

**IN RE:**  
**MEDICAL REVIEW PANEL**  
**OF**  
**\*\*\* ON BEHALF OF THEIR MINOR DAUGHTER \*\*\***  
**VERSUS**  
**DR. \*\*\* AND \*\*\* MEDICAL CENTER,**  
**PCF File No. \*\*\***

**PANELISTS:**

\*\*\*, M.D.

\*\*\*, M.D.

\*\*\*, M.D.

**ATTORNEY CHAIRPERSON:**

\*\*\*, ESQ.

THE \*\*\* – METAIRIE

BY: \_\_\_\_\_  
\*\*\*\*\*

**TABLE OF CONTENTS**

REQUEST FOR REVIEW.....1

PREFACE.....4

STATEMENT OF FACTS.....5

DISCUSSION OF MEDICAL CARE RENDERED.....9

SPECIFIC ALLEGATIONS.....10

CONCLUSION .....17

**EXHIBITS**

Office Note, June 07, 2011, \*\*\*, M.D..... Exhibit 1

Consent for Surgical Procedure, June 07, 2011..... Exhibit 2

Operative Report June 20, 2011, \*\*\*, M.D..... Exhibit 3

\*\*\*’s response to Plaintiff’s Requests for Admissions.....Exhibit 4

AST Recommended Standards of Practice for Safe Use of Tourniquets.....Exhibit 5

Photographs of \*\*\*.....Exhibit 6

AORN Recommended Practices for the Use of the Pneumatic Tourniquet in the Perioperative Practice Setting.....Exhibit 7

Operative Report June 21, 2011, \*\*\*, M.D..... Exhibit 8

## **Preface**

On June 7, 2011, \*\*\* was seen by \*\*\*, M.D. in his \*\*\* office. \*\*\*'s family was referred to Dr. \*\*\* for a surgical consultation for correction of her left thumb congenital deformity, described by Dr. \*\*\* as moderately severe hypoplasia.

On June 20, 2011, ten month old Caroline \*\*\* was brought to \*\*\* Medical Center, by her parents, \*\*\*, for a scheduled surgery to repair her left hand. Caroline's Surgery, described in the operative note as, "[d]igit transposition and relocation in the hand CPT 26555; tendon transfer, extensor indicis to extensor pollicis longus CPT 26480; Huber intrinsic muscle opponesplasty from hypothenar area CPT 26494; and apply pediatric long-arm cast, CPT 29065" was scheduled to be performed by \*\*\*, M.D.; a physician who had seen Caroline in his office on one occasion prior to the surgery date.

At the conclusion of this surgery, \*\*\*, M.D. reported to Caroline's parents that their daughter had suffered from tourniquet bruising and ischemic thumb. The tourniquet bruising was later exacerbated by the cast applied to Caroline's arm. The area was allowed to blister and, even after having the blisters brought to the attention of the doctor and the hospital staff, they were allowed to rupture.

On June 21, 2012, Caroline was taken to the operating room a second time to facilitate a "cast change under anesthesia and a dressing change under anesthesia." During this procedure, Caroline also underwent the first of many enzymatic debridement procedures to the ruptured blister site. At the conclusion of this surgery, Caroline was left with a still ischemic thumb and nearly circumferential ruptured blister site to the left arm, requiring extensive wound care.

On June 23, 2011, Caroline presented to the Emergency Department of \*\*\* for fever, accompanied by redness and swelling of her affected sites. Caroline was admitted as a patient

and eventually taken to the operating room where her cast was once again removed by \*\*\*, M.D. During this surgery, Caroline's left thumb was amputated.

Upon her final discharge from \*\*\*, embarked upon a protracted course of wound care, lasting an additional 48 days, through August 9, 2011.

Accordingly, this Medical Review Panel is tasked with determining whether Dr. \*\*\*'s actions in keeping Caroline's parents in the dark about alternatives which conflicted with Dr. \*\*\*'s own cultural views was a breach of the standard of care. Also, the panel is tasked with determining whether Dr. \*\*\*, or \*\*\*, breached the standard of care by improperly monitoring the tourniquet cuff on Caroline's arm and by not removing it at the sixty-minute mark.

### **Statement of the Facts**

On June 7, 2011, Caroline was seen by \*\*\*, M.D., in his office. Caroline was brought to see Dr. \*\*\* by her parents for a surgical consultation for correction of her left-thumb congenital deformity, described by Dr. \*\*\* as moderately severe hypoplasia. Dr. \*\*\*'s office note for this visit does not memorialize any discussion of the risks associated with the surgery he proposed to perform upon Caroline. Further absent from his office note is any discussion with the parents regarding the option of performing a Buck-Gramcko pollicization of the index finger with amputation of the thumb and leaving the index finger in a functional capacity, pronated and serving in the place of the amputated thumb. Dr. \*\*\*'s office note also does not reference any aversion of Caroline's parents to amputation of the thumb, for cultural reasons, or any other reason. According to Dr. \*\*\*'s own notes, Dr. \*\*\* *only* discussed the transposition of the hypoplastic thumb, with tendon transfer, from adjacent to the index finger into its normal position,

which would never be functional and would only serve to preserve a five-fingered hand appearance. (See, Exhibit 1)

On June 7, 2011, Caroline's father, signed what purports to be an \*\*\* 'consent to medical treatment or surgical procedure' form for the pollicization of left hand and possible skin graft (See, Exhibit 2). The surgery did not take place until June 20, 2012. The surgical procedure description does not appear on the same page as the signature consenting to same; it is unclear if Mr. \*\*\* signed page four knowing what would be handwritten later on page one.

Also, on page two of the four page consent, section five contains an area for alternative procedures to be listed. The check-box selected is the one containing the statement, "[t]here is no alternate choice, except what has already been done, such as pills, exercise, ice, heat, bandaging, walking aids, such as a cane, cortisone shots into the joint, or salves/creams." (See, Exhibit 2) The descriptive terminology would indicate that this consent is not for hand surgery, but for some type of lower extremity surgery. Regardless, as pertains to Caroline, clearly this statement of no alternate procedure is untrue. According to Hand Surgery, First Edition 2004<sup>1</sup>, "[t]he classification of a hypoplastic thumb is important because, in almost all cases, it dictates the treatment plan. Type 1, 2, and 3A thumbs are reconstructible. In types 3B and 4 thumbs, amputation and pollicization are the standard treatments." Caroline's defect places her in the latter group. Clearly, *regardless of classification, options do exist*. More importantly, the *standard* procedure for the level of deformity present in Caroline's hand is amputation of the thumb with pollicization of the index finger to create a functioning thumb. This procedure is not listed on the consent form as an option, in clear opposition to the purpose of informed consent and in direct opposition to the parents' expressed desire for a functional thumb for Caroline. In

---

<sup>1</sup> *Lippincott Williams & Wilkins* (Philadelphia Library of Congress Cataloging-in-Publication Data ISBN 0-7817-2874-6) at page 1447, section heading 84.

fact, Dr. \*\*\*'s own dictated operative report dated June 20, 2012 (**See, Exhibit 3**) contains the following passages:

“I know (from being part Asian) the importance of 5 rays in each hand and each foot, and discussed rather than conventional Buck-Gramcko INDEX finger pollicization with elective amputation of the moderately severely hypoplastic left thumb, that cosmesis and social convention for her would be better to use first ray digit transposition and relocation to a more natural position.”

The report further explains:

“...rather than conventional Buck-Gramcko INDEX finger pollicization with elective amputation of the moderately severely hypoplastic left thumb, that cosmesis and social convention for her would be better to use first ray digit transposition and relocation to a more natural position. The "thumb" she had and was not really using was in the plane of the existing fingers, and was adjacent to the (slightly stiff hypoplastic) index finger, the latter of which was pronating with use patterns; my medical opinion was that she needed translocation to more natural position, even knowing that it would not be as useful as an INDEX pollicization, because Caroline would then be left with only three fingers and a thumb. With digit transposition moving first ray to more natural position, rotating it and the like as reported, it was my opinion that use would not be compromised, appearance would be improved but not to normal, and maintaining 5 digits on the left hand, per Asian custom, would be achieved without having to electively amputate the hypoplastic left thumb.”

Clearly, Dr. \*\*\* was aware of alternate surgeries, but he has placed his assumption of an Asian cultural preference upon his patient. He acted upon that personal assumption, without gaining the informed consent of the legal guardians of the patient and to the detriment of his patient, Caroline.

On June 20, 2011, at 08:09, Caroline was brought into operating room 1FL OR2 of \*\*\* Medical Center – . At 08:42 a tourniquet was placed upon Caroline's left arm and at 08:43 the surgical procedure “[d]igit transposition and relocation in the hand; tendon transfer, extensor

indicis to extensor pollicis longus; Huber intrinsic muscle opponesplasty from hypothenar area; and apply pediatric long-arm cast,” was commenced by \*\*\*, M.D. Complications arose during the surgery, resulting in an “intraoperative ischemic thumb.” At the conclusion of the surgery, Dr. \*\*\*’s operative report recounts, “[o]n removal of the drapes in order to remove the tourniquet and make her a long arm cast, I noticed that the thumb was not only still ischemic but now she had nearly circumferential bruising about the area from the tourniquet.” (See, Exhibit 3) The surgery was completed at 11:55, with the patient leaving the operating room at 12:10.

Approximately two hours after the surgery, Caroline’s mother, \*\*\*, noticed the development of blisters at the site of the tourniquet injury and informed hospital staff. At 17:25, three and one half hours later, Dr. \*\*\* acknowledged that blisters had indeed formed at the tourniquet bruising site. Dr. \*\*\* did not take measures to remove the cast to prevent the rupturing of the blisters and therefore prevent infection, scarring and burn wound sepsis. Instead, he waited until the following day to address the problem.

At 14:13, on June 21, 2011, twenty-four hours after the blisters are brought to the attention of hospital staff, Caroline was returned to the operating room with the following preoperative diagnoses: [s]tatus post thumb transposition and tendon transfer surgery yesterday complicated by ischemia of thumb, and tourniquet bruising, further complicated by subsequent tourniquet blisters. She was brought in for the following procedure: 1. Cast change under anesthesia. 2. Dressing change under anesthesia. Caroline also endured an enzymatic debridement procedure using Santyl Collagenase, followed by silver mesh dressing. Prior to the procedure being performed, Caroline’s mother, \*\*\*, requested that photographs be taken. This request *was not* honored. Caroline was discharged the same day with a recommendation to follow up with Dr. \*\*\* in eight to ten days.

On June 23, 2011, Caroline was brought to the emergency room by her parents due to high fever accompanied by swelling and redness at the tourniquet wound site. Dr. \*\*\* was contacted and upon arrival he advised Caroline's parents that he wanted to remove the cast yet again. Three hours later, without further discussion with her parents, Caroline underwent the surgical amputation of her intraoperative ischemic thumb. The surgery was performed by \*\*\*. There is no consent form contained within the records produced by the defendants for this amputation.

#### **DISCUSSION OF MEDICAL CARE RENDERED:**

\*\*\*, parents of Caroline \*\*\*, brought their infant child to \*\*\*, M.D. for surgical correction of her moderately severe hypoplastic thumb. Dr. \*\*\* performed a mostly cosmetic correction, despite acknowledging in his responses to Plaintiff's Requests for Admissions (**See, Exhibit 4, Request for Admission 4**) that \*\*\* specifically requested a functional correction and not merely cosmesis. In his June 20, 2011 operative report (See, Exhibit 2) Dr. \*\*\* states the following:

“Caroline's mother had multiple, multiple questions preoperatively. I explained to her that I could not give any guarantee *and surgery would not leave her with an improved function of the thumb probably, just mostly cosmetic (Emphasis added)*, and being one-half Asian myself, I knew of the importance of maintaining 5 rays on each hand and foot in Asian cultures.”

This statement does not recount a conversation regarding the wishes of Caroline's parents; it was merely a recitation of Dr. \*\*\*'s *own* pre and post-operative preferences. Dr. \*\*\* projected his cultural posture upon his patient and performed a surgery that was not designed to result necessarily in better function, as requested by \*\*\*, but was aimed at simply preserving a “five-

ray hand.” When the surgery he performed failed, he left Caroline without a functioning thumb and indeed left her facing another surgery to amputate the necrotic thumb, leaving her with a four digit hand anyway. Dr. \*\*\* did not provide alternative surgical options to Caroline’s parents, as required when a surgeon knows there are alternative procedures, especially when the alternate procedure is designed to result in the desired outcome of a functional digit.

During this same failed surgery, Dr. \*\*\* and his operating room staff also failed to detect tourniquet injury to Caroline’s arm during the 96 minutes she was in the tourniquet. The damage was near circumferential when the tourniquet was first removed. Despite the notation that the bruising was present, Dr. \*\*\* and the staff of \*\*\* failed to monitor the site after a long arm cast had been applied over the site. Ultimately, the area blistered and those blisters were allowed to rupture under the cast. As a result of the rupturing, Caroline endured many painful enzymatic debridement episodes (lasting another forty-eight days), was caused to ingest pain killers, and suffered tremendously for such a young child.

### **SPECIFIC ALLEGATIONS:**

**\*\*\*, M.D.**

Dr. \*\*\* did not provide \*\*\*, the parents of Caroline, an explanation of all of the surgical options available to remedy Caroline’s congenital left hand deformity. This is evidenced both in his own words, reproduced above, and on the consent signed by \*\*\* (See, Exhibit 2). The consent lists no alternative procedure, despite the fact that Hand Surgery, First Edition 2004 (see footnote 1) outlines the standard procedure as something other than what was performed, namely, amputation of the thumb and pollicization of the index finger.

Dr. \*\*\* opted, based on his own judgment regarding the importance of maintaining the 5 rays in the hand, NOT to perform the Buck-Gramcko pollicization of the index finger with amputation of the thumb and leaving the index finger in a functional capacity, pronated and serving in the place of the amputated thumb, BUT INSTEAD performed surgery applying the Buck-Gramcko technique to the process of transposition of the hypoplastic thumb, with tendon transfer, from adjacent to the index finger and into its normal position.

The result being the failure of the surgery, the eventual loss of the thumb, and the very real probability that Caroline will now need to endure future surgeries in an attempt to gain the functional thumb that Dr. \*\*\*'s choice denied her.

During the surgery on June 20, 2012, Dr. \*\*\* failed to have a trained individual adequately monitor the tourniquet pressure and length of time of application during the surgery. The accepted practice, according to the Association of Surgical Technologists (**See, Exhibit 5**), is to have an individual who is trained in surgical tourniquet use to monitor the tourniquet for the duration of the surgery, and keep the surgeon advised of any arising conditions at the tourniquet site as well as monitor the length of time of use. According to the Recommended Standards of Practice for Safe Use of Tourniquets, Standard of Practice II, Paragraph 1:

The policies and procedures should at the minimum address the following:

A. Surgical team members recognized as having received the proper training and can be responsible for the application of the cuff.

***B. Surgical team members who have received the proper training on monitoring the pressure device while in use. (Emphasis added)***

***C. Surgical team members who can complete the documentation related to the use of the pneumatic tourniquet. (Emphasis added)***

D. Establish documentation of maintenance, testing, inspection and cleaning of the pressure device and cuffs at regular intervals by the biomedical

technicians.

E. Establish methods for the care and handling of non-disposable cuffs.

F. Review and provision of continuing education of surgical team members.

In this case there was no surgical staff team member designated to monitor the use of the tourniquet.

Additionally, the tourniquet was left in place for a duration exceeding the Association of Surgical Technologists recommended time for tourniquets to be in uninterrupted use.

According to the Recommended Standards of Practice for Safe Use of Tourniquets, Standard V11, Section 2, Paragraph "H", (Exhibit 5):

The inflation time of the cuff should be minimized as much as possible.

The following are recommendations related to tourniquet inflation time:

(1) The surgeon should be informed when the cuff has been inflated for the first 60 minutes.

(2) ***Sixty minutes is the recommended inflation time for upper extremities and lower extremities of the pediatric patient. (emphasis added)***

(3) When the recommended time limit has been reached, it is recommended that the cuff be deflated for 15 minutes to allow for re-perfusion of the extremity, and then the cuff can be re-inflated for another recommended time period of 60 minutes.

(4) The limb should be re-exsanguinated prior to re-inflation to avoid venous thromboses.

Nowhere in the surgical notes, nor in the medical records provided by \*\*\* Medical Center is there any reference to the cuff being deflated after the initial sixty (60) minutes had elapsed. Nor is there any evidence of the sixty-minute mark being announced to the surgeon, or memorialized in the records. Clearly, the entire surgical team was oblivious to the recommended occlusion time for a pediatric tourniquet.

Dr. \*\*\* also placed a cast over a section of Caroline's arm where she had sustained near circumferential bruising from the tourniquet during surgery. This injured area was casted over by Dr. \*\*\* specifically, and not simply at his direction. Dr. \*\*\* notes that he viewed the area again that afternoon and noticed blisters, yet he waited until the following day to remove the cast and address the blisters<sup>2</sup>. By the time he brought Caroline to the operating room, her blisters had already ruptured. As a result of the rupturing, Caroline suffered burn wounds and sepsis and was made to undergo an enzymatic debridement procedure in addition to a subsequent forty-eight (48) days of wound care treatment for the afflicted area, with enzymatic debridement procedures performed several times per week. After enduring the painful debridement process, Caroline is left with permanent scarring at the blister site (**See, Exhibit 6**).

**\*\*\* Medical Center,**

During the surgery on June 20, 2012, \*\*\* Medical Center failed to supervise its employees and failed to have an individual adequately trained to monitor the tourniquet pressure and length of time of application during the surgery. The accepted practice, according to the Association of Surgical Technologists (**See, Exhibit 7**), is to have an individual who is trained in surgical tourniquet use to monitor the tourniquet for the duration of the surgery, and keep the surgeon advised of any arising conditions at the tourniquet site as well as monitor the length of time of use. According to the Recommended Standards of Practice for Safe Use of Tourniquets, Standard of Practice II, Paragraph 1:

The policies and procedures should at the minimum address the following:

A. Surgical team members recognized as having received the proper training and can be responsible for the application of the cuff.

---

<sup>2</sup> See \*\*\* records submitted by Defendants.

***B. Surgical team members who have received the proper training on monitoring the pressure device while in use. (Emphasis added)***

***C. Surgical team members who can complete the documentation related to the use of the pneumatic tourniquet. (Emphasis added)***

D. Establish documentation of maintenance, testing, inspection and cleaning of the pressure device and cuffs at regular intervals by the biomedical technicians.

E. Establish methods for the care and handling of non-disposable cuffs.

F. Review and provision of continuing education of surgical team members.

Association of Surgical Technologists literature outlines that the cuff should not be inflated for more than 60 minutes for an upper extremity. As a result of failing to have the tourniquet properly monitored, the device was left on Caroline for a period of time exceeding the recommended threshold by over thirty (30) minutes. According to the *Recommended Standards of Practice for Safe Use of Tourniquets*, Standard V11, Section 2, Paragraph “H”, (Exhibit 5):

The inflation time of the cuff should be minimized as much as possible.

The following are recommendations related to tourniquet inflation time:

(1) The surgeon should be informed when the cuff has been inflated for the first 60 minutes.

***(2) Sixty minutes is the recommended inflation time for upper extremities and lower extremities of the pediatric patient. (emphasis added)***

(3) When the recommended time limit has been reached, it is recommended that the cuff be deflated for 15 minutes to allow for re-perfusion of the extremity, and then the cuff can be re-inflated for another recommended time period of 60 minutes.

(4) The limb should be re-exsanguinated prior to re-inflation to avoid venous thromboses.

Additionally, according to the guidelines of the Association of periOperative Registered Nurses (See, Exhibit 7), *Recommended Practices for the Use of the Pneumatic Tourniquet in the*

*Perioperative Practice Setting:* “If more than 60 minutes is needed, the cuff should be deflated for 15 minutes and then re-inflated; otherwise, there is a risk of ischemic injury.” Caroline’s tourniquet time was 96 minutes with no operative report indication of any deflation. Caroline suffered an ischemic injury as well as tourniquet bruising and ultimately blisters, which ruptured.

Recommended Practice IX provides:

Pneumatic tourniquet inflation time should be kept to a minimum and deflation managed to minimize risks to the patient.

Excessive inflation time may result in venous engorgement, hyperemia, muscle weakness, ischemic injury, or extremity paralysis. Neurological complications have been found to be associated with longer inflation times.

1. The surgeon should be informed of the duration of the tourniquet time at regular, established intervals. Use of a timer and audible alarm on the tourniquet regulator facilitates this communication. Serious patient injury, including extremity paralysis, may result from prolonged inflation of the tourniquet. Safe tourniquet inflation time has not been precisely determined. The time varies with the patient’s age, physical status, and the vascular supply to the extremity. ***There is general agreement that inflation time should not exceed 60 minutes for an upper extremity (Emphasis added)*** and 90 minutes for a lower extremity. In pediatric patients, inflation times of less than 75 minutes for lower extremities has been recommended.

2. When prolonged tourniquet time is desired, the tourniquet should be released for reperfusion of the limb every hour. The reperfusion time should be 15 minutes, after which the tourniquet may be re-inflated for another full period as above. Reperfusion allows oxygenation and continued viability of the tissue. Fifteen minutes of reperfusion after one hour has been found to minimize the tissue inflammatory response and is recommended.

In his operative report dated June 21, 2011, (See, Exhibit 8) Dr. \*\*\* indicates the following exchange occurred following the surgery:

“Her mother mentioned that the tourniquet must have been on for too long. I explained that when we reattach people fingers, for example 5 fingers, it might take 36 hours, not 96 minutes or so, and that we experienced no tourniquet problems in other people with tourniquets going up and down for 36 hours.”

What Dr. \*\*\* failed to explain, was that there was no, “up and down” time for Caroline’s Tourniquet, as there should have been at the sixty-minute mark.

The extensive damage done to Caroline’s arm as a result of the ruptured blisters will act as an obstacle to Caroline being a candidate for the surgery that should have been performed in the first place. By Dr. \*\*\*’s very own response to Plaintiff’s Requests for Admissions (**See, Exhibit 3, Request for Admission 13**), the tourniquet injury sustained by Caroline has rendered any subsequent pollicization surgery a distant goal. There would need to be sufficient time for complete healing before any tourniquet might be safely applied to the same site for a future surgery. As a result of the delay, there will be a more difficult path for retraining Caroline to use the replacement any thumb (either pollicization of index finger or great toe) as well as an increased risk for delays in small motor skills acquisition required for early scholastic success.

As discussed in Hand Surgery, First Edition 2004 (See, Footnote 1):

“Most children develop prehensile patterns of hand use at approximately 6 to 12 months of age. It is reasonable to offer reconstructive thumb surgery at 1 to 2 years of age. The children are usually large enough by 1 year of age that there is minimal risk with general anesthesia, and the structures around the thumb are large enough to make the surgery technically easier. If the surgery is delayed until the child is 3 or 4 years of age, the patterns of hand usage may be so well developed that retraining of the child is more difficult postoperatively. Also, the child is closer to school age, and it may take time to become facile with writing.”

## CONCLUSION

\*\*\*, M.D. performed the wrong surgery upon Caroline. It was the wrong choice for her particular congenital abnormality and it was the wrong choice for her parents' expressed desired outcome of a functional thumb for their daughter. Dr. \*\*\* chose arbitrarily, and without informed consent, to perform a transposition of the hypoplastic thumb, with tendon transfer, from adjacent to the index finger into its normal position; rather than the better suited Buck-Gramcko pollicization of the index finger with amputation of the thumb. The former would have left Caroline with her index finger in a functional capacity; pronated and serving in the place of a deliberately amputated thumb; the latter has left her facing future surgeries to achieve the original goal.

Dr. \*\*\* chose to perform the wrong surgery as an imposition of a cultural bias that was non-existent in the parents of his patient and that he projected from himself onto Caroline. \*\*\* also failed to explain the alternate surgery to the parents of Caroline, in a blatant disregard for the standard of informed consent. In performing the wrong surgery, and as a result of that surgery ultimately failing, \*\*\* subjected Caroline to a second surgery to amputate her then ischemic thumb, as well as future corrective surgeries; exposing her to the risks associated with those procedures.

\*\*\*, M.D. and the surgical staff of \*\*\* failed to have adequately trained personnel administer and monitor the tourniquet applied to Caroline during surgery. This sub-standard approach to tourniquet application resulted in a too lengthy period of occlusion, an ischemic injury, and a seriously bruised application area with resultant blisters and burn wound sepsis. The scarring of this area also now means that any desired future corrective surgical procedures to Caroline's deformed left hand will be delayed. This delay will no doubt create the aforementioned scenario of facile delay and potential negative scholastic impact.

Caroline has endured painful surgeries, forty-eight days of wound care and is now left with tragic permanent scarring to her young body. She will now have to endure more surgery in an attempt to achieve the initially sought functional digit on her left hand.