REPORTED

IN THE COURT OF SPECIAL APPEALS

OF MARYLAND

No. 195

September Term, 2011

BRIAN C. DeMUTH, ET AL.

v.

WALTER WILLIAM STRONG

Eyler, Deborah S.,
Zarnoch,
Berger,

JJ.

Opinion by Eyler, Deborah S., J.

Filed: June 6, 2012

This medical malpractice case calls upon us to determine the meaning of a certain prerequisite a health care provider expert must satisfy to sign a certificate of qualified expert or to testify about the standard of care, as set forth in Md. Code (1974, 2006 Repl. Vol.), section 3-2A-02(c)(2)(ii)1B of the Courts and Judicial Proceedings Article ("CJP"), which is part of the Maryland Health Care Malpractice Act ("the Act").[1] The prerequisite, enacted in 2005 as part of emergency legislation regarding medical malpractice claims, states that, when a defendant health care provider is board certified in a specialty, an expert witness attesting that the defendant deviated from (or complied with) the standard of care must be board certified in the same or a "related specialty," with certain exceptions. It is the meaning of "related specialty" that is the primary question before us.

In the Circuit Court for Cecil County, Walter William Strong, the appellee, sued Brian Charles DeMuth, M.D., and Brian C. DeMuth, M.D., P.A., trading as Chesapeake Sports and Orthopedics (collectively, "Dr. DeMuth"), the appellant, for medical malpractice. Dr. DeMuth is a board certified orthopedic surgeon. The case was tried to a jury for four days. Over objection, Mr. Strong called a board certified vascular surgeon as an expert witness; that expert testified that Dr. DeMuth had breached the standard of care in his treatment of Mr. Strong and that the breach had caused Mr. Strong's injuries.

The jury deliberated for 35 minutes and returned a verdict in favor of Mr. Strong

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[1]The Act is codified at CJP sections 3-2A-01, *et seq.*

for $1,682,751.93.[2] Dr. DeMuth timely filed motions for judgment notwithstanding the verdict and for new trial ("post-trial motions"), which were denied. He then noted the instant appeal.

Dr. DeMuth poses three questions for review, which we have consolidated, reordered, and reworded:

> I. Did the trial court rule contrary to the Act by allowing a board certified vascular surgeon to testify about the standard of care applicable to a board certified orthopedic surgeon?
>
> II. Did the trial court err by denying Dr. DeMuth's motion for partial summary judgment, a requested jury instruction, and post-trial motions?

Finding no error, we shall affirm the judgment of the circuit court.

FACTS AND PROCEEDINGS

In 2005, upon experiencing pain in his knees due to arthritis, Mr. Strong became a patient of Dr. DeMuth, who, as noted above, is a board certified orthopedic surgeon. Mr. Strong was then 65, had diabetes and a history of heart disease, and was a heavy smoker. Otherwise, he was in good health and led an active life.

Ultimately, a decision was reached for Mr. Strong to have total knee replacements for both knees. In November 2007, at Harford Memorial Hospital, Dr. DeMuth performed total knee replacement surgery on Mr. Strong's right knee. The operation was a success and Mr. Strong recovered well. On Thursday, February 14, 2008, also at Harford Memorial Hospital,

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[2]The verdict was comprised of $650,000 in non-economic damages; $177,751.93 in past medical expenses; and $855,000 in future medical expenses.

Dr. DeMuth performed total knee replacement surgery on Mr. Strong's left knee. That surgery did not result in a positive outcome and the care rendered, or not rendered, in the postoperative period for that surgery is at the heart of this case.

Immediately after the February 14, 2008 surgery, Mr. Strong complained of feelings of numbness and tingling in his left foot. Dr. DeMuth examined Mr. Strong and concluded that the sensations either were from the anesthesia not having completely worn off or because Mr. Strong had experienced an injury to the peroneal nerve known as "neuropraxia." Neuropraxia is not a serious condition, as it usually resolves quickly on its own without any residual effects. Two to three percent of people who undergo total knee replacement surgery experience neuropraxia. Also, neuropraxia is not a vascular condition, that is, one related to blood flow.

Dr. DeMuth's postoperative examination of Mr. Strong did not show any signs of a lessening of blood flow to the left leg, such as decreased pedal pulses (*i.e.*, pulses in the foot). Dr. DeMuth did not perform, as part of the examination, an "ankle brachial index" test ("ABI"), in which the blood pressure in the arm and the ankle are compared, or a Doppler ultrasound examination. Each is a tool used to assess the likelihood that there has been a vascular complication of surgery. Also, Dr. DeMuth did not consult a vascular surgeon.

The next morning, Friday, February 15, Mr. Strong was examined by Malcolm Hughes, a physician's assistant for Dr. DeMuth. During that examination, Mr. Strong could not move the toes of his left foot or bend his toes upward. Nursing notes later that day documented that Mr. Strong was experiencing decreased sensation in his left foot and that

the pulse in his left foot was "very weak." That afternoon, Dr. DeMuth and Mr. Hughes discussed Mr. Hughes's examination of that morning and Dr. DeMuth reviewed Mr. Strong's medical records remotely, by computer, which was his usual practice. By then, the effects of the anesthesia could not have been an issue. Dr. DeMuth's diagnosis was that Mr. Strong was experiencing neuropraxia.

A nursing note from the afternoon of that same day (Friday, February 15) documents that Mr. Strong was complaining of numbness and decreased sensation to his left lower extremity, and that the pedal pulses were very weak. Later that night, another nurse wrote a note stating that Mr. Strong was continuing to have numbness of the left foot and that he could not move it.

In the middle of the night on Saturday, February 16, the nurse tending to Mr. Strong noted that he not only had numbness and lack of sensation of the left foot but also the foot was cool to the touch. Between 12:30 a.m. and 4:00 a.m., the nurse left a message with Dr. DeMuth's answering service reporting that Mr. Strong was experiencing coolness and continuing numbness in his left foot, and that he was completely unable to move that foot. At 8:00 a.m. that same day, Mr. Hughes examined Mr. Strong. He found that Mr. Strong could not move his left foot at all and had lost all sensation in it. Also, the foot appeared swollen and the toes were cold. Mr. Hughes called Dr. DeMuth, who asked him to perform his examination once again with Dr. DeMuth on the telephone line. Mr. Hughes's examination did not change. Dr. DeMuth concluded, as he had before, that Mr. Strong was experiencing neuropraxia. A nursing note later that day stated that Mr. Strong had bruising

to his calf.

A nursing examination at 1:00 a.m. on Sunday, February 17, revealed that Mr. Strong's left foot was cool and numb, that he could not move it, and that his pedal pulses were weak. Also, Mr. Strong's left calf was tight and bruised. He was not experiencing pain, but previously he had been put on pain medications both intravenously and by mouth. The records do not indicate that Mr. Hughes examined Mr. Strong that morning.

That afternoon (Sunday, February 17) Dr. DeMuth came to the hospital and examined Mr. Strong. Dr. DeMuth noted improved sensation on the bottom of Mr. Strong's left foot. He saw that Mr. Strong's left calf was swollen. He did not perform any vascular tests, such as an ABI or a Doppler examination, or obtain a consult from a vascular surgeon. He continued with the diagnosis of neuropraxia, which he thought was resolving. He scheduled Mr. Strong to be discharged from the hospital on February 19.

On Monday, February 18, Mr. Hughes examined Mr. Strong and found that his left foot was pale in color, cold, immobile, had limited sensation, and exhibited a weak pulse. Nursing notes from that day reveal that Mr. Strong's left calf remained bruised and tight, cool to the touch, and pale, and that he had weak pedal pulses. Mr. Hughes reported his findings to Dr. DeMuth, who continued to believe that Mr. Strong had neuropraxia, and ordered physical therapy for him.

That same day (February 18) when Mr. Strong attempted physical therapy, he was unable to walk more than eight feet and said he was experiencing pain in his left calf at a level of "ten out of ten," despite still being on pain medication. This was reported to Dr.

DeMuth.

On Tuesday, February 19, in the early morning hours, Mr. Strong told the nurses treating him that the pain in his left calf was even worse than before. The nurses noted that and that there was additional swelling in Mr. Strong's left calf. (Mr. Strong was still on pain medication.) During the early afternoon of that day, Dr. DeMuth came to the hospital and examined Mr. Strong. He could not find any pulse in Mr. Strong's left foot. At that point, Mr. Strong was reporting pain in his calf at a level of "twelve out of ten," notwithstanding pain medication. For the first time, Dr. DeMuth performed a Doppler examination, which revealed no pedal pulses in Mr. Strong's left leg or foot. Dr. DeMuth ordered an ABI and other tests and consulted with a vascular surgeon. After doing so, he diagnosed Mr. Strong with "compartment syndrome" of the left calf. That syndrome is characterized by swelling of the tissue casings covering the leg muscles. If not treated successfully, it can cause muscle death, nerve injury, and other serious complications.

At around 3:00 p.m. that day (February 19), Dr. DeMuth performed a fasciotomy on Mr. Strong's left leg. The goal of that operative procedure is to restore blood flow to the leg. The operation involves cutting the casing of tissue that surrounds the compartments of the muscles in the leg that have become swollen. Unfortunately, the fasciotomy failed to restore blood flow to Mr. Strong's left leg. Thereafter, Mr. Strong was transferred to the Upper Chesapeake Medical Center, where vascular surgeons performed an embolectomy, *i.e.*, a procedure to remove a blood clot, in a last ditch effort to save Mr. Strong's left leg. When that procedure also was not successful, Mr. Strong's left leg was amputated above the knee.

On August 7, 2009, Mr. Strong filed suit for medical negligence against Dr. DeMuth. During discovery, Mr. Strong identified two expert witnesses: Michael Baumgaertner, M.D., a board certified orthopedic surgeon, and Jason Johanning, M.D., a board certified vascular surgeon. Their depositions were taken before trial.

At trial, Mr. Strong called Dr. Baumgaertner as an expert witness on the standard of care and Dr. Johanning as an expert witness on the standard of care and causation. Both experts also testified about damages.

Dr. Baumgaertner is on the faculty of the Yale University School of Medicine and as of the time of trial was performing about 250 to 400 surgeries a year, including total knee replacement surgeries. He was accepted by the court as an expert in orthopedic surgery and orthopedic postoperative management. He opined that Dr. DeMuth had breached the standard of care several times between February 14 and 17, 2008, by failing to reconsider his diagnosis of nerve injury (neuropraxia) in the face of physical evidence contradicting that diagnosis, failing to order an ABI, failing to order a Doppler examination, and failing to obtain a consult from a vascular surgeon. Dr. Baumgaertner testified that the symptoms that Mr. Strong was showing were inconsistent with a nerve injury and instead were signs that he was experiencing progressive ischemia, *i.e.*, restriction of the blood supply to the tissues of his left foot and leg, thus causing a shortage of oxygen and other nutrients needed to keep the tissues alive. According to Dr. Baumgaertner, if Dr. DeMuth had taken any of the steps required by the standard of care, the vascular injury that Mr. Strong was experiencing would have been diagnosed and treated in a timely manner.

Dr. Baumgaertner further testified that the compartment syndrome, which first started to develop in Mr. Strong on February 17, and became full blown by February 19, was:

> Beyond any reasonable doubt with all medical probability . . . nothing other than the final -- the getting to the end of the road of ischemic muscle. It is not the cause. It is the result of a prolonged, progressive worsening loss of blood flow into the muscle.

Dr. Baumgaertner opined that when compartment syndrome develops a fasciotomy must be performed to release the pressure that is building up in the swollen area.

Dr. Johanning testified that he became board certified in vascular surgery by training for five years in general surgery and then training in vascular surgery. He explained that, during his training in general surgery, he became familiar with the postoperative management of orthopedic surgical patients; also, during his training in vascular surgery and later as a consultant to orthopedic surgeons for patients before and after total knee replacement surgeries, he became familiar with the standards of care for postoperative management of orthopedic surgical patients. He further testified that, due to the "anatomical location and the components of the leg," "there is a lot of overlap" between what vascular and orthopedic surgeons do to diagnose "postoperative extremity trauma." He stated that he was familiar with the standard of care applicable to orthopedic surgeons in the postoperative management of total knee replacement patients. Dr. Johanning was accepted by the court as an expert witness in vascular surgery and in the postoperative vascular management of patients.

Dr. Johanning testified that Dr. DeMuth deviated from the standard of care multiple times between February 14 and February 16 by not evaluating the blood flow to Mr. Strong's

left foot. He also testified that, had Dr. DeMuth taken the proper steps to have blood flow evaluated on the morning of February 15, the lack of blood flow to Mr. Strong's left foot would have been clearly identified as a serious problem, and one that required treatment by a vascular surgeon; that a vascular surgeon would have been brought in; and that the vascular surgeon would have treated Mr. Strong so that his leg would have been saved "without any significant deficits." Dr. Johanning further testified that, had Dr. DeMuth complied with the standard of care on the morning of February 16, Mr. Strong's left foot would have recovered because "the foot is more resistant to ischemia."

Dr. Johanning went on to opine that, "around the evening of the 18th or 19th . . . essentially the blood flow to the whole lower leg [was] lost." He testified that, due to the progressive loss of arterial blood supply to Mr. Strong's left leg, by approximately 8:00 p.m. on the night of February 16, 2008, Mr. Strong's left foot was no longer salvageable. He further opined that, probably starting in the evening of February 16, due to the continued untreated ischemia to the left leg, Mr. Strong started to develop compartment syndrome, which became full blown by February 19.

Dr. Johanning summarized that, in his opinion, Mr. Strong experienced "a progression of thrombosis [*i.e.*, clotting] of what we call the outflow. In other words, the vessels . . . in the foot and in the calf had clotted off, which caused the swelling of the muscles in the leg, which caused the compartment syndrome." Dr. Johanning explained that the severe restriction of blood flow began in Mr. Strong's left foot and moved up into his left leg, culminating in the compartment syndrome, which is an extremely painful condition. The

continuing breaches of the standard of care by Dr. DeMuth after that time caused Mr. Strong additional harm because the blockage of arterial blood flow to Mr. Strong's lower left leg continued to progress up the leg -- from the toes to the calf -- causing the calf to swell, "marked pain," and the compartment syndrome.

We shall include additional facts in our discussion of the issues.

DISCUSSION

I.

Dr. DeMuth contends the trial court ruled in violation of CJP section 3-2A-02(c)(2)(ii)1B and 2 by permitting Dr. Johanning to testify that he departed from the standard of care in his treatment of Mr. Strong. Before trial, Dr. DeMuth filed a motion *in limine* seeking to preclude Dr. Johanning from opining about the standard of care. The court reserved on the motion, and Dr. DeMuth renewed it when Dr. Johanning took the stand. The court denied the motion but granted Dr. DeMuth a continuing objection to Dr. Johanning's testimony.

Dr. DeMuth's contention is based upon CJP section 3-2A-02(c), which concerns the expert witness testimony necessary to prove liability of a defendant health care provider in a malpractice case that depends upon proof of a breach of the standard of care. Subsection (c) reads:

> (1) In any action for damages filed under [the Act], the health care provider is not liable for the payment of damages unless it is established that the care given by the health care provider is not in accordance with the standards of practice among members of the same health care profession with similar training and experience situated in the same or similar communities at

the time of the alleged act giving rise to the cause of action.

(2)(i) This paragraph applies to a claim or action filed on or after January 1, 2005.

(ii)1. In addition to any other qualifications, a health care provider who attests in a certificate of a qualified expert or testifies in relation to a proceeding before a panel or court concerning a defendant's compliance with or departure from standards of care:

A. Shall have had clinical experience, provided consultation relating to clinical practice, or taught medicine in the defendant's specialty or a related field of health care, or in the field of health care in which the defendant provided care or treatment to the plaintiff, within 5 years of the date of the alleged act or omission giving rise to the cause of action; and

B. Except as provided in subsubparagraph 2 of this subparagraph, if the defendant is board certified in a specialty, shall be board certified in the same or a related specialty as the defendant.

2. Subsubparagraph 1B of this subparagraph does not apply if:

A. The defendant was providing care or treatment to the plaintiff unrelated to the area in which the defendant is board certified; or

B. The health care provider taught medicine in the defendant's specialty or a related field of health care.

Dr. DeMuth's argument focuses on subsubparagraphs (c)(2)(ii)1B and 2, which pertain to board certification. Under those provisions, if the defendant is board certified in a specialty, then to be qualified to testify that the defendant departed from (or adhered to) the standard of care an expert witness also must be board certified "in the same *or a related specialty*." (Emphasis added.)[3] Dr. DeMuth maintains that Dr. Johanning's board certification in vascular surgery is not a board certification in the same specialty (orthopedic

[3]Dr. DeMuth concedes that, as a vascular surgeon, Dr. Johanning performed consultations relating to the clinical practice of orthopedic surgery, as he regularly consulted with orthopedic surgeons about the proper treatment of their postoperative patients for vascular problems; therefore, subsubparagraph (c)(2)(ii)1A was satisfied.

surgery) or in a "related specialty" and that neither of the exceptions from the board certification requirement (as set forth in subsubparagraphs (c)(2)(ii)2A and B) were satisfied. Therefore, Dr. Johanning was not qualified to render standard of care opinions at trial, and should have been precluded from doing so.[4]

On the "related specialty"issue, Dr. DeMuth argues that, if orthopedic and vascular surgery are related specialties, then "*all* surgical specialties are related." He points out that the certification process for orthopedic surgery and vascular surgery are regulated by different specialty boards, and that certification in each specialty requires a different training regimen. As Dr. DeMuth puts it, "the two specialties deal with completely different anatomical systems -- bones and blood."

Mr. Strong responds that, under the interpretation of the phrase "related specialty" advanced by Dr. DeMuth, "to be 'related' is actually to be the same," which is not reasonable, as subsubparagraph (c)(2)(ii)1B requires the expert witness to be board certified in "the same *or* a related specialty." (Emphasis added.) Mr. Strong maintains that the mere fact that recognized specialties are regulated by different boards is not significant; it shows

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[4]Dr. DeMuth's argument seems to be that not only was it error by the court to allow Dr. Johanning to testify about the standard of care but also it was prejudicial error, in that it allowed two standard of care experts, instead of just one, to testify against him. There cannot be an argument that the court's decision to allow Dr. Johanning to testify on the standard of care provided Mr. Strong with proof of the breach of the standard of care element of the tort that he otherwise would not have been able to produce, as Dr. Baumgaertner is board certified in orthopedic surgery and also testified about departures from the standard of care. Moreover, the statute at issue does not apply to testimony regarding causation, so even if the statute were not satisfied, that would not mean that Dr. Johanning could not testify about the causation element of the tort.

that the specialties are distinct but does not establish that they are unrelated. Mr. Strong argues that Dr. Johanning's testimony at trial was sufficient to show that vascular and orthopedic surgery are related specialties for the purpose of the medical issue in this case, *i.e.*, the "postoperative care of knee surgery patients."

"The meaning of statutory text is an issue we review as a matter of law" -- *i.e.*, *de novo*. *Univ. of Md. Med. Sys. Corp. v. Waldt*, 411 Md. 207, 222 (2009) (determining the meaning of the phrase "professional activities" as used in CJP section 3-2A-04(b)(4), often referred to as the "20 percent rule"). Last year, in a case in which the Court of Appeals was called upon to interpret a provision of the Act, the Court restated the well-established principles of statutory construction:

> When undertaking an exercise in statutory interpretation, as in the present case, the goal is to "ascertain and effectuate the intent of the Legislature." In attempting to discern the intent of the Legislature, courts "look first to the plain language of the statute, giving it its natural and ordinary meaning." If the language of the statute is clear and unambiguous, courts will give effect to the plain meaning of the statute and no further sleuthing of statutory interpretation is needed. If the sense of the statute is either unclear or ambiguous under the plain meaning magnifying glass, courts will look for other clues -- *e.g.*, the construction of the statute, the relation of the statute to other laws in a legislative scheme, the legislative history, and the general purpose and intent of the statute.
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> It is well-settled that a court must read a statute in the context of its statutory scheme, ensuring that "no word, clause, sentence, or phrase is rendered surplusage, superfluous, meaningless, or nugatory," and that any illogical or unreasonable interpretation is avoided.

Breslin v. Powell, 421 Md. 266, 286-87 (2011) (citations omitted). *See also Town of Oxford v. Koste*, ____ Md. App. ____, ____ Slip op. at 8 (filed April 26, 2012) (stating that issues of statutory construction can be resolved by "judicial consideration of three general factors:

1) text; 2) purpose; and 3) consequences").

The word "specialty" in the phrase "related specialty" in subsubparagraph (ii)1B -- which, again, has only to do with board certification -- plainly means a particular area of health care for which certification by a board or boards exists. Here, orthopedic surgery and vascular surgery each are surgical specialties for which board certification exists. The less straightforward issue of statutory construction in this case is whether these specialties are "related." The word "related" is not defined in the Act. The dictionary definition of "related," in the sense in which it is used in the subsubparagraph in question, is "being connected; associated." AMERICAN HERITAGE DICTIONARY 1473 (4th ed. 2006). That simply refines the issue to what kind of connection or association must exist between one health care practice specialty for which there is board certification and another for the specialties to be "related" within the meaning of subsubparagraph (c)(2)(ii)1B.

An examination of the entire text of CJP section 3-2A-02 (entitled "Exclusiveness of procedures") sheds minimal light on the meaning of "related specialty" in subsubparagraph (c)(2)(ii)1B. Subsections (a) and (b) of section 3-2A-02 establish the claims that are governed by the Act and prohibit inclusion of a specific *ad damnum* amount, respectively. Subsection (c)(1) addresses the nature of the breach of the standard of care testimony that is required to establish liability, *i.e.*, that the health care provider did not adhere to "the standards of practice among members of the same health care profession with similar training and experience situated in the same or similar communities at the time" of the alleged malpractice. This language has been present in CJP section 3-2A-02 since the inception of

the Act.

By contrast, subsection (c)(2), with which we are concerned, addresses the qualifications an expert witness must possess to testify (or attest in a certificate of qualified expert) that the health care provider defendant breached (or complied with) the standard of care. Subsubparagraph (c)(2)(ii)1A applies to all cases in which an expert witness is certifying or testifying about a breach of the standard of care by the defendant, regardless of whether the defendant is board certified in a specialty. That subsubparagraph requires the certifying or testifying expert to have clinical, consultative, or teaching experience "in the defendant's specialty or a related field of health care." Or, if the defendant treated the plaintiff in a field of health care other than the defendant's specialty or a related field of health care, the expert must have clinical, consultative, or teaching experience in the field of health care in which the treatment was rendered. (In either situation, the expert must have had the required experience within 5 years of the date of the alleged malpractice.)

The word "related" as a modifier of "field of health care" in subsubparagraph (c)(2)(ii)1A is used in the same sense (connected, associated) as the word "related" is used as a modifier of "specialty" in subsubparagraph (c)(2)(ii)1B. And the general qualifications in 1A that apply to all experts testifying about the standard of care track the specific qualifications the expert witness must have when the defendant is board certified. In the board certification subsubparagraph 1B, the expert must be board certified in the same or a related specialty, just as in the preceding, general, subsubparagraph, the expert must have experience (clinical, consultative, or teaching) in the same health care specialty as the

defendant or a related field of health care. Also, the exception to the board certification qualification that applies when the defendant provided care or treatment to the plaintiff unrelated to the area in which the defendant is board certified, *see* subsubparagraph (c)(2)(ii)2A, mirrors that part of the general qualification requirement that states that, when the defendant has treated the plaintiff in a specialty or field of health care other than the defendant's specialty or field of health care, the expert's experience must be in the specialty or field of health care in which the treatment was rendered. *See* CJP § (c)(2)(ii)1A.

We conclude from a reading of these statutory provisions that the word "related" carries the same meaning throughout CJP section 3-2A-02(c)(2). Accordingly, its meaning must be harmonized throughout that subparagraph. Nevertheless, the text itself does not adequately inform us of the type of connection or association that must exist between a defendant's "specialty" and another "field of health care," under subsubparagraph (c)(2)(ii)1A, and between a defendant's board certification specialty and another board certification specialty for an expert in one of those related other specialties to be qualified to testify about a breach in the standard of care, under subsubparagraph (c)(2)(ii)1B. For that reason, we look next to the statutory purpose.

The original 1976 legislation that created the Act, and most of the subsequent amendments to the Act, have served a single purpose: to counteract a crisis in the availability and cost of medical malpractice insurance coverage brought about by escalating verdicts in medical malpractice cases. *See Debbas v. Nelson*, 389 Md. 364, 375-380 (2005) (discussing in detail the history of the Act). As first enacted, the Act required all medical malpractice

cases to be filed in a specially created health claims arbitration office and to be decided (except on issues of law) by a three member arbitration panel consisting of a lawyer, a layperson, and a health care provider. The purpose of the arbitration system created by the Act, and of the Act generally, was and remains to "discourag[e] the pursuit of non-meritorious claims" by revealing the weaknesses in such cases. *Debbas*, 398 Md. at 376. The health claims arbitration process is non-binding, in that it allows for a *de novo* appeal to the circuit court, although the arbitration panel's decision "is admissible as evidence at the trial and presumed to be correct, with the burden of proving the contrary falling on the party rejecting it." *Attorney General v. Johnson*, 282 Md. 274, 280 (1978), *overruled in part by Newell v. Richards*, 323 Md. 717 (1991).

As history would have it, the problems with unavailable and increasingly costly medical malpractice insurance persisted, ultimately prompting a significant amendment to the Act in 1986. That amendment, codified at CJP section 3-2A-04(b), adopted a requirement that, in any case in which informed consent was not the sole issue or in which liability was not conceded, a certificate of qualified expert and accompanying report attesting to a breach in the standard of care that proximately caused the alleged injuries be filed by the plaintiff early in the litigation process. As the Court in *Debbas* explained, the Certificate requirement "was intended to eliminate excessive damages and reduce the frequency of claims" and "consistently has been considered as serving a gatekeeping function." 389 Md. at 378 (citing *Report of the Joint Executive/Legislative Task Force in Medical Malpractice Insurance*, at 27 & 30 (Dec. 1985)).

In fact, perhaps more than the health claims arbitration process itself, the Certificate requirement advanced the purpose of weeding out non-meritorious claims. In virtually all non-informed consent medical malpractice claims, a plaintiff's proof that the defendant breached the standard of care must be adduced through the testimony of an expert witness. The only exceptions are those extraordinarily rare medical malpractice cases in which the defendant's act or omission is such that ordinary lay people would be able to determine that the act or omission was a breach of the standard of care, such as amputating the wrong leg. *See, e.g.*, *Brown v. Meda*, 74 Md. App. 331, 342 (1988) (discussing cases that did not require expert testimony), *aff'd on other grounds*, *Meda v. Brown*, 318 Md. 418 (1990). Thus, requiring an initial attestation by an expert witness in support of the elements of liability in a medical malpractice case (breach in the standard of care and causation of injury) eliminated at an early stage cases that would never be meritorious. Likewise, liability could be imposed against the defendant if at that initial stage the defendant could not produce a certificate of qualified expert defending the defendant's treatment of the plaintiff. The effectiveness of the Certificate requirement eclipsed the effectiveness of the arbitration process, and led to amendments to the Act that permitted waiver of arbitration, so long as the parties filed appropriate Certificates. *See Witte v. Azarian*, 369 Md. 518, 526-31 (2002).

In late 2004, however, then Governor Ehrlich, perceiving a continuing "health care crisis in the State resulting from the rise in medical malpractice liability insurance costs," called a special session of the General Assembly to address that issue. Letter by Governor Robert Ehrlich to Speaker Michael Busch, January 10, 2005, at 1. CJP section 3-2A-02(c)(2)

was enacted as part of emergency legislation in House Bill 2, entitled the "Maryland Patients' Access to Quality Health Care Act of 2004," which was the product of that special session. *See* 2004 Sp. Sess., Md. Laws, Chap. 5. House Bill 2 was vetoed by Governor Ehrlich on January 10, 2005, but was enacted by a veto override the following day.

The special session was devoted to medical malpractice issues, and among other legislative enactments resulted in amendments to the Act mandating alternative dispute resolution for malpractice actions (*see* CJP section 3-2A-06C), establishing a mechanism for offers of judgment (*see* CJP section 3-2A-08A), requiring the filing of supplemental Certificates upon the close of discovery (*see* CJP section 3-2A-06D), placing short term limitations on the amount of non-economic damages that could be recovered in a medical malpractice case (*see* CJP section 3-2A-09), and, as central to this case, adopting specific requirements for expert witness certifications and testimony.[5] All of the enactments were in the nature of "tort reform," *i.e.*, were for the purpose of reigning in medical malpractice cases and awards. Indeed, Governor Ehrlich vetoed House Bill 2 because in his view it did not go far enough in enacting tort reform measures in the medical malpractice litigation arena.

Before the addition of subsection (c)(2) to CJP section 3-2A-02, nothing in the Act spelled out the professional qualifications an expert witness must have to sign a Certificate

[5]In addition to adopting the expert witness requirements that now appear in CJP section 3-2A-02(c)(2), with which we are concerned here, the General Assembly expanded the "20 percent rule" expert witness requirement in CJP section 3-2A-04(b)(4) to apply not only to expert witnesses providing Certificates but also to expert witnesses testifying at a hearing or trial.

or to testify, at a hearing or trial, that the defendant had breached the standard of care. As such, whether an expert witness was qualified to opine about a defendant's adherence to or departure from the standard of care was left to the court (or arbitration panel chairman) to decide based upon Rule 5-702, which governs the admissibility of expert witness testimony. Under that rule, the testimony of an expert witness may be admitted "if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue"; and, as relevant here, the court shall so decide upon determining, *inter alia*, "whether the witness is qualified as an expert by knowledge, skill, experience, training, or education." Rule 5-702 affords the court wide discretion in qualifying witnesses as experts. *See Waldt*, 411 Md. at 237.

The 2004 special session amendments to the Act regarding expert witness testimony advanced the "tort reform" purpose of that session by imposing qualification prerequisites for experts certifying or testifying in medical malpractice cases. If the prerequisites are not satisfied, the expert cannot submit a valid Certificate or testify at a trial or hearing. If the prerequisites are satisfied, then, with respect to testimony, the court or panel chairman will determine the admissibility of the expert's testimony at the trial (or hearing), pursuant to Rule 5-702. The prerequisites have the effect of limiting the pool of expert witnesses who can testify about the standard of care in medical malpractice cases to those who are not "professional witnesses," by applying the 20 percent rule to testifying experts as well as to certifying experts, *see* note 4, *supra*, and by imposing experience and, when the defendant is board certified, board certification prerequisites upon the expert.

The tort reform objective of the Act as a whole and the 2004 amendments in particular guide us in our interpretation of the meanings of "related field of health care" in the general requirements for expert witnesses in subsubparagraph 1A and the board certification in "the same or a related specialty" requirement in subsubparagraph 1B. As the history of the Act makes plain, the tort reform objective never has been to eliminate or limit liability in meritorious medical malpractice cases. Rather, the objective has been to cull out non-meritorious cases early in the litigation process so as to reduce the cost of defense, which contributes to the high cost of malpractice insurance, and to prevent significant verdict awards in cases that are not medically meritorious but engender great sympathy, which also contribute to the high cost of malpractice insurance. Thus, in assessing the meaning of the statutory subsubparagraphs at issue, our interpretation must not be so broad as to result in the consequence, clearly not intended by the legislature, of placing roadblocks to recovery in meritorious medical malpractice cases. Moreover, we must bear in mind that the Act, being in derogation of the common law, must be construed narrowly. *See Breslin*, 421 Md. at 287 (quoting *Walzer v. Osborne*, 395 Md. 563, 573-74 (2006)).

Although no Maryland appellate court has interpreted the meaning of "related specialty" in subsubparagraph (c)(2)(ii)1B, the United States District Court for the District of Maryland did so not long ago in *Jones v. Bagalkotakar*, 750 F. Supp. 2d 574 (D. Md. 2010). In that case, an infant died of dehydration after first being evaluated in an emergency room by a doctor who was board certified in internal medicine and emergency medicine, and later being evaluated by a board certified pediatrician. The parents of the deceased infant

sued both doctors, the hospital in which the emergency room visit took place, and the professional corporation that employed the doctor who saw the infant in the emergency room. The parents furnished Certificates by a board certified pediatrician, attesting that the internist/emergency room doctor and the pediatrician had breached the standard of care in their treatment of the infant. The internist/emergency room doctor, the hospital, and the professional corporation filed a motion to dismiss, asserting that the certifying expert was not qualified to file a Certificate attesting that the internist/emergency room doctor had breached the standard of care because the certifying expert was not board certified in internal medicine or emergency medicine and his board certified specialty - - pediatrics - - was not a "related specialty" to internal medicine or emergency room medicine.

The court denied the motion to dismiss. Reasoning that the word "related" as modifying "field of health care" and "specialty" in subsubparagraphs (c)(2)(ii)1A and B, respectively, bear a similar meaning, the court took guidance from *Sami v. Varn*, 260 Va. 280 (2000), in which the Virginia Supreme Court interpreted a statute containing language similar to subsubparagraph (c)(2)(ii)1A. The Virginia statute in question stated that, in a medical malpractice case,

> [a] witness shall be qualified to testify as an expert on the standard of care if he demonstrates expert knowledge of the standards of the defendant's specialty and of what conduct conforms or fails to conform to those standards *and if he has had active clinical practice in either the defendant's specialty or a related field of medicine* within one year of the date of the alleged act or omission forming the basis of the action.

Jones, at 580 (quoting Va. Code § 8.01-581.20(A))(emphasis in *Jones*). The court in *Sami*,

commenting that the statute provided "no guidance for determining whether a clinical practice is 'related,'" held that the purpose of the statute was to prevent the admission of expert witness testimony by one "who has not recently engaged in the actual performance of the procedures at issue in a case." 260 Va. at 285. The court concluded that "in applying the 'related field of medicine' test for the purposes of [the statute at issue], it is sufficient if in the expert witness' clinical practice the expert performs the procedure at issue and the standard of care for performing the procedure is the same." *Id.*

Applying the reasoning of the Virginia Supreme Court, the *Jones* court concluded with respect to the meaning of "related" in subsubparagraphs (c)(2)(ii)1A and B of the Act: "If the procedures [at issue] are performed by both specialties with similar standards of care, then the specialties are related." 750 F. Supp. 2d at 581. The *Jones* court elaborated:

> If the procedure is one which both healthcare providers have experience with and the standard of care is purported to be similar, then the expert's qualifications satisfy the requirements of the Act. If a procedure is common to two specialties, an inference of relation is created between the two specialties. However, if the procedure is one [with] which the purported expert does not have experience or performs with a meaningfully different standard of care, then the expert does not qualify under the Act.

Id. The court held that, in the context of treatment of "a child who has fallen ill" such as the Jones infant, the specialty of pediatrics and the specialties of internal medicine/emergency medicine are "related" in that all such specialists are qualified to treat an infant presenting for care with the symptoms that the infant exhibited, and the standard of care for such treatment would not differ depending upon which specialist was the one to see the infant for treatment. *Id*. at 582.

We agree with the court in *Jones* that the word "related" in the sense of associated or connected, as used to modify "field of health care" and board certification "specialty" in subsubparagraphs 1A and 1B, respectively, embraces fields of health care and board certification specialties that, in the context of the treatment or procedure in a given case, overlap. The purpose of the Act, to cull out non-meritorious medical malpractice cases, would not be advanced by the very narrow construction of the word "related"proposed by Dr. DeMuth: that board certification specialties cannot be "related" if they are regulated by different boards, require different training regimens, or concern different aspects of human anatomy or physiology. As Mr. Strong points out, those all are necessary characteristics of distinct health care specialties, but they do not foreclose the conclusion that specialties, or fields of health care, may be related. We agree with Mr. Strong that Dr. DeMuth's interpretation of the word "related" in subsubparagraph 1B would effectively eliminate that word from the statute. It also is inconsistent with the use of the word "related" in subsubparagraph 1A, and, as we already have explained, the word "related" is used in the same way in both 1A and 1B, and therefore must be interpreted so as to be meaningful as used in both subsubparagraphs.

To be sure, the two specialties involved in this case both are within the field of surgery. Not all surgical specialties necessarily are associated or connected with respect to diagnosis and treatment of a particular patient, however, so that fact alone does not compel the conclusion that the specialties are connected or associated, as Mr. Strong would have us

find.[6] We conclude, however, that in the context of the malpractice allegations in this case, the specialties of orthopedic surgery and vascular surgery overlap, so that the board certification specialties are "related" within the meaning of CJP section 3-2A-02(c)(2)(ii)1B.

In the case at bar, Dr. Johanning was not called to testify as an expert in orthopedic surgery; rather, he was called to testify as "an expert in vascular surgery, *including postoperative management of orthopedic surgical patients*." (Emphasis added.) In other words, Dr. Johanning did not give and was not being asked to give standard of care testimony about the performance of the knee replacement surgery itself. Rather, his opinions focused solely on the postoperative care and treatment of patients who have undergone that surgery. In his testimony, Dr. Johanning explained how the specialties of orthopedic surgery and vascular surgery are related in the postoperative period of care for orthopedic patients. He testified that vascular surgery is concerned with "treating and diagnosing conditions that involve all of the arteries and veins and vessels that are not part of the heart or part of the brain," and explained that, for all orthopedic patients, a primary postoperative concern is that

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[6]According to the American Board of Medical Specialties, there are 24 medical fields for which there are board certification entities, several of which will grant board certification in more than one general area and many of which will grant board certification in general and subspecialty areas. For example, the American Board of Surgery will grant certification in the general areas of general surgery and vascular surgery. It also will grant subspecialty certification in the specialty areas of pediatric surgery, surgical critical care, hospice and palliative medicine, complex general surgical oncology, and a combination program of thoracic and general surgery. Orthopedic surgeons are board certified by the American Board of Orthopaedic Surgery, which also has as one of its subspecialties, hand surgery. There also are American Boards of Colon and Rectal Surgery, Plastic Surgery, Neurological Surgery, and Thoracic Surgery. *See* AMERICAN BOARD OF MEDICAL SPECIALTIES, www.abms.org (last visited May 23, 2012).

the surgery has not compromised the blood flow to the area of the body involved, especially to an extremity.

Orthopedic and vascular surgeons are trained in how to examine a patient in the postoperative period to determine whether the surgery performed on the patient's bone, or a complication of that surgery, has negatively affected the supply of oxygen through the blood to that area of the body (here, an operation on the left knee affecting the supply of blood to the left lower extremity). On cross-examination, Dr. Johanning stated:

> There are risks that are -- that may be specific to orthopedic operations, such as the cement loosing, things along those lines. But there is a lot of overlap in what I do to [diagnose] postoperative extremity trauma, that orthopedics and vascular surgery overlap because of the anatomical location and the components of the leg.

We are satisfied that the central standard of care issue in this case -- the proper postoperative diagnosis and treatment of possible vascular complications of orthopedic surgery -- implicated the "overlap" between the specialties of vascular and orthopedic surgery; and therefore, for purposes of that standard of care issue, vascular surgery and orthopedic surgery were "related specialt[ies]" under the board certification requirement in CJP section 3-2A-02(c)(2)(ii)1B. Accordingly, the trial court did not err or abuse its discretion in permitting Dr. Johanning, a board certified vascular surgeon, to testify about the standard of care applicable to Dr. DeMuth, a board certified orthopedic surgeon, during Mr. Strong's postoperative period.

II.

In three related arguments that we have combined into the second question for review, Dr. DeMuth contends that evidence of any breach of the standard of care on his part committed after approximately 8:30 a.m. on February 16, 2008, was irrelevant because there was no evidence that any such breach caused an injury to Mr. Strong. He asserts that, for that reason, the trial court erred in denying his motion for partial judgment with respect to any breach in the standard of care by him after that time; in refusing to instruct the jury that "[it] cannot consider an act of Dr. DeMuth after approximately 8:30 a.m. on February 16, 2008, as a breach in the standards of care"; and in failing to grant his post-trial motions made on the same basis. We see no merit in these arguments.

We review the decision to grant or deny a motion for judgment (in whole or in part) *de novo*. *Thomas v. Panco Mgmt. of Md., LLC*, 423 Md. 387, 393-94 (2011). In the trial of a civil action, if, from the evidence adduced that is most favorable to the plaintiff, a reasonable finder of fact could find the essential elements of the cause of action by a preponderance standard, the issue is for the jury to decide, and a motion for judgment should not be granted. *Washington Metro. Area Transit Auth. v. Djan*, 187 Md. App. 487, 491-92 (2009) (quoting *Waldt v. Univ. of Md. Med. Sys. Corp.*, 181 Md. App. 217, 270 (2008), *aff'd in part and rev'd in part on other grounds*, 411 Md. 207 (2009)). The elements of the tort of medical negligence, which simply is a type of negligence, are 1) duty of care; 2) breach of the duty of care; 3) causation of injury or injuries; and 4) damages. *See Dehn v. Edgecombe*, 384 Md. 606, 618-20 (2005).

The standard of review of a decision to grant or deny a motion for judgment

notwithstanding the verdict is the same as the standard of review for the grant or denial of a motion for judgment. *Scapa Dryer Fabrics, Inc. v. Saville*, 418 Md. 496, 503 (2011). The issue is strictly legal. *Balt. Harbor Charters Lt'd v. Ayd*, 365 Md. 366, 377 (2001) (quoting *Driggs Corp. v. Md. Aviation Admin.*, 348 Md. 389, 402 (1998)). On the other hand, a motion for new trial is reviewed for abuse of discretion. *Univ. of Md. Med. Sys. Corp. v. Gholston*, 203 Md. App. 321, 329 (2012). Finally, the review of a trial court's decision to grant or deny a requested jury instruction is three-pronged. We consider, from the evidence adduced at trial, no matter which party introduced it: Was the instruction generated by the evidence? Was the instruction a correct statement of the law? And was the instruction fairly covered by other instructions given by the court? *See Wietzke v. Chesapeake Conf. Ass'n*, 421 Md. 355, 371-72 (2011).

In the case at bar, the essence of Dr. DeMuth's argument is that, because Dr. Johanning, the only causation expert for Mr. Strong, opined that, due to the progressive ischemia to Mr. Strong's left lower extremity, Mr. Strong's left foot was not salvageable after 8:00 p.m. on February 16, 2008, any evidence that Dr. DeMuth breached the standard of care after 8:00 p.m. that night was not relevant, as there was no evidence that those breaches caused any injuries to Mr. Strong. Dr. DeMuth complains that, because those breaches in the standard of care after 8:00 p.m. on February 16 could not be causally connected to any injury suffered by Mr. Strong, they could not support a finding of liability on Dr. DeMuth's part. Therefore, the elements of medical negligence could not be proven based on any breaches of the standard of care after that time, and Dr. DeMuth should have been granted

a partial judgment based on those breaches. Dr. DeMuth seems to argue that these breaches not only were irrelevant, as they could not support a finding of liability, but also were prejudicial, as they constituted evidence of "bad acts" that would cause the jurors to be biased against him.

Dr. DeMuth's argument in support of his motion for judgment NOV is the same, and his complaint regarding the rejected jury instruction is as well. He maintains that the motion for judgment JNOV should have been granted at least in part as a matter of law because the breaches in the standard of care after 8:30 a.m. on February 16 did not cause any injury or damages;[7] and that the court abused its discretion by not granting a motion for new trial on the same basis, as the verdict resulted from evidence prejudicial to him that could not support a finding of liability. Finally, Dr. DeMuth asserts that the trial court erred in rejecting the offered jury instruction because it was generated by the evidence, *i.e.*, there was no evidence that any breaches in the standard of care by Dr. DeMuth after 8:30 a.m. on February 16 caused any injury to Mr. Strong; the instruction properly set forth the state of the law; and the instruction was not covered by any other instruction.

All of these arguments rest on a fallacy readily dispelled by the record evidence: that the only injury Mr. Strong suffered was the loss of his leg. To be sure, the evidence viewed most favorably to Mr. Strong showed that breaches of the standard of care by Dr. DeMuth

[7]Dr. DeMuth chose 8:30 a.m. as the appropriate cut-off time in his argument, notwithstanding Dr. Johanning's testimony that Mr. Strong's leg was not salvageable after 8:00 p.m., because that is "when Dr. DeMuth became aware of Mr. Strong's condition and, pursuant to Mr. Strong's theory, failed to order an ABI or consult."

made the loss of his left foot (and as Dr. DeMuth argues it, the left leg) unavoidable by February 16, at 8:00 p.m. But that does not mean that Mr. Strong did not suffer injuries after that time. In fact, Mr. Strong was seeking damages for a number of injuries that the evidence showed were caused by breaches of the standard of care by Dr. DeMuth after 8:00 p.m. on February 16. In addition to the loss of his left foot and leg, Mr. Strong suffered progressive intense pain; development of full blown compartment syndrome, itself an excruciating condition; an (unsuccessful) fasciotomy -- performed in an attempt to address the compartment syndrome; and an (also unsuccessful) embolectomy performed to eliminate the source of the ischemic condition of Mr. Strong's left foot and leg.

Dr. Baumgaertner testified that Mr. Strong was suffering from ischemia from immediately after the knee replacement surgery, when the first postoperative examination was performed, through the development of the full blown compartment syndrome that resulted from "a prolonged, progressive worsening loss of blood flow into the muscle." As we have summarized, he opined about numerous breaches of the standard of care by Dr. DeMuth, all consisting of the failure to recognize, and then to confirm through testing or consultation, that Mr. Strong was suffering from a vascular compromise, *i.e.*, lack of blood flow to his left foot and then to his left foot and leg, and not a nerve injury. Dr. Johanning likewise testified that Dr. DeMuth breached the standard of care by not appreciating the symptoms of vascular compromise, *i.e.*, not testing to determine whether there was adequate blood flow to the left foot and leg or obtaining a vascular surgery consult to assist in determining that. Although Dr. Johanning testified that, due to the breaches in the standard

of care by Dr. DeMuth, Mr. Strong's left foot and leg were not salvageable after 8:00 p.m. on February 16, he also testified that the breaches in the standard of care caused the vascular compromise to go untreated, and therefore caused Mr. Strong to experience pain and ultimately develop compartment syndrome and undergo a fasciotomy and then an embolectomy.

The expert testimony presented by Mr. Strong, viewed in the light most favorable to Mr. Strong, was such that reasonable jurors could find, notwithstanding that Mr. Strong's left foot and leg were not salvageable after 8:00 p.m. on February 16, that the breaches in the standard of care by Dr. DeMuth caused not only the loss of that foot and part of Mr. Strong's left leg but also caused him to suffer pain, develop compartment syndrome, and ultimately undergo surgeries to address the compartment syndrome and to attempt to remove a blood clot from the left foot. The evidence favorable to Mr. Strong thus could establish that, had Dr. DeMuth adhered to the standard of care, more likely than not the progression of the worsening of blood flow to the left foot and leg would have been halted, and Mr. Strong not only would not have suffered the loss of his foot and leg but also would not have suffered the additional injuries we have described above.

Given the state of the evidence, the trial court properly denied Dr. DeMuth's motion for partial judgment. Here, there was evidence adduced of breaches of the standard of care and causation from which reasonable jurors could find that Dr. DeMuth's continuing breaches in the standard of care during the entire postoperative period caused injuries to Mr. Strong above and beyond the loss of his left lower extremity. Accordingly, Dr. DeMuth was

not entitled to partial judgment with respect to any breach of the standard of care on his part after 8:00 p.m. on February 16; and for the same reasons, he was not entitled to a motion for judgment notwithstanding the verdict based on those breaches. Likewise, on the evidence adduced, the trial court did not abuse its discretion by denying the motion for new trial. Finally, the proposed jury instruction, "You cannot consider an act of Dr. DeMuth after approximately 8:30 a.m. on February 16, 2008, as a breach in the standards of care" was not generated by the evidence, and properly was denied.

JUDGMENT OF THE CIRCUIT COURT FOR CECIL COUNTY AFFIRMED. COSTS TO BE PAID BY THE APPELLANT.