Clin Orthop Relat Res (2009) 467:339–347
DOI 10.1007/s11999-008-0636-2

SYMPOSIUM: CLINICAL RISK AND JUDICIAL REASONING

An Introduction to Medical Malpractice in the United States

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Published online: 26 November 2008

Abstract Medical malpractice law in the United States is derived from English common law, and was developed by rulings in various state courts. Medical malpractice lawsuits are a relatively common occurrence in the United States. The legal system is designed to encourage extensive discovery and negotiations between adversarial parties with the goal of resolving the dispute without going to jury trial. The injured patient must show that the physician acted negligently in rendering care, and that such negligence resulted in injury. To do so, four legal elements must be proven: (1) a professional duty owed to the patient; (2) breach of such duty; (3) injury caused by the breach; and (4) resulting damages. Money damages, if awarded, typically take into account both actual economic loss and noneconomic loss, such as pain and suffering.

Introduction

The concept that every person who enters into a learned profession undertakes to bring to the exercise of a reasonable degree of care and skill dates back to the laws of ancient Rome and England. Writings on medical responsibility can be traced back to 2030 BC when the Code of Hammurabi provided that "If the doctor has treated a gentlemen with a lancet of bronze and has caused the gentleman to die, or has opened an abscess of the eye for a gentleman with a bronze lancet, and has caused the loss of the gentleman's eye, one shall cut off his hands [18]."

Under Roman law, medical malpractice was a recognized wrong. Around 1200 AD, Roman law was expanded and introduced to continental Europe. After the Norman conquest of 1066, English common law was developed, and during the reign of Richard Coeur de Lion at the close of the 12th century, records were kept in the Court of Common Law and the Plea Rolls. These records provide an unbroken line of medical malpractice decisions, all the way to modern times. One early medical malpractice case from England, for example, held that both a servant and his master could sue for damages against a doctor who had treated the servant and made him more ill by employing "unwholesome medicine [4]." In 1532, during the reign of Charles V, a law was passed that required the opinion of medical men to be taken formally in every case of violent death; this was the precursor to requiring expert testimony from a member of the profession in medical negligence claims, to establish the standard of care.

In the United States, medical malpractice suits first appeared with regularity beginning in the 1800s [3]. However, before the 1960s, legal claims for medical malpractice were rare, and had little impact on the practice of medicine [21]. Since the 1960s the frequency of medical malpractice claims has increased; and today, lawsuits filed by aggrieved patients alleging malpractice by a physician are relatively common in the United States. One survey of specialty arthroplasty surgeons reported that more than 70% of respondents had been sued at least once for medical malpractice during their career [23].

Since medical malpractice litigation is a pervasive phenomenon, it is likely surgeons will encounter it at some

The author certifies that he or she has no commercial associations (eg, consultancies, stock ownership, equity interest, patent/licensing arrangements, etc) that might pose a conflict of interest in connection with the submitted article.

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point in their career. Once a lawsuit is filed, the defendant physician must deal with unfamiliar legal territory, where the goals, professional conduct, and procedures followed by the parties to the litigation are different from the practice of medicine. The goal of this article is to provide orthopaedic surgeons an introduction to the basic concepts of medical malpractice law, including the language, court structure, and tribunals that govern medical malpractice litigation in the United States.

Medical Malpractice Law in the United States

In the United States, medical malpractice law has traditionally been under the authority of the individual states and not the federal government, in contrast to many other countries. To win monetary compensation for injury related to medical negligence, a patient needs to prove that substandard medical care resulted in an injury. The allegation of medical negligence must be filed in a timely manner; this legally prescribed period is called the "statute of limitation" and varies from state to state. Once the injured person has established that negligence led to injury, the court calculates the monetary damages that will be paid in compensation. Damages take into account both actual economic loss such as lost income and cost of future medical care, as well as noneconomic losses, such as pain and suffering. Physicians practicing in the United States generally carry medical malpractice insurance to protect themselves in case of medical negligence and unintentional injury. In some instances, such insurance is required as a condition of hospital privileges, or employment with a medical group.

Medical malpractice is defined as any act or omission by a physician during treatment of a patient that deviates from accepted norms of practice in the medical community and causes an injury to the patient. Medical malpractice is a specific subset of tort law that deals with professional negligence. "Tort" is the Norman word for "wrong," and tort law is a body of law that creates and provides remedies for civil wrongs that are distinct from contractual duties or criminal wrongs [24]. "Negligence" is generally defined as conduct that falls short of a standard; the most commonly used standard in tort law is that of a so-called "reasonable person." The reasonable person standard is a legal fiction, created so the law can have a reference standard of reasoned conduct that a person in similar circumstances would do, or not do, in order to protect another person from a foreseeable risk of harm.

Current medical malpractice law has its origins in 19th century English common law [22]. English common law refers to the legal system of England and Wales, and forms the basis of jurisprudence in the United States, and in many other Commonwealth countries to which it was exported during the time of the British Empire. Common law refers to law and legal systems that are developed through decisions of courts and judges, as opposed to laws developed exclusively through legislative statutes or executive decisions. In the United States, medical malpractice law is under the authority of the individual states; the framework and rules that govern it have been established through decisions of lawsuits filed in state courts. Thus, state law governing medical malpractice can vary across different jurisdictions in the United States, although the principles are similar. In addition, during the last 30 years, statutes passed by states' legislatures have further influenced the governing principles of medical malpractice law. Thus medical malpractice law in the United States is based on common law, modified by state legislative actions that vary from state to state.

One exception to medical liability can arise in the context of those who volunteer assistance to others who are injured or ill; this exception is embodied in "Good Samaritan" laws that address bystanders' fear of being sued or prosecuted for unintentional injury or wrongful death, In the United States, Good Samaritan laws vary from jurisdiction to jurisdiction and specify who is protected from liability and the circumstances pertaining to such protection. In general, Good Samaritan statutes do not require any person to give aid to a victim, although a handful of states, such as Vermont and Minnesota, specify a duty to provide reasonable assistance to an injured person at the scene of an emergency. This duty may be satisfied by calling 911 for assistance, and the violation of such a duty is usually a petty misdemeanor.

Although they are not uniform in their application, Good Samaritan provisions have some general principles in common. The principle of imminent peril may affect the scope of such laws; thus, if a bystander elects to rescue a victim when there is no imminent peril and causes injury, then a court may hold the actions of the rescuer as reckless and unnecessary. Once the bystander begins rendering aid, he must not leave the scene unless another rescuer takes over, or unless it is necessary to summon needed medical attention, or if continuance of the aid is unsafe. Consent in emergency situations is implied if the patient is unable to give consent; courts are forgiving in this regard under the legal doctrine that "peril invites rescue."

To summarize, under appropriate circumstances, and in jurisdictions where they apply, Good Samaritan laws can immunize the responder from legal liability for death, disfigurement, or disability of the victim as long as the responder acted in good faith, according to his level of training, and in a rational manner. In some jurisdictions, Good Samaritan laws protect only those who have completed basic first aid training and are certified by a health

organization, and provided they limit care to the scope of their training. In such jurisdictions, a person who lacks such training and elects to perform first aid incorrectly can be held liable for errors. In other jurisdictions, however, any rescuer is exempt from legal liability as long as the rescuer acted rationally.

The Court System in the United States

Although the names given to the different judicial tribunals can vary, the structure and hierarchy of the courts is similar among the states. All states in the United States have trial courts where civil disputes are filed and litigated; and there is usually a system of appeals courts, with final judicial authority resting in the state supreme court. The place where the case is filed is guided by the residence of the parties involved and the location of the alleged misconduct; this place is also referred to as venue. If a case is filed in the wrong court, it can be dismissed for lack of venue.

Lawsuits alleging medical malpractice are generally filed in a state trial court. Such trial courts are said to have jurisdiction over medical malpractice cases, which is the legal authority to hear and decide the case. Legal rules guide venue and jurisdiction in each state. Some towns may be located in two judicial districts, thereby giving the aggrieved patient an option to file suit in more than one trial court. If the malpractice claim involves the federal government acting through a federally funded clinic or a Veteran's Administration facility, then the action is filed in a federal district court. Each state has at least one such federal district court. Federal courts may also be appropriate for filing malpractice claims where a complete diversity of state citizenship exists, i.e., if the parties to the litigation are from different states, or if a federal question is invoked, such as violation of a fundamental constitutional right during the allegedly negligent conduct.

In the United States, the right to a jury trial is regarded as a fundamental constitutional right. A jury trial is a legal proceeding where a group of individuals chosen from the public is asked to consider the evidence presented during the case and make a decision. The choice of jurors is guided by court rules and with the participation of lawyers from both sides. Demographic information about the jurors is known to both parties, each of whom can usually strike a limited number of jurors to assure impartiality of the jury panel. In contrast to a jury trial, a bench trial is one in which a judge or a panel of judges makes the ultimate decision. In the United States, a physician can expect a jury trial in nearly all cases of medical malpractice, assuming the case is not disposed of prior to trial. (A jury trial is not the same thing as a grand jury; the latter is used for criminal indictments and does not apply to medical malpractice cases.)

Under limited circumstances, a medical malpractice case may be filed or moved to a federal court. This can occur if the underlying case invokes a federal question or federal constitutional issue or if the parties live in different states. The federal equivalent of state trial courts consists of a system of 94 United States district courts; at least one is located in each state. Like state courts, U.S. district courts have a judge and a jury panel that hear the case. While the rules that apply to legal procedures in U.S. district courts are uniquely federal, they are similar to state rules of legal procedure. The substantive law applied by federal courts to resolve legal disputes, ie, statutory law or legal precedent, is derived from the state in which the district court is located. Thus, if a medical malpractice case is tried in federal court, state malpractice law still applies, with federal procedural rules of jurisprudence. Procedural rules have to do with legal housekeeping functions that guide the litigation process.

The Legal System of the United States

The system of law governing the resolution of civil disputes between parties in the United States is referred to as the adversarial system, where respective advocates for each side in a dispute skillfully present arguments before an impartial party, such as a jury or judge [19]. The adversarial system is used in common law countries to resolve disputes related to negligent conduct, whether medical or otherwise. In contrast, the inquisitorial system is usually found in continental European countries based on the civil law system that is derived from Roman law or the Napoleonic code; in this system, judges independently investigate the facts of the case and decide the outcome. The Napoleonic code refers to the French civil code that was established under Napoleon Bonaparte, and drafted by eminent jurists in 1804. This Code stressed clearly written and easily accessible law, and was a major historical influence in establishing and promoting the idea of "the rule of law." The Code itself was derived from earlier French laws and Roman law, and reflected a fundamental advancement that changed the civil law legal system of France, and influenced that of other nations as well.

The aggrieved patient who initiates the lawsuit before a court is called the plaintiff or complainant. By filing a lawsuit, the plaintiff seeks a legal remedy from the court. If the plaintiff is successful, the court will enter judgment for the plaintiff and issue a court order for damages. The party against whom the complaint is directed is the defendant; in the case of medical malpractice this party is the physician, medical laboratory, hospital, or professional organization to which the physician belongs. In litigation, cases are

identified by citing the plaintiff first; thus a lawsuit is cited as "Plaintiff v. Defendant."

A medical malpractice lawsuit in United States is initiated by filing a summons, claim form, or complaint; these legal documents are called the pleadings. Pleadings set forth the alleged wrongs committed by the defendant physician with a demand for relief. In some jurisdictions, the legal action is initiated by service of legal process by physical delivery of documents on the defendant by a process server; these documents are then filed with the court with an affidavit verifying that they have been given to the defendant doctor according to certain rules of legal procedure.

Legal Elements of Medical Malpractice

In the United States, the patient alleging medical malpractice must generally prove four elements or legal requirements to make out a successful claim of medical malpractice [6]. These elements include: (1) the existence of a legal duty on the part of the doctor to provide care or treatment to the patient; (2) a breach of this duty by a failure of the treating doctor to adhere to the standards of the profession; (3) a causal relationship between such breach of duty and injury to the patient; and (4) the existence of damages that flow from the injury such that the legal system can provide redress.

The first element is that a legal duty existed toward the patient; this duty comes into play whenever a professional relationship is established between the patient and health care provider. The general idea of a legal duty is that in civilized society, each person owes a duty of reasonable care to others. Extending this concept to the professional setting, where a doctor provides service to a patient, the doctor is said to owe a duty of reasonable professional care to the patient. In practical terms, this is the easiest element for the patient to establish, since such a duty is essentially assumed whenever a physician undertakes the care of a patient. A duty does not exist where no relationship is established between the doctor and patient; but when a relationship is established, such as covering patients for a colleague, covering a clinic where indigent patients are treated, or providing emergency services to an accident victim by the roadside, a duty of reasonable care follows. In some situations, for policy reasons related to promoting medical care for indigent patients, or encouraging intervention by medical bystanders in case of an accident, the law may limit the liability of the treating physician, even though a reasonable duty of care was established. An exception to the duty of care is when the physician sees the patient as a nonprofessional, such as outside the hospital or clinic, or in some social setting. In such cases, no doctor-physician relationship is established, and there is no duty of reasonable medical care owed.

To show that a breach of professional duty occurred, the patient must invoke the concept of standard of care. While the precise definition of "standard of care" can differ among jurisdictions and the concept can prove elusive in its application, the standard of care generally refers to that care which a reasonable, similarly situated professional would have provided to the patient. To establish breach of a standard of professional care, expert witness testimony becomes essential since a jury of lay persons cannot understand the nuances of medical care. Some breaches of the standard of care are so egregious that expert testimony is not needed; thus an operation on the wrong limb is an obvious breach of duty that speaks for itself. This concept is captured in the legal term called *res ipsa loquitur* (Latin for "the thing itself speaks" but more often translated as "the thing speaks for itself"); in such cases, the legal proceeding is abbreviated and the jury can proceed to determining damages since the breach of duty is plainly obvious.

A breach of the standard of care in itself, aside from being a potential quality of care concern for the medical practitioner or institution, is legally meaningless unless it causes an injury to the patient. This "so what?" question frames the third element of medical malpractice, which is causation. To prove this element, the injured plaintiff must show a direct relationship between the alleged misconduct and a subsequent injury. Alternatively, the patient can show a legally sufficient relationship between the breach of duty and the injury; this concept is referred to as proximate causation.

The fourth and final element of medical malpractice lawsuits is called damages. A medical malpractice claim generally concludes with a calculation of damages. Since monetary damages are easy to calculate and administer, courts hearing medical malpractice cases will determine money damages to compensate the injured patient. Punitive damages are very rare in medical malpractice cases, and are reserved by courts for especially egregious conduct that society has a particular interest in deterring; examples can include altering or deliberate destruction of medical records or sexual misconduct towards a patient. Absent a showing of damages, a plaintiff cannot maintain a cause of action for medical negligence. Thus if a fractured tibia was treated using closed reduction and cast application when the fracture pattern clearly called for open fixation, it may constitute negligence if the fracture went on to nonunion or malunion, requiring multiple operations and increased expenses. But if the fracture went on to uneventful healing despite the wrong treatment and the patient pleaded injury from this treatment but with no showing of actual damages, there would be nothing for the court to award.

The Process of Trial

Medical malpractice cases rarely reach trial, and this is generally true of civil litigation in the United States. The reason is that the legal system is based on adversarial advocacy by respective lawyers, designed to foster and promote efficient self-resolution of civil disputes. To that end, a number of legal tools have been developed, the most important of which is the process of discovery. Between the filing of the suit and trial, there is a lengthy and extensive period of discovery, or information sharing and factual understanding between parties. The process of discovery is facilitated by requests for documents, interrogatories, and depositions; these are all components of extensive pretrial, out-of-court litigation process between parties that the legal system is designed to encourage. Documents consist of medical records; a request for medical records is usually the first step undertaken by a plaintiff's attorney to review the case. Other documents can include hospital billing information, clinic notes, and related papers. Once the case is filed, an interrogatory is a form submitted by attorneys to the opposing party; the goal is to gather preliminary and demographic information about the party. Depositions are formal proceedings in which a litigant or party to the litigation is questioned by counsel, under oath, and a record of the proceeding is made for later use in court. The rationale is that by requiring disputing parties to exchange facts and underlying information, such as respective expert testimony, the parties can reach mutual understanding and settle the case. Absent settlement, information gained during discovery is presented during trial; contrary to popular notions about court trials, neither party can spring a surprise on the other side by introducing new and undiscovered facts.

For many physicians, the deposition under oath is the most vivid encounter with the legal system during a medical malpractice suit. In law, a deposition is a witness testimony that is given under oath, and recorded for use in court at a later date. In the United States, a deposition is part of the discovery process by which litigants gather information in preparation for trial. Federal Rules of Civil Procedure and their corresponding state counterparts govern the taking of testimony by deposition. Typically, the patient's attorney will file notice with the attorney defending the doctor that a deposition is needed. All parties agree upon a convenient time and place. In many cases, the place is the doctor's office, preferred by the defense lawyers since physicians are comfortable in their offices, and have books and other reference materials available, in case they are needed. A deposition begins with a court reporter administering the same oath or affirmation that the party being deposed would take if the testimony were to be in court, before a judge and jury. Then a verbatim stenographic record of all that is said during the deposition is taken, just like a recording in court. A written record of the testimony, or a video record, is then available to all parties in the litigation.

Depositions are usually attended by attorneys for both parties and a representative from the insurance company who has issued malpractice coverage on behalf of the doctor. Sometimes, the patient can choose to attend the deposition, although the patient does not direct questions to the deponent. Direct examination is the questioning of the deponent by the attorney who ordered the deposition, namely, the attorney for the patient. After the direct examination, other attorneys in attendance may cross-examine the testifying physician. Cross-examination may be followed by more questions from the first attorney; this process is called redirect, which may be followed by a recross, until all parties have exhausted their questions.

During deposition testimony, two kinds of objections may be raised by lawyers; these apply to either the assertion of a privilege or to the form of the question asked. Objections related to the admissibility of evidence, and the applicability of rules of evidence are generally preserved for trial. Objections to form are usually a signal to the deponent to be careful in answering the question. The significance of deposition testimony lies in the fact that it can be used to impeach or contradict the physician's later testimony in open court. Therefore, thorough preparation for deposition is essential; the physician should set aside time for meeting and preparing with counsel, and research the records before delivering testimony. Experienced lawyers will conduct a mock deposition to ensure physician comfort and familiarity with the process. Finally, honesty and truth are essential; the deposition testimony is a permanent record issued under oath, and can be used to negate later, contrary statements offered by the physician.

At trial, the plaintiff's attorney has the burden of proving every element of the case by presenting information gathered during the pretrial discovery. The attorney must convince the jury that it was more likely than not that the physician was negligent. Any assertions by the physician's lawyer to the contrary are called defenses. Defenses serve to negate the evidence presented by the aggrieved plaintiff. The "more likely than not" standard of legal proof required in medical malpractice litigation is also called the "preponderance of evidence" standard; it is less demanding than the "beyond reasonable doubt" standard required to convict criminal defendants. Practically, "preponderance of evidence" means that an impartial jury, after hearing and considering all the information discovered by respective parties will find a greater than 50% probability that professional negligence did occur, in order to return a verdict against the physician. In this role, the jury or judge are referred to as fact-finders.

The process of how lawyers are selected in medical malpractice litigation is different for plaintiffs and defendants. In the United States, lawyers for aggrieved patients are hired by the patient, usually on a contingency-fee basis, where the lawyer collects money only if a monetary damage is awarded. This system has been criticized as encouraging medical malpractice lawsuits, unscrupulous advocacy on behalf of the patient, and discouraging meritorious medical malpractice cases with a low chance of monetary recovery [5]. However, the vast majority of medical malpractice claims that are filed do not proceed to the point of a jury verdict. Contingency fees apply to both settlements and monetary damages awarded by a court; the amount taken by the plaintiff's lawyers can vary from 5% to 50% of any dollars received, whether from a settlement or formally awarded by a court after a verdict favoring the plaintiff. Defense lawyers are appointed on behalf of physicians by the medical malpractice insurance company; legal fees are paid by the insurance company even though the lawyer's client is the physician being represented. Physicians named as defendants in medical malpractice litigation in the United States can also hire personal counsel at their own expense, for additional guidance, review, and insight.

Medical malpractice lawsuits are time- and resource-consuming endeavors, and emotionally charged experiences. Many lawsuits settle out of court, on terms agreed upon by both parties, with a payment of money by the physician's insurance company. Most insurance policies allow the physician to have input into the settlement decision, giving the physician the authority to decide whether to settle, or proceed with litigating the claim. Some professional liability policies, however, allow the insurance carrier to settle a claim without consent of the policyholder, or even over the policyholder's objection, and may contain additional restrictions related to settlement of claims. Whether or not a medical malpractice action is settled or proceeds to court, the investment of time, money, and resources by the defendant physician, and the plaintiff's attorney, is not trivial. The process of legal discovery and negotiations between parties usually stretches out over years, and during this time, the plaintiff's lawyer must fund the proceedings, such as paying court costs, attorney time and work product, and fees for expert testimony. Medical negligence lawsuits are complex undertakings, involving many hours of physician and attorney time, extensive review of records, interviews with experts, and research into the medical and legal literature. Preparation and prosecution of a medical negligence lawsuit can cost more than $100,000; this amount reflects the financial risk assumed by the plaintiff's attorney in return for the probability of settlement or a favorable verdict.

Increasing medical malpractice litigation relates to increased medical expenditures in the United States, in part because of increased resource utilization from defensive practices to avoid claims [20]. The concern has been raised that physicians may settle cases to avoid the nuisance, harassment, and financial risk inherent in jury trials [17]. Monetary payments, even if through pretrial settlement, are usually reported to a national practitioner databank and to state medical licensing boards and medical societies. While the goals of such reporting are related to ensuring quality of care, the advantages of these mechanisms remain unclear [16]. The role of lawsuits and pretrial settlement in contributing to the large costs of the U.S. healthcare system are a subject of an intense national debate.

Once damages have been assessed by a court, the losing party can apply for a new trial, or appeal the judgment to the next higher level of court; appeals courts exist in every state and in the federal system for this purpose. In some jurisdictions, parties can appeal the size of the judgment at the same court; thus dissatisfied plaintiffs may want more money, while defendant physicians can appeal for a reduction in the amount awarded. In practice however, the legal system of the United States is extremely deferential to the finality of a jury trial; successful legal appeals usually concern a specific point of law or procedure that may have been misapplied during trial. If a jury applied the correct law, and the trial court followed proper legal procedures, the outcome of a trial is unlikely to be disturbed on appeal, even if it appears unfair or incorrect. The practical implication is that medical malpractice cases are won or lost at trial; thus physician preparation, participation, involvement and cooperation with defense counsel are important.

Tort Reform

In response to concerns that there is a crisis in medical malpractice litigation [2, 11], many states have adopted a variety of administrative and legislative actions, collectively referred to as "tort reform" measures. These measures include actions such as ending lawsuits in which one defendant can be responsible for paying all of the damages if other defendants lack the resources to pay (joint and several liability); reducing damage awards by the amount available to an injured party from collateral sources (such as workers compensation and health insurance); limiting contingency fees that a lawyer can claim to cover fees and expenses; limiting the length of time after an injury that a lawsuit may be brought to trial, permitting the award of future damages such as lost wages and health care costs to be paid in installments instead of one lump sum; and limiting damages awarded in malpractice lawsuits.

Similar reform efforts have been introduced at the federal government level as well.

Other proposals have included introduction of a contractual model for medical malpractice liability [9] and instituting a no-fault medical malpractice liability system similar to worker's compensation, or no-fault automobile insurance [12]. Although state legislatures have generally rejected both these models, a number of other proposals have passed with the goal of reducing malpractice frequency, probability, and severity. One study examined 44,913 claims reported to the National Practitioner Data Bank from 1999 through 2001, using logistic regression to study associations between payments, physician premiums, and ten state statutory tort reforms [8]. The authors found that despite wide variations in malpractice payments among states, statutory reforms that capped total and noneconomic damages were associated with lower payments and premiums. While other studies report mixed results [1, 10], it is possible major reductions in malpractice payments could be realized if total or noneconomic damage caps were operating nationally.

Alternatives to the strict tort liability system have been offered as well. Such alternatives include replacing the trial and jury system with a less formal process involving professional decision makers. The goal of this alternative dispute resolution scheme is to reduce costs, expedite the handling of negligence claims, eliminate overly generous juries, and screen out nonmeritorious claims. Arbitration is a form of alternative dispute resolution that has been adopted by many states in the US, but not for resolving medical malpractice claims. Voluntary binding arbitration is an alternative to litigation, conducted privately by the parties before an impartial third party with expertise in the area. The decision of the arbitrator is generally final, although unsatisfied parties can seek subsequent judicial resolution of the dispute. The American Medical Association has proposed establishing a state medical board to discipline physicians and resolve medical malpractice claims [7]. Under this proposal, which has not been adopted in any state so far, the board would have authority to change some legal rules pertaining to medical malpractice, limit attorney fees, and use guidelines to promote consistency in damage awards. Others have proposed eliminating physician liability entirely and replacing it with enterprise liability in which the health care organization where the care is delivered is held responsible for negligence [15]. The goal of enterprise liability is to monitor quality of care while reducing costs, and expedite the resolution of malpractice. Some health organizations who employ physicians already apply some of these concepts by assuming legal responsibility for their employee-physicians.

Different states have different regulations for the actual filing of a lawsuit related to medical negligence; some of these regulations are the result of incremental tort reform efforts. Thus, state regulations may limit the choice of venue, i.e., limit the court in which a plaintiff can file the lawsuit instead of shopping for an alternative venue with a history of generous awards for plaintiffs. Another common regulation is to require an affidavit by a peer-physician testifying to the merits of the case before it can be filed, and to limit plaintiff's discovery of a defendant's assets until a trial court has found that the plaintiff is able to present a credible case. A number of states have passed laws prohibiting the admission of expressions of sympathy or benevolence following an adverse outcome; such apologies for medical errors have limited admissibility in civil actions when used by the plaintiff to show defendant negligence.

Overview of Other Legal Systems

The large expenditure of national wealth on U.S. healthcare is the subject of intense scrutiny and reform efforts [8]. According to a report issued by the World Bank, the direct cost of administering the medical malpractice system in the United States was $4.86 billion in 1991; this figure reflects the insurance premiums paid by physicians and hospitals [13]. A report issued by the US Department of Health and Human Services estimated the cost of malpractice insurance to doctors alone at $6.3 billion in 2002; with an additional cost of $60–108 billion related to the practice of defensive medicine, i.e., costs related to physician behavior in response to the threat of a lawsuit alleging medical negligence [14]. While the legal systems for dealing with medical malpractice claims in other developed nations parallel those of the United States for the most part, there are differences that could guide future policy and reform efforts.

The British medical malpractice system relies on its courts to adjudicate patient complaints. Most doctors in England are insured by the National Health Service (NHS) that handles all the legal and business aspects of medicine. NHS employee doctors are not personally liable for malpractice claims and do not have to buy malpractice insurance coverage. Funds for the NHS indemnity come from the government's general fund. Jury trials are less common in England, but the legal handling of malpractice claims is otherwise similar to the United States. Compliance with customary practice is a defense to an allegation of medical malpractice in England; reasonable care is defined as practice in accordance with that accepted at the time as proper by a responsible body of medical opinion.

In France, the medical malpractice system was similar to that of the United States until 2002; patients could file medical malpractice suits in court, and either settle or proceed to trial. Legal rules made it difficult for patients to prevail in litigation against a doctor. Changes instituted in 2002 introduced an out-of-court, no-fault system in which patients could bring claims before a regional government-appointed review board; money to compensate injured patients comes from a national fund that is funded by insurance premiums placed on doctors and hospitals or from general fund revenues.

In Germany, medical malpractice claims are referred to mediation boards and expert panels set up by the physicians' guild. Patients can reject the outcome of mediation, and take their case to court where the system of adjudicating medical malpractice claims is similar to that of the United States. Sweden, Finland, Denmark, and Norway also operate out-of-court, no-fault systems for medical malpractice, designed to compensate patients for injuries they suffer from avoidable risk and complications related to medical care. The systems also compensate patients for injury caused by defective equipment, the misuse of equipment, incorrect diagnoses, and infection contracted during treatment.

In Japan, almost half the doctors belong to the Japanese Medical Association, and are covered for malpractice claims by a collective insurance pool. Private insurance coverage is also available, although it is not required by law. The professional liability program offers an out-of-court claim review system that is faster and less expensive than court review, but it is biased in favor of physicians over patients. The review board's decisions are generally binding, but patients can also sue in court. Unlike the United States, injury or death due to medical error is often treated as a criminal matter in Japan, with the possibility of physician arrest and prosecutorial investigation.

The Canadian medical malpractice system is similar to that of the United States, but fewer claims are filed, and the incidence of claims related to medical negligence has declined steadily since 1997. This decline is probably related to improved patient safety initiatives, and physician participation in continuing professional development programs. Most Canadian physicians are insured against medical malpractice by the Canadian Medical Protective Association. Alternative, informal judicial forums are being used increasingly to address patient concerns in Canada. Like Canada, Australia also has a more socialized health system than the United States, although medical malpractice concerns are similar to those of the United States. Similar standards of medical negligence, grounded in English common law, apply to medical malpractice litigation in Australia. Earlier in this decade, two large Australian insurers that financed the defense of medical malpractice claims went bankrupt, necessitating a government bailout. Malpractice insurance premiums increased, leading to a debate about tort reforms and capitation limits on claims.

Discussion

The purpose of this paper was to provide an overview of medical malpractice in the United States, and the judicial system developed to handle legal claims related to such. The concept of holding a physician accountable for medical malpractice is grounded in ancient law, and modern tort law related to medical negligence claims has evolved after the principles of English common law, modified and changed by numerous court decisions and legislative statutes that vary from one state to another.

Lawsuits alleging medical negligence in the United States are usually filed in a state trial court that has jurisdiction for the case. In some cases, malpractice claims may be filed in a federal court. Medical malpractice law is a part of civil law, rather than criminal statutes in the United States. In contrast to some other countries, a jury trial is used to adjudicate medical malpractice claims, and the role of judges is relatively limited. The system is adversarial, and designed to promote prelitigation settlement of disputes between parties. Extensive legal tools, such as depositions of parties to the litigation, have been developed to encourage litigants to discover facts, assess the merits of their arguments, and hopefully reach independent resolution of the case. Few cases will actually make it to trial.

To show that medical negligence occurred, the aggrieved patient must show that a duty of professional care existed, that such duty was breached when the physician deviated from the standard of care, and as a result of such breach there was injury, and that such injury is measurable in damages that the court can use to calculate the redress owed to the plaintiff. These legal elements of a medical malpractice case must be proven by the patient suing the doctor, to the applicable standard of proof required by law.

The contingency fee system of compensating plaintiff's attorneys has been criticized as promoting litigation, while some meritorious claims that may have a low probability of financial reward may never get filed. Defense lawyers are usually appointed by the physician's insurance carrier. Both the direct costs of medical malpractice that are related to insurance premiums and administrative costs, and indirect costs related to altered physician behavior in the face of threatened litigation are significant. Many efforts at tort reform have been directed at the state level, as well as the federal level in the United States with the goal of improving the system and reducing litigation-related costs. Other

nations have developed similar systems of adjudicating medical malpractice claims, with some notable differences; comparisons among systems may be helpful in identifying future reforms in the US medical malpractice system.

In summary, as technology and the demand for healthcare have increased, the complexity and incidence of healthcare delivery, injuries, and adverse outcomes require a system of patient redress that is equitable, fair, economical, and just. The United States has an adversarial system of adjudication of medical malpractice claims, similar to the method of resolving other civil disputes. Physicians are typically unaware of the intricate logistics, structure, and functioning of the legal system until faced with a lawsuit alleging medical malpractice. Even a jury verdict in favor of the defendant physician can take a heavy toll in terms of personal stress, discouragement, and time commitment to the process. The experience of other developed nations around the world suggests that there are no simple answers to address medical malpractice; future reform efforts will continue to develop a system that is economically efficient, and adequately compensates those injured by medical errors, while excluding frivolous and opportunistic medical claims.

Acknowledgments I thank M.M. Manring, Ph.D., for his assistance in preparing this manuscript.

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