tooth will now have to undergo a more radical restorative procedure which will require replacement several times during the subject's lifetime. This is an example of "The Molar Life Cycle"[19] which, this study has shown, can be prevented from starting with sealant use.

The range of dental health status

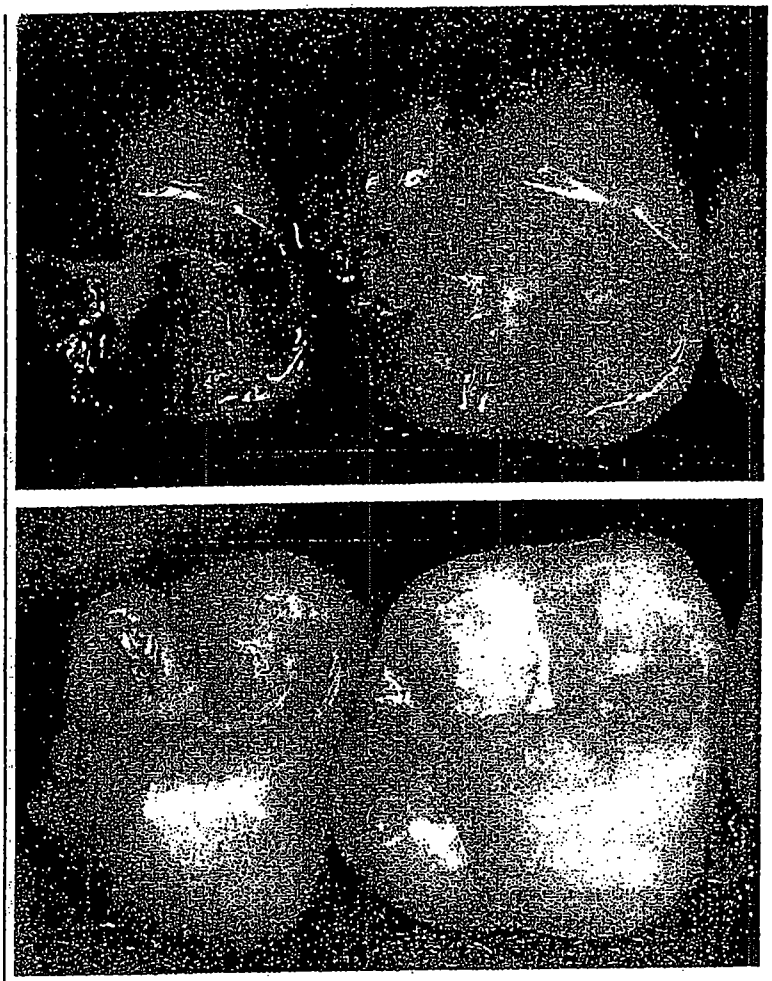


Figure 3a and 3b: The same teeth as in Figure 2a and 2b but at 15 years. The sealant is still partially present and has prevented caries or restoration of the teeth.

in sealed and unsealed groups is logical and reasonable for randomly chosen groups. The benefit-to-effort ratio reported here is better than previous studies have indicated. Horowitz reports benefit-to-effort ratios in the range of 1:6 to 1:9.[20] Only one study reports a five-year benefit-to-effort ratio (1:7).[21] These ratios compared with the 15-year ratio reported in this study of 1:1.9. The difference is, in large part, probably a result of the excellent retention of the material reported in this study. If a prediction could be made as to which teeth would become carious and then only those teeth were sealed, the benefit-to-effort ratio for pit and fissure sealant would probably approach 1:1.

This study reports a saving of 4.1 surfaces per child from caries or restoration during the 15-year study period. This number would increase if permanent second molars and premolars were sealed. Saving tooth structure is a significant benefit, because it reduces treatment costs, causes less trauma to young children and saves

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dental staff members' time as fewer restorations need to be placed and replaced.

CONCLUSIONS

Fifteen years after the single application of a white-colored pit and fissure sealant to the permanent first molars, 27.6 percent of the sealant was completely retained and 35.4 percent was partially retained. The sealant was missing from 10.9 percent of the surfaces, and 26 percent of the surfaces were restored or carious. In the sealed group of 24 patients, 74 percent of the pit and fissure surfaces of the permanent first molars were sound after 15 years. In the matched-pair analysis of 16 pairs of patients, carious or restored surfaces of permanent first molars made up 82.8 percent of the surfaces in the unsealed group, yet only 31.3 percent in the sealed group. For the effort of every two surfaces sealed, the study subjects benefited by one surface saved from caries or restoration.

The sealant was safe and effective despite only one application at the beginning of the 15-year trial period. In routine dental health care, multiple applications would be the norm. Partial loss of sealant would result in additional sealant being applied. Under such conditions, this study suggests that practitioners could approach 100 percent caries prevention in pit and fissure surfaces. ■

The informed consent of all human subjects who participated in the experimental investigation reported or described in this manuscript was obtained after the nature of the procedure and possible discomforts and risks had been fully explained.

This study was supported in part by Group Health Inc and 3M Company.

The author thanks Craig W. Amundson, DDS, dental director, Group Health Inc, St. Paul, MN; for his help in the completion of this study; and Eileen F. Stombaugh, CDA, RDA, for invaluable assistance with the successful recall of the patients and data collection.

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Figure 3c and 3d: Control teeth for teeth in Figures 2a, 2b, 3a and 3b. The same teeth as in Figure 2c and 2d, but at 15 years. In Figure 3c, the mesiobuccal cusp on this control tooth has fractured some time between the 5- and 15-year examinations.

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South Carolina
Department of Labor, Licensing and Regulation

Mark Sanford
Governor

Adrienne Riggins Youmans
Director

110 Centerview Drive
Post Office Box 11329
Columbia, SC 29211-1329
(803) 896-4300
FAX: (803) 896-4393
www.llr.state.sc.us

March 26, 2004

The Honorable John Drummond
President Pro Tempore Emeritus
South Carolina State Senate
Post Office Box 142
Columbia, SC 29202

Dear Senator Drummond:

Thank you for your letter concerning dental hygiene practice in schools and the basis for the South Carolina Board of Dentistry and the South Carolina Department of Health and Environmental Control (DHEC) to regulate that practice.

This agency and its boards firmly believe in complying with the laws as given by the General Assembly. The General Assembly consistently has rejected independent practice by dental hygienists both in your bill (Act 298 of 2000) and the recent amendments clarifying the requirements of dental hygiene practice. The amended statutory language as enacted in Act 45 of 2003 provides two ways for children to receive dental services in their schools. One is through the DHEC public health dental program. Participation in the DHEC program requires a contract with that agency and compliance with its program parameters, which requires a supervising dentist, among other things. *See* §40-15-102(E). Those parameters also target services in public health settings to under-served populations, as required by §40-15-110(E). We understand that DHEC has chosen a nationally recognized measure of identifying under-served student populations in schools with 50% or more receiving Medicaid or free and reduced lunches. I am sure that DHEC can explain its choice of that measure more fully if necessary.

The other way for children to receive dental services in their schools is through any private dentist or organization that complies with the statutory requirements for general supervision found in §40-15-102. Section 40-15-102(D) clearly applies those requirements to all dental hygiene services provided in school settings unless they are part of the DHEC public health dental program. In both the DHEC public health program and private practice, a supervising dentist is required by state law to be responsible for the care provided to the students under general supervision. In neither the DHEC public health program nor private practice is the supervising dentist required to be present when dental hygiene services are performed under general supervision. §§40-15-85(2) and 40-15-110(A)(10). The General Assembly set different standards for the two types of practice settings. This was an appropriate response to differing levels of liability accepted by the dentists providing these services.

EXHIBIT 12
State Anonymous No. 3, P.D.H

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If you have any additional questions, I will be pleased to discuss them with you personally.

With best personal regards, I am

Very truly yours,

Adrienne Riggins Youmans
Director

cc: Dr. Rusty Newton, Chairman, Board of Dentistry
C. Earl Hunter, Commissioner, Department of Health and Environmental Control

American
Dental
Association

211 East Chicago Avenue
Chicago, Illinois 60611-2678
(312) 440-2500
Fax (312) 440-2707

ADA

EXHIBIT 13
Anonymous No. 3, R.D.H.

November 4, 2002

Dr. Gray Ackerman
P.O. Box 8279
Greenwood, SC 29649

Dear Dr. Ackerman:

When we spoke on the phone, Monday, November 04, 2002, you indicated that a question has arisen regarding the application of "therapeutic sealants" as compared to mere sealants by dental hygienists. You gave me the impression that in order for a dental health professional to decide to apply "therapeutic sealants" a diagnosis is required in order to determine if tooth decay will be arrested as a result of the application. You asked what the ADA says about dental hygienists making these kinds of diagnostic determinations.

In response to your question, I am providing you with information about the ADA policies, as set forth in the ADA Comprehensive Policy on Dental Auxiliaries hereafter referred to as the Comprehensive Policy.

The Comprehensive Policy states that dentists must identify those functions or procedures that require the knowledge and skill of the dentist and therefore must be performed only by a licensed dentist, not by an auxiliary. Diagnosis and treatment planning is one such function listed in the Comprehensive Policy. From the way you describe it, the decision to apply "therapeutic sealants" sounds like a decision that requires the knowledge and skill of the dentist since it requires a diagnosis. The ADA believes it is the responsibility of the dentist to examine and diagnose the needs of the patient and only then to delegate such procedures that may appropriately be performed by a dental auxiliary, such as the application of "therapeutic sealants".

I am sending you this letter and attached ADA policies via both facsimile and US mail. I trust this information will be helpful to you. A copy of the Comprehensive Policy is a

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your reference. Please contact me if I can be of additional assistance.

Sincerely,

Dan Creed

Dan Creed
Manager, State Legislation & Regulation
Department of State Government Affairs

DC
Enclosure

cc: Mr. Hal Zorn, executive director, South Carolina Dental Association

HEALTH PROMOTION SPECIALISTS
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1-800-276-2398 803-808-2950

DENTAL SEALANTS

What are dental sealants?

Dental sealants are thin plastic coatings which are applied to the chewing surfaces of the molars (back teeth). Most tooth decay in children and teens occurs in these surfaces. Sealants cover the chewing surfaces to prevent decay.

Which teeth are suitable for sealants?

Permanent molars are the most likely to benefit from sealant application. First molars usually come into the mouth when a child is about 6 years of age but may come in earlier. Second molars appear at about age 12. It is best if the sealant is applied soon after the molars have erupted, before the teeth have a chance to decay. For that reason, children between the ages of 5 and 15 benefit most from sealants.

How are sealants applied?

Applying sealants does not require drilling or removing tooth structure. It is an easy three-step process: A dental hygienist cleans the tooth with a special toothpaste. A special cleansing liquid, on a tiny piece of cotton, is rubbed gently on the tooth and is washed off. Finally, the sealant is painted on the tooth. It takes about a minute for the sealant to form a protective shield.

Are sealants visible?

Upon close examination sealants can be seen. Sealants can be clear, white, or slightly tinted. Because they are used only on the back teeth, sealants cannot be seen when a child talks or smiles.

Will sealants make teeth feel different?

Like anything new that is placed in the mouth, a child may feel the sealant with the tongue. Sealants, however, are very thin and only fill the pits and grooves on molar teeth.

How long will sealants last?

One sealant application can last for as long as 5 to 10 years. Sealants should be checked regularly, and reapplied if they are no longer in place.

Why is sealing a tooth better than waiting for decay and filling the cavity?

Sealants help maintain sound, intact teeth. Decay destroys the structure of the tooth. Each time a tooth is filled or a filling is replaced, more tooth structure is lost and it costs more money. Fillings last an average of 6 to 8 years before they need to be replaced. Appropriate use of sealants can save time, money, and the discomfort associated with dental treatment procedures by preventing cavities.

What if a small cavity is accidentally covered by a sealant?

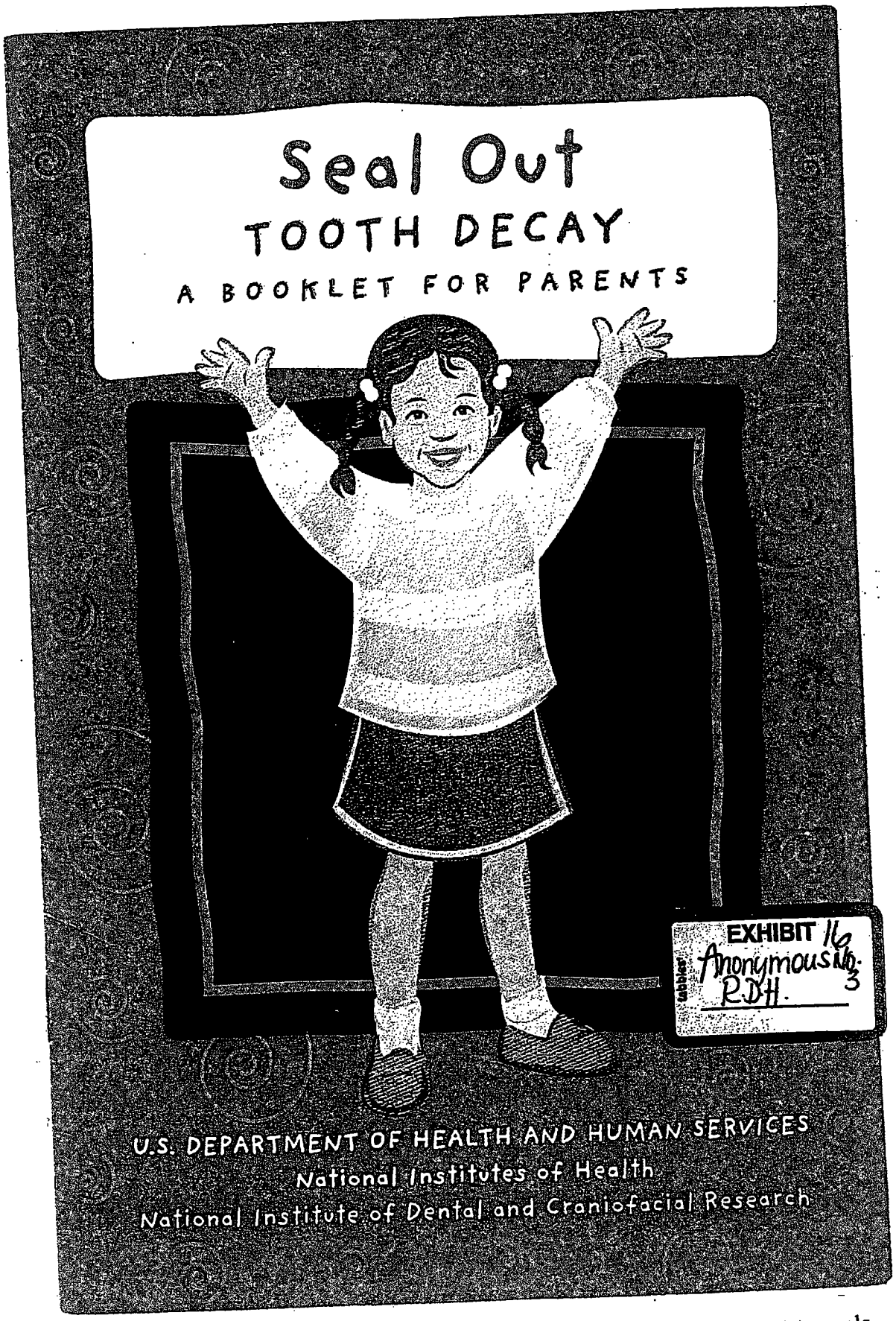
The decay will not spread because it is sealed off from its food and germ supply.

**** Dental Sealant Facts provided by the CDC (Center for Disease Control), the National Institute of Dental and Cranial Research, and the US Department of Health and Human Services.

"promoting health with a smile"

EXHIBIT 15
Anonymous No. 3, R. Dtl.

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What are dental sealants?

Sealants are thin, plastic coatings painted on the chewing surfaces of the back teeth.

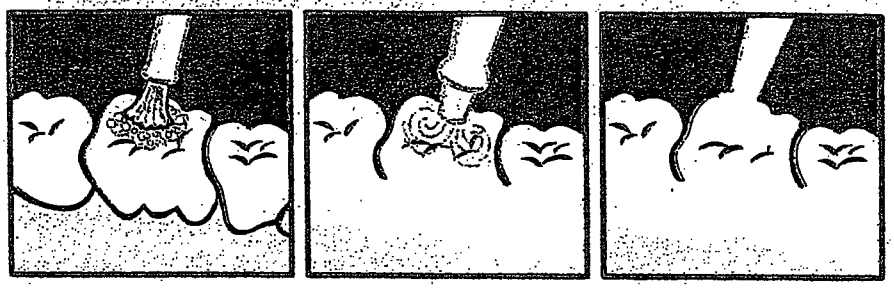
Sealants are put on in dentists' offices, clinics, and sometimes in schools. Getting sealants put on is simple and painless. Sealants are painted on as a liquid and quickly harden to form a shield over the tooth.



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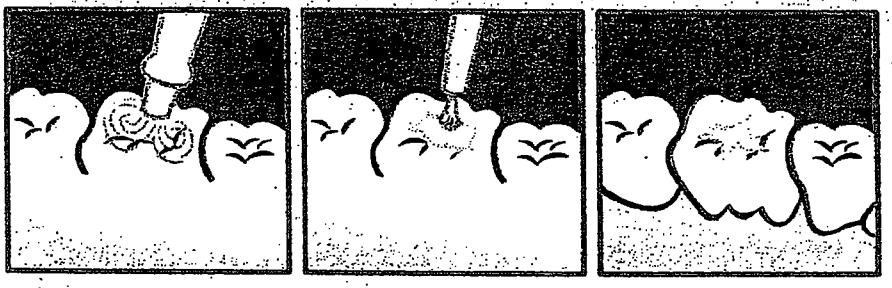
How are sealants put on?



1 The tooth is cleaned.

2 The tooth is dried, and cotton is put around the tooth so it stays dry.

3 A solution is put on the tooth that makes the surface a little rough. (It is easier for the sealant to stick to a slightly rough surface.)



4 The tooth is rinsed and dried. Then new cotton is put around the tooth so it stays dry.

5 The sealant is applied in liquid form and hardens in a few seconds.

6 The sealant is in place.

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Why get sealants?

The most important reason for getting sealants is to avoid tooth decay.

Fluoride in toothpaste and in drinking water protects the smooth surfaces of teeth but back teeth need extra protection. Sealants cover the chewing surfaces of the back teeth and keep out germs and food.

Having sealants put on teeth before they decay will also save time and money in the long run by avoiding fillings, crowns, or caps used to fix decayed teeth.

What causes tooth decay?

Germs in the mouth use the sugar in food to make acids. Over time, the acids can make a cavity in the tooth.

Of course a healthy tooth is the best tooth. So it is important to prevent decay. That's why sealants are so important.

Why do back teeth decay so easily?

The chewing surfaces of back teeth are rough and uneven because they have small pits and grooves. Food and germs can get stuck in the pits and grooves and stay there a long time because toothbrush bristles cannot brush them away.

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Who should get sealants?

Children should get sealants on their permanent molars *as soon as the teeth come in* — before decay attacks the teeth.

The first permanent molars — called "6 year molars" — come in between the ages of 5 and 7.

The second permanent molars — "12 year molars" — come in when a child is between 11 and 14 years old.

Other teeth with pits and grooves also might need to be sealed.

Teenagers and young adults who are prone to decay may also need sealants.

Should sealants be put on baby teeth?

Your dentist might think it is a good idea, especially if your child's baby teeth have deep pits and grooves.

Baby teeth save space for permanent teeth. It is important to keep baby teeth healthy so they don't fall out early.

Does insurance pay for sealants?

Some health insurance programs pay for sealants. Check with your state Medicaid program or your insurance company for details.

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How long do sealants last?

Sealants can last up to 10 years. But they need to be checked at regular dental check-ups to make sure they are not chipped or worn away. The dentist or dental hygienist can repair sealants by adding more sealant material.

What if a small cavity is accidentally covered by a sealant?

The decay will not spread, because it is sealed off from its food and germ supply.

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Are sealants new?

No, sealants have been around since the 1960s. Studies by the National Institute of Dental and Craniofacial Research and others led to the development of dental sealants and showed that they are safe and effective.

But many people still do not know about sealants. In fact, fewer than 25 percent of children in the United States have sealants on their teeth.

Besides sealants, are there other ways to prevent tooth decay?

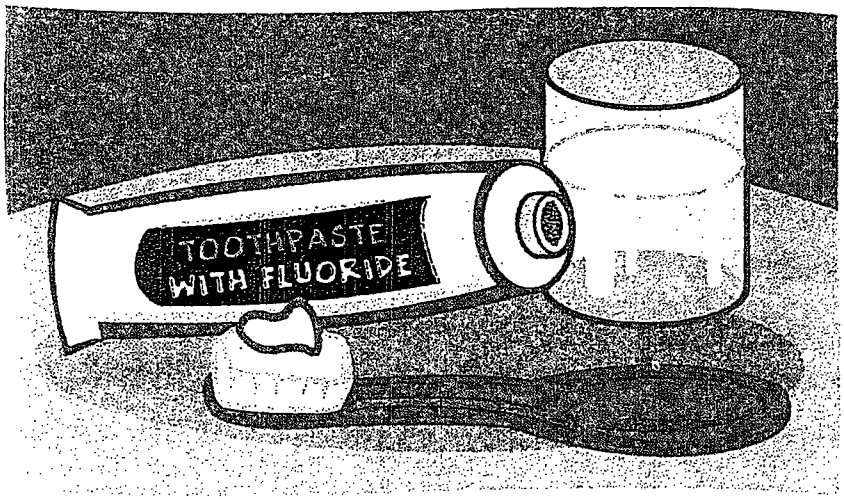
Yes. Using fluoride toothpaste and drinking fluoridated water can help protect teeth from decay.

Water is fluoridated in about two-thirds of cities and towns in the United States. If your water is not fluoridated or if your children's teeth need more fluoride to stay healthy, a dentist can prescribe it in the form of a gel, mouthrinse, or tablet.

Fluoride is the best defense against tooth decay!

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Fluoride...

- makes teeth more resistant to decay
- repairs tiny areas of decay before they become big cavities
- makes germs in the mouth less able to cause decay

Fluoride helps the smooth surfaces of the teeth the most. It is less effective on the chewing surfaces of the back teeth. Regular brushing — with fluoride toothpaste — also helps prevent tooth decay.

Sealants and fluoride together can prevent almost all tooth decay.

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How can I get dental sealants for my children?

Talk to your dentist, state or local dental society, or health department. Sometimes sealants are put on at school. Check with your school about whether it has a sealant program.



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For additional copies of this booklet contact:



NATIONAL INSTITUTE OF DENTAL AND CRANIOFACIAL RESEARCH

National Oral Health Information Clearinghouse
1 NOHIC Way
Bethesda, MD 20892-3500
301-402-7364
www.nidcr.nih.gov

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STATE OF SOUTH CAROLINA
DEPARTMENT OF LABOR, LICENSING AND REGULATION
BEFORE THE BOARD OF DENTISTRY

IN THE MATTER OF:

HYGIENIST 4, R.D.H.,
CASE NO. 04-67

RESPONDENT.

HYGIENIST 3, R.D.H.,
CASE NO. 02-98, 02-99, 03-20

RESPONDENT.

HYGIENIST 1, R.D.H.,
CASE NO. 04-45

RESPONDENT.

HYGIENIST 2, R.D.H.,
CASE NO. 03-104

RESPONDENT.

REDACTED/CORRECTED
FINAL ORDER HEARING
TRANSCRIPT

COPY

THE WITHIN HEARING WAS TAKEN BEFORE NICOLE J. ROWLAND, COURT REPORTER AND NOTARY PUBLIC IN AND FOR THE STATE OF SOUTH CAROLINA, COMMENCING AT THE HOUR OF 2:20 P.M., FRIDAY, APRIL 28, 2006 AT THE OFFICES OF THE SOUTH CAROLINA DEPARTMENT OF LABOR, LICENSING AND REGULATION, 110 CENTERVIEW DRIVE, COLUMBIA, SOUTH CAROLINA.

REPORTED BY:
NICOLE J. ROWLAND

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APPEARANCES

PRESIDENT: H. WILLIAM BRAGDON, D.M.D.

BOARD MEMBERS: TANYA S. RIFFE, R.D.H.
THOMAS M. DIXON, D.M.D.
C. TIMOTHY ASSEY, D.M.D.
MICHELLE D. BEDELL, D.M.D.
CHARLES E. MILLWOOD, JR., D.M.D.
GENIE M. DUNCAN, PUBLIC MEMBER

ADVISING THE BOARD: LOUIS ROSEN, ESQUIRE

FOR THE RESPONDENT: DESA BALLARD, ESQUIRE
LAW OFFICES OF DESA BALLARD
226 STATE STREET
WEST COLUMBIA, S.C. 29169
DESAB@DESABALLARD.COM

FOR THE STATE: KENNETH P. WOODINGTON, ESQUIRE
DAVIDSON MORRISON & LINDEMANN, P.A.
ATTORNEYS AND COUNSELLORS AT LAW
1611 DEVONSHIRE DRIVE, SECOND FLOOR
COLUMBIA, S.C. 29202
KWOODINGTON@DML-LAW.COM

OTHERS PRESENT: RION ALVEY, DENTAL BOARD ADMINISTRATOR, L.L.R.
TERRI ZEMAN, ADMINISTRATIVE ASSISTANT, L.L.R.
SHELIAH JONES, ADMINISTRATIVE SPECIALIST, L.L.R.
ANNIE HEYWARD, ADMINISTRATIVE SPECIALIST, L.L.R.

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STATE'S NUMBER 1: DECISION-TREE (1 PAGE)

RESPONDENTS' NUMBER 1: FIVE DIRECTORIES FROM THE SOUTH CAROLINA DENTAL ASSOCIATION (5 BOOKS) (PER AGREEMENT, COPIES OF INDIVIDUAL DIRECTORIES ARE NOT ATTACHED, BUT ARE SEALED WITH THE ORIGINAL TRANSCRIPT)

RESPONDENTS' NUMBER 2: LOBBYING REPORTS (33 PAGES)

PROCEEDINGS:

OPENING STATEMENT BY:

DR. BRAGDON: WE'RE CALLING THIS DISCIPLINARY HEARING TO ORDER THIS AFTERNOON. BOARD MEMBERS AND ALL OTHERS PRESENT ARE REMINDED THAT THESE PROCEEDINGS ARE CONFIDENTIAL AND THAT ONLY THE BOARD'S FINAL ORDER, IF THERE IS A FINAL ORDER, WILL BECOME PART OF THE PUBLIC RECORD. ALL MEMBERS ARE INFORMED THAT THE ONLY COMMUNICATION BETWEEN THE BOARD AND THE DISCIPLINARY PANEL MEMBERS WITH RESPECT TO ANY HEARING IS REFLECTED IN THE PANEL REPORT. THIS IS THE MATTER OF THE SOUTH CAROLINA STATE BOARD OF DENTISTRY VERSUS HYGIENIST 4, HYGIENIST 3, HYGIENIST 1, HYGIENIST 2. THE PANEL REPORT, ALONG WITH THE TRANSCRIPT OF TESTIMONY ARE BEFORE THE PANEL AND THE EVIDENCE INTRODUCED IN THE PANEL HEARING ARE PROPERLY BEFORE THE BOARD. THE BOARD WILL NOW HEAR THE ARGUMENTS OF COUNSEL. REPRESENTING THE STATE IS KEN WOODINGTON, OFFICE OF GENERAL COUNSEL, AND REPRESENTING THE RESPONDENT IS ESA, ESA?

MS. BALLARD: DESA.

DR. BRAGDON: DESA BALLARD, ESQUIRE.

MR. ROSEN: IF I MAY, (TO MS. BALLARD) I BELIEVE YOU HAVE PERHAPS THE WITNESSES THAT YOU WERE EXPECTING THAT JUST CAME IN.

MS. BALLARD: (TO WITNESS) DO WE NEED JUST LIKE TWO SECONDS?

DR. BRAGDON: DO WE NEED TO DELAY A MINUTE?

MS. BALLARD: TWO SECONDS IF YOU'D LIKE, I MEAN IT WON'T TAKE ME LONG TO SPEAK WITH THEM. I'M SORRY.

DR. BRAGDON: OKAY. GO AHEAD.

(A BRIEF RECESS WAS TAKEN FROM 2:21 P.M. TO 2:25 P.M.)

MR. ROSEN: I WANTED TO MENTION A COUPLE OF PRELIMINARY ISSUES THAT THE BOARD NEEDS TO CONSIDER PRIOR TO GETTING INTO THE MERITS OF THE CASE. AND THE FIRST ONE IS AS A RESULT OF A MOTION THAT WAS FILED BY THE RESPONDENT REQUESTING THE RECUSAL OF THE BOARD, AMONG OTHER THINGS, INCLUDING THE APPOINTMENT OF AN EVIDENTIARY PANEL. THAT INITIAL MOTION WAS RECEIVED BY THE PRESIDENT AND WAS DENIED BY THE PRESIDENT. HE SUBSEQUENTLY ALSO RECEIVED ADDITIONAL MATERIALS WHICH INCLUDE AN AFFIDAVIT FROM TAMMI BYRD, THE MOTION REMAINED DENIED, AND THAT'S ITS STATUS AT THIS POINT. HOWEVER, AS A RESULT OF THAT INITIAL MOTION,

IT HAD BEEN DISCUSSED WITH DR. MILLWOOD THAT HE MIGHT WISH TO RECUSE HIMSELF IN PARTICIPATION IN THIS CASE, AND UNLESS THERE'S FURTHER DISCUSSION I WOULD ASK HIM --

DR. MILLWOOD: YES, SIR. I RECUSE MYSELF. THANK YOU.

(DR. MILLWOOD EXITS THE PROCEEDINGS)

MR. ROSEN: THANK YOU. AT THIS TIME THAT ISSUE STILL REMAINS UNRESOLVED UNLESS THE PRESIDENT'S RESOLUTION IS THE END OF IT. AND I WOULD ASK THAT ANY FURTHER ARGUMENTS ON THAT ISSUE BE PRESENTED NOW.

MS. BALLARD: OKAY. YOU DID ALSO INDICATE TO ME BEFORE WE BEGAN THAT THE BOARD MEMBER WHO HAD SERVED ON THE IRC HAD BEEN REMOVED AS WELL, AND I JUST WANT TO VERIFY THAT FOR THE RECORD.

MR. ROSEN: DR. CRANFORD WAS THE IRC ON, NOT ONLY THIS AFTERNOON'S CASES, BUT THIS MORNING'S CASES, AND HE HAS NOT BEEN HERE.

MR. BALLARD: OKAY. THAT'S GREAT. THANK YOU. I'M DESA BALLARD FOR THOSE OF YOU THAT I DIDN'T GET AN OPPORTUNITY TO INTRODUCE MYSELF TO. I HAVE THE PLEASURE OF REPRESENTING THE RESPONDENTS IN THESE CASES. MY MOTION THAT HAS PRELIMINARILY BEEN ADDRESSED BY THE

PRESIDENT APPLIES TO ALL FOUR OF THESE CASES, SO I'LL ADDRESS THEM JUST ONE INDIVIDUAL TIME, ALTHOUGH THEY DO RELATE TO ALL OF THEM. MY MOTION TO DISQUALIFY THE BOARD AS AN ENTITY IS BASED ON A COUPLE OF DIFFERENT ISSUES. PRIMARILY, THE CONSTITUTIONAL PROVISIONS FOR DUE PROCESS UNDER THE STATE AND FEDERAL CONSTITUTIONS. OUR STATE SUPREME COURT HAS HELD ON NUMEROUS OCCASIONS THAT AN ADJUDICATORY BODY HAS TO BE DISINTERESTED IN THE MATTER WHEN IT HEARS AN ADJUDICATORY LICENSING MATTER. PARTICULARLY, I REFER YOU TO THE ROSS VERSUS M.U.S.C. CASE. IT WAS DECIDED BY THE SUPREME COURT IN 1997, WHICH SAYS THAT THE PURPOSE OF DUE PROCESS AND BOTH THE APA PROVISIONS AS WELL AS THE CONSTITUTIONAL PROVISIONS IS TO ENSURE THAT ADJUDICATIONS ARE CONDUCTED BY IMPARTIAL ADMINISTRATIVE BODIES. THE COURT WENT ON TO SAY THAT THE PURPOSE OF THIS IS TO REMOVE FROM THE FACT FINDING PROCESS, WHICH HAS CONSTITUTIONAL PROTECTIONS, WHERE WE'RE TALKING ABOUT PROFESSIONAL LICENSES, IS TO REMOVE ANY ADJUDICATORY BODY THAT APPEARS TO HAVE OR HAS REASON TO HAVE WHAT THEY CALLED A

WILL TO WIN. THE POINT BEING THAT THE BODY THAT ADJUDICATES ANY PROFESSIONAL LICENSING MATTER HAS TO BE COMPLETELY DISINTERESTED, NOT HAVING TAKEN A POSITION ADVERSE OR IN FAVOR OF THE ISSUES THAT ARE BEFORE THE BOARD OR BEFORE THE ADMINISTRATIVE AGENCY. WE ATTACHED TO OUR MOTION TO DISQUALIFY A NUMBER OF NEWS ARTICLES, NOT NEWS ARTICLES, ARTICLES FROM THE SOUTH CAROLINA DENTAL ASSOCIATION. THE FIRST ONE IS AUTHORED, THESE ARE EXHIBIT A TO MY MOTION, SO YOU SHOULD HAVE THEM IN YOUR MATERIALS. THE FIRST ONE IS AUTHORED BY HAL ZORN, WHO IS THE EXECUTIVE DIRECTOR OF THE DENTAL ASSOCIATION. AND THERE ARE TWO COMMENTS THERE THAT GIVE ME SOME CONCERN. AND I'LL COME BACK TO THE MEMBERSHIP OF THE DENTAL ASSOCIATION IN A MINUTE, BUT THE -- IN THAT FIRST ARTICLE, BASICALLY MR. ZORN WAS SAYING THAT THE ACTIVITIES THAT ARE CARRIED ON BY HYGIENISTS THAT ARE WORKING IN THESE SCHOOL-BASED DENTAL HEALTH PROGRAMS ARE ILLEGAL. AND SECONDLY, THAT THE MEMBERS OF THE DENTAL ASSOCIATION WILL ONLY WORK WITH THE HYGIENISTS WHO DO THIS KIND OF WORK AS LONG AS THEY ARE WILLING TO WORK WITH THEM. I FELT LIKE THAT

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WAS A, THAT WAS A STATEMENT THAT INDICATED, AT LEAST ON BEHALF OF THE OFFICIAL POSITION OF THE DENTAL ASSOCIATION, SOME BIAS AS TO THE SCHOOL-BASED DENTAL HEALTH PROGRAM ON BEHALF OF THE ENTIRE DENTAL ASSOCIATION. THE SECOND ONE I WANTED TO MENTION WAS THE ONE BY DR. MILLWOOD, WHICH WAS ATTACHED TO MY MOTION. DR. MILLWOOD'S STATEMENT IN THE S.C.D.A. BULLETIN DATED DECEMBER OF 2000 MADE SEVERAL STATEMENTS THAT INDICATED A BIAS TOWARDS THESE SCHOOL-BASED DENTAL HEALTH PROGRAMS, INCLUDING A REFERENCE TO QUESTIONABLE TREATMENT, MILKING MEDICAID, AND FUZZY SCHEMES, AND SUBSTANDARD CARE. THOSE OBVIOUSLY -- THEY'RE NOT AS SUBTLE AS THE FIRST ONE. THOSE OBVIOUSLY INDICATE A BIAS TOWARD THE SCHOOL-BASED DENTAL HEALTH PROGRAM. NOT TOWARD ANY PARTICULAR HYGIENIST, NOT PARTICULARLY TOWARD ANY PARTICULAR EMPLOYER, BUT TO THE SCHOOL PROGRAM AS A WHOLE. AND WE THINK THAT, THAT IS AN ISSUE THAT NEEDS TO BE TAKEN INTO CONSIDERATION IN DETERMINING WHETHER THIS BODY IS DISINTERESTED. THE LAST ONE I WANTED TO MENTION TO YOU IS AGAIN ANOTHER ONE BY HAL ZORN, WHO AGAIN IS THE EXECUTIVE DIRECTOR, WHO

MAKES REFERENCE TO THE STRUGGLE BETWEEN THE HYGIENISTS WHO WORK IN THE SCHOOLS AND THE DENTAL ASSOCIATION AS A TURF BATTLE AND MAKES REFERENCE TO THE ANIMOSITY THAT HAS GROWN UP OVER THE YEARS BETWEEN THE PROPONENTS OF THE SCHOOL-BASED PROGRAM AND THE MEMBERS OF THE SOUTH CAROLINA DENTAL ASSOCIATION. NOW THE REASON THE ARTICLES THAT HAVE BEEN PUBLISHED IN THE SOUTH CAROLINA DENTAL ASSOCIATION BULLETIN ARE RELEVANT IS BECAUSE -- (TO HER ASSISTANT) I NEED THOSE MEMBERSHIP THINGS -- I SUBPOENAED THE MEMBERSHIP ROLLS FROM THE SOUTH CAROLINA DENTAL ASSOCIATION. AND THAT'S WHY WE HAD TO STEP OUT JUST A MINUTE AGO, BECAUSE THE DOCUMENTS WERE BROUGHT TO US. AND IT IS MY INTENTION TO SHOW THAT AT LEAST ONE OR MORE OF THE MEMBERS OF THE PRESENT DENTAL BOARD WERE MEMBERS OF THE DENTAL ASSOCIATION AND ARE, BUT MORE SPECIFICALLY AT THE TIME THAT THESE PUBLICATIONS CAME OUT. PRESUMABLY, MEMBERS OF THE ASSOCIATIONS RECEIVED THE PUBLICATIONS OF THE ASSOCIATION; PRESUMABLY THEY READ THEM. AND AS A RESULT, THEY'VE BEEN EXPOSED TO FAIRLY STRONG ANTI-SCHOOL-BASED PROGRAM. AND I'D LIKE TO INTRODUCE THESE INTO

EVIDENCE. THERE ARE FIVE OF THEM, BUT I HAVE NO PROBLEM INTRODUCING THEM AS ONE, IF MR. WOODINGTON HAS NO PROBLEM WITH THAT.

MR. WOODINGTON: MR. CHAIRMAN, I HAVE NO OBJECTION TO THOSE COMING IN.

DR. BRAGDON: THAT'S FINE.

(WHEREUPON, FIVE MEMBERSHIP DIRECTORIES FROM THE SOUTH CAROLINA DENTAL ASSOCIATION, IS MARKED AS RESPONDENTS' EXHIBIT 1 FOR IDENTIFICATION.)

MS. BALLARD: THE REASON I'M INTRODUCING THOSE IS TO SHOW THE MEMBERSHIP OF THE SOUTH CAROLINA DENTAL ASSOCIATION FROM 2001 FORWARD. AND I THINK YOU ALL KNOW THAT THE REASON I CHOSE THAT TIME PERIOD IS BECAUSE OF THE SIGNIFICANT ACTIVITY THAT WENT ON BETWEEN THE DENTAL BOARD AND THE DENTAL ASSOCIATION, AND THE LEGISLATURE, THE DENTAL HYGIENIST ASSOCIATION, AND THE OTHER PERSONS WHO ARE INTERESTED IN THIS PROGRAM. MOST OF THAT HISTORY IS SPELLED OUT IN AN ARTICLE THAT WAS INTRODUCED AS EXHIBIT NUMBER 1, RESPONDENTS' EXHIBIT NUMBER 1, DURING THE PANEL HEARINGS. THAT'S A COPY OF THE ORDER OF THE FEDERAL TRADE COMMISSION, WHICH BROUGHT CHARGES AGAINST THIS BODY ALLEGING ANTITRUST BECAUSE OF THE ANTI-

COMPETITIVE ACTIONS TAKEN BY THIS BOARD WITH REFERENCE TO SHUTTING DOWN THE SCHOOL-BASED PROGRAM. THAT PROCEEDING, AT THIS POINT, IS IN LITIGATION LIMBO, WHICH IS A PLACE A LOT OF OUR CASES END UP AT ONE POINT OR ANOTHER. IT'S IN LITIGATION LIMBO AT THE BOARD CIRCUIT AT THIS TIME. SO THE FINAL OUTCOME OF THAT CASE IS NOT THE POINT I'M TRYING TO MAKE. THE POINT I'M TRYING TO MAKE IS THAT THE HISTORY OF THE STRUGGLE BETWEEN THIS BOARD AND THE SCHOOL-BASED PROGRAM IS SPELLED OUT VERY CLEARLY IN THAT ORDER. AND I THINK RATHER THAN TRYING TO REINTRODUCE ALL THAT EVIDENCE I WOULD JUST REFER YOU TO THE ORDER ITSELF, WHICH TALKS ABOUT THE LEGISLATION THAT PASSED IN 2000 AND THE EMERGENCY REGULATION WHICH WAS ENACTED BY THIS BOARD IN 2001, THE ORDER FINDING THAT THE EMERGENCY REGULATION WAS ILLEGAL BY THE ADMINISTRATIVE LAW COURT IN 2001, SUBSEQUENT PROPOSALS BY THIS BOARD TO RESTRICT OR OTHERWISE INTERFERE WITH THE OPERATION OF THE SCHOOL-BASED PROGRAM. THE -- AS I SAID, THE DUE PROCESS CLAUSE, IN PARTICULARLY STATE CONSTITUTION ARTICLE ONE, SECTION 22, REQUIRES THAT DUE PROCESS BE

AFFORDED WHEN THERE IS A PROFESSIONAL LICENSE THAT IS BEING QUESTIONED, RISK OF LOSS OF THE PROFESSIONAL LICENSE. ANYTHING RELATED TO DISCIPLINE OF A PROFESSIONAL LICENSING, PROFESSIONALLY LICENSED PERSON REQUIRES THAT THE PROCEEDINGS AS A WHOLE PROTECT THE RESPONDENT'S DUE PROCESS RIGHTS. AND ONE OF THE BASIC, MOST FUNDAMENTAL OF THOSE ISSUES IS A FAIR ADJUDICATORY PANEL. IT IS OUR POSITION THAT THE INFORMATION THAT WE HAVE SUBMITTED, AS WELL AS THE AFFIDAVIT OF TAMMI BYRD, WHICH ELABORATES ON SOME OF THE CIVIL LITIGATION THAT HAS GONE ON, WHICH I BELIEVE YOU ALL ALREADY HAVE, INDICATE THAT THERE'S NO WAY THAT ANYONE WHO HAS BEEN ASSOCIATED WITH EITHER THE DENTAL ASSOCIATION OR THE DENTAL BOARD STARTING FROM 2001 FORWARD COULD POSSIBLY BE SEEN AS UNBIASED AND DISINTERESTED. WHETHER ANY INDIVIDUAL MEMBER OF THIS ADJUDICATORY BODY HAS EXPRESSED BIAS, OR HOSTILITY TOWARD AN INDIVIDUAL PROGRAM OR TOWARD AN INDIVIDUAL HYGIENIST IS REALLY NOT THE POINT. THE POINT IS THAT YOU'VE BEEN BOMBARDED WITH A LOT OF NEGATIVE INFORMATION. YOU'VE ACTED, NOT YOU INDIVIDUALLY, BUT YOU

THE BOARD, HAVE ACTED CLEARLY WITH A VIEW TOWARD STOPPING THE SCHOOL-BASED DENTAL HEALTH PROGRAM. AND IT IS IMPOSSIBLE UNDER DUE PROCESS STANDARDS FOR AN ADJUDICATORY BODY THAT HAS SO ACTIVELY EXHIBITED BIAS TOWARD THIS PROGRAM TO PROVIDE A FAIR AND UNBIASED ADJUDICATION OF DISCIPLINARY CHARGES OF HYGIENISTS WHO ARE EMPLOYED BY THE SCHOOL-BASED PROGRAM. WE THINK, FOR THAT REASON, THAT IT IS IMPERATIVE UNDER THE DUE PROCESS PROTECTIONS OF THE STATE AND FEDERAL CONSTITUTION THAT THIS BOARD AS A WHOLE RECUSE ITSELF FROM ANY ADJUDICATORY ROLE IN THIS MATTER. THE RESULT OF THAT IS KIND OF UNCLEAR. I BELIEVE, UNDER THE APA, THAT WOULD REQUIRE THE MATTER BE PASSED UP TO THE ADMINISTRATIVE LAW COURT FOR ADJUDICATION, BUT THAT IS SOMEWHAT OF AN UNDER QUESTION AND WE'D HAVE TO FIGURE OUT WHAT TO DO WITH THAT. BUT MY POINT I GUESS IS, WE'VE GOT A LOT TO TALK ABOUT TODAY. THERE'S A LOT OF VERY IMPORTANT ISSUES HERE TODAY. AND IF THIS BOARD, IF THERE'S ANY EVIDENCE AT ALL THAT THIS BOARD IS BIASED AS A RESULT OF ITS PAST CONDUCT, WE'RE WASTING EVERYBODY'S TIME, BECAUSE THE

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APPELLATE COURTS ARE GOING TO LOOK AT THIS AND THEY'RE GOING TO APPLY ROSS, AND THEY ARE GOING TO APPLY THE STATE AND FEDERAL CONSTITUTIONS, AND THEY'RE GOING TO SAY THAT THIS BOARD SHOULD NOT HAVE DECIDED THESE ISSUES. SO FOR THOSE REASONS, THE REASONS THAT ARE SET FORTH IN MY MEMORANDUM, THE EVIDENCE THAT'S BEEN INTRODUCED -- OH, I'M SORRY, I DID HAVE ONE OTHER ITEM OF EVIDENCE. THE OTHER THING THAT I SUBPOENAED FROM THE DENTAL ASSOCIATION WERE THE LOBBYING REPORTS THAT WERE FILED BY THE SOUTH CAROLINA DENTAL ASSOCIATION FROM 2000 FORWARD SHOWING THE AMOUNT OF MONEY SPENT BY THE DENTAL ASSOCIATION AND LOBBYING ON LEGISLATION. (TO MR. WOODINGTON) IT'S MY UNDERSTANDING THAT THERE'S NO OBJECTION TO THESE EITHER?

MR. WOODINGTON: CORRECT.

MS. BALLARD: I'D INTRODUCE THESE AS OUR EXHIBIT NUMBER 2.

(WHEREUPON, LOBBYING REPORTS SUBPOENAED FROM THE SOUTH CAROLINA DENTAL ASSOCIATION, CONSISTING OF THIRTY THREE PAGES, IS MARKED AS RESPONDENTS' EXHIBIT NUMBER 2 FOR IDENTIFICATION.)

MS. BALLARD: EVEN IF ONE MEMBER OF THIS BOARD WAS A MEMBER OF THE DENTAL ASSOCIATION WHEN ALL OF THIS HUBALOO WAS GOING ON, IT INTRODUCES AN ELEMENT OF BIAS THAT SIMPLY CAN'T BE ALLOWED TO BE PRESENT IN THESE PROCEEDINGS. AND I WOULD RENEW MY MOTION THAT THIS BOARD DISQUALIFY ITSELF FROM ADJUDICATING ANY OF THE ISSUES IN THIS CASE OR THESE CASES AT ALL. THANK YOU.

DR. BRAGDON: MR. WOODINGTON?

MR. WOODINGTON: MR. CHAIRMAN AND MEMBERS OF THE BOARD, IF I MAY BE HEARD BRIEFLY ON THIS. AND I KNOW IT'S Y'ALL'S DECISION AND ONE YOU'LL HAVE TO WRESTLE WITH A LITTLE BIT. BUT WE DID FILE A BRIEF, I DON'T KNOW WHO ALL, IF EVERYONE OR ANYONE HAS IT, ON THIS ISSUE BACK IN MARCH. BUT JUST, THERE'S A LOGICAL DISCONNECT BETWEEN MS. BALLARD'S POSITION AND THE REALITIES OF THE SITUATION I THINK. WHAT SHE SAYS IS POINT A DOES NOT LEAD TO POINT B. POINT A BEING THAT SOME THINGS HAPPENED IN 2001 THAT MAY OR MAY NOT HAVE BEEN BIASED OR PREJUDICIAL TOWARD THE HYGIENIST PROFESSION OR THE EMPLOYER OF SOME OF THESE HYGIENISTS AS A WHOLE. AND ALSO THAT YOU MIGHT HAVE RECEIVED

ONE OR TWO ARTICLES AS MEMBERS OF THE DENTAL ASSOCIATION FIVE YEARS AGO, FOUR, FIVE, SIX YEARS AGO, WHICH YOU MAY OR MAY NOT HAVE READ AND MAY NOT HAVE AGREED WITH OR MAY NOT HAVE CARED ABOUT OR MAY NOT REMEMBER -- ANY OF WHICH IS A REASON NOT TO BE CONCERNED ABOUT THAT, UNLESS OF COURSE YOU DO FEEL IN YOUR HEART THAT YOU'VE PRE-JUDGED THE QUESTION. BUT THE FACT OF THE MATTER IS THAT THE ISSUE BEFORE THIS BOARD TODAY, AND THESE CASES ARE VERY SPECIFIC AND VERY FACTUAL ISSUES ABOUT WHETHER SEALANTS WERE IMPROPERLY PLACED OVER VISIBLY OBVIOUS TOOTH DECAY, NOT LARGE POLICY ISSUES ABOUT WHETHER WHAT SHOULD GO ON IN THE SCHOOLS AND SO FORTH, BUT JUST THOSE VERY SPECIFIC ISSUES. AND IF I MAY, IF YOU CAN BEAR WITH ME FOR JUST A MINUTE AS I GO THROUGH A COUPLE OF LEGAL PRINCIPLES THAT I'M SURE MR. ROSEN WILL, OR HAS, OR WILL TELL YOU. THE SUPREME COURT OF SOUTH CAROLINA HAS HELD THAT ADMINISTRATIVE TRIBUNALS ARE, NUMBER ONE, CHARGED WITH A PRESUMPTION OF HONESTY AND INTEGRITY IN THE DISCHARGE OF DECISION-MAKING RESPONSIBILITIES. NUMBER TWO, THAT ACTUAL BIAS RATHER THAN A MERE POTENTIAL FOR BIAS HAS

TO BE SHOWN. WE'VE HEARD NOTHING ABOUT ACTUAL BIAS. WE HAVEN'T HEARD MUCH ABOUT A REAL POTENTIAL FOR BIAS, IN MY OPINION. NUMBER THREE, THE INDIVIDUAL DECISION-MAKERS MUST NOT HAVE DISPLAYED BIAS AS TO THE SPECIFIC FACTUAL QUESTION TO BE DETERMINED. WELL, WE'RE LIGHT YEARS AWAY FROM THAT. I MEAN, NOBODY HAS SAID ANYTHING ABOUT THAT. AND EVEN IF THERE WERE SOMETHING GOING ON WITH THE POLICY ISSUES, WHICH THERE'S NOT, IT'S NOT ACTUAL, I'M QUOTING, IT IS NOT ACTUAL BIASED TO HAVE MADE STATEMENTS AS TO POLICY ISSUES RELATED TO A DISPUTE. SO FOR ALL OF THOSE REASONS, I WON'T GO ON ANYMORE AT THIS POINT, I WOULD SUBMIT THAT, UNLESS EACH MEMBER TURNS OUT TO KNOW SOMETHING THAT I'M NOT AWARE OF, THERE'S NOTHING THAT HAS BEEN SHOWN SO FAR THAT WOULD INDICATE A REASON FOR ANY OF THE REMAINING MEMBERS TO DISQUALIFY THEMSELVES FROM THIS. THAT'S ALL I HAVE. IF THERE'S ANY QUESTIONS.

MS. BALLARD: MAY I BE HEARD IN REPLY JUST BRIEFLY?

DR. BRAGDON: SURE.

MS. BALLARD: MR. WOODINGTON INDICATES THAT I'M REFERRING TO EVENTS WHICH OCCURRED IN 2001; THEY'RE STILL GOING ON. AS I INDICATED

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BEFORE, CIRCUIT COURT CASE IS STILL PENDING. THERE'S STILL A REAL CHANCE THAT THERE WILL BE A FEDERAL COURT RULING FINDING THAT THIS BOARD DID ENGAGE IN ANTITRUST WITH REFERENCE TO ITS ACTIVITIES AGAINST THE SCHOOL-BASED DENTAL HEALTH PROGRAM. SECONDLY, ANY MEMBER OF THE DENTAL ASSOCIATION DURING ANY OF THIS PERIOD OF TIME PAID MONEY WHICH CONTRIBUTED TO THE LOBBYING BUDGET WHICH WAS USED TO PAY A LOBBYIST TO DEFEAT THE SCHOOL-BASED DENTAL HEALTH PROGRAM. THAT BY ITSELF CERTAINLY REEKS. WHETHER YOU PERSONALLY TOOK A POSITION OR NOT, YOU CONTRIBUTED TO THE LOBBYING EXPENSES THAT WERE PAID TO TRY TO DEFEAT THIS PROGRAM. MR. WOODINGTON SAYS THESE ARE SIMPLE CASES ABOUT VERY NARROW ISSUES AS OPPOSED TO LARGE POLICY ISSUES. I COULD NOT DISAGREE MORE. AS I SAID AT THE PANEL HEARING AND I WILL PROBABLY SAY SEVERAL TIMES TODAY, THE WHOLE DISCIPLINARY PROCEEDING FOR ALL OF THESE CASES FORCES THE ISSUE OF WHAT IS THE STANDARD OF CARE IN THE SCHOOL-BASED DENTAL HEALTH PROGRAM. NO COURT HAS DECIDED THAT. NO ADMINISTRATIVE BODY THAT I KNOW OF HAS DECIDED THAT. AND THE FIRST ADJUDICATORY BODY THAT

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WILL DECIDE THAT ISSUE, AS A RESULT OF THESE PROCEEDINGS HAVING BEEN BROUGHT, IS THIS ONE. AND THOSE ARE GOING TO BE EXTREMELY BROAD POLICY ISSUES. WE'RE GOING TO HAVE TO EXAMINE WHAT THE LEGISLATURE'S INTENT WAS IN APPROVING THE LEGISLATION TO ALLOW THE SCHOOL-BASED PROGRAM, OF ALLOWING THE SCHOOL-BASED PROGRAM UNDER GENERAL SUPERVISION. WE HAVE LOTS OF BROAD POLICY ISSUES TO DECIDE AND TO DISCUSS. AND LASTLY, WITH REFERENCE TO THE ISSUE OF ACTUAL BIAS, I NEED ONLY POINT YOU TO DR. MILLWOOD'S ARTICLE AND THE FACT THAT HE, ON BEHALF OF THE DENTAL ASSOCIATION, MADE VERY, VERY OBVIOUS BIASED STATEMENTS ABOUT THE SCHOOL-BASED DENTAL PROGRAM. AND THE FACT THAT HE'S ON THIS BOARD CERTAINLY INTRODUCES CONCERN ON OUR PART AND I'M SURE WITH THE COURT'S PART AS TO WHETHER THERE HAVE BEEN DISCUSSIONS BY DR. MILLWOOD WITH ANY OF YOU ON THESE ISSUES. IT'S JUST IMPOSSIBLE FOR YOU ALL TO SAY THAT YOU'VE NOT BEEN TOUCHED BY THIS IN SOME WAY. JUST IMPOSSIBLE. THANK YOU.

(PANEL DISCUSSION)

DR. BRAGDON: DO WE HAVE A MOTION TO GO INTO

EXECUTIVE SESSION?

DR. DIXON: I MAKE A MOTION TO GO INTO EXECUTIVE SESSION.

DR. ASSEY: SECOND.

DR. BRAGDON: SO WE'RE GOING TO GO INTO EXECUTIVE SESSION.

(OFF THE RECORD; EXECUTIVE SESSION 2:45 - 3:00 P.M.)

DR. ASSEY: MR. CHAIRMAN, I MAKE A MOTION THAT THE REQUEST FOR THE STATE BOARD AS A GROUP TO BE RECUSED BE DENIED.

DR. BRAGDON: IS THERE A SECOND TO THAT MOTION?

DR. BEDELL: SECOND.

DR. BRAGDON: ANY DISCUSSION?

(NO DISCUSSION BROUGHT FORWARD)

DR. BRAGDON: ALL THOSE IN FAVOR SAY, AYE.

(BOARD MEMBERS ALL RESPOND WITH, AYE)

DR. BRAGDON: OPPOSED?

(NO OPPOSITION)

MR. ROSEN: IF I MAY, MR. PRESIDENT, AT THIS POINT, IF THERE'S ANYTHING FURTHER TO BE PROFFERED ON THIS ISSUE, NOW WOULD BE A GOOD TIME; IF NOT, THEN THE VOIR DIRE OF THE INDIVIDUAL BOARD MEMBERS.

MS. BALLARD: THAT'S WHERE I THINK WE ARE AT THIS POINT.

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MR. ROSEN: OKAY.

MS. BALLARD: AND I THINK WE NEED TO DECIDE HOW TO DO THAT. WE WILL TALK BRIEFLY ABOUT THAT. I DON'T KNOW IF YOU HAD AN OPPORTUNITY TO TALK TO THE BOARD ABOUT HOW WE WANTED TO DO THAT OR NOT.

MR. ROSEN: I HAVEN'T TALKED TO THE BOARD. AND FRANKLY, I'D RATHER LEAVE IT TO THE TWO OF YOU. I KNOW THAT THERE WAS AN AGREEMENT IN THERE AS TO WHAT --

MS. BALLARD: IS IT ALL RIGHT WITH YOU IF I DO IT THE WAY I SUGGESTED?

MR. ROSEN: SURE. THE BOARD IS AT YOUR DISPOSAL.

MS. BALLARD: THE VOIR DIRE PROCESS IS A PROCESS WHEREBY THE FACT FINDER IS QUERYING REGARDING POSITIONS TAKEN AND POSITIONS THAT YOU HAVE ON VARIOUS ISSUES THAT ARE BEFORE THE, USUALLY BEFORE THE COURT, BUT BEFORE THE ADJUDICATORY BODY. TYPICALLY, IT'S DONE ONE ON ONE WITH THE COURT REPORTER TAKING DOWN THE INFORMATION. BUT I SUGGESTED IN THE INTEREST OF TIME THAT I SIMPLY ASK THE QUESTIONS AND THAT EACH OF YOU INDIVIDUALLY RESPOND TO THEM, RATHER THAN -- I MEAN I THINK IT WOULD GO QUICKER IF WE DO THAT. AND I WONDERED IF

THERE WAS ANY OBJECTION TO THAT PROCEEDING?

MR. WOODINGTON HAS INDICATED HE HAS NO OBJECTION TO THAT METHOD.

DR. BRAGDON: NO OBJECTION.

MS. BALLARD: THANK YOU. MY FIRST QUESTION TO EACH OF YOU WOULD BE WHETHER YOU ARE NOW OR HAVE BEEN A MEMBER OF THE SOUTH CAROLINA DENTAL ASSOCIATION SINCE 2001?

MS. DUNCAN: NO.

DR. BEDELL: YES.

DR. BRAGDON: YES, I AM.

DR. ASSEY: YES, MA'AM.

DR. DIXON: I AM.

MS. RIFFE: NO.

MS. BALLARD: MY NEXT QUESTION WOULD BE WHETHER YOU RECEIVE AND READ, AS A MEMBER OF THE S.C.D.A., RECEIVE AND READ THE PUBLICATIONS OF THE S.C.D.A.?

DR. BEDELL: READ SOME.

DR. BRAGDON: READ SOME.

DR. ASSEY: NO.

DR. DIXON: (SHAKES HEAD).

MS. BALLARD: (TO MS. RIFFE) AND YOU'RE NOT A MEMBER, OKAY. MY NEXT QUESTION WOULD BE WHETHER ANY OF YOU HAVE SPOKEN WITH DR.

MILLWOOD ABOUT ISSUES RELATED TO THE SCHOOL-BASED DENTAL HEALTH PROGRAM IN A SITUATION WHERE HE SHARED HIS THOUGHTS ABOUT THAT?

MS. DUNCAN: I HAVEN'T.

DR. BEDELL: NO.

DR. BRAGDON: NO.

DR. ASSEY: NO.

DR. DIXON: (SHAKES HEAD).

MS. RIFFE: NO.

MR. ROSEN: Y'ALL NEED TO SPEAK UP FOR THE COURT REPORTER.

MS. BALLARD: (TO COURT REPORTER) ARE YOU GETTING THAT FOR THE RECORD?

COURT REPORTER: YES.

MS. BALLARD: MY NEXT QUESTION IS WHETHER ANY OF YOU WERE ON THE BOARD OR INVOLVED IN THE BOARD IN ANY WAY IN JULY OF 2001 WHEN THE EMERGENCY REGULATION WAS ENACTED?

MS. DUNCAN: I WAS.

DR. BEDELL: YES, MA'AM.

DR. BRAGDON: YES.

DR. ASSEY: NO, MA'AM.

DR. DIXON: NO.

MS. RIFFE: NO.

MS. BALLARD: I WOULD ALSO ASK IF ANY OF THE MEMBERS

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OF THE BOARD, IF YOU WERE INVOLVED IN THE LITIGATION OF THE MATTER BEFORE THE ADMINISTRATIVE LAW COURT THAT WAS DECIDED ON FEBRUARY 11TH OF 2002? WERE YOU ON THE BOARD AT THAT TIME OR PLAYING A ROLE AS A WITNESS OR OTHERWISE IN THAT PROCEEDING?

MS. DUNCAN: I WAS ON THE BOARD.

MS. BALLARD: YOU WERE ON THE BOARD?

MR. ROSEN: WHAT WAS THAT DATE?

MS. BALLARD: THAT WAS -- THE ORDER WAS FEBRUARY 11TH, 2002. I DON'T KNOW THE DATE OF THE HEARING. I DON'T HAVE THAT IN FRONT OF ME.

MR. WOODINGTON: I CAN HELP OUT THERE. THE HEARING WAS IN THE FALL OF '01, LIKE SEPTEMBER OR OCTOBER OF '01.

DR. BEDELL: I DID PARTICIPATE IN THE HEARING.

MS. BALLARD: I'M SORRY, AS A WITNESS?

DR. BEDELL: AS A WITNESS.

DR. BRAGDON: NO.

DR. ASSEY: NO.

DR. DIXON: NO, MA'AM.

MS. RIFFE: I ATTENDED THE HEARING.

MS. BALLARD: SO THE ONLY FOLLOWUP QUESTION I WOULD HAVE IN THAT REGARD IS WHAT ISSUE DID YOU TESTIFY ON AT THAT HEARING, DR. BEDELL?

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DR. BEDELL: TO THE BEST OF MY KNOWLEDGE, MY DENTAL HYGIENE BACKGROUND VERSUS MY DENTAL BACKGROUND.

MS. BALLARD: AND FOR THE RECORD, I'M IN APPELLATE COURT, WOULD YOU BRIEFLY DESCRIBE, YOU HAVE A BACKGROUND IN BOTH DENTAL HYGIENE --

DR. BEDELL: CORRECT.

MS. BALLARD: -- AND DENTISTRY?

DR. BEDELL: CORRECT.

MS. BALLARD: OKAY. MY NEXT QUESTION IS WHETHER ANY OF YOU PARTICIPATE, PARTICIPATED IN DECISION-MAKING OR OPERATED, SERVED AS A WITNESS IN THE LAWSUIT THAT WAS BROUGHT BY HEALTH PROMOTION SPECIALISTS AGAINST THE SOUTH CAROLINA DENTAL ASSOCIATION AND THE SOUTH CAROLINA BOARD OF DENTAL EXAMINERS, WHICH WAS FILED IN AUGUST OF 2001?

MS. DUNCAN: I DON'T REMEMBER.

DR. BEDELL: NO.

DR. BRAGDON: WILL YOU REPEAT THE FIRST PART OF YOUR QUESTION?

MS. BALLARD: YES. WHETHER ANY OF YOU PARTICIPATED IN ANY DECISION-MAKING OR WERE A WITNESS IN ANY OF THE MATTERS THAT AROSE OUT OF THAT LITIGATION, THAT LITIGATION HAVING BEEN FILED

IN AUGUST OF '01?

DR. BRAGDON: NO.

DR. ASSEY: NO, MA'AM.

DR. DIXON: NO.

MS. RIFFE: NO.

MS. BALLARD: WERE ANY OF YOU PRESENT AT THE MEETING THAT I BELIEVE OCCURRED IN GAFFNEY IN WHICH RON BARRETT, THE PAST PRESIDENT OF THIS ORGANIZATION, TESTIFIED THAT HE WOULD, QUOTE, DO WHAT IT TAKES -- THAT THIS BOARD WOULD, QUOTE, DO WHAT IT TAKES TO STOP THEM, THEM BEING THE SCHOOL-BASED DENTAL HYGIENIST PROGRAM.

MS. DUNCAN: HADN'T BEEN TO GAFFNEY IN A LONG TIME.

DR. BEDELL: CAN YOU TELL ME WHERE THAT MEETING WAS?

MS. BALLARD: THAT WAS AT I BELIEVE THE SCHOOL --

DR. BEDELL: SCHOOL BOARD MEETING?

MS. BALLARD: -- BOARD --

DR. BEDELL: I WAS AT THE SCHOOL BOARD HEARING. I DON'T KNOW IF THAT WAS A SEPARATE MEETING OR IF THAT WAS THE OPEN FORUM AT THE SCHOOL BOARD.

MS. BALLARD: OKAY.

DR. BRAGDON: NO.

DR. ASSEY: NO, MA'AM.

DR. DIXON: NO.

MS. RIFFE: NO.

MS. BALLARD: AND MY LAST QUESTION WOULD RELATE ONLY TO YOU, DR. BEDELL. DID YOU TESTIFY OR ADDRESS ANYONE AT EITHER OF THOSE MEETINGS?

DR. BEDELL: I MADE REMARKS TO THE SCHOOL BOARD.

MS. BALLARD: (TO MR. WOODINGTON) DID YOU HAVE ANY FOLLOWUP QUESTIONS BEFORE I --

MR. WOODINGTON: ARE YOU THROUGH?

MS. BALLARD: WITH MY QUESTIONS, I WAS GOING TO MAKE A MOTION.

MR. WOODINGTON: I'D LIKE TO MAKE A COUPLE OF QUESTIONS IF I MIGHT.

MS. BALLARD: SURE.

MR. WOODINGTON: OTHER THAN ANY BRIEFS AND PAPERS THAT HAVE BEEN FILED IN THESE SPECIFIC CASES THAT YOU MAY HAVE READ OR RECEIVED IN THE LAST MONTH OR TWO, HAVE ANY OF YOU HAD ANY PRIOR EXPOSURE TO THE FACTS OF THESE PARTICULAR CASES INVOLVING THESE FOUR HYGIENISTS?

DR. BEDELL: NO.

DR. BRAGDON: NO.

DR. ASSEY: NO.

DR. DIXON: NO.

MS. RIFFE: NO.

MS. DUNCAN: NO.

MR. WOODINGTON: ARE ANY OF YOU AWARE OF ANY REASON WHY YOU COULDN'T RENDER A FAIR AND IMPARTIAL HEARING ON THE FACTS AND THE LAW IN THESE FOUR CASES?

MS. DUNCAN: (SHAKES HEAD).

DR. BEDELL: NO.

DR. BRAGDON: NO.

DR. ASSEY: NO.

DR. DIXON: NO.

MS. RIFFE: NO.

MR. WOODINGTON: THAT'S ALL I HAVE.

MS. BALLARD: OTHER THAN THE ISSUES THAT I HAVE ALREADY RAISED REGARDING THE RECUSAL OF THE BOARD AS A WHOLE, I WOULD RENEW A REQUEST THAT DR. BEDELL BE RECUSED BECAUSE OF HER PARTICIPATION IN THE PROCEEDINGS RELATED TO THE SCHOOL-BASED DENTAL HEALTH PROGRAM, BOTH OF WHICH IS BACK TO THE APPEARANCE BEFORE THE ADMINISTRATIVE LAW COURT, AT WHICH THE EMERGENCY REGULATION WAS DETERMINED TO BE UNLAWFUL, AS WELL AS, THE COMMENTS THAT WERE MADE AT THE GAFFNEY SCHOOL BOARD MEETING. I BELIEVE THAT INDICATES ACTUAL BIAS ON BEHALF OF THE, ON BEHALF OF DR. BEDELL AND CERTAINLY

INDICATES A LEVEL OF KNOWLEDGE THAT'S OUTSIDE THE SCOPE OF THIS RECORD, WHICH WOULD BE INAPPROPRIATE FOR AN INDEPENDENT FACT FINDER.

MR. WOODINGTON: I GUESS WITH THAT MOTION HAVING BEEN MADE I WOULD LIKE TO ASK DR. BEDELL ANOTHER QUESTION OR TWO. WHAT HAPPENED AT GAFFNEY, CAN YOU DESCRIBE THAT? DO YOU REMEMBER WHEN THAT WAS? WOULD 2001 BE ABOUT RIGHT?

DR. BEDELL: I THINK 2001/2002. AND I BELIEVE H.P.S. WAS MAKING A REQUEST AND COMING TO THE CHEROKEE COUNTY SCHOOL SYSTEM. AND THE DENTISTS IN THE COUNTY CAME TO THE SCHOOL BOARD MEETING. AND I BELIEVE OUR -- IT'S BEEN A LONG TIME AGO. I BELIEVE OUR BIGGEST THING WAS ACCESS TO CARE, AND EVERY SCHOOL IN OUR COUNTY IS LOCATED VERY CLOSE TO A DENTAL OFFICE IN THAT COUNTY. AND MOST OF THE DENTISTS IN THE COUNTY FREELY ACCEPT MEDICAID.

MR. WOODINGTON: NOW, ARE YOU IN CHEROKEE COUNTY YOURSELF?

DR. BEDELL: YES, SIR.

MR. WOODINGTON: DID YOU TAKE A POSITION, A PUBLIC POSITION AT THAT MEETING?

DR. BEDELL: I CANNOT REMEMBER. I CAN'T REMEMBER

THE EXACT DIALOGUE.

MR. WOODINGTON: AND COULD YOU SUMMARIZE, IF YOU CAN, NOW IT'S BEEN A LONG TIME, IT'S BEEN FOUR AND A HALF YEARS, YOUR TESTIMONY IN THE JUDGE KITTRELL CASE?

DR. BEDELL: TO THE BEST OF MY RECOLLECTION, JUST DISCUSSING THE DIFFERENCE BETWEEN MY DENTAL BACKGROUND AND MY DENTAL HYGIENE BACKGROUND. AND OTHER THAN THAT, I DON'T REMEMBER.

MR. WOODINGTON: DID ANYTHING THAT HAPPENED IN THOSE SITUATIONS HAVE ANY IMPACT OR BEARING ON YOUR ABILITY TO DECIDE WHETHER SEALANTS WERE IMPROPERLY PLACED OVER DECAY IN THESE CASES?

DR. BEDELL: NO, SIR.

MR. WOODINGTON: THAT'S ALL I HAVE.

MS. BALLARD: I DO HAVE ONE FOLLOWUP. DR. BEDELL, WOULD IT BE YOUR TESTIMONY THAT YOU DID TESTIFY IN OPPOSITION TO THE PROGRAM?

DR. BEDELL: I REALLY CANNOT REMEMBER. I BELIEVE I TESTIFIED AS TO ACCESS TO CARE, BUT I CAN'T REMEMBER ANYTHING ELSE ABOUT IT.

MS. BALLARD: SO YOUR TESTIMONY IS THAT YOU DON'T RECALL WHAT POSITION YOU TOOK?

DR. BEDELL: I REALLY CANNOT.

MS. BALLARD: MY MOTION STANDS.

MR. ROSEN: DR. BEDELL, YOU CAN TAKE A POSITION AT THIS TIME AS TO WHETHER OR NOT YOU FEEL YOU SHOULD RECUSE YOURSELF IN THIS MATTER. AND ALSO I BELIEVE THAT, DEPENDING ON YOUR DECISION, THE BOARD AS A FULL BODY CAN ALSO TAKE THAT ISSUE UP.

DR. BEDELL: OKAY.

MR. ROSEN: I THINK THAT IF YOU FEEL YOU SHOULD RECUSE YOURSELF OR NOT, YOU CAN INDICATE THAT TO US.

DR. BEDELL: I FEEL LIKE I CAN MAKE AN UNBIASED OPINION.

MR. ROSEN: I WOULD RECOMMEND THAT THE FULL BOARD REVIEW IT. AND THEN GET A MOTION --

DR. DIXON: I MAKE A MOTION TO GO INTO EXECUTIVE SESSION.

MS. RIFFE: SECOND.

DR. BRAGDON: ALL THOSE IN FAVOR SAY, AYE.

(ALL MEMBERS OF THE BOARD SAY, AYE)

DR. BRAGDON: WE'LL GO INTO EXECUTIVE SESSION.

(OFF THE RECORD; EXECUTIVE SESSION 3:15 - 3:25 P.M.)

DR. BEDELL: AFTER CONSIDERATION, I HAVE DECIDED TO RECUSE MYSELF.

MS. BALLARD: I DON'T HAVE ANYTHING FURTHER ON THAT ISSUE. THE VOIR DIRE ISSUE IS DETERMINED.

(DR. BEDELL EXITS THE PROCEEDINGS)

DR. DIXON: CAN WE TAKE A BREAK?

DR. BRAGDON: AT THIS POINT IN TIME, NOW THAT Y'ALL ARE BACK AND SETTLED, THE BOARD IS GOING TO TAKE A TWO-MINUTE BREAK.

MS. BALLARD: WELL, WE NEED ONE, TOO. THANK YOU VERY MUCH.

(OFF THE RECORD 3:27 - 3:35 P.M.)

DR. BRAGDON: OKAY. WE'RE GOING TO GET STARTED AGAIN.

MR. ROSEN: WE'RE AT THE POINT WHERE WE ARE GOING TO DISCUSS THE PROVISIONS OF THE INITIAL COMPLAINT?

MS. BALLARD: CORRECT.

MR. ROSEN: THAT BEING THE CASE, THERE HAD BEEN A MOTION ORIGINALLY ADDRESSED TO THE CHAIRMAN ASKING FOR THE INITIAL COMPLAINT, THAT IS THE CITIZENS' COMPLAINTS, NOT THE FORMAL COMPLAINT BY THE STATE, BY THE RESPONDENT PRIOR TO THE HEARING THAT WAS DENIED BY THE CHAIRMAN. AND FURTHER, IT WAS INDICATED THAT THIS ISSUE WOULD BE TAKEN UP AT THIS HEARING BY THE FULL BOARD BECAUSE IT'S A VERY IMPORTANT ISSUE. AND WITH THAT SAID, WE HAVE THE RESPONDENTS' MOTION.

MS. BALLARD: AS MR. ROSEN INDICATED, BEFORE THE PANEL HEARINGS IN THESE MATTERS WERE HEARD, WE FILED A REQUEST WITH THE BOARD ADMINISTRATOR TO RECEIVE COPIES OF THE COMPLAINTS WHICH INITIATED ALL OF THESE ACTIONS. UNDER 40-15-180, WHICH IS PART OF THE DENTAL PRACTICES ACT, THE LEGISLATURE HAS REQUIRED THAT IN ORDER TO BEGIN A COMPLAINT WITH THE DENTAL BOARD THERE HAS TO BE A WRITTEN AFFIDAVIT FILED BY THE COMPLAINANT WITH THE BOARD. AND WE REQUESTED A COPY OF THAT UNDER DUE PROCESS PROVISIONS OF THE STATE AND FEDERAL CONSTITUTION BY LETTER DATED OCTOBER 12, 2005. MR. ALVEY DENIED THAT REQUEST. WE TOOK AN APPEAL TO THE ADMINISTRATIVE LAW JUDGE OF THAT ISSUE. AND RATHER THAN ADDRESSING THE MERITS OF THAT ISSUE, THE ADMINISTRATIVE LAW JUDGE RULED THAT IT WAS PREMATURE FOR US TO TAKE THAT ISSUE TO THE ADMINISTRATIVE LAW JUDGE AND HE WOULD HEAR OUR APPEAL FROM WHATEVER FINAL DECISIONS WERE ISSUED BY THIS BOARD. WE THEREFORE RENEWED OUR REQUEST BEFORE THE BOARD ONCE THE PANEL HEARINGS WERE HELD. AND WE GOT THE ORDER FROM THE CHAIRMAN, WHICH INDICATED THAT THE MOTION WAS PRELIMINARY DENIED. BUT

HE INDICATED THAT HE WANTED TO HEAR IT, THAT THE BOARD WANTED TO HEAR THIS ISSUE AT THE TIME OF TODAY'S HEARINGS. SO I WANTED TO BRIEFLY REVIEW THE ISSUES. MY MOTION IS IN THE FILE, AND THE AUTHORITIES PRIMARILY THAT WE RELY ON ARE IN THE FILE. THE DUE PROCESS REQUIRES -- THIS IS NOT A CRIMINAL CASE, SO IT'S NOT A CONFRONTATION ISSUE UNDER THE CONSTITUTION; IT IS HOWEVER A DUE PROCESS ISSUE. WE TALKED ABOUT EARLIER WITH THE FACT OF DUE PROCESS BEING REQUIRED IN A PROCEEDING IN WHICH PROFESSIONAL LICENSING IS INVOLVED. PART OF THAT IS KNOWING WHO THE PEOPLE ARE WHO HAVE COMPLAINED ABOUT YOU AND WHAT THE NATURE OF THEIR COMPLAINTS WERE. SOME YEARS AGO THIS ISSUE AROSE WITH THE MEDICAL BOARD. THERE WAS A REQUEST MADE BY A PHYSICIAN WHO WAS THE SUBJECT OF DISCIPLINARY PROCEEDINGS TO HAVE A COPY OF THE COMPLAINT. THE STATUTE WAS VIRTUALLY IDENTICAL TO THE STATUTE IN THE DENTAL PRACTICES ACT: TO RECEIVE A COPY OF THE COMPLAINT. AND THE BOARD OF MEDICAL EXAMINERS DENIED THAT REQUEST. THE STATUTE IS ACTUALLY IDENTICAL TO THIS STATUTE, BUT FOR THE DENTAL BOARD STATUTE HAD ANOTHER LITTLE

PARAGRAPH IN IT WHICH SAID THAT NOTHING CONTAINED HEREIN SHALL PREVENT THE LICENSEE FROM HAVING DUE PROCESS, WHICH I THOUGHT WAS NICE SINCE THE CONSTITUTION GIVES US THAT ANYWAY. BUT IT WAS INCLUDED IN THE STATUTES. THE STATUTES OTHERWISE ARE THE SAME. THE BOARD OF MEDICAL EXAMINERS, AFTER DENYING THAT REQUEST, AND THAT WAS TAKEN ON APPEAL TO THE SOUTH CAROLINA COURT OF APPEALS, WHICH ISSUED A DECISION CALLED SOUTH CAROLINA DEPARTMENT OF LABOR, LICENSING AND REGULATION VERSUS GIRGIS IN 1998, WHICH SAID THAT THE LANGUAGE IN THAT STATUTE, IN THAT CASE, THE MEDICAL BOARD STATUTE, WHICH SAID THAT THE STATUTES WERE, EXCUSE ME, THAT SAID THAT THE COMPLAINTS WERE CONFIDENTIAL AND/OR PRIVILEGED DID NOT MEAN THAT THEY COULD NOT BE PROVIDED TO THE PERSON WHO WAS THE SUBJECT OF THE DISCIPLINARY COMPLAINT AND THAT CONSTITUTIONAL PROVISIONS REQUIRED THAT THE INITIAL COMPLAINTS BE PROVIDED TO THE RESPONDENT ON REQUEST. WE BELIEVE THAT THE GIRGIS CASE IS APPLICABLE TO THIS PROCEEDING, AND THE LANGUAGE OF THE STATUTE THAT GOVERNS CONFIDENTIALITY IN THIS PROCEEDING, BEING VIRTUALLY IDENTICAL TO THE

ONE THAT WAS STRUCK DOWN BY THE COURT IN THE GIRGIS OPINION, REQUIRES THAT MY CLIENTS BE GIVEN COPIES OF THE AFFIDAVITS THAT ARE REQUIRED TO BE FILED IN ORDER TO INITIATE THESE PROCEEDINGS UNDER 40-15-180. MR. WOODINGTON HAS TAKEN THE POSITION IN HIS RESPONSE TO OUR MOTION THAT, WELL, THE STATUTES AREN'T EXACTLY THE SAME. AND HE'S RIGHT ABOUT THAT; THEY'RE NOT EXACTLY THE SAME. THE MEDICAL BOARD STATUTE CONTAINED, AS I SAID, A PROVISION SAYING NOTHING IN THIS STATUTE MEANS THAT YOU WON'T HAVE THE RIGHT TO CONFRONT WITNESSES AND HAVE YOUR DUE PROCESS RIGHTS PROTECTED. SO THE ADDITIONAL LANGUAGE IN THE STATUTE IS REALLY IRRELEVANT TO THE ISSUE THAT IS BEFORE THIS BOARD. THAT BEING, ARE WE ENTITLED, DESPITE THE LANGUAGE OF THE STATUTE, TO HAVE COPIES OF THE INITIAL COMPLAINTS IN ALL FOUR OF THESE MATTERS? WE BELIEVE THAT THE GIRGIS DECISION IS DISPOSITIVE OF THIS ISSUE AND THAT WE SHOULD HAVE BEEN GIVEN A COPY OF THE COMPLAINTS WHEN WE INITIALLY REQUESTED THEM IN OCTOBER OF LAST YEAR. WE SHOULD HAVE BEEN GIVEN THE COMPLAINTS AGAIN WHEN WE RAISED THE ISSUE

BEFORE THE PANEL IN DECEMBER OF LAST YEAR IN THAT WE SHOULD BE ALLOWED TO HAVE A COPY OF THE COMPLAINTS AT THIS POINT IN THE PROCEEDINGS. IT'S A LITTLE LATE TO GO BACK AND HAVE ACCESS TO THEM FOR PURPOSES OF CROSS EXAMINATION, BUT WE BELIEVE THAT WE ARE ENTITLED TO THEM REGARDLESS OF WHAT OUR INTENT MIGHT BE TO USE THEM. AT LEAST WE WOULD HAVE THEM, AND WE WOULD HAVE THE BENEFIT OF WHAT'S IN THEM FOR THE PURPOSES OF ANY FURTHER PROCEEDINGS THAT ARE IN THIS CASE. AT THE HEARING BEFORE THE ADMINISTRATIVE LAW JUDGE WHEN THE MATTER WAS DETERMINED TO BE PREMATURE, MR. WOODINGTON ADVISED THE ALJ THAT IT WAS BOARD POLICY NOT TO RELEASE COPIES OF THE COMPLAINTS. I WOULD JUST SAY TO YOU, IN REFERENCE TO A POLICY TO THAT FACT, THAT POLICIES CANNOT CONTRADICT THE STATUTES, AND THEY CERTAINLY CAN'T CONTRADICT THE PROTECTIONS GUARANTEED TO RESPONDENTS UNDER THE STATE AND FEDERAL CONSTITUTION. AND FOR THAT REASON, WE WOULD MOVE FOR PRODUCTION OF ALL OF THE COMPLAINTS ON THE CASE NUMBERS THAT ARE CAPTIONED ON ALL FOUR OF THESE CASES.

DR. BRAGDON: MR. WOODINGTON?

MR. WOODINGTON: SEVERAL POINTS, MR. CHAIRMAN. ACTUALLY, YOU KNOW WHAT, BEFORE I EVEN GET INTO THAT, I WOULD LIKE FOR THE RECORD TO SHOW WHO'S LEFT, THE SURVIVORS HERE, TO MAKE SURE WE HAVE A QUORUM PRESENT. DO WE HAVE FIVE? MS. DUNCAN, DR. BRAGDON, DR. ASSEY, DR. DIXON AND MS. RIFFE. DID I PRONOUNCE THAT CORRECTLY?

MS. RIFFE: RIFFE.

MR. WOODINGTON: RIFFE, OKAY. HAVING GOTTEN THAT OUT OF THE WAY, I DID SAY TO JUDGE KITTRELL THAT MY UNDERSTANDING WAS THAT THERE WAS A BOARD POLICY. NOW WHETHER THAT WAS A FORMAL POLICY OR WHETHER IT WAS REALLY A, MAYBE PERHAPS MORE ACCURATELY, THE BOARD HAD NEVER DONE IT BEFORE HISTORICALLY. AND I THINK THAT IS CORRECT, THAT THE BOARD HAS NEVER VOTED TO RELEASE THE INITIAL COMPLAINT. AND I WOULD SUBMIT THAT THIS SHOULD NOT BE THE CASE TO START, IF INDEED THERE EVER IS ONE BECAUSE BOTH, FIRST OF ALL, BECAUSE THE STATUTE DOES PROVIDE PRETTY CLEARLY THAT THE INFORMATION SHOULD BE CONFIDENTIAL; AND SECONDLY, BECAUSE THE GIRGIS CASE THAT SHE TALKS ABOUT IS A COURT OF APPEALS CASE. IT'S NOT THE FINAL

COURT IN SOUTH CAROLINA, WHICH IS THE SUPREME COURT. THE SUPREME COURT DECIDED NOT TO HEAR THE GIRGIS CASE, BUT, AND I HATE TO GET INTO LEGALISM WITH YOU, BUT THAT IS NOT NECESSARILY A DETERMINATION OF THE GIRGIS WAS RIGHTLY DECIDED. THEY HAVE THE DISCRETION TO DECIDE, THE SUPREME COURT DOES, WHETHER THEY HEAR A CASE OR NOT. THEY DECIDED NOT TO HEAR THAT. WHERE I'M COMING FROM WITH THAT IS THAT WE WOULD PREFER THE L.L.R. COUNSEL, GENERAL COUNSEL, AND MYSELF AS A CONTRACT LAWYER, IF WE EVER HAVE TO ARGUE THAT, IF IT EVER GETS TURNED OVER, WE WOULD PREFER THAT IT BE DONE BY A COURT, AND THAT A COURT CONSIDER THIS. IF YOU VOTE TO LET THE INITIAL COMPLAINT BE RELEASED IN THESE CASES, THEN THAT'S THE END OF THE ISSUE FOR THESE CASES. WE CAN'T -- WE HAVE NOTHING LEFT TO APPEAL. THE CAT'S OUT OF THE BAG. AND I REALIZE THAT IF THE BOARD VOTES TO DENY ACCESS TO THE INITIAL COMPLAINT AND MS. BALLARD TAKES IT UP HIGH ENOUGH AND EVENTUALLY THIS BOARD GETS REVERSED, THEN THAT'S SOMETHING WE'LL ALL HAVE TO LIVE WITH. BUT IT IS THE WAY THAT I WOULD PREFER TO GO BECAUSE I THINK, AND NOW THAT I COME TO THE

MERITS OF IT, WHEN THE COURT SAID IN GIRGIS THAT YOU'RE ENTITLED TO THE CHARGES AND THE EVIDENCE, THE CHARGES ARE THE FORMAL COMPLAINT, AND THE EVIDENCE IS WHAT THE PANEL HEARD, OR IF IT'S HEARD BY THE BOARD, THE EVIDENCE IS WHAT THE BOARD HEARD. AND IF YOU SEE THE FORMAL COMPLAINT, WHICH OF COURSE THEY DID, AND IF YOU SEE ALL THE EVIDENCE, WHICH OF COURSE THE PANEL DID, AND YOU HAVE ACCESS TO IN PLAY (PH), THEN THEY HAVE ACCESS TO THE CHARGES AND TO THE EVIDENCE. IF THERE ARE THINGS IN THE FORMAL COMPLAINT, I MEAN IN THE INITIAL COMPLAINT THAT ARE IN ADDITION TO THAT OR WHAT HAVE YOU, THE HEARING, THE DECISION-MAKING BODY HAS NOT SEEN THAT MATERIAL. AND SO IT'S IRRELEVANT TO THE OUTCOME OF THE CASE. SO FOR THOSE REASONS, I WOULD RESPECTFULLY REQUEST THAT THE BOARD DENY THE MOTION TO DISCLOSE THE INITIAL COMPLAINT AT THIS TIME, INITIAL COMPLAINTS AT THIS TIME AND LET THIS PROCEEDING GO WHERE IT WILL FROM THERE AND JUST BASICALLY FOLLOW YOUR PAST PRACTICE IN THIS REGARD. THE DENTISTS WHO, AND IF THERE WERE DENTISTS -- AND ACTUALLY I THINK IT'S ALMOST A GIVEN THAT THERE WAS ONE ANYWAY.

MS. BALLARD: TWO.

MR. WOODINGTON: ANYBODY WHO TURNED OVER INFORMATION OR WHO TURNED IN A COMPLAINT IN THESE CASES DID SO, I BELIEVE, UNDER A REASONABLE EXPECTATION THAT THEY COULD RELY ON THE STATUTES AND THE MATERIAL TO BE CONFIDENTIAL, TO PROTECT THAT AS WELL AS JUST TO FOLLOW THE PAST BOARD PRACTICE. I WOULD REQUEST THAT THE MOTION BE DENIED.

MR. BRAGDON: THANK YOU.

MS. BALLARD: WITH ALL DUE RESPECT TO MR. WOODINGTON, WHO I WORK WITH ALL THE TIME, L.L.R.'S COUNSEL'S PREFERENCE AS TO WHEN THIS ISSUE GETS DECIDED IS NOT DETERMINATIVE OF WHETHER THIS BOARD SHOULD DECIDE A LEGAL ISSUE THAT IS BEFORE IT. THERE ARE LOTS OF ISSUES THAT I WOULD PREFER GET DECIDED IN THE APPELLATE COURTS, BUT I STRUGGLE WITH IT EVERY DAY IN THE TRIAL COURTS. AND I WOULD LOVE TO BE ABLE TO SAY TO THE COURT, WELL, I'D REALLY PREFER THAT THAT GET DECIDED BY A DIFFERENT COURT, THAT'S NOT THE STANDARD FOR LITIGATION. WHEN YOU RAISE THE ISSUE BEFORE THE COURT, YOU RAISE THE LEGAL ISSUE BEFORE THE ADJUDICATORY BODY. IT'S GOT TO BE RULED ON. YOU HAVE TO

SAY YES OR NO. YOU CAN'T SAY I'LL DEFER IT TO SOMEBODY ELSE. UNFORTUNATELY, YOU DON'T HAVE THAT PRIVILEGE. SECONDLY, ANY REASONABLE EXPECTATION OF PRIVACY THAT MIGHT HAVE BEEN GIVEN TO OR HELD BY ANY COMPLAINANTS THAT MIGHT HAVE FILED COMPLAINTS WITH THIS ARE SIMPLY NOT ALLOWED UNDER LAW. AND DETERMINING WHETHER SOMEONE'S RIGHTS HAVE BEEN VIOLATED, A THIRD PARTY'S EXPECTATION OR BELIEF IS COMPLETELY IRRELEVANT IN DETERMINING WHETHER MY CLIENTS' RIGHTS ARE BEING PROPERLY PROTECTED. AND LASTLY, I WOULD REFER YOU TO THE LANGUAGE OF 14-15-180, WHICH IS THE STATUTE THAT WE'VE ALL BEEN TALKING ABOUT. SUBSECTION 4, WHICH TALKS ABOUT NOT JUST FORMAL CHARGES, IT TALKS ABOUT COMMUNICATIONS. AND THE LAST TIME I CHECKED, AN AFFIDAVIT THAT WOULD BE FILED WITH THE BOARD WOULD BE A COMMUNICATION. AND WE WOULD BE SUBJECT TO RECEIVING THAT ON OUR REQUEST. NOW THE OTHER THING THAT I DON'T THINK, IN FACT I KNOW, THAT YOU CANNOT BASE YOUR DECISION ON IS THAT IF YOU DECIDE THE CASE AND GIVEN THE COMPLAINTS WE NEVER GET ANSWERED THIS QUESTION -- I WOULD LOVE TO HAVE AN ANSWER TO THIS QUESTION. I

KNOW MR. WOODINGTON WOULD, AND I KNOW EVERY BOARD THAT'S UNDER THE UMBRELLA OF L.L.R. WOULD LOVE TO HAVE AN ANSWER TO THIS QUESTION. THE ONLY BOARD THAT HAS SPECIFICALLY GOTTEN AN APPELLATE DECISION PUBLISHED ANSWERING THESE QUESTIONS ARE THE MEDICAL BOARD AND NURSING BOARD. ALL OF THAT SETTING ASIDE, WE'D LOVE TO HAVE SOME LAW. BUT DESPITE THE FACT THAT WE DON'T HAVE ANYTHING SPECIFICALLY ADDRESSING THIS STATUTE, THE LAW IS CLEAR. THE LANGUAGE OF THIS STATUTE HAS BEEN ADDRESSED UNDER THESE CIRCUMSTANCES, AND WE WOULD RENEW OUR REQUEST FOR DISCLOSURE OF THE INITIAL COMPLAINTS. CAN I HAVE JUST ONE SECOND?

(OFF THE RECORD)

MS. BALLARD: THAT'S ALL I'VE GOT AT THIS POINT. THANK YOU.

DR. BRAGDON: (TO MR. WOODINGTON) ANYTHING?

MR. WOODINGTON: IT'S PROBABLY INAPPROPRIATE FOR ME TO STAND UP AND MAKE A SECOND POINT. AND I WON'T AN ARGUMENT. I JUST WANT TO CLARIFY THAT I DID NOT ASK THE BOARD TO DEFER IT AND PASS IT ALONG; I ASKED THE BOARD TO DENY THE REQUEST AS YOU'VE DONE EVERY OTHER TIME, TO INDEED MAKE A DECISION AND DENY IT.

DR. BRAGDON: TOMMY, WILL YOU MAKE A MOTION FOR US TO GO INTO EXECUTIVE SESSION?

DR. DIXON: I MAKE A MOTION TO GO INTO EXECUTIVE SESSION.

DR. BRAGDON: ALL THOSE IN FAVOR SAY, AYE.

(ALL BOARD MEMBERS SAY, AYE)

(OFF THE RECORD; EXECUTIVE SESSION 3:50 - 4:00 P.M.)

DR. BRAGDON: WE'RE BACK INTO OPEN SESSION.

DR. ASSEY: MR. CHAIRMAN, I MAKE A MOTION THAT THE MOTION FOR A COPY OF THE INITIAL COMPLAINTS BE DENIED.

DR. BRAGDON: IS THERE A SECOND TO THAT MOTION?

MS. DUNCAN: I SECOND.

DR. BRAGDON: ALL THOSE IN FAVOR, SAY AYE.

(ALL BOARD MEMBERS SAY AYE EXCEPT MS. RIFFE)

DR. BRAGDON: OPPOSED?

MS. RIFFE: OPPOSED.

DR. BRAGDON: THE MOTION CARRIES. MOTION DENIED.

MR. ROSEN: IF I'M NOT MISTAKEN, I BELIEVE WE ARE READY TO APPROACH THE CASE ON THE MERITS.

MS. BALLARD: WE ARE.

MR. WOODINGTON: WE ARE. I'D LIKE TO CONFER WITH MS. BALLARD FOR JUST A MINUTE BEFORE WE START THIS PHASE, IF I MAY?

DR. BRAGDON: THAT'S FINE.

(OFF THE RECORD 4:03 - 4:06 P.M.)

MR. BRAGDON: OKAY, MR. WOODINGTON?

OPENING REMARKS FOR THE STATE:

MR. WOODINGTON: WHAT I PROPOSE TO DO THIS AFTERNOON, AND I GATHER YOU'VE HAD SOME EXPERIENCE WITH THESE THIS MORNING IN THE PANEL HEARING APPEALS, OR NOT APPEALS, BUT FINAL ORDER HEARINGS ON PANEL REPORTS, IS SINCE WE HAVE FOUR CASES AND SINCE WE SORT OF AGREE TO DO ALL FOUR AT THE SAME TIME, I THOUGHT I WOULD BRIEFLY DISCUSS THE POSITION OF THE L.L.R. COUNSEL ON ALL FOUR OF THE CASES AND JUST SORT OF LEAD OFF WITH THAT. I EXPECT TO BE STANDING UP HERE FOR MAYBE 15 MINUTES OR SO JUST TO GIVE YOU AN IDEA AND GO FROM THERE. I ALSO -- WE'RE BASICALLY ASKING THAT, AS TO THE FINDINGS THAT WERE MADE, THAT THE BOARD FOLLOW THE REPORT OF RECOMMENDATIONS IN EACH CASE. NOW ONE SLIGHT CHANGE FROM THE BRIEF WE FILED, AND THAT'S WHAT I WAS JUST TALKING TO MS. BALLARD ABOUT OUT IN THE HALL. I'VE CONSULTED WITH LYNNE ROGERS, WHO IS THE L.L.R. GENERAL COUNSEL. AND THE PANEL RECOMMENDED THAT IN TWO OF THE CASES THERE BE A PUBLIC REPRIMAND, AND IN ONE OF THOSE A PUBLIC

REPRIMAND AND A FINE. I WOULD LIKE TO ASK -- AND MR. ROSEN, NOBODY'S HEARD THIS BEFORE -- THAT THE BOARD CONSIDER DOING A PUBLIC, BUT ANONYMOUS REPRIMAND OF THE TWO HYGIENISTS THAT WERE FOUND THAT HAD VIOLATED THE STANDARD OF CARE. SO IT WOULD SAY, IN RE: AN ANONYMOUS DENTAL HYGIENIST. AND BASICALLY THE ORDER WOULD READ ABOUT THE SAME AS THE PANEL RECOMMENDATIONS, BUT IT WOULD SAY THAT SO AND SO, AN ANONYMOUS DENTAL HYGIENIST EMPLOYED AS PART OF THE PUBLIC HEALTH PROGRAM, DID THE FOLLOWING. I MAKE THAT SUGGESTION BECAUSE THIS IS A -- OBVIOUSLY, THERE ARE A LOT OF TEETH SEEN IN THE PUBLIC HEALTH SETTING. AND IT JUST SEEMS THAT THESE TWO LADIES HAPPEN TO BE THE FIRST ONES TO STICK THEIR HEADS ABOVE INTO HARM'S WAY, AND MAYBE THAT WOULD GET THE STANDARD OF CARE ISSUE SETTLED WITHOUT UNDULY HURTING THESE LADIES. BUT THAT'S OBVIOUSLY UP TO THE BOARD, YOU KNOW. AND A LOT OF TIMES IN THE MEDICAL BOARD THE LAWYERS DON'T EVEN MAKE A RECOMMENDATION, AND I JUST MAKE THAT AS A SUGGESTION, AND YOU'RE OBVIOUSLY FREE TO DO WHAT YOU WANT WITH IT. HAVING MADE THAT PREFATORY REMARK -- IS THERE A COMMENT?

MR. ROSEN: NO, SIR.

MR. WOODINGTON: OKAY. I'M SORRY. THESE MATTERS OF COURSE INVOLVE FOUR DENTAL HYGIENISTS WHO APPLIED THE SEALANTS TO THE TEETH OF SIX DIFFERENT CHILDREN. BRIEFS HAVE BEEN FILED BY MS. BALLARD AND BY ME ON THE MERITS OF THE CASES AND ON SOME OF THE STANDARD OF CARE ISSUES AS WELL. WHEN I SAID WE ASKED THAT YOU FOLLOW THE PANEL'S RECOMMENDATIONS ON THE FINDINGS, I MEAN ON THE ONES THAT WE BASICALLY LOST AS WELL AS ON THE ONES THAT WE BASICALLY WON. I DON'T KNOW IF I SHOULD CALL IT WIN OR LOST. BUT THE ONES WHERE THE HYGIENISTS WERE FOUND NOT TO HAVE VIOLATED THE STANDARD OF CARE, THE I.R.C. OF COURSE LOOKED AT THESE, LOOKED AT THE EVIDENCE AND MADE A RECOMMENDATION THAT THE CASES GO FORWARD. WE PRESENTED THOSE CASES, ALL FOURS OF THOSE CASES. AND LET ME SAY, THE FOUR HYGIENISTS -- I TEND TO THINK OF THESE AS BEING SIX CASES, BECAUSE THERE WERE SIX SEPARATE PATIENTS. SO IF I SLIP AND CALL IT SIX CASES, THAT'S WHAT I MEAN IS THERE'S SIX PATIENTS. SO EACH PATIENT IS KIND OF A CASE IN A WAY. IT EVEN -- ALL OF THE CASES WERE EXAMINED BY A PANEL OF DENTISTS

AND I THINK ONE HYGIENIST ON THAT PANEL, THE WITNESSES WERE HEARD AT GREAT LENGTH, THE TESTIMONY WAS THERE, THE EXAMINING DENTISTS WERE HEARD FROM, THE HYGIENISTS WERE HEARD FROM, THE RECORDS WERE LOOKED AT. AND AFTER QUITE A BIT OF CONSIDERATION, AS I UNDERSTAND, THE PANEL CAME TO ITS RECOMMENDATIONS, WHICH WERE THAT SOME OF THE HYGIENISTS VIOLATED THE STANDARD OF CARE AND SOME DID NOT. AND IN ONE CASE THEY FOUND THAT HYGIENIST 1, I BELIEVE DID VIOLATE IN ONE CASE, IN ONE INSTANCE, AND ANOTHER -- AND IN THE CASE IN ANOTHER PATIENT DID NOT. SO BASICALLY THE REASON FOR ALL OF THAT IS BY WAY OF SAYING ONE REASON WE'RE HERE IS JUST TO ACCEPT ALL OF THE PANEL'S FINDINGS, IS THAT IN MY OPINION, THEY GAVE A VERY DELIBERATE AND CONSIDERATE, TOOK A VERY DELIBERATE AND CONSIDERATE VIEW OF THE WHOLE MATTER AND SORTED OUT THINGS VERY PRECISELY AND MADE A CONSCIENTIOUS EFFORT TO COME TO THE RIGHT RESULT IN EACH CASE. AND WE DON'T DISAGREE WITH THAT. I WOULD LIKE TO DISCUSS FOR JUST A SECOND IF I MAY, AND IF I SHOULDN'T THEN SOMEBODY STOP ME, THE TWO CASES, THE TWO HYGIENISTS WHO WERE FOUND NOT TO HAVE VIOLATED

THE STANDARD OF CARE BECAUSE THEY PROVIDE SOME ILLUSTRATION OF WHAT THE STANDARD OF CARE IS. ONE OF COURSE IS HYGIENIST 3, THE FORMER HYGIENIST 3, SHE HAD TWO PATIENTS. ONE OF WHOM HAD A SURFACE OCCLUSAL DECAY ON TEETH 14 AND 19. THE PANEL APPARENTLY CONCLUDED THAT THE DECAY WAS NOT APPARENT ENOUGH TO THE HYGIENIST TO CONCLUDE THAT THE STANDARD OF CARE HAD BEEN VIOLATED. IT WASN'T APPARENT ENOUGH. THAT'S A QUESTION I SUPPOSE ABOUT REASONABLE PEOPLE CAN DIFFER. OBVIOUSLY THE EXAMINING DENTIST THOUGHT IT WAS APPARENT ENOUGH; THE PANEL THOUGHT IT WASN'T. THE PANEL FOUND THAT THERE WAS NOT SUFFICIENT EVIDENCE THAT THE HYGIENIST KNEW OR SHOULD HAVE KNOWN THAT THE DECAY WAS PRESENT ON THOSE TEETH FOR THAT PATIENT, WHOSE INITIALS WERE F.B. HYGIENIST 3 ALSO ON A PATIENT WHOSE INITIALS ARE B.W., THERE WAS DECAY ON TEETH 33 AND 30 THAT WERE SEALED. HYGIENIST 3 THE PANEL FOUND ATTEMPTED TO AVOID SEALING IN THE AREAS THAT SHE DETECTED AS A PROBLEM. AND AGAIN, I GUESS THE BOARD, OR PANEL RATHER, MUST HAVE DECIDED THAT SHE TOOK A FINE ENOUGH APPROACH TO IT IN ATTEMPTING NOT TO SEAL OVER

AREAS THAT SHE THOUGHT WERE DECAYED. AND IN VIEW OF HER CARE IN THE MATTER, THEY RECOMMENDED THAT NO VIOLATION BE FOUND IN THAT CASE. LIKEWISE, IN THE CASE OF HYGIENIST 4, SEALANTS WERE PLACED ON THREE, 14, 19, AND 30. AND THE PANEL FELT THAT THE DECAY ON TOOTH NUMBER THREE, WHILE IT WAS SHOWN FAIRLY CLEARLY ON X-RAYS THAT WERE TAKEN LATER BY THE DENTIST, THAT THAT DECAY WAS NOT SUFFICIENTLY APPARENT TO THE HYGIENIST TO WARRANT A FINDING THAT THE STANDARD OF CARE HAD BEEN VIOLATED. AND I THINK THAT, AND ONE OF THE REASONS I WANT TO TALK ABOUT THIS MATTER IS THAT I THINK THAT THE PANEL CONCLUDED, IN EFFECT, THAT A HYGIENIST IS NOT REQUIRED OR EXPECTED TO SEE DECAY THAT CAN ONLY BE SEEN BY X-RAYS. IF THAT'S THE ONLY WAY YOU CAN FIND IT, THAT'S NOT THE STANDARD OF CARE FOR A DENTAL HYGIENIST. THAT'S PRETTY MUCH EXPRESSLY RIGHT IN THE PANEL'S RECOMMENDATIONS IN THE HYGIENIST 4 CASE. SO THOSE, THOSE I JUST GO OVER BRIEFLY TO SHOW WHAT THEY FOUND WAS NOT A VIOLATION BECAUSE IT HELPS DELINEATE WHAT WAS A VIOLATION. WELL, THERE WAS ONE MORE, HYGIENIST 1, THE PATIENT NAME T.M., AGAIN

SEALANTS ON THREE, 14, 19, AND 30. HYGIENIST 1 CODED THESE TEETH, AND THEIR INTERNAL CODE AS CODE 11, INDICATING OBVIOUS PROBLEMS THAT REQUIRE REFERRAL TO A DENTIST. SHE SAW THE DECAY ON TOOTH NUMBER THREE, BUT CLAIMED IT WASN'T GROSS DECAY. THE PANEL FOUND AGAIN THAT THE EVIDENCE OF OBVIOUS DECAY MAY NOT HAVE BEEN SUFFICIENTLY CLEAR TO THE RESPONDENT OR HYGIENIST 1 ON THAT CASE, SO AGAIN THERE WAS NO VIOLATION OF STANDARD OF CARE. SO AGAIN, AS I WILL SAY AGAIN IN A MINUTE PROBABLY, IN CASES, IN DOUBTFUL CASES, I THINK IT'S FAIR TO SAY THAT THE PANEL GAVE THE HYGIENIST THE BENEFIT OF THE DOUBT IN EVERY CASE THAT WAS DOUBTFUL. IN THE OTHER TWO CASES, ONE INVOLVING HYGIENIST 1 AND ONE INVOLVING HYGIENIST 2, VIOLATIONS OF THE STANDARD OF CARE WERE FOUND. NOW, DOES EVERYBODY HAVE COPIES OF -- ACTUALLY THE BEST PLACE TO FIND THIS, MS. BALLARD DID A MEMORANDUM TO THE BOARD AND THERE'S COLOR PHOTOS AT THE BACK OF BOTH OF THOSE MEMORANDUMS. DOES EVERYBODY HAVE COPIES OF THAT? OKAY, THE FIRST ONE I'M GOING TO TALK ABOUT IS HYGIENIST 1.

(PANEL MEMBERS REVIEWING DOCUMENTS)

MR. ASSEY: YES.

MR. WOODINGTON: IN THIS CASE, THE PANEL FOUND A VIOLATION OF THE STANDARD OF CARE AND RECOMMENDED A PUBLIC REPRIMAND, BUT NOT A FINE. NOW THEN, THE PANEL NOTED THAT THE EXAMINING DENTIST FOUND VISIBLY APPARENT DECAY, I SHOULD SAY AND SPELL THIS OUT A LITTLE MORE IN DETAIL IN THE BRIEF. BUT THE PATIENT WENT TO THE HYGIENIST FIRST AND HAD THE SEALANTS PLACED ON THOSE TEETH AND THEN WENT TO THE DENTIST A FEW WEEKS LATER I BELIEVE, AND THE DENTIST SAW THE SEALANTS ON THE TEETH, I THINK THE DENTAL, THE HYGIENIST OF THAT DENTIST ALSO SAW THE SEALANTS ON THOSE TEETH, AND PHOTOGRAPHS WERE TAKEN, AND HERE THEY ARE (INDICATING). AND THERE'S SOME ISSUE, AND I DON'T KNOW WHY, ABOUT WHETHER THE TEETH WERE PROPERLY IDENTIFIED IN THE RECORD. IN FACT, IN VERY TINY LETTERS DOWN HERE I ASK THE QUESTION OF THE DENTIST, DOES THE NUMBER OF THE PHOTOGRAPH INDICATE THE NUMBER OF THE TEETH, I MEAN TOOTH, AND HE SAID, YES. SO EVERY TIME THAT I SAID TO HIM, LOOKING AT PHOTOGRAPH 14, DID YOU FIND DECAY THERE, HE'S

TALKING, HE'S OBVIOUSLY TALKING ABOUT TOOTH 14, PUTTING TWO AND TWO TOGETHER. ANYWAY, HE LOOKED, HE AND THE HYGIENIST LOOKED AT THOSE TEETH. AND EVEN WITH THE SEALANTS IN PLACE, WHICH ARE SOMEWHAT OPAQUE, YOU KNOW, AND OBVIOUSLY THE BOARD CAN LOOK THROUGH THESE, THE BOARD MEMBERS CAN LOOK THROUGH THESE -- AND YOU'RE DENTISTS AND I'M NOT. YOU CAN SEE DARK HALOS, DARK SPOTS IN MANY INSTANCES, AND RIGHT UNDER THE, RIGHT EVEN WITH THE SEALANTS IN PLACE. IT SEEMS CLEAR ENOUGH TO ME AS A LAYMAN; IT SEEMED CLEAR ENOUGH TO THE PANEL. AND SO THE BOARD, THE PANEL FOUND THAT THERE WAS A, QUOTE, LARGE AND EXTENSIVE DEGREE OF DECAY, WHICH SHOULD HAVE BEEN OBVIOUS TO THE RESPONDENT. NOW OF COURSE THE PANEL ALSO SAID THAT THE DECAY WAS PRESENT IN SEVERAL TEETH, QUOTE/UNQUOTE. IT WOULD PROBABLY BE JUST AS WELL IF THE BOARD DECIDES TO ACCEPT THE PANEL'S RECOMMENDATIONS ON THIS TO GO AHEAD AND SPELL OUT SPECIFIC TEETH BY NUMBER THAT WERE IMPROPERLY COVERED AS HAVING HAD GROSS DECAY ON THEM. THAT'S THE -- I JUST WANTED TO GO OVER THE FACTS OF THOSE TEETH OF THAT PATIENT FOR A MINUTE. AND BASICALLY, RATHER

THAN ME SPILL A THOUSAND WORDS, I JUST REFERRED TO THE PICTURES IN EACH ONE. THEY PROBABLY SAY A LOT MORE TO YOU THAN THEY DO TO ME. LIKEWISE, IN THIS HYGIENIST 2 CASE, THIS VIOLATION WAS FOUND, A PUBLIC REPRIMAND WAS RECOMMENDED AS WELL AS A $500.00 FINE. THIS IS THE ONLY CASE OF ITS KIND IN THIS GROUP I BELIEVE, CERTAINLY THE ONLY TWO THAT ARE CONTESTED BY US, OR BY MS. BALLARD. IN THIS CASE, THE PATIENT HAD ACTUALLY GONE TO DR. ADAM UP IN GREENVILLE FIRST BEFORE THE PATIENT WENT TO THE HYGIENIST, JUST A FEW WEEKS PRIOR AS A MATTER OF FACT. DR. ADAMS, WHOSE CHART IS IN EVIDENCE, FOUND DECAY ON ALL THE TEETH THAT WERE SEALED I BELIEVE. I CAN GIVE YOU THE NUMBERS. AND ACTUALLY HAD -- HIS CHART INDICATES, IN THIS CASE, THE SEALED TEETH WERE THREE, 14, 19, AND 30. HE FOUND DECAY BEFORE THE SEALANTS WERE PLACED. HIS CHART RECOMMENDS OR SHOWS THAT HE'S TALKING ABOUT RESTORATIONS IN THE VERY NEAR FUTURE ON THOSE TEETH. SO THIS IS THE ONE CASE WHERE WE HAVE, WHERE THE EXAMINING DENTIST ACTUALLY SAW THE TEETH BEFORE THE SEALANTS WERE PLACED. AND WHAT HE SAW, HE TESTIFIED, WITH HIS EXPLORER,

WITH HIS EYES AND WITH HIS EXPLORER, WAS VISIBLE, FRANK, OBVIOUS DECAY THAT HE SAID SPECIFICALLY HE COULD SEE, QUOTE, AN OBVIOUS HALO WITH JUST THE NAKED EYE. AND HE ALSO THOUGHT THAT SHOULD BE APPARENT TO THE HYGIENIST A FEW WEEKS LATER WHEN SHE SAW THE PATIENT. SO APPARENTLY THE PATIENT CAME BACK TO HIM NOT VERY LONG AT ALL AFTER THE SEALANTS HAD BEEN PLACED. HE DID TAKE AN INTER-ORAL PHOTO OF THE FOUR TEETH, WHICH IS HERE. AND YOU'VE SEEN THIS ONE, TOO I SUPPOSE (INDICATING). THIS IS IN THE HYGIENIST 2 CASE.

MS. BALLARD: THOSE ARE ATTACHED TO MY MEMORANDUM AS WELL.

MR. WOODINGTON: THEY'RE ACTUALLY OUR EXHIBITS, BUT SINCE SHE WAS NICE ENOUGH TO COPY THEM, AND IT'S HANDY TO DO IT THIS WAY. YOU KNOW, YOU -- I WILL NOT OPINE ON WHAT YOU CAN TELL FROM THAT, THE MAIN EVIDENCE IN THIS WAS MORE A CASE OF THE EXAMINING DENTIST TESTIFYING AS TO WHAT HE SAW BEFORE THE SEALANTS WERE PLACED. IN THIS NEXT PHOTOGRAPH, HE TOOK THE SEALANTS AWAY FROM THE PICTURES I BELIEVE ON TOOTH NUMBER THREE. AND YOU CAN SEE THE DECAY WAS

PRESENT THERE. BUT NO MATTER BECAUSE HE'S TESTIFIED, AND HIS CHART INDICATES THAT HE SAW AT THE TIME DECAY BEFORE THE SEALANTS WERE PLACED. THE HYGIENIST IN THIS CASE QUANTIFIED THE TEETH UNDER THEIR INTERNAL CODE AS HAVING NO OBVIOUS PROBLEMS. THE PANEL AGAIN FOUND THE FACT THAT THE SEALANTS WERE PLACED, QUOTE, ON SEVERAL TEETH, WHICH MIGHT BE JUST AS WELL AS IDENTIFIED SPECIFICALLY. AND THE PANEL FOUND WHEN THIS, WHEN THE DECAY WAS THIS OBVIOUS AS IT WAS IN THIS CASE, WITH THIS PATIENT, IT WAS A VIOLATION OF THE STANDARD OF CARE TO PLACE SEALANTS OVER IT. THAT IS A VERY BRIEF DISCUSSION OF THE FACTS. NOW I'D LIKE TO TALK ABOUT THE SEALANTS AND THE STANDARD OF CARE FOR A MINUTE. UNLESS THERE ARE QUESTIONS ABOUT THAT? I SUSPECT, LIKE I SAY, Y'ALL SEE THESE THINGS ALL THE TIME. THE FINDING OF THE PANEL ON THESE CASES, AND I'M QUOTING FROM ONE OF THESE, BUT I THINK THE SAME LANGUAGE IS IN BOTH OF THE CASES, WE FIND THAT THERE IS A DEVIATION FROM THE STANDARD OF CARE REGARDLESS OF SETTING, THAT IS, REGARDLESS OF WHETHER IT'S PUBLIC HEALTH OR PRIVATE PRACTICE, WHAT HAVE YOU, WE FIND IT'S

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A DEVIATION FROM THE STANDARD OF CARE WHEN A SEALANT IS PLACED OVER CLINICALLY OBVIOUS DECAY. PUTTING TWO AND TWO TOGETHER, WE'VE HAD THE EXAMINING DENTIST AND OTHER EVIDENCE THAT THERE WAS CLINICALLY EVIDENT, CLINICALLY OBVIOUS DECAY IN THESE CASES. SO THE PANEL FOUND THAT THERE WAS A DEVIATION FROM THE STANDARD OF CARE WHEN A SEALANT WAS PLACED OVER CLINICALLY OBVIOUS DECAY. AGAIN, THOUGH THEY STILL GAVE THE BENEFIT OF THE DOUBT TO THE HYGIENIST IN THE NEXT SENTENCE OR SOMEWHERE AROUND IN THERE BY SAYING, QUOTE, IN THE SETTINGS INVOLVED IN THIS AND IN COMPANION CASES, IT IS ESPECIALLY IMPORTANT TO DETERMINE WHAT THE HYGIENIST WAS ABLE TO OR SHOULD HAVE BEEN ABLE TO DETERMINE WITH THE MEANS AT HER DISPOSAL. AGAIN, AS I SAID EARLIER, NOT HOLDING THE HYGIENIST TO AN X-RAY STANDARD, EXPLORER AND EYES. MAYBE THE OTHER THING, THE DIAGNODENT OR SOMETHING, BUT THE PANEL DIDN'T EVEN, IF THAT'S THE RIGHT WORD, BUT THE PANEL DIDN'T EVEN SAY THAT SHE, THE HYGIENIST SHOULD USE THAT. THIS, I WOULD SUBMIT, IS A VERY MINIMAL STANDARD. MY SIMPLISTIC MIND SAYS THEY DIDN'T LIKE THIS -- YOU DON'T PUT SPRAY