2016 IL App (3d) 140605-U

Order filed January 20, 2016

IN THE

APPELLATE COURT OF ILLINOIS

THIRD DISTRICT

A.D., 2016

ROBERT QUIGLEY, Guardian of the Estate of MARIE QUIGLEY, a Disabled Person, and ROBERT QUIGLEY, individually,	)	Appeal from the Circuit Court of the 12th Judicial Circuit, Will County, Illinois.
Plaintiffs-Appellees,	)	
v.	)	
DAVID RIOS, M.D.,	)	Appeal No. 3-14-0605 Circuit No. 10-L-262
Defendant-Appellant	)	
(Silver Cross Hospital and Medical Centers, a/k/a Silver Cross Hospital, a corporation,	)	The Honorable Raymond E. Rossi, Judge, presiding.
Defendant).	)	

JUSTICE CARTER delivered the judgment of the court.
Presiding Justice O'Brien and Justice McDade concurred in the judgment.

ORDER

¶ 1 *Held*: In a medical malpractice case involving an alleged failure to timely diagnose and treat a ruptured brain aneurysm and hemorrhage where the jury ruled in favor of the plaintiffs and awarded damages, the appellate court held that the trial court did not err in denying defendant's posttrial motion for judgment notwithstanding the

verdict and for new trial. The appellate court, therefore, affirmed the judgment of the trial court.

¶ 2 After a jury trial in a medical malpractice case, the jury ruled in favor of plaintiffs—Robert Quigley as the guardian of the estate of his disabled wife, Marie Quigley, and Robert Quigley individually—and against defendant, Dr. David Rios. The jury awarded plaintiffs $13 million in damages. Defendant filed a posttrial motion for judgment notwithstanding the verdict and for new trial, which the trial court denied. Defendant appeals. We affirm the trial court's judgment.

¶ 3 FACTS

¶ 4 In April 2009, 55-year-old Marie Quigley suffered a severe stroke that left her completely and permanently disabled and unable to care for herself. As a result of the stroke, Marie was left cognitively impaired, barely able to move, and in need of around-the-clock unskilled care for the remainder of her life.

¶ 5 In March 2010, Marie's husband, Robert Quigley, brought suit for medical malpractice against the doctor who had treated Marie in the emergency room and against the hospital where that treatment took place. The suit was brought by Robert as the guardian of Marie's estate and also in his individual capacity (collectively referred to as plaintiffs). In the complaint, which was later amended, plaintiffs alleged that defendant, Dr. David Rios, had negligently failed to diagnose Marie with, and treat her for, a subarachnoid hemorrhage (SAH) in her brain when he attended to her in the emergency room of Silver Cross Hospital on April 14, 2009. Plaintiffs alleged further that as a result of defendant's negligence, Marie suffered a disabling brain injury.

¶ 6 The claims against defendant proceeded to a jury trial.[1] Prior to trial, plaintiffs and defendant filed numerous motions *in limine*. In one such motion, defendant sought to bar plaintiffs from presenting any evidence regarding Marie's medical bills and treatment that were incurred on or after April 14, 2009. Defendant alleged that it was improper for plaintiffs to present that evidence because plaintiffs were not going to present any witness who was going distinguish between the medical expenses that were attributable to defendant's alleged negligence and those medical expenses that were not. After considering the argument of the attorneys, the trial court granted the motion *in limine* in part and ruled that it would allow plaintiffs to present evidence of only certain medical expenses to the jury. In a related ruling, the trial court later denied defendant's motion to strike and bar any testimony regarding medical treatment that Marie had received after April 18, 2009.

¶ 7 In another motion *in limine*, defendant sought to bar one of plaintiff's expert witnesses, Dr. Michael Horowitz, from offering any testimony regarding the rehabilitation process. Defendant noted in the motion that although Horowitz had testified in his deposition that he believed Marie could have regained an independent lifestyle after suffering the SAH, he had disclosed no opinions regarding when Marie would have reached that position and what treatment would have been required for her to do so. After considering the arguments of the attorneys on the matter, the trial court granted that particular motion *in limine* of defendant.

¶ 8 The trial was held in September 2013 and lasted approximately two weeks. Many of the significant background facts at trial were not in dispute. There was no dispute, for the most part, that Marie had suffered a severe stroke, that she was completely and permanently disabled, and that she would need around-the-clock unskilled care for the remainder of her life, which was

[1] The claims against the hospital settled prior to trial.

estimated as being approximately 26 years. There was also no dispute as to the chain of events that had led to Marie's stroke: that an aneurysm in Marie's brain had ruptured, that blood from the aneurysm had flowed into the subarachnoid space (the space between the brain and the skull) causing an SAH, that the SAH caused vasospasm (the constricting of the blood vessels) and then symptomatic vasospasm (the constricting of the blood vessels to the point where neurological symptoms resulted) in Marie's brain, and that the symptomatic vasospasm constricted the blood vessels in Marie's brain to the point where she suffered a stroke. Finally, there was no dispute as to the appropriate standard of care for an emergency room physician who was treating a patient with an SAH: the physician was required to immediately start the patient on nimodipine (a medication believed to reduce the effects of vasospasm) and to refer the patient for surgical intervention to repair the aneurysm so that it would not bleed any further. Some of the main issues presented at trial were: (1) whether Marie was suffering from an SAH when she was treated by defendant in the emergency room on April 14, 2009; (2) whether defendant breached the standard of care by failing to diagnose Marie with an SAH on that date, by failing to perform a CT scan or other test to rule out that condition, and by failing to provide the appropriate treatment required for that condition; and (3) whether Marie's injuries were proximately caused by defendant's alleged breach of the standard of care.

¶ 9 The evidence presented at trial relevant to those issues and the other issues presented can be summarized as follows. Robert Quigley (Rob), Marie's husband, testified that during the morning hours of Monday, April 13, 2009, Marie called out to him from the kitchen because she had suddenly come down with a terrible headache. Rob helped Marie to the couch and gave her some Tylenol, and Marie went to sleep. Marie vomited a few times that day and remained on the couch for the remainder of the day and throughout the night.

¶ 10 On Tuesday, April 14, 2009, Rob called 9-1-1 because Marie's condition had not improved. Her vomiting had stopped, but she still had a bad headache, felt nauseous, and was very tired and weak. Rob had never seen Marie in such a state. When the emergency response team arrived, Rob told them about Marie's symptoms—that she had a sudden headache, nausea, diarrhea, and had been vomiting on Monday.

¶ 11 Marie was taken by ambulance to Silver Cross Hospital. She still had a headache and was nauseous. While Marie was being treated in the emergency room, Rob stayed in the waiting room. He spoke to various members of the medical staff throughout the day when they came to update him on Marie's condition but did not remember who he had spoken to specifically or much of what was said. Rob was eventually told by a doctor or a nurse that Marie had a viral infection. Marie was given a prescription for a five-day supply of medications and was discharged from the hospital that same afternoon (Tuesday, April 14, 2009). Marie signed the discharge instructions, which indicated that defendant had diagnosed her with sinusitis. Neither Marie nor Rob objected to, or challenged, that diagnosis when Marie was being discharged.

¶ 12 Over the next few days, Marie's condition continued to deteriorate. She remained on the couch, slept constantly, and started to slur her speech. On Saturday, April 18, 2009, Rob called 9-1-1 after Marie started showing signs of confusion (not knowing what day it was). Marie was again transported by ambulance to Silver Cross Hospital. Upon her arrival at Silver Cross, Marie was comatose and displaying neurological symptoms. The doctors told Rob that Marie had two brain aneurysms (collectively referred to as the aneurysm). Silver Cross was not equipped to treat Marie's condition so she was flown by helicopter to Rush Hospital in Chicago for treatment of the aneurysm and the SAH.

¶ 13 During his testimony, Rob described in detail Marie's treatment, medical problems, and medical condition from the time when she was at Rush Hospital up through the date of trial. Although Marie had made some progress since the stroke, she was still barely able to move any part of her body, was very limited in her ability to communicate, was unable to eat or drink orally, and was in need of around-the-clock unskilled care. The cost of that care was approximately $900 per week. Rob also described his and Marie's life together both before and after the stroke and explained what was involved in caring for Marie on a daily basis.

¶ 14 Two of Rob and Marie's relatives testified for plaintiffs that Marie was physically fine on April 12, 2009, and described Rob's and Marie's life together both before and after the stroke. In addition, two of Marie's caregivers provided testimony for plaintiffs that was similar to the testimony of Rob as to Marie's medical problems and condition over the years since the stroke, her current condition, and what was involved in caring for Marie on a daily basis.

¶ 15 Emergency room physician and teacher, Dr. Joseph Mitton, testified for plaintiffs as an expert witness in emergency medicine.[2] Mitton described the signs and symptoms of an SAH as: the sudden onset of a headache with very severe pain initially, possibly described by the patient as being the worst headache of the patient's life; nausea or vomiting (which occurred because of

[2] Along with the information provided above, most or all of the doctors who testified in this case testified in detail about their background and experience and what they had reviewed in preparation for their work on this case. In addition, most or all of the doctors also testified extensively about what a brain aneurysm was, what happened when a brain aneurysm ruptured, what an SAH was, what the signs and symptoms of an SAH were, how an SAH was treated, what vasospasm and symptomatic vasospasm were, how vasospasm and symptomatic vasospasm were treated, and how an SAH could eventually lead to a stroke.

the irritation of the meninges or the membranes covering the brain); mental status changes (diminished alertness, confusion, disorientation, dizziness, unconsciousness); focal or generalized weakness; abnormal pupil response; elevated blood pressure; photophobia (an extreme sensitivity to light); and nuchal rigidity (a very stiff neck). Mitton opined that if a patient presented to the emergency room with a sudden onset headache, elevated blood pressure, and nausea or vomiting—those three symptoms, alone—would lead to a differential diagnosis that would include an SAH, even if none of the other symptoms of an SAH were present. To rule out an SAH, the emergency room physician would be required to do a CT scan. If the CT scan came back negative and the emergency room physician was still suspicious of an SAH, the emergency room physician would be required to do a lumbar puncture to determine if there was blood in the spinal fluid (xanthochromia). If an SAH was discovered, the emergency room physician would start the patient on nimodipine and would arrange for surgical intervention to repair the aneurysm and to stop it from bleeding further.

¶ 16 Based upon his review of the present case, Mitton opined that: (1) the cause of Marie's sudden onset headache was an SAH; (2) the SAH was caused by a ruptured brain aneurysm; (3) the onset of the SAH was April 13, 2009, when Marie first experienced the sudden onset headache; (4) based on the symptoms that Marie presented with, an SAH would have been at the top of the differential diagnosis list because it was the most severe illness that Marie could have had with those symptoms; (5) defendant did not meet and apply the degree of skill, knowledge, and care that was expected of a reasonably careful emergency room physician in Joliet, Illinois, in 2009 in undertaking the care and treatment of Marie (defendant violated the standard of care); (6) defendant deviated from the standard of care by not obtaining a CT scan to rule out an SAH, by not giving nimodipine thereafter to control the vasospasm that could occur, and by not

seeking surgical intervention for Marie; (7) if a CT scan had been conducted on April 14, 2009, it would have shown that Marie had an SAH; (8) if the CT scan had come back negative, then, in keeping with the standard of care, a lumbar puncture should have been done and would have revealed xanthochromia; and (9) once an SAH was diagnosed, Marie should have been given nimodipine and referred to a surgeon. In rendering those opinions, Mitton noted that defendant had stated in his deposition that he had considered the possibility of an SAH when he treated Marie in the emergency room on April 14, 2009. When Mitton was asked what injury was proximately caused by defendant's deviation from the standard of care, Mitton opined further that because there was a delay in diagnosis, Marie suffered an increased disability and neurologic compromise. The delay in treatment and the decline in Marie's neurological status during that time period increased Marie's likelihood of a poor neurological recovery following surgery.

¶ 17 In opining that defendant deviated from the standard of care, Mitton acknowledged or agreed that: (1) when Marie was examined by defendant in the emergency room on April 14, 2009, after taking a Tylenol III, she told defendant that her headache was gone; (2) a ruptured aneurysm was synonymous with an explosion in a person's head because the arteries in the brain were under great pressure; (3) in the emergency room on April 14, 2009, Marie was not complaining of the worst headache of her life, was not experiencing numbness or dizziness, and was not suffering from nuchal rigidity; (4) Marie had told the paramedics that she was suffering from flu-like symptoms and did not mention having a headache; (5) the only time that the word "suddenly" or "sudden" was mentioned in the medical chart was when Marie told the triage nurse (the first nurse to treat her in the emergency room) that the pain began suddenly two to three days ago; (6) a patient could have the sudden onset of a headache without there being anything seriously wrong with the patient; (7) Marie also told the triage nurse that she was suffering from

forehead pain and that the headache pain was like a pressure and throbbing type pain; (8) Marie told the primary care nurse (the second nurse to treat her in the emergency room) that she had a frontal headache with sinus pressure; (9) a frontal headache with sinus pressure was consistent with sinusitis; (10) a headache could be secondary to the flu; (11) an emergency room physician was not required to order a CT scan for every patient who came into the emergency room with a headache; (12) many patients experienced a rise in their blood pressure merely from the stress of being in the emergency room or in a doctor-type setting (a condition referred to as white coat syndrome); (13) Marie's own history indicated that her blood pressure would spike in that type of setting; (14) an SAH was a devastating injury with a high mortality rate (30% of patients died before they made it to the hospital) and a high morbidity rate (40% to 50% of the survivors suffered significant morbidity); (15) two emergency room physicians could be presented with the same clinical situation and could arrive at different conclusions and both could be within the standard of care; and (16) the existence of a severe injury in a patient did not mean that there was malpractice or negligence. During his testimony, Mitton confirmed that he was not suggesting that defendant was responsible for the development of Marie's aneurysm, its rupture, the SAH, or for the initial vasospasm that occurred.

¶ 18 As to the subject of nimodipine, Mitton stated that in patients with SAHs, vasospasm was what doctors wanted to avoid. To treat vasospasm, nimodipine was given prophylactically to all patients with SAHs. The goal of the medical treatment of vasospasm was to attempt to prevent a stroke. When asked if that could be done, Mitton stated that doctors were not sure, but nimodipine was what doctors had. According to Mitton, there were patients who had been given nimodipine as soon as the diagnosis had been made who had not progressed on to a stroke. Mitton acknowledged, however, that once the blood was in the subarachnoid space, the risk of

vasospasm was present and that while doctors hoped that nimodipine could be helpful, there were no conclusive studies showing that it was. Mitton conceded that he was unable to say that vasospasm would not have occurred with Marie. According to Mitton, the only way to prevent vasospasm was to stop the bleeding to begin with and to make the diagnosis early on. The more blood that was present in the subarachnoid space, the greater the risk of vasospasm. In this case, as Mitton acknowledged, Marie had suffered an extensive hemorrhage.

¶ 19 As for the likelihood that Marie would have recovered from the SAH if the alleged failure to diagnose had not occurred, Mitton pointed out that in the emergency room on April 14, 2009, Marie was assessed by both the triage nurse and the discharge nurse as being a 15 on the Glasgow Coma Scale (GCS) (a scale used to evaluate to what extent a patient was awake and alert), the highest level, based upon her visual responses, speech, motor skills, and neurological functioning. The fact that Marie was a 15 on the GCS meant that Marie was not comatose or consciously impaired and was a favorable finding for her in terms of her neurological recovery. It meant that Marie was a good salvage prospect as a patient with an SAH and that treatment was less likely to result in a poor outcome. In addition, Marie also had no focal neurological findings on that date, which was another positive sign for Marie in terms of a prognosis for a successful recovery. It meant that Marie was not exhibiting any neurological deficits—her mental status and speech were normal, her responses were appropriate, and she had no nuchal rigidity.

¶ 20 Board certified neurologist, Dr. Richard Temes, testified for plaintiffs by way of evidence deposition that he was on the faculty at Rush Hospital in Chicago and was one of the doctors who had treated Marie in April 2009 after she was transferred to Rush from Silver Cross.[3] When Marie was first brought to Rush, she was comatose and was a grade five on the Hunt and Hess

[3] Temes was board certified in three other areas as well.

scale, a scale used to rate the severity of SAHs and to predict mortality in SAH patients. A five was the highest grade on the scale and represented the most severe SAHs. Another scale, the modified Fisher scale, was used to quantify the amount of blood present and the risk of vasospasm. Marie was a four on the modified Fisher scale, the highest grade available, which meant that she was in the classification for the highest amount of blood present in the brain and had about a 40% risk of vasospasm. The medical history that Temes received from Marie's family was that Marie was 55 years old; that she had developed a severe headache on Monday, April 13, 2009, with nausea and vomiting; and that she had a progressive decline in her mental status over the next several days, until Saturday morning when she was unable to be aroused from sleep. An initial CT scan at Rush and other testing showed that Marie had an SAH and had aneurysms on both sides of her brain. Marie was intubated and a drain was placed to help drain the spinal fluid from her brain area. The aneurysm was treated with coiling to stop the bleeding and to prevent it from bleeding again. As with all SAH patients, Marie was started on a 21-day course of nimodipine. To treat the vasospasm, Marie was given fluids and her blood pressure was raised using medication to maintain the blood flow to her brain. Marie developed symptomatic vasospasm. A follow up CT scan at Rush showed that Marie had suffered a stroke in her brain. In Temes's opinion, the stroke was caused by the symptomatic vasospasm.

¶ 21 When asked about the use of nimodipine, Temes testified that nimodipine had been shown to improve mortality in patients with SAHs. Temes acknowledged, however, that there were no good treatments to prevent vasospasm and that the only thing doctors had were detection and rapid treatment. According to Temes, a 21-day course of nimodipine was given to all SAH patients, regardless of their grade, how sick they were, or whether they were in spasm. Doctors did not really know the mechanism behind how nimodipine worked—it was presumed to relax

the blood vessels. The goal was to hopefully reduce the effect of the vasospasm. Because the risk of vasospasm generally occurred between 3 and 14 days after the SAH, it was widely held that if an SAH was found, nimodipine should be administered immediately as a prophylactic or preventative measure so that the patient had the medication on board before symptomatic vasospasm occurred. Temes commented that while a doctor could not necessarily prevent vasospasm, he could possibly prevent a stroke from occurring, secondary to the vasospasm. Success was based not on the patient's Hunt and Hess score but, rather, on how quickly the doctor got the patient to treatment. The goal was to prevent a stroke from occurring, and the earlier the intervention, the better the outcome.

¶ 22 At Temes's last neurological assessment of Marie, she remained comatose, was quadriplegic, had an extreme level of cognitive impairment, and was not able to feed herself. According to Temes, the chances of Marie being fully mobile were extremely low. Temes expected, however, that Marie had a high likelihood of being able to continue to exist in her current state and, with proper care and monitoring, could live for approximately her normal life expectancy.

¶ 23 During his testimony, Temes acknowledged or agreed that: (1) an SAH involved a very serious injury to the brain and was one of the worst neurological injuries a patient could suffer; (2) a ruptured aneurysm was like an explosion of the artery; (3) the presence of blood in the subarachnoid space put the patient at risk for developing vasospasm, which could, in turn, cause a patient to suffer a stroke; (4) he had only treated Marie for about a week and had no idea what follow-up treatment or rehabilitative care was provided or needed for Marie or how long her recovery would take; (5) the headache that a patient suffered from an SAH was the worst headache of that person's life and was different from any other headache that person had

suffered; (6) the more blood that was present in the subarachnoid space, the greater the risk of vasospasm; (7) an extensive SAH would place the patient at great risk of suffering from vasospasm; (8) once the blood was in the subarachnoid space, there was no way to prevent vasospasm from occurring; (9) if a patient with an SAH did suffer from vasospasm, typically the patient's neurological injuries would become even worse; (10) in this particular case, after Marie was started on nimodipine, she still suffered from vasospasm; and (11) even a patient with a Hunt and Hess score of one could still develop vasospasm and a resulting stroke.

¶ 24 Board certified neurosurgeon, Dr. Michael Horowitz, testified for plaintiffs as an expert witness in neurosurgery. According to Horowitz, the mechanism leading up to the stroke in the present case was as follows. First, Marie developed an SAH; that was the starting point. From that point forward, Marie was at risk for vasospasm, and that vasospasm could have been asymptomatic or symptomatic. If Marie experienced asymptomatic vasospasm and the narrowing of the blood vessels in the brain was not causing or producing neurological symptoms, there would have been no problem. The difficulty arose when the vasospasm became symptomatic. If no effort was made to treat the symptomatic vasospasm and to stop it from progressing, the narrowing of the vessels could continue and give rise to a stroke. If a patient with an SAH was not diagnosed and prophylactic treatment was not started on a timely basis, that patient would end up having a stroke.

¶ 25 In 2009, the diagnostic modalities for ruling out the suspicion of an SAH were a CT scan and, if necessary, a spinal tap. The CT scan would show the doctor a picture of the brain and the fluid-filled spaces and would show whether there had been any bleeding in the brain. If the CT scan was not definitive for some reason, the doctor could do a spinal tap on the patient to determine if there was any blood in the spinal fluid. The records in this case, however, indicated

that defendant did neither of those when he saw Marie on April 14, 2009. At some point thereafter, Marie developed symptomatic vasospasm that led to a stroke.

¶ 26 According to Horowitz, the headache associated with an SAH was usually of sudden onset and could be anywhere from mild to moderate to severe. It did not have to be the worst headache of the patient's life, although it could be distinctive. In addition, the fact that an aneurysm ruptured, burst, or exploded, which all meant the same thing, did not mean that there had been damage to the brain tissue as a result of the rupture; it only meant that the aneurysm had a hole in it and that blood had leaked out.

¶ 27 With regard to vasospasm, Horowitz stated that the greatest risk of vasospasm was usually between 3 to 5 days and 12 to 15 days after the bleed had occurred. The importance with vasospasm was that as the blood vessels in the brain became narrower, the blood flow to the brain could be reduced to the point where the patient could have a stroke and the brain tissue would die. Most vasospasm was asymptomatic and did not produce neurological symptoms. Only 15% to 20% of people who bled from an SAH would develop symptomatic vasospasm, vasospasm that was severe enough to cause a significant decrease in blood flow to the brain and neurologic abnormalities. Signs of vasospasm and symptomatic vasospasm might include an increase in blood pressure (because the person's body was trying to force more blood through the narrowed blood vessels), fever, increased platelet count, and increased white blood cell count. Symptoms of symptomatic vasospasm might include a worsening headache, confusion, stroke, temporary paralysis, coma, and death. The symptoms would vary depending on how bad the vasospasm was and what parts of the brain were being affected.

¶ 28 In Horowitz's opinion, there was not much doctors could do to actually prevent large vessel vasospasm, but there were things that doctors could do to improve the outcome for

vasospasm. Stroke could be prevented in patients who had a suffered an SAH and who had developed symptomatic vasospasm. A doctor could go up through the arteries with a balloon, similar to what was done for the heart, and could dilate the arteries to open them back up. Doctors could also infuse drugs directly into the artery to try to relax the artery and open it up that way. In addition, doctors could raise the patient's blood pressure and give the patient extra fluids. The common goal of all of those treatments was to force blood through the narrowed blood vessels of the brain or to take those narrowed blood vessels and make them wider again.

¶ 29 In 2009, a doctor would try to lessen the effect of symptomatic vasospasm by giving the patient oral nimodipine. A study was done comparing people with SAHs who received nimodipine and those who did not receive nimodipine and it was found that those patients who received nimodipine within 96 hours of their SAHs had better outcomes, even though they still experienced vasospasm. Fewer of those patients ended up with neurologic injury. No one knew the exact reason for that, although Horowitz described some possible explanations of how nimodipine worked. All that doctors knew was that if they gave the patient nimodipine within 96 hours of a bleed, it was beneficial. When asked if the use of nimodipine prevented vasospasm, Horowitz responded that it did not prevent large vessel vasospasm. Horowitz also agreed that nimodipine did not make vasospasm less likely or less severe. In his practice, Horowitz tended to give nimodipine within three days of when the bleed occurred because he had found in his experience that if it was not given within that time, it was not very effective. Horowitz acknowledged, however, that there were patients who were promptly treated with nimodipine who still suffered from symptomatic vasospasm.

¶ 30 According to Horowitz, a neurological outcome was an assessment of how a patient was doing six months or a year after a hemorrhage. There were several different scales for measuring

neurological outcome. The possible outcomes ranged anywhere from normality to death and the scales reflected that. There was also a scale that was used for grading the severity of SAHs, called the Hunt and Hess scale. Scores on the Hunt and Hess scale ranged from one to five. The higher the patient's score on the scale, the worse the condition of the patient. A patient who was a grade one was in a much better condition than a patient who was a grade five.

¶ 31 In Horowitz's opinion, if the sudden onset of Marie's headache was on April 13, 2009, that was when the SAH occurred. Horowitz opined further that a CT scan performed on April 14, 2009, when Marie went to the emergency room, more likely than not, would have revealed blood in the subarachnoid space. A spinal tap done at that time, more likely than not, would have revealed blood in the spinal fluid. Horowitz stated that appropriate neurosurgical treatment for Marie's SAH on April 14, 2009, would have been for Marie to have been admitted to the hospital's intensive care unit; to have her blood pressure controlled to reduce the chance of the aneurysm bleeding again; to have one or more imaging studies done to look at the blood vessels of the brain and to look for the aneurysm; and, if an aneurysm was found, to have the aneurysm treated either that day or the next day. In Horowitz's opinion, on April 14, 2009, Marie's Hunt and Hess grade was probably a two, and, if the treatment Horowitz had described would have been given to Marie on April 14 or 15, 2009, she would have had a 60% to 70% chance of being at one year independent or back to her normal pre-bleed level of functioning (60% to 70% of Hunt and Hess grade one and two patients were at one year independent). She might have had some mild deficits or a small amount of difficulty with her short term memory, but she would not have had deficits that would have limited her ability to be employed or to care for herself.

¶ 32 While rendering those opinions, Horowitz acknowledged that he was a board certified neurosurgeon and not a board certified emergency room physician. Horowitz acknowledged

further that Marie's ruptured aneurysm and her SAH had nothing to do with her medical care; they were just something that happened. Horowitz agreed that assuming hypothetically that Marie's SAH resulted in her suffering from an injury, that injury would not have been the result of, or caused by, any medical care provider. Rather, any injuries that Marie suffered from the occurrence of the SAH, which arose from the ruptured aneurysm, were the natural consequences of the SAH.

¶ 33 In addition, Horowitz acknowledged that once Marie's aneurysm ruptured, she was significantly ill, and that it was a neurologic emergency. Marie was going to need hospital admission and surgical intervention. In addition, once the rupture occurred, the risk of vasospasm was present. Horowitz could not specifically state when Marie's vasospasm started. The CT scan showed that Marie had suffered an extensive bleed. Horowitz acknowledged further that 60% of patients who suffered from a ruptured aneurysm would either die or suffer significant morbidity, which Horowitz described as having a life not worth living. The remainder recovered to live an independent lifestyle. As for the SAH patients that made it to the hospital, the odds of them making a good recovery depended on their Hunt and Hess scale score when they came in. A Hunt and Hess grade one patient had a 70% to 80% chance of making a normal recovery, whereas a Hunt and Hess grade five patient had only a 5% or 10% chance of survival. Horowitz also acknowledged that the concussive effects of an SAH could cause problems in and of itself.

¶ 34 According to Horowitz, patients who were a one or two on the Hunt and Hess scale and had a GCS score of 15 (were alert and oriented) were the patients that a doctor had the possibility of retrieving with treatment. Those patients had a neurological problem because they had an SAH within the brain, but their condition was salvageable. The mere fact that they had an SAH

did not mean that they were going to die or be significantly brain damaged. Their chances lessened as their neurological status worsened and their Hunt and Hess score got higher.

¶ 35 Horowitz testified further that on April 14, 2009, Marie's Hunt and Hess score was a two and her GCS score was a 15, which meant that she had no neurological deficits and her mental status was alert and oriented. According to Horowitz, 80% of patients who were a Hunt and Hess grade one or two at presentation would make a normal, functional recovery. In Horowitz's opinion, Marie did not have symptomatic vasospasm on April 14, 2009. Rather, Marie's neurological status deteriorated between April 14 and April 18, 2009. Horowitz opined further that if Marie would have had surgery on April 14 or 15, 2009, it probably would not have prevented vasospasm, but might have prevented symptomatic vasospasm. Horowitz agreed, however, that there were some patients that for whatever reason, the treatment was ineffective, and the patients would still experience symptomatic vasospasm and suffer significant neurologic injuries. Horowitz acknowledged that Marie could have had all of the care and treatment that Horowitz identified as being appropriate for a ruptured brain aneurysm and still have had an adverse outcome and could have ended up in the same condition as she was currently in.

¶ 36 Horowitz acknowledged further that whether a patient developed vasospasm and a subsequent stroke was related to how much blood there was in the brain on the CT scan—the more blood there was on the CT scan at the time of rupture, the more likely it was that the patient was going to develop delayed vasospasm, narrowing of the blood vessels, and stroke. Whether a patient was going to experience vasospasm was dependent on the volume of blood. The more blood that was present, the higher the likelihood that vasospasm would occur. That was the modified Fisher scale.

¶ 37 Dr. Roy Adair testified for plaintiffs by way of deposition that he was board certified in general physical medicine rehabilitation and certain other related areas. Adair first started treating Marie in August 2010 for spastic hypertonia, a neurologic condition that occurred after a brain or spinal cord injury and that was characterized by an increase in muscle tone and reflexes. Adair was asked at that time to perform an evaluation of Marie for spasticity management. Adair described at length both the condition that Marie was in when she first came to see him and the treatment that he had provided. Adair was trying to help Marie loosen up her muscles. The injury that Adair was treating Marie for, the spasticity, was a consequence of, or could have been a consequence of, an SAH. All of the treatments that Adair provided to Marie were related to his efforts to try to help Marie overcome the consequences of the brain injury that she had suffered. According to Adair, Marie's spastic hypertonia and cervical dystonia (a deviation in the position of the head) were permanent conditions that would require ongoing treatment.

¶ 38 After plaintiffs rested their case, the defense presented its witnesses. Defendant testified for the defense that he was a board certified emergency room physician and a field surgeon in the United States Army Reserves. Defendant had been a nurse before he had become a doctor. Defendant learned about SAHs as part of his education and training as an emergency room physician and had examined numerous patients who were later shown to have been suffering from SAHs. According to defendant, those patients were in severe distress and were, most of the time, grabbing or holding their head and might have had a rag covering their face because they were very sensitive to light. SAH patients would describe their headache as being the worst headache of their life. In addition to severe headache pain, SAH patients would often complain of vomiting and neck pain (nuchal rigidity) as well. The vomiting caused by an SAH was projectile vomiting and would be strong, consistent, and uncontrollable, and the neck pain or

nuchal rigidity from an SAH would be to the extent that the patient did not want to, or could not, move his neck forward or sideways because of the pain associated with the bleed. The headache pain, the response to light, and the vomiting were all caused by the irritation of the meninges of the brain. The headache would continue for as long as the meninges were being irritated and the pressure in the head remained. Those were the cases, at least, where the patients were actually able to talk and were not unconscious.

¶ 39 Defendant testified further that he treated Marie in the emergency room of Silver Cross Hospital on April 14, 2009. Defendant had no independent memory of treating Marie on that date and testified based solely upon the entries in Marie's medical chart and his standard practice in treating patients in the emergency room. Based upon Marie's medical chart, which included the nurses' entries, defendant's recording of Marie's history, and defendant's review of Marie's symptoms, defendant opined that Marie did not have an SAH on April 14, 2009, because Marie did not present with the signs and symptoms of what an emergency room doctor would generally see in a patient who had an SAH or a ruptured aneurysm. Defendant had seen dozens of patients with those conditions and had treated them in the intensive care unit during his residency. There was no mention in the chart in this particular case that Marie was suffering from a thunderclap headache or from the worst headache of her life; that she was vomiting on that day; that she was experiencing neck pain, nuchal rigidity, or photophobia; or that she was unconscious.

¶ 40 When defendant would treat a patient in the emergency room, the first thing he would do would be to find out why the patient had come to the emergency room. Defendant would look on the computer, review the nursing entries, and would try to talk to one of the nurses before he went into the patient's room. In this particular case, defendant would have read the nurses' notes and assessments of Marie. Defendant would have known that Marie's pain began suddenly two

to three days ago, what the results of her triage assessment were, and that Marie had no danger zone vital signs.

¶ 41 Defendant's standard practice when he treated a patient in the emergency room was to see the patient a minimum of three times. During his first interaction with the patient, defendant would introduce himself, would find out why the patient was there and how the patient was feeling, and would make sure that the patient was safe and stable. That interaction would give defendant a rough estimate of how the patient was doing at that point. Defendant would be able to see whether the patient was attentive, whether the patient was grimacing from pain, whether the patient was able to talk to him, and whether there were any immediate changes in the patient's vital signs.

¶ 42 After that first interaction, defendant would leave the room to see another patient. During that time, defendant would order any medications and tests that he felt were appropriate. In this particular case, after his initial interaction with Marie, defendant ordered a Tylenol III for Marie's headache, Zofran for Marie's nausea, and some fluids for hydration because Marie had said that she had been vomiting the previous day. Defendant also ordered that some lab work be done so that he could see if Marie was suffering from some type of infectious process.

¶ 43 The second interaction that defendant would have with a patient in the emergency room would be when defendant would conduct a review of systems and a physical examination. During the review of systems, defendant would go through a series of questions with the patient and would try to find out what was causing the patient's current problem. Defendant would carry a notepad with him and would write down what the patient had told him so that he could enter it into the patient's medical chart later on. Defendant described at length the review of systems that he had conducted on Marie in this particular case. Defendant noted that: (1) Marie's symptoms

occurred prior to arrival—she had been vomiting the day before but had no vomiting or diarrhea in the emergency room; (2) the severity of Marie's symptoms, at their worst, were moderate; (3) Marie's symptoms had improved somewhat while she was in the emergency room; (4) Marie had not experienced any similar episodes in the past; (5) there was no change in Marie's vision; (6) Marie was not suffering from any neck pain; (7) Marie was not experiencing any weakness, numbness, tingling, or seizure; and (8) Marie was positive for nausea but was not having abdominal pain, vomiting, or diarrhea. Defendant would have asked Marie if she had a headache, and the chart indicated that Marie stated that she did not.

¶ 44 After completing the review of systems, defendant would conduct a physical examination of the patient and would make his own subjective findings and observations. Defendant described in detail the physical examination he performed on patients in the emergency room who presented with a problem that involved a complexity of systems, such as the one in the present case. Defendant would inspect the head, the eyes, the ears, the nose, the throat, the neck, the spine, the chest, the back, the arms and legs, the motory and sensory responses, the mental status, and the body systems. In this particular case, defendant noted that Marie was well-developed, well-hydrated, well-groomed, well-nourished, but uncomfortable. Her demeanor was playful, but she had some nausea. Marie had pain with percussion over her right and left maxillary sinuses, which indicated to defendant that Marie had a sinus infection. The lab results showed that Marie's white blood cell count was elevated, which was also usually caused by an infection.

¶ 45 During his third interaction with a patient in the emergency room, defendant would discuss his findings and diagnosis with the patient. In this particular case, defendant diagnosed Marie with sinusitis. According to defendant, he made that diagnosis because Marie was

complaining of having a frontal headache with pressure in her sinuses, her sinus area was tender to the touch, she had an elevated white blood cell count, she was not complaining of having a severe headache or of having the worst headache of her life, and she had the complete absence of any neurological symptoms. Defendant commented during his testimony that he could not imagine a patient who was suffering from an SAH acting in a playful manner. The medical chart in this case indicated that Marie was given a prescription for an antibiotic and another for pain and was discharged to home self-care in good condition with instructions on sinusitis.

¶ 46 According to defendant, his entire treatment of Marie in the emergency room on April 14, 2009, complied with the standard of care for a reasonably well qualified emergency room physician. When defendant saw Marie in the emergency room on that date, he considered the possibility of an SAH as part of his clinical impression and differential diagnosis as he would have done with any patient who had come to the emergency room with a complaint of a headache. In opining that he did not violate the standard of care, defendant agreed that the diagnostic modalities for ruling out an SAH were a CT scan and, possibly, a lumbar puncture and that the appropriate treatment for an SAH that had been diagnosed was for the emergency room physician to start the patient on nimodipine and to refer the patient for surgical intervention. Defendant agreed further that if a doctor made a mistake about a suspicion of an SAH, the patient was going to be severely brain damaged or dead.

¶ 47 Defendant acknowledged that a sudden headache could be a predictor of an SAH, but stated that there were several other possible causes for such a headache. In defendant's experience, the headache from an SAH was characterized by the patient as the worst headache of the patient's life 97% of the time. Although defendant agreed that it would have been important for him to know exactly when Marie's headache started, what Marie was doing at the time, and

the severity of the pain at onset, there was no reason for him to ask Marie further about her headache when he treated her in the emergency room since she had reported to him that her headache was now gone. The standard of care did not require defendant to ask further about a headache that had been resolved. In addition, according to defendant, when a patient was negative for headache pain, had vomiting that resolved the day before, had no neck stiffness, had no photophobia, and the patient's only current complaint was that she was nauseous, the standard of care did not require that a CT scan be done at that time to rule out an SAH.

¶ 48 During his testimony, defendant agreed that early diagnosis and treatment were crucial with an SAH and that a patient did not have to present with the entire constellation of signs and symptoms of a particular condition to be diagnosed with that condition, regardless of whether the condition was sinusitis or an SAH. Defendant also agreed that an emergency room physician was required to do a CT scan to rule out an SAH if a patient presented with the possible reality of having an SAH. Defendant stated, however, that a CT scan was not required if the patient did not present with the usual symptoms of an SAH. According to defendant, in this particular case, he had ruled out that Marie had an SAH based upon both the signs and symptoms that Marie was exhibiting and his interaction with Marie. Defendant opined, therefore, that he was not required to order a CT scan of Marie's brain on April 14, 2009.

¶ 49 Jean Bauer testified for the defense that she was Marie's triage nurse in the emergency room at Silver Cross Hospital on April 14, 2009. Bauer had no independent recollection of treating Marie in the emergency room on that day and testified based solely upon the entries that had been made in Marie's medical chart and Bauer's usual practices. According to Bauer, triage was the process of sorting out and prioritizing patients to be seen by the doctor based upon severity. The triage nurse was usually the first medical person to see the patient in the

emergency room. As a triage nurse, Bauer's responsibilities were to find out the patient's complaint, take the patient's vital signs, conduct a triage assessment of the patient, and to perform other tasks of that nature.

¶ 50 Bauer would find out the patient's complaint by speaking to the patient or to the family members. In this particular case, the medical chart indicated that Bauer had spoken first to a significant other who was present at the emergency room with Marie. That significant other told Bauer that Marie had been nauseous, had been vomiting for two days, and had a headache. Bauer wrote that information in the medical chart. Bauer stated that when she did so, she meant that the nausea and vomiting were for two days, not the headache, although her testimony was somewhat inconsistent on that point. Bauer did not know at that time when Marie's complaint of headache actually started.

¶ 51 After the initial presentation of the patient, Bauer would conduct a triage assessment and would ask the patient some questions. Communicating with patients in that manner and obtaining medical histories were things that Bauer did in her job every day and had done hundreds of times in her career. In this particular case, Bauer wrote in the chart that Marie appeared to be uncomfortable, which usually meant that the patient was fidgety. Bauer noted that Marie was well-developed (put together with no deficits) and well-groomed (that she had apparently showered and was dressed) and that her behavior was cooperative (that she answered all of Bauer's questions) and pleasant. Upon being asked, Marie told Bauer that she was having pain in her forehead and rated that pain as being a 7 out of 10. Marie described the pain as pressure and throbbing and told Bauer that the pain had begun suddenly two to three days ago.

¶ 52 Bauer made sure to document that the headache came on suddenly because sudden onset was clinically significant with the presentation of a headache. A complaint of the sudden onset

of a headache could be a neurological symptom. There was no documentation on Bauer's part, however, as to what Marie was doing, or what type of pain she was in, when the headache started. Bauer stated that she had patients in the past who had described their headache pain as being a 10 out of 10, a 15 out of 10, or a 20 out of 10. Bauer also had patients in the past who had told her that they were having the worst headache of their life or that they felt like their head was going to explode. If a patient said something like that to Bauer, Bauer would document it in the patient's medical chart. Based upon the chart entries that were present, Bauer testified that Marie did not make any complaint to her of that nature regarding her headache. Bauer also did not record any indication in the chart that Marie was suffering from any eyesight problems or neck pain, and, although Marie had vomited previously, Bauer did not recall Marie vomiting in the emergency room.

¶ 53 Following the completion of the question and answer process, Bauer would take the patient's vital signs. In this particular case, Bauer took Marie's vital signs at 12:51 p.m. on April 14, 2009. According to Bauer, all of Marie's vital signs were normal, except Marie's blood pressure, which was elevated and was 174 over 102. Bauer commented, however, that it was not unusual to see elevated blood pressure in the emergency room for any number of reasons.

¶ 54 After taking the patient's vital signs, Bauer would obtain a history from the patient. In this particular case, Marie indicated that she was allergic to penicillin, that she was not currently taking any medications, and that she had no past medical history or past surgical history. Bauer took a GCS assessment and rated Marie as a perfect score of 15, which told Bauer that Marie was alert and orientated with no deficits. In taking the history and in going through all of her questions with a patient, Bauer relied on the patient to tell her the truth.

¶ 55 After all of Bauer's entries were typed into the chart, the chart was printed out, put on a clipboard, and placed on the counter in front of the doctors' station. Bauer listed Marie's condition in triage as "urgent," meaning that Marie needed more than one resource (diagnostic workup) to try to determine the cause for why she was there. At that point, Bauer's job as the triage nurse was completed, and the primary care nurse would take over the patient's care.

¶ 56 Theresa Skulavik testified for the defense that she was Marie's primary care nurse in the emergency room at Silver Cross Hospital on April 14, 2009. Skulavik had no independent recollection of treating Marie and testified based solely upon the entries that had been made in Marie's medical chart and Skulavik's usual practices. When Skulavik took over a patient as the primary care nurse, she would either look over the triage nurse's chart entries or would get a verbal report from the triage nurse. Skulavik would not obtain another personal history from the patient and would start her treatment by conducting an assessment of the patient. In conducting her assessment, Skulavik would begin with the patient's symptom or initial complaint and would then do a head to toe assessment of the patient. Skulavik had done assessments like that on new patients thousands of times in her career as a nurse. In this particular case, Skulavik conducted an assessment of Marie at 1:41 p.m. on April 14, 2009. Upon presentment to Skulavik, Marie appeared to be comfortable and was cooperative, which meant that Marie was responding to the questions that Skulavik had asked of her. Marie complained of pain and frontal headache with sinus pressure but denied that she was having any dizziness, numbness, nausea, or vomiting. A flu swab was done on Marie, which came back as negative. According to the chart, all of Marie's answers to Skulavik's questions were appropriate and Marie's neurological level of consciousness was awake and alert. Marie was oriented to person, place, and time. Her speech and facial

symmetry appeared to be normal. Skulavik was looking to see if Marie was able to respond appropriately and was making sure that Marie's headache was not causing anything neurological.

¶ 57 At 1:40 p.m. on April 14, 2009, Skulavik obtained Marie's vital signs. Marie's blood pressure reading was elevated at 201 over 104 and her level of pain had increased to an 8 out of 10. Skulavik stated that she had patients in the past who had told her that their pain was a 10 out of 10, that they were having the worst headache that they had ever had, or that it felt like their head was going to explode. If a patient said anything like that, Skulavik would record it in the patient's medical chart because it was significant. Skulavik's chart entries for Marie on April 14, 2009, showed that Marie had not been experiencing any type of neurological deficit, that she had no abnormal physical findings, that she had no neck pain, and that she had no abnormal eye response to light. According to Skulavik, although Marie's blood pressure was elevated, it was not abnormal to see elevated blood pressures in the emergency room. The neurological examination that Skulavik performed on Marie was very reassuring in terms of Marie's well-being. Marie had no focal deficits, her mental status was intact, and she was able to interact and cooperate and to answer all of Skulavik's questions.

¶ 58 Skulavik did not remember whether she had a conversation with defendant about Marie, but her customary practice would have been to inform the attending physician of her assessment, including the change in the blood pressure because the elevated blood pressure could have been the cause of the headache. In her role as a primary care nurse, Skulavik did not make a diagnosis of a patient's condition. A diagnosis would be made by the doctor. Customarily, Skulavik would want the attending doctor to have as much information as possible in trying to determine the cause of the headache. In keeping with the protocols and practices of the emergency room, however, defendant would have done his own physical and history on Marie.

¶ 59 Rebecca Mireles testified for the defense by way of deposition that she was the discharge nurse for Marie in the emergency room at Silver Cross Hospital on April 14, 2009. Mireles had seen thousands of patients over the past several years and had no independent recollection of treating Marie in the emergency room. When Mireles first became involved with a patient, she would typically speak with the other nurses who had been caring for that patient and would review the other nurses' notes so that she understood what was going on with the patient. In this particular case, prior to Mireles's involvement, two nursing assessments had been done, one by the triage nurse and another by the primary care nurse.

¶ 60 At 3:43 p.m. on April 14, 2009, Mireles took a set of vital signs from Marie and recorded Marie's blood pressure as 182 over 96, which was lower than it had been at 1:40 p.m. Mireles also sprayed Marie's nostrils with nasal spray.

¶ 61 The next time that Mireles saw Marie that day was when Marie was being discharged from the emergency room. When Mireles would discharge a patient, she would typically inform the patient again about the diagnosis; would go over with the patient what to expect; would tell the patient to make sure to follow-up with the patient's own doctor; and would instruct the patient that if she felt worse, to come back to the emergency room. Mireles would give the discharge instructions to the patient and would also talk to, and give a copy of the instructions to, the patient's family, if they were present. After the discharge instructions were reviewed, Mireles and the patient would sign the discharge instructions. In this particular case, at the time of discharge, Marie's condition was good, her GCS score was a perfect 15, her motor skills and neurological signs were all normal, she was able to sign the discharge instructions without any difficulty, and she did not require any assistance from her husband. According to Mireles, if

Marie had made any objection about the diagnosis or medications, Mireles would have noted that objection in Marie's chart and would have brought it to the doctor's attention.

¶ 62 The chart indicated that Marie left the emergency room at 4:24 p.m. on April 14, 2009. As the discharge nurse, Mireles was the last medical professional to see Marie in the emergency room on that day. Mireles, however, did not have the authority to discharge a patient; that decision would be made by the attending doctor. If there were any abnormalities, Mireles would have, in all likelihood, told defendant, and defendant would have made the decision to discharge Marie. At the time that Marie was discharged, her blood pressure was still abnormal and elevated. The discharge instructions that Mireles signed off on and that were given to Marie were prepared by defendant. The diagnosis of sinusitis and the two prescriptions were also prepared by defendant and given to Mireles, probably off of a clipboard. At the time of discharge, Marie was given the option of walking out of the emergency room or using a wheelchair, and, according to the chart, she apparently elected to use the wheelchair.

¶ 63 Board certified neurosurgeon, Gary Skaletzky, testified for the defense as an expert witness in neurosurgery. During the course of his career, Skaletzky had diagnosed SAHs over a hundred times and had treated SAH patients, both surgically and non-surgically. Although Skaletzky still practiced neurosurgery and examined and treated patients, he stopped doing surgeries at the end of 2001, due to the aging process and a medical condition.

¶ 64 According to Skaletzky, some of the symptoms of an SAH were a headache described as the worst headache of that person's life, projectile vomiting, nuchal rigidity, photophobia, an altered mental state, and neurological deficits (some loss of function or diminished function of a particular nervous system attribute, such as speaking or moving). Skaletzky stated that the headache from an SAH was frequently described as the worst headache of a person's life because

the source of the headache—the irritation of the meninges and build-up of pressure in the brain—was unlike any other source of headache that the person had undergone previously. As long as the blood remained in that area, the pressure and irritation would continue. In Skaletzky's experience, the headache from an SAH had always been described as the worst headache of the patient's life or a headache unlike any other the patient had ever experienced.

¶ 65 Skaletzky stated further that the rupturing of an aneurysm was like an explosion in the brain and was, in and of itself, a serious medical condition that carried a very high risk of death or severe neurological deterioration. Skaletzky agreed with Dr. Horowitz's statement that 60% of patients who suffered from a ruptured aneurysm would either die or suffer significant morbidity. According to Skaletzky, about 30% of patients who suffered a ruptured aneurysm and an SAH died before treatment could be rendered and 30% to 35% of the remaining patients would have a significant neurological deficit, even if prompt treatment was rendered.

¶ 66 Based upon his review of the medical records in this case, Skaletzky opined that Marie was not suffering from an SAH on April 14, 2009, because the symptoms that Marie presented with and the neurological examination that was done did not suggest that she had an SAH or any other brain abnormality. According to Skaletzky, a single Tylenol III could not make a headache associated with an SAH go away. If a Tylenol III made the headache go away, the headache was not secondary to an SAH, a ruptured aneurysm, or anything else going on in the brain. Skaletzky believed that Marie's elevated blood pressure was the result of white coat syndrome. Skaletzky did not agree with the opinion that Marie was a Hunt and Hess grade two on April 14, 2009, because Marie did not have any nuchal rigidity on that date, which was required for a person to be classified as a Hunt and Hess grade two.

¶ 67 With regard to vasospasm and the use of nimodipine, Skaletzky testified that once a patient suffered from an SAH and blood was inside the patient's subarachnoid space, there was no way to prevent a vasospasm from occurring because the chemical reaction that led to vasospasm would begin almost instantaneously. Once the chemical reaction began, if the person was prone to vasospasm, vasospasm would occur. Nimodipine was given intravenously to hopefully decrease some of the effects of the vasospasm that had occurred, but it did not always work. There were patients who, despite being treated with nimodipine, still experienced symptomatic vasospasm and still suffered significant neurological injuries. In this particular case, for example, Marie suffered vasospasm, even after she was given nimodipine.

¶ 68 During his testimony, Skaletzky agreed that: (1) 80% of patients with a Hunt and Hess grade of one or two would have a successful recovery; (2) there were patients who had SAHs who did not present with the entire constellation of signs and symptoms for an SAH and who only presented with the sudden onset of a headache; (3) the diagnostic modalities for ruling out a suspicion of an SAH was a CT scan and possibly a lumbar puncture; (4) if an SAH was not timely diagnosed, the result could potentially be neurological catastrophe or death; (5) the goal in treating a patient with an SAH was to prevent the patient from suffering a stroke; and (6) the history in the documented chart of the sudden onset of a headache with nausea and vomiting was a constellation of signs and symptoms that might be associated with an SAH.

¶ 69 Skaletzky commented, however, that: (1) a stroke may or may not be preventable, despite the use of nimodipine; (2) even patients with a Hunt and Hess score of one or two could still have a serious, significant adverse neurological outcome; and (3) a clinical examination could markedly lessen the index of suspicion of an SAH. According to Skaletzky, in this particular case, defendant recorded that at the time of his exam of Marie, the only symptom that Marie

complained about to him was nausea. Standing alone, nausea was not a symptom that was consistent with an SAH.

¶ 70 Professor and board certified emergency room physician, Leslie Zun, testified for the defense as an expert witness in emergency medicine. According to Zun, the headache associated with an SAH was often described by the patient as the worst headache of the patient's life and the patient would look and feel very uncomfortable. The headache would not be a typical headache in terms of pain, and would have associated symptoms, such as nausea, vomiting, photophobia, and neck pain. As long as the irritant, the blood, remained in the subarachnoid space, the severity of the headache would continue.

¶ 71 Based upon his review of the medical records in this case, Zun did not believe that Marie was suffering from the worst headache of her life when she presented to the emergency room on April 14, 2009. In fact, Marie no longer had a headache when defendant examined her. In Zun's opinion, a doctor would not see that happen with an SAH headache; the doctor would see continuing severe pain. Zun had never seen a case where a Tylenol III had made an SAH headache go away. Zun noted that there was also no evidence in the medical records that Marie was suffering from photophobia, neck pain, altered mental status, or neurological deficit on April 14, 2009.

¶ 72 According to Zun, a complaint of a headache was a very frequent complaint with which people came into the emergency room. The standard of care did not require that a CT scan be taken of every patient who complained of headache pain in the emergency room. In Marie's case, where the medical chart indicated that she complained of headache, some nausea, a prior history of vomiting, and a prior history of diarrhea, the standard of care required that the emergency room physician obtain a history from the patient and examine the patient. When the

emergency room physician initially saw the patient, he would have a large number of diagnoses in his consideration and, as he got more information, the number of diagnoses would get narrowed down until the physician was left with the one or two most likely probabilities. The emergency room doctor might consider or think about an SAH and all of those other possible conditions, but when he did a history and a physical examination of the patient, the likelihood of those conditions would be so small, that the doctor would go with what he thought was the most likely diagnosis of the patient's condition. In this particular case, when defendant examined Marie, she was negative for head pain and her only symptom was nausea. The standard of care, therefore, did not require that a CT scan be performed. Defendant performed a full review of systems and a medical examination on Marie. That was consistent with what the standard of care required for a patient with Marie's symptoms.

¶ 73 From Zun's review of the materials, sinusitis was an appropriate diagnosis for defendant to reach because Marie came in with non-specific complaints, defendant elicited some sinus tenderness, and the rest of the labs and assessments were consistent with sinusitis. Marie had an elevated white blood cell count; had maxillary sinus tenderness; and had some history of vomiting, nausea, and diarrhea. All of those symptoms could be symptoms of sinusitis.

¶ 74 According to Zun, a headache could come on suddenly and still be benign in nature. There were several different types of headaches—some came on very suddenly and others came on very slowly. An emergency room doctor could not make a diagnosis based on the time of onset of a headache. In this case, the headache began suddenly, but it was two to three days prior to Marie's emergency room visit. If Marie had suffered an SAH two to three days earlier, she would have looked much different than she looked on April 14, 2009.

¶ 75 Based upon his review of all of the materials and his experience as an emergency room physician, Zun opined that defendant's care and treatment of Marie on April 14, 2009, complied with the standard of care for a reasonably well qualified emergency room physician. In Zun's opinion, when a doctor arrived at a differential diagnosis, the standard of care was to try to rule out conditions that were both life threatening and that had some probability of being present. In rendering those opinions, however, Zun agreed that: (1) of all the possible conditions involved in this case, the only one that could have led to a neurological disaster if not ruled out was an SAH; (2) it would be incumbent upon any emergency room doctor who entertained a suspicion of an SAH to undertake to rule out that condition out; (3) the diagnostic modalities for ruling out an SAH in 2009 were a CT scan, and, if necessary, a lumbar puncture; (4) defendant had enough information to entertain the diagnosis of an SAH in this case; and (5) if defendant entertained the diagnosis of an SAH with regard to Marie, he had to rule out that condition.

¶ 76 In Zun's opinion, an SAH could be ruled out clinically. In this particular case, that was what defendant had done—clinically ruled out that Marie had an SAH by conducting a good history and physical examination of Marie. Zun opined further that doing so was consistent with the standard of care. In rendering those opinions, Zun acknowledged that about half of the patients with SAHs who presented in the ER did not have any neurological findings—all they had was a headache—and defendant should have known that at the time. Zun stated, however, that in patients with SAHs, their headaches do not go away and the patients do not go back to normal. Rather, an SAH headache was usually severe and persisted over time.

¶ 77 After all of the evidence had been presented, the arguments had been made, and the jury had been instructed on the law, the jury began its deliberations. At the conclusion of deliberations, the jury found for plaintiffs and against defendant. Along with the verdict, the jury

answered two special interrogatories which confirmed that that the jury believed that defendant was professionally negligent and that defendant's negligence was a proximate cause of Marie's injuries. The jury awarded plaintiffs $13 million in damages ($10.6 million for Marie's estate and $2.4 million for Robert). Defendant subsequently filed a posttrial motion for judgment notwithstanding the verdict and for new trial, which the trial court denied. This appeal followed.

¶ 78 ANALYSIS

¶ 79 I. Defendant's Motion for Judgment Notwithstanding the Verdict

¶ 80 As his first point of contention on appeal, defendant argues that the trial court erred in denying his posttrial motion for judgment notwithstanding the verdict. Defendant asserts that his motion should have been granted because plaintiffs failed to prove that Marie's injuries would have been prevented if defendant had done any of the three things that were raised as the main criticisms of his medical treatment of Marie in relation to the alleged violation of the standard of care. Those three things, which defendant was allegedly required to do under the standard of care but failed to do, were ordering a CT scan of Marie's brain, administering nimodipine to Marie, and referring Marie for surgical intervention. First, as to the ordering of a CT scan, defendant asserts that a CT scan is merely a diagnostic tool and that it provides no treatment for a ruptured brain aneurysm or an SAH. Second, regarding the administration of nimodipine, defendant asserts that: (1) plaintiffs' own experts, Dr. Mitton and Dr. Horowitz, both admitted that after the SAH occurred in this particular case and blood was in the subarachnoid space, Marie was at risk for vasospasm, regardless of the treatment provided (as defendant's experts testified to as well); (2) no evidence was presented that nimodipine would have prevented Marie's vasospasm or her resulting injuries; and (3) Dr. Horowitz conceded that Marie could have ended up with the same outcome, even if she had promptly been given all of the treatment

described. Third, as to the referral of Marie for surgical intervention, defendant asserts that: (1) plaintiffs presented no evidence that seeking surgical intervention would have prevented Marie's injuries; and (2) Dr. Horowitz admitted during his testimony that seeking surgical intervention probably would not have prevented Marie's vasospasm. Based upon the argument and assertions set forth above, defendant asks that we reverse the trial court's judgment and grant defendant's motion for judgment notwithstanding the verdict.

¶ 81 Plaintiffs argue that the trial court's ruling was proper and should be upheld. Plaintiffs assert that defendant's motion for judgment notwithstanding the verdict was correctly denied because plaintiffs did not fail to prove any element of their case. Rather, plaintiffs contend, they proved each of the allegations of their case and that all of the allegations were causally related to Marie's final condition. More specifically, plaintiffs contend that they presented evidence at trial that established that a timely diagnosis by defendant would have led to treatment and would have prevented Marie's stroke. In making that assertion and contentions, plaintiffs point out that the issue of proximate cause was a question of fact for the jury to decide and that in this particular case, the jury resolved that question of fact in favor of plaintiffs. In addition, plaintiffs assert that they have never alleged or attempted to prove that nimodipine or surgical intervention would have prevented Marie's vasospasm and it was not necessary for them to do so to establish proximate cause in this case. For the reasons stated, plaintiffs ask that we affirm the trial court's ruling, denying defendant's motion for judgment notwithstanding the verdict.

¶ 82 A trial court's ruling on a motion for judgment notwithstanding the verdict is subject to a *de novo* standard of review on appeal. *Lawlor v. North American Corp. of Illinois*, 2012 IL 112530, ¶ 37. A motion for judgment notwithstanding the verdict raises a question of law and asserts that even when all of the evidence is considered in the light most favorable to the party

opposing the motion, there is a total failure or lack of evidence to prove a necessary element of the opposing party's case. See *id*. The burden on the party seeking a judgment notwithstanding the verdict is a high one as the motion may be granted only under a very limited set of circumstances—when all of the evidence, viewed in the light most favorable to the party opposing the motion, so overwhelmingly favors the movant than no contrary verdict based on that evidence could ever stand. See *id*.; *Maple v. Gustafson*, 151 Ill. 2d 445, 453 (1992). In ruling upon a motion for judgment notwithstanding the verdict, the court does not weigh the evidence or concern itself with the credibility of the witnesses and must consider the evidence, and any reasonable inferences therefrom, in the light most favorable to the opposing party. *Maple*, 151 Ill. 2d at 453. A court has no right to enter a judgment notwithstanding the verdict if the evidence demonstrates a substantial factual dispute or if the outcome of the case depends upon an assessment of credibility or a determination regarding conflicting evidence. *Id*. at 454.

¶ 83 In the present case, after having reviewed the evidence presented at trial, we find that the trial court properly denied defendant's posttrial motion for judgment notwithstanding the verdict. See *Lawlor*, 2012 IL 112530, ¶ 37; *Maple*, 151 Ill. 2d a 453. At trial, plaintiffs' expert witness in emergency medicine, Dr. Mitton, opined that Marie had an SAH on April 14, 2009, when she went to the emergency room and that defendant deviated from the standard care in treating Marie on that date by not obtaining a CT scan to rule out an SAH, by not giving nimodipine thereafter to control the vasospasm that could occur, and by not seeking surgical intervention for Marie. Mitton opined further that the injury that was proximately caused by defendant's deviation from the standard of care, which resulted in a delay in the diagnosis of Marie's condition, was that Marie suffered an increased disability, neurologic compromise, and an increase in the likelihood of a poor neurological recovery following surgery. In addition, plaintiffs' expert witness in

neurosurgery, Dr. Horowitz, opined during his testimony that if Marie had received the appropriate treatment, she would have had a 60% to 70% chance, and possibly even an 80% chance, of being at one year independent or back to her normal pre-bleed level of functioning, with possibly some mild deficits or a small amount of short-term memory problems. Horowitz estimated that Marie's chances of such a recovery, however, had dropped to only 5% or 10% by the time that her condition was finally diagnosed. Horowitz opined further that stroke could be prevented in patients who had a suffered an SAH and who had developed vasospasm or symptomatic vasospasm, an opinion that was also stated by Marie's treating neurologist, Dr. Temes. When viewed in the light most favorable to plaintiffs, the testimony of plaintiffs' expert witnesses and the other evidence presented at trial, were more than sufficient to establish that defendant had deviated from the standard of care and that Marie's injuries had been proximately caused by that deviation so as to justify the denial of defendant's motion for judgment notwithstanding the verdict. See *Reed v. Jackson Park Hospital Foundation*, 325 Ill. App. 3d 835, 842 (2001) (to prevail in a medical malpractice action, a plaintiff must establish: (1) the relevant standard of care; (2) that defendant deviated from that standard; and (3) that the deviation from the standard of care was the proximate cause of the plaintiff's injuries); *Lawlor*, 2012 IL 112530, ¶ 37; *Maple*, 151 Ill. 2d at 453.

¶ 84 The fact that defendant's experts disagreed with the opinions of plaintiffs' experts or that plaintiffs experts also rendered some opinions that were potentially favorable to the defense, such as the opinion that Marie could have received all of the appropriate treatment in a prompt manner and still have suffered the same result—does not lead us to reach the opposite conclusion. Rather, that evidence was merely additional pieces of information for the jury to weigh and consider in making its decision. This case is but another example of a classic battle

between the conflicting testimony of expert witnesses on opposite sides of the case. The testimony of plaintiff's expert witnesses supported plaintiff's side of the case and the testimony of defendant and his expert witnesses supported defendant's side of the case. It was the jury's role to determine whether each expert witness was credible and how much weight to give to each expert's testimony. See *Maple*, 151 Ill. 2d at 452; *Walski v. Tiesenga*, 72 Ill. 2d 249, 260 (1978). Under the circumstances of the present case, we cannot conclude that the evidence presented at trial, when viewed in the light most favorable to plaintiffs, so overwhelmingly favored defendant that no contrary verdict based on that evidence could ever stand. We, therefore, find that the trial court properly denied defendant's motion for judgment notwithstanding the verdict. See *Lawlor*, 2012 IL 112530, ¶ 37; *Maple*, 151 Ill. 2d at 453.

¶ 85 II. Defendant's Motion for New Trial

¶ 86 As his second point of contention on appeal, and in the alternative, defendant argues that the trial court erred in denying his posttrial motion for new trial. Defendant asserts that the motion should have been granted because there were certain errors in the admission of evidence at trial that severely prejudiced defendant and denied defendant a fair trial. The first such error, according to defendant, was that plaintiffs were allowed to present a substantial amount of evidence regarding all of the medical treatments that Marie received without ever establishing a causal connection between those treatments and the negligence of defendant. In fact, defendant maintains, plaintiffs presented a "mountain" of medical treatment evidence without making any effort to distinguish between those medical treatments that were attributable to defendant's alleged negligence and those that were not attributable to defendant's negligence because they were for medical treatments that would have already been required as a result of Marie's original pre-existing injuries—the brain aneurysm and the SAH that Marie had allegedly suffered before

she was treated by defendant. Defendant asserts further that the presentation of that evidence without expert testimony to specifically identify which medical treatments were required solely because of defendant's alleged negligence served to confuse and mislead the jury and caused the jury to believe that all of Marie's medical treatments were attributable to defendant's alleged negligence.

¶ 87 The second such error, according to defendant, was that plaintiff's expert neurosurgeon, Dr. Horowitz, testified as to a new and previously undisclosed opinion—that absent defendant's negligence, Marie would have attained an independent lifestyle within one year of suffering her ruptured aneurysm and SAH. Defendant asserts that Horowitz's testimony to that effect was in violation of Illinois Supreme Court Rule 213 (eff. Jan. 1, 2007) and the trial court's ruling on defendant's motion *in limine* and that it severely prejudiced defendant at trial because: (1) it was a surprise to defendant; (2) defendant had no opportunity to investigate the opinion or to put together a defense to that opinion; (3) defendant had based his trial strategy on there not being an opinion in that regard; (4) defendant was not prepared to cross-examine Horowitz as to that opinion; and (5) prior to that time, there was no evidence of a timetable for recovery.

¶ 88 In the alternative, defendant asserts that even if Dr. Horowitz's opinion about a one-year recovery period was properly elicited, defendant's motion for a new trial still should have been granted because plaintiffs' arguments and evidence were grossly unfair, improper, and contrary to Illinois law. Specifically on that point, defendant contends that if it was proper for Dr. Horowitz to testify that there was a one-year recovery period, then it was improper for plaintiffs to argue that defendant was liable for the first year of Marie's medical treatment since, according to Dr. Horowitz, those treatments would have been required for Marie's recovery, regardless of

any negligence by defendant. For all of the reasons stated, defendant asks that we reverse the trial court's ruling on the posttrial motion and remand this case for a new trial.

¶ 89 Plaintiffs argue that the trial court's denial of defendant's motion for new trial was proper and should be upheld. Plaintiffs assert that despite defendant's representation to the contrary, this case was not a pre-existing injury case and was not plead or presented to the jury as such. Rather, according to plaintiffs, this case was about defendant's failure to timely diagnose and treat Marie's ruptured aneurysm and SAH on April 14, 2009, when defendant first saw Marie in the emergency room. Plaintiffs disagree that there was anything improper about the presentation of the evidence of Marie's medical treatment and assert that all of the medical treatment evidence presented related to the nature, extent, and duration of the condition in which defendant's negligence put Marie (Marie's current condition), other than evidence of the medical treatment at Rush Hospital, which the jury was made fully aware was not attributable to defendant's negligence. Plaintiffs also disagree with defendant's contention that they failed to establish a causal connection between defendant's negligence and Marie's medical treatment and assert that a causal connection was established by evidence presented that showed that the catastrophic consequences suffered by Marie were the result of a chain of developing pathology that could have been broken by defendant before Marie's stroke had occurred if defendant had not negligently missed the opportunity to do so. As part of that assertion, plaintiffs claim that although Marie's SAH had occurred before she saw defendant, the preventable injuries—the stroke and the resulting consequences—had not yet occurred.

¶ 90 As for the alleged improper testimony of Dr. Horowitz, plaintiffs assert that they properly disclosed all of Dr. Horowitz's expert opinions and that they did not violate Supreme Court Rule 213 or the trial court's ruling on defendant's motion *in limine*. According to plaintiffs, the

complained of statement—that absent defendant's negligence, Marie had a 60% to 70% chance of being at one year independent—was not a new or different opinion by Dr. Horowitz. Rather, the complained of statement at trial was merely an elaboration upon, a logical corollary of, or a explanation of, the previous disclosed opinions of Dr. Horowitz that: (1) 60% to 70% of grade one or two SAH patients recovered to be independent; (2) SAH patients that presented as a grade one or two, more likely than not, would have an uneventful recovery, would generally not need much rehabilitation, if any, and would return to the normal activities of daily life; and (3) if Marie's ruptured brain aneurysm and SAH had been promptly diagnosed and treated, Marie, more likely than not, would have made an uneventful recovery and achieved an independent lifestyle. Plaintiffs maintain that at trial Dr. Horowitz merely incorporated the definition of neurological outcome (the assessment of the patient's condition at either six months or one year later) into his answer to make it more concise and precise and that he did not render a new or previously undisclosed opinion. In making that assertion, plaintiffs point out that defendant did not object to the testimony at the time, did not move to strike the testimony or to have the jury disregard the testimony, and did not request that a mistrial be granted. Finally, plaintiffs claim that there was no prejudice to defendant from the testimony because the opinion had previously been disclosed to defendant and because defendant's own expert witness, Dr. Skaletzky, agreed with the statement and provided similar testimony. For all of the reasons stated, plaintiffs ask that we affirm the trial court's denial of defendant's posttrial motion for new trial.

¶ 91 A trial court's ruling on a motion for new trial will not be reversed on appeal unless the trial court committed an abuse of discretion in making its ruling. *Lawlor*, 2012 IL 112530, ¶ 38. In addition, a trial court's ruling on the admissibility of evidence will also not be reversed on appeal absent an abuse of discretion. *In re Leona W.*, 228 Ill. 2d 439, 460 (2008). The threshold

for finding an abuse of discretion is high one and will not be overcome unless it can be said that the trial court's ruling was arbitrary, fanciful, or unreasonable, or that no reasonable person would have taken the view adopted by the trial court. See *Blum v. Koster*, 235 Ill. 2d 21, 36 (2009); *Leona W.*, 228 Ill. 2d at 460. If a trial court commits an abuse of discretion in the admission of evidence, a new trial should be ordered only if the trial court's ruling appears to have affected the outcome of the trial. *Leona W.*, 228 Ill. 2d at 460; *Troyan v. Reyes*, 367 Ill. App. 3d 729, 732-33 (2006).

¶ 92 Having reviewed the record in the present case, we find that the trial court did not commit an abuse of discretion in its evidentiary rulings and that the evidence presented to the jury was not improper. See *Blum*, 235 Ill. 2d at 36; *Leona W.*, 228 Ill. 2d at 460. As for defendant's first allegation, we find no error in the evidence that was presented regarding the nature and extent of Marie's medical treatment, including the lay testimony by Robert regarding the treatment that Marie received. At various points during the testimony at trial, it was pointed out to the jury that the medical treatment that Marie received to repair the ruptured aneurysm and to treat the SAH were not attributable to defendant's negligence and would have been required even without the alleged negligence on defendant's part. Regardless of whether this case is classified as a pre-existing condition case or a failure to diagnose and treat, we do not believe that the evidence presented at trial as to Marie's medical treatment misled or confused the jury in reaching its verdict. We, therefore, reject defendant's argument in that regard on this issue.

¶ 93 As for defendant's second assertion, we also find no error or prejudice to defendant from the testimony of Dr. Horowitz of which defendant complains. Contrary to defendant's assertion on appeal, Horowitz did not provide a new and undisclosed expert opinion in his testimony at trial. Rather, Horowitz expounded upon his previously disclosed opinions—that most SAH

grade one or two patients would have an uneventful recovery in which they returned to independence and that if Marie had been properly diagnosed and treated, she, more likely than not, would have made an uneventful recovery and achieved an independent lifestyle. Horowitz did not testify about what would have been involved in Marie's specific rehabilitation. Rather, as plaintiffs suggest, Horowitz merely incorporated the definition of neurological outcome into the statements that he had previously made. Thus, we find that the testimony was not improper and that it did not violate the motion *in limine* or Supreme Court Rule 213 (eff. Jan. 1, 2007).

¶ 94 In reaching that conclusion, we note that we do not agree with defendant's related allegation—that if Horowitz's testimony was proper, then plaintiffs should not have been allowed to argue that defendant was liable for Marie's first year of treatment because Marie would have needed that treatment anyway. Defendant's allegation in that regard misconstrues the evidence that was presented at trial. Neither Horowitz nor any other expert in this case testified that with prompt diagnosis, Marie would have needed a full one year of treatment before she recovered. We, therefore, reject defendant's argument on this point as well.

¶ 95 CONCLUSION

¶ 96 For the foregoing reasons, we affirm the judgment of the circuit court of Will County.

¶ 97 Affirmed.