Pathology Expert Witness Testimony and Pathology Practice

A Tale of 2 Standards

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- Context.—Pathologists work in an environment in which, to the extent possible, diagnostic decisions are based on scientific principles. It can therefore be a rather shocking experience when a pathologist finds one of his or her diagnostic decisions being evaluated by a legal system developed and controlled by lawyers and judges rather than by scientists or pathologists. This experience can be even more troubling when a key participant in the proceedings is a fellow pathologist guiding a jury toward an unfamiliar interpretation of the pathology standard of care.

Objective.—To provide the interested pathologist with the background information necessary to (1) understand the role of expert testimony in malpractice litigation and (2) understand why there can be a gap between expert opinions expressed in court and expert opinions expressed in a medical care context.

Data Sources.—Medical literature review supplemented by review of subspecialty position papers, selected articles from newspapers and magazines, and legal decisions. The medical literature review was limited to articles published in English and was based largely on articles retrieved using the MeSH terms expert testimony/legislation & jurisprudence, and pathology/legislation & jurisprudence.

Medical malpractice cases, which have historically been among the most esoteric civil proceedings in the United States, have been tried before juries largely unable to assess substantial portions of the evidence put before them.

James C. Mohr¹

The AMA believes that physician expert testimony constitutes the practice of medicine, and that the practice of medicine should be subject to peer review.

Donald J. Palmisano, MD²

The Professional Conduct Committee has concluded that there is no convincing basis in either literature or logic for the respondent’s testimony.

American Association of Neurological Surgeons, cited in Haney v Pagnanelli³

Conclusions.—Medical error has become an increasingly important topic for pathologists, and although errors or allegations of error are evaluated in many ways, the evaluation with the most impact on the individual pathologist is a malpractice case. During the last decade physicians have increasingly become aware of the critical role played by expert testimony in malpractice litigation. Some physicians have asserted that providing expert testimony is the practice of medicine, and that it is unacceptable for juries to be presented with expert testimony that incorrectly describes medical practice standards. However, this opinion has been vigorously opposed by attorneys who feel that juries are best able to come to a correct conclusion if they base their deliberations on a broad spectrum of opinion. Gaining an increased role in the oversight of expert testimony would allow physicians to establish a closer alignment between opinions expressed in court testimony and opinions expressed in clinical practice. However, despite some physician success in inserting themselves into the oversight process, both physicians and physician organizations attempting to take action against misleading expert testimony continue to be vulnerable to legal attack.

(Arch Pathol Lab Med. 2005;129:1268–1276)

Law textbooks describe a tort system that “provides incentives for good conduct and disincentives for bad conduct, requires that wrongdoers compensate their victims, and serves our sense of justice.”¹ However, especially in areas of medicine such as pathology, in which evaluating allegations of malpractice often hinge on highly technical issues, the courts frequently struggle when attempting to balance the rights of the plaintiff with the rights of physicians accused of malpractice. Whether this struggle results in a correct or incorrect verdict is highly dependent on the quality of expert testimony.

What position, if any, should pathologists take on the issue of quality of expert witness testimony? As a specialty, we are of course familiar with disagreement, and one of the most popular pathology continuing medical education formats addresses the disagreements that arise out of controversies in some topic. However, the controversy surrounding the tort system is apparently much more intense than that generated by most technical issues discussed at a pathology meeting. For example, to my knowledge, no large group of physicians has ever taken a day away from their practices to carry signs and march in the streets over disagreements about diagnostic criteria. Many physicians have intense feelings about the tort system be-
cause what to one observer is tort reform preventing frivolous lawsuits will be viewed by another observer as a change that makes it more difficult for victims of negligence to receive just compensation. There appears to be little room for middle ground between these opposing positions, and much is at stake.

Various medical specialties have differed markedly in their responses to the contribution of incorrect expert testimony to what is generally referred to as the malpractice crisis. At one extreme, the neurosurgeons have fought and won expensive appellate court battles with expert witnesses, and furthermore, neurosurgeons have used their money and influence in high-profile national confrontations with the trial lawyers. On the other extreme are specialties whose major societies have avoided taking a position on the topic of quality of expert witness testimony, and whose journals are largely mute on the topic of malpractice litigation.

This article takes the position that although evaluating the tort system is inherently controversial, its evaluation is fundamentally similar to the evaluation of other controversies in traditional image-based anatomic pathology. Specifically, there is a body of facts that can be used to draw conclusions, but not everyone will agree about which facts are most important, and not everyone will draw the same conclusions from the same facts. Presently, it appears to me that pathology as a specialty has neither the resources nor the inclination to assume a major role in tort reform on the national stage, but perhaps we are ready as a specialty to begin discussing the topic in our leading journals. Avoiding the topic under the guise of being nonjudgmental provides an excuse for inertia, in my opinion, but is simply not helpful to either our fellow pathologists or to our patients.

MATERIALS AND METHODS

An extensive body of literature dealing with aspects of expert witness testimony that are of importance to pathologists is available, but unfortunately, much of this literature is scattered in locations that are not traditional sources for pathology citations, although some of this literature has been published in mainstream medical journals or in medical news formats such as AMANews or CAP Today. Approaching this topic must include a potpourri of other sources, including newspapers and magazines, court decisions, position or policy papers written by subspecialty medical societies, legal reviews written for attorneys, and books written to explain the legal system to nonlawyers.

Access to the mainstream medical literature is relatively simple. The MeSH term expert testimony was introduced almost 40 years ago, and this term is found as a subcategory under the heading “jurisprudence” in 2 locations within the MeSH tree structure. There are 6 allowable modifiers of expert testimony, and I found that of these 6, legislation & jurisprudence was the one that was most useful in narrowing a search to publications of importance to pathologists. For example, a PubMed search limited to English-language publications using the unmodified term expert testimony returns 4461 articles, but when the search is further limited to expert testimony/legislation & jurisprudence, the result is a more manageable 1382 articles. Attempts to further limit the English-language search using the terms expert witness/legislation & judicial combined with pathology returns only 36 references, almost all of which address issues that either are of interest primarily to forensic pathologists or deal with occupational exposure or evaluation of sexual abuse. The newspapers that I found most useful to follow were The New York Times and The Wall Street Journal.

ORDERING THE “LEGAL TEST” ON YOUR PATHOLOGY DECISION

A malpractice case starts when a patient requests that the legal system determine whether medical care was substandard and therefore led to damages that should be remedied by transferring assets from a physician to the patient. The patient has developed the hypothesis that, for example, a diagnosis of ductal carcinoma in situ was below the standard of care and therefore caused her damage. Because each citizen’s right to easily access the courts is a fundamental feature of our democracy, there are essentially no barriers to the patient initiating this legal test to evaluate the malpractice hypothesis, although she does face substantial barriers to completion of the test with a favorable jury verdict or a settlement.

Pathologists practice in an environment in which hypotheses are evaluated with tests designed to yield precise and accurate results because of optimized reagent quality and standardized test conditions, and we can be confident that most positives are true-positives and most negatives are true-negatives. The jury system also uses a set of reagents (jurors, a judge, experts, and lawyers), and these reagents are mixed and incubated according to the experimental conditions laid out under common law. Evaluation of the accuracy of the legal test would involve comparison of the legal system’s conclusions to a gold standard, similar to the analysis traditionally used to evaluate the accuracy of a medical diagnostic test (Figure). However, a problem arises when choosing a gold standard definition of negligence. Pathologists could conclude that no mistake was made or that any of us could have made that mistake, and therefore there was no negligence. However, the legal system uses the deliberations of a jury to detect the presence of negligence, resulting in a tautological definition. That is, negligence is that which is labeled by a jury as negligent.

WHY USE THE JURY SYSTEM TO EVALUATE MALPRACTICE ALLEGATIONS?

In response to the observation that “adversarial processes and scientific knowledge appear to be fundamen-
tally mismatched.’’5 Numerous other systems to evaluate malpractice claims have been suggested by those outside the legal system.6-7 Clearly, some of these alternative systems would produce results that would be more acceptable to the medical community, but advocates of the current system feel that the alternatives to the current tort system have even greater problems. For example, if an allegation of malpractice were to be evaluated and decided by experts in the field (such as a group of pathologists evaluating the diagnosis of a pathologist), the resulting decision would theoretically have the advantage of incorporating high levels of pathology expertise. Unfortunately, such a system would be highly susceptible to actual or perceived sympathetic bias toward the accused pathologist and would violate the political imperative that a citizen’s peers rather than a scientific elite will decide if that citizen should be compensated for harm.

Another alternative for evaluating malpractice allegations would be to use paid and apparently unbiased experts in the law, such as judges. However, in most instances these individuals would be just as dependent as lay jurors on scientific experts to evaluate conflicting, highly technical expert testimony. Furthermore, judges, like pathologists, are a professional elite that may not be completely trusted by the voters, who have the ultimate power in a democracy.6

In contrast to the ‘‘pathology experts judge the pathologist’’ type of system or a ‘‘legal expert judges the pathologist’’ type of system, a decision made by nonexperts avoids the elitist taint of a system ‘‘stacked against the little guy.’’ However, it has been apparent to everyone that nonexperts simply do not have the technical training to deal with many of the highly technical questions that come to litigation.8 What to do?

The legal system developed a very clever compromise that manages to preserve a powerful role for both legal and technical experts, but the final determination of the facts of the case is delegated to a group of citizens drawn from the community at large. Any suggestion that complex technical tasks, such as airline navigation or interpretation of breast biopsies, should be rotated among average citizens who receive input from opposing experts would be greeted with ridicule, but it is not entirely unreasonable to assert that a jury representing ‘‘we the people’’ can evaluate very complex questions if provided with high-quality legal and technical guidance. Credible believers in the wisdom of the common man have even attacked as elitist the role of the US Supreme Court, maintaining that voters would be better able than judges to decide issues of constitutional law.11 Many judges themselves are apparently convinced that a jury system manned by ordinary citizens is an extremely robust gold standard for dispute resolution. For example, the US Supreme Court concluded in a 1987 decision that a jury high on cocaine, marijuana, and alcohol maintained its ability to come to a valid conclusion.12

DEFENDING THE JURY SYSTEM

Perhaps the most powerful defense of the jury system is found in the Seventh Amendment to the US constitution, which protects a citizen’s right to bring accusations of malpractice in front of a jury.13 Any attempt to diminish the role of the jury must confront the specifically enumerated constitutional right of a patient who believes that he has been harmed by negligence to have a jury of his peers evaluate this claim.14,15 Legal experts have concluded (I think correctly) that the nation’s commitment to the ordinary jury as the ultimate mechanism to evaluate malpractice claims is likely to remain ‘‘unshakably in place.’’1 Even the American Medical Association objects when statutory barriers prevent patients from presenting their complaints against health maintenance organizations to a jury.16

Attempting to reform the tort system based on gathering evidence that juries are not up to the task of evaluating malpractice would probably represent a basic misunderstanding of the American political system, and, in my opinion, a waste of resources. Neurosurgeons understand this issue, and rather than attack the jury system, they have concentrated on improving the information on which the jury bases its decision.

EXPERTS IN THE COURTROOM

Experts are so key to the legal evaluation of a claim of malpractice that a case cannot be defended without a defense expert and cannot proceed without a plaintiff expert unless there is a ‘‘common knowledge exception,’’ that is, the jury does not need specialized information to arrive at a decision because the accusation of malpractice involves a standard (such as do not lose the specimen) that is not recondite. In fact, the need for expert testimony in most cases of alleged medical negligence was recognized within English common law as early as the 18th century, when the courts declared that evaluating the conduct of surgeons required that professional standards be ‘‘testified to by surgeons themselves.’’17

The subspecialized nature of the modern economy presents the tort system with such a complexity and range of issues that jury decisions are in fact highly dependent on an astonishing spectrum of experts—chemists, psychologists, auto mechanics, appraisers of art, tire failure analysts, bite mark experts, etc., etc. Improving the quality of expert pathology testimony is just one very small piece in a much bigger puzzle.

LEGAL ATTEMPTS TO CONTROL THE QUALITY OF EXPERT TESTIMONY

Because society has a high regard for conclusions based on science, expert testimony that is allegedly scientific and favors one side of a case or the other is often the critical factor that sways the final decision at all levels of the court system. Consequently, there is great incentive for lawyers to find experts with scientific credentials to present favorable opinions said to be grounded in the scientific method, even when the major issues in a case are not technical.18

The value assigned by the legal system to scientific evidence and opinions leads directly to several difficult-to-answer questions, such as ‘‘when is an opinion really based on science?’’ and ‘‘who should make this determination?’’19 Malpractice cases include several court-administered safeguards designed to separate valid from invalid science, and I have divided these safeguards into pretrial, intratrial, and posttrial subtypes.

Pretrial Quality Control

An early attempt to control the quality of expert testimony arose out of a 1923 Supreme Court decision (Frye v United States) concerning admissibility of evidence from an early version of a lie detector machine. The Court concluded that the results of the ‘‘blood pressure deception
test’ should not be admitted into evidence because the test lacked ‘general acceptance in the relevant scientific community.’” 20,21 Although the Frye rule that arose out of this decision provided judges with some guidance for controlling the admissibility of expert testimony, in practice judges were often presented with expert testimony that was clearly false or heavily biased. Judges who were concerned about the quality of the testimony given in their courts tended to concentrate on establishing the validity of the expert's credentials, leaving the evaluation of the validity of the content of the expert's testimony to the jurors.

Additional guidelines for judges to apply to expert testimony were provided by the US Congress in the 1970s, but there continued to be confusion about what, if any, standards should be used for the admissibility of expert opinion.21 As a result, judges unable to distinguish accurate from misleading testimony had difficulty reaching scientifically valid verdicts, therefore, in my opinion, helping to fuel a malpractice crisis and threatening the court system with loss of respect.

Beginning in 1993, the Supreme Court of the United States provided 3 landmark decisions that were designed to clarify the characteristics of legally acceptable expert testimony. The central issue in the first of these decisions (Daubert v Merrell Dow) was whether the methods on which the impressively credentialed experts based their opinions were in fact scientific.20–22 The Daubert decision offered 4 parameters that could be used by a judge to decide whether a technique or methodology used to formulate an expert opinion in fact qualified as science, and this decision also encouraged judges to become more active as gatekeepers to screen out unscientific testimony before it was ever presented to the jury.23,24 The 4 Daubert criteria were as follows: (1) Is the opinion testable and has it been tested? (2) Is the error rate associated with the technique or opinion acceptable? (3) Has the basis for the opinion survived peer review and has it been published? (4) Is the opinion generally accepted among scientists in the pertinent field?

The Daubert decision was followed by 2 additional Supreme Court decisions that reaffirmed Daubert and provided additional guidance.23 In General Electric v Joiner, the court evaluated the claim by plaintiff experts that a patient's cancer was caused by a work exposure. In its decision, the court decided that judges may assess whether an expert's conclusions actually follow from the scientific methodology on which the conclusions were based.25 In the words of Chief Justice Rehnquist, “a court may conclude that there is simply too great an analytical gap between the data and the opinion offered.” Judge Breyer urged judges to seek assistance from the scientific community so as to strengthen a judge's ability to understand technical and scientific evidence.20

In 1999, in Kumho Tire v Carmichael, the court directly addressed the problem of expert opinions that were offered in fields not traditionally considered to be science.26 In Kumho, an impressively credentialed expert had examined a twice-repaired essentially bald tire and concluded that failure of the tire was due to a manufacturing or design defect. It was apparent that the expert opinion was not based on Daubert-level science, but it was in fact the opinion of a tire expert. In excluding this expert's opinion, the court reasoned that all expert testimony must have a valid and reliable basis, “whether it is accounting or rocket science.” 24 For pathologists, the importance of Kumho is that it unequivocally extended the court's standards for expert scientific testimony to types of testimony that had attempted to avoid Daubert by claiming for legal purposes to be not quite science. As noted by Kassirer and Cecil in JAMA,27 Kumho “tethered the standard of admissibility of testimony by physicians to the professional standards of the practice of medicine.”

In spite of these multiple court decisions, it is my belief that judges have continued to have difficulty evaluating technical expert testimony. For example, in January 2002, Judge Louis Pollak concluded that because fingerprint “matching” did not have a known error rate, a “match” could not be accepted in court as scientific testimony. The judge subsequently reversed himself, leaving unanswered the question of what types of expert testimony must meet strict Daubert criteria and when it is permissible to allow ipse dixit (roughly translated as “because I say so”) expert testimony to be heard by a jury.24,27

An additional problem associated with the screening of scientific evidence by judges, in my opinion, arises out of the substantial variation in the rules used to evaluate this evidence in different jurisdictions. Although most state courts now accept Daubert, 19 states and the District of Columbia have continued to adhere to the Frye “general acceptance” standard, and 3 states use their own expert testimony admissibility standards.28,29 From a trial judge’s perspective, a final problem with pretrial exclusion of testimony is that it presents a losing party whose expert testimony was excluded with a basis for appeal.

Intratrial Quality Control

The main mechanisms used during a trial to ensure that the jury comes to a correct conclusion regarding information presented by experts are (1) cross-examination of these experts and (2) contradicting flawed opinions with truthful statements by opposing experts. Many legal scholars maintain that these mechanisms, in themselves, are sufficient to expose nonscientific testimony, and that using Daubert or Frye challenges to censor information prior to its presentation to a jury is not only unnecessary, but potentially harmful to the ability of the jury to come to a fair decision.30–32 These scholars propose that a judge could mistakenly exclude testimony that was in fact truthful and would have been necessary to the jury's understanding of the case.

Posttrial (Criminal) Quality Control

When a person lies during sworn testimony, that person can be charged with perjury. However, with regard to medical expert testimony, it is almost impossible to either prove or punish perjury.33 Like many other white-collar crimes, a charge of perjury rests on proving that it was the intention of the accused to do something wrong.34,35 Therefore, to prove perjury the court usually must know the state of mind of the expert, referred to by lawyers as the expert's mens rea. Proving that the testimony was factually false is just a small step toward proving beyond a reasonable doubt in a criminal trial that perjury was committed, and interestingly, the expert's claim to ignorance of the facts is usually an important part of a perjury defense.36,37

Even in those uncommon circumstances in which there is highly credible evidence to support a charge of expert witness perjury (eg, an incorrect statement such as ‘I am
Board certified in pathology”), many physicians are surprised to learn that the legal system that demanded sworn testimony will seldom pursue perjury charges. In most jurisdictions, a district attorney (DA) who is overwhelmed with murders and armed robberies must be convinced that it is a wise use of limited resources to take the expert to trial. Unlike a malpractice trial, in which the doctor loses the case based on the civil “preponderance of the evidence” standard of proof, the expert’s testimony is evaluated in a criminal trial, for which the DA must meet the much higher standard of proof of “beyond a reasonable doubt.” Even if the DA feels that a jury would conclude beyond a reasonable doubt that the expert testimony was a lie, there will be at least 3 additional important legal considerations favoring a no-prosecute decision.

First of all, opposing council has already had an opportunity in the civil system to use depositions, cross-examination, and truthful expert witnesses to discredit the false testimony. Why subject the testimony of the expert to further evaluation in the criminal system? An additional issue facing the DA is that prosecuting an expert for perjury interferes with the finality of civil legal judgments. Malpractice cases already often take years before reaching a definitive outcome, and if the truthfulness of expert testimony is subject to additional legal challenges after the case has finally come to a conclusion, then the case will continue even longer. Finally, not only must the DA prove beyond a reasonable doubt that the expert knew that the testimony was false, but there is also the need to get into the minds of the jurors in the malpractice case and prove that the perjured testimony had an impact on the final jury decision, that is, it was “material in nature.” For example, it can easily be claimed that for a jury that did not know pathology boards from snow boards before the trial began, an incorrect statement about pathology boards was irrelevant to their deliberations.

Posttrial (Civil) Quality Control

The physician who concludes that misleading expert testimony caused him harm is in a legal situation very similar to the physician who feels harmed by a frivolous malpractice lawsuit. An unemotional appraisal of the costs and benefits associated with taking these types of cases to court virtually always results in a physician deciding not to pursue the case.

First of all, the physician has just survived the very unpleasant experience of being sued, and pursuing the opposing council’s expert means that the physician is now back in court talking about the same case in front of a lay jury. If the physician won the malpractice case, or if it was settled or dropped, it may be difficult to convince this new jury that the alleged perjury was important to the outcome of the case. The system worked, the case is over, and perhaps the jury will see it as sour grapes that the physician is in court attacking this expert witness. Even if the malpractice case was lost, the defense can claim that the perjured testimony was unimportant or was a result of honest confusion.

Financial considerations are often a further major barrier to pursuing a perjury case in civil court. Unlike a criminal prosecution of perjury, the state is not paying for your civil case. Furthermore, your malpractice insurance carrier is no longer paying your legal costs, and unlike the situation in the malpractice case against you, it is very unlikely that there is enough money in play in your case against the expert for you to find a lawyer willing to work on a contingency fee basis. Therefore, you are paying out of pocket for both your attorney’s hourly fees and any additional legal costs, and even if you win the case, there is the danger that any financial damages awarded by the jury will be too low to cover these costs and attorney’s fees. In some states, such as New Mexico, if you win you may be able to convince the trial judge to compel the defendant to pay your costs, but you have no opportunity to recover your attorney’s fees. Finally, you also have to be aware that if you were to lose the civil case, not only are you out your time, your legal costs, and your attorney’s fees, but in a worst-case scenario, you could be assessed the defense’s legal costs.

WHAT CONSTITUTES ACCEPTABLE COURTROOM BEHAVIOR BY AN EXPERT?

A court of law operates within a culture that is entirely different from that found in a patient care setting. Consequently, I think that behavior that physicians would consider unacceptable in a civil setting can occasionally be accepted and even admired in the courtroom. In fact, because medical experts provide scientific opinions in a setting where oversight, incentives, and objectives differ from those encountered in clinical medicine, it is not surprising that courtroom testimony might sometimes differ from opinions offered in a clinical setting.

In spite of the readily visible genesis of the differences between courtroom testimony and medical practice, I think it is fair to question whether these differences should or will continue to be so stark. Certainly, we are all aware that cultural standards are not static. Until the 20th century, someone who bilked the consumer without using force was rarely prosecuted. The caveat emptor ethic (buyer beware) made it the responsibility of the individual consumer to determine which products were safe and effective, and which were dangerous. A 19th-century businessman was widely quoted as saying, “A prickly conscience would be like a white silk apron on a blacksmith.” An early 20th-century judge observed, “We are not to indict one man for making a fool of another.”

In the world of consumer products, standards of acceptability changed when it became obvious that it was impossible for the consumer to evaluate the safety, efficacy, and content of the myriad products marketed in a complex capitalist economy. The result was a host of laws and regulations that set limits on what can be offered to the consumer. In Upton Sinclair’s day, chemicals and spices were routinely used to turn diseased animals into “embalmed beef,” but today, a single diseased animal can risk the entire beef industry.

THE INFORMATION ECONOMY AND FREEDOM OF SPEECH

One area in the information economy in which the subject of controls on the quality of information has been particularly contentious has been expert medical testimony in medical malpractice trials. Although a caveat emptor environment in which the citizen was responsible for identifying shoddy products is now largely in the dustbin of history, I believe a persistent legacy of this era is found in courtrooms, where the jury is responsible for determining whether expert testimony is truthful.

Although freedom to express idiosyncratic speech is greatly valued in Western democracies, within professions
such as medicine, there are limits placed on free speech because of the value placed on standards. For example, a person is free to express the belief that systolic blood pressure should be lower than diastolic blood pressure, but this is contrary to medical science. Likewise, a person has every right to express the belief that astrology is a good tool to use for cancer screening, but expressing this belief would be incompatible with accepted pathology practice.

Currently, I think it is not as clear in the courtroom, as in the clinic, that standards are more important than freedom to express an opinion. As a result, efforts by physicians to set standards for expert testimony can be confronted by powerful arguments in favor of allowing juries to hear a diversity of opinions, even if virtually all physicians would consider some of the latter unconventional or frankly wrong.

**CAN THE MEDICOLEGAL SYSTEM BE MODERNIZED?**

We have evidence that the tort system can be reformed. For example, when the plaintiff wins the case, the jury is frequently asked to translate noneconomic damages, such as "psychological scars," into dollars. Because by definition noneconomic damages do not have an established dollar value, it can be argued that money is simply the wrong yardstick with which to value those damages. From my point of view, imposing statutory limits on jury awards avoids substantial opportunity for excessive judgments and is consistent with recent efforts by the US Supreme Court (eg, State Farm v Campbell, Romo v Ford) to place limits on a jury's ability to award punitive damages (as opposed to compensatory damages) in product liability cases. There is considerable popular appeal to adding this element of predictability to the decisions of the legal system, and 27 states have instituted some form of cap on jury awards.

A relatively new and, in my opinion, promising approach to improving the functioning of the courts in medicolegal cases is for medical organizations to establish systems to peer review the expert testimony that is so crucial to the competent functioning of the jury.

**WHAT IS PEER REVIEW?**

Formal peer review is a time-tested technique that is currently widely used to evaluate and improve the quality of information in a broad variety of medical settings, including the selection of papers for publication by pathology journals and selection of physicians for staff appointment at hospitals. It is generally agreed that this type of review serves as one of medicine's most effective quality improvement tools. In a legal setting, peer review would allow pathologists to determine whether expert testimony conveyed opinions and facts that are generally accepted among practicing pathologists based on logic, experience, or published literature.

**WHAT IS NOT DONE BY PEER REVIEW OF EXPERT TESTIMONY?**

It is important to recognize that peer review is not designed to address every physician complaint about tort law. For example, it does not retry the case any more than peer review of a submitted paper repeats the submitted study. Furthermore, peer review of expert testimony would not be involved in a broad range of important legal issues, such as the appropriateness of the damages requested by the plaintiff, whether a case should have been filed in the first place, whether the expert committed perjury, or how much money the plaintiff's attorneys should have received. Furthermore, whether the jury understood or correctly applied expert testimony to the case being tried is unrelated to the peer review of that testimony.

**ESTABLISHING FORMAL PEER REVIEW SYSTEMS FOR EXPERT MEDICAL TESTIMONY**

Among medical groups, the American Association of Neurological Surgeons (AANS) has had the highest profile in the evaluation of expert testimony, and the organization's grievance procedure for the evaluation of expert testimony has now prevailed in 3 court battles. In one case brought against the AANS by a sanctioned neurosurgeon, the claim was made that the testimony in question had to be proven to be "intentionally false" before it could be sanctioned. This latter case went to the US Court of Appeals for the VIIth Circuit, where the appeals judge found that "this kind of professional self-regulation (by the AANS) furthers rather than impedes the cause of justice." The US Supreme Court let this appeals court decision stand by declining to review it. In another widely discussed case involving a neurosurgeon, the North Carolina Medical Board revoked Gary Lustgarten's state license because his repeated misrepresentations of the standard of care as an expert witness during a malpractice trial were found to represent "unprofessional conduct."

It has been estimated that as many as 10 specialty medical societies are currently investigating the possibility of peer review of testimony in their specialty. Support for peer review has received high-profile support from Donald Palmsano, MD, JD, former president of the American Medical Association, who has stated that "the giving of expert testimony should be considered the practice of medicine, and it should be subject to peer review." In the field of pathology, the American Society of Cytopathology has shown interest in this topic by establishing an ethics review process, expert witness guidelines, and disclosure expectations for society officers. However, the task of reviewing and evaluating testimony is not easy, and as Machiavelli noted in *The Prince*, "he who innovates will have as his enemy all those who are well off under the existing order of things." Therefore, in my opinion, achieving a complete consensus in support of peer review of expert testimony is extremely unlikely. In contrast, we can all agree that nothing about the status quo will change simply because some physicians are convinced that expert witness testimony considered admissible by judges might often be considered questionable by a peer review committee.

**MALFUNCTION OF PEER REVIEW**

Peer review is a high-stakes process with the potential for malfunction, including both biased conclusions by the reviewers and inappropriate legal attack on the reviewers by the person whose testimony is being evaluated. With regard to errors by reviewers, there is potential opportunity for various biases, including such factors as professional jealousy or silencing a pathologist who is airing professional dirty laundry. In fact, some lawyers argue that allowing professional groups to define the contours of acceptable testimony would not only introduce sympathetic bias favoring the defense, but would also disadvantage a plaintiff who is the victim of flawed but generally accepted professional standards. However, peer re-
view of testimony would not necessarily prevent an expert from attacking accepted standards. It just becomes essential to inform the jury, “this is what most pathologists think, but they are wrong.”

PROTECTION FOR THE REVIEWED, PROTECTION FOR THE REVIEWERS

It is, of course, critical that any review process include due process safeguards designed to minimize the chance that the expert whose testimony is under review is treated unfairly. Multiple Supreme Court decisions have established that even high school students deserve procedural safeguards, and any attempt to evaluate a pathologist’s expert testimony without scrupulously following well-designed due process guidelines would be a formula for disaster. In fact, reviewers could potentially be faced with a blizzard of accusations in addition to accusations of due process violations.

The issue of legal protection for physician peer reviewers initially came to national attention in the 1980s, when a physician filed a retaliatory lawsuit claiming that peer review of his clinical proficiency violated federal antitrust laws. The reviewed physician initially won his case, and when the case was considered by the US Supreme Court, the reviewed physician again prevailed (Patrick v Burget). Justice Marshall noted in his opinion that if there were negative consequences of applying antitrust law to medical peer review, it would be proper for Congress rather than the courts to address this problem. One negative consequence for these particular reviewers was devastating personal financial loss.

In 1986, after it became apparent that the Supreme Court’s decision essentially barred medical peer review, Congress responded with the Health Care Quality Improvement Act (HCQIA). This act gave limited legal protections for physicians involved in peer review activities and at the same time established the National Practitioner’s Data Bank. Of importance, this federal law specifically included “professional society” within its definition of a “health care entity” that can conduct peer review “for the purpose of furtheing quality health care.” As might be expected, HCQIA was cited by the VIIth Circuit Court in its landmark decision supporting the AANS peer review process.

Although HCQIA again made the use of peer review a viable quality control option, federal protection for reviewers under HCQIA was limited, prompting most states to introduce their own statutory protections for peer review actions. Some opponents of physician oversight take the position that physicians are no different from all of the other individuals and businesses that find themselves in front of a jury listening to opposing expert testimony. For example, one can imagine that some brake manufacturers might like to have a manufacturer’s professional organization oversee the plaintiff expert testimony presented in cases of brake failure. The problem facing the tort system is the difficulty of simultaneously granting oversight control of expert testimony to the organization of experts, while at the same time protecting the right of a plaintiff to find an expert who agrees that a member of that organization harmed the plaintiff.

AN INFORMAL ALTERNATIVE TO FORMAL PEER REVIEW

Another interesting approach to the problem of nudging expert testimony closer to clinical reality would be for 1 or more pathology societies to make such public testimony more easily available to practicing pathologists. Justice Louis Brandeis has been credited with noting that “sunlight is the best disinfectant” and disclosure has been used successfully to eliminate “gray area” behavior in areas of the economy, such as the mutual fund industry. This informal approach lacks the immediate impact of a more structured review process, but it has the advantage of avoiding many of the administrative and legal problems inherent in establishing and running a structured review process. Furthermore, there is good reason to believe that informal review would deliver many of the benefits of a more formal process. It has been demonstrated in a wide variety of settings that improved performance often accompanies open observation of that process without the Hawthorne effect. Although observation by itself lacks any specific sanctions, greater transparency of the content of expert testimony would perhaps introduce a spectrum of social sanctions when individual pathologists were able to make more informed decisions concerning such matters as voting for society officers, attendance at courses, choice of consultants, and purchase of textbooks. Informal pressure may actually be more effective against the “internationally acclaimed” expert than against the unknown expert, but the former is usually a much more potent legal threat than the latter.

When evaluating the option of facilitating pathologists’ access to information about expert testimony, it must be recognized that efforts to make the legal system more transparent are still in their infancy. Information from legal proceedings is becoming more available to the pub-
lic, but the reality is that it can currently require a diligent search of individual courthouse files and county archives to ferret out expert testimony. Gathering pathology expert testimony in a user-friendly format would at the very least require supporting the costs to gain access to legal databases, and would also require individuals involved in lawsuits to make testimony available for distribution. Not only is it technically difficult to gather testimony, it can be anticipated that not everyone will agree that it would be appropriate to make legal records that are simultaneously “public” and “sensitive” more readily available. Some expert witnesses may take the position that transparency is simply another word for intimidation.68,69

WORKING FOR THE JUDGE

Judges who would like to exclude problematic testimony from their courtrooms face a major problem. When holding a Daubert hearing, the judge or a trusted advisor must have the skill set that would allow identification of testimony that does not meet Daubert standards. In some cases this is easy. For example, if a pathology expert were to claim that Papanicolaou tests are 100% sensitive in detecting adenocarcinoma of the cervix, this testimony could easily be recognized as violating multiple Daubert criteria and could be excluded. However, the more common pathology legal scenario is a disagreement over the interpretation of a morphologic finding. For example, if one expert points at a cell and says “this is the cancer;” but another expert says “that is a reactive endocervical cell,” the judge will of course lack the skill set to evaluate these opinions. Turning disagreement that is beyond the skill set of the judge over to a jury—the current state of the judicial art—is unlikely to clarify the central issue before the court, which is, did the diagnosis constitute malpractice? For the court proceedings to reflect clinical reality, the judge needs unbiased expert advice.

In fact, judges have been encouraged to seek assistance from the scientific community in evaluating Daubert challenges to expert testimony, but the rules for obtaining this assistance vary from venue to venue. Federal judges and at least some state judges have a number of avenues to obtain technical assistance, but, to my knowledge, at this point it is very uncommon for the state judges who oversee malpractice cases to seek unbiased expert advice.70-72

If judges trying complex malpractice cases were to offer the protection of judicial immunity for sounding board-type pathology assistance, I believe this immunity would allow pathologists to avoid the legal threats faced by physician-initiated peer review. For this type of volunteer system to function, judges would have to expand their use of protected technical advisors, and medical organizations would have to establish mechanisms to provide unbiased expert advisors capable of providing peer review with high credibility. If expert advisors are not available to judges, it becomes a self-fulfilling prophecy that their assistance will not be requested. The goal in establishing an advisor system would be for use of pathology volunteer experts to become the judicial standard of practice for judges evaluating expert testimony.

CONCLUSION

In pathology malpractice litigation, juries have the responsibility to decide whether a pathologist’s conduct in a particular instance fell below an acceptable professional standard of care, and if so, was that conduct a proximate cause of injury to the plaintiff. As with any test that we are familiar with in medicine, for a variety of reasons, the jury test is vulnerable to both false-positive and false-negative results. I believe that misleading expert witness testimony is an important factor that can result in either a false finding of malpractice or a false finding of no malpractice. Unfortunately, in an adversarial system, I think it is unlikely that all expert testimony will ever be completely congruent with clinical practice. However, the goal is improvement, not perfection.

If pathologists as a group were to reach a consensus that it is important that juries come to correct decisions about allegations of pathology error, we could address areas unique to pathology litigation ourselves, while cooperating as a group with organized medicine, business groups, and politicians in areas in which we have shared goals for improving the function of the tort system. However, given the many competing priorities facing organized pathology, it may be more productive for pathologists who have an interest in reforming the tort system to pursue their interest as individuals or in cooperation with nonpathologist physicians.

Diane D. Davey, MD, Kathy Foucar, MD, and Bruce R. Smoller, MD, reviewed this manuscript and provided helpful suggestions.

References
