

Original
Contributions

DEFENSES TO MALPRACTICE: WHAT EVERY EMERGENCY PHYSICIAN SHOULD KNOW

Michael Jason Hudson, MD and Gregory P. Moore, MD, JD

Emergency Department, Madigan Army Medical Center, Tacoma, Washington

Reprint Address: Michael Hudson, MD, Emergency Department, Madigan Army Medical Center, 1696 Kennedy Place, Dupont, WA 98327

Abstract—Background: Emergency medicine is a high-risk specialty that carries a constant risk of malpractice litigation. Fear of malpractice litigation can lead to less-than-optimal patient care as well as impairments in physician quality of life. Although malpractice fear can be ubiquitous among emergency physicians, most receive little to no education on malpractice. **Discussion:** Medical malpractice requires that 1) The physician had a duty, 2) The physician breached the duty, 3) There was harm to the patient, and 4) The harm was caused by the physician's breach of duty. Even if all four medical malpractice conditions are met, there are still special legal defenses that have been and can be used in court to exonerate the physician. These defenses include assumption of the risk, Good Samaritan, contributory negligence, comparative fault, sudden emergency, respectable minority, two schools of thought, and clinical innovation. **Conclusions:** These legal defenses are illustrated and explained using defining precedent cases as well as hypothetical examples that are directly applicable to emergency medical practice. Knowledge of these special legal defenses can help emergency physicians minimize their risk of litigation when caring for patients. Published by Elsevier Inc.

Keywords—malpractice; legal; emergency; medicine

INTRODUCTION

Malpractice litigation is an ever-present danger among practicing emergency physicians. This threat leads to

fear of litigation and may alter behavior, leading to defensive practice. A 2003 mail survey indicated that, in Pennsylvania, 93% of physicians who are in specialties that have a high risk of litigation (emergency medicine, general surgery, orthopedic surgery, neurosurgery, obstetrics/gynecology, and radiology) practiced defensive medicine (1). A 2008 survey by the Massachusetts Medical Society has shown that defensive medicine adds billions to the cost of health care and is unsafe for patients (2). Fear of litigation may not only affect daily practice but also quality of life outside of the Emergency Department (ED).

There are four elements that must all be present in order for a physician to be held liable for damages in a malpractice suit. These elements are that: 1) the physician had a duty, 2) the physician breached the duty, 3) there was harm to the patient, and 4) the harm was caused by the physician's breach of duty. If all four conditions are not met, the physician is not held liable. If all four conditions are met the attorney has made a *prima facie* case, in other words, has proven malpractice exists. Many do not realize that even if all four elements are met, there are still "special defenses" that can be legally used to exculpate the physician. A well-known example is that if a physician stops alongside a roadway to help an injured victim, but in the process of doing so commits malpractice, he or she can use the special defense of "Good Samaritan". In that situation, the physician is acting as a Good Samaritan. Depending on state-specific laws, he or she likely would not be held responsible in court.

DISCUSSION

This article will review the medical-legal concept of special defenses by presenting classic and defining legal precedent cases. These special defenses can be used to overcome a *prima facie* case of malpractice (Table 1). The reader should note in each of the following illustrative cases that the four elements of malpractice all seem to be present on face, but the physicians were still able to utilize special defenses to exonerate themselves in many situations.

Assumption of the Risk

Assumption of risk lies in the adage *volenti non fit injuria*; to a willing person, no injury is done. The case of *Charrin v. Methodist Hospital* illustrates assumption of the risk (3). In this case, the plaintiff told the staff in the hospital about an exposed television cord. The plaintiff then later tripped over the cord in the hospital room. The plaintiff brought a negligence claim against the hospital, claiming a breach of ordinary care. The plaintiff obviously knew that the cord was there because she pointed it out to the staff. Because she knew the risk was there (the exposed cord), she “assumed the risk.” The court found a judgment in favor of the hospital.

Under assumption of risk, the plaintiff’s implied or expressed agreement absolves the defendant from responsibility. In a medical sense, the patient’s consent protects the physician from responsibility for a bad outcome. In *Schneider v. Revici*, Mrs. Schneider had a breast lump discovered and had it treated by Dr. Revici by non-traditional, non-toxic, non-invasive methods (Revici method) despite being told by several physicians to have it surgically removed. Mrs. Schneider subsequently developed breast cancer that spread to her lymphatic system and required bilateral mastectomy. Mrs. Schneider sued Dr. Revici for malpractice. However, due to thorough consent forms that Mrs. Schneider signed, Dr. Revici was able to argue assumption of risk. The court agreed, stating, “we hold that there existed sufficient evidence—in the language of the Consent for Medical Care form that [Mrs. Schneider] signed, and in testimony relating to specific consent informed by her awareness of the risk of refusing conventional treatment to undergo the Revici method—to allow the jury to consider express assumption of the risk as an affirmative defense that would totally bar recovery” (4).

The above case illustrates the importance of obtaining consent or communicating risk to patients when negative consequences are possible. In the ED, providers often perform procedures that put patients at risk. Procedures such as central lines, lumbar punctures, chest tubes, all may cause harm to patients. The physician performing

the procedure can reduce litigation exposure if the patient knew of the risk, benefit, and alternatives before the procedure and then decided to “assume the risk.”

Good Samaritan (Out of Hospital, In Hospital, Airline)

Good Samaritan laws were enacted specifically to protect physicians responding to emergency situations. The law wants physicians to respond to emergency situations rather than ignore them for fear of potential litigation. The courts have said, “The need to encourage physicians to render emergency medical care when they otherwise might not prevails over the policy of vindicating the rights of a malpractice victim” (5). Before the Good Samaritan laws, when a physician helped someone in an emergency in an out-of-hospital setting, they entered into a “doctor-patient relationship,” which made them liable. Under Good Samaritan laws, physicians responding to emergencies are protected from being held liable for injuries or damages occurring during the emergency (6).

There are, however, caveats to the use of the Good Samaritan defense. The Good Samaritan Act in Illinois states “Any person licensed pursuant to this Act or any person licensed to practice the treatment of human ailments in any other state or territory of the United States, except a person licensed to practice midwifery, who, in good faith, and without prior notice of the illness or injury, provides emergency care without a fee to a person, shall not, as a result of their acts or omissions, except willful and wanton misconduct on the part of such person, in providing such care, be liable for civil damages” (7). Its defense requires that five conditions be present: 1) the incident is an emergency, 2) the act of rendering care is voluntary, 3) the person receiving care accepts it, 4) the care provided is a good faith effort to help, and 5) the provider receives no reimbursement for care provided. Additionally, the care cannot be grossly negligent (8). For example, if a physician was serving as a Good Samaritan by coming to the aid of a person who was stabbed by a knife, and the knife was still in the victim, it would be grossly negligent to pull the knife out. If this is done, the aiding physician may not be able to utilize the Good Samaritan defense as the action was grossly negligent.

In *McCain v. Baston*, Dr. Baston responded to Ms. McCain’s home as a Good Samaritan after Ms. McCain impaled her leg on a rebar at a construction site while walking home. After cleaning the wound, Dr. Baston told her to seek medical care soon. Ms. McCain waited over a week to seek medical care and she required surgical management for an infected wound. She sued Dr. Baston for poor treatment of the wound. However, the court found in favor of Dr. Baston. Because Dr. Baston was acting as a Good Samaritan, he was not held liable for the damages by the court (8).

Table 1. Special Defense Arguments That Can be Used Even Under a *Prima Facie* Case of Malpractice

Special Defense	Definition
Assumption of the Risk	A plaintiff's implied or expressed agreement (consent) absolves the defendant from responsibility.
Good Samaritan	A physician who in good faith and without prior notice provides emergency medical care without a fee to a person is not liable for damages secondary to their acts or omissions except in the case of gross negligence.
Contributory Negligence	Conduct on the part of the plaintiff that falls below the standard to which he should conform for his own protection, and which is a legally contributing cause co-operating with the negligence of the defendant in bringing about the plaintiff's harm. Allows no recovery of damages.
Comparative Fault	Same definition of contributory negligence; however, damages are awarded based on the amount of negligence on the part of the plaintiff compared to the amount of negligence on the part of the defendant. Allows some recovery of damages.
Sudden Emergency	A defendant completed an inappropriate action against the plaintiff; however, it was done in the setting of a sudden unexpected emergency, which caused actions that would not have otherwise been taken if it were not a sudden emergency.
Respectable Minority	A defendant fails to practice within the standard of care of the majority, however, this is excusable if it is shown that a respectable minority of physicians approve of the course of action.
Two Schools of Thought	The treatment or procedure undertaken by the defendant has been approved by one group of medical experts even though there is an alternate school of thought that recommends another approach.
Clinical Innovation	Use of clinical knowledge to perform a procedure or treatment that varies from the standard care in situations in which the standard treatment cannot be used.

It is common knowledge that the Good Samaritan defense can be used in an out-of-hospital emergency setting. Interestingly, the same defense may be used in the in-hospital setting if the provider is practicing within their scope of practice to the best of their ability with the resources that are available at the location of the incident. In a California case, *McKenna v. Cedars of Lebanon Hospital*, Mrs. McKenna, who underwent a therapeutic abortion and tubal ligation, had a seizure, cardiac arrest, went into a coma, and died over a week later. The resident physician who responded to a stat page found Mrs. McKenna to be having a seizure. He pushed 5 mg diazepam and then Mrs. McKenna went into cardiopulmonary arrest. The resident was sued for malpractice. At trial, the jury was instructed, "No licensed physician, who in good faith renders emergency care at the scene of an emergency, shall be liable for any civil damages as a result of any of his acts or omissions in rendering the emergency care" (5). This case extended the Good Samaritan defense to include the in-hospital setting.

The ability to use the Good Samaritan defense in the in-hospital setting varies by state. In Texas, an obstetrician responded to the emergency labor of a patient with whom he had no prior relationship or requirement to respond. The emergency labor resulted in neurologic damage and right arm paralysis. When the patient sued the responding physician, the Texas Supreme Court ruled that the Good Samaritan laws apply to physicians providing emergency care to patients in hospitals as long as it is outside the normal scope of the physician's responsibility and there is not additional pay (9). Thus, in this case, the Good Samaritan defense protected the physician in the hospital. In a similar New Jersey case, Dr. Ranzini, an obstetrician, responded to aid another obstetrician in

a complicated delivery that resulted in an emergency cesarean section, brain damage, and death at 2 years of age. Despite responding to an emergency and having no previous relationship with the patient, the court ruled that the Good Samaritan Act does not apply to physicians working within a hospital (10). States such as Arizona, Indiana, and Oklahoma have ruled that Good Samaritan laws do not apply in the in-hospital setting. Whereas other states such as Georgia, Illinois, and Utah do protect physicians responding to in-hospital emergencies. It behooves physicians to know the law in their particular jurisdiction.

It is the very nature and training of emergency physicians to respond to emergencies. It is hard to imagine that an emergency physician responding to an emergency in the ED will be protected by the Good Samaritan Act. However, a 1976 amendment to the Good Samaritan statutes in California included EDs of hospitals in the event of a medical disaster (6). There are situations where Good Samaritan statutes apply to physicians doing the job for which they were trained (11,12). However, in these situations they applied to physicians who were not on duty at the time of the call for help. An emergency physician may be covered by the Good Samaritan defense during an emergency in the ED if it is a double-coverage ED and that physician is assisting another physician.

Many emergency physicians respond to emergencies and procedures in the hospital at certain times of the day. In this situation, the physicians group has likely contracted with the hospital to cover these emergencies during these times. Because reimbursement has already been accepted in advance, an emergency physician who responds to such an emergency cannot use the Good Samaritan defense.

The question has been asked, does the Good Samaritan Act apply when flying in an airplane? In 1998, the Aviation Medical Assistance Act was enacted, and it protects individuals rendering in-flight medical assistance as long as the person assisting is not guilty of gross negligence or willful misconduct (13). This Act protects physicians responding during in-flight emergencies in the same way as the Good Samaritan laws.

In a strict interpretation of prior Good Samaritan legal cases, accepting any consideration precludes using this defense. Thus, payments from the airline in the form of cash, meals, drinks, vouchers, or seat upgrades could prevent a provider from using the Good Samaritan defense. The Aviation Medical Assistance Act of 1998 makes no mention of payment from the airline to the provider and there are no known test court cases. To definitively avoid liability, a provider should not accept any consideration (tangible reward) for providing medical care on an airline.

Contributory Negligence/Comparative Fault

The concept of contributory negligence applies the legal concept that a person must be responsible for their own action or inaction. If their action or inaction contributed to the negligence, then they should not be awarded damages. For example, a person who clearly sees a train approaching tries to hurry across the tracks, but in doing so gets struck. Obviously it is not the train or conductor who is at fault, but rather the person irresponsibly hurrying across the track. Contributory negligence is defined as “conduct on the part of the plaintiff which falls below the standard to which he should conform for his own protection, and which is a legally contributing cause co-operating with the negligence of the defendant in bringing about the plaintiff’s harm” (14). Said in another way, it is something that the plaintiff does or does not do before the negligent action that contributes to the bad outcome. The first example in court occurred in 1809 when a man was riding a horse and fell off after being hit by a pole. It was determined that the man riding the horse was riding extremely fast and, had he been riding slower, he would have seen the pole in enough time to avoid it. He was not awarded damages because his negligence (riding too fast) contributed to his injury. He is as much responsible as whoever placed the pole (15).

Contributory negligence may offer protection against bad outcomes when patients demand procedures or treatments against physician advice. In *Smith v. Hull*, Mr. Smith underwent hair implants with human hair over several years (16). He then underwent scalp reduction. Despite signing consent forms and being told by Dr. Hull to delay scalp reduction until his hair implants fell out, Mr. Smith insisted on immediate scalp reduction surgery. Mr. Smith then became unhappy with the scarring

on his head and sued Dr. Hull. Dr. Hull used the defense of contributory negligence and the courts agreed, saying that “Smith’s desire to sport a full head of hair motivated him to pursue remedies that he knowingly undertook at his own peril” (16).

Contributory negligence can occur in the ED as well. RhoGAM® (Ortho-Clinical Diagnostics, Inc., Raritan, NJ) may be indicated when a pregnant Rh-negative woman is evaluated for vaginal bleeding. Let us suppose that this woman knows that she is Rh negative, needs RhoGAM®, and has actually received RhoGAM® in a previous pregnancy. If the patient does not tell the emergency physician that she needs RhoGAM® and the physician fails to prescribe RhoGAM®, she can become sensitized and have subsequent difficulty in future pregnancies. Despite this, the physician is not liable because the patient, by not telling the physician she was Rh negative, contributed to the negligence of not receiving RhoGAM®. This actual case occurred in 1993 (17).

A hypothetical example from the ED can occur when a test or study done in the ED requires the patient to be contacted after the patient has left, but the patient has not provided accurate contact information and is therefore unable to be contacted. The physician is not responsible for the negative outcomes of the test or study because the patient contributed to the negligence by providing inaccurate contact information. In *Ray v. Wagner*, a woman developed cancer after she could not be contacted regarding her pap smear results. When she sued the physician, the court absolved the physician. The incorrect contact information that she provided served as contributory negligence (18).

Another example may involve a patient who receives a computed tomography scan of the chest and is told there are lung nodules that require follow-up. The patient then fails to obtain follow-up and develops cancer. The physician would likely not be held liable because the responsibility of obtaining follow-up was on the patient and they failed to do so.

Similar to the concept of contributory negligence is comparative fault. In contributory negligence the patient is not awarded any damages. However, in comparative fault the patient recovers some damages but the amount is reduced according to the percentage at which the patient and physician each contributed to the bad outcome. The logic is that all of us make lifestyle choices that in some way have health consequences. If we were all held completely responsible for these lifestyle choices, then no one would be able to seek damages in cases of malpractice. Patients should not be completely shut out when a physician has wronged them just because they have not behaved perfectly. The goal of comparative fault is to quantify the contributory negligence (19). In a pure comparative fault state, the awarded damages will be

reduced by the percent that the patient is at fault. However, in some states the patient cannot recover damages if they are 50% or more at fault. In other states the patient cannot recover damages if they are 51% or more at fault.

The case of *Ostrowski v. Azzara* illustrates comparative fault (19). In this case, Ms. Ostrowski was a hypertensive diabetic with peripheral vascular disease who had poor weight, diet, blood sugar, and health habit management. Dr. Azzara, a podiatrist, found Ms. Ostrowski's toenail to be red, painful, and producing drainage. Dr. Azzara removed the toe nail to facilitate drainage. Due to co-morbidities, Ms. Ostrowski's toe became a non-healing pre-gangrenous wound. A vascular surgeon at trial testified that due to the unnecessary toenail removal, Ms. Ostrowski required a total of three bypass surgeries to prevent loss of her extremity. Despite this expert testimony, Dr. Azzara was able to show that Ms. Ostrowski's smoking and poor weight, diet, and blood sugar control contributed to the bad outcome. At trial, Ms. Ostrowski was found to be 51% at fault, compared to Dr. Azzara's 49% fault. By comparative negligence, the jury ruled in favor of the physician and the patient recovered no damages.

Contributory negligence or comparative fault can occur any time a patient in the ED fails to follow physician instructions. It also can occur any time they fail to provide critical information, comply with treatment, or adhere to discharge instructions that instruct on how to take a medication or when to seek follow-up. In these situations, documentation is critical. The patient should be informed of abnormal results and the need for follow-up. They should also be told the consequences of not seeking appropriate follow-up. This communication should be documented in the chart and discharge instructions. Additionally, the patient should be instructed on appropriate follow-up for studies that were done in the ED to facilitate outpatient work-up. If the patient needs to be contacted after the ED visit but cannot be reached, it should be documented that every attempt was made to contact the patient.

Sudden Emergency

Sudden emergency is the premise that a person who is in a sudden or unexpected situation that requires immediate action may not use the same judgment they would otherwise if they were not in that situation. A classic example involves a person who is driving a car and is rear-ended. Once rear-ended, the person accidentally hits the gas pedal instead of the brake, causing him to accelerate and hit the car ahead of him. The driver can claim that ordinarily he would have hit the brake and not the gas, however, in the "sudden emergency" he did not act as he normally would. Thus, he would not be held liable for accelerating into the car in front of him due to the "sudden emergency" (20).

The sudden emergency defense has been used in situations that occur in the ED. In *Ross v. Vanderbilt*, a patient who was getting a finger laceration repaired by a physician-in-training in the ED had a vasovagal episode after being injected with lidocaine (21). As the patient's arm jerked and eyes rolled back, the physician walked away from the bedside to get help. The patient fell to the floor, hit their head, and suffered from memory problems, problems with dexterity, and personality changes. The physician could very well have been held liable for malpractice: 1) the physician had a duty to protect the patient, 2) the physician abandoned the patient as they went to get help, 3) the patient was harmed by the fall and head trauma, and 4) the patient's fall and head trauma were caused by the physician leaving to get help. However, under the special defense of sudden emergency, the physician claimed that ordinarily they would protect the patient from falling, but in this sudden emergency situation, they did not act as they normally would and instead left for help. The physician was exonerated by the court under this defense (22).

Respectable Minority

The respectable minority rule is the concept that when it is shown that a respectable minority of physicians approve of a course of action, the medical malpractice case should be dropped (23). Put in another way, not practicing within the standard of care of the majority is excusable if it can be shown that a respectable minority of physicians practice in the standard of question. In *The State of Board of Medical Examiners v. McCroskey*, Dr. McCroskey was under question for making an addendum to a chart after the patient died and making the date of the addendum the date of the death and not the date that the actual addendum was created. It was found that although it is better practice to not back-date notes, there were enough physicians that dated their notes as the day of occurrence that he was still within the standard of care (24).

Exactly how many physicians are needed to create the respectable minority is unclear. In the case *Chumbler v. McClure*, Dr. McClure was a neurosurgeon in Nashville who treated a patient for cerebral vascular disease with PREMARIN (Wyeth Pharmaceuticals, Philadelphia, PA). The plaintiff sued Dr. McClure due to the side effects of breast enlargement and loss of libido and stated that Dr. McClure was the only neurosurgeon out of nine in Nashville that used PREMARIN for cerebral vascular disease. Despite being the only surgeon in Nashville to use this therapy, there were physicians in other parts of the country who were doing it. The verdict was for Dr. McClure. The plaintiff was unable to show deviation from the accepted medical practice. The court felt that simply

being among the minority who practice in a certain way is not deviating from the standard of care (25). In *Hamilton v. Hardy*, Dr. Hardy continued to prescribe birth control to Ms. Hamilton despite Ms. Hamilton's complaints of headache. Ms. Hamilton then suffered a stroke and sued Dr. Hardy for malpractice. At trial, there was testimony that most physicians would discontinue a birth control pill (Ovulen, G.D. Searle and Company, Skokie, IL) after a patient began having headaches and that there were "some" physicians that would continue the birth control despite headaches. In this case, the court felt that "some" was not enough to equal a respectable minority and ruled against Dr. Hardy (23).

This rule could be applied to many clinical situations in which there is not an absolute right or wrong answer. Which antibiotic to choose? Which drug to prescribe? Who to admit? Who to send home? These are situations in which one group of physicians may do it one way and another group does it another. Not being in the majority group does not mean you are outside the standard of care. For example, it seems that the majority of physicians admit patients with pulmonary embolism to the hospital for anticoagulation. There is a segment of physicians who will manage a low-risk pulmonary embolism patient in the outpatient setting. If such a patient has an adverse event, they may claim that they should have been admitted to the hospital. Under the respectable minority rule, the physician can claim there are a number of physicians who treat patients with pulmonary embolism as an outpatient. As long as the physician chooses a "mode or form of treatment which a reasonable and prudent member of the medical profession would undertake under the same or similar circumstances [they] shall not be subject to liability for harm caused thereby to the patient" (26).

Two Schools of Thought

The courts say that, "A medical practitioner has an absolute defense to a claim of negligence when it is determined that the prescribed treatment or procedure has been approved by one group of medical experts even though an alternate school of thought recommends another approach, or it is agreed among experts that alternative treatments and practices are acceptable" (27). This doctrine is applied when there is more than one method of accepted treatment or procedure.

In the case of *Jones v. Chidester*, Dr. Chidester performed orthopedic surgery on the leg of Mr. Jones (27). To obtain a bloodless field, Dr. Chidester used a tourniquet and released it at intermittent times. It was later discovered that Mr. Jones had nerve damage to his leg. Mr. Jones contended that his nerve damage was caused by the use of the tourniquet during surgery. Each side produced evidence and witnesses that supported use of tourniquets

and avoidance of tourniquets. The jury was instructed that when there are two schools of thought, it is not the job of the jury to determine which school is more medically appropriate when both schools have their respective and respected advocates. Dr. Chidester was not held liable for exercising his judgment in applying a course of treatment supported by a reputable and respected body of medical experts, even if another body of experts would have performed a different treatment.

There is some disagreement as to the critical piece of the two schools of thought argument that establishes a second school of thought. The disagreement is if a second school of thought requires a "considerable number" of physicians or does the second school require "reputable and respected" physicians. Because two schools of thought is a complete defense to malpractice, some feel that it should require both a considerable number as well as reputable and respected physicians, to insure quantity and quality (27).

An example of "two schools of thought" would be a patient with cancer who needs chemotherapy with a variety of protocols available. An oncologist may prescribe protocol A with the patient dying. Another physician may have prescribed protocol B with a better result. The primary treating physician would use this doctrine, which advocates that a physician must make their best therapeutic choice, and choosing the wrong approach on hindsight does not support malpractice. It is clear that in the practice of Emergency Medicine, physicians are frequently faced with making choices that others in the specialty would disagree with on hindsight. This special defense would allow them to advocate their position in court.

Clinical Innovation

Physicians often encounter situations that have no evidence with which to guide clinical practice. They are forced to use their reason and judgment to provide the best care possible. In clinical innovation, the physician is doing something that has little to no historical backing. Clinical innovation is frequently required in daily practice. Physicians must make continuous and constant decisions about their patients with no evidence to guide them. What works at one time may not work another and what works for one patient may not work for the other. Because each clinical situation is unique, the physician may be required to practice clinical innovation.

Clinical innovation, a defense that is acknowledged by the court, is not to be confused with experimentation, which in the majority of circumstances is not appropriate in the care of patients. Two cases involving the same physician illustrate the difference (28,29). In *Felice v. Valleylab*, a surgical resident performed a circumcision using an electrosurgical unit. This was a new technique

that was different than using a scalpel, in which she was trained. Using the electrosurgical unit resulted in burns on the penis that were so severe that the penis had to be amputated. The physician was found to be negligent. In *Tramontin v. Glass*, the same surgeon again used an electrosurgical unit during breast augmentation surgery. This resulted in burning of the breast of the patient. In this situation, however, the use of the electrosurgical unit was not experimental. The physician was not liable for damages. The use of the electrosurgical unit on the breast was commonly being done, whereas the use of the device on the penis was not. The physician decided to try the electrosurgical unit on the penis instead of using the available method in which she was trained (scalpel), and did so without knowledge of the potential risk.

Brook v. St. John's Hickey Memorial Hospital also addressed the fine line between experimentation and clinical innovation (30). In this case Dr. Fischer, a radiologist, injected contrast medium into both of Ms. Brook's calves to obtain X-ray studies to help diagnose a urological condition. The contrast medium package insert recommends injections into the buttocks but the radiologist did not discuss his decision to inject into the calf with the parents before injection. At the time of injection, Ms. Brook was only 23 months old. Four months after the injection, Ms. Brook had shortening of her Achilles tendon. This may have been precipitated by trauma to her ankle or calf muscle. She required two surgeries, wearing of an ankle brace, and other expensive treatment for correction. The package insert did not specifically recommend the calf as an injection site. Dr. Fischer's choice in injection site could be viewed as experimentation. However, during the trial Dr. Fischer was able to show medical journals and articles that cautioned against the use of contrast medium in the buttocks and thighs of young infants and small children. Dr. Fischer used the calf successfully in other children and had never read or heard that the calf should not be used. He was attempting to avoid damage to the sciatic nerve by using the next largest muscle mass away from the trunk. Through this evidence, Dr. Fischer's actions were viewed as clinical innovation and he was found to not be liable.

Documentation is critical any time a provider does something that deviates from the normal standard or is a unique situation. As in the case above, explaining why the standard practice is not being utilized and why the innovative action is necessary is paramount to the defense of clinical innovation. An example of clinical innovation in the ED would be the use of diphenhydramine as a local anesthetic, despite its increased risk of tissue necrosis, due to the patient's allergies to esters and amides. Diphenhydramine as a local anesthetic has been shown to be as effective as lidocaine for local anesthesia, but carries the risk of skin sloughing and necrosis (31,32).

Although it has been described and used, it would hardly be considered mainstream, and has significant risk. It would be optimal to openly discuss this technique with the patient before attempting to use the clinical innovation defense, as many would place this in the arena of experimentation.

In this day and age, a physician should be very reticent to do "near experiments." The clinical innovation defense is the last defense a physician should plan to rely on. With proper communication with a patient and documentation of this communication, that is, consent, the clinical innovation defense essentially becomes converted to "assumption of the risk." The key is communication with the patient so that they know the risk and benefits behind the clinically innovative decisions.

CONCLUSION

Several clinical defenses have been and can be used in defense of a malpractice claim, even when it appears that the four elements of duty, breach of duty, harm, and causation are present. The emergency physician should be aware of these defenses so that he or she can optimize and reduce their risk of liability when clinically caring for patients or if confronted with a potential charge of negligence.

REFERENCES

1. Studdert DM, Mello MM, Sage WM, et al. Defensive medicine among high-risk specialist physicians in a volatile malpractice environment. *JAMA* 2005;293:2609-17.
2. Massachusetts Medical Society. Investigation of defensive medicine in Massachusetts. Informational Report: 1-08 - 02. Waltham, MA: Massachusetts Medical Society; November 2008.
3. *Charrin v. Methodist Hospital*, 432 S.W.2d 572 (Tex.Civ.App.1968).
4. *Schneider v. Revici*, 817 F.2d 987 (2d Cir. 1987).
5. *McKenna v. Cedars of Lebanon Hospital*, Court of Appeal of California, 1979. 93 Cal.App.3d 282, 155 Cal.Rptr. 631.
6. Reuter SR. Physicians as Good Samaritans. Should they receive immunity for negligence when responding to hospital emergencies? *J Leg Med* 1999;20:157-93.
7. Ill. Rev. Stat. 1985, ch. 111, par. 4400-30; 224 ILCS 60/30 (1992 West).
8. *McCain v. Batson*, 760 P.2d 725 (Mont. 1988).
9. *McIntyre v. Ramirez*, Texas No. 01-1202, June 26, 2003.
10. *Velasquez v. Jimenez*, New Jersey No. A-105-00, May 29, 2002.
11. *Gordin v. William Beaumont Hospital*, 180 Mich.App. 488, 447 N.W.2d 793 (1989).
12. *Kearns v. Superior Court*, 204 Cal.App.3d 1325, 252 Cal.Rptr. 4 (2 Dist.1988).
13. Gendreau MA, DeJohn C. Responding to medical events during commercial airline flights. *N Engl J Med* 2002;346:1067-73.
14. Restatement (Second) of Torts, Section 463-96.
15. *Butterfield v. Forrester*. 11 East. 60, 103 Eng. Rep. 926 (K.B. 1809).
16. *Smith v. Hull*. 659 N.E.2d 185 (Ind. App. 1995).
17. *Graham v. Keuchel*. 847 P.2d 342 (Oklahoma 1993).
18. *Ray v. Wagner*, 286 Minn. 354, 176 N.W.2d 101, 104 (1970).
19. *Ostrowski v. Azzara*, Supreme Court of New Jersey, 1988. 111 N.J. 429, 545 A.2d 148.

20. W.P. Keeton, D. Dobbs, R. Keeton and D. Owen, *Prosser and Keeton on the Law of Torts* Sec 33, at 196 (5th ed. 1984).
21. *Ross v. Vanderbilt University Medical Center*, No.M1999-02644-COA-R3-CV, Feb. 18, 2000.
22. Moore GP, Pfaff JA. Malpractice cases in wound care and a legal concept: special defense. *West J Emerg Med* 2008;9:238–9.
23. *Hamilton v. Hardy*, 37 Colo. App. 375, 379–80, 549 P.2d 1099, 1104 (1976).
24. *The State Board of Medical Examiners v. McCroskey*, 880 P.2d 1188 (Colo. 1994).
25. *Chumbler v. McClure*, United States Court of Appeals, Sixth Circuit, 1974. 505 F.2d 489.
26. *Henderson v. Heyer-Schulte Corp*, Court of Civil Appeals of Texas, 1980. 600 S.W.2d 844.
27. *Jones v. Chidester*, 531 Pa. 31; 610 A.2d 964 (Pa.1992).
28. *Felice v. Valleylab*, 520 So.2d 920 (La.App. 3d Cir.1987).
29. *Tramontin v. Glass*, 668 So.2d 1252 (La.App.1996).
30. *Brook v. St. John's Hickey Memorial Hospital*, Supreme Court of Indiana, 1978. 269 Ind. 270, 380 N.E.2d 72.
31. Green SM, Rothrock SG, Gorchynski J. Validation of diphenhydramine as a dermal local anesthetic. *Ann Emerg Med* 1994;23:1284–9.
32. Dire DJ, Hogan DE. Double-blinded comparison of diphenhydramine versus lidocaine as a local anesthetic. *Ann Emerg Med* 1993;22:1419–22.

ARTICLE SUMMARY

1. Why is this topic important?

Medical malpractice is an important issue for emergency physicians and may result in practicing defensive medicine.

2. What does this study attempt to show?

This study is a review of various defenses emergency physicians may use.

3. What are the key findings?

Defenses such as assumption of risk, contributory negligence, and respectable minority are discussed.

4. How is patient care impacted?

Knowledge of malpractice risks and important defenses may result in less defensive medicine, and improve patient-physician communication at the time of care.