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SUPREME COURT OF ALABAMA

OCTOBER TERM, 2011-2012

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Zenko J. Hrynkiw, M.D., and Zenko J. Hrynkiw, M.D., P.C.

v.

Thomas Trammell and Barbara Trammell

Appeal from Jefferson Circuit Court
(CV-07-002296)

BOLIN, Justice.

Dr. Zenko J. Hrynkiw and Zenko J. Hrynkiw, M.D., P.C., appeal from a judgment entered in favor of Thomas Trammell and Barbara Trammell in their medical-malpractice action.

Facts and Procedural History

On July 15, 2005, Dr. Hrynkiw, a neurosurgeon, performed fusion surgery on Thomas's spine to relieve pain in his lower back and pain and numbness in his right leg and foot caused by a herniated disk that was creating pressure on a nerve. Immediately following the surgery, Thomas experienced weakness, numbness, and pain in his lower extremities, along with numbness in his perineal area and urinary and fecal incontinence. The conditions experienced by Thomas after the surgery are symptoms of cauda equina syndrome (hereinafter "CES"), a compressive neuropathy involving multiple nerve roots affecting motor, sensory, bowel, bladder, and sexual function. On July 25, 2005, Dr. Hrynkiw performed a second surgery on Thomas's spine. The second surgery provided Thomas no relief, and he is permanently partially disabled. He has very limited mobility because of severe weakness in his hips and legs, and he is impotent and suffers from urinary and fecal incontinence.

On June 29, 2007, Thomas and his wife, Barbara, sued Dr. Hrynkiw and the professional corporation of which he is a member (hereinafter collectively referred to as "Hrynkiw"),

alleging a violation of the Alabama Medical Liability Act, § 6-5-480 et seq. and § 6-5-541 et seq., Ala. Code 1975 ("AMLA"). They alleged that Dr. Hrynkiw negligently diagnosed, cared for, and treated Thomas by negligently performing the surgery he performed on July 15, 2005, and by providing negligent postoperative care. Thomas alleged that he suffered permanent injuries as a result of Dr. Hrynkiw's negligence. Barbara asserted a claim of loss of consortium.

The case was tried before a jury from February 28 through March 4, 2011. The jury found in favor of the Trammells, awarding compensatory damages of $1,650,000 to Thomas and $500,000 to Barbara. The trial court entered a judgment on the jury's verdict. Hrynkiw timely filed a postjudgment motion seeking, alternatively, a judgment as a matter of law or a new trial. After a hearing on the motion, the trial court denied the motion. Hrynkiw timely appealed.

> "'To prevail on a medical-malpractice claim, a plaintiff must prove "'1) the appropriate standard of care, 2) the [health-care provider's] deviation from that standard, and 3) a proximate causal connection between the [health-care provider's] act or omission constituting the breach and the injury sustained by the plaintiff.'"' Giles v. Brookwood Health Servs., Inc., 5 So. 3d 533, 549 (Ala. 2008)(quoting Pruitt v. Zeiger, 590 So. 2d 236, 238

> (Ala. 1991), quoting in turn Bradford v. McGee, 534 So. 2d 1076, 1079 (Ala. 1988))."

Mosley v. Brookwood Health Servs., Inc., 24 So. 3d 430, 433 (Ala. 2009).

Hrynkiw raises the following two issues on appeal: (1) whether the trial court erred by not granting Hrynkiw's judgment as a matter of law on the Trammells' claim relating to Dr. Hrynkiw's postoperative care because, Hrynkiw argues, the Trammells failed to present substantial evidence that any of Thomas's injuries were probably caused by Dr. Hrynkiw's postoperative care; and (2) whether the trial court erred in allowing hearsay testimony under the learned-treatise exception when, Hrynkiw says, the foundational requirements of Rule 803(18), Ala. R. Evid., were not met. We note that Hrynkiw has not challenged the evidence presented to support the Trammells' claim relating to Dr. Hrynkiw's negligence in performing the original surgery on July 15, 2005. Accordingly, we will not discuss the facts involving the original surgery unless they are relevant to the issues raised on appeal.

Causation

Hrynkiw argues that there was not substantial evidence to support the jury's verdict with regard to Dr. Hrynkiw's

postoperative care of Thomas and that, therefore, the trial court should have granted Hrynkiw's motion for a judgment as a matter of law.

The Court's standard of review for a ruling on a motion for a judgment as a matter of law is de novo:

> "'"When reviewing a ruling on a motion for a [judgment as a matter of law], this Court uses the same standard the trial court used initially in deciding whether to grant or deny the motion for a [judgment as a matter of law]. Palm Harbor Homes, Inc. v. Crawford, 689 So. 2d 3 (Ala. 1997). Regarding questions of fact, the ultimate question is whether the nonmovant has presented sufficient evidence to allow the case to be submitted to the jury for a factual resolution. Carter v. Henderson, 598 So. 2d 1350 (Ala. 1992). The nonmovant must have presented substantial evidence in order to withstand a motion for a [judgment as a matter of law]. See § 12-21-12, Ala. Code 1975; West v. Founders Life Assurance Co. of Florida, 547 So. 2d 870, 871 (Ala. 1989). A reviewing court must determine whether the party who bears the burden of proof has produced substantial evidence creating a factual dispute requiring resolution by the jury. Carter, 598 So. 2d at 1353. In reviewing a ruling on a motion for a [judgment as a matter of law], this Court views the evidence in the light most favorable to the nonmovant and entertains such reasonable inferences as the jury would have been free to draw. Id."'"

Thompson v. Patton, 6 So. 3d 1129, 1133 (Ala. 2008)(quoting Leiser v. Raymond R. Fletcher, M.D., P.C., 978 So. 2d 700, 705-06 (Ala. 2007), quoting in turn Waddell & Reed, Inc. v.

United Investors Life Ins. Co., 875 So. 2d 1143, 1152 (Ala. 2003)).

In the present case, Dr. Robert Hash III testified that Dr. Hrynkiw performed Thomas's original surgery in such a manner that, when performed in that manner, the surgery would compress the cauda equina 100% of time. With regard to Thomas's postoperative care, Dr. Hash testified that Dr. Hrynkiw did not examine Thomas following the first surgery even though Thomas was exhibiting classic signs and symptoms of CES. Dr. Hash explained that CES is a compressive neuropathy involving multiple nerve roots affecting motor, sensory, bowel, bladder, and sexual function. He stated that CES is a medical emergency. Dr. Hash testified that Thomas's surgery was performed on the right side of his spine and that when Thomas awoke in the recovery room, he was experiencing numbness in his left side, which, Dr. Hash said, should have alerted Dr. Hrynkiw of the CES. The day following surgery, Thomas experienced numbness and weakness and was unable to feel a touch to his penis. The next day, Thomas had no feeling in his pelvic area and no feeling in his left side. That same day, Thomas was incontinent numerous times. The

hospital records reflected that Dr. Hrynkiw was notified of Thomas's condition; the records reflected that Dr. Hrynkiw never performed a physical or neurological examination of Thomas following the original surgery.

Dr. Hash explained that CES can have a variety of origins and can occur as a postoperative complication of lumbar-spine surgery. Dr. Hash testified that Dr. Hrynkiw, in violation of the applicable standard of care, performed the original surgery in a manner that compressed the nerves of the cauda equina. He explained that in all cases of postoperative CES urgent neuroimaging studies of the lumbar spine are advised and that, if a there is a compression, then immediate surgical decompression is necessary. Dr. Hash testified that when the cauda equina is injured, "it's going to cause weakness in the feet, numbness of the feet and legs and your bottom and your penis. It's going to cause -- you can't urinate. They're going to have to in and out catheterize you and so you've got bladder problems. You may be incontinent of stool and -- so weakness, numbness, bladder problems, bowel problems, and in the long run sexual problems." Dr. Hash stated that, based on a reasonable medical probability, Dr. Hrynkiw's 10-day delay

in performing a second surgery on Thomas resulted in a bad neurological outcome. Dr. Hash testified that if Dr. Hrynkiw had timely examined and diagnosed Thomas's CES within 48 hours after his first surgery, then Thomas's neurological outcome probably would have been substantially and significantly improved by the second surgery. He testified:

> "Q. [By Mr. Samples, counsel for the Trammells:] Dr. Hash, what damage would be -- what damage would be done during that ten-day window of time with his cauda equina and surgery not being done to afford relief, what is ongoing to Tom's cauda equina during that ten-day period before surgery?
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> "A. Mr. Trammell's spine was abnormal. I mean, he had stenosis, so all those nerves of the cauda equina, in his normal state and there's not a whole lot of room for them and when this stretch to the nerve to the cauda equina occurred, within hours after that, the cauda equina started swelling and when they did the myelogram, there was a block up at the level above it. So all of these nerves are swollen up and what happens when they swell up, the blood supply gets cut off and the nutrients can't get in and the -- it affects, you know, the neurotransmitters. It damages the nerves and they're -- I mean, they're strangulated in the spinal canal. There's no blood supply and so, you know, there's no blood supply so the oxygen goes down and they're damaged and the longer it stays compressed, the -- the more they swell -- no nutrients, no blood supply. I mean, they're damaged.
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> "....
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> "Q. Do you have an opinion based on reasonable medical probability as to whether or not this ten-

> day delay had a substantial, material, adverse, bad effect on Tom Trammell?
>
> "....
>
> "A. There's no doubt in my mind the delay had a detrimental outcome on Mr. Trammell's long-term neurologic status."

Dr. Hash testified that the longer a patient with CES waits before surgery to decompress the spine, the more the nerves are damaged. He agreed that deleterious changes occur in the spinal cord itself soon after the onset of a compression of the cauda equina. Dr. Hash testified that the longer the cauda equina is cut off from blood flow, the greater the likelihood of a permanent, irreversible neurological deficit. He agreed that postoperative CES may develop as a result of surgery and that, when it develops following surgery, it is often reversible if recognized and treated expeditiously. Dr. Hash agreed that there was a significant advantage to treating patients within 48 hours after the onset of CES -- that those patients treated within 48 hours experience a significant improvement in sensory and motor deficits as well as urinary and rectal function. Dr. Hash also agreed that a timely second surgery provides for the best recovery, with approximately 80% of patients making

either a complete or delayed partial recovery and 10 to 20% making no recovery.

Specifically, Hrynkiw argues that Dr. Hash's testimony was insufficient to support the jury's verdict because, he says, it was speculative, based on answers given during Dr. Hash's deposition testimony. During his testimony at trial, Dr. Hash explained certain answers he gave during his deposition testimony as follows:

> "Q. [By Mr. Samples, counsel for the Trammells:] Dr. Hash, I want to show you page 59, line 15 of your deposition and go down through page 60, line three. Can you put those on top of one another, Phillip? All right. Now, Dr. Hash, I'm going to read the question and you read along with me and the answer and then I want to ask you a question and this is Mr. Sellers[, Hrynkiw's counsel,] asking you questions at your deposition. Question, 'What you can say is based on, if you will, a statistical analysis, that the earlier the situation is addressed by way of a second surgery, the better the chance for the outcome, but in any particular case like in this case, Mr. Trammell, in terms of whether it probably or probably would not have resulted in a better outcome, that would be a matter of speculation; is that what you're telling me?' And your answer was, 'That's true. Yes, sir.' Now, can you explain why you answered that question that way, please?
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> "A. Because I thought he was asking me if -- if the early surgery was done, could I guarantee that Mr. Trammell would get better. I mean, that was my interpretation of that question.

"Q. And no doctor could guarantee --

"MR. SELLERS: Excuse me. Your Honor, object to leading --

"A. No.

"MR. SAMPLES: Let me rephrase it.

"Q. Can any doctor guarantee a better result?

"A. No, sir.

"Q. All right. Now, let me also -- Phillip, go to page 181, line 14 through line 18. Okay. And then a couple of hours later you were asked this question. 'And one of the issues you discussed with him was whether -- or your testimony about whether the so-called delay in surgery impacted the outcome; right?' Answer, 'Yes, sir.' Go to the next question and answer, please, Phillip. 'Okay. Now, before we took our first break you told me, and I want to see if you still remember this, would you agree that with respect to Mr. Trammell, whether -- if surgery had been performed at any other time, an earlier time -- let me start over. 'With respect to Mr. Trammell, assuming surgery had been performed at some time prior to July 25, that is, the second surgery, what you can tell us is it would improve his chances for an improved outcome, but, number one, you can't tell us probably that it would improve the outcome, and number two, if there was some improvement, you couldn't quantify how much improvement there would be; is that fair?' Your answer, 'Yes, sir, that's true.' Now, what did you mean by that answer in response---

"A. Once again, I thought I was being asked if early surgery had been done, could I guarantee that he would get improvement and -- and I could not guarantee that he would get improvement. I thought there [were] chances he would be better and I -- I

said before the first question he asked I had -- Mr. Sellers had asked me did I think anything besides the surgery being performed improperly hurt his chances of getting better and I stated that a delay in the surgery contributed to his ultimate outcome being poor.

"Q. And do you stand by that testimony?

"A. Yes, sir.

"Q. All right. And you gave that on page 30 and 31 of your deposition. I'm looking at it right now.

"A. Maybe we should put it up.

"Q. All right. Phillip, go to page 30, line 20 over to page 31, line seven. Okay. And did Mr. Sellers ask you this question, 'That's fine. In terms of the mechanism of this cauda equina syndrome, is there anything else that, in your judgment, caused or contributed to the syndrome?' Your answer was, 'Other than over -- overretraction?' Question, 'Right, yes, sir.' And was your answer, 'I think the delay in diagnosis and the delay in the second surgery contributed to the -- to the ultimate outcome, yes, sir'? Did you point-blank state that during your deposition?

"A. Yes, sir, I stated that before those other two questions. Speculation, that's not a term that I use. I was unsure what he was talking about. I didn't know I was unsure though. I mean, he told me at the first of the deposition if I had any -- if I didn't understand something to tell him that I didn't understand it. I didn't understand that I didn't understand it I guess you'd say. I just -- I thought I did understand what he was asking."

At the outset, we note that the jury determines the credibility of the expert witnesses and determines the weight

to give to their opinions. Kilcrease v. John Deere Indus. Equip. Co., 663 So. 2d 900 (Ala. 1995). Here, it was for the jury to determine whether it believed Dr. Hash's explanation of his earlier testimony given during his deposition. In Graves v. Brookwood Health Services, Inc., 43 So. 3d 1218 (Ala. 2009), the plaintiff's expert testified in a deposition that the intravenous infiltration probably caused the injury to the plaintiff's right hand. Then, in a subsequent deposition, the same expert told defense counsel that it was merely "possible" that the infiltration caused plaintiff's injury and that he could not say that it was the "probable" cause. This Court reversed the summary judgment for Brookwood Health Services and held that any contradictions or unclarity in the expert's testimony created jury questions of weight and credibility. This Court said:

> "Our cases make it abundantly clear, however, that a portion of the testimony of the plaintiff's expert cannot be viewed 'abstractly, independently, and separately from the balance of his testimony.' Hines v. Armbrester, 477 So. 2d 302, 304 (Ala. 1985). See, e.g., Downey v. Mobile Infirmary Med. Ctr., 662 So. 2d 1152, 1154 (Ala. 1995)(noting that '[t]his Court has consistently held that the testimony of an expert witness in a medical malpractice case must be viewed as a whole, and that a portion of it should not be viewed abstractly, independently, or

> separately from the balance of the expert's testimony').
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> "....
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> "'"We are to view the [expert] testimony as a whole, and, so viewing it, determine if the testimony is sufficient to create a reasonable inference of the fact the plaintiff seeks to prove."' Giles v. Brookwood Health Servs., Inc., So. 3d 533, 550 (Ala. 2008)(quoting Hines, 477 So. 2d at 304-05). Viewing Dr. Buckley's testimony as a whole and viewing the evidence in the light most favorable to Graves, we conclude that Graves demonstrated the existence of a genuine issue as to medical causation and that the trial court's summary judgment against her on this basis therefore was in error."

43 So. 3d at 1228.

"This Court has consistently held that the testimony of an expert witness in a medical malpractice case must be viewed as a whole, and that a portion of it should not be viewed abstractly, independently, or separately from the balance of the expert's testimony." Downey v. Mobile Infirmary Med. Ctr., 662 So. 2d 1152, 1154 (Ala. 1995).

Hrynkiw cites Shanes v. Kiser, 729 So. 2d 319 (Ala. 1999), and Pope v. Elder, 671 So. 2d 730 (Ala. Civ. App. 1995), in support of the argument that Dr. Hash's testimony

was speculative because he stated that his testimony was based on statistical evidence.[1]

In Shanes v. Kiser, the plaintiff alleged that an emergency-room physician failed to diagnose and treat her mother's "heart-related problem" while her mother was in the emergency room. The mother was released from the emergency room and was later found dead in her home. No autopsy was performed, and both the emergency-room physician and the plaintiff's expert identified three other possible causes -- not heart-related -- for the mother's sudden death. The plaintiff's expert expressed the opinion that the mother had died of a heart attack based on statistical data "suggesting that more people die each year of heart-related problems than any other cause" and that the mother had exhibited symptoms in the emergency room that might suggest a heart-related problem, although there was some uncertainty as to precisely what symptoms the mother was experiencing when she visited the emergency room. 729 So. 2d at 322. This Court stated:

[1]Hrynkiw did not object to Dr. Hash's testimony on the ground that statistical evidence from a medical expert, not particular to the patient/plaintiff, is insufficient to prove proximate cause. Instead, Hrynkiw cross-examined Dr. Hash regarding his deposition testimony.

"As to causation, an action 'may properly be submitted to the jury where there is evidence that prompt diagnosis and treatment would have placed the patient in a better position than she was in as a result of inferior medical care.' Parker v. Collins, 605 So. 2d 824, 827 (Ala. 1992). But the '"proof must go further than merely show that an injury could have occurred in an alleged way--it must warrant the reasonable inference and conclusion that it did so occur as alleged."' McAfee [v. Baptist Med. Ctr.], 641 So. 2d [265] at 267 [(Ala. 1994)](quoting McKinnon v. Polk, 219 Ala. 167, 168, 121 So. 539, 540 (1929) ...). Moreover, an '"inference merely that it could so occur does not warrant the conclusion that it did so occur, where from the same proof the injury can with equal probability be attributed to some other cause.'" Id. .... Regarding causation, this Court has also said:

> "'"'Proof which goes no further than to show an injury could have occurred in an alleged way, does not warrant the conclusion that it did so occur, where from the same proof the injury can with equal probability be attributed to some other cause.'
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> "'"But a nice discrimination must be exercised in the application of this principle. As a theory of causation, a conjecture is simply an explanation consistent with known facts or conditions, but not deducible from them as a reasonable inference. There may be two or more plausible explanations as to how an event happened or what produced it; yet, if the evidence is without selective application to any one of them, they remain conjectures only."'

> "Howard v. Mitchell, 492 So. 2d 1018, 1020 (Ala. 1986)(quoting earlier cases) ....
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> "....
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> "... [The plaintiff] based her theory of the case -- and, consequently, her expert testimony -- solely on the assumption that [her mother] died of heart failure, which fact was never established. All of [the plaintiff's expert]'s testimony as to the breach of the standard of care related to what might have been done to prevent, or reduce the effects of a heart attack. Significantly, if, in fact [the mother] died of one of the other three possible causes discussed, then the record provides no evidence as to the standard of care allegedly breached, that is, as to what [the emergency-room doctor] should have done under those circumstances to prevent [the mother]'s death or to reduce the effects of the malady. If [the mother] died of a condition not heart-related, then [the plaintiff] presented no evidence as to how [the emergency-room doctor] breached the standard of care relevant to that condition."

729 So. 2d at 320-24 (emphasis omitted). Ultimately, the failure medically to determine the actual cause of the mother's death was fatal to the medical-malpractice action. Shanes is distinguishable from the present case because the jury in Shanes would have had to have speculated as to the cause of death. Here, it is undisputed that Thomas suffers from CES.

Pope v. Elder involved an action commenced against Dr. James Elder by Douglas Pope and his wife Linda Pope, who died

after the action was filed and before the appeal. The Popes alleged that Dr. Elder, a pathologist, had failed to find malignant cells in a lymph node following Mrs. Pope's mastectomy in 1986. 671 So. 2d at 732. Dr. Elder moved for a summary judgment on the grounds that the Popes' sole expert, Dr. Kenneth J. Fawcett, was not a similarly situated health-care provider and that the Popes failed to present any expert testimony indicating that Dr. Elder had failed to identify the malignant cells in one of Linda's lymph nodes. The Court of Civil Appeals declined to address Pope's argument regarding the standard of care because it was convinced that Dr. Elder made a prima facie showing that any failure on his part to properly interpret the biopsy was not the proximate cause of Linda's death and that the Popes had not offered substantial evidence to rebut Dr. Elder's showing. In support of the summary judgment in favor of Dr. Elder, the Court of Civil Appeals noted that Dr. Elder presented the deposition testimony of Dr. John G. Hankins, Dr. Jon Gockerman, and Dr. William N. Viar, Jr. The Court of Civil Appeals then quoted from portions of their deposition testimony, which portions were favorable to Dr. Elder and did include some statistical

references regarding cancer-survival rates. The Court of Civil Appeals then stated: "None of these physicians testified to any causative relationship between Dr. Elder's conduct and Mrs. Pope's death. On the other hand, in support of his motion for summary judgment, Dr. Elder offered the affidavit of Dr. Hankins, who was Mrs. Pope's treating oncologist." 671 So. 2d at 736 (emphasis added). The Court of Civil Appeals then stated:

> "The medical testimony here indicated that Mrs. Pope's breast cancer could not have been prevented or cured. Her cancer had spread to other parts of her body, but the medical testimony established only the statistical estimate that, with treatment, she would have survived about two years longer. There was no testimony that Dr. Elder's mistake proximately caused her death. Indeed, while the medical data on breast cancer prognosis and treatment here are statistical, they do not point to any specific conduct of Dr. Elder as the proximate cause. See McAfee [v. Baptist Med. Ctr.], 641 So. 2d [265] at 267-68 [(Ala. 1994)]. Hence, there is nothing to show that Dr. Elder's conduct probably caused Mrs. Pope's death. As the trial court stated in entering the summary judgment:
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> > "'Although there is generalized testimony based on statistical data that the ability to treat a patient improves with early diagnosis, this testimony does not rebut [Dr. Elder's] expert testimony that even if Mrs. Pope had received in 1986 the treatment later received in 1988 such treatment would have had no effect on her ability to survive.... Plaintiff's own

> experts offer no opinion concerning whether Dr. Elder's failure to make an earlier diagnosis of a positive lymph node either lessened [her] chances of survival or worsened her condition. Plaintiff's brief asserts that Mrs. Pope's cancer spread to her liver as a likely result of the missed diagnosis, but no evidence supports the assertion. Accordingly, no substantial evidence or even a scintilla of evidence suggests that Mrs. Pope's death was proximately caused by the missed diagnosis.'"

671 So. 2d at 736-37 (some emphasis omitted).

In Pope, the Court of Civil Appeals never discussed the testimony of the Popes' sole expert, Dr. Fawcett, and whether his testimony rebutted the testimony of Dr. Elder's experts or, indeed, whether Dr. Fawcett presented "generalized testimony based on statistical data that the ability to treat a patient improves with early diagnosis" in addressing proximate cause. Instead, it appears that the Court of Civil Appeals was confused as to on whose behalf the experts were testifying. Obviously, Dr. Elder's experts provided testimony favorable to his position and the Court of Civil Appeals' references to statistical data in support of Dr. Elder's

summary-judgment motion is of little value in comparing Pope to the present case.[2]

In arguing that Dr. Hash improperly based his testimony on statistical data, Hrynkiw refers to Dr. Hash's trial testimony regarding his deposition testimony, which is set out earlier in the opinion. Dr. Hash explained that his statement in his deposition testimony regarding statistical analysis referred to his opinion that no surgeon could guarantee that the second surgery would have been successful. However, Dr. Hash testified that the decompression of Thomas's compressed cauda equina within 48 hours probably would have resulted in a significant improvement in sensory and motor deficits as well as urinary and rectal function. Dr. Hash's trial testimony establishes merely that his opinion was based on a reasonable probability of medical certainty, not absolute medical certainty.

We note that the use of generalized statistical data -- i.e., more people die of heart-related issues than any other cause -- to speculate as to the cause of a person's death was insufficient to establish proximate cause in Shanes does not

[2]This Court discussed Pope in Shanes, but failed to recognize the deficiencies in the Pope opinion.

mean that the use of quantifiable terms is impermissible in a medical-malpractice action. In Parker v. Collins, 605 So. 2d 824 (Ala. 1992), the plaintiffs, husband and wife, alleged that in January 1988 a radiologist negligently performed a mammography upon the wife and then negligently interpreted the test results to be negative for breast cancer. In December 1988 the wife was diagnosed with breast cancer, which had spread to her lymph nodes. The plaintiffs presented testimony from two experts indicating that the X-ray film used by the radiologist was grossly technically inadequate and suboptimal for interpretation and that the radiologist violated the accepted standard of radiology care by basing his diagnosis on it. Also, the plaintiffs' expert testified "as to the effect of the delay in diagnosing Mrs. Parker's condition," stating:

> "Based on the evidence regarding the size of the lump discovered by Mrs. Parker in January, as well as the medical evidence surrounding the subsequent growth of the lump, [the expert] said that he was 80% certain that the cancer had not spread into Mrs. Parker's lymph nodes as of January. Dr. Sanchez, Mrs. Parker's surgeon, then testified that Mrs. Parker's mastectomy and the course of chemotherapy and radiation treatments that followed were necessary, because the cancer had spread into her lymph nodes. He also testified that breast cancer has a higher rate of occurrence once it has spread into the lymph glands."

605 So. 2d at 826. This Court held:

> "While the facts do not establish that Mrs. Parker's cancer could have been prevented altogether if [the radiologist] had rendered a prompt diagnosis based on a clearer X-ray, medical testimony suggests that Mrs. Parker's condition worsened as a direct result of a diagnosis based upon a substandard X-ray. That evidence was sufficient to create a jury question as to proximate cause in this case; accordingly, we reverse that portion of the judgment based on the directed verdict for [the radiologist]."

605 So. 2d at 827.

Hrynkiw argues that when Dr. Hash's testimony is viewed in its entirety, the testimony is speculative because it did not describe an identifiable injury. In Bradley v. Miller, 878 So. 2d 262 (Ala. 2003), the plaintiffs failed to meet their burden of proof in responding to the physician's summary-judgment motion, to produce substantial evidence that the fetus could have been saved if the physician had more closely monitored the mother's pregnancy. At the mother's last visit to the physician, she was not suffering from preeclampsia. The plaintiffs' expert opined that if the physician had more closely monitored the mother's pregnancy for complications other than preeclampsia, then the physician would have incidentally detected the preeclampsia in time to effect an early delivery. The plaintiffs' expert could only

speculate about the timing and manner of the onset of preeclampsia. This speculation was the only foundation for the expert's opinion that the fetus could have been saved if the physician had monitored the pregnancy more closely. In the present case, Dr. Hash testified that Thomas began to suffer from the symptoms of CES immediately following the original surgery. He testified that Dr. Hrynkiw should have examined Thomas and operated on him within 48 hours so that the nerves of the cauda equina could be decompressed and that timely decompression surgery would avoid permanent, irreversible injury to nerves.

Next, Hrynkiw argues that Dr. Hash's testimony was insufficient because it was speculative in that it was based on generalized statements that Thomas would have had a "better outcome" if Dr. Hrynkiw had operated earlier (within 48 hours) rather than waiting 10 days. In McAfee v. Baptist Medical Center, 641 So. 2d 265 (Ala. 1994), this Court addressed consolidated appeals in two medical-malpractice cases where the issue was whether the plaintiffs had presented substantial evidence that any of the physicians probably caused the plaintiffs' injuries. One case involved an infant who had

contracted bacterial meningitis. He was treated by a neonatologist, who submitted his affidavit in support of a summary judgment, stating that he was familiar with the standard of care, skill, and diligence normally exercised by physicians practicing in neonatology and that, in his opinion, nothing he did probably caused or contributed to cause an injury to the infant. The plaintiff's expert observed that the sooner bacterial meningitis is treated, the better the expected result. The second case involved an allegation of a failure to timely diagnose breast cancer, specifically an allegation that a one-year delay resulted in an unnecessary worsening of that plaintiff's condition. The affidavits of the plaintiff's experts stated generally that "time is of the essence" in treating breast cancer and that patients who receive earlier treatment obtain a better result, but the generalized testimony failed to rebut the expert testimony from the defendant-physicians that the metastasis in the lymph nodes occurred in the early stages before the breast cancer could be diagnosed.

In the present case, Dr. Hash's testimony did not amount to mere generalized statements that the earlier an injury or

disease is treated, the better the outcome for the patient. Instead, Dr. Hash testified that early diagnosis and earlier decompression surgery would have relieved the pressure on the cauda equina and the nerve endings that had been compressed. Dr. Hash testified that nerves become swollen when they are compressed and that they then cut off the blood supply, and nutrients cannot get into the nerves; the neurotransmitters are strangulated. Dr. Hash testified that, with no blood supply, the oxygen level goes down and the longer the nerve endings stay compressed, the more damage is done to the nerves and the greater the likelihood of permanent irreversible damage. Dr. Hash testified that there is a significant advantage to treating patients with CES within 48 hours as opposed to waiting more than 48 hours -- there is a significant improvement in sensory and motor deficits as well as urinary and rectal function. It was not necessary for Dr. Hash to testify that Thomas would not have suffered injury from CES if decompression surgery had been performed within 48 hours of Thomas's original surgery.

Next, Hrynkiw argues that Dr. Hash's testimony amounts to evidence of a mere loss of chance to achieve a better medical outcome. In McAfee, supra, this Court stated:

> "If, as the defendants suggest, the plaintiffs are in fact asking this Court to abandon Alabama's traditional rules of proximate cause and to recognize the 'loss of chance doctrine,' we decline to do so. Alabama law requires that a recovery not be based upon a mere possibility:
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> > "'The rule in Alabama in medical malpractice cases is that to find liability, there must be more than a mere possibility or one possibility among others that the negligence complained of caused the injury. There must be evidence that the negligence probably caused the injury. Pappa v. Bonner, 268 Ala. 185, 105 So. 2d 87 (1958).'
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> "Baker v. Chastain, 389 So. 2d 932, 934 (Ala. 1980).
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> "The plaintiffs cite us to Parker v. Collins, 605 So. 2d 824 (Ala. 1992), wherein we stated:
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> > "'This Court has previously held that the issue of causation in a malpractice case may properly be submitted to the jury where there is evidence that prompt diagnosis and treatment would have placed the patient in a better position than she was in as a result of inferior medical care. Waddell v. Jordan, 293 Ala. 256, 302 So. 2d 74 (1974); Murdoch v. Thomas, 404 So. 2d 580 (Ala. 1981). It is not necessary to establish that prompt care could have prevented the injury or death of the patient; rather, the plaintiff must produce evidence to show that her condition

> was adversely affected by the alleged negligence. Waddell; see also Annot. 54 A.L.R.4th 10 § 3 (1987).'
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> "Id. at 827. We do not read Parker as abrogating the rule that the plaintiff must prove that the physician's negligence probably caused the injury. In Parker, we reversed a judgment based on a directed verdict for the defendant physician on the grounds that the 'medical testimony suggests that Mrs. Parker's condition worsened as a direct result of a diagnosis based upon a substandard X-ray,' stating, 'That evidence was sufficient to create a jury question as to proximate cause in this case....' 605 So. 2d at 827 (Emphasis added.) In Parker, a cancer specialist testified that he was 80% certain that the cancer had not spread into the lymph nodes at the time of the improper diagnosis. Thus, there was expert testimony from which the jury could infer that the physician's negligence probably caused her injury."

641 So. 2d at 267 (footnote omitted).

In Alabama, there is no recovery for the loss of any chance of recovery resulting from medical malpractice. Instead, when there is an issue of dilatory diagnosis and treatment, there must be sufficient evidence that prompt diagnosis and treatment would have placed the patient in a better position than she was in as a result of the inferior medical care. DCH Healthcare Auth. v. Duckworth, 883 So. 2d 1214 (Ala. 2003).

In Breland v. Rich, 69 So. 3d 803 (Ala. 2011), an infant born prematurely was at risk for developing several serious medical conditions, including retinopathy of prematurity ("ROP"), a condition that affects the normal growth of retinal blood vessels and can cause blindness in premature infants if the retinas detach. Early diagnosis is critical for treatment to be successful, so premature infants should be screened early and regularly for ROP. The ophthalmologist consulted by the neonatal-intensive-care unit where the infant was being treated recorded incorrect information in an eye-exam book as to whether the infant needed additional screening for ROP, which resulted in a six-week lapse in such screenings. When the infant was examined, her ROP had developed to such a state that surgical intervention was to no avail and she was permanently blind. This Court recognized that our cases addressing a delay in diagnosis and/or treatment provide that with regard to the issue of causation, the question is whether the breach of the standard of care, i.e., the delay in diagnosis and/or treatment, proximately and probably cause actual injury to the patient. The infant's mother presented expert testimony that, if the ophthalmologist

had not acted negligently, the infant would have had a better outcome in that, if the infant had been timely examined and the resultant proper treatment administered, she would have had an 80% chance of salvaged vision. Instead, the surgeries were delayed and the infant suffered permanent blindness.

Here, Dr. Hash's testimony did not amount to testimony of a mere possibility of recovery. Instead, Dr. Hash testified that the extent of Thomas's permanent neurological deficit probably resulted from Dr. Hrynkiw's 10-day delay in performing a second surgery to decompress the spine. Dr. Hrynkiw had a duty to diagnose and treat Thomas's CES with a second surgery to decompress the nerves of the cauda equina, and it was this failure that probably caused Thomas to permanently suffer some or all of the effects of CES, because the failure to timely decompress the cauda equina resulted in irreversible damage to the nerves.

Treatises

Hrynkiw argues that the trial court erred in allowing the Trammells' expert, Dr. Hash, to reference certain medical treatises during his direct examination because Dr. Hash

stated during voir dire that he did not rely on any treatises to form his opinion regarding Dr. Hrynkiw's actions.

> "Two fundamental principles govern the standard by which this Court reviews a trial court's rulings on the admission of evidence. Middleton v. Lightfoot, 885 So. 2d 111, 113 (Ala. 2003). '"'The first grants trial judges wide discretion to exclude or admit evidence.'"' 885 So. 2d at 113 (quoting Mock v. Allen, 783 So. 2d 828, 835 (Ala. 2000), quoting in turn Wal-Mart Stores, Inc. v. Thompson, 726 So. 2d 651, 655 (Ala. 1998)). However, 'a trial court exceeds its discretion where it admits prejudicial evidence that has no probative value.' 885 So. 2d at 113 (citing Powell v. State, 796 So. 2d 404, 419 (Ala. Crim. App. 1999), aff'd, 796 So. 2d 434 (Ala. 2001)).
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> "'"'The second principle "is that a judgment cannot be reversed on appeal for an error [in the improper admission of evidence] unless ... it should appear that the error complained of has probably injuriously affected substantial rights of the parties."'"' Middleton, 885 So. 2d at 113 (quoting Mock, 783 So. 2d at 835, quoting in turn Wal-Mart Stores, 726 So. 2d at 655). See also Rule 45, Ala. R. App. P. '"The burden of establishing that an erroneous ruling was prejudicial is on the appellant."' Middleton, 885 So. 2d at 113-14 (quoting Preferred Risk Mut. Ins. Co. v. Ryan, 589 So. 2d 165, 167 (Ala. 1991))."

Baldwin Cnty. Elec. Membership Corp. v. City of Fairhope, 999 So. 2d 448, 453 (Ala. 2008).

At trial, Dr. Hash testified as to his expertise in neurosurgery, and he testified that he had reviewed the medical records of Thomas's surgeries. He went on to explain

the first surgery that was performed by Dr. Hrynkiw. Dr. Hash opined that Dr. Hrynkiw violated the standard of care in performing the first surgery and he was discussing Dr. Hrynkiw's conduct after the first surgery when, without the jury present, the parties discussed certain objections to demonstrative aids Thomas's attorneys were using. At that time, Hrynkiw's attorney asked to voir dire Dr. Hash regarding the basis for his opinion because the Trammells' attorney was planning to introduce certain medical literature into evidence. On voir dire, Dr. Hash testified that he did not rely on any medical literature in forming his opinions in this case. Hrynkiw's attorney then objected to any use of medical literature on the grounds that Dr. Hash did not rely on any medical literature in forming his opinion and that Rule 803(18), Ala. R. Evid., provides that to be admissible in evidence learned treatises must be "relied upon by the expert during direct examination." We note that Hrynkiw's attorney had been given a copy of the treatises before trial and did not argue that he was surprised by the use of the treatises.

Rule 803, Ala. R. Evid., sets out exceptions to the general rule that hearsay testimony is not allowed. Rule 803(18), provides:

> "The following are not excluded by the hearsay rule ...:
>
> "....
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> "(18) Learned Treatises. To the extent called to the attention of an expert witness upon cross-examination or relied upon by the expert witness in direct examination, statements contained in published treatises, periodicals, or pamphlets on a subject of history, medicine, or other science or art, established as a reliable authority by the testimony or admission of the witness or by other expert testimony or by judicial notice. If admitted, the statements may be read into evidence but may not be received as exhibits."

(Emphasis added.) The comments to Rule 803(18) provide:

> "Alabama has long been in the minority of jurisdictions in permitting the admissibility of learned treatises as substantive evidence in the case. Seaboard Sys. R.R. v. Page, 485 So. 2d 326 (Ala. 1986). See Comment, Learned Treatises As Direct Evidence: The Alabama Experience, 1967 Duke L.J. 1169; C. Gamble, McElroy's Alabama Evidence § 258.01 (4th ed. 1991). Most jurisdictions, in contrast, have relegated the use of such treatises to the cross-examination of experts or to showing the basis for the expert's opinion. See Brown v. United States, 419 F.2d 337, 341 (8th Cir. 1969); 6 J. Wigmore, Wigmore on Evidence §§ 1609-1708 (Chadbourn rev. 1976). Such treatises are held relevant to the weight or credibility the trier of fact is to give to the expert's testimony but not to constitute substantive evidence of the matter

asserted in the treatise. See E. Cleary, McCormick on Evidence § 322 (3d ed. 1984).

"Rule 803(18), identical to its federal counterpart, adopts Alabama's minority position, by which learned treatises constitute direct, substantive evidence of the relevant matter therein and, thereby, fall within their own exception to the hearsay rule of exclusion. Because of the inherent reliability of such works, they are now admissible to prove the truth of the matter asserted therein. This fact, of course, does not preclude the continued admission of such treatises as going to the weight or credibility of the expert's testimony.

"The scope of this exception includes statements in published treatises, periodicals, or pamphlets on a subject of history, medicine, or other science or art. Aside from the limits established by the foregoing statement of scope, two conditions must be satisfied before such statements are admissible. First, the treatise, periodical, or pamphlet must be established as reliable authority, usually meaning that the author's expertise is recognized in the field and that other professionals acknowledge the accuracy of the publication. Reliability in the field may be established by the admission of the expert who is being questioned about the publication, through other expert testimony, or by judicial notice. See Baenitz v. Ladd, 363 F.2d 969, 970 (D.C. App. 1966) (judicial notice of material found in Encyclopedia Britannica); Ala. R. Evid. 201 (judicial notice). Compare C. Gamble, McElroy's Alabama Evidence § 258.02 (4th ed. 1991) (judicial notice of material in dictionaries). The second condition is that the person offering the publication must show either that the publication was relied upon by the expert during direct examination or was called to the expert's attention on cross-examination. This second requirement, in the words of one author, is 'designed to ensure that

> the materials are used only under the chaperonage of an expert to assist and explain in applying them.' E. Cleary, McCormick on Evidence § 321, at 901 (3d ed. 1984). See C. Gamble, McElroy's Alabama Evidence § 258.01(3) (4th ed. 1991) (describing preexisting Alabama law as being that an expert witness either must have relied upon the treatise during direct examination or must have been confronted with it on cross-examination). Contrary to preexisting Alabama law, which allowed the treatise to be introduced, Rule 803(18) only permits the treatise statements to be read into evidence. Contra Harrison v. Wientjes, 466 So. 2d 125 (Ala. 1985)."

Hrynkiw argues that, under Rule 803(18), in order for a treatise to be admissible during Dr. Hash's direct testimony, Dr. Hash must have relied upon the treatise to form the basis of his opinion. The Trammells argue that Rule 803(18) does not restrict the admissibility of learned treatises solely to those used and "relied" upon by a testifying expert as the basis or as one of the bases for the expert's opinion. Instead, they argue that the scope of Rule 803(18) is broader and that a learned treatise can be "relied upon" to bolster, corroborate, or better explain the expert's opinion.

Ozment v. Wilkerson, 646 So. 2d 4 (Ala. 1994), involved a medical-malpractice action based on an allegedly improper insertion of a central venous catheter. The plaintiff's expert was allowed to testify regarding a package insert from

a brand of catheter other than the one used on the plaintiff and regarding a bulletin from the United States Food and Drug Administration. The two documents were introduced only as evidence to support the opinion of the plaintiff's expert:

> "The two documents by themselves did not purport, by themselves, to establish the standard of care for physicians using central venous catheters. Instead, they were used to bolster [the plaintiff's expert's] statements, and the trial court's pre-trial order specifically stated that the [Food and Drug Administration] bulletin would be admitted only if it was shown to qualify as a learned treatise. In the trial court's opinion, it did, and [the defendant] has not shown that the trial court abused the wide discretion afforded it in evidentiary matters."

646 So. 2d at 6. See also Seaboard Sys. R.R. v. Page, 485 So. 2d 326 (Ala. 1986)(allowing plaintiff's expert to testify about [National Institute for Occupational Safety and Health] standards and state his agreement or disagreement with various excerpts from the publication); Police & Firemen's Ins. Ass'n v. Mullins, 260 Ala. 173, 69 So. 2d 261 (1953)(allowing a toxicologist to testify about federal public-health bulletin because it was relevant in reporting what various scientists had concluded on the subject).

Hrynkiw argues that Ozment is not applicable because it predates this Court's adoption of the Rules of Evidence.

However, Rule 803(18) is consistent with Alabama practice prior to the adoption of the Rules of Evidence. With regard to Rule 803(18),

> "[t]his principle continues Alabama's historic rule that a learned treatise, essay or pamphlet on a subject of history, medicine, science or art, which is testified to or admitted by an expert on the subject as being a standard or trustworthy authority on the subject, is admissible as an exception to the hearsay evidence rule. One may argue for the admission of such materials under the near-identical statutory and rule of civil procedure versions of the exception.
>
> "In the majority of jurisdictions, such evidence is admissible only to show the basis for the expert's opinion or as relevant to the weight and credibility of an expert's testimony. In Alabama, however, such materials, even if authenticated on cross-examination of an expert, are granted the evidentiary status of direct, substantive evidence as to the truth of the matter asserted. Nothing, of course, precludes the offering party from using the treatise merely as the basis for an expert's opinion. Additionally, the treatise may be used on cross-examination merely to attack the weight or credibility of an expert's testimony.
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> "This particular hearsay exception is based upon the trustworthiness which arises from the fact that such published works are subjected to widespread collegial scrutiny."

C. Gamble and R. Goodwyn, McElroy's Alabama Evidence § 258.01(1)(6th ed. 2009) (footnotes omitted). The only change Rule 803(18) made to preexisting Alabama law is that the

treatise can be read to the jury but cannot be taken as an exhibit into the jury room. Accordingly, we cannot say that the trial court exceeded its discretion in allowing Dr. Hash to reference medical treatises during his direct examination.

Conclusion

The trial court submitted to the jury the Trammells' claims that Dr. Hrynkiw breached the standard of care both during the original surgery and following that surgery. Hrynkiw does not dispute that the trial court properly submitted to the jury the Trammells' claim as to the original surgery, instead challenging only the Trammells' claim regarding Dr. Hrynkiw's postoperative treatment of Thomas. We hold that the Trammells presented sufficient evidence of Dr. Hrynkiw's failure to adhere to the standard of care applicable to postoperative treatment of CES. As a result of this failure, Thomas's condition became irreversible in whole or in part. In short, we find sufficient evidence to support a finding that some or all of Thomas's injuries were the proximate result of Dr. Hrynkiw's delay in performing a second surgery and that prompt surgical intervention would have placed Thomas in a better position than he was in as a result

of the inferior medical care. Also, we hold that the trial court did not exceed its discretion in allowing Dr. Hash to reference medical treatises during his direct testimony under Rule 803(18), Ala. R. Evid.

Accordingly, we affirm the judgment of the trial court.

AFFIRMED.

Malone, C.J., and Woodall, Stuart, Parker, Main, and Wise, JJ., concur.

Murdock and Shaw, JJ., concur in the result.