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THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

APPEAL FROM FLORENCE COUNTY  
Court of Common Pleas

William H. Seals, Jr., Circuit Court Judge

Appellate Case No. 2016-001551

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SC Court of Appeals

Christy Byrd, as Next Friend of Julia B., a minor, ..... Appellant,

v.

McLeod Physician Associates II and Dr. John B. Browning, ..... Respondents.

RECORD ON APPEAL  
VOLUME 3 OF 3

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THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

APPEAL FROM FLORENCE COUNTY  
Court of Common Pleas

William H. Seals, Jr., Circuit Court Judge

Case No. 2013-CP-21-00690

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FLORENCE COUNTY, SC

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Christy Byrd, as Next Friend of Julia B., a minor, ..... Appellant,

v.

McLeod Physician Associates II and Dr. John B. Browning, ..... Respondent.

NOTICE OF APPEAL

Christy Byrd, individually and as Next Friend of Julia B., a minor, appeals the Honorable William H. Seals, Jr. Order Denying Plaintiff's Motion for a New Trial Absolute, and/or Judgment Notwithstanding the Verdict dated June 26, 2016 and entered on record on July 11, 2016. Appellant received written notice of entry of this Order on July 14, 2016.

July 26, 2016



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THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

APPEAL FROM FLORENCE COUNTY  
Court of Common Pleas

William H. Seals, Jr., Circuit Court Judge

Case No. 2013-CP-21-00690

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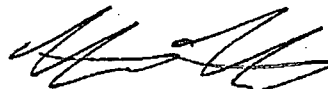
Christy Byrd, as Next Friend of Julia B., a minor, ..... Appellant,

v.

McLeod Physician Associates II and Dr. John B. Browning, ..... Respondent.

PROOF OF SERVICE

I certify that I have served the Notice of Appeal on McLeod Physician Associates II and Dr. John B. Browning by depositing a copy of it in the United States Mail, postage prepaid, on July 26, 2016, addressed to their attorneys of record, Elloree A. Gaines and Molly H. Craig, Post Office Box 1508, Charleston, South Carolina 29402.



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July 26, 2016

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FLORENCE COUNTY, S.C.

STATE OF SOUTH CAROLINA

COUNTY OF FLORENCE

Christy Byrd, as Next Friend of Julia  
B a minor,

*Plaintiff,*

Versus

McLeod Physician Associates II and Dr.  
John B. Browning,

*Defendants:*

) IN THE COURT OF COMMON PLEAS

) TWELFTH JUDICIAL CIRCUIT

) C/A No. 2013-CP-21-00690

) ORDER DENYING PLAINTIFF'S  
) MOTION FOR NEW TRIAL  
) ABSOLUTE AND/OR JUDGMENT  
) NOTWITHSTANDING THE  
) VERDICT

FILED  
JUL 14 2016  
BY: [Signature]

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JUL 11 PM 4: [Signature]  
CLERK OF COURT, C.P. & G.S.  
FLORENCE COUNTY, S.C.

This matter is before the Court on a Motion for New Trial Absolute and/or Judgment notwithstanding the Verdict filed by Plaintiff Christy Byrd, as Next Friend of Julia B a minor. This is a medical malpractice action arising out of the labor and delivery of Julia B on October 8, 2009, in which Plaintiff alleges that Julia B sustained permanent right brachial plexus nerve injuries as a result of alleged acts or omissions of the attending physician, Dr. John B. Browning of McLeod Physician Associates II. The first trial of this case was held from September 22-25, 2015, which resulted in a mistrial being declared on September 25, 2015, after improper testimony was offered in the presence of the jury during the direct examination by Plaintiff's expert rebuttal witness, Dr. Daniel Strickland. This case was tried again before the Court from May 16-20, 2016 resulting in a jury verdict in favor of Defendants McLeod Physician Associates II and Dr. John B. Browning. In utilizing the verdict form, the jury found the Defendants proved by a greater weight or preponderance of the evidence that the facts of this case arose from a genuine emergency situation where the patient was not medically stable and there was an immediate threat of death or serious bodily injury. The jury then found Dr. John B. Browning did not act in a manner that was grossly negligent.

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FLORENCE COUNTY, S.C.

On May 31, 2016, Plaintiff timely filed a Motion for New Trial Absolute and/or Judgment notwithstanding the Verdict. On June 10, 2016, Defendants timely submitted a Response in Opposition to Plaintiff's Motion for New Trial and/or Judgment notwithstanding the Verdict. After careful consideration of the parties' respective written submissions and applicable law and for the reasons stated herein, Plaintiff's Motion for New Trial Absolute and/or Judgment notwithstanding the Verdict is DENIED.

The grant or denial of new trial motions rests within the discretion of the circuit court, and its decision will not be disturbed on appeal unless its findings are wholly unsupported by the evidence or the conclusions reached are controlled by error of law. Krepps by Krepps v. Ausen, 324 S.C. 597, 608, 479 S.E.2d 290, 296 (Ct. App. 1996); Umhoefer v. Bollinger, 298 S.C. 221, 224, 379 S.E.2d 296, 297 (Ct. App. 1989). In reviewing a motion for judgment notwithstanding the verdict, the court views the evidence and inferences that reasonably can be drawn therefrom in the light most favorable to the non-moving party. Sabb v. S.C. State Univ., 350 S.C. 416, 427, 567 S.E.2d 231, 236 (2002). The trial court must deny a motion for judgment notwithstanding the verdict if the evidence yields more than one reasonable inference or its inference is in doubt. Id.; Strange v. S.C. Dept of Highways & Pub. Transp., 314 S.C. 427, 445 S.E.2d 439 (1994).

Plaintiff moves for a New Trial Absolute and/or Judgment notwithstanding the Verdict on the basis that the Court erred in failing to find that the Obstetrical Medical Emergency Exception (S.C. Code Ann. § 15-32-230) did not apply as a matter of law and that the Court erred in failing to find that the proper Defendant or employer of Dr. Browning in this case was McLeod Physician Associates, Inc., a

for-profit entity, instead of McLeod Physician Associates II, a 501(c)(3) charitable institution.

As an initial matter, the Court finds there was sufficient evidence in the record that the Obstetrical Medical Emergency Exception applied to this case and that the Defendants presented sufficient evidence at trial as to each element of the Obstetrical Medical Emergency Exception in pleading the statute as an affirmative defense. Specifically, there was sufficient evidence in the record establishing that shoulder dystocia constitutes a genuine emergency situation, that the patient was not medically stable, and that there was an immediate threat of death or serious bodily injury. While there was a dispute between the expert witnesses for both Plaintiff and the Defendants as to implications of Julia E's medical condition at the time of delivery, there was sufficient evidence presented for the jury to decide, on proper instructions from the Court, whether the Obstetrical Medical Emergency Exception applied. Accordingly, the Court denied Plaintiff's request that the Obstetrical Medical Emergency Exception did not apply as a matter of law and instructed the jury on the applicable provisions of the Obstetrical Medical Emergency Exception in its charge and incorporated the applicable provisions into the verdict form.

The Court also finds that sufficient evidence was presented at trial that Dr. John B. Browning was employed by McLeod Physician Associates II, a 501(c)(3) charitable institution, at the time of the delivery of Julia B. The Court heard testimony from Saunders M. Bridges, Jr., personal counsel for McLeod Physician Associates II, who discussed the formation of the entity as a 501(c)(3) charitable institution and that it was the entity that employed Dr. Browning at the time of the

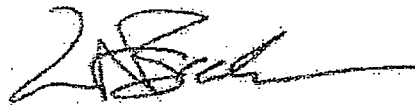
delivery of Julia B on October 8, 2009. In addition to the testimony offered by Mr. Bridges, the Court also considered the documentation provided by the Defendants and Mr. Bridges in finding that sufficient evidence was presented that Dr. Browning was employed by McLeod Physician Associates II at the time of the delivery of Julia B

CONCLUSION

Accordingly, for the reasons stated herein and after careful consideration of the parties' respective written submission and applicable law, it is HEREBY ORDERED that Plaintiff's Motion for New Trial Absolute and/or Judgment notwithstanding the Verdict is DENIED.

IT IS SO ORDERED.

6/26, 2016  
Marion, South Carolina



Judge William H. Seals, Jr.  
Presiding Judge, 12<sup>th</sup> Judicial Circuit

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FLORENCE COUNTY, SC

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STATE OF SOUTH CAROLINA  
COUNTY OF FLORENCE  
IN THE COURT OF COMMON PLEAS

FORM 4

JUDGMENT IN A CIVIL CASE

CASE NO. 2013-CP-21-00690

Christy Byrd, as Next Friend of Julia B. a  
minor,

McLeod Physician Associates II and Dr.  
John B. Browning,

PLAINTIFF(S)

DEFENDANT(S)

Submitted by: Molly H. Craig (SC #6960)  
Hood Law Firm, LLC  
172 Meeting Street  
Charleston, SC 29401

Attorney for: ☐ Plaintiff ☒ Defendant  
or  
☐ Self-Represented Litigant

DISPOSITION TYPE (CHECK ONE)

- ☐ JURY VERDICT. This action came before the court for a trial by jury. The issues have been tried and a verdict rendered.
- ☒ DECISION BY THE COURT. This action came to trial or hearing before the court. The issues have been tried or heard and a decision rendered. ☐ See Page 2 for additional information.
- ☐ ACTION DISMISSED (CHECK REASON): ☐ Rule 12(b), SCRCP; ☐ Rule 41(a), SCRCP (Vol. Nonsuit); ☐ Rule 43(k), SCRCP (Settled); ☐ Other
- ☐ ACTION STRICKEN (CHECK REASON): ☐ Rule 40(j), SCRCP; ☐ Bankruptcy; ☐ Binding arbitration, subject to right to restore to confirm, vacate or modify arbitration award; ☐ Other
- ☐ DISPOSITION OF APPEAL TO THE CIRCUIT COURT (CHECK APPLICABLE BOX):  
☐ Affirmed; ☐ Reversed; ☐ Remanded; ☐ Other

NOTE: ATTORNEYS ARE RESPONSIBLE FOR NOTIFYING LOWER COURT TRIBUNAL OR ADMINISTRATIVE AGENCY OF THE CIRCUIT COURT RULING IN THIS APPEAL.

IT IS ORDERED AND ADJUDGED: ☒ See attached order (formal order to follow) ☐ Statement of Judgment by the Court.

ORDER INFORMATION

This order ☒ ends ☐ does not end the case.

Additional Information for the Clerk:

INFORMATION FOR THE JUDGMENT INDEX

Complete this section below when the judgment affects title to real or personal property or if any amount should be enrolled. If there is no judgment information, indicate "N/A" in one of the boxes below:

| Judgment in Favor of<br>(List name(s) below) | Judgment Against<br>(List name(s) below) | Judgment Amount To be<br>Enrolled<br>(List amount(s) below) |
|----------------------------------------------|------------------------------------------|-------------------------------------------------------------|
|                                              |                                          | \$                                                          |
|                                              |                                          | \$                                                          |
|                                              |                                          | \$                                                          |

If applicable, describe the property, including tax map information and address, referenced in the order:

The judgment information above has been provided by the submitting party. Disputes concerning the amounts contained in this form may be addressed by way of motion pursuant to the SC Rules of Civil Procedure. Amounts to be computed such as interest or additional taxable costs not available at the time the form and final order are submitted to the judge may be provided to the clerk. Note: Title abstractors and researchers should refer to the official court order for judgment details.

Circuit Court Judge

Judge Code

Date

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SCRP & GS  
FLORENCE COUNTY, SC

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For Clerk of Court Office Use Only

This judgment was entered on the 11 day of July, 2016 and a copy mailed first class or placed in the appropriate attorney's box on this 12 day of July, 2016 to attorneys of record or to parties (when appearing pro se) as follows:

Ed Graham  
P.O. Box 550  
Florence, S.C. 29503  
ATTORNEY(S) FOR THE PLAINTIFF(S)

Molly Craig  
172 meeting St.  
Charleston, S.C. 29401  
ATTORNEY(S) FOR THE DEFENDANT(S)  
Ernest Lee Shear  
CLERK OF COURT

Court Reporter:

ADDITIONAL INFORMATION REGARDING DECISION BY THE COURT AS REFERENCED ON PAGE 1.

This action came to trial or hearing before the court. The issues have been tried or heard and a decision rendered.

STATE OF SOUTH CAROLINA

IN THE COURT OF COMMON PLEAS

COUNTY OF FLORENCE

Christy Byrd, as Next Friend of Julia B  
minor,

CASE NO.  
2013-CP-21-00690

☐ Plaintiff(s),

MOTION INFORMATION FORM AND COVER  
SHEET

Versus.

McLeod Physician Associates II,

☒ Defendant(s).

check box above indicating submitting party

Plaintiff's attorney:  
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Diane M. Rodriguez, Esquire  
Graham Law Firm, P.A.  
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Florence, SC 29503  
P: 843-662-3281; F: 843-665-0254

Defendant's attorney:  
Molly H. Craig (SC #6960)  
Elloree A. Ganes (SC #70509)  
HOOD LAW FIRM, LLC  
172 Meeting Street/P.O. Box 1508  
Charleston, SC 29402  
P: 843-577-4435/F: 843-722-1630

☐ MOTION HEARING REQUESTED (attach written motion and complete SECTION I and III)

☐ FORM MOTION, NO HEARING REQUESTED (complete SECTIONS II and III)

☒ PROPOSED ORDER/CONSENT ORDER (complete SECTIONS II AND III)

SECTION I: Hearing Information

Nature of Motion:

Estimated Time Needed:

Court Reporter Needed: YES ☐/ NO ☐

SECTION II: Motion/Order Type

☐ Written motion attached

☒ Form Motion/Order -

I hereby move for relief or action by the court as set forth in the attached proposed order.

Signature of Attorney for ☐ Plaintiff/☒ Defendant

Date submitted

SECTION III: Motion Fee

☒ PAID - AMOUNT: \$25

☐ EXEMPT;

(check reason)

☐ Rule to Show Cause in Child or Spousal Support

☐ Domestic Abuse or Abuse and Neglect

☐ Indigent Status

☐ State Agency v. Indigent Party

☐ Sexually Violent Predator Act

☐ Post-Conviction Relief

☐ Motion for Stay in Bankruptcy

☐ Motion for Publication

☐ Motion for Execution (Rule 69, SCRCP)

☐ Proposed order submitted at request of the court; or,

reduced to writing from motion made in open court per judge's instructions

Name of Court Reporter:

☐ Other:

JUDGE'S SECTION

☐ Motion Fee to be paid upon filing of the  
attached order.

☐ Other:

JUDGE

CODE:

DATE:

CLERK'S VERIFICATION

DATE FILED

Collected by: \_\_\_\_\_  
(print name)

☐ MOTION FEE COLLECTED:

☐ CONTESTED-AMOUNT DUE:

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FLORENCE COUNTY, S.C.

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STATE OF SOUTH CAROLINA  
In the Court of Appeals

Appeal from Florence County  
Court of Common Pleas

Michael Nettles, Circuit Court Judge

C.A. No. 2015-CP-21-00587

App. No. 2015-001237

Genesie Fulton, individually, and as Next Friend of  
Bryson E., a minor,

Appellants

L. William Goldstein, M.D., individually and d/b/a  
L. William Goldstein OB-GYN,

Respondents

FINAL BRIEF OF RESPONDENTS L. WILLIAM GOLDSTEIN, M.D., INDIVIDUALLY  
AND D/B/A L. WILLIAM GOLDSTEIN OB-GYN

Hood Law Firm, LLC

Robert H. Hood (SC #2599)  
Molly H. Craig (SC #6960)  
Ellore A. Ganes (SC #70509)  
Deborah H. Sheffield, Of Counsel (SC #2757)  
172 Meeting Street  
P.O. Box 1508  
Charleston, SC 29402  
(843) 577-4435

Attorneys for Respondents

L. William Goldstein, M.D., individually and d/b/a  
L. William Goldstein OB-GYN

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## STATEMENT OF THE ISSUES ON APPEAL

Respondents would restate the issues on appeal as:

- I. Did the Trial Court properly charge the jury on the obstetrical emergency statute, S.C. Code Ann. § 15-32-230, where the Plaintiffs allege medical malpractice by the Defendant Obstetrician in delivering Plaintiff Infant when he presented with shoulder dystocia and:
  - A. The Plaintiff conceded that the presentation of shoulder dystocia constituted “a genuine emergency situation;”
  - B. The Plaintiff conceded that the Infant was “in immediate threat of death” or “in immediate threat of serious bodily injury;” and
  - C. There was disputed evidence that the Infant’s condition was “not medically stable.”
- II. Did the Trial Court properly charge the jury on the definition of gross negligence?

## STATEMENT OF THE CASE

This is a medical malpractice action arising out of the labor and delivery of a baby boy, Bryson F. (hereinafter referred to as Infant) on August 20, 2009. His mother, Genesie Fulton (hereinafter referred to as Patient or Mother), brought this action in her individual capacity and on behalf of her minor son, seeking damages for a permanent brachial plexus nerve injury that the Infant suffered during delivery. She filed a summons and complaint on February 28, 2013, alleging that her Obstetrician, Dr. William Goldstein and his practice (hereinafter referred to as Dr. Goldstein or the Obstetrician) failed to properly manage and resolve a condition of shoulder dystocia which occurred during his delivery. [ROA 11; Complaint.] Dr. Goldstein filed an answer, denying the allegations and asserting various defenses, including the limitation on liability found in the Emergency Medical Obstetrical Care Exception found in S.C. Code Ann. §15-32-230. [ROA 29; Answer, April 26, 2013.] An amended complaint was filed on \*\*

An amended complaint [improperly captioned second amended complaint] was filed on April 30, 2015. [ROA 37; Amd. Complaint.] An Answer to the amended complaint was filed on May 4, 2015. [ROA 43; Answer.]

The case came to trial before the Honorable Michael G. Nettles, and a jury in the Florence County Court of Common Pleas on May 4-8, 2015. The Trial Court charged the jury on the Emergency Medical Obstetrical Care Exception, §15-32-230, [ROA 921; Tr. 1269:8-16], and presented a verdict form to the jury with special interrogatories. The jury returned a verdict for Dr. Goldstein, finding as to the Obstetrical Medical Emergency Exception, that "the facts of this case arise out of a genuine emergency situation where the patient is not stable and there is an immediate threat of death." Having so found that

the exception applied, the jury was instructed by the charge and the verdict form that the plaintiff was required to prove gross negligence. The jury found that the plaintiff "has not proved that the defendant breached the standard of care." [ROA 7; Verdict.]

The Patient filed a motion for a new trial on May 15, 2015. [ROA 51; Motion.] The Trial Court issued its order on May 19, 2015, denying the motion. [ROA 5; Order.] The Patient served a Notice of Appeal on June 8, 2015.

### **STATEMENT OF THE FACTS**

#### ***Medical Evidence of the Obstetrical Emergency during Labor and Delivery***

The Patient Mother was admitted for scheduled inducement of labor on August 20, 2009 at 36 weeks gestation. Dr. Goldstein artificially ruptured the membranes at 7:18 am and the labor proceeded uneventfully until 1:15 pm when the medical staff observed variables in the fetal heart rate. [ROA 586; Tr. 860 – Nurse Collins.] The Infant had reached plus 3 station and when the heart rate dipped to the 60s, Dr. Goldstein opted to use a vacuum (instead of forceps) to get the baby past the perineum. [ROA 731; Tr. 1005:15 – Dr. Salley.] The head was delivered after two pulls, but then at 1:44 p.m., Dr. Goldstein recognized that they were facing an emergency of shoulder dystocia. [ROA 394; Tr. 659.]

"[T]he definition of shoulder dystocia is when the head comes out, so the fetal head is out and the shoulder gets stuck under the pubic bone." [ROA 90; Tr. 173: 21-24.] Shoulder dystocia is an unpredictable and unpreventable risk to any pregnancy. [ROA 130, 140; Tr. 213, 223.]

Dr. Goldstein and the nurses immediately took the appropriate measures to address this medical emergency. The nurses performed a McRoberts maneuver by

hyperflexing the Mother's legs and abducting her thighs to change her position and began applying suprapubic pressure. [ROA 397-8; Tr. 662-63.] Dr. Goldstein performed first one, then a second, episiotomy to make room for him to reach in to guide the baby's shoulders. [ROA 398, 403; Tr. 663, 668.] Meanwhile, one of the first things that Dr. Goldstein had done when he recognized the emergency was to call in another obstetrician. [ROA 404; Tr. 669.] Dr. Coker arrived within three minutes, he assessed the patient and took over applying the suprapubic pressure, the shoulders delivered, and the baby was born at 1:49pm – within five minutes of the shoulder dystocia being recognized. [ROA 394, 403; Tr. 659, 668.]

During this process, Dr. Goldstein found that the nuchal cord was around the baby's neck and he successfully reduced the cord over the infant's head. [ROA 409; Tr. 674:12-13.] The Infant was hypotonic ("floppy") on delivery and intubated by the pediatric staff. [ROA 415; Tr. 680. ROA 616; Tr. 890. ROA 669; Tr. 943-44.] The Infant's APGAR at one minute was one, after five minutes it was four, it was five at 10 minutes, and seven at 15 minutes. [ROA 415; Tr. 680.] Initial blood tests of the cord blood showed that the Infant had a poor pH at 7.19. [ROA 411; Tr. 676.] Fortunately, the Infant quickly responded to the care and treatment of the pediatric staff in attendance and ultimately showed no signs of any brain injury. [ROA 670,133; Tr. 944, 214.] However, the Infant did suffer permanent brachial plexus nerve damage which the Patient alleges was caused by Dr. Goldstein using excessive traction delivering the shoulders.

### ***Expert Opinions on the Standard of Care***

Plaintiff's obstetrical expert, Dr. Gomez-Carrion, opined that Dr. Goldstein acted appropriately, when confronted with the medical emergency, by ordering McRoberts and suprapubic pressure. [ROA 131; Tr. 214.] She also opined that Dr. Goldstein acted appropriately and reasonably, when the suprapubic pressure and McRoberts were initially unsuccessful, by trying to insert his hand into the vagina and rotate the baby. [ROA 131-2; Tr. 214-15.] Dr. Gomez-Carrion agreed that "you can have a permanent brachial plexus injury and it does not always mean that the doctor did something wrong." [ROA 135; Tr. 218:1-4.] However, she was of the opinion that Dr. Goldstein caused the permanent injury to the Infant's brachial plexus nerve by using "excessive" traction to resolve the shoulder dystocia - even though she could not quantify how much traction was used. [ROA 120; Tr. 203. ROA 135; Tr. 218: 5-12.] In fact, she acknowledged that "there is no way to measure traction" and "nobody can say exactly or to specify how much traction was used." [ROA 136; Tr. 219:1-3. ROA 135; Tr. 218:11-12.] In contrast, the defense expert pediatric neurologist, Dr. Jacobson, opined that the Infant's brachial plexus injury did not result from excessive traction by Dr. Goldstein. [ROA 667; Tr. 941.]

### ***Evidence of the Imminent Danger to the Infant***

All of the medical expert opinion evidence establishes that time was of the essence in delivering the Infant because it was only a matter of matter of minutes before the Infant would have suffered brain damage or died. Dr. Goldstein explained the urgency of delivering the Infant as quickly as possible because if a baby stays in the birth

canal for a prolonged period of time, it can suffer brain damage due to lack of oxygen, or even die. [ROA 422; Tr. 687:1-10.]

Plaintiff's own obstetrical expert Dr. Gomez-Carrion testified that shoulder dystocia is an emergency situation with a risk of fetal death, and she agreed that: "And if a baby is not timely delivered in the face of shoulder dystocia, a medical emergency, the baby can die." [ROA 130; Tr. 213:10-13.] She testified that timing is critical because according to the obstetrical literature, an obstetrician has only six or seven minutes to safely get a baby out or there is a risk of brain damage or even death. [ROA 130; Tr. 213:16-17.] Fortunately, Dr. Goldstein was able to get the Infant delivered within five minutes and the pediatric staff successfully resuscitated the Infant.

## ARGUMENT

### *Jury Instructions and Appellate Review*

When instructing the jury, the trial court is required to charge the jury the current and correct principles of law that apply to the issues raised in the pleadings and developed by the evidence in support of those issues. *Clark v. Cantrell*, 339 S.C. 369, 389-90, 529 S.E.2d 528, 539 (2000).

"No party may assign as error the giving or the failure to give an instruction unless he objects thereto before the jury retires to consider its verdict, stating distinctly the matter to which he objects and the grounds for his objection." Rule 51, SCRPC. An issue is not preserved for appellate review where the objection was made at trial on different grounds. *State v. Smith*, 337 S.C. 27, 34, 522 S.E.2d 598, 601-02 (1999).

“An appellate court will not reverse the trial court's decision regarding jury instructions unless the trial court committed an abuse of discretion. An abuse of discretion occurs when the trial court's ruling is based on an error of law or is not supported by the evidence.” *Cole v. Raut*, 378 S.C. 398, 404, 663 S.E.2d 30, 33 (2008) (citing *Clark v. Cantrell*, supra). On appellate review of challenged jury charges, the court construes the trial court's charge as a whole in light of the evidence and issues presented at trial. *Keaton ex rel. Foster v. Greenville Hosp. Sys.*, 334 S.C. 488, 497, 514 S.E.2d 570, 575 (1999). Even if some error is found in the trial court's jury charge, the judgment on the jury's verdict will not be reversed except upon a showing of prejudice. *Brown v. Stewart*, 348 S.C. 33, 53, 557 S.E.2d 676, 686 (Ct. App. 2001).

**I. THE TRIAL COURT PROPERLY CHARGED THE JURY ON THE OBSTETRICAL MEDICAL EMERGENCY EXCEPTION AS PROVIDED IN §15-32-230.**

***Applicable Law – Limitation on Liability for Emergency Obstetrical Care***

The South Carolina Noneconomic Damage Awards Act of 2005, S.C. Code Ann. § 15-32-230, provides:

**Emergency medical and obstetrical care exceptions.**

(A) In an action involving a medical malpractice claim arising out of care rendered in a genuine emergency situation involving an immediate threat of death or serious bodily injury to the patient receiving care in an emergency department or in an obstetrical or surgical suite, no physician may be held liable unless it is proven that the physician was grossly negligent.

(B) In an action involving a medical malpractice claim arising out of obstetrical care rendered by a physician on an emergency basis when there is no previous doctor/patient relationship between the physician or a member of his practice with a patient or the patient has not received prenatal care, such physician is not liable unless it is proven such physician is grossly negligent.

(C) The limitation on physician liability established by subsections (A) and (B) shall only apply if the patient is not medically stable and:

- (1) in immediate threat of death; or
- (2) in immediate threat of serious bodily injury.

Further, the limitation on physician liability established by subsections (A) and (B) shall only apply to care rendered prior to the patient's discharge from the emergency department or obstetrical or surgical suite.

The limitation on liability is an affirmative defense and, as such, the defendant physician has the burden of proving that the limitation applied upon proof of which, the plaintiff patient bears the burden of proving gross negligence. *Strange v. S.C. Dept. of Highways & Pub. Transp.*, 314 S.C. 427, 430, 445 S.E.2d 439, 440 (1994) ("The burden of establishing a limitation upon liability or an exception to the waiver of immunity under the Tort Claims Act is upon the governmental entity asserting it as an affirmative defense."); *Niver v. S.C. Dep't of Highways & Pub. Transp.*, 302 S.C. 461, 463, 395 S.E.2d 728, 730 (Ct. App. 1990) (limitations on liability under Tort Claims Act are affirmative defenses); *James v. Lister*, 331 S.C. 277, 283, 500 S.E.2d 198, 201 (Ct. App. 1998) (holding that the limitation on liability for charitable organizations, section 33-55-210(A) constitutes an affirmative defense); *Stewart v. Richland Mem'l Hosp.*, 350 S.C. 589, 595, 567 S.E.2d 510, 513 (Ct. App. 2002) (governmental entity's burden to establish that the limitation on liability applied, and plaintiff's burden to establish gross negligence).

**A. The Plaintiff conceded that the presentation of shoulder dystocia constituted “a genuine emergency situation.”**

Every obstetrical expert – both Plaintiffs’ and Defendants’ testified that shoulder dystocia is a medical emergency. [ROA 77, 130; Tr. 160:21, Tr. 213:7-9 – Dr. Gomez-Carrion. ROA 239; Tr. 446:23-24 – Dr. Resnick. ROA 510; Tr. 782:17-20 – Dr. Gower. ROA 793; Tr. 1067:20 – Dr. Salley. ROA 853; Tr. 1127:8 – Dr. Hall.] The Patient Mother also testified that it was an emergency situation. [SROA 1; Tr. 145:4-6.] The Patient even expressly conceded that there was “a genuine emergency situation.”

MR. RUFFIN: Well, it's not a matter of being a medical emergency, because we know it's a medical emergency. [ROA 840; Tr. 1114:21-22.]

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THE COURT: A genuine emergency situation. You concede that?

MR. RUFFIN: Yes. Shoulder dystocia is a medical emergency. [ROA 841; Tr. 1115:12-15.]

**B. The Plaintiff conceded that the Infant was “in immediate threat of death” or “in immediate threat of serious bodily injury.”**

The Plaintiff Patient argues on appeal that the Defendant Obstetrician “failed to present any evidence that any patient was in immediate threat of death or serious bodily injury.” [Appellants’ Brief, p. 11-12.] This argument is unfounded and should be rejected for several reasons: first, and foremost, the Patient conceded that there was an immediate threat of death or serious bodily injury; second, she did not raise this issue to the trial court; and third, there is ample evidence of the immediate threat of brain damage or death.

During the colloquy concerning the Emergency Obstetrical Care Exception, the Patient stated:

THE COURT: Involving an immediate threat of death or serious bodily injury.

MR. RUFFIN: The threat is there. If it had been seven, eight, nine minutes, that would have possibly become a reality. But the section 1, I believe it is, is applicable. We argue the exception to, a little bit further down, I can't quite remember exactly what sub-part it is, but it says A and B can be applied unless, and then it says, the patient is medically stable. [ROA 841; Tr. 1115:16-24.],

When counsel concedes a point in the trial court, the question cannot be raised in the appellate court. *Southern Ry. Co. v. Routh*, 161 S.C. 328, 159 S.E. 640, 642 (1931); *Gatewood v. Moses*, 39 S.C.L. 244, 246 (S.C. App. L. 1852) (a party will not be allowed to raise a ground on appeal that has been expressly waived in the circuit court.) Nor can a party change his arguments on appeal:

Appellant's present argument is not preserved for consideration on appeal. Prior to the charge, appellant objected to instructing the jury on the statute, arguing there was no evidence as to his location at the time of the shooting. He did not claim, as he does now, that there is no requirement the trial judge instruct the jury on the unlawful possession statute or the charge constituted a comment on the facts in violation of the Constitution. Since he did not object at trial on the same grounds as raised on appeal, the issue is not preserved for review.

*State v. Smith*, 522 S.E.2d at 601; *Gatewood v. Moses*, id.

When the Plaintiff made her objection to the Emergency Obstetrical Care Exception statutory charge, she only noted one ground – the absence of evidence that the Infant was not medically stable:

MR. RUFFIN: Your Honor, we take exception to their request for inclusion of the Obstetrical Emergency Statute. It is inapplicable as a matter of law to this case based on one of the exceptions included. They have offered zero testimony that [the Infant] was medically unstable in this case. [ROA 838; Tr. 1112:10-15. See also ROA 841; Tr. 1115.]

The Plaintiff also objected to the Emergency Obstetrical Care Exception on the verdict form on the “not medically stable” ground:

I just want to make sure we are protected with our objection to the obstetrical emergency exception on the verdict form and we just believe that the not medically stable or medically stable is its own basis by which to avoid the obstetric medical emergency exception. [ROA 909; Tr. 1257:5-9]

Similar to *State v. Smith*, the Patient objected to a charge on the Obstetrical Emergency Care Exception arguing that there was no evidence that either patient was not medically stable. She did not claim, as she does now, that there was no evidence of an immediate threat. Since she did not object at trial on that ground, it is not preserved for review.

Third, but not least, the Patient's argument is not supported by the evidence of record. Patient argues that Dr. Goldstein "confirmed" that the Infant was delivered before there was any immediate risk or threat of brain damage. However, the transcript, as she cited, does not support any such "confirmation:"

Q: It was. It was. I plead guilty, sir. Let me try to break it down. We heard you talk about risk of brain damage. All right? You're not claiming there was any imminent risk of brain damage that justified you in using too much traction, are you?

A: No, I'm not implying that I used too much traction – [ROA 489; 754:18-23.]

This was not a concession that there no was immediate risk or threat of brain damage. This was a denial that he used too much traction, and when Dr. Goldstein completed his next answer, he clarified the threat: "-- but from the literature there's been episodes of hypoxic ischemic encephalopathy that occurred within two minutes of the head to shoulder interval." [ROA 489-90; Tr. 754:25-755:2.]

The Patient also cites to specific transcript pages/lines where defense expert, Dr. Gower, supposedly confirmed that the Infant was not in immediate risk or threat of death or brain damage. [Appellants' Brief, p. 12.] However, those transcript excerpts only

show the expert's opinion of whether the medical records show that Dr. Goldstein perceived there was a threat:

Q: In fact, in this case was there ever in your opinion any indication that Dr. Goldstein feared for the baby's life?

A: No, I didn't have any indication of that. [ROA 570; Tr. 842:16-19.]

\*\*\*

Q: But I thought you just told me that you didn't see any indication that Dr. Goldstein had any concerns of those. Is that do you think he should have and didn't?

A: Well, I mean, I would have had to know what he was thinking at the time and so I -- he wouldn't have -- that would have been maybe his thought process, but I don't know how I would know, so I guess my assumption is that we're always thinking about that.

Q: Okay. So, you're just assuming he may have had that. You didn't actually see anything in the ---

A: Correct.

Q: --- medical records or any documentation ---

A: That's exactly right.

Q: --- or deposition. Okay. So, there was nothing that you ever saw that indicated he was in fear of the baby's life or that there was an imminent risk of brain damage?

A: No, I don't have indication of that. [ROA 571-72; Tr. 843:16- 844:7.]

The transcript shows that Dr. Gower actually acknowledged that the risk was a matter of only four to five minutes and that any obstetrician would be thinking about possible brain damage:

Q: Well, and including your review of the records, et cetera, in this case, there was nothing there that occurred during this shoulder dystocia and the way it was managed that raised a concern to you that there was an imminent risk of brain damage.

On reply, the Patient elicited testimony from her expert, Dr. Hall, using the “magic words” that the Patient Mother and Child were both medically stable during the course of the management of the shoulder dystocia. [ROA 859; Tr. 1133.] While he testified that the pH of 7.19 was not terrible, Dr. Hall also testified that there were some variables of risks of brain damage during the four minutes immediately prior to delivery, including the cord wrapped around the neck. [ROA 859, 857; Tr. 1133, 1131.] However, he insisted that the Infant resuscitated “quite well” with no signs of brain damage. [ROA 860; Tr. 1134:23.]

Patient argues paradoxically that while the Infant might have become medically unstable if enough time had passed, the Emergency Obstetrical Care Exception does not apply because the risk did not materialize. [ROA 842; Tr. 1116:-15-16.] However, the trial court wisely reflected that: “If I was in a spot where eight minutes might get cerebral palsy or dead, I would consider that to be an emergency.” [ROA 842; Tr. 1116:16-18.]

While the statute speaks of “a genuine emergency,” “immediate threat” and “not medically stable” as seemingly separate elements, the medical evidence is not quite so distinct. And, while it is apparent from the trial testimony that there was a dispute between the different experts as to implications of the Infant’s medical condition at the time of delivery, there was sufficient evidence presented for the jury to decide, on proper instructions from the Trial Court, whether the Exception applied.

The trial court did not refuse to charge on gross negligence. In fact, the trial court correctly charged that gross negligence “is the failure to exercise even the slightest care” as defined in many appellate opinions. The Patient seeks to reverse the jury’s verdict and retry the case because the Trial Court declined to charge the additional/alternative language “the absence of care that is necessary under the circumstances.” However, the Trial Court’s refusal to charge the additional language does not amount to reversible error because the instruction given was correct and fairly covered the definition of gross negligence.

“It is not error to refuse a request to charge when the substance of the request is included in the general instructions.” *Brown v. Stewart*, 557 S.E.2d at 686 (citing *Varnadore v. Nationwide Mut. Ins. Co.*, 289 S.C. 155, 160, 345 S.E.2d 711, 715 (1986)).

When reviewing a jury charge for alleged error, an appellate court must consider the “charge as a whole in light of the evidence and issues presented at trial.” *Keaton ex rel. Foster v. Greenville Hosp. Sys.*, 334 S.C. 488, 497, 514 S.E.2d 570, 575 (1999). “A jury charge is correct if ‘[w]hen the charge is read as a whole, it contains the correct definition and adequately covers the law.’ ” *Id.* at 496, 514 S.E.2d at 574 (quoting *State v. Johnson*, 315 S.C. 485, 487 n. 1, 445 S.E.2d 637, 638 n. 1 (1994)). A jury charge which is substantially correct and covers the law does not require reversal. *Id.* at 496–98, 514 S.E.2d at 575.

*Stewart v. Richland Mem’l Hosp.*, 567 S.E.2d at 513; *Martin v. Columbia Elec. St. Ry., Light & Power Co.*, 84 S.C. 568, 66 S.E. 993, 994 (1910) (no error to refuse to read party’s request to charge where point was covered in general instructions).

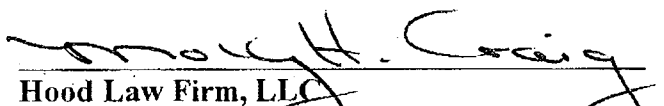
“The substance of the law is what must be instructed to the jury, not any particular verbiage.” *Keaton ex rel. Foster v. Greenville Hosp. Sys.*, 514 S.E.2d at 574 (quoting *State v. Smith*, 315 S.C. 547, 554, 446 S.E.2d 411, 415 (1994)). Considering the trial court’s jury charge as a whole, the gross negligence definition was free of error and the

absence of the requested additional language was not misleading in any prejudicial manner as to justify reversing the jury's verdict.

### CONCLUSION

WHEREFORE, based on the foregoing, the Respondents respectfully submit that the trial court charged the jury as to the correct principles of law that apply based on the evidence adduced in support of the issues raised in the pleadings. The trial court properly charged the jury on the Emergency Obstetrical Care Exception, S.C. Code Ann. § 15-32-230, where the Patient conceded that the presentation of shoulder dystocia constituted a genuine emergency situation and that the Infant was in immediate threat of death or serious bodily injury, and there was evidence that the Infant's condition was not medically stable. The trial court also charged the jury a correct definition of gross negligence. Accordingly, the Court should affirm the jury's verdict in favor of the Respondents.

Respectfully submitted,



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May 2, 2016

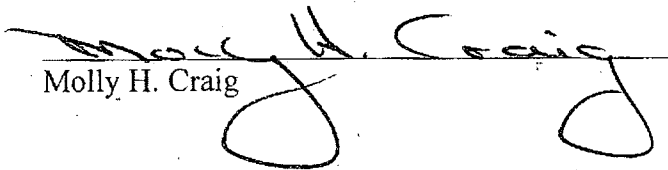
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**Certification of Counsel**

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The undersigned certifies that this Final Brief complies with Rule 211(b), SCACR.

May 2, 2016

  
Molly H. Craig

# *The State of South Carolina*



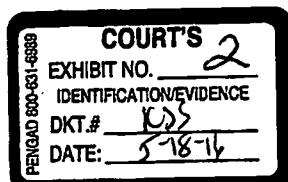
*Office of Secretary of State Mark Hammond*

## **Certificate of Existence, Non-Profit Corporation**

**I, Mark Hammond, Secretary of State of South Carolina Hereby certify that:**

**MCLEOD PHYSICIAN ASSOCIATES II, a Non-Profit Corporation duly organized under the laws of the State of South Carolina on June 2nd, 2005, has as of the date hereof filed as a non-profit corporation for religious, educational, social, fraternal, charitable, or other eleemosynary purpose, and has paid all fees, taxes and penalties owed to the Secretary of State, that the Secretary of State has not mailed notice to the company that it is subject to being dissolved by administrative action pursuant to section 33-31-1404 of the South Carolina code and that the non-profit corporation has not filed articles of dissolution as of the date hereof.**

**Given under my Hand and the Great  
Seal of the State of South Carolina this  
7th day of September, 2008.**



*Mark Hammond*

**Mark Hammond, Secretary of State**

CERTIFIED TO BE A TRUE AND CORRECT COPY  
AS TAKEN FROM AND COMPARED WITH THE  
ORIGINAL ON FILE IN THIS OFFICE

STATE OF SOUTH CAROLINA  
SECRETARY OF STATE

MAR 17 2006

NONPROFIT CORPORATION  
ARTICLES OF AMENDMENT

*M. H. P.*  
~~TYPE OR PRINT NAME WITH BLACK INK~~  
SECRETARY OF STATE OF SOUTH CAROLINA

Pursuant to the provisions of Section 33-31-1005 of the 1976 South Carolina Code of Laws, as amended, the applicant delivers to the Secretary of State these articles of amendment.

1. The name of the nonprofit corporation is McLeod Physician Associates II
2. Date incorporated June 2, 2005
3. Specify (a) the text of every amendment adopted, and (b) list when each amendment was adopted.  
Exhibit A to the Nonprofit Corporation Articles of Incorporation  
is hereby replaced with a new Exhibit A, which is attached hereto and  
made a part hereof. This amendment was adopted on March 15, 2006.
4. ☐ By checking this paragraph #4 the applicant represents that (a) approval of the amendment by the members was not required, (b) the amendment was approved by a sufficient vote of the board or directors or the incorporators. (Do not check this paragraph #4 if member vote was required or if the required vote of directors or incorporators was not obtained.)
5. If the approval of the members was required to adopt the amendment(s), provide the following information:
  - (a) Designation (Classes of Membership)  
One class
  - (b) Number of memberships outstanding  
One
  - (c) Number of votes entitled to be cast by each class entitled to vote separately on the amendment  
One
  - (d) Number of votes of each class indisputably voting on the amendment  
One
  - (e) Complete one of the following as appropriate
    - (i) Total number of votes cast for and against the amendment by each class entitled to vote separately  
\_\_\_\_\_
    - (ii) Total number of undisputed votes cast for the amendment by each class which was sufficient for approval for that class One

080320-0080

MCLEOD PHYSICIAN ASSOCIATES II

Filing Fee: \$10.00 ORIG



South Carolina Secretary of State

Mark Hammond

**McLeod Physician Associates II**  
Name of Corporation

6. ☐ By checking this paragraph #6 the applicant represents that approval of the amendment by some person or persons other than the members, the board, or the incorporators is required pursuant to Section 33-31-1030 of the 1976 South Carolina Code of Laws, as amended, and that the approval was obtained. (Do not mark paragraph #6 if either of these statements is not true.)
7. If the amendment provides for an exchange, reclassification, or cancellation of memberships, provisions for implementing the amendment must be set forth here if provisions are not contained in the amendment itself
8. ☐ If this corporation is converting from either a public benefit or religious corporation into a mutual benefit corporation, mark this paragraph #8 which certifies that a notice, including a copy of the proposed amendment, was delivered to the South Carolina Attorney General at least twenty days before the consummation of the amendment.

Date 3-15-06

McLeod Physician Associates II  
Name of Corporation

Charles M. Jordan  
Signature of Officer

Charles M. Jordan, M D, CEO  
Type or Print Name and Office

**FILING INSTRUCTIONS**

1. Two copies of this form, the original and either a duplicate original or a conformed copy, must be filed.
2. If the space in this form is insufficient, please attach additional sheets containing a reference to the appropriate paragraph in this form, or prepare this using a computer disk which will allow for expansion of space on the form.
3. This form must be accompanied by the filing fee of \$10.00 payable to the Secretary of State.

Return to: Secretary of State  
P.O. Box 11350  
Columbia, SC 29211

**AMENDED EXHIBIT A**  
**ARTICLES OF INCORPORATION**  
**OF**  
**McLEOD PHYSICIAN ASSOCIATES II**  
**(a nonprofit, nonstock public benefit corporation)**

**FIRST:** McLeod Physician Associates II (the "Corporation") is formed exclusively for benevolent, educational, scientific, and charitable purposes, to the extent such activities are permitted by an organization which is exempt from Federal income tax under Sections 501(c)(3) or 115 and not a private foundation under Section 509(a)(3) of the Internal Revenue Code of 1986, as amended (or the corresponding provisions of any future United States internal revenue laws) (collectively, the "Code"), and the treasury regulations promulgated thereunder, and contributions to which are deductible under Sections 170(c)(2), 2055(a)(2) and 2522(a)(2) of the Code, including the making of contributions for charitable, benevolent, educational, and scientific purposes to organizations which are exempt from Federal income tax under Sections 501(c)(3) or 115 of the Code and the treasury regulations promulgated thereunder and contributions to which are deductible under Sections 170(c)(2), 2055(a)(2) and 2522(a)(2) of the Code. The Corporation shall be operated, supervised, or controlled by or in connection with McLeod Health, provided, however, that McLeod Health must be recognized as: (i) an organization exempt from Federal income tax under Section 501(c)(3) of the Code; and (ii) an organization other than a private foundation as described in either Section 509(a)(1) or Section 509(a)(2) of the Code.

**SECOND:** Solely in aid of the purposes of the Corporation, the Corporation shall have all the powers to perform all activities permitted nonprofit, nonstock corporations under the laws of this State, to the extent such activities are permitted by an organization which is exempt from Federal income tax under Sections 501(c)(3) or 115 and not a private foundation under Section 509(a)(3) of the Code, and the treasury regulations promulgated thereunder, and contributions to which are deductible under Sections 170(c)(2), 2055(a)(2) and 2522(a)(2) of the Code.

**THIRD:** The Corporation shall be a public benefit corporation with McLeod Health as the sole member (the "Member").

**FOURTH:** The following provisions are hereby adopted for defining, limiting and regulating the powers of the Board of Directors:

(1) No part of the net earnings of the Corporation shall inure to the private or individual benefit of, or be distributed to, its trustees, officers, or other private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments, contributions, or donations in furtherance of the purposes set forth in Article FIRST hereof. No substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the Corporation shall not participate in, or intervene in (including the publishing or distributing of statements), any political campaign on behalf of (or in opposition to) any candidate for public office. Notwithstanding any other provisions of these Articles of Incorporation, the Corporation shall not

carry on any other activities not permitted to be carried on: (i) by a corporation exempt from Federal income tax under Sections 501(c)(3) or 115 of the Code; and (ii) by a supporting organization described in Section 509(a)(3) of the Code, contributions to which are deductible under Sections 170(c)(2), 2055(a)(2) and 2522(a)(2) of the Code.

(2) Upon dissolution of the Corporation, the Board of Directors shall, after paying or making provision for the payment of all of the liabilities of the Corporation, contribute all of the remaining assets of the Corporation to McLeod Health. However, if McLeod Health is not then in existence or is no longer a qualified distributee, or is unwilling or unable to accept that distribution, then the remaining assets of the Corporation shall be distributed to a fund, foundation, or other organization or organizations, as determined by the Board of Directors of the Corporation, which are organized and operated exclusively for the purposes specified in Sections 501(c)(3) or 115 of the Code and contributions to which are deductible under Sections 170(c)(2), 2055(a)(2) and 2522(a)(2) of the Code. Any of such assets not so disposed of shall be disposed of by the Court of Common Pleas of the county in which the principal office for the Corporation is then located, exclusively for such purposes or to the organization or organizations as said court shall determine, which are organized and operated exclusively for such purposes.

(3) During any fiscal year of the Corporation that it is determined to be a private foundation as defined in Section 509(a) of the Code:

(A) The Corporation shall distribute its income for such taxable year at such time and in such manner as not to become subject to the tax on undistributed income imposed by Section 4942 of the Code.

(B) The Corporation shall not engage in any act of self-dealing as defined in Section 4941(d) of the Code.

(C) The Corporation shall not retain any excess business holdings as defined in Section 4943(c) of the Code.

(D) The Corporation shall not make any investments in such manner as to subject it to tax under Section 4944 of the Code.

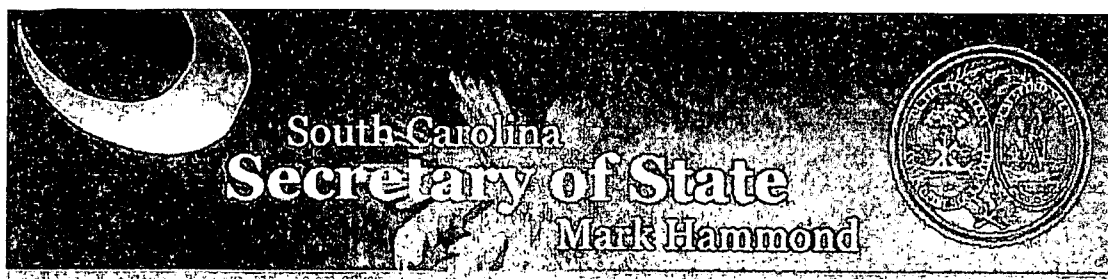
(E) The Corporation shall not make any taxable expenditures as defined in Section 4945(d) of the Code.

**FIFTH:** The effective date of the Corporation's Articles of Incorporation is June 2, 2005. This Amended Exhibit A to the Articles of Incorporation shall be effective upon filing with the State of South Carolina Secretary of State. The duration of the Corporation shall be perpetual.

**SIXTH:** Subject to the requirements of South Carolina law, these Articles of Incorporation may be amended solely by action of the Member.

CERTIFIED TO BE A TRUE AND CORRECT COPY  
AS TAKEN FROM AND COMPARED WITH THE  
ORIGINAL ON FILE IN THIS OFFICE

MAR 17 2006

**MCLEOD PHYSICIAN ASSOCIATES II**

*Note: This online database was last updated on 9/23/2015 3:06:49 AM.  
See our Disclaimer.*

|                                               |                              |
|-----------------------------------------------|------------------------------|
| <b>DOMESTIC / FOREIGN:</b>                    | Domestic                     |
| <b>STATUS:</b>                                | Good Standing                |
| <b>STATE OF INCORPORATION / ORGANIZATION:</b> | SOUTH CAROLINA<br>Non Profit |

**REGISTERED AGENT INFORMATION**

|                               |                             |
|-------------------------------|-----------------------------|
| <b>REGISTERED AGENT NAME:</b> | CORPORATION SERVICE COMPANY |
| <b>ADDRESS:</b>               | 1703 LAUREL STREET          |
| <b>CITY:</b>                  | COLUMBIA                    |
| <b>STATE:</b>                 | SC                          |
| <b>ZIP:</b>                   | 29201                       |
| <b>SECOND ADDRESS:</b>        |                             |

|                        |            |
|------------------------|------------|
| <b>FILE DATE:</b>      | 06/02/2005 |
| <b>EFFECTIVE DATE:</b> | 06/02/2005 |
| <b>DISSOLVED DATE:</b> | //         |

**Corporation History Records**

| CODE                       | FILE DATE  | COMMENT                                | Document |
|----------------------------|------------|----------------------------------------|----------|
| Agent                      | 07/30/2014 | CHANGED ADDRESS/AGENT FROM MVA RA, LLC |          |
| Agent                      | 03/18/2013 | CHANGED REGISTERED OFFICE ADDRESS      |          |
| Agent                      | 04/02/2007 | CHANGED AGT/ADD FROM-ROBERT L. COLONES |          |
| Agent                      | 10/06/2006 | CHG OF REG AGT/ADD FROM DONALD BMEYER  |          |
| Eleemosynary Amendment     | 03/17/2006 | 501C3                                  |          |
| Eleemosynary Amendment     | 07/13/2005 | AMENDMENT                              |          |
| Eleemosynary Incorporation | 06/02/2005 |                                        |          |

**Disclaimer:** The South Carolina Secretary of State's Business Filings database is provided as a convenience to our customers to research information on business entities filed with our office. Updates are uploaded every 48 hours. Users are advised that the Secretary of State, the State of South Carolina or any agency, officer or employee of the State of South Carolina does not guarantee the accuracy, reliability or timeliness of such information, as it is the responsibility of the business entity to inform the Secretary of State of any updated information. While every effort is made to insure the reliability of this information, portions may be incorrect or not current. Any person or entity who relies on information obtained from this database does so at his own risk.

**McLeod**  
**Physician Associates**  
*The Choice for Medical Excellence.*

CONTRACT NO.

1396

August 7, 2006

John B. Browning, M.D.  
McLeod OB/Gyn Associates  
901 East Cheves Street, Suite 300  
Florence, SC 29506

Re: *Notice of Assignment of Physician Employment Agreement*

Dear Dr. Browning:

This is to inform you that, effective as of October 1, 2006, McLeod Physician Associates, Inc. ("MPA") will assign certain agreements to McLeod Physician Associates II ("MPA II"). At such time, MPA II will assume the obligations of certain agreements of MPA and MPA will no longer actively operate a medical practice. MPA II will commence operating as a medical practice effective as of October 1, 2006.

In connection with this assignment of agreements, MPA is notifying you via this correspondence that your current Physician Employment Agreement with MPA, dated October 1, 2005 (the "Agreement"), will be assigned by MPA to MPA II effective on October 1, 2006. MPA asks that you please acknowledge receipt of this notification by signing where indicated below.

If you have any questions or concerns, please feel free to contact me directly and we look forward to continuing our professional relationship together. Thank you.

Very truly yours,

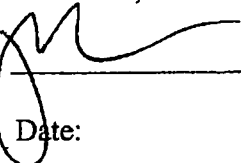
McLeod Physician Associates, Inc.



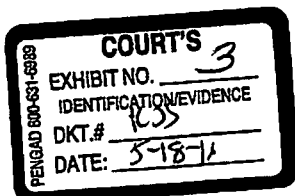
Charles M. Jordan, M.D.  
Senior Vice-President

**Acknowledgement of Receipt:**

John B. Browning, M.D. hereby acknowledges receipt of this notice of assignment of the Agreement by McLeod Physician Associates, Inc. to McLeod Physician Associates II on October 1, 2006.

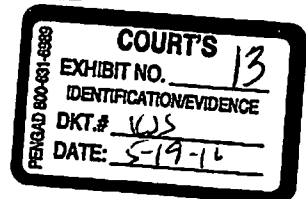


8-21-06  
Date:



# Shoulder Dystocia: An Evidence-Based Evaluation of the Obstetric Nightmare

ROBERT B. GHERMAN, LCDR MC USNR  
Department of Obstetrics and Gynecology, Division of  
Maternal-Fetal Medicine, Portsmouth Naval Hospital,  
Portsmouth, Virginia



The term "shoulder dystocia" appears to have been first used by Fieuz in 1902, during a discussion of a communication of Chamberlent.<sup>1</sup> As far back as 1730, however, Smellie had written: "A sudden call to a gentlewoman in labor. The child's head delivered for a long time—but even with hard pulling from the midwife, the remarkably large shoulder prevented delivery. I have been called by midwives to many cases of this kind, in which the child was frequently lost."<sup>2</sup>

On January 15, 1879, Dr. Beech of Seville, Ohio, was called to attend to Miss Anne Swan during her second delivery. Three days later, Dr. Beech ruptured the pa-

tient's membranes; the total amount of amniotic fluid that poured out was estimated at six gallons. An operative vaginal delivery with forceps was attempted, but they could not be applied because the vagina measured 12 inches along the posterior wall. When the shoulders were subsequently noted to be "stuck fast," Dr. J.D. Robinson of Wooster, Ohio, arrived to complete the delivery: "It was our desire to deliver the child without mutilation so we passed a strong bandage over the neck of the child, we made strong traction downwards and laterally and finally after a laborious siege we succeeded in delivering our patient of a male child weighing 23¾ lbs. with a length of 30 inches."<sup>3</sup>

Shoulder dystocia continues to represent the "infrequent, unanticipated, unpredictable nightmare of the obstetrician."<sup>4</sup> Despite its rare occurrence, each accoucheur can vividly remember at least one shoulder dystocia episode that has occurred during an obstetric career. This scary clinical phenomenon has been vividly captured by Morris:<sup>5</sup>

Correspondence: Robert B. Gherman, MD, Dept. of OB/GYN, Division of Maternal-Fetal Medicine, National Naval Medical Center, Bethesda Naval Hospital, 8901 Wisconsin Avenue, Bethesda, MD 20889. E-mail: ghermroo@aol.com

The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Navy, the Department of Defense, or the United States Government.

"The delivery of the head with or without forceps may have been quite easy, but more commonly there has been a little difficulty in completing the extension of the head. The hairy scalp slides out with reluctance. When the forehead has appeared it is necessary to press back the perineum to deliver the face. Fat cheeks eventually emerge . . . Time passes. The child's face becomes suffused. It endeavors unsuccessfully to breathe. Abdominal efforts by the mother or her attendants produce no advance, gentle head traction is equally unavailing . . . Alarm increases. Eventually by greater strength of muscle or by some infernal juggle the difficulty appears to be overcome, and the shoulders and trunk are delivered."

### Methods

The MEDLINE and PUBMED databases (National Library of Medicine, Bethesda, MD), the Cochrane Library, and Silver Platter (Silver Platter Information Inc, Norwood, MA) were used to conduct a literature search to locate relevant articles published between January 1980 and August 2001. The search was restricted to articles published in the English language. Key words used in the literature search included: "shoulder dystocia," "McRoberts' maneuver," "Woods maneuver," "Rubin's maneuver," "obstetric maneuvers," "labor complications," "brachial plexus palsy," "Erb's palsy," "Klumpke's palsy," "Zavanelli maneuver," "macrosomia," "symphysiotomy," and "all fours maneuver."

Additional references were located by reviewing the bibliographies of the identified articles. Letters to the editors and research abstracts presented at national or international meetings were also considered eligible for inclusion if they had been published in peer-reviewed journals. Book chapters and documents published by the American College of Obstetricians and Gynecologists were also used to supplement the previously obtained information.

### Results

#### WHAT CONSTITUTES SHOULDER DYSTOCIA?

In general terms, shoulder dystocia represents the failure of delivery of the fetal shoulder, whether it be the anterior, posterior, or both fetal shoulders.<sup>6-8</sup> Studies evaluating shoulder dystocia, however, have used a nonobjective, clinical diagnosis for this obstetric emergency. Definitions have included such descriptions as "tight shoulders"<sup>9</sup> or "any difficulty in extracting the shoulders after delivering the head."<sup>10</sup> Most authors, however, have defined this obstetric emergency to include deliveries requiring maneuvers in addition to gentle downward traction on the fetal head to effect delivery.<sup>11</sup>

In an initial attempt to generate an objective definition of shoulder dystocia, Spong et al<sup>12</sup> prospectively timed intervals of the second stage of labor in all vaginal deliveries during 34 arbitrarily selected 24-hour time periods. The mean time from delivery of the fetal head to body was  $24.2 \pm 1.3$  seconds among 223 normal deliveries. In contrast, among the 27 cases where obstetric maneuvers were required to effect delivery, there was a significant increase in this time ( $82.6 \pm 21.5$  seconds,  $P < 0.05$ ). Differences were also found between the two groups with respect to time to delivery of the anterior shoulder ( $61.6 \pm 18.3$  vs.  $14.8 \pm 1.0$  seconds,  $P < 0.01$ ), body ( $11.9 \pm 2.5$  vs.  $5.4 \pm 0.8$  seconds,  $P < 0.05$ ), and birthweight ( $4,247 \pm 86$  vs.  $3,284 \pm 37$  g,  $P < 0.001$ ). The authors therefore proposed defining shoulder dystocia as a prolonged head-to-body delivery interval (60 seconds) and/or the use of ancillary obstetric maneuvers, as this time represented the mean plus two standard deviations. Beall et al<sup>13</sup> later validated this timing criterion: they found that a prolonged head-to-body time for nonmaneuver patients was 68.5 seconds. In their analysis of 99 shoulder dystocia deliveries, 72 patients (72.7%) had head-to-body times of more than 60 seconds.

### HOW OFTEN DOES SHOULDER DYSTOCIA OCCUR?

Shoulder dystocia occurs infrequently, with an incidence ranging from 0.2% to 3.0% of all vaginal deliveries (Table 1). This wide range has been attributed to the inherent subjectivity of the clinician's definition of shoulder dystocia, the degree of reporting, and differences in defining the study population. The actual incidence, therefore, may be considerably higher and may approach 10%.<sup>12</sup> When shoulder dystocia is objectively defined by head-to-body times of more than 60 seconds, only 25–45% of cases are subjectively defined by the practitioner.<sup>12,13</sup>

### WHAT IS THE PATHOPHYSIOLOGIC BASIS FOR SHOULDER DYSTOCIA?

Shoulder dystocia results from a size discrepancy between the fetal shoulders and the pelvic inlet. In normal labor, after internal rotation, the biparietal diameter rests in a transverse position with the bisacromial diameter in an oblique angle. Extension and restitution result in the occiput returning to

the anterior-posterior plane. The pubic arch acts as a pivot for the delivery of the posterior shoulder. A persistent anterior-posterior location of the fetal shoulders at the pelvic brim occurs when there is increased resistance between the fetal skin and vaginal walls (eg, with macrosomia), with a large fetal chest relative to the biparietal diameter, and when truncal rotation does not occur (eg, precipitous labor).<sup>14</sup> The midwifery literature has noted that this failure of engagement of the fetal shoulders can be subdivided into a high form (both shoulders fail to engage) and a low form (only one shoulder fails to engage, usually the anterior shoulder). Shoulder dystocia can also occur from failure of internal rotation of the bisacromial diameter at the level of the midpelvis. In this latter situation, the classic "turtle sign" is not present as some degree of restitution takes place.<sup>15</sup>

Shoulder dystocia can also occur from impaction of the posterior fetal shoulder on the maternal sacral promontory.<sup>16–18</sup> A single report has associated the occurrence of shoulder dystocia with uterine rupture.<sup>19</sup>

TABLE 1. Incidence of Shoulder Dystocia

| Author    | Year(s) Studied | No. Deliveries | No. Shoulder Dystocia | %    |
|-----------|-----------------|----------------|-----------------------|------|
| Lurie     | 1986–1991       | 27,112         |                       |      |
| Kees      | 1996–1999       | 24,000         | 52                    | 0.19 |
| Gross     | 1980–1985       | 10,662         | 56                    | 0.23 |
| Benedetti | 1974–1975       | 8,890          | 24                    | 0.23 |
| Hopwood   | 1966–1981       | 17,735         | 33                    | 0.37 |
| Smith     | 1980–1985       | 34,800         | 92                    | 0.52 |
| McFarland | 1986–1994       | 45,674         | 203                   | 0.58 |
| Baskett   | 1980–1989       | 40,518         | 276                   | 0.6  |
| Gherman   | 1991–1995       | 50,114         | 254                   | 0.6  |
| McFarland | 1986–1994       | 39,280         | 303                   | 0.61 |
| Nocon     | 1986–1990       | 12,532         | 276                   | 0.70 |
| Stallings | 1994–1997       | 8,282          | 185                   | 1.4  |
| Lewis     | 1983–1992       | 37,465         | 138                   | 1.7  |
| Bofill    | 1994–1995       | 637            | 747                   | 2.0  |
| Acker     | 1975–1982       | 14,721         | 21                    | 3.3  |
| Nesbitt   | 1992            | 175,886        | 309                   | 2.1  |
| Beall*    | 1995–1996       | 722            | 6238                  | 3.0  |
| Spong*    | 1995            | 250            | 99                    | 13.7 |
|           |                 |                | 40                    | 16   |

\* Shoulder dystocia defined as a prolonged head-to-body delivery time of  $\geq 60$  seconds and/or the use of ancillary obstetric maneuvers.

In this case, the nonscarred uterus had sustained a rupture of the anterior aspect extending from the midfundal area down through the cervix and into the upper third of the vagina. The soft tissue of the uterus subsequently produced the relative shoulder dystocia, making it impossible for the fetal shoulders to enter the birth canal.

Fetal body configuration may be more important than macrosomia per se, due to larger trunk and chest circumferences as well as an increased bisacromial diameter. These factors do not allow the fetal shoulders to rotate from the anterior-posterior position to a more desirable oblique position. When compared with macrosomic neonates delivered without complications, infants who experienced shoulder dystocia had significantly greater shoulder circumferences ( $40.9 \pm 1.53$  cm vs.  $39.5 \pm 1.5$  cm,  $P < 0.005$ ), shoulder-to-head measurements ( $4.8 \pm 2.1$  cm vs.  $3.3 \pm 1.8$  cm,  $P < 0.025$ ), and chest-to-head disproportion ( $1.6 \pm 2.2$  cm vs.  $0.2 \pm 1.8$  cm,  $P < 0.025$ ).<sup>20</sup> Within 24 hours of delivery, McFarland et al<sup>21</sup> performed anthropometric and body composition analysis on 16 infants of mothers with diabetes and compared these with 58 control infants. Macrosomic infants of diabetic mothers were also characterized by larger head circumference/shoulder circumference ratios ( $0.85 \pm 0.04$  vs.  $0.88 \pm 0.04$ ,  $P = 0.02$ ), thicker upper extremity skin circumferences ( $13.5 \pm 1.1$  cm vs.  $12.9 \pm 0.9$  cm,  $P = 0.04$ ), larger triceps skin folds ( $7.5 \pm 1.5$  mm vs.  $5.4 \pm 1.2$  mm,  $P < 0.0001$ ), and higher percentage of body fat (23.5% vs. 17.7%,  $P = 0.0004$ ).<sup>21</sup> Similar findings were noted in a study of 51 newborns of mothers with gestational diabetes, when compared with reference ranges obtained from measurements of 501 infants of nondiabetic mothers. Nasrat et al<sup>22</sup> found that newborns of diabetic mothers had significantly greater mean values for biceps, subscapular, and suprailiac skinfolds and total fat index measurements.

#### CAN RISK FACTORS PREDICT SHOULDER DYSTOCIA?

Prepregnancy and antepartum risk factors that have been described to predict the occurrence of shoulder dystocia have included such characteristics as previous delivery of a macrosomic infant, pre-existing or pregnancy-induced diabetes mellitus, obesity, multiparity, a previous pregnancy complicated by gestational diabetes, excessive weight gain, and post-dates gestation.<sup>23,24</sup> A prolonged deceleration phase of labor, prolonged second stage, protracted descent, and operative vaginal delivery are reported intrapartum risk factors. Widely quoted but not scientifically based risk factors have also included male fetal gender, advanced maternal age, short maternal stature, maternal birthweight, abnormal pelvic size or shape, and molding of the fetal head.<sup>25</sup>

Most of these preconception and prenatal risk factors have extremely poor positive predictive values and therefore do not allow the obstetrician to accurately and reliably predict the occurrence of shoulder dystocia. Only 25% of the shoulder dystocia cases described by Lewis et al<sup>26</sup> had at least one significant risk factor. In this study, although fundal height measurements had a sensitivity of 60.4%, their positive predictive value was only 7.8%. Only 32% of patients were obese ( $\geq 90$  kg), 25% had excessive weight gain ( $\geq 20$  kg), 8% had short stature ( $\leq 60$  inches), 6% were more than 42 weeks, 3% were of advanced maternal age, and 2% had a personal history of diabetes mellitus. Geary et al<sup>27</sup> likewise found that the positive predictive value of antepartum factors for shoulder dystocia was less than 2% individually, and less than 3% when combined. Among the 73 shoulder dystocia cases in Sandmire and O'Halloran's case-control study,<sup>28</sup> 17 (23.3%) had no identified risk factor (fundal height  $> 40$  cm, diabetes, birthweight  $> 4,500$  g, or maternal weight  $> 82$  kg). Only 5% of obese ( $> 250$  lb) women were found to have experienced shoulder dystocia.<sup>29</sup> Finally, no significant differences were established between 69 cases

and 138 controls (matched for exact infant's birthweight) with respect to mean maternal age, parity, height, weight, and estimated gestational age.<sup>30</sup>

Studies have shown, however, that infants weighing >4,000 g are at a statistically increased risk for shoulder dystocia and that increasing birthweight has been significantly associated with an increased risk of shoulder dystocia.<sup>23,31</sup> The percentages of births complicated by shoulder dystocia for unassisted births not complicated by diabetes were 5.2% for infants weighing 4,000 to 4,250 g, 9.1% for those 4,250 to 4,500 g, 14.3% for those 4,500 to 4,750 g, and 21.1% for those 4,750 to 5,000 g.<sup>32</sup>

When Casey et al<sup>33</sup> compared pregnancy outcomes in 874 women with class A1 gestational diabetes with those of the general obstetric population ( $n = 61,209$ ), he noted an increased incidence of shoulder dystocia among the diabetic cohort (3% vs. 0.9%,  $P < 0.001$ ). In his 5-year review, Keller et al<sup>34</sup> found incidences of shoulder dystocia of 11.4% (9/79) and 14.6% (6/41) in types A1 and A2 gestational diabetes mellitus, respectively. Diabetes has been shown to increase the overall risk of shoulder dystocia by more than 70%. The risk of shoulder dystocia for unassisted births to diabetic mothers has been found to be 8.4%, 12.3%, 19.9%, and 23.5% when the birthweight is 4,000 to 4,250 g, 4,250 to 4,500 g, 4,500 to 4,750 g, or more than 4,750 g, respectively. When infants of diabetic mothers are delivered by vacuum extraction or forceps, these rates climb to 12.2%, 16.7%, 27.3%, and 34.8%.<sup>32</sup>

Although macrosomia is clearly a risk factor for shoulder dystocia, approximately 50–60% of shoulder dystocias occur in infants weighing less than 4,000 g.<sup>24</sup> The positive predictive value of a birthweight more than 4,000 g for the occurrence of shoulder dystocia was only 3.3%.<sup>27</sup> In addition, persistent brachial plexus injuries and/or fetal asphyxia should be viewed as the outcome measures that would influence the clinician's decision-making process with respect

to suspected fetal macrosomia.<sup>35</sup> Among the 2,924 infants in Kolderup et al's cohort,<sup>36</sup> there were only six brachial plexus injuries persistent at 6 months (with 7 lost to follow-up) and one neonatal death. This yielded a worst-case persistent injury rate of 0.5% for the delivery of an infant weighing more than 4,000 g.<sup>35</sup> Twenty-seven cases (11.4%) of shoulder dystocia were recorded among the 236 vaginal deliveries of vertex singletons weighing more than 4,200 g.

Three (1.3%) brachial plexus injuries were noted in this series, although the authors did not specifically comment on rates of resolution.<sup>37</sup> In Berard et al's series<sup>38</sup> of 87 infants weighing more than 4,500 g who were delivered vaginally, there were only five cases of Erb's palsy. By 3 months of age, all affected infants were without evidence of brachial plexus injuries. All of the 157 vaginally delivered infants with birthweights more than 4,500 g described by Lipscomb et al<sup>39</sup> had no permanent sequelae by 2 months of age.

Efforts to estimate fetal birthweight during the antenatal or intrapartum period have been unsuccessful.<sup>31,40–44</sup> When used to detect macrosomia, ultrasound has been shown to have a sensitivity of only 22–44% and a positive predictive value of 30–44%.<sup>31</sup> Among 86 women delivering within 3 days of ultrasound examination, estimated fetal weight exceeded birthweight in 77% of cases; in only 48% were the estimated fetal weights even within the corresponding 500-g category of birthweight.<sup>45</sup> Moreover, when the fetal weight estimation exceeded 4,500 g, the accuracy decreased to only 22%.<sup>40</sup> Although an ultrasonographically derived fetal abdominal circumference of more than 35 cm has been suggested to serve as a screening tool to identify the macrosomic infant, this parameter had a positive predictive value of only 9% for infants with a birthweight of more than 4,500 g.<sup>46–48</sup> Other ultrasonographic predictors for shoulder dystocia, which are often difficult to measure, have likewise been associated with low sensitivity and specificity. These have in-

cluded a chest-to-head difference of 1.4 cm, a shoulder-to-head difference of 4.8 cm, and a difference of 2.6 cm between the abdominal diameter and biparietal diameter among infants of diabetic mothers.<sup>20,49-51</sup> Finally, there have been no published studies that have specifically evaluated the relationship between the occurrence of brachial plexus injury and clinical/ultrasonographic estimation of fetal weight in a patient population where the latter is performed as part of routine clinical practice.<sup>41</sup>

Induction of labor for suspected macrosomia has not been shown to alter the incidence of shoulder dystocia among nondiabetic patients. Gonen et al's study<sup>52</sup> prospectively randomized patients at term with an ultrasonographic fetal weight estimation of 4,000 to 4,500 g into either immediate labor induction ( $n = 134$ ) or expectant management ( $n = 139$ ). There were no statistically significant differences in the number of shoulder dystocia cases in either group (5 vs. 6). Several retrospective studies have also shown an increased risk of cesarean delivery in patients undergoing induction for the indication of fetal macrosomia. Leaphart et al<sup>53</sup> found that the cesarean delivery rate was higher in the induction group compared with the spontaneous labor group (36% vs. 17%,  $P < 0.05$ ) despite a lower birthweight in the former group ( $4,102 \pm 374$  vs.  $4,355 \pm 349$ ,  $P < 0.05$ ). Similar findings have also been described by Friesen et al<sup>54</sup> (23.9% vs. 10%,  $P < 0.03$ ) and Combs et al<sup>55</sup> (57% vs. 31%,  $P < 0.01$ ). Lurie et al<sup>56</sup> compared outcomes after institution of a protocol in which labor was induced at 38 to 39 weeks' gestation for insulin-requiring diabetic women ( $n = 96$ ), in comparison to a previously established protocol in which pregnancies were allowed to progress to spontaneous labor ( $n = 164$ ). Although the incidence of shoulder dystocia was lower in the new protocol (5.3% vs. 10.2%), this difference did not reach statistical significance. The single shoulder dystocia associated with the new protocol resulted in neonatal death due to severe asphyxia.<sup>56</sup>

The concept of prophylactic cesarean delivery as a means to prevent shoulder dystocia and therefore avoid brachial plexus injury has not been supported by either clinical or theoretical data.<sup>57</sup> A well-designed decision analysis model that compared policies of management without ultrasound; ultrasound and elective cesarean delivery for estimated fetal weight of more than 4,000 g; and ultrasound and elective cesarean delivery for estimated fetal weight of more than 4,500 g found that 2,345 to 3,695 cesarean deliveries would need to be performed to prevent one permanent brachial plexus injury among nondiabetic women. These unnecessary cesareans would invoke additional costs of \$4.9–8.7 million.<sup>58</sup> Gonen et al<sup>59</sup> instituted a protocol in which midwives and physicians were asked to try to identify macrosomic fetuses ( $>4,500$  g) by palpation and fundal height measurement. Whenever macrosomia was suspected, fetal weight was then estimated by ultrasound; prophylactic cesarean delivery was considered for estimated fetal weight of more than 4,700 g for nondiabetic and more than 4,000 g for diabetic women. The sensitivity and positive predictive value of this study protocol were very poor, at 17% and 36%, respectively.<sup>59</sup> Retrospective assessment of a policy that recommended cesarean delivery for fetal weight of more than 4,500 g found an insignificant effect on the incidence of brachial plexus palsy. This resulted from the fact that 84% of patients did not have the macrosomia diagnosed before birth, the low (3%) incidence of brachial plexus injury among infants with macrosomia, and the fact that 82% of infants with brachial plexus palsy did not have macrosomia.<sup>60</sup> Conway and Langer<sup>61</sup> found that the rate of shoulder dystocia in macrosomic infants delivered vaginally decreased from 18.8% to 7.4% and the cesarean section rate significantly increased (21.7% vs. 25.1%,  $P < 0.04$ ) after institution of a protocol that recommended elective cesarean delivery for diabetic women with ultrasonographically estimated fetal weight of more than 4,250 g and those

with estimated fetal weight at or above the 90th percentile but women with infants weighing less than 4,250 g underwent induction. There was, however, no effect on the rate of brachial plexus palsy after the protocol was implemented (1 of 1,337 patients vs. 2 of 1,227 patients).<sup>61,62</sup>

In their landmark article, Benedetti and Gabbe<sup>63</sup> found a 4.57% incidence of shoulder dystocia when a prolonged second stage and midpelvic delivery were present compared with 0.16% when these characteristics were absent ( $P < 0.01$ ). With a prolonged second stage and midpelvic delivery, infants with birthweights more than 4,000 g had a much higher incidence of shoulder dystocia in relation to those with birthweights less than 4,000 g (23% vs. 1.6%,  $P < 0.01$ ).<sup>63</sup> Approximately 20 years later, in a clinical trial in which patients were randomized either to forceps or vacuum with M-cup, there was a 3.3% incidence of shoulder dystocia. There were 15 cases in the women randomized to the vacuum, and 6 occurred in the forceps arm of the study (4.7% vs. 1.9%,  $P = 0.05$ ). There was no evidence that the pelvic station from which the operative vaginal delivery was initiated was a significant risk factor for shoulder dystocia. Epidural analgesia, indication for operative intervention, and more than 45° rotational maneuvers were also not significantly correlated with shoulder dystocia on univariate analysis. Only three factors remained as significant when stepwise multiple logistic regression was performed: randomization to vacuum ( $P = 0.04$ ), time for delivery ( $P = 0.03$ ), and birthweight ( $P = 0.01$ ). Cases of shoulder dystocia were most common when the operative delivery time exceeded 6 minutes (6/76 [7.9%]) in comparison to 2 to 6 minutes (12/304 [3.9%]) or less than 2 minutes (1/195 [0.01%]).<sup>64</sup>

Among infants weighing 3,500 to 3,999 g, Acker et al<sup>23</sup> noted a twofold increase in the incidence of shoulder dystocia among gravidas who experienced either protraction or arrest disorders of labor. The shoulder dystocia rate was increased another twofold

if delivery ultimately occurred via low forceps.<sup>23</sup>

Two large studies, however, have concluded that this factor is an unreliable clinical predictor for the subsequent development of shoulder dystocia. In McFarland et al's study,<sup>65</sup> the rates of active-phase labor abnormalities were comparable in the shoulder dystocia ( $n = 276$ ) and control groups ( $n = 600$ ), 28.6% versus 40%. The incidence of a prolonged second stage, defined as a second stage longer than 2 hours, was also similar between the groups (4.3% vs. 4.4%). When patients with diabetes and those with macrosomic infants were analyzed separately, no significant differences in labor abnormalities were noted. Interestingly, 34.6% of the operative deliveries in the shoulder dystocia group were midpelvic in origin compared with 0% among controls. Lurie et al<sup>66</sup> performed a retrospective analysis of 52 consecutive shoulder dystocia cases and compared them with 52 matched controls. No significant differences were found with respect to mean cervical dilation rate, incidence of protracted dilatation less than 1 cm/h, mean duration of the second stage, and duration of second stage more than 1 hour. Only 1.9% of patients in both the study and control groups were found to have a second stage longer than 2 hours. Gerner et al<sup>67</sup> further attempted to define this association by comparing the deliveries of 36 newborns weighing 4,000 to 4,500 g with 72 infants with a birthweight in the same range but without shoulder dystocia. They found that active-phase abnormalities occurred in a higher proportion (30% vs. 12%,  $P = 0.02$ ) but that a prolonged second stage was not associated with shoulder dystocia (14% vs. 7%,  $P = 0.24$ ).

#### HOW OFTEN DOES SHOULDER DYSTOCIA RECUR?

To date, there have been three studies that have specifically assessed the recurrence risks for shoulder dystocia. Each of these studies has been limited by preselection of the study group due to lack of patient follow-

up for future pregnancies, management of subsequent deliveries via cesarean section, and use of a clinical diagnosis of shoulder dystocia by the delivering physician. Recurrence risks for shoulder dystocia range between 11.9% and 16.7% (Table 2).<sup>68-70</sup> A recent study noted that the odds ratio for recurrent shoulder dystocia was 10.98. Nine of the 11 patients with recurrent shoulder dystocia (compared with 28/55 without recurrence) were nulliparous in their index pregnancy ( $P < 0.001$ ). The mean fetal weights were 3,885 g in the recurrent dystocia group and 3,702 g in the group without recurrence ( $P < 0.03$ ).<sup>68</sup> Other factors shown to be statistically significant for recurrent shoulder dystocia have included maternal prepregnancy weight, maternal weight at delivery, the duration of the second stage of labor, birthweight greater than the index pregnancy, and birthweight more than 4,000 g.<sup>69</sup> In Baskett and Allen's study<sup>70</sup> of 254 shoulder dystocia cases, 80 women had 93 cephalic vaginal deliveries, with recurrent shoulder dystocia occurring in only one instance.

#### WHAT ARE THE SUCCESS RATES ASSOCIATED WITH THE McROBERTS' MANEUVER?

In a retrospective review of 250 shoulder dystocia cases that occurred between 1991

and 1994 at Los Angeles County-University of Southern California Medical Center, the McRoberts' maneuver alone was found to have a success rate of 42%. More than half (54.2%) of the shoulder dystocias were resolved with the combination of McRoberts' maneuver, suprapubic pressure, and/or proctoepisiotomy.<sup>71</sup> Similar findings were reported by McFarland et al,<sup>72</sup> who found that 39.5% of shoulder dystocia cases resolved with McRoberts' maneuver alone and that the subsequent addition of suprapubic pressure had a success rate of 58%. The need for additional maneuvers after McRoberts' has been associated with larger birthweights ( $4,024 \pm 458$  g vs.  $4,194 \pm 495$  g,  $P = 0.008$ ), longer active phases ( $206 \pm 199$  minutes vs.  $281 \pm 210$  minutes,  $P = 0.007$ ), and longer second stages of labor ( $46.4 \pm 44$  minutes vs.  $84.7 \pm 75.4$  minutes,  $P < 0.0001$ ).<sup>71</sup> McFarland et al<sup>72</sup> also noted that the fetal weight was significantly higher ( $P = 0.01$ ) in the group that required three or more maneuvers for delivery ( $4,217 \pm 562$  g) compared with one ( $4,017 \pm 434$  g) or two ( $4,061 \pm 525$  g) maneuvers. Although not quite statistically significant ( $P = 0.06$ ), additional maneuvers after McRoberts' were more likely to be needed with higher maternal weights at the time of delivery ( $167 \pm 30$

TABLE 2. Rate and Risk Factors for Recurrent Shoulder Dystocia

| Author                 | Vaginal Deliveries | SD          | Subsequent Vaginal Deliveries | Recurrent SD | Risk Factors for Recurrent SD        |
|------------------------|--------------------|-------------|-------------------------------|--------------|--------------------------------------|
| Ginsberg <sup>68</sup> | 39,681             | 602 (1.5%)  | 66 (10.9%)                    | 11 (16.7%)   | Fetal weight                         |
| Lewis <sup>9</sup>     | 37,465             | 747 (2%)    | 101 (13.5%)                   | 17 (13.8%)   | Maternal parity                      |
|                        |                    |             |                               |              | Prepregnancy weight                  |
|                        |                    |             |                               |              | Weight at delivery                   |
|                        |                    |             |                               |              | Time in second stage of labor        |
|                        |                    |             |                               |              | Fetal weight that of index pregnancy |
| Smith <sup>69</sup>    | 34,800             | 203 (0.58%) | 42 (20.6%)                    | 5 (11.9%)    | Fetal weight that of index pregnancy |
| Baskett <sup>70</sup>  | 40,518             | 254 (0.6%)  | 93                            | 1 (1.1%)     |                                      |

\* In comparison to the general population.  
SD, shoulder dystocia.

lb vs.  $174 \pm 32$  lb). Success rates for McRoberts' were not higher in the diabetic patient found to have shoulder dystocia (33/90 vs. 65/146,  $P = 0.13$ ).<sup>71</sup>

#### HOW DOES THE McROBERTS' MANEUVER WORK?

Although Gonik et al's initial report<sup>73</sup> described a single x-ray, the mechanism of action of the McRoberts' maneuver has only recently been systematically studied. In the study by Gherman et al,<sup>74</sup> anterior-posterior and lateral x-rays taken from 36 women in the dorsal lithotomy position and after application of McRoberts' maneuver were compared. There were no significant changes in anterior-posterior and transverse diameters of the pelvic inlet, midpelvis, and pelvic outlet. The obstetric, true, and diagonal conjugates also did not increase when McRoberts' maneuver was applied.<sup>74</sup> Contrary to popular belief, therefore, the McRoberts' maneuver does not change the actual dimensions of the maternal pelvis.

The x-ray pelvimetry study also found that when women were placed into McRoberts', there was a marked cephalad rotation of the symphysis pubis. This was evidenced by statistically significant increases in the angle of inclination between the top of the symphysis and the top of the sacral promontory ( $38.1^\circ \pm 1.96^\circ$  vs.  $51.5^\circ \pm 2.03^\circ$ ,  $P < 0.001$ ), and a 24% decrease in the angle created by a line bisecting the symphysis relative to the horizontal ( $56.7^\circ \pm 1.75^\circ$  vs.  $38.7^\circ \pm 2.2^\circ$ ,  $P = 0.001$ ). The sacrum was also found to flatten, as there was a statistically significant decrease in the angle created by a line bisecting the longitudinal axes of the fifth lumbar vertebra and the upper sacrum ( $140.1^\circ \pm 2.12^\circ$  vs.  $133.7^\circ \pm 2.25^\circ$ ,  $P = 0.04$ ).<sup>74</sup>

A recently published study<sup>75</sup> that evaluated intrauterine pressure during the second stage of labor found that the McRoberts' maneuver increased the pressure by 97%, from 1,653 mm Hg to 3,262 mm Hg ( $P < 0.0001$ ). McRoberts' maneuver also increased the amplitude of the uterine contrac-

tions, from 103 mm Hg to 129 mm Hg ( $P < 0.001$ ). Finally, it was calculated that the McRoberts' maneuver applied 31 Newtons of additional pushing force. It is therefore possible that McRoberts' maneuver also works by converting voluntary maternal expulsive efforts into enhanced intrauterine pressure, independently of uterine contractions.

#### WHAT OTHER MANEUVERS ARE AVAILABLE FOR ALLEVIATING SHOULDER DYSTOCIA?

Many cases of shoulder dystocia require the performance of several maneuvers to alleviate the impaction. In McFarland et al's study,<sup>72</sup> 39.5% of patients required two maneuvers, 11.6% required three, and 4.7% required four. Stallings et al<sup>76</sup> similarly found that 35.1% of patients required more than two maneuvers.

##### *Rotational Maneuvers and Posterior Arm Extraction*

The fundamental difference between the two rotational maneuvers lies in the direction of force applied to the fetal shoulder.<sup>77</sup> In the Woods' corkscrew maneuver, the practitioner attempts to abduct the posterior shoulder by exerting pressure onto the anterior surface of the posterior shoulder. In the reverse Woods' (Rubin's) maneuver, pressure is applied to the posterior surface of the most accessible part of the fetal shoulder (ie, either the anterior or posterior shoulder) to effect shoulder adduction and therefore achieve a reduction in the bisacromial diameter. Rubin also described the addition of oblique suprapubic pressure to facilitate disimpaction of the anterior fetal shoulder.<sup>77</sup>

To perform delivery of the posterior fetal arm, the accoucheur's hand can be passed into the vagina after the posterior arm to the elbow. After pressure is applied at the antecubital fossa to flex the forearm, the arm is swept out over the infant's chest and delivered over the perineum. Rotation of the fetal trunk to bring the posterior arm anteriorly is sometimes required. The main complication

associated with posterior arm delivery is fracture of the humerus. Among the 89 cases in Gherman et al's study<sup>78</sup> in which posterior arm extraction was actually used, there were 11 (12.4%) humeral fractures.

#### *Zavanelli Maneuver, Symphysiotomy, Hysterotomy*

In the Zavanelli maneuver, the head is rotated back to a prestitution position and then flexed. Constant firm pressure is used to push the head back into the vagina; a cesarean section is subsequently performed. Tocolytic agents or uterine-relaxing general anesthesia may be administered in preparation for and during the maneuver. Among 92 reported cases of partially born fetuses in vertex presentation, the Zavanelli maneuver successfully returned 84 (92%) fetuses into the vagina.<sup>42</sup> In Sandberg's review<sup>79</sup> encompassing 12 years of recorded experience, there were no reports of injury to the fetus that were considered by the author to result from the Zavanelli maneuver. Nevertheless, severe fetal injuries associated with cephalic replacement have included Erb's palsy, paresis of the lower extremities with pressure necrosis of the skin of the thigh, seizures, brain damage, delayed motor development, quadriplegia, cerebral palsy, and neonatal death.<sup>79</sup> Reported maternal complications of the Zavanelli maneuver have included uterine infection requiring hysterectomy, vaginal "rupture," laceration of the lower uterine segment, and uterine rupture.<sup>79</sup>

To perform a symphysiotomy, the patient should be placed in an exaggerated lithotomy position and have a Foley catheter placed to identify the urethra. With the physician's index and middle finger displacing the urethra laterally, the cephalad portion of the symphysis is incised with a scalpel blade or Kelly clamp. This should be undertaken only as a last-ditch attempt to preserve fetal life due to the significant maternal and neonatal complications inherent in the procedure. In Goodwin et al's case series,<sup>80</sup> all three infants sustained anoxic brain injury

and died 4 days to 3 months after delivery. Two patients each required 4 units of packed red blood cells; one patient sustained a laceration of the bladder neck and proximal urethra, and the other experienced a superficial tear of the bladder serosa.<sup>80</sup>

For catastrophic cases unresponsive to the traditional maneuvers, hysterotomy may be performed either to resolve the shoulder dystocia primarily or assist with vaginal techniques.<sup>81</sup> O'Shaughnessy<sup>82</sup> described delivery of the posterior fetal arm through a transverse uterine incision with subsequent passage of the hand to a vaginal assistant. Posterior arm delivery was then completed vaginally while the abdominal surgeon applied pressure on the anterior fetal shoulder to allow rotation to the oblique pelvic diameter.

#### *All-Fours Maneuvers*

Initially described in 1976 by Ina May Gaskin, this maneuver consists of placing the gravid patient onto her hands and knees. In an analysis of 82 consecutive cases of shoulder dystocia, Bruner et al<sup>83</sup> noted that 68 patients (83%) had successful delivery of the fetus with this maneuver alone. Rates of maternal and neonatal complications were 1.2% and 4.9%, respectively, with a single case of postpartum hemorrhage, one infant with a fractured humerus, and three neonates with low Apgar scores. The average time needed to assume the all-fours position and complete delivery was 2 to 3 minutes. The downward force of gravity or a favorable change in pelvic diameters produced by this maneuver may be the mechanisms allowing disimpaction of the fetal shoulder.<sup>83</sup>

#### *Fundal Pressure*

The use of fundal pressure to alleviate the shoulder dystocia should be avoided because it serves only to further impact the anterior shoulder behind the symphysis pubis. Gross et al<sup>84</sup> in 1987 found that fundal pressure, in the absence of other maneuvers, resulted in a 77% complication rate and was strongly associated with orthopedic and

neurologic damage. Phelan et al's case-control study<sup>85</sup> compared 59 infants with documented Erb's palsy whose births were complicated by shoulder dystocia with 59 cases of shoulder dystocia in which the infants had no evidence of brachial plexus impairment. The incidence of fundal pressure was significantly higher for cases than for control individuals (32% vs. 2%, odds ratio 27.5).<sup>85</sup>

Compressive forces resulting from the application of fundal pressure have been associated with thoracic spinal cord injury in the neonate, manifesting as lower extremity motor dysfunction, overflow urinary incontinence, and rectal incontinence in the newborn.<sup>86</sup>

#### WHAT TYPES OF COMPLICATIONS ARE ASSOCIATED WITH SHOULDER DYSTOCIA, AND HOW OFTEN DO THEY OCCUR?

The most common maternal complications of shoulder dystocia include postpartum hemorrhage and the unintentional extension of the episiotomy or laceration into the rectum (fourth-degree laceration). In Gherman et al's study,<sup>71</sup> these occurred in 11% and 3.8%, respectively, of the described cases of shoulder dystocia. Other complications reported have included vaginal lacerations (19.3%), cervical tears (2%), bladder atony, and uterine rupture.<sup>87</sup> Maternal symphyseal separation and lateral femoral cutaneous neuropathy have also been associated with overly aggressive hyperflexion of the maternal legs.<sup>88,89</sup> In Schramm's description of her personal experience,<sup>90</sup> she described a case in which she sustained rupture of the interosseous ligaments of the left hand; although the baby's brachial plexus palsy was gone within 72 hours, the obstetrician's pain and edema in her hand took 3 weeks to resolve.

The exact incidence of fetal injury has been difficult to determine because not all shoulder dystocia case series have comprehensively documented these adverse neonatal outcomes. In addition, these studies have

included very limited long-term follow-up of neonates to establish the likelihood of permanent brachial plexus palsy after an episode of shoulder dystocia. A large retrospective study that evaluated 285 cases of shoulder dystocia found that the fetal injury rate was 24.9%, including 48 (16.8%) brachial plexus palsies, 27 (9.5%) clavicular fractures, and 12 (4.2%) humeral fractures.<sup>78</sup>

Unilateral brachial plexus injuries have represented the most common neurologic injury sustained by the neonate. The right arm is usually affected (64.6%)<sup>78</sup> because the left occiput anterior presentation leaves the right shoulder impinged against the symphysis pubis. As shown in Table 3, brachial plexus injury has been found to complicate up to 21% of all shoulder dystocia cases. Most (80%) of these nerve injuries have been located within C5-C6 nerve roots (Erb-Duchenne palsy). Other types of brachial plexus injuries that have been described include Klumpke's palsy (C8-T1), an intermediate palsy, and complete palsy of the entire brachial plexus. Diaphragmatic paralysis, Horner's syndrome, and facial nerve injuries have been reported to accompany brachial plexus palsy occasionally.<sup>7</sup> Approximately one third of brachial plexus palsies are associated with a concomitant bone fracture, most commonly the clavicle (94%).<sup>78</sup>

Only a few studies have specifically attempted to correlate the number and type of maneuvers used to alleviate shoulder dystocia and subsequent perinatal outcome. Gherman et al's study<sup>78</sup> compared shoulder dystocia cases based on the absence or presence of direct fetal manipulative maneuvers (Woods, posterior arm extraction, or Zavaneli). They found that the overall incidence of fetal bone fracture (16.5% vs. 11.4%,  $P = 0.21$ ) and brachial plexus palsy (21.3% vs. 13.3%,  $P = 0.1$ ) was not different between the two groups.<sup>78</sup> Similar findings had previously been reported by Nocon et al,<sup>91</sup> who grouped techniques used to disimpact the shoulder into major treatment categories. None of the major categories re-

TABLE 3. Neonatal Complications Associated With Shoulder Dystocia

| Author                  | # Shoulder Dystocia | 5-Minute Apgar <7 (%) | Fetal Death | Clavicular Fracture (%) | Transient Brachial Plexus Palsy (%) | Permanent Brachial Plexus and Shoulder Dystocia Episodes |
|-------------------------|---------------------|-----------------------|-------------|-------------------------|-------------------------------------|----------------------------------------------------------|
| Gherman <sup>78</sup>   | 285                 | NM                    | 0.35%       | 9.5                     | 16.8                                | 1.4%                                                     |
| McFarland <sup>72</sup> | 276                 | 12%                   | 0%          | 8.5                     | 8.5                                 | NM                                                       |
| Beall <sup>13</sup>     | 99                  | 2%                    | 0%          | 0                       | 1.01                                | NM                                                       |
| Bofill <sup>64</sup>    | 21                  | NM                    | 0%          | 4.8                     | 9.52                                | 0%                                                       |
| Baskett <sup>70</sup>   | 254                 | NM                    | 0%          | 5.1                     | 13                                  | NM                                                       |
| Stallings <sup>76</sup> | 134                 | NM                    | 0%          | 3                       | 12.7                                | NM                                                       |
| Kees <sup>103</sup>     | 56                  | 8.9%                  | 1.8%        | 3.6                     | 21.4                                | NM                                                       |
| Keller <sup>*34</sup>   | 120                 | NM                    | NM          | 1.7                     | 3.3                                 | 0.83%                                                    |
| Nocon <sup>91</sup>     | 185                 | 4.3%                  | 0%          | 7.5                     | 15.1                                | 0.54%                                                    |

NM, not mentioned.

\* Evaluation of only gestational diabetics.

vealed a statistically significant difference when compared with respect to fetal injury. In this study, the authors found incidences of injury of 14.9%, 14.3%, 37.9%, and 20%, respectively, associated with McRoberts', rotations, posterior arm delivery, and suprapubic pressure.<sup>91</sup> McFarland et al,<sup>72</sup> however, found that the number of maneuvers used during the shoulder dystocia may serve as a measure of the severity of the shoulder dystocia. When one or two maneuvers were required, the incidence of Erb's palsy was 7.7%; it increased to 25% when three or more maneuvers were required ( $P = 0.009$ ). The incidence of clavicular or humeral fracture also increased with the use of more than three maneuvers (21.4% vs. 7.7%,  $P = 0.03$ ).<sup>72</sup>

Gonik et al's initial laboratory experiments<sup>92</sup> were designed to evaluate extraction forces for the aftercoming fetal shoulders during a normal, nonshoulder dystocia vaginal birth. When the lithotomy and McRoberts' positions were compared, the latter was found to have statistically lower peak force determinations for clavicular diameters 11 to 12.5 cm. For small (10 cm) and very large (>12 cm) biclavicular diameters, this difference was not statistically significant. This same study found a similar relationship between pelvic angle configura-

tion and reduction in extraction forces within the brachial plexus. No simulated clavicles were fractured during shoulder delivery until a biclavicular diameter of 12 cm was reached (lithotomy 63% vs. McRoberts' 0%,  $P < 0.025$ ).<sup>92</sup> Although there appears to be a trend toward a lower incidence of brachial plexus palsy with use of the McRoberts' maneuver, use of this maneuver does not universally prevent fetal injury. In Gherman et al's study,<sup>71</sup> 11.6% of the shoulder dystocia cases alleviated by McRoberts' maneuver alone were associated with brachial plexus injury.

#### HOW LONG CAN A SHOULDER DYSTOCIA LAST BEFORE CENTRAL NEUROLOGIC INJURY RESULTS?

The fetal pH has been shown to decline at a rate of 0.04 units/min between delivery of the head and trunk.<sup>93</sup> When comparing cases of shoulder dystocia stratified by the number of maneuvers (one to three), no significant differences in umbilical artery pH were found using pH thresholds of 7.10 and 7.00. Rates of cord pH below 7.20 were 25.6%, 28.6%, and 25% as the number of maneuvers required for delivery increased from one to three. Finally, cord  $po_2$ ,  $pco_2$ , and base excess were also comparable between the groups.<sup>72</sup>

Ouzounian et al's case-control study<sup>94</sup> compared 15 shoulder dystocia cases in which there was brain injury with 24 shoulder dystocia cases in which the neonate sustained no brain injury. They found that brain injury cases were associated with significantly prolonged head-shoulder intervals ( $10.6 \pm 3.0$  vs.  $4.3 \pm 0.7$ ,  $P = 0.03$ ) and that a head-shoulder interval threshold of 7 minutes or longer had a sensitivity and specificity of 67% and 74%, respectively, in predicting brain injury.<sup>94</sup> Stallings et al<sup>76</sup> found that shoulder dystocia resulted in statistically significant but clinically insignificant reductions in mean umbilical artery blood gas parameters when compared with the mean arterial pH of all vaginal deliveries in their institution ( $7.23 \pm 0.082$  vs.  $7.27 \pm 0.069$ ,  $P < 0.001$ ). Among the group of 44 shoulder dystocia cases with recorded intervals, increasing head-to-body delivery interval was not correlated with pH ( $P = 0.9$ ),  $pCO_2$  ( $P = 0.496$ ), or base deficit ( $P = 0.618$ ). Time for shoulder dystocia resolution did not correlate with the 5-minute Apgar score.<sup>76</sup>

Although most shoulder dystocias are resolved within a few minutes, fetal or neonatal death can still result from this obstetric emergency. The Confidential Enquiry into Stillbirths and Deaths in Infancy from England, Wales, and Northern Ireland<sup>95</sup> in 1994 and 1995 found that the approximate incidence of fatal shoulder dystocia was 0.025 per 1,000 deliveries. In a review of 56 reports, the head-body delivery interval was found to be less than 5 minutes in 47% of cases, with only 20% having a head-body delivery interval of more than 10 minutes. The authors speculated that a possible explanation for these findings was that compression of the fetal neck, resulting in cerebral venous obstruction, excessive vagal stimulation, and bradycardia, was combined with reduced arterial oxygen supply to cause clinical deterioration out of proportion to the duration of hypoxia.<sup>95</sup>

Gordon et al<sup>96</sup> assessed the long-term effects of neonatal brachial palsy among 59 children, approximately half of whom

had deliveries complicated by shoulder dystocia. At 8 months of age, the children's developmental performance was analyzed with the modified Bayley Behavior Profile. The Stanford-Binet Intelligence Test was subsequently performed at 4 years of life. No statistically significant differences were found between this cohort and a segment of the neonatal population with birthweights more than 2,000 g.<sup>96</sup>

A single report has suggested that the combination of a tight nuchal cord and shoulder dystocia is a potentially catastrophic combination.<sup>97</sup> In this case, only with cephalic replacement and subsequent cesarean delivery was delivery of the anterior shoulder of the 4,900-g infant subsequently achieved. At the time of the initial recognition of the shoulder dystocia, the nuchal cord had been reduced over the fetal head without being clamped and cut. The author suggested that if the cord had been ruptured or cut during the attempt at reduction, the infant might have suffered permanent neurologic injury or death.

#### WHAT FORCES ARE PRESENT DURING THE SHOULDER DYSTOCIA?

Allen et al<sup>98</sup> performed a series of clinical experiments using force/tactile sensing devices during 20 randomly selected routine vaginal births, 7 "difficult" deliveries, and 2 episodes of shoulder dystocia (subjectively determined by a single clinician). Mean average forces were found to be higher in the shoulder dystocia group compared with routine delivery ( $43.04 \pm 0.36$  N vs.  $23.40 \pm 4.48$  N,  $P < 0.04$ ). Interestingly, however, mean peak force rates were not statistically different between the shoulder dystocia group and the difficult delivery group ( $223.54 \pm 142.59$  N/s vs.  $146.55 \pm 82.20$  N/s). During the 1993 Region IV meeting of the American College of Obstetricians and Gynecologists, Allen et al<sup>99</sup> presented a study of clinician-applied extraction forces. During simulated vaginal delivery of the fetal shoulders using a shoulder dystocia birth simulator, they found that increased

amounts of peak horizontal force and peak vertical force were exerted in comparison to routine delivery (163 N combined force vs. 84 N combined force,  $P < 0.002$ ). No force movement parameter was statistically correlated with either clinical experience or clinician gender.

Gonik et al's recent mathematic model<sup>100</sup> estimated the compressive pressure on the fetal neck overlying the roots of the brachial plexus by the symphysis pubis during a shoulder dystocia event. They found that the contact stress caused by exogenous (clinician-applied) forces was one-fourth to one-ninth that resulting from endogenous pressure generated during the second stage of labor. The estimate of the exogenous impaction site was 22.9 kPa; for primigravidas and multigravidas, respectively, endogenous values were 191 kPa and 203 kPa when the patient was bearing down. Delivery forces ranged from 833 to 885 N, far greater than the 100 N found with clinician-applied tractions.<sup>100</sup>

In their intrauterine pressure study, Buhimschi et al<sup>75</sup> calculated that spontaneous uterine contractions could generate a force of 82 Newtons at the pelvic inlet. When the Valsalva maneuver was performed, with the patient's legs in the stirrups, there was a 57% increase in force (47 Newtons). Finally, the addition of McRoberts' maneuver added an additional 31 Newtons of pushing force.

#### WHAT ELEMENTS OF THE DELIVERY ARE IMPORTANT TO DOCUMENT?

Risks to the physician mainly involve litigation, as brachial plexus injury accounts for a large proportion of shoulder dystocia-related lawsuits.<sup>101</sup> Cases that involved shoulder dystocia constituted 11% of the 370 obstetric claims closed by the Norwegian patient insurance system in the decade from 1988 to 1997.<sup>102</sup> Most (75.6%) of these involved brachial plexus injury, although cerebral palsy and other brain injuries (17.1%) and perinatal death (7.3%) were also cited as indications for claims.

Acker<sup>103</sup> has suggested that it is important to clearly document the following:

- Delivery time of the head and time of complete delivery of the neonate
- The need for or lack of an episiotomy
- The type of anesthesia in effect when the shoulder dystocia was recognized
- Nasopharyngeal suction
- The force and duration of the initial traction(s)
- The sequence and duration of the maneuvers used to alleviate the shoulder dystocia
- Personnel participating in the resolution of the shoulder dystocia

#### Summary

The recent emphasis on evidence-based medicine has shattered many of the myths and misconceptions surrounding shoulder dystocia. Shoulder dystocia, however, will always continue to represent an area of ongoing intense clinical interest. This stems from the fact that there are many unresolved issues surrounding its occurrence, including such variables as prediction and prevention as well as the estimation of fetal birthweight.<sup>104,105</sup> Only through the accumulation and application of scientific information relating to the multiple antepartum and intrapartum aspects of shoulder dystocia will the obstetrician ultimately be able to deal with this "obstetric nightmare."

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1 which one? Mr. Graham?

2 MR. GRAHAM: Thank you, Your Honor.

3 (Whereupon, Mr. Graham and Mr. Ruffin conferred.)

4 MR. GRAHAM: Your Honor, we call Dr. Dan Strickland.

5 (To the witness) Watch your step, sir.

6 (Whereupon, the witness came forward.)

7 (Off the record briefly.)

8 DANIEL STRICKLAND, having been first duly sworn,  
9 testified as follows:

10 DEPUTY CLERK OF COURT: Please be seated and state  
11 your name for the record.

12 (Whereupon, the witness entered the witness stand.)

13 THE WITNESS: My name is Daniel Michael Strickland.

14 DIRECT EXAMINATION

15 BY MR. GRAHAM:

16 Q Dr. Strickland, good afternoon.

17 A Good afternoon.

18 Q Why don't you start off, sir, by telling -- by  
19 introducing yourself to the jury. Tell us, you know, who  
20 you are. Tell us about your family, where you live.

21 A Well, I live in Ashe County, North Carolina, which is  
22 the far-northwest county of North Carolina. I can see the  
23 Virginia line from my front porch, so I'm really up there  
24 in the mountains. It's really nice this time of the year.

25 I am an OB-GYN, but I retired from active OB-GYN

1 practice in -- last summer, summer of 2014. Basically,  
2 age-related, so I delivered my last baby -- as a matter of  
3 fact, in Dillon -- in 2014 in June.

4 Q Thank you, sir.

5 MR. GRAHAM: (To the court reporter) Could you mark  
6 this for identification only, please.

7 (Whereupon, Plaintiff's Exhibit 31 was marked for  
8 identification.)

9 MR. GRAHAM: Thank you.

10 Q Doctor, I hand you a document marked Plaintiff's  
11 Exhibit 31 for identification only. What is that?

12 A This is my curriculum vitae.

13 Q Thank you. Is -- are its contents true and accurate?

14 A Yes, they are.

15 Q All right. Before we get into that, just tell me --  
16 tell me -- did you tell us where you were born and about  
17 your family?

18 A No, I didn't.

19 Q All right. Where were you born, sir?

20 A San Francisco.

21 Q Okay. And where ---

22 A My ---

23 Q --- did you grow up?

24 A Well, my father was on a destroyer. So my mother had  
25 relatives in the Bay area. So I was born there. And I

1 grew up in North Carolina, South Carolina, and Georgia.

2 Q Yes, sir. And you're married?

3 A I am.

4 Q And have children?

5 A Three children, five grandchildren, and one great-  
6 great-grandson.

7 Q All right. Tell us ---

8 A I'm old.

9 Q --- about -- tell -- congratulations.

10 A I'm a little nervous. I apologize.

11 Q No worries.

12 Tell us, please, about your educational background,  
13 starting with college.

14 A I went to University of Georgia. Go Dawgs. And I --  
15 I -- I got a bachelor's in physics, University of Georgia.  
16 And I went to the -- the Air Force Institute of Technology  
17 when I was commissioned in the U.S. Air Force. And I spent  
18 two years in -- in Dayton, Ohio; got a master's in nuclear  
19 engineering. Then I went to Kirtland Air Force Base and  
20 spent five years developing bombs.

21 Basically, I got tired of that and decided to go to  
22 medical school. Went to the Medical College of Georgia --  
23 I guess I'm a Georgian -- and graduated in '77. Then I  
24 went to the biggest Air Force hospital in the country at  
25 that time, Wilford Hall Air Force Medical Center, which is

1 Lackland Air Force Base. And I was also a flight surgeon.  
2 I went with a flight-surgery course.

3 And I finished my residency in '81. I then went to  
4 Dallas to do a fellowship in reproductive endocrinology and  
5 infertility, REI. And I'm double-boarded in OB-GYN and  
6 REI.

7 Q Yeah. REI ---

8 A I've ---

9 Q --- again is?

10 A Reproductive endocrinology and infertility.

11 Q All right. So that's where you help women who have  
12 trouble getting pregnant ---

13 A That's ---

14 Q --- to ---

15 A --- correct.

16 Q --- bear children?

17 A And -- and hormone problems of various kinds.

18 Q Thank ---

19 A I ---

20 Q --- you -- thank you ---

21 A I then went back to Wilford Hall to be on faculty  
22 there. It's a teaching hospital; we had residents. So I  
23 was an attending faculty at -- at Wilford Hall until I  
24 retired from the Air Force in 1989.

25 At that time I went to Saudi Arabia; worked for the

1 oil company, delivering babies; and came back to the United  
2 States in 1995. At that point I started doing *locums* OB-  
3 GYN work, which is basically -- *locums* is some kind of a --  
4 a Latin word meaning standing in place of. So when a  
5 doctor was going to a vacation or was sick or something of  
6 that nature, I would work for them to fill in if they were  
7 shorthanded for various reasons. And I did that  
8 continuously from 1995 until -- until last year.

9 But I also had a -- a GYN practice in -- in Ashe  
10 County in West Jefferson. And I opened that in 1998. So I  
11 did my -- my private practice from '98 until 2010, at which  
12 time I retired from the practice. I continued doing *locums*  
13 at that point until June of last year.

14 Q Okay. So is *locums tenens* obstetrics a situation  
15 where you travel from one area and one hospital, stay there  
16 for a few weeks or whatever, and then move to a different  
17 hospital and -- and see the experiences at various  
18 hospitals?

19 A Oh -- oh, yes. Absolutely. In South Carolina I've  
20 delivered babies in Easley, Orangeburg, Hartsville, and  
21 Dillon. I've delivered a lot of South Carolina babies.

22 Q What other states have you done the *locum tenens* work  
23 in?

24 A Virginia and Texas and North Carolina.

25 Q And have you done any teaching activities?

1 A When I was in the Air Force, yes. But not since I  
2 retired from the Air Force ---

3 Q Yeah.

4 A --- except -- except to the extent that there's always  
5 a teaching interaction between doctors and nurses, and  
6 doctors and allied health professions, such as midwives --  
7 I've worked with midwives -- also, nurse practitioners and  
8 physicians assistants. So there's -- there's teaching  
9 involved in there.

10 Q All right. When you were doing your teaching, were  
11 you affiliated with the University of Texas in San Antonio?

12 A In San Antonio, yes. I was an associate clinical  
13 professor.

14 Q Thank you. Have you served on the National Board of  
15 Medical Examiners?

16 A No. But I have -- I have a certificate from them.

17 Q Okay. And you've -- and you -- you've double-boarded.  
18 In -- in the military what was your highest rank when you  
19 retired?

20 A I was a colonel.

21 Q Were you also a flight surgeon?

22 A I was.

23 Q Did you attend the School of Aerospace Medicine?

24 A Yes, I did.

25 Q Did you take combat-casualty-care courses?

1 A Yes. I took a -- three different levels of that.

2 Yes.

3 Q Including war-surgery skills enhancement?

4 A That's correct. I was also a ATLS instructor,  
5 advanced-trauma life support instructor.

6 Q And are you a member of ACOG?

7 A Yeah. I'm a fellow. Yes.

8 Q Oh, okay. And have you actually had -- in your  
9 younger days, did you have some offices and -- and  
10 positions of responsibility within that organization?

11 A Yeah. I love the way you say that, in my younger  
12 days. Yeah. I started out in the junior fellows. Junior  
13 fellows are -- are obstetricians in training or recently  
14 out of training who have not accomplished what it requires  
15 to be a -- a full fellow. You have to be board-certified  
16 to be a fellow. So junior fellows are working up to full  
17 board certification and full fellowship.

18 And I started out at the junior-fellow organization at  
19 the district level, which is the Armed Forces district  
20 level.

21 Q Yes, sir.

22 A And I worked up to be junior fellow national chairman,  
23 the Junior Fellow College Advisory Council.

24 Q When you -- or do you have any patents?

25 A I have one patent.

1 Q All right. As -- as a -- as a man who is an  
2 obstetrician and a fertility specialist, with a background  
3 in nuclear engineering and Air Force surgery, are you a  
4 member of any honorary organizations that deal with  
5 scientific research, the Sigma ---

6 A Well, I'm a member of Sigma Xi. That's a scientific-  
7 research organization.

8 Q Are you also a member of Sigma Delta Chi?

9 A Sigma Delta Chi, that's ---

10 Q Okay.

11 A --- a journalism society. I was a journalism minor in  
12 college.

13 Q Yes, sir. Speaking of journals, have you been  
14 published in various professional journals, either in your  
15 engineering work, your Air Force work, or your work as an  
16 obstetrician?

17 A All of the above. Yes.

18 Q All right. Your C.V. shows 59 publications. How many  
19 of those relate to obstetrics?

20 A I -- you know, I don't know. I'd have to check. I  
21 ---

22 Q Can ---

23 A --- I haven't counted them.

24 Q Can you give me an approximate number?

25 A Probably a couple of dozen.

1 Q Thank you. And in terms of your obstetrical  
2 publications, have you been published along with some of  
3 the leading luminaries within the ACOG organization? And  
4 if so, who are they?

5 A Well, it depends on what you mean by "luminaries." To  
6 me they're just ordinary people. But I trained with the  
7 present executive director of the ABOG, who is Larry  
8 Gilstrap.

9 Q Okay.

10 A I've published a -- several papers with Larry. Gary  
11 Hankins, who is a -- one of the luminaries, he was the same  
12 resident year I was. He's chairman of UT-Galveston, I  
13 believe. Other people like Ed Yeomans -- I think he's  
14 chairman in Texas Tech. And a lot of my colleagues and  
15 coworkers are -- are quite famous now. I -- I let them  
16 down.

17 MR. GRAHAM: Your Honor, at this time we would offer  
18 Dr. Strickland as an expert witness on the topic of  
19 obstetrics generally, but also ---

20 Q Oh. Well, let me ask you, sir -- I'll -- I'll just  
21 get right into -- to shoulder dystocia. How many babies  
22 have you delivered in your career?

23 A Well, because of my subspecialty, probably only about  
24 2,000.

25 Q Okay. And how many times have you -- or have you

1 encountered shoulder dystocia? And if so, about how many  
2 times?

3 A Well, about 5 percent probably, the average number  
4 when they're -- when they're properly recognized. So 5  
5 percent of that would be maybe 100 shoulder dystocias.

6 Q And of those 100 shoulder dystocias you've had  
7 responsibility for, how many permanent injuries have there  
8 been?

9 A None.

10 MR. GRAHAM: Your Honor, at this time we would offer  
11 Dr. Strickland as -- as an expert in the field of  
12 obstetrics, shoulder-dystocia management, breaches in  
13 standard of care -- breaches in the standard of care, and  
14 causation.

15 THE COURT: Ms. Craig ---

16 MS. CRAIG: Your Honor ---

17 THE COURT: --- you want some voir dire?

18 MS. CRAIG: --- I believe the proper offer would be in  
19 the field of obstetrics and gynecology. And if that is  
20 what he is offering him in, I have no objection. But the -  
21 - the rest of the commentary, I object to.

22 THE COURT: I agree. The -- the doctor will be found  
23 -- witness will be found as a expert in the field of  
24 obstetrics and gynecology. And he can testify in that  
25 field as an expert witness.

1 MR. GRAHAM: Thank you, Your Honor.

2 Q Now, I'm going to limit my questions, Doctor, to only  
3 new matters that were brought up in the defense case. So  
4 we're not going to be here that long. But the first thing  
5 I want to ask you about, sir, relates to an article that  
6 Dr. Ernest mentioned yesterday. I asked him to please pull  
7 the article on his computer because the article didn't  
8 sound to me -- his description didn't sound ---

9 MS. CRAIG: Objection ---

10 Q --- right to me.

11 MS. CRAIG: --- Your Honor. Is he testifying?

12 THE COURT: Yeah. I would agree.

13 MR. GRAHAM: I was just trying to put the context,  
14 Your Honor.

15 THE COURT: Yeah. Let's -- let's formulate a  
16 question.

17 (Whereupon, Mr. Graham conferred with his assistant.)

18 Q Let me switch copies.

19 A There you go.

20 Q Doctor, we're going to need to share a copy. So what  
21 I'm going to do, sir, can you see -- well, what's the ---

22 A I've got it on my screen here, but it's ---

23 Q Oh, you do?

24 A --- it's ---

25 Q Can you ---

1 A --- so blurred.

2 Q Okay. Let me give you this copy.

3 A Is this ---

4 Q Let ---

5 A --- a touch ---

6 MS. CRAIG: Your Honor, is he offering a learned  
7 treatise under 803(18)?

8 MR. GRAHAM: Your Honor, it's already been admitted  
9 through another expert. But I'll take time to do that if  
10 counsel wants me to.

11 THE COURT: These aren't admitted as evidence.  
12 They're utilized by the witness under 803(18). Am I  
13 incorrect on that?

14 MS. CRAIG: No. That -- that is my understanding.  
15 And so under that rule, he is entitled to publish whatever  
16 portion that he wants to, but not any additional commentary  
17 by the -- by the witness under the rule.

18 MR. GRAHAM: That's exactly what we're getting ready  
19 to do.

20 THE COURT: All right. And so it'd be limited to that  
21 fashion as to the part that's relied upon ---

22 MR. GRAHAM: Yes, sir.

23 THE COURT: --- and published in the same fashion as  
24 required under (18).

25 MR. GRAHAM: Yes, sir.

1 (Whereupon, Mr. Graham conferred with his assistant.)

2 Q All right, sir. Doctor, I'm going to read -- or I'll  
3 ask you to read the first two sentences of this article.

4 A I've got it on the screen.

5 Q Okay.

6 A Is that okay?

7 Q That's fine. Sure.

8 A (As read): "The purpose of this report is to discuss  
9 the association of brachial plexus palsy and congenital  
10 deformations." That's the same as a congenital  
11 malformation. "We reviewed all charts of patients less  
12 than 1 year of age with obstetrical brachial plexus palsy  
13 evaluated by one of the authors between January '98 and  
14 October 2005 at Miami Children's Hospital Brachial Plexus  
15 Center." That's the first two.

16 Q Oh, I'm sorry. One more, please.

17 A Okay. (As read): "Of 158 patients with obstetrical  
18 brachial plexus palsy, 7 had deformations." That's almost  
19 5 percent.

20 Q Thank you. Now, I want to ask you to read -- to read  
21 a sentence that was highlighted yesterday on page 247 under  
22 the discussion section.

23 A It's -- yeah. He's -- he's highlighting it right now.

24 Q Okay.

25 A Okay.

1 Q Let me ---

2 A The ones -- go ahead.

3 Q Let me ask you to read the -- the -- however many  
4 sentences it is, starting with "Forces" through Footnote  
5 19. And read -- read the footnote numbers, if you would,  
6 because that's something we'll follow up on.

7 A Okay. Now, just for clarification, we call them  
8 "reference numbers."

9 Q Okay. Reference numbers, not footnotes. Sorry.

10 A (As read): "Forces that stretch and sometimes tear  
11 the brachial plexus during labor are generated by  
12 intrauterine contractions, external manipulations, or  
13 both." And that's Reference 18. "The intensity of the  
14 force generated during labor is related to the magnitude  
15 and direction of the force." That's Reference 19.

16 Q Thank you, sir.

17 MR. GRAHAM: Now, I'm going to ask Dave to please turn  
18 to the Reference No. 18 at the back of the article and  
19 highlight that, please.

20 MR. GRAHAM'S ASSISTANT: (Complied.)

21 Q What is the title of Reference -- well, first of all,  
22 the -- the authors and the title of Reference 18?

23 A The authors are Allen, RH; Gurewitsch, ED; and the  
24 title is "Temporary Erb-Duchenne" -- that's the Erb's palsy  
25 -- "Without Shoulder Dystocia or Traction to the Fetal

1 Head." And, of course, the operable word there is  
2 "temporary."

3 Q Yes, sir.

4 A And ---

5 MS. CRAIG: Objection ---

6 A --- that's ---

7 MS. CRAIG: --- Your Honor. Any further commentary on  
8 the article would be outside 803(18).

9 THE COURT: All right. Sustained.

10 Q Okay. So the supporting reference for the sentence  
11 you read about "Forces that stretch and sometimes tear the  
12 brachial plexus during labor are generated by intrauterine  
13 contractions, external manipulation, or both," the support  
14 for that is an article about permanent injuries or  
15 temporary injuries?

16 MS. CRAIG: Same objection.

17 A Temporary.

18 Q Now ---

19 THE COURT: The -- the reference can be published  
20 under 18 -- under Subsection 18 because it is part of the  
21 article. It was not originally published. And for  
22 completeness I'll allow ---

23 MR. GRAHAM: Thank you, Your ---

24 THE COURT: --- the reference number to be published.

25 MR. GRAHAM: Thank you, Your Honor. (To his

1 assistant) Now, let me get you to please highlight Figure  
2 1 on page 248.

3 MR. GRAHAM'S ASSISTANT: (Complied.)

4 Q Okay. And, Doctor, would you please read the caption  
5 under Figure 1?

6 A (As read): "A 2-month-old infant with right brachial  
7 plexus palsy and a right-forearm and thumb thinner than the  
8 left counterparts and a hypoplastic right thumbnail. At  
9 birth the findings were similar, except that the right  
10 thumbnail was missing."

11 Q Thank you.

12 MR. GRAHAM: (To his assistant) Now please turn to --  
13 or display Figure 2 on the same page.

14 MR. GRAHAM'S ASSISTANT: (Complied.)

15 Q Could you read that caption, sir?

16 A (As read): "Rotational deformity of the left leg in a  
17 patient with left brachial plexus palsy."

18 Q Sir, what does this article have to do with the  
19 delivery and circumstances of Julia Byrd, if anything?

20 A Nothing.

21 Q Yesterday -- or maybe the day before, in Dr.  
22 Browning's testimony, the defense lawyer ---

23 MS. CRAIG: Objection ---

24 Q --- had Dave ---

25 MS. CRAIG: --- Your Honor -- Honor, to the editorial

1 comments.

2 MR. GRAHAM: Foundational, Your Honor.

3 THE COURT: Don't editorialize. Just factually  
4 characterize your question, please.

5 MR. GRAHAM: Yes, sir.

6 Q You weren't here, but Dr. Browning testified, in  
7 effect, that the audio portion of the video contained the  
8 words "stop pushing" at some point, followed by a loud sigh  
9 from the laboring mom, Christy. We heard Dr. Browning  
10 testify that that proved she had stopped pushing in  
11 response to his ---

12 MS. CRAIG: Your Honor ---

13 Q --- instructions so -- so he could do the shoulder-  
14 dystocia maneuvers.

15 THE COURT: All right. Yes, ma'am?

16 MS. CRAIG: I am objecting to leading. And I am  
17 objecting to the editorial comments and ask that he be  
18 asked to ask the proper question.

19 MR. GRAHAM: I'm just trying to set a foundation for  
20 the question, Your Honor.

21 THE COURT: And characterize the testimony. I think  
22 you have. But ask it more succinctly.

23 MR. GRAHAM: Yes, sir. Thank you, Your Honor.

24 Q Doctor, did you hear a loud sigh from Christy when you  
25 watched the birth video?

1 A I wouldn't call it a sigh.

2 Q Okay. What would you call it?

3 A She was taking a deep breath.

4 Q All right. And explain what that deep breath really  
5 signified.

6 A Well, when a mother is pushing, she's holding her  
7 breath. She's Valsalving. She's having the world's  
8 biggest bowel movement. I'm sorry. But she has to hold  
9 her breath to do that. And if she doesn't take a big, deep  
10 breath in between, she'll pass out.

11 Q Okay.

12 A So I did hear it. I -- I watched the video a couple  
13 of weeks ago. And it just sounded like she was catching a  
14 breath, taking a big, deep breath in between pushing.

15 Q Okay. Were there more than one deep breaths on that  
16 video?

17 A Yes.

18 Q Okay. When Christy let out her breath during the  
19 shoulder dystocia, how soon did she start pushing again?

20 A Oh. A few seconds, just enough to take a big, deep  
21 breath and start pushing again.

22 Q When you, as an obstetrician, tell a laboring patient  
23 to stop pushing so that you can do a shoulder-dystocia  
24 maneuver, how much time must pass before you ask the mom to  
25 start pushing ---

1 MS. CRAIG: Objection ---

2 Q --- again?

3 MS. CRAIG: --- Your Honor. That outside of your  
4 three things that you're allowing.

5 MR. GRAHAM: It's -- it's about the -- the sigh, Your  
6 Honor.

7 MS. CRAIG: No, Your Honor.

8 THE COURT: And it -- it's a leading question too.

9 MS. CRAIG: Yes, sir.

10 THE COURT: Very briefly ---

11 MR. GRAHAM: Yes, sir.

12 THE COURT: --- I'll allow the question.

13 MR. GRAHAM: Thank you ---

14 THE COURT: But, I mean ---

15 MR. GRAHAM: --- Your Honor

16 THE COURT: --- we want to stay within the scope of  
17 the rebuttal witness.

18 MR. GRAHAM: Yes, sir.

19 Q How much time must -- for -- for a sigh in a -- or a  
20 deep breath, rather, to signify that -- that the patient is  
21 stopping pushing so the doctor can do a shoulder-dystocia  
22 maneuver -- how much time does the pushing need to stop?

23 MS. CRAIG: Objection, Your Honor. I believe your  
24 ruling was pretty clear.

25 MR. GRAHAM: It -- this relates to that topic, Your

1 Honor.

2 THE COURT: I think it relates to the topic. I  
3 understand your objection, but overruled.

4 MR. GRAHAM: Thank you, Your Honor.

5 A Well, if I understand your question, you -- you -- you  
6 have to make sure that she's not continuing to push so that  
7 you can do whatever maneuvers are necessary to try to  
8 dislodge the shoulder.

9 Q What's the minimum amount of time that a doctor needs  
10 the patient to stop pushing in order to do a shoulder-  
11 dystocia maneuver?

12 MS. CRAIG: Objection, Your Honor.

13 THE COURT: This is a reworded question. But that's -  
14 - and I -- I'm going to allow it. But understand, this is  
15 -- this is the limit, okay?

16 MR. GRAHAM: Yes, sir.

17 A Well, it depends on what maneuver you're -- you're  
18 going to do next. Something like a suprapubic pressure  
19 would not take terribly long. It might take 10 to 15  
20 seconds if you've got a nurse in position. But if you're  
21 going to do internal maneuvers, that takes a lot longer.

22 Q We heard from one of the witnesses -- I believe it was  
23 Dr. Ernest -- about the ACOG position paper called  
24 "Neonatal Brachial Plexus Palsy." We were told by Dr.  
25 Ernest that this position paper was written in order to

1 educate obstetricians. Do you have an opinion, sir, to a  
2 reasonable degree of certainty, as to the educational value  
3 or purpose of this position paper?

4 A Yes.

5 Q What is that, sir?

6 A As a collection of articles, it's a pretty good  
7 collection. I -- I call it actually a "compendium."

8 Q Yes, sir.

9 A It's just a collection of articles about the subject.  
10 The problem with the document is the conclusions that they  
11 draw. That's the problem.

12 Q Yes, sir. And so what is the educational purpose or  
13 value of the conclusions that they draw?

14 A They're worthless.

15 Q Why is that, sir?

16 A Because they're totally self-serving.

17 Q Please explain.

18 A What they do is attempt to try to help defend doctors  
19 from doing bad things, like pulling too hard and causing an  
20 injury to a baby. But we should apologize and make amends  
21 and compensate, and that's why we have insurance.

22 MS. CRAIG: Objection, Your Honor. Move to strike.  
23 And I'd like to have a sidebar, please.

24 THE COURT: All right. Let's -- y'all come around  
25 here so I can stand up.

1 (Whereupon, a sidebar conference was held off the  
2 record in the presence of the jury.)

3 THE COURT: All right. I need to put something on the  
4 record. So y'all step in the jury room.

5 (Whereupon, the jury exited the courtroom at 3:10  
6 p.m.)

7 (Off the record briefly.)

8 THE COURT: All right. We had a brief sidebar back in  
9 the anteroom so I could stand up and stretch my legs. Is  
10 the door shut?

11 THE BAILIFF: Yes, sir.

12 THE COURT: Okay. Ms. Craig?

13 MS. CRAIG: Your Honor, what this professional witness  
14 has just testified to is absolutely unbelievable. In  
15 response to one of Mr. Graham's questions, he just offered  
16 information that doctors should make amends, they should  
17 apologize, and they should compensate. It was not  
18 responsive to any question.

19 This is a witness who's been doing expert work for  
20 over 20 years. He had testified in over 40 cases. He has  
21 testified in multiple states. He has testified for Mr.  
22 Graham over six times. This witness knows better. He  
23 knows what he did.

24 Your Honor, we'd have to move for a mistrial based  
25 upon the prejudice of that testimony being elicited from

1 this witness.

2 (Whereupon, Ms. Craig, Ms. Ganes, and Mr. Kern  
3 conferred.)

4 MS. CRAIG: And I -- I'm told from my colleagues that  
5 he said, "That's why we have insurance."

6 THE COURT: That was after "We should compensate."

7 MR. KERN: Yeah.

8 MS. GANES: Right.

9 THE COURT: "That's why we have insurance."

10 MS. CRAIG: I was so mad. I didn't even hear that  
11 part.

12 THE COURT: All right.

13 MS. CRAIG: I can't even -- I -- I'm -- I'm sorry. I  
14 didn't ---

15 THE COURT: They ---

16 MS. CRAIG: --- I didn't ---

17 THE COURT: --- they're right.

18 MS. CRAIG: --- even hear ---

19 THE COURT: I mean ---

20 MS. CRAIG: --- the insurance ---

21 THE COURT: And Mr. ---

22 MS. CRAIG: --- comment.

23 THE COURT: Mr. Graham's not going to dispute what was  
24 said. We can play it back. It was ---

25 MR. GRAHAM: No. The ---

1 THE COURT: --- it was a ---

2 MR. GRAHAM: I -- I ---

3 THE COURT: --- a lengthier comment than should've  
4 been said.

5 MR. GRAHAM: Yes, sir. I -- I would correct nothing  
6 about the representation of the testimony. But Ms. Craig  
7 says that Dr. Strickland has testified for me six times.  
8 This is the first time Dr. Strickland has testified in  
9 court. He's given depositions in other cases.

10 I'd -- in preparation for this today, I did not  
11 specifically have a discussion with Dr. Strickland about  
12 not commenting on insurance. I didn't anticipate it.

13 I wasn't expecting it. And -- and yet I think that  
14 the proper way to deal with it would be a curative charge  
15 ---

16 THE COURT: All right.

17 MR. GRAHAM: --- if Your Honor please.

18 THE COURT: Well, let me go back and digest it a  
19 minute. All right? So ---

20 MS. CRAIG: Yes, sir.

21 THE COURT: Yeah. I -- I understand y'all's  
22 positions. I'm very concerned. Let me go ---

23 MS. CRAIG: Yes, sir.

24 THE COURT: --- walk around a minute. That's how I  
25 destress. So everybody stand at ease for a few minutes.

1 MS. CRAIG: Is -- is -- would you ask the witness to  
2 stay in the courtroom, please, and ---

3 THE COURT: Sure.

4 MS. CRAIG: --- and not talk to anybody?

5 THE COURT: Yeah. Don't -- you can't discuss your  
6 testimony until we get you off.

7 (Off the record from 3:14 p.m. until 3:27 p.m.)

8 THE COURT: All right. Any -- everybody here?  
9 Anything else from either side?

10 MR. GRAHAM: No, Your Honor.

11 THE COURT: All right. I don't think a curative  
12 instruction will do the job. I think that bell is rung and  
13 it's loud and it's going to be hard to explain -- that  
14 whatever I say is going to focus on insurance issues. And  
15 so I am granting a mistrial.

16 I don't like the -- I'd rather get it right than have  
17 to think about how I'm going to do it over. And I -- I am  
18 more sorry probably for the parents because of their -- and  
19 the doctor -- both sides -- both families have been very  
20 respectful to the Court and to each other. And I've --  
21 I've -- I've observed that. And I -- I thank y'all for  
22 that. But I am sorry.

23 Now, I do recognize -- and I found this out during the  
24 trial -- that I'm coming back to Florence in May. And I am  
25 -- y'all discuss it. And if y'all want to talk with the

1 chief administrative judge about scheduling it date-certain  
2 May 9th when I'm coming back down, I don't mind hearing it  
3 again, because I'm familiar with it. And that's six --  
4 eight months away.

5 But I don't want you to have to judge-shop. But  
6 perhaps that's an option for you. That way it can be  
7 scheduled. I don't know if that's done in Florence. It's  
8 done in the eighth circuit some. So ---

9 DEPUTY CLERK OF COURT: Actually, if everybody can  
10 agree now and I can talk with Judge Russo, then ---

11 THE COURT: Judge Russo certainly would let a judge  
12 taking it take it because there's not going to be a ---

13 MS. CRAIG: Your Honor, given the gravity of what was  
14 said by this witness, is Your Honor going to inquire of the  
15 witness about why he offered that testimony? why he's done  
16 that ---

17 THE COURT: I ---

18 MS. CRAIG: --- to these parties?

19 (Whereupon, Ms. Ganes and Ms. Craig conferred.)

20 THE COURT: No.

21 MS. CRAIG: And there is a statute that applies in a  
22 situation like this.

23 THE COURT: You know, I -- I think he was just -- I  
24 watch and evaluate witnesses so very much -- as much as  
25 y'all do, maybe more. And he comes across to me as being

1 straightforward and candid and a man's man and that's what  
2 you do; you do the right thing. That's just how he -- he's  
3 testifying with that positive posture.

4 And I -- I do -- I can't imagine -- I mean, if -- I  
5 know he would know that he shouldn't say that. I don't  
6 think he would recognize that it would impact a mistrial.  
7 I don't know that. And so I don't think that would be  
8 proper for me to place that on him. As it -- it -- he  
9 shouldn't have said it, but he did.

10 It -- it didn't come across to me as being with ill  
11 will. It -- it was a mistake. But he was candid and --  
12 and -- and forthright with it. And I don't think he did it  
13 with any -- I'm -- Mr. Graham, I'm so sorry for her. I  
14 really am.

15 So, I mean, it's no question it's been emotional on  
16 both sides. I ---

17 MS. CRAIG: Absolutely ---

18 THE COURT: --- recognize that.

19 MS. CRAIG: --- on ---

20 THE COURT: I don't see ---

21 MS. CRAIG: It has ---

22 THE COURT: --- anybody ---

23 MS. CRAIG: --- on both sides.

24 THE COURT: It's called a trial for a reason. It's  
25 trying on them -- on one -- and everyone that's involved, I

1 mean, all three -- all -- all -- all four of the spouses.

2 Now, I do recognize also -- this shouldn't be said --  
3 mistrial is granted, so we're not going to back up on that.  
4 But going forward, the next trial could be much simpler  
5 without all the testimony on the nurses' negligence and all  
6 those issues that are compounding this. It could be much  
7 more simply and straightforward, in my opinion, too.

8 MS. CRAIG: Your Honor, given this situation that was  
9 created by the plaintiff calling this witness as their  
10 rebuttal witness, we would request a ruling from the Court  
11 that the plaintiff is not allowed to add additional expert  
12 witnesses or change or substitute additional expert  
13 witnesses and that discovery is closed, as it should be,  
14 because we should've had a verdict in this case today.

15 THE COURT: I -- I can't imagine either side wanting  
16 to go spend other monies on other experts, because you're  
17 experts are educated; they know the facts; they know the  
18 depositions. They know all the facts of the case. And so  
19 is anyone -- would anyone even contemplate doing that? If  
20 so, I would encourage you not to. But I -- I would think  
21 that we've got what we need right here. What y'all put up,  
22 y'all have got plenty.

23 MR. GRAHAM: Your Honor, could we approach?

24 THE COURT: Yeah.

25 (Whereupon, a bench conference was held off the record

1 while the jury was not present.)

2 (Off the record from 3:33 p.m. until 3:37 p.m.)

3 THE COURT: All right. Can -- y'all put these issues  
4 on the record, real quick, because I've granted the  
5 mistrial. I think discovery -- is it going to be an issue  
6 as to whether it -- it remains open or closed and perhaps  
7 some research needs to be done on that?. To be honest with  
8 you, I believe -- my understanding of the motion, if  
9 there's a discovery motion, since it's got to be retried,  
10 it would -- that would have to be argued in front of the  
11 chief administrative judge. Y'all think I'm right or wrong  
12 on that?

13 MS. CRAIG: Well, Your Honor ---

14 THE COURT: I'll be happy to consider it. I'm just  
15 not sure I'll have jurisdiction when I walk out of here,  
16 other than a posttrial motion. And that's really not --  
17 that -- that's not a posttrial motion. That would be a  
18 pretrial motion based upon something that happened at the  
19 first trial.

20 MR. GRAHAM: Seems to me, if -- if you were going to  
21 be the presiding judge, it would probably make sense for  
22 you to hear it.

23 THE COURT: Yeah. And as we were discussing -- the  
24 clerk of court and I were discussing, if the chief  
25 administrative judge designated it complex and assigned it

1 to me, then, certainly, I could hear all those  
2 prospectively. I am not encouraging y'all to agree to  
3 that. That is something y'all have got to decide. I don't  
4 care.

5 I promise you, it won't -- I'll never know -- if y'all  
6 say, "We couldn't agree," I don't know who didn't agree.  
7 That's fine. Y'all -- I practiced law. Certain judges  
8 I'll -- like to hear certain things, and certain judges,  
9 I'd rather hear other thing -- I understand that. It will  
10 not insult me in the least, as I wanted Judge Johnson for  
11 certain things and I avoided him for certain things. And I  
12 loved him just the same.

13 MS. CRAIG: Your Honor, what -- what we're requesting  
14 is, because this terrible injustice was caused by  
15 plaintiff's counsel, it would be incredibly unfair and  
16 unduly prejudicial to the defendant for the plaintiffs to  
17 have -- to obtain some strategic benefit for the subsequent  
18 trial.

19 THE COURT: How about ---

20 MS. CRAIG: And so ---

21 THE COURT: How about this: Discovery is closed,  
22 except with leave of Court?

23 (Whereupon, Ms. Craig and Ms. Ganes conferred.)

24 MR. GRAHAM: Well, if Your Honor please, we want -- if  
25 -- if -- if -- if, as Your Honor suggested, we would not be

1 able to use Dr. Strickland as a rebuttal witness in the  
2 next trial, if -- if, for any reason, that is  
3 inappropriate, then we would like to reserve the right to  
4 substitute another rebuttal expert.

5 And you're -- I know you're talking about discovery.  
6 But if that impacts identifying a -- a rebuttal expert,  
7 then ---

8 THE COURT: That's what I'm -- that -- that's kind of  
9 what I'm envisioning, is it's closed; either you got to use  
10 what you got and in rebuttal or come "mother may I" the  
11 next judge, "I need a new rebuttal witness," and it's  
12 argued then. That's kind of what I was suggesting.

13 MR. GRAHAM: Well ---

14 MS. CRAIG: If you say discovery is closed with leave  
15 of Court, I think that that is -- I think that is as -- as  
16 good as we can do at this point.

17 THE COURT: Right.

18 MS. CRAIG: But my -- just so that the record is  
19 clear, my -- my very strong concern is that there will be  
20 an attempt to obtain a -- a strategic benefit by the  
21 plaintiff in a subsequent trial, which they should not be  
22 entitled to because we should have a verdict this afternoon  
23 -- or tonight.

24 THE COURT: And that -- that issue will be preserved  
25 and argued at such time as he decides whether or not to

1 seek a substitute witness or go with the witnesses he has.

2 MS. CRAIG: May I submit a proposed short order to you  
3 on that?

4 THE COURT: Sure.

5 MS. CRAIG: Okay.

6 THE COURT: Sure.

7 MS. CRAIG: Thank you.

8 MR. GRAHAM: Yes, sir. And -- and for the record,  
9 Your Honor, we oppose anything that would create a  
10 hindrance to our naming a substitute rebuttal expert.

11 THE COURT: And I don't think it's a hindrance.  
12 Granting leave of Court -- I think you're in the same boat  
13 anyway. I -- I -- I think I'm doing what the -- the rules  
14 require anyway. A simple order to this effect is more or  
15 less what the rules allow now. So I'm going to let her  
16 prepare a proposed order; send it to you first ---

17 MS. CRAIG: Yes, sir.

18 THE COURT: --- and I'll consider it and amend it or  
19 will sign it.

20 MS. CRAIG: Thank you. And, Your Honor, could we have  
21 permission to speak with the jurors after you dismiss them?

22 THE COURT: Absolutely.

23 MS. CRAIG: Thank you.

24 THE COURT: Long as I get to speak to them first. I  
25 adopted Judge Baxley's practice of speaking to them. All

1 right. We're at ease.

2 (Whereupon, the excerpted proceedings concluded at  
3 3:43 p.m.)

4 --- END OF TRANSCRIPT OF RECORD ---  
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**CERTIFICATE**

I, the undersigned Maryann S. Nevers, CVR-M-CM, Official Court Reporter for the Eighth Judicial Circuit of the State of South Carolina, do hereby certify that the foregoing is a true, accurate and complete transcript of record of the proceedings had and evidence introduced in the hearing of the captioned cause, relative to appeal, in the Circuit Court for Florence County, South Carolina, on the 25th day of September, 2015.

I do further certify that I am neither of kin, counsel, nor interest in any party hereto.



---

Maryann S. Nevers, CVR-M-CM  
Official Court Reporter

Columbia, South Carolina  
May 5, 2016

| Date       | Facility                      | Type of Appointment           | Treatment         | Physician           |
|------------|-------------------------------|-------------------------------|-------------------|---------------------|
| 10/22/2009 | Carolina Pediatrics           | Well visit                    | Newborn Visit     | Dr. Mariana Ciobanu |
| 11/5/2009  | Carolina Pediatrics           | Well visit                    | 1 Month Visit     | Dr. Mariana Ciobanu |
| 11/30/2009 | Chesterfield General Hospital | Physical/Occupational Therapy | Evaluation        | Heather Worsham     |
| 12/4/2009  | MUSC                          | Neurology                     | Erb's Palsy Eval. | Dr. Stephen Kinsman |
| 12/7/2009  | MUSC                          | Clinical Neurophysiology      | EMG Study         | Dr. David Stückler  |
| 12/8/2009  | Carolina Pediatrics           | Well visit                    | 2 Month Visit     | Dr. Mariana Ciobanu |

| Date       | Facility                      | Type of Appointment           | Treatment | Physician         |
|------------|-------------------------------|-------------------------------|-----------|-------------------|
| 12/10/2009 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 12/14/2009 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 12/17/2009 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 12/22/2009 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 12/29/2009 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 1/7/2010   | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 1/12/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 1/19/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |
| 1/26/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy   | Amber Hughes,OTRL |

| Date      | Facility                      | Type of Appointment           | Treatment        | Physician                   |
|-----------|-------------------------------|-------------------------------|------------------|-----------------------------|
| 1/29/2010 | MUSC                          | Clinical Neurophysiology      | EMG Study        | Dr. David Stückler          |
| 1/30/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation    | Amber Hughes,OTRL           |
| 2/1/2010  | MUSC                          | Occupational Therapy          | Re-Evaluation    | Patricia C. Coker, MHS, OTR |
| 2/6/2010  | Carolina Pediatrics           |                               |                  | Dr. Mariana Ciobanu         |
| 2/22/2010 | Carolina Pediatrics           | Well visit                    | Four Month Visit | Dr. Mariana Ciobanu         |
| 3/1/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy          | Amber Hughes,OTRL           |
| 3/8/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy          | Amber Hughes,OTRL           |
| 3/12/2010 | MUSC                          | Neurosurgery                  | Follow up        | Dr. John E. McGillicuddy    |

| Date      | Facility                         | Type of Appointment           | Treatment       | Physician            |
|-----------|----------------------------------|-------------------------------|-----------------|----------------------|
| 3/16/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 3/22/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Re-evaluation   | Amber Hughes,OTRL    |
| 3/22/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 3/29/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 4/9/2010  | Children's Healthcare of Atlanta |                               | Assessment/Eval | Dr. Joshua A. Ratner |
| 4/13/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 4/22/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 4/23/2010 | Carolina Pediatrics              |                               | Six Month Visit | Dr. Mariana Ciobanu  |
| 4/26/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 5/3/2010  | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 5/14/2010 | Children's Healthcare of Atlanta | Brachial Plexus Clinic        | Re-evaluation   | Dr. Joshua A. Ratner |
| 5/24/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 5/26/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Re-evaluation   | Amber Hughes,OTRL    |
| 6/7/2010  | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |
| 6/9/2010  | Carolina Pediatrics              |                               | Office Visit    | Dr. Mariana Ciobanu  |
| 6/21/2010 | Chesterfield General Hospital    | Physical/Occupational Therapy | Therapy         | Amber Hughes,OTRL    |



| Date      | Facility                      | Type of Appointment           | Treatment               | Physician                         |
|-----------|-------------------------------|-------------------------------|-------------------------|-----------------------------------|
| 7/2/2010  | MUSC                          | Neurosurgery                  | Follow up               | Dr. Stephen Kinsman, Patty Coker, |
| 7/19/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 7/24/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation           | Amber Hughes,OTRL                 |
| 8/17/2010 | MUSC                          | Neurosurgery                  | Evaluation              | Dr. John E. McGillicuddy          |
| 8/17/2010 | MUSC                          | Orthopaedics                  | Evaluation of Erb's Pal | Dr. Jennifer A. Hooker            |
| 8/17/2010 | MUSC                          | Occupational Therapy          | Re-Evaluation           | Patricia C. Coker, MHS, OTR/L     |
| 8/19/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 8/24/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 8/30/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 8/30/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 9/13/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 9/13/2010 | BabyNet                       |                               | Assessment              | Tomelka Sellers, Coordinator      |
| 9/19/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation           | Amber Hughes,OTRL                 |
| 9/20/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                 | Amber Hughes,OTRL                 |
| 9/24/2010 | Hands on Development          |                               | Training/Counseling     | Eloise Pee                        |
| 9/25/2010 | Hands on Development          |                               | Training/Counseling     | Eloise Pee                        |
| 9/27/2010 | Hands on Development          |                               | Training/Counseling     | Eloise Pee                        |

| Date       | Facility                      | Type of Appointment           | Treatment              | Physician                   |
|------------|-------------------------------|-------------------------------|------------------------|-----------------------------|
| 9/28/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                | Amber Hughes,OTRL           |
| 9/28/2010  | Hands on Development          |                               | Training/Counseling    | Eloise Pee                  |
| 10/1/2010  | Hands on Development          |                               | Training/Counseling    | Eloise Pee                  |
| 10/4/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                | Amber Hughes,OTRL           |
| 10/6/2010  | Carolina Pediatrics           |                               | Office Visit           | Dr. Mariana Ciobanu         |
| 10/8/2010  | MUSC                          | Occupational Therapy          | Re-Evaluation of Right | Patricia C. Coker, MHS, OTR |
| 10/14/2010 | Hands on Development          |                               | Training/Counseling    | Eloise Pee                  |
| 10/15/2010 | Hands on Development          |                               | Training/Counseling    | Eloise Pee                  |
| 10/18/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                | Amber Hughes,OTRL           |
| 10/18/2010 | Carolina Pediatrics           |                               | Office Visit           | Dr. Mariana Ciobanu         |
| 10/24/2010 | Hands on Development          |                               | Training/Counseling    | Robbie Burns                |
| 10/27/2010 | Carolina Pediatrics           |                               | 12 Month Visit         | Dr. Mariana Ciobanu         |
| 10/29/2010 | Hands on Development          |                               | Training/Counseling    | Eloise Pee                  |
| 11/2/2010  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                | Amber Hughes,OTRL           |
| 11/13/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation          | Amber Hughes,OTRL           |
| 11/15/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                | Amber Hughes,OTRL           |
| 11/29/2010 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy                | Amber Hughes,OTRL           |

| Date       | Facility                      | Type of Appointment           | Treatment           | Physician           |
|------------|-------------------------------|-------------------------------|---------------------|---------------------|
| 11/29/2010 | Carolina Pediatrics           |                               | Office Visit        | Dr. Mariana Ciobanu |
| 11/30/2010 | Hands on Development          |                               | Training/Counseling | Robbie Burns        |
| 12/20/2010 | Carolina Pediatrics           |                               | Office Visit        | Dr. Mariana Ciobanu |
| 12/30/2010 | Hands on Development          |                               | Training/Counseling | Robbie Burns        |
| 1/3/2011   | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL   |
| 1/4/2011   | Hands on Development          |                               | Training/Counseling | Robbie Burns        |
| 1/13/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation       | Amber Hughes,OTRL   |
| 1/21/2011  | Hands on Development          |                               | Training/Counseling | Robbie Burns        |
| 1/24/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL   |
| 2/7/2011   | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL   |
| 2/21/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL   |
| 3/7/2011   | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL   |
| 3/11/2011  | Hands on Development          |                               | Training/Counseling | Robbie Burns        |
| 3/13/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation       | Amber Hughes,OTRL   |
| 3/15/2011  | Carolina Pediatrics           |                               | Office Visit (Labs) | Dr. Mariana Ciobanu |
| 3/21/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL   |
| 3/28/2011  | Hands on Development          |                               | Training/Counseling | Robbie Burns        |

| Date      | Facility                      | Type of Appointment           | Treatment           | Physician         |
|-----------|-------------------------------|-------------------------------|---------------------|-------------------|
| 3/31/2011 | Hands on Development          |                               | Assessment          | Robbie Burns      |
| 4/4/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL |
| 4/5/2011  | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 4/30/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 5/3/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL |
| 5/13/2011 | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation       | Amber Hughes,OTRL |
| 5/23/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 5/31/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 6/6/2011  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL |
| 6/13/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 6/30/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 7/12/2011 | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy             | Amber Hughes,OTRL |
| 7/13/2011 | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation       | Amber Hughes,OTRL |
| 8/18/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 8/23/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |
| 8/29/2011 | Hands on Development          |                               | Training/Counseling | Robbie Burns      |

| Date       | Facility                          | Type of Appointment                             | Treatment           | Physician                     |
|------------|-----------------------------------|-------------------------------------------------|---------------------|-------------------------------|
| 9/12/2011  | Texas Nerve & Paralysis Institute |                                                 | Assessment          | Dr. Rahul K. Nath             |
| 9/13/2011  | Chesterfield General Hospital     | Physical/Occupational Therapy                   | Re-evaluation       | Amber Hughes,OTRL             |
| 11/7/2011  | Carolina Pediatrics               |                                                 | Office Visit        | Dr. Mariana Ciobanu           |
| 12/1/2011  | Carolina Pediatrics               |                                                 | Office Visit        | Dr. Mariana Ciobanu           |
| 12/29/2011 | Carolina Pediatrics               |                                                 | Office Visit        | Dr. Mariana Ciobanu           |
| 1/20/2012  | Cincinnati Children's             | Pediatric Orthopaedic Surgery                   | Exam/Evaluation     | Dr. Charles T. Mehlman        |
| 1/20/2012  | Cincinnati Children's             | Pediatric Rehabilitation                        | Exam/Evaluation     | Dr. Linda J. Michaud          |
| 1/20/2012  | Cincinnati Children's             | Ambulatory Encounter/CCM O: Radiographic Images |                     | Dr. Alan E. Oestreich & Dr. I |
| 1/24/2012  | Cincinnati Children's             | Ambulatory Encounter/CCM O: MRI/Evaluation      |                     | Dr. Charles T. Mehlman        |
| 2/7/2012   | Duke Medicine                     | Pediatric Neurology                             | OT Evaluation       | Dr. Clinton Edward Smith      |
| 2/8/2012   | Carolina Pediatrics               |                                                 | Office Visit (Labs) | Dr. Mariana Ciobanu           |
| 2/27/2012  | Cincinnati Children's             | Ambulatory Encounter/CCM R: MRI/Anesthesia/Eval |                     | Dr. Andrew M. Zbojnicewicz    |
| 2/28/2012  | Cincinnati Children's             | Ambulatory Encounter/CCM P: Progress Notes/EMG  |                     |                               |
| 2/29/2012  | Cincinnati Children's             | Ambulatory Encounter/CCM Ped Assessment         |                     | Cheryl Murray-Miyamasu        |
| 5/14/2012  | Carolina Pediatrics               |                                                 | Office Visit        | Dr. Mariana Ciobanu           |

| Date      | Facility                         | Type of Appointment | Treatment          | Physician            |
|-----------|----------------------------------|---------------------|--------------------|----------------------|
| 6/28/2012 | Children's Healthcare of Atlanta |                     | History & Physical | Dr. Joshua A. Ratner |
| 6/28/2012 | Children's Healthcare of Atlanta |                     | Operative Summary  | Dr. Joshua A. Ratner |
| 6/28/2012 | Children's Healthcare of Atlanta | Anesthesia          | Anesthesia Record  |                      |
| 6/28/2012 | Children's Healthcare of Atlanta |                     | Nurses Record      |                      |
| 6/28/2012 | Children's Healthcare of Atlanta |                     | PACU/Post OP       |                      |
| 7/6/2012  | Children's Healthcare of Atlanta |                     | Operative Report   | Dr. Joshua A. Ratner |

| Date       | Facility                      | Type of Appointment           | Treatment     | Physician           |
|------------|-------------------------------|-------------------------------|---------------|---------------------|
| 7/26/2012  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy       | Amber Hughes,OTRL   |
| 8/27/2012  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy       | Amber Hughes,OTRL   |
| 9/4/2012   | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy       | Amber Hughes,OTRL   |
| 9/17/2012  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy       | Amber Hughes,OTRL   |
| 9/24/2012  | Chesterfield General Hospital | Physical/Occupational Therapy | Re-evaluation | Amber Hughes,OTRL   |
| 11/26/2012 | Carolina Pediatrics           | well visit                    | Office Visit  | Dr. Mariana Ciobanu |
| 12/6/2012  | Chesterfield General Hospital | Physical/Occupational Therapy | Therapy       | Amber Hughes,OTRL   |

THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

---

APPEAL FROM FLORENCE COUNTY  
Court of Common Pleas

William H. Seals, Jr., Circuit Court Judge

---

Appellate Case No. 2016-001551

---

Christy Byrd, as Next Friend of Julia B., a minor, ..... Appellant,

v.

McLeod Physician Associates II and Dr. John B. Browning, ..... Respondents.

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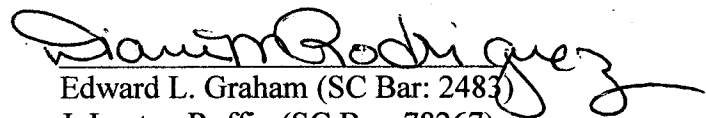
**PROOF OF SERVICE**

---

I hereby certify that one copy of the *Record on Appeal* in the above-referenced matter was served by U.S. Mail, postage prepaid, on June 15, 2017 addressed to the following counsel of record:

Ellore A. Gaines  
Molly H. Craig  
Deborah H. Sheffield  
Hood Law Firm, LLC  
172 Meeting Street  
Charleston, SC 29401

**GRAHAM LAW FIRM, P.A.**



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*Attorneys for Appellant*

**RECEIVED**

JUN 15 2017

SC Court of Appeals

THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

---

APPEAL FROM FLORENCE COUNTY  
Court of Common Pleas

William H. Seals, Jr., Circuit Court Judge

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Appellate Case No. 2016-001551

---

Christy Byrd, as Next Friend of Julia B., a minor, ..... Appellant,

v.

McLeod Physician Associates II and Dr. John B. Browning, ..... Respondents.

---

**CERTIFICATE OF COUNSEL**

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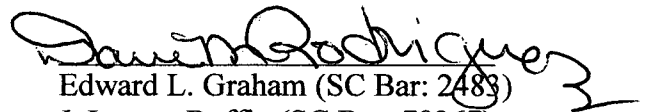
The undersigned hereby certifies that the Record on Appeal contains all material proposed to be included by any of the parties and not any other material.

**GRAHAM LAW FIRM, P.A.**

**RECEIVED**

**JUN 15 2017**

**SC Court of Appeals**



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June 15, 2017



# GRAHAM LAW

*Shining a Light on Safety, Guiding the Way to Justice.*

Edward L. Graham  
Diane M. Rodriguez  
J. Layton Ruffin

June 15, 2017

The Honorable Jenny Abbott Kitchings  
Clerk, South Carolina Court of Appeals  
1220 Senate Street  
Columbia, South Carolina 29201

Re: *Christy Byrd, as Next Friend of Julia B., a minor, Appellant, v. McLeod Physician Associates II and Dr. John B. Browning, Respondents.*  
Appellate Case No. 2016-001551

Dear Ms. Kitchings:

Enclosed for filing is one unbound original and fifteen bound copies of the ***Record on Appeal*** for filing in the above case. By copy of this letter, I am serving attorneys for Respondents with a copy of the same. Please return a clocked copy to me by way of our courier.

Thank you for your attention to this matter.

Very truly yours,

J. Layton Ruffin

Enclosures

cc: Elloree A Gaines Esq  
Molly H. Craig Esq  
Deborah H. Sheffield Esq

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JUN 15 2017

SC Court of Appeals

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