NON-PRECEDENTIAL DECISION - SEE SUPERIOR COURT I.O.P. 65.37

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| ANGELA AMES AND DAVID AMES, HUSBAND AND WIFE | : | IN THE SUPERIOR COURT OF PENNSYLVANIA |
| Appellants | : | |
| v. | : | |
| | : | No. 69 WDA 2018 |
| JENNFIER GALLAGHER, D.O., PITTSBURGH GYNOB, INC., AND WEST PENN ALLEGHENY HEALTH SYSTEM, INC., A/K/A THE WESTERN PENNSYLVANIA HOSPITAL | : | |

Appeal from the Judgment Entered February 13, 2018
In the Court of Common Pleas of Allegheny County Civil Division at
No(s): GD-15-012655

BEFORE: BOWES, J., SHOGAN, J., and STABILE, J.

MEMORANDUM BY SHOGAN, J.: FILED DECEMBER 04, 2018

Appellants, Angela Ames ("Angela") and David Ames, Husband and Wife, appeal from the judgment entered in favor of Appellees on February 13, 2018, in the Court of Common Pleas of Allegheny County.[1] We affirm.

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[1] Appellants purport to appeal from the trial court's December 11, 2017 order denying their post-trial motion; however, "an appeal properly lies from the entry of judgment, not from the denial of post-trial motions." Century Indemnity Company v. OneBeacon Insurance Company, 173 A.3d 784, 788 n.1 (Pa. Super. 2017). We have amended the caption accordingly.

This is a medical malpractice case involving Angela's development of uterine atony[2] after giving birth to her son. The claim does not involve the child, but is made solely regarding the hysterectomy performed on Angela following the child's birth and Angela's ensuing inability to bear children. The primary issue of contention is the timeliness of a Caesarean section ("C-section") performed by Appellee, obstetrician Jennifer Gallagher ("Gallagher") of the Appellee Pittsburgh GYNOB, Inc. practice, collectively ("Doctors").[3]

The record reflects the following facts in this case. On July 26, 2013, at approximately 5:00 a.m., Angela was admitted to West Penn Hospital in active labor and was dilated to five centimeters. N.T., 5/11/17, at 17. Gallagher was the attending obstetrician. N.T., 5/10-11/17, at 130-131. By 2:45 p.m., Angela had progressed to eight centimeters dilated. N.T., 5/11/17, at 17. At an exam performed at 4:30 p.m., Gallagher reviewed with Appellants her consideration of rupturing Angela's membranes because there was no advancement in dilation. N.T., 5/10-11/17, at 143. Appellants deferred on that suggestion, but Gallagher's notations reflect her intent to rupture the membranes at the next examination if they had not ruptured spontaneously.

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[2] Uterine atony is a condition in which the uterus fails to contract following childbirth. N.T., 5/11/18, at 83; N.T., 5/10-11/18, at 178.

[3] By order entered April 10, 2017, the trial court granted the motion for summary judgment filed by West Penn Allegheny Health System, Inc. a/k/a The Western Pennsylvania Hospital and dismissed West Penn Allegheny Health System, Inc. a/k/a The Western Pennsylvania Hospital, with prejudice.

Id. at 143. After Angela's labor failed to progress, Gallagher artificially ruptured her membranes at 6:00 p.m. N.T., 5/10-11/17, at 144. At 7:45 p.m., Gallagher determined that Angela was eight to nine centimeters dilated, and that Angela had become more uncomfortable. Id. at 145. Gallagher then determined that

> because we had not seen much significant change I ha[d] to do something to more actively manage this labor. I need[ed] to know whether this is adequate or not and at this point I want to place that [intrauterine pressure catheter ("IUPC")] so that I can determine whether there is a good labor.

Id. at 145. The IUPC was placed at 8:30 p.m. Id. at 147. Gallagher also ordered augmentation with Pitocin. Id. Based on the IUPC measurements, Angela did not have an adequate contraction pattern. Id. at 148. Gallagher explained:

> Again, the importance of adequate here is that it is not anything other than diagnosing an arrest disorder. So a woman very well could progress through her full labor without adequate contractions based on that scientific measurement using the IUPC, but I cannot diagnose an arrest disorder and, therefore, know that a C-Section is necessary at a given time without it.

Id. at 148.

On July 27, 2013, at 12:50 a.m., an examination revealed that the Pitocin was effective in strengthening the contractions and the cervix was completely dilated. N.T., 5/10-11/17, at 148-149. At that point, it was determined that Angela would "labor down", allowing the natural contractions augmented with Pitocin "to do some of that work for her before she starts putting in all that energy. So laboring down we know that the uterus continues

to contract, hopefully the baby descends in a passive, maybe not with mom pushing manner to take away some of that physical burden." Id. at 150.

At 2:40 a.m., it was determined that Angela would start "pushing." N.T., 5/10-11/17, at 152. At approximately 5:00 a.m., however, labor failed to progress and Gallagher recommended to Appellants that they proceed with a Caesarean delivery. Id. at 152 and 153. The family was "upset" and wanted to continue to try to have a natural birth. Id. at 153. Because mother and baby were doing well and were not in distress, Gallagher agreed that Angela could continue to push a little longer. Id. at 153. Labor failed to progress, however, and at 6:00 a.m., Gallagher advised Appellants that a Caesarean delivery was necessary. Id. at 154. Appellants agreed that Angela would have a Caesarean delivery, and at 6:40 a.m., a Cesarean section was performed. Id. at 155-156. The infant was delivered at approximately 7:00 a.m. N.T., 5/11/17, at 30.

Following delivery, Gallagher began to repair Angela's uterine incision. NT., 5/10-11/17, at 157. During this process, Gallagher noticed that the uterus was not contracting.[4] Id. As Gallagher explained, this is a serious complication because "[i]f the uterine muscle it is [sic] not contracting or clamping down and so the very large blood vessels that feed the uterine cavity

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[4] Appellants' medical expert explained that "[u]terine atony [when it occurs] is always encountered in the third stage after the delivery of the placenta." N.T., 5/10/17, at 38.

continue to bleed." Id. at 158. Pitocin and other medications were given in an attempt to help the uterus contract, however, the medications did not stop the hemorrhaging. Id. at 157-159. Gallagher also used various surgical methods to try to stop the hemorrhaging, to no avail. Id. at 159-160. A doctor from another obstetrician's group, Dr. Covatto, also joined the surgery in an attempt to stop the bleeding. Id. at 160. Due to the significant blood loss that could not be stopped, Angela was in a life-threatening condition. Id. at 161-162. Because the conservative and surgical efforts failed to resolve the condition, Gallagher recommended to Appellants that a hysterectomy be performed in order to save Angela's life. Id. at 162. Appellants agreed and a hysterectomy was performed. Id.

A jury trial occurred from May 8, 2017, through May 12, 2017. At trial, the Doctors offered, and the trial court accepted, the testimony of Dr. Diana Curran ("Dr. Curran") as an expert in obstetrics. Generally, Dr. Curran testified that Gallagher met the standard of care and did not cause Angela's uterine atony. N.T., 5/11/17, at 2-84. Much of Dr. Curran's testimony related to Dr. Curran's use of the terms "adequate" versus "strong" in describing the contractions and the progress of labor. Id. Following Dr. Curran's testimony, Appellants' counsel moved to strike her opinion based on their claim that Dr. Curran's testimony was inconsistent with regard to the strength of the contractions. N.T., 5/10-11/17 at 118-119. Appellants argued that because Dr. Curran testified that she was unsure of the strength of the contractions

prior to insertion of the IUPC, such testimony was inconsistent with her testimony that the contractions were "inadequate" throughout Angela's labor. Id. During argument on that issue, Doctors' counsel pointed out that Dr. Curran's testimony was consistent, and he explained that "strong" and "adequate" were two different concepts with regard to the contractions. Id. at 120. The trial court denied Appellants' motion to strike Dr. Curran's testimony. Id. at 123.

Following trial, the jury returned a verdict in favor of Doctors. Appellants subsequently filed a motion for post-trial relief seeking a new trial, asserting that the trial court should have struck the testimony of Dr. Curran, or alternatively, instructed the jury to disregard her opinions on the basis raised at trial. The trial court denied Appellants' post-trial motion on December 12, 2017. Appellants filed a notice of appeal on January 8, 2018.[5] Both Appellants and the trial court complied with Pa.R.A.P. 1925.

Appellants present the following issues for our review:

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[5] As noted, judgment was entered on February 13, 2018, after the notice of appeal was filed. Pursuant to Pennsylvania Rule of Appellate Procedure 905, Appellants' notice of appeal shall be treated as filed after the entry of judgment. See Pa.R.A.P. 905(a)(5) (stating, "a notice of appeal filed after the announcement of a determination but before the entry of an appealable order shall be treated as filed after such entry and on the day thereof"). This Court has long recognized that "even though an appeal was filed prior to the entry of judgment, it is clear that jurisdiction in appellate courts may be perfected after an appeal notice has been filed upon the docketing of a final judgment." Keystone Dedicated Logistics, LLC v. JGB Enterprises, Inc., 77 A.3d 1, 3 n.1 (Pa. Super. 2013).

A. Whether a [p]laintiff is entitled to a new trial for the [t]rial [c]ourt's failure to strike the testimony of an expert who could not testify to a reasonable degree of medical certainty.

B. Whether a [t]rial [c]ourt should grant a new trial where the [t]rial [c]ourt fails to give a curative instruction where an expert's opinion lacks foundation for her testimony and she cannot testify to a reasonable degree of medical certainty.

Appellants' Brief at 3.

It is Appellants' position that Angela's Caesarean section should have been performed at 7:45 p.m. on July 26, 2013, prior to placement of the IUPC. Appellants' Brief at 6. Appellants assert that prior to the insertion of the IUPC, Angela, who had been monitored principally by obstetrical nursing staff, had contractions that were recorded as being "strong." Id. at 5. Appellants' expert witness, Dr. Henry Prince ("Dr. Prince") testified that by the time an IUPC had been inserted, however, Angela's uterus had lost its ability to contract at a satisfactory level and therefore, a C-section should have been performed earlier. Id. at 5.

The issues Appellants raise on appeal pertain to the testimony presented by Doctors' expert, Dr. Curran.[6] Appellants contend that Dr. Curran's testimony that Angela's contractions were inadequate throughout labor lacks foundation and was not stated to a reasonable degree of medical certainty.

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[6] Although Appellants present two separate issues in the statement of questions involved, the argument section of their brief consists of one section wherein Appellants address the two issue simultaneously. Although this is a violation of Pa.R.A.P. 2119(a), we do not find waiver. Furthermore, because Appellants' present the issues together, we shall address them together.

Appellants' Brief at 6, 8. Therefore, they argue, Dr. Curran's testimony should have been stricken or a curative instruction issued. Id. Specifically, Appellants assert that there was no basis or foundation in the record for Dr. Curran's testimony that Angela's contractions were inadequate, and that such testimony was contrary to the notations made by nursing staff that prior to placement of the IUPC the contractions were "strong." Id. at 5. As Appellants argue:

> It has consistently been [Appellants'] position that by the time that the IUPC had been placed, [Angela] was suffering from maternal exhaustion and her uterus' ability to continue to contract after such a long period of labor no longer existed. Therefore, the IUPC data clearly indicated the need for a Caesarian section.

Id. at 8.

"The admissibility of expert testimony is soundly committed to the discretion of the trial court, and the trial court's decision will not be overruled absent a 'clear abuse of discretion.'" Hatwood v. Hosp. of the Univ. of Pennsylvania, 55 A.3d 1229, 1239 (Pa. Super. 2012). "An abuse of discretion may not be found merely because an appellate court might have reached a different conclusion, but requires a result of manifest unreasonableness, or partiality, prejudice, bias, or ill-will, or such lack of support so as to be clearly erroneous." Grady v. Frito–Lay, Inc., 839 A.2d 1038, 1046 (Pa. 2003). In addition, "[t]o constitute reversible error, an evidentiary ruling must not only be erroneous, but also harmful or prejudicial

to the complaining party." Schuenemann v. Dreemz, LLC, 34 A.3d 94, 101 (Pa. Super. 2011).

With regard to an expert testifying to a degree of medical certainty, this Court has explained that:

> [t]o be admissible, the opinion of an expert witness must be rendered within a reasonable degree of medical certainty. Whether an expert's opinion is reasonably certain must be decided after considering the expert's testimony in its entirety. That an expert may have used less definite language does not render his entire opinion speculative if at some time during his testimony he expressed his opinion with reasonable certainty.

Carrozza v. Greenbaum, 866 A.2d 369, 379 (Pa. Super. 2004). "Expert testimony that does not meet the standard of reasonable degree of medical certainty is properly excluded." Winschel v. Jain, 925 A.2d 782, 794 (Pa. Super. 2007).

Furthermore, "expert testimony is incompetent if it lacks an adequate basis in fact." Helpin v. Trustees of University of Pennsylvania, 969 A.2d 601, 617 (Pa. Super. 2009). The law provides that:

> [w]hile an expert's opinion need not be based on absolute certainty, an opinion based on mere possibilities is not competent evidence. This means that expert testimony cannot be based solely upon conjecture or surmise. Rather, an expert's assumptions must be based upon such facts as the jury would be warranted in finding from the evidence.

Id. at 617 (Pa. Super. 2009) (internal citations and quotation marks omitted).

In its Pa.R.A.P. 1925(a) memorandum, the trial court stated the following as the basis for its determintion:

> The reasons for the court's rulings at issue on this appeal appear at [N.T., 5/11/17, at 122-125]. The extended discussion throughout Pages 118-[1]23 of the transcript present the full context for the court's decision. . . . Pursuant to Pa.R.A.P. 1925(a)(1), the court relies on its on-the-record reasons. The court also incorporates and relies on its post-trial memorandum ... Pa.R.A.P. 1925(a)(1).

Trial Court Opinion, 1/31/18, at 2-3. The exchange referenced involved the following discussion:

> [Appellants' Counsel]: Your Honor, thank you for entertaining a motion that I would like to make after [Dr. Curan's] medical testimony. . . .
>
> I had asked the question, . . . as to whether or not she could testify as to how strong [Angela's] contractions were prior to the insertion of the IUPC, . . . . I asked her if she would be able to testify how strong that those were prior to the insertion of the [IUPC] and she said that she could not.
>
> She had testified throughout, and the record will reflect this, that she had inadequate contractions throughout her labor. So the opinion regarding any contractions, the strength of any contractions prior to the insertion of the [IUPC], I am making a motion to strike that piece of opinion evidence that is being presented by the [Doctors] in this case.
>
> [Doctors' Counsel]: What opinion? I don't understand.
>
> [Appellants' Counsel]: That [Angela] was [sic] inadequate or did not have strong contractions which essentially is what she is saying prior to the insertion of the [IUPC]. My expert has testified that by the time that the catheter was placed that the uterus was already exhausted and that's why you got those readings.
>
> That is what he testified to. I think that the record will reflect that.
>
> [Doctors' counsel]: Judge, [Appellants' counsel] is mixing apples and oranges. I think that Dr. Curran was very consistent and, in fact, during my examination we put up a record from the nurse that indicated at about 8:15 p.m. the contractions were strong

comparing it to Dr. Gallagher's 8:30 p.m. note when the IUPC went in that there was an inadequate labor pattern.

Consistently she indicated that strong and adequate are two different concepts. So what she said was that she cannot tell before the IUPC went in how strong that they were, but that does not mean that they were adequate.

THE COURT: Well, can she tell how adequate that they were before putting in the catheter?

[Doctors' Counsel]: She testified that she felt that the contractions were inadequate based on the dilation that had happened and that she was at eight, nine through that period of time suggesting that the contractions were inadequate, and therefore, Dr. Gallagher wanted to break the membranes, put in the IUPC to see if what she believed to be true was true, and when she found it, they were inadequate.

THE COURT: Then the membranes were broken and then the catheter was put in subsequently, not at the same time?

[Appellants' counsel]: Right. That's the only way that you can do it, Judge. The membranes have to be ruptured in order to put the catheter in.

THE COURT: I know that, but I don't think that it was ruptured and the right next [sic] minute it was cathetered. They ruptured it and waited to see if anything would change and then they put it in.

[Doctors' Counsel]: Correct.

THE COURT: The rupture was at 7:30. It was before the catheter was put in.

[Doctors' Counsel]: No doubt, and they had been clear that they thought that the contractions were inadequate because that is one way to measure the adequacy of the contractions. You put the IUPC in and --

THE COURT: Her testimony was that the contractions were inadequate based on the five hours of the pattern of dilation from 2:30 until like 7:30, 8:00, somewhere around there. That's what

your doctor, Dr. Curran's testimony was. She based it on the dilation, I believe, and maybe the other numbers too.

[Doctors' counsel]: That's right.

THE COURT: The effacement and the fetal position or station.

[Doctors' counsel]: Regardless, the overall thing was that her testimony was that it was within the standard of care for this labor to progress in this fashion and Dr. Gallagher not to intervene.

[Appellants' Counsel]: May I respond?

THE COURT: You can respond. I guess that her response is that Dr. Curran can testify to the inadequacy based on the numbers of the dilation and the effacement and the stations over that five-hour period.

[Appellants' Counsel]: Then I am seeking – for the record, I am seeking instruction to the jury that says that specifically, ladies and gentlemen of the jury, you are to disregard Dr. Curran's testimony regarding the strength of the contractions prior to the insertion of the [IUPC].

That is the instruction that I am seeking and that is what she said that she could not testify to to [sic] a reasonable degree of medical certainty.

THE COURT: No. She was talking about there is a difference between the strength and the inadequacy.

[Appellants' Counsel]: She can argue that on close, but when I asked her about strength, she clearly said she could not testify to a reasonable degree of medical certainty.

[Doctors' counsel]: But she never said that strength had anything to do -- he is confusing his facts with our position.

THE COURT: Right. I think that strength and adequacy are two different things and I think that Dr. Curran was harping on inadequacy and not strength.

[Doctors' Counsel]: That's right, Judge. I don't think that she ever said one way or the other. She just said that the nurses said

> that they are strong and I am not -- I can't say whether or not they were. I am just saying that they were inadequate.
>
> THE COURT: And she based that on that five hours preceding?
>
> [Doctors' Counsel]: Yes.
>
> * * *
>
> THE COURT: [Appellants' ] motions . . . are all denied.

N.T., 5/10-11/17 at 118-123.

In its Post-Trial Memorandum, the trial court incorporated its on-the-record decision during trial, but also added the following explanation:

> Additionally, the court adds and/or reiterates the following. Dr. Curran qualified at trial as a defense expert in obstetrics and gynecology. She indicated that the accurate way to measure the adequacy of uterine contractions is by use of an intrauterine pressure catheter ("IUPC"). The IUPC can be used to measure the strength of contractions, and relatively simple calculations can then be done to assess whether the contractions are medically adequate for or during labor. Curran explained that a nurse palpating the uterus could gain a sense of the strength of contractions and might subjectively judge the contractions to be strong when, in fact the contractions could actually be inadequate. Curran did not equate the strength or perceived strength of a contraction with the adequacy in the way [Appellants] seem to contend.
>
> Also, Curran explained that observations of cervical changes (i.e., dilation and effacement), and changes in the baby's position during labor are relevant to an overall assessment of the progression of labor. Adequate contractions are needed to cause proper cervical changes. [Dr. Gallagher] had not observed proper cervical changes and, as such, took steps in an attempt, to make the contractions adequate. Ultimately, Dr. Curran opined within a reasonable degree of medical certainty that [Dr. Gallagher] met the applicable standard of care when treating [Angela].

Trial Court Opinion, 12/12/17, at 3.

The evidence of record supports the trial court's determinations. During her testimony, in response to questions by Doctors' counsel, Dr. Curran explained "adequate contractions" as follows:

> A. So the only way that you can really tell whether a contraction is adequate is if there is an [IUPC]. An external monitor and even a nurse palpating the uterus can tell you when and how long that a contraction happens, but in order to really say how strong that a contraction is, they have to put a tube inside the uterus which requires the membranes to be ruptured, and, it will tell you exactly how strong that each contraction is. When you add up the baseline and the top and it has to be over 200 Montevideo units. I can go more in detail if you want me to.
>
> Q. Let me ask you this: Which is more reliable? A nurse feeling the contractions or this [IUPC]?
>
> A. The [IUPC] is more accurate.
>
> Q. Can a nurse feel contractions that she feels are strong which are really inadequate?
>
> A. Yes.
>
> Q. Is that something that happens with any regularity or frequency?
>
> A. Yes.
>
> Q. Why is it important to have adequate contractions?
>
> A. Well, to affect cervical change, you need adequate contractions.

N.T., 5/11/17, at 19-20.

Dr. Curran stated that when the IUPC was placed at 8:30 p.m., the IUPC indicated that Angela was not having adequate contractions. Id. at 21-22. Dr. Curran further explained that the uterus is a smooth muscle, and does not

"fatigue" as other muscles do after prolonged use. Id. at 24. The following exchange occurred during which Dr. Curran addressed the idea of muscle fatigue and "adequate contractions":

> Q. With a nurse indicating that contractions were strong and then the [IUPC] put in and they were determined to be inadequate, was that a sign of uterine muscle fatigue?
>
> A. No.
>
> Q. Did it have anything to do with uterine muscle exhaustion?
>
> A. No.
>
> Q. So why at 8:30 when the pressure catheter was placed did it show inadequate contractions?
>
> A. Because she wasn't in adequate labor.
>
> Q. Can you progress from five centimeters dilated to nine centimeters dilated with inadequate contractions?
>
> A. Yes.
>
> Q. Did [Angela] ever have adequate contractions?
>
> A. No.
>
> Q. Even after the Pitocin?
>
> A. Correct.
>
> Q. With the Pitocin was she able to progress to ten centimeters dilated?
>
> A. Yes.
>
> Q. At 7:45 p.m. should a Caesarean section have been performed?
>
> A. I don't believe so.

> Q. And why do you feel, that?
>
> A. Well, let's see. The IUPC had not been placed yet and she had progressed from the five centimeters to eight plus centimeters and there was no -- Dr. Gallagher had no idea whether these contractions were adequate or not because there was no IUPC or intrauterine pressure catheter.
>
> Q. Is it important to determine the adequacy of contractions before you do a Caesarean section?
>
> A. Yes.

N.T., 5/11/17, at 24-25.

Dr. Curran provided the following additional testimony regarding the progression of Angela's labor:

> A. So the first stage of labor is the start of painful contractions that make the cervix change until you get to complete, which is ten centimeters.
>
> Q. Do the records reflect that [Angela] was complete by 50 minutes after midnight?
>
> A. Yes.
>
> Q. Ten to one a.m.?
>
> A. Yes.
>
> Q. At any moment up to that point was there any indication that Dr. Gallagher should have intervened and recommended a Caesarean section?
>
> A. Not in my opinion.
>
> Q. And what do you base that opinion on?
>
> A. That she had made steady, albeit a little slow progress, but she had progressed to complete despite the fact that she never had adequate contractions.

N.T., 5/11/17, at 27.

On cross-examination, when Appellants' counsel questioned Dr. Curran regarding notations by the delivery nurse that Angela's contractions were "strong," the first being at 3:32 p.m., the following exchange took place:

> Q. At 3:32 that she is having strong contractions; correct?
>
> A. She did chart that. The problem is that that [sic] is external and it doesn't correlate with the pressure catheter.
>
> Q. I understand that, but I can go through all these if you like, but on every entry from 3:32 p.m. until the [IUPC] was put in she recorded strong contractions; correct?
>
> A. Correct, but that still doesn't really correlate with how strong the contractions are.
>
> Q. Let me show this to you real quick to make sure that we're in agreement. Page 637. Down at the bottom here.
>
> At 8:15 p.m., right before the catheter was put in, she records them as strong; correct?
>
> A. She did record that.
>
> Q. So there are multiple examinations, and again, I don't want to waste the jury's time, but we can go through this, it is just nurses examining her regularly; correct?
>
> A. Yes.
>
> Q. And every time from 3:32 p.m. to 8:15 p.m., this nurse is a 33 year veteran labor and delivery nurse, records the contractions as being strong; correct?
>
> A. She did record that.
>
> Q. We actually don't know because there was no [IUPC]; right?
>
> A. Correct, until 8:30 when it was put in.

> Q. So your testimony that she never had adequate contractions prior to 8:15 p.m., you've chosen to disbelieve Nurse Braun; correct?
>
> A. I am not disbelieving her. I am sure that they felt strong and I admire her service to obstetrics, but it is still not the same as having an [IUPC]. Even me and I have done this for 21 years.

N.T., 5/11/17, at 49-51.

Dr. Curran again stated on cross-examination that, despite Nurse Braun's designation of Angela's contractions as being strong, Angela did not have "adequate contractions according to the IUPC." N.T., 5/11/17, at 55. Dr. Curran explained: ". . . but again, we're - - I guess that we will have to agree to disagree that while I respect Nurse Braun's experience, her palpating a strong contraction does not correlate with [IUPC] measurements." Id. at 55. Throughout her testimony, Dr. Curran consistently distinguished "strong" contractions as measured by the obstetrics nurses, from "adequate" contractions as measured by the IUPC.[7] Id. at 57, 58, 61, 65, 67-68, 82.

Furthermore, Nurse Braun's testimony was consistent with and supported Dr. Curran's testimony. Nurse Braun testified that at 7:40 p.m., she had made a record entry noting that Angela's contractions were "strong," but also explained that Angela's labor was not progressing. N.T., 5/10-11/17, at 105. Nurse Braun testified that she was aware that at 10:45p.m., Pitocin

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[7] Dr. Curran explained that "adequate" is a defined term in obstetrics and defined "adequate contractions" as follows: "So adequate contractions are defined by an [IUPC] in measuring the strength of the contractions for a certain period of time." N.T., 5/11/17 at 65.

was increased because the contractions were not "adequate" as measured by the IUPC. Id. at 106. On cross-examination, Nurse Braun provided the following testimony regarding the strength of contractions as felt through palpation versus the adequacy of contractions as measured by an IUPC:

> Q. Which is more accurate measuring the strength of the contraction; your ability to feel it or the IUPC, the intrauterine pressure catheter?
>
> A. The intrauterine pressure catheter.
>
> Q. Can you feel contractions and consider them to be strong but an intrauterine pressure catheter does not believe that they are adequate?
>
> A. Yes.
>
> Q. Does the -- I am going to call it the IUPC.
>
> A. Thank you.
>
> Q. So I don't have to keep saying it. Well, why don't you tell the jury because I am not sure that they have been told how an IUPC works to measure the adequacy of contractions?
>
> A. Okay. The IUPC, it is inserted, and it has a very small tip that goes up into the uterus and from within that it measures the pressure within the uterus during a contraction.
>
> Q. And then once you get that measurement, what do you do?
>
> A. You take a range of contractions in ten minutes and you take the baseline because it records -- I don't know if we have that in pictures, but there is a baseline, and based on each individual contraction in that ten-minute period we add all of those up. Say if it is a baseline of 20 and it goes to 40, that would only be a 20 minute -- a 20 millimeter of mercury contraction and strength.
>
> Q. Let me give an example so to be sure what you are talking about. Can we get page 315.

Ms. Braun, why don't you tell us what that is?

A. That is a recording of the uterine contractions monitored by the IUPC and the fetal heart rate monitored by the external monitor.

Q. Is the fetal heart rate on the top?

A. Yes.

Q. And then the contractions are on the bottom?

A. Yes.

Q. And every time that the patient has a contraction you see this curve?

A. Correct.

Q. Now, when you talk about measuring the strength of the contractions on the IUPC, can you tell the jury what you're measuring and what you are comparing?

Do you want a pointer? It might help.

A. Sure. This would be the baseline (indicating), which is running around 25 millimeters. A contraction right here goes up to about 60. So 60 minus 25 is 35.

Then the next contraction only goes up to 50, so that is about a 25 millimeter contraction. Over here it goes up to 60 again, so that is a 35. So that looks like about ten minutes. The units added up would be 75.

Q. 35, 35 and 25. 95?

A. Yes.

Q. And to be considered adequate labor, they have to be over 200?

A. 200 and above is what we consider adequate labor.

> Q. Is it possible for a nurse to feel a contraction in the absence of this monitor and think that it is strong, but the pressure monitor is saying that they are not adequate?
>
> A. Yes, it is. It is very subjective.

N.T., 5/10-11/17, at 107-109.

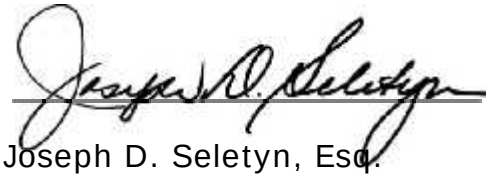
As reflected by the testimony, Dr. Curran consistently described Angela's contractions as inadequate as measured by the IUPC. Dr. Curran also consistently stated that she could not address the measurement of the contractions prior to the placement of the IUPC because she could not know the strength (measure) of those contractions without the placement of the IUPC. She explained that the nurse could have felt contractions that she believed were "strong", but that designation was subjective. Moreover, a contraction could feel "strong" by palpation, but still be "inadequate" as measured by the IUPC. Furthermore, Dr. Curran's determination that Angela's contractions were inadequate, even prior to placement of the IUPC, was based on the evidence of record regarding Angela's progression, or lack thereof, in labor. Additionally, Nurse Braun, whose notations Appellants rely on as evidence establishing that the contractions were "strong" prior to placement of the IUPC, provided testimony consistent with Dr. Curran's that a contraction could feel "strong," but not be "adequate" as measured by an IUPC.

Thus, we disagree with Appellants' claims that Dr. Curran's testimony lacked foundation and was not made to a degree of medical certainty. Accordingly, the trial court did not err in denying Appellants' post-trial motion

to strike Dr. Curran's testimony or to issue a curative jury instruction. Thus, Appellants' are entitled to no relief on their claims.

Judgment affirmed.

Judgment Entered.



Joseph D. Seletyn, Esq.
Prothonotary

Date: 12/4/2018