CASE STUDY #1

A Delay in the Diagnosis of Pediatric Glaucoma

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The plaintiff was diagnosed with juvenile idiopathic arthritis (JIA) at one year of age. Her pediatrician promptly referred her to the insured ophthalmologist, who first saw the patient on 6/16/03, for screening examinations for uveitis and related complications of this condition.

The ophthalmologist performed screening examinations every 3 months until the late summer of 2005, when the patient presented with her first episode of iritis, an inflammation of the anterior uvea, in the right eye. She was then 3 ½ years old. She showed a normal bilateral cup-to-disc ratio. She was treated with topical steroids and methotrexate with intermittent improvement and had complete resolution of the iritis by the autumn of 2008. No ocular pressure readings were taken.

By early January of 2009, at age 7, the child’s globes were soft to palpation. Based upon that, the ophthalmologist was satisfied that she was not developing glaucoma. However, he did not obtain ocular pressure readings. Nor did he discuss with or recommend to her parents that she undergo an examination under anesthesia, because he believed the likelihood of finding glaucoma was lower than her risk of undergoing an examination under anesthesia. His diagnostic impression was juvenile rheumatoid arthritis without inflammation, which had been in remission since October of 2008. He continued to prescribe the steroid drops for her on a tapering schedule.

The patient was then followed by a different ophthalmologist who performed frequent intraocular pressure monitoring, optic nerve examinations, and visual field testing. Subsequently, a repeat goniotomy was performed on her right eye. The surgery was uncomplicated and she had good ocular pressure postoperatively. The patient was seen regularly and her intraocular pressures remained consistently at 13 mm Hg in the right eye and 14 mm Hg in the left eye. Unfortunately, she had elevated intraocular pressures at 26 mm Hg in both eyes. Most notably, her cup-to-disc ratio had increased to 0.9 in both eyes. However, the ophthalmologist still did not initiate treatment for the pressure elevations at this time, electing instead to confirm these findings on reevaluation of the patient. She was seen 2 weeks later. Her intraocular pressures were still elevated, and she had clinical signs of iritis. He prescribed medications to lower her pressure and referred her to a pediatric glaucoma specialist who started the patient on Diamox. The specialist believed that the patient’s glaucoma was secondary to chronic inflammation. He performed goniotomy surgery on both eyes, a week apart. Both surgeries were uncomplicated and achieved good results. Her bilateral intraocular pressures were markedly lowered to 9 mm Hg in each eye.

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Case #1 continued

sustained permanent loss of her peripheral vision with central vision of hand motion in her right eye and 20/30 vision in her left eye.

The parents of the child commenced a lawsuit on her behalf, alleging negligent care by the original pediatric ophthalmologist based upon his deviation from the standard of care of children with JIA. The primary allegation against the defendant was the failure to diagnose and treat secondary uveitic glaucoma in a 7-year-old female child with chronic uveitis which was associated with JIA.

The plaintiff further alleged that the standard of care, for a pediatric ophthalmologist to perform routine intraocular pressure checks at every visit, was not met. In addition, if the patient is uncooperative, every effort possible must be made by the ophthalmologist to obtain accurate readings, including, if necessary, performing an examination under anesthesia. The defendant had never checked the infant plaintiff’s intraocular pressure by reliable means, despite the fact that glaucoma was a well-recognized complication of irisitis, secondary to JIA. The plaintiff alleged that if this defendant had checked the child’s intraocular pressures, he would have timely detected elevated pressures and instituted treatment with pressure lowering eye drops. This treatment would have effectively prevented glaucomatous optic nerve damage, or at least prompted early surgical referral to a specialist prior to the plaintiff sustaining permanent damage. The plaintiff also alleged that the defendant failed to seek an appropriate and timely consultation from a glaucoma specialist. This case was settled for $2.5 million dollars.

Analysis of the Management Concepts in Pediatric Glaucoma

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Glaucoma, by its nature, is a difficult condition to diagnose. Making the diagnosis is dependent upon documenting optic nerve damage as a result of an internal pressure of the eye that exceeds what the microcirculation of the optic nerve can tolerate. What makes it more difficult is that redness, pain, visual changes or other signs or symptoms are non-existent in this disease. The key to making the correct diagnosis rests solely with the physician, who must suspect its presence and direct an investigation to rule out this condition. Unfortunately, as in this case, when the patient is a small child, serially measuring intraocular pressures, scanning and photographing the optic nerve, and assessing the peripheral vision may all be impossible in the office setting. However, under general anesthesia, the pressure can be properly measured and the optic nerve photographed and scanned. The physician who treated this child initially over a space of more than six (6) years chose not to perform such examinations.

Uveitic inflammatory diseases in children are often accompanied by concurrent conditions that may pose a greater risk to the child’s loss of vision than the original disorder. When a very young patient has multiple diagnoses, the physician must be very diligent in managing the patient. By choosing not to perform serial examinations under anesthesia, or obtain a second opinion from a peer, the physician lost the opportunity to timely discover the problem because there were no other reasonable tools to make this diagnosis. Whether the physician was uncertain about the patient’s true status, or was actually not aware of his need for increased diligence and appropriate examination, is not clear. However, his lack of diligence led directly to the patient’s permanent visual deficits.

To be successful in managing a patient such as this child, a physician must assume that glaucoma is or will be present because the child was being treated with topical steroids and/or the child’s anterior uveitis had compromised the drainage mechanism of the eyes. Therefore, the physician should have presumed glaucoma was present until otherwise proven.

The ophthalmologist had seen very few pediatric glaucoma patients, and particularly patients who additionally had a systemic diagnosis such as arthritis. He may have made an assumption that this patient would not have or develop glaucoma due to lack of expertise with such patients. Unfortunately, his lack of experience led him to inadequately...
manage the patient in part because he did not have a sufficiently high level of suspicion which would lead to the extraordinary efforts necessary to make the diagnosis. Because of that, there was serious permanent injury to the child’s vision. These very serious deficits in the care provided by this physician made the case difficult to defend. This is particularly so when the patient is a child, as juries often respond sympathetically to serious, permanent injuries incurred by a young child.

A Legal & Risk Management Perspective

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This case involves a malpractice claim about the care rendered to a pediatric patient over the course of several years. The patient, a one-year-old, was first seen by the pediatric ophthalmologist in 2003. The malpractice suit was commenced in 2009. When a patient is a minor and is receiving continuous treatment for the same condition, the Statute of Limitations which governs when malpractice litigation needs to be commenced can become quite lengthy.

The Statute of Limitations is a legal doctrine which limits the time in which a plaintiff may bring a lawsuit against a defendant. It is designed to protect defendants against old or stale claims. It is one of the most rigid doctrines in the law, for if the plaintiff fails to commence an action within the required period of time, the plaintiff is forever barred from suing.

The time limitations which apply to any particular type of lawsuit are arbitrary in the sense that they represent a judgment by the legislature as to what should be a sufficient amount of time for an individual to bring an action with reasonable diligence. The various time periods specified under New York law depend upon the type of legal action. In a case of medical, dental or podiatric malpractice, the Statute of Limitations is generally 2½ years “from the act, omission or failure complained of.” This is known as the “accrual date.” A cause of action for medical malpractice accrues at the time the malpractice was committed, although the accrual date is extended in certain cases. For example, if the injured party is continuously treated by the doctor who committed the malpractice for the condition in issue, the Statute of Limitations is 2½ years from the last date of the continuous treatment.

There are circumstances which “toll” or extend the date when the Statute of Limitations begins to run. When the Statute of Limitations is tolled, it has then been legally suspended—in other words, the clock stops running for a certain period of time, affording the plaintiff a longer time to commence suit. One of the most common tolling provisions applies when the plaintiff is legally an “infant.” Where a medical, dental or podiatric malpractice claim involves a person under the age of eighteen (18) years, the Statute of Limitations is tolled during the period of infancy. The suit must be commenced within 10 years of the accrual date or within 2½ years after the minor reaches the age of eighteen (18) years, whichever is earlier. In other words, the maximum time limit to sue is 10 years.

Assessing when the Statute of Limitations runs on a potential malpractice claim is not always a simple matter. Determining the accrual date and calculating the appropriate time period depends on the specific facts of each case. Needless to say, since the doctrine is so very strict, it is one of the first and most important issues analyzed on behalf of the defendant in a malpractice case. In this particular case, the lawsuit was timely commenced within the Statute of Limitations.

From a purely risk management perspective, there were several quality of care issues which impacted the decision to settle this case.

Although the physician was a pediat-
ric ophthalmologist, he lacked the experience necessary to respond to the complexities of the plaintiff’s multiple medical conditions. This was evident throughout his management of the patient over a long period of time. Because of this lack of familiarity, he should have consulted with a pediatric glaucoma specialist at the beginning of her care in order to obtain the advice and information he required for her future assessment and treatment. He also should have referred this patient for a second opinion, which might have helped him to defend this lawsuit.

One of the most glaring deficits in the care of this child was that the physician employed inadequate examination techniques to determine whether the child was developing glaucoma. Yet, he was well aware that glaucoma was a serious risk for her. If he had discussed with her parents the risks, benefits, and alternatives of an examination under anesthesia, and they had then refused to have their child undergo such an examination, he should have documented this discussion and their decision. His failure to perform an examination under anesthesia would then have been based upon their refusal to consent, and not his failure to perform appropriate testing. However, he failed to even discuss this option with the parents. His making this decision without providing informed consent was a substantial factor in settling this lawsuit.

In summary, when treating a minor under the age of 18, it is important to be aware of the longer Statute of Limitations which is applicable. Further, parents must be involved in important decisions and the physician must adequately document consent to recommended procedures and treatments. Finally, when treating a patient with complex co-morbidities, it is crucial to obtain a consultation and refer the patient for a second opinion. This is important from a risk management perspective, since it benefits both the patient and the physician.

CASE STUDY #2

Missed Diagnosis of a Thoracic Aortic Dissection

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A 39-year-old white male presented to the emergency department (ED) complaining of the sudden onset of chest pain in his anterior central chest, difficulty breathing, and radiation of the pain to his jaw. He rated his pain at 7/10. His blood pressure was 164/124. He had no syncope or pre-syncpe associated with the pain.

The patient had a previous history of sarcoidosis based on a positive lymph node biopsy. He did not smoke, but did have a history of gastroesophageal reflux disease. Occasionally, he had mild elevations of his blood pressure, but had never been treated for, or diagnosed with, hypertension. His family history was remarkable in that his father had multiple TIAs and CVAs, and a history of deep vein thrombosis. The nursing staff appropriately placed the patient on oxygen and initiated cardiac monitoring.

The emergency medicine physician on duty was board certified and had completed training in cardiothoracic surgery. He documented that the patient’s pain started in his chest when he was in a torque position. It then radiated to his teeth. The pain was worse with movement and deep breathing. He had both dyspnea and nausea. The physician was able to reproduce the pain in the patient’s lower paraesternal area with palpation. He found the patient’s pulses and heart sounds to be normal. Two electrocardiograms were performed and interpreted as normal. A chest x-ray was performed and also interpreted as normal by both the emergency medicine physician and, subsequently, a radiologist. His troponin level was normal. The patient was then given aspirin, sublingual nitroglycerin, oxygen, and Tylenol. Reportedly, he was then pain free.

The emergency medicine physician called the cardiologist on call and discussed this patient with him. They agreed to have the patient call the cardiologist the following morning to schedule an evaluation and outpatient stress test.

Prior to his discharge, the patient’s blood pressure was 157/100. Since he appeared to be stable and his symptoms resolved, he was discharged home with a diagnosis of atypical chest pain, gastroesophageal reflux disease, and costochondritis. He was advised to take Prilosec to treat the gastroesophageal reflux disease and ibuprofen for the costochondritis.

Later that evening, the patient’s wife found him unresponsive. She called 911 and promptly initiated CPR. The EMS
responders estimated that approximately 2-3 minutes had elapsed between the patient’s cardiac arrest and the commencement of CPR. ACLS was initiated by EMS and continued for about approximately one hour prior to the patient’s return to the ED. However, the patient never regained consciousness and was asystolic. At the ED, despite ongoing CPR, the patient had no pulse or respirations and was intubated. A bedside echocardiogram demonstrated a pericardial effusion. Pericardiocentesis was attempted, but there was no spontaneous activity or blood pressure in response. He was then pronounced dead.

An autopsy was performed and revealed a 4 cm long thoracic aortic dissection which arose 1.5 cm above the aortic valve. The aortic dissection had communicated with the pericardium. There was a massive hemorrhage into the pericardium. Because of several critical deficits in the care provided, this case was settled on behalf of the insured emergency medicine physician for $2.2 million. Of this total, MLMIC paid $1.3 million and his excess carrier paid $900,000.

A Medical Analysis

Richard L. Hehir MD, D-IM

The sudden onset of chest pain is a common reason why patients present to either an ED or a primary care physician’s office. The evaluation of such pain is challenging. Unfortunately, a misdiagnosis often results in a medical malpractice lawsuit. Three conditions can cause significant morbidity or even death if misdiagnosed: acute coronary syndrome; pulmonary embolus; and dissection of the ascending thoracic aorta. However, many other disease processes can cause similar symptoms, thus contributing to the challenge of making the correct diagnosis. These disease processes include pericarditis, gastroesophageal reflux disease, and musculoskeletal pain.

The ED physician documented that the onset of the patient’s chest pain occurred after he had torqued his torso. However, there was no further description of that activity in the record. This physician was able to reproduce the patient’s pain by palpating on the lower sternum. Therefore, the physician believed the most likely diagnosis was costochondritis, for which he prescribed an NSAID. However, he remained concerned that the patient might have an acute coronary syndrome and ordered one set of cardiac enzymes and two EKGs. He then contacted the cardiologist on call to discuss the patient’s symptoms and arranged for the cardiologist to evaluate the patient and perform a stress test the next day.

Prior to discharge, the patient’s blood pressure was significantly elevated. Even though the patient had been in the ED less than two hours, and his blood pressure was still elevated, the patient was discharged. Shortly after he arrived home, the patient suffered a cardiac arrest and expired.

The cause of the patient’s sudden onset of chest pain was a dissection of his ascending thoracic aorta that dissected proximally down the ascending aorta and into the pericardial sac, resulting in acute cardiac tamponade and death. Dissection of the aorta is usually seen in elderly patients and is more common in males. It usually results from a degeneration of the media of the aortic wall, and is seen as part of the normal aging process. When the dissection involves the ascending aorta, it is referred to as a type A (Stanford classification) dissection and carries a high risk of mortality and morbidity. As the planes of the wall of the aorta separate, occlusion of the arteries that branch off of the aorta may occur. Thus, patients who present with a dissection of the ascending aorta may concurrently exhibit signs and symptoms of either an acute myocardial infarction, or symptoms of spinal cord ischemia or weakness and numbness of the arms. Additionally, such a dissection can result in acute aortic insufficiency and congestive heart failure. As occurred in this case, the dissection may enter the pericardial sac, resulting in an acute hemorrhagic pericardial effusion and tamponade.
Many physicians incorrectly assume that a patient who presents with a thoracic aortic dissection will almost always complain of back pain described as a tearing type of pain. In actuality, patients with an ascending thoracic aortic dissection most frequently complain of sharp anterior chest pain. Although such dissections are rare in patients under the age of 40, there are some underlying disease processes that may predispose younger patients to an aortic dissection. A family history of dissection or aneurysms should raise suspicions. Further, there is a growing body of literature which indicates some genetic mutations predispose families to metabolic defects of the connective tissue of the aorta. This places them at risk for aortic dissection at an early age.

The most common hereditary disorder associated with aortic aneurysms and dissection is Marfan’s syndrome. However, dissections of the thoracic aorta also occur at increased rates in patients who have Turner’s syndrome, or have recently undergone aortic valve replacement, coronary artery bypass surgery, or cardiac catheterization. Individuals with a history of syphilis, giant cell arteritis, rheumatoid arthritis, or diseases that cause vasculitis are at increased risk. Patients with a history of bicuspid aortic valve are also at increased risk. Finally, aortic dissection has been associated with strenuous physical exertion such as heavy weight-lifting. Because this particular patient reported that the onset of pain occurred after he had torqued his body, this may have been a causative factor in this case. Unfortunately, the medical record did not further describe the physical activity which provoked the pain.

When performing a physical examination in patients where dissection of the ascending thoracic aorta is suspected, physicians should look for: abnormalities such as hypertension; a pulse deficit of the upper extremities of greater than 20 mm Hg; a difference in systolic pressure between one arm and the other; or a murmur reflecting aortic insufficiency. However, the majority of patients who present with this condition do not have hypertension. Further, in all patients with an acute dissection of the ascending aorta, only 32% have a murmur of aortic insufficiency. A pulse deficit is present in only 15% of those patients.

It is critical to the patient’s survival to correctly diagnose an ascending thoracic aortic dissection as soon as possible, so that immediate life-saving surgery can be performed. A CT arteriogram or a transesophageal echocardiogram (whichever can be performed most expeditiously) are the diagnostic tests of choice. Point-of-care ultrasounds, which are now frequently being performed in emergency departments, may also be useful to rule out hemopericardium or aortic insufficiency. A D-dimer test should also be considered. Not only can this test be used to rule out the possibility of a pulmonary embolus in patients with acute chest pain, but it also may be useful when considering a thoracic aortic dissection, because a high percentage of those patients will have an elevated D-dimer test.

This case was reviewed by multiple physician reviewers at MLMIC. Since acute dissection of the ascending aorta is a rare diagnosis, especially in a patient this young, the reviewers all agreed that it was unlikely that many ED physicians would have initially made a correct and timely diagnosis. Further, even if an earlier diagnosis had been made, it was unlikely that surgery could have been performed sufficiently quickly to save his life. However, the reviewers did focus on several critical deficits in the ED physician’s care. First, this patient should not have been discharged from the ED in less than two hours. He should have been admitted to the hospital. If this patient’s condition had then changed in the hospital, a prompt reevaluation might have resulted in the correct diagnosis and surgery.

Further, the physician failed to obtain more than one set of cardiac enzymes. This was a particular concern since only one test was performed shortly after the patient’s onset of pain. Because the ED physician was concerned that the patient might have an unstable coronary syndrome, the patient should not have been discharged until a second set of enzymes was obtained at least eight hours later. It takes several hours for these enzymes to rise. Finally, even when there are two normal sets of cardiac enzymes, there is always the possibility that the patient’s pain was caused by cardiac ischemia without any myocardial damage. This possibility cannot be excluded by negative cardiac enzyme elevations.

An additional and unusual area of concern was also addressed by the physician reviewers. This particular ED physician had completed training in cardiothoracic surgery. Thus, the reviewers were seriously concerned that he would be held to a higher standard of care than a physician who had merely completed a residency training program in emergency medicine. Due to these factors, and the age of the patient, settlement of this case was deemed to be the reasonable course of action.

In summary, when evaluating a patient who presents with the acute onset of chest pain, the three most serious diagnoses to consider are an acute coronary syndrome, a pulmonary embolus, and the dissection of the ascending thoracic aorta. Chest pain from an ascending aorta dissection is usually sharp anterior chest pain rather than tearing back pain and may be accompanied by syncope, stroke-like symptoms, numb-

ness or weakness in the arms, or signs of congestive heart failure. These patients also do not usually present with hypertension, a pulse deficit, or aortic insufficiency. The diagnostic tests of choice for this condition are a transesophageal echocardiogram or a CT arteriogram. A D-dimer test may be helpful if the values are elevated.

Finally, while this condition usually occurs in elderly patients, there are a variety of other medical conditions that can place patients at risk for dissection of the thoracic aorta at any age. Thus, this diagnosis should be considered whenever patients present with chest pain and have any of these conditions. Early diagnosis of a dissection of the thoracic aorta is critical to a patient’s survival.

A Legal & Risk Management Perspective

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One of the concerns in this case was whether the emergency medicine physician would have been held to a higher standard of care by virtue of his specialized training and expertise.

In a medical malpractice claim, the plaintiff must prove that the physician breached the prevailing professional standard of care. The standard of care is the level of care, skill, and treatment that is recognized as acceptable and appropriate by a reasonably prudent physician under the same circumstances. The duty of a medical professional is not to cure or even to guarantee a positive outcome from treatment. Medical malpractice does not occur every time a medical treatment is not successful. The standard does not require the very highest degree of skill or care, but only that which a reasonably prudent physician would exercise in the same circumstances. Medical practice has never been an exact science, and doctors are not required to be right every time they make a diagnosis.

Evidence that a physician conformed to accepted community standards of practice will usually preclude a finding of negligence, although adherence to custom itself will not automatically insulate the physician from liability. In addition, the New York Court of Appeals has held that if a physician has superior knowledge or skill that exceeds local standards, he or she will be held to a higher duty of care. A medical specialist, possessing that knowledge and skill equal to other specialists in his or her field, will therefore be held to a higher standard of care than a generalist. This can result in a specialist being held liable in a situation where a general practitioner would not.

The physician’s failure to specifically describe the precipitating event which caused the patient’s symptoms was a factor in deciding whether to defend this case. The record merely stated the patient had “torqued” his body and yet provided no further details. The failure to explain and document what the patient meant by “torqued” seems to indicate that the physician may not have considered the possibility of an aortic dissection in a young male patient. From a risk management perspective, although it is important to document, the documentation must be specific and relevant. Further, if he had related the patient’s family history to the injury and symptoms, he might have then considered the fact that the patient was at an increased risk for an aneurysm.

A more serious concern in defending this case was the physician’s failure to retain a patient with chest pain of undetermined origin in the ED for more than 2 hours, or at least to admit the patient to an observation unit to moni-

Toth v. Community Hospital at Glen Cove, 22 N.Y. 2d 255 (1968)
tor his condition. This appeared to be a serious deficit in the patient’s care. He discharged the patient despite remaining concerns that the patient possibly had a cardiac condition. Moreover, the physician’s failure to respond to the patient’s elevated blood pressure of 157/100, taken just prior to discharge, raises concerns about communication between the nursing staff and the physician. The patient’s elevated blood pressure was neither addressed nor documented by the physician at the time of discharge. This raises the question whether the physician was notified of, recognized, or addressed this change. It was particularly crucial information since the patient did not have a history of elevated blood pressure. The reason why a final set of vital signs is taken and reviewed just prior to discharge is to confirm whether it is a safe discharge as required by New York State regulations. Unfortunately, the resulting discharge was not a safe one.

Finally, the physician’s failure to document his thought processes, showing how he reached his decision to discharge the patient and final diagnosis, made the case indefensible.

When a patient dies soon after discharge from the ED, a hospital has a duty to report this event to the New York State Department of Health pursuant to NYPORTS, the patient adverse event reporting system. The hospital is then obligated to investigate the case and perform both quality assurance and root cause analyses. In some instances, the Department of Health will come to the facility to investigate what occurred.

In the event of a patient death, this may well include interviewing all relevant staff. Usually, the state investigators do not permit counsel or other third parties to be present at these interviews. However, attorneys at Fager Amsler & Keller, LLP are available to discuss the facts of the case with you prior to these meetings and assist you to prepare for such interviews. It is important to be prepared because if the Department of Health is not satisfied with the medical care provided, it may refer the physician to OPMC. If this occurs, the physician should promptly contact MLMIC to obtain names of legal counsel who are experienced in OPMC matters.