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Introduction

I wrote this book because this is the kind of book I wish was available to me prior to my first harsh contact with the U.S. medical malpractice tort system. It would have made a world of difference to me to be at least partially immunized against this foreign system. By educating me more, it would have decreased my high stress levels—if only I just knew what to expect in my first and only medical malpractice suit in which I was the defendant physician. Truly, being *forewarned is forearmed. Praemonitus*, *praemunitus*—the theme of this book is to forewarn you of the opposition's strategies to be used against you as a testifying physician—at least the strategies used against me, and that I have learned about the subject in more than 30 years of experience as a testifying physician on both sides—plaintiff and defendant.

How is this book different from most generic "one size fits all" generic expert witness books? First, this book is written for the medical professional, not for experts in handwriting, lip-reading, accident reconstruction, etc., which may have some common tactical denominators with each other but diverge sharply from medical professionals chiefly because these other books deal with tactics, not strategies. While some of the tactics may bear similar traits, the strategy of a medical professional is and should be very different from the others.

The terms *tactics* and *strategy* are often confused. Tactics are the actual means used to gain a goal, while strategy is the overall plan, which may in-

volve complex patterns of individual tactics. A tactical plan is designed to implement strategic objectives. Tactics can also be isolated actions or events that take advantage of opportunities offered *within a given strategic system* to generate novel and inventive outcomes. Yet the tactician rarely holds onto these advantages in the absence of an overall strategy. This book teaches strategies—knowing at all times who you are, the role you play as the medical expert witness, and yours and the opposition strategies—not just the tactics.

The theme of this book "forewarned is to be forearmed" is to educate you about your opponent and to show you how you can be proactive with your own tactical plan based on an overall strategy in the context of actual medical practice. By knowing in advance yours and your opposition's strategies, you enter with a strategy and not just wait to make nonstrategic isolated responses to the opposition's tactical plan designed to achieve his own strategic objectives.

"***Praemonitus, praemunitus***"—Forewarned is forearmed

> In these days of doctors, lawyers and lawsuits, chances of an American physician finishing his or her career without a malpractice claim are growing more remote. Every physician executive overseeing the activities of a group of peers knows this and should be prepared to assist [educate and pre-train] the physician who is sued.[1]

No member of the faculty of my medical school or training institutions ever formally prepared me for the real-world medical malpractice scene or of what I would encounter in medical practice. Nobody ever taught me medical practice risk-reduction strategies. No one ever taught me anything about testifying in court in the U.S. medical malpractice system, as a defendant or medical expert witness. Nor were there any electives I could choose to take in any of my many years of formal study and training.

This lack of preparation by medical education institutions is a significant defect in medical education and needs to be fixed (*see* Addendum: Readings and Quotations).

This book is intended for those physicians who will some day find themselves in a courtroom testifying either as a defendant or as a medical expert. In this era of medical organizational changes and instability that category includes all physicians. Some will be testifying just once or twice in their professional lives; others very skilled in their field of medicine may be asked to continue to testify more frequently. A broader purpose of this book is as a text to serve in a formal medical school and teaching hospital course.

The American Medical Association (AMA) has advocated that medical expert physician testimony should be part of "the practice of medicine." The American College of Physicians in 1990 and the AMA in 1998[2] adopted a policy that medical expert witness testimony by physicians be considered "part of the practice of medicine subject to peer review." But there are no formal courses that I know of either in medical school or in teaching hospitals in this subject. Critics state that this policy is just another attempt by organized medicine to control expert witnesses. Such criticism may be valid if organized medicine does nothing to support this policy through formal mandatory and elective educational programs in medical schools and teaching hospitals.

Nothing of major significance in this regard has yet been accomplished in the past 16 years. The absence of such formal training is a significant defect in medical education and needs to be remedied. As Gorney[1] emphasizes, "In these days of doctors, lawyers and lawsuits, chances of an American physician finishing his or her career without a malpractice claim are growing more remote." It is therefore up to each dean of a medical school, and each medical director or chief administrator of a teaching hospital to implement the appropriate training in preventive and offensive moves in medical malpractice litigation to all students and house staff and the attending physicians who supervise them.

It may also be feasible for physicians good at organizing to establish something similar to an American College of Medical Experts with the high standards of such similar specialty and professional organizations. Such an organization could do much in consolidating the now chaotic and bumbling attempts of many current players—state medical boards, licensing boards, specialty organizations, etc.—at sanctioning "fraudulent testimony." The field of medical expert witness testimony has thus been, for the most part, the tasks falling by default to a minority rather than optimally the majority of physicians.

Physicians have a responsibility to society, their peers, and patients to participate in malpractice litigation in a manner that ensures that medical malpractice cases are properly evaluated. But physicians are reluctant to involve themselves as expert witnesses in medical malpractice litigation because they simply are not educated or trained in "this practice of medicine." In addition, there is a general mistrust of attorneys and misconceptions about expert witnesses and the legal system in general. The authors conclude that if impartial physicians do not evaluate cases for attorneys, other more partisan and less objective physicians will.[2]

Residency programs routinely review cases involving "morbidity and mortality." It would be a "valuable experience to similarly review medical malpractice cases and the associated testimony by medical experts." When available, the cases reviewed in residency programs would be those in which faculty members at the same institution had testified. The faculty member in such cases would be intimately familiar with the case and able to share the knowledge necessary to take part in the legal process. This case review process would expose residents to the legal realities of medical practice, provide a forum for peer review of legal testimony by experts, and show residents how to participate in the legal system should the need arise."[3]

Why should there be special education along these lines? The reasons are that physicians must learn another foreign language—the legal language of the courtroom—as just one example in the education of physicians. Lawyers and physicians—point out that most physicians who are called upon to testify concerning medical issues especially in medical malpractice litigation do not understand the "foreign language of the court and the strange customs of legal proceedings."[4]

For example, judges and attorneys view the word "causation" quite differently than do the members of the medical community. Medical practitioners tend to be concerned with all the possible multiple causes of the patient's current and past medical condition (and differential diagnosis attempt to pinpoint by exclusion the one and only cause of illness). Whereas legal practitioners especially in medical malpractice cases generally focus just on one particular event as a "proximate cause" of an injurious result. This term "proximate cause" is what the legal community defines as "precipitating, hastening, or aggravating a particular aspect of the patient's condition to the injurious event." In fact, courts have interpreted the expression "proximate cause" as a cause, which in natural or probable sequence produced damages. Unlike medical school and postgraduate medical training, courts have ruled that it need not be the only cause. It is sufficient if it is a "substantial factor" concurring with some other cause acting at the same time which in combination causes damages. The proximate cause is considered a "substantial contributing cause" even though the injury, damage, or loss would have occurred anyway without that contributing cause. Thus the courts have ruled that a substantial cause need not be the sole factor, or even the primary factor in causing the plaintiff's injuries, but merely a substantial factor therein—a concept foreign to most well-trained physicians (*Newberry v. Martens*, No. 30967 2005 [Op'n No. 140] [Idaho Sup, Ct. Dec 30, 2005]). To a well-trained physician, this "logic" of "proximate cause" is exactly the opposite of what he learned in medical school

and his postgraduate training.

To the physician this sounds like *post hoc ergo propter hoc*, ("after this, therefore because of this") or in other words "The rooster crows; the sun rises; therefore the rooster caused the sun to rise." Physicians have been trained in a scientific discipline that states, "just because events are sequentially related in time, they are not necessarily causally related." The rooster crows in the morning, the sun rises in the morning. This does not mean that the rooster causes the sun to rise.

Similarly, when a physician says, "he admits to. . . ." it simply means to him he says or reveals a fact—not the legal connotation that "having previously denied . . . he now admits to . . . ."

I have demonstrated just two language differences between the legal and medical communities—paradoxically both allegedly speaking English—and in several chapters I have explained the magic words I have learned that a physician must use in court in order for his testimony not to be stricken by the judge. These are examples of the culture shock faced by the physician in court. With proper orientation, however, the physician can indeed become fluent in legalese.

My reason for writing this book is to help the physician to be more comfortable and more effective in his courtroom role. Whether because of time constraints resulting from being busy practitioners, resentment and distrust toward the legal system, disinterest, or lack of preparation and unfamiliarity with a foreign legal language and culture, many physicians have, up until the mid-1990s, been reluctant to participate in court proceedings and to testify in medical malpractice cases.

The reasons for this reluctance are evaluated by Ashar et al.[5] in the Johns Hopkins study.

The additional factors are the following:

1. Deterioration of the relationship between the medical and legal professions.
2. Conflicting economic interests in legal actions.
3. The reluctance of medical professionals to participate in the legal process was also catalyzed by the perception of increasing (frivolous?) medical malpractice claims ever since the 1970s according to Gibson and Schwartz.[6]
4. This reluctance to participate in testimony (defense or plaintiff) has occurred despite (allegedly encouraging) statements by medical professional associations in favor of such participation.[7]

5. The American College of Physicians[8] and The American College of Surgeons[9] have stated as a matter of policy that physicians ". . . have a duty to testify in court as expert witnesses."
6. Despite these proclamations there exists no sponsorship of formal training, by either organization to support this policy.
7. On the contrary, despite or because of common law immunity for civil liability for nonfraudulent medical expert witness testimony, *sanctions* for testifying physicians have shifted to forums such as organized medicine and professional medical societies. Medical specialty societies have developed extensive disciplinary proceedings for "violations of expert witness guidelines." Medical licensing boards and state medical societies also have defined medical testimony as the "practice of medicine," thereby also giving themselves jurisdiction to sanction licensees and members for what they in their wisdom decide is "improper testimony." Other professional organizations are starting the process of "monitoring" expert witness testimony as well, including supplying lawyers for legal actions against medical expert witnesses. Private organizations such as Medical Justice Services, Inc., provide specialty assistance to physicians who feel they have been the victims of "false expert witness testimony."
8. Physicians who are members of these organizations may see dissociation from what is proclaimed by their organizations and the many real-life disincentives for practicing physicians to give medical testimony. Unfortunately, this may lead to the opinion held by many physicians that expert testimony is simply not worth it that the cost–benefit ratio is too high to testify.
9. This opinion will bear validity if organized medicine does nothing to augment the policy statement that medical testimony be considered the practice of medicine, with real efforts to support formal educational programs in this subject in all medical schools and teaching hospitals. And since nothing significant on this matter has been accomplished in the past 16 years, and since the "expert testimony is part of the practice of medicine" policies were proclaimed, perhaps this book will be a call for action. I sincerely hope that this book can serve as one of the textbooks for a formal program to teach young physicians or at least be the catalyst for others to do so.

The purpose of the Johns Hopkins study authored by Ashar et al.[5] was to "qualify and quantify" the current extent of physician participation in legal ac-

tivities. The good news is that despite these above disincentives to testify, about 25% of the internal medicine physicians in practice or academia are currently actively engaged in legal case review and expert witness testimony. This indicates that there is an interest by physicians for testimony and that involvement in the legal system by physicians may be more widespread, and not dominated by just a few "hired guns" as was previously "alleged by some attorneys."

The Hopkins authors found that the engagement of a doctor to serve as an expert witness was significantly associated with internal medicine specialists. The fact that specialists engaged in these legal activities more frequently than generalists is consistent with a definition of "expert" that includes level of training and education. This study also documented that academic internal medicine physicians were even more likely to take part in expert witness activities than those in practice. Again, the "expert" status attached to academia probably is responsible for this finding, as well as the fact that academics may also have more flexibility in their work schedules to permit more time for medicolegal activities.

In addition, another fact distinguished by this group was that in those more likely to participate in medicolegal activities was

a. self-perception that personal income was higher (not lower as is the myth) than the income of other colleagues; and
b. physicians who have been in practice for more than 5 years were also more likely to participate than younger physicians. This may be due to limited opportunity for younger physicians, since many states require at least 5 years of work in the same specialty of the accused.

The authors concluded that though physician interest in participation in legal review and expert witness activities grows significantly, it appears not to be determined by economic factors, since the study found that economic factors were not associated with physicians engaging in medicolegal activities. This Hopkins study is significant in that it begins to discredit the allegation held by some attorneys, especially defendants' attorneys, that the impetus for an increasing expert witness "industry," is made up of only "a handful of economically motivated physicians."[10,11]

On the contrary, the substantially increasing involvement of physicians in legal review activities demonstrated in this study gives credence to an increased interest and a more widespread demography of medical experts. Previous undocumented allegations about physician experts were also ne-

gated by this study, such as physicians take on medicolegal activities because of

A. increasing instability in their historically financially secure profession,
B. limitations on reimbursements,
C. rising educational debt,
D. escalating malpractice and overhead costs, and
E. decline in incomes.

All these allegations have been disproven by this statistically valid study. This Hopkins study, on the contrary, found that engagement in legal review activities was not associated with declining or dissatisfaction with income, but suggested that the stimuli for participation in such activities were other than financial with significant noneconomic benefits. The benefits listed by the physicians in the study were

1. to enhance a physician's reputation,
2. add variety to routine clinical practice, and
3. allow for greater understanding of the litigation process.

This study shows a real interest in medical testimony by well-trained physicians and suggests that proper education would increase these numbers for a desirable larger pool of medical experts.

Previous studies, however, have demonstrated marked deficiencies in physicians' knowledge of the legal system. This stems from the limited or no exposure that most medical students and residents have to medicolegal issues while in school and in training.[12]

It is for this reason that I as well as numerous other authors and educators advocate mandatory medical school and postgraduate courses in preventing and dealing with medical malpractice litigation as part of the formal university and teaching hospital curriculum. To my current knowledge, there are, in the main, few 2–3 h courses given annually by medical malpractice insurance carriers on this subject to practicing physicians for their own self-serving purposes of keeping down insurance expenses, but courtroom testimony should be part of the medical school curriculum right next to the medical treatment of the complications of diabetes. Thus, medical organizations, including the AMA, and the professional and specialty societies who advocate that medical testimony "is part of the practice of medicine" ought to add to their credibility by encouraging formal courses in this area. To back

up their policy statements, medical school and teaching hospital courses ought to be established and maintained as formal teaching courses, as is with all other practice of medicine subjects. There is no doubt that there needs to be more education and training in this vital area of the "practice of medicine," similar to other courses given to prepare the student for clinical aspects of medical practice and as practicing physicians what they will face in the world outside the ivory tower.

It is not only medical students and physicians that I am addressing in this book; it is especially the thousands of postgraduate physicians working in residency programs throughout the United States—and their training directors—who daily are exposing themselves and their institutions to the risks of medical malpractice litigation, blissfully unaware of the medicolegal dangers surrounding them.

Resident physicians, attending physicians, and graduate medical education (GME) institutions share a collective responsibility. The law does not offer concessions in quality of care to accommodate GME. Resident physicians are generally held to the same standard of care as attending physicians in their respective specialties. Attending physicians face malpractice exposure *not only for the care they provide but also for the care they direct.* In addition, they may be held vicariously liable for the negligence of resident physicians working with them, or directly liable for inadequate supervision. Regardless of the nature of their relationship with the sponsoring institution, attending physicians may also be held liable for improper supervision, as supervising resident physicians is an inherent part of their job. This form of liability is direct. In other words, instead of or in addition to the charge that attending physicians are vicariously liable for the negligent acts of their resident physicians, plaintiffs may allege that the attending physicians are themselves liable for negligent oversight of care provided by resident physicians. GME institutions and programs bear legal responsibility for both the care they deliver and the negligence of their employees. They also face liability for failing to administer safe systems of care. Federal law requires that any payment of a claim against a physician, including resident physicians, be reported to the National Practitioner Data Bank (NPDB). This puts the teaching hospital in the forefront of teaching the preventive moves found in this book.[13]

This book provides the "chess" moves that go into good prevention and treatment strategies for the disorder known as the litigation against medical professionals (LAMP) syndrome. Ask any good chess player and she/he will tell you that most games are won or lost in training preparation or lack of it.

This book reviews the beginning, mid-game, and endgame moves and preset maneuvers and strategic plays known to succeed for defense and offense to win or at least to draw, *but not to lose*. In this book, I also attempt to describe the many unique pressures acting on the testifying physician, and how this may be mitigated by adequate preparation.

Often, physicians who are asked to testify either as defendants or medical experts search for printed information to help themselves in this strange world of the courtroom with foreign customs and language. Too often these physicians fall prey to the "one size fits all" generic expert witness books that give generic expert witness advice and that, while perhaps adequate for the handwriting expert or maybe even business, traffic light, and accident reconstruction expert witnesses, are just not appropriate for the medical profession, either in their strategies or recommendations. This book has only the physician and medical professionals in mind. This book may give you, the physician, options you did not know existed, and you will be prepared to make fewer mistakes, or at least fewer than without this book.

Last but not least, the knowledge base and training of a medical expert witness must include a study of those factors that could go wrong in a medical practice, i.e., the factors common to all primary care and specialty practices that may according to Murphy's law[1]—"if anything can go wrong it will." The corollary with many names attached is "if a slice of bread falls from a table it almost always lands on the buttered side."

The first few chapters in this book are about—"a short history of American medical malpractice" to give the physician a short overview of the U.S. adversarial tort system.
I have also included a chapter on "Avoiding Problems with Qui Tam, HIPPA, and Other Disciplinary Actions," which I believe in the coming years will assume a greater share of the LAMP syndrome. Chapters in the spectrum of medical practices risks are also covered. These are titled "Defensive Moves and Strategies to Avoid Medical Malpractice Suits in Primary Medical Care and Specialist Practice"; "Proactive Strategies to Reduce Malpractice Risks in Primary Care and Surgical Practice"; and "Proactive Strategies to Avoid Malpractice in Psychiatry" all dealing with subjects, which will be of interest also to other specialties. Try to remember that history and a review of inevitable medical practice risks are an antidote to delusions of omnipotence and omniscience.

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[1] Actually, the original Murphy's law is more relevant. It states "If there are two or more ways to do something, and one of those can result in catastrophe, then someone will do it."—Edward A. Murphy.

These chapters are written to educate the physician within a context of what can and does go wrong in medical practice, because no matter what his specialty, he should not testify as a medical expert in a vacuum.

The medical expert witness must exhibit self-control on the witness stand; thus first and foremost he must know himself and his limitations, and the risks of his profession because self-knowledge is the indispensable prelude to self-control. Next, the medical expert witness must be educated in the strategies of the opposition in the U.S. adversarial tort system. Also, he must know the context of Murphy's law of the common denominators within the whole spectrum of medical practices and most malpractice lawsuits. This knowledge is crucial not only to the medical expert but also to the practicing physician in private or university practice.

These chapters adhere to our theme of preparing the physician not only with a tactical plan but also with the necessary strategies of a risk averse medical practice as well as the strategies leading to effective tactical plans for expert medical testimony.

An ancient Chinese strategist wrote in the sixth century BC:

> If you know your adversaries and know yourself, you will not be imperiled in a hundred battles; if you do not know your adversaries but do know yourself, you will win one and lose one; if you do not know your adversaries nor yourself, you will be imperiled in every single battle. If you know both yourself and your adversaries, you will come out of one hundred battles with one hundred victories.
>
> **—Sun Tzu's**
> *Military Strategy (also known as "The Art of War")*

This book teaches the strategies of knowing at all times who you are, the role you play as the defendant physician, or the medical expert witness, and yours and your *adversarie's* strategies—not just their tactics. We should note that despite the very different and unique specificities in the spectrum of medical practice from surgery to internal medicine and its subspecialties as well as psychiatry; all have common denominators of what can go wrong as well as the preventive and proactive strategies useful in managing these risks. Thus, to be a good medical expert witness you must know the general context of medical practice "on the ground"—before you can understand what medical malpractice is about and make an attempt to testify about it. You must fully understand the "whys, wherefores, limitations, and risks." You must know about medical practice systems that can go wrong—not just mistakes of leaving a sponge in the abdomen, as you will learn by reading these chapters.

The good medical expert witness as well as each practicing physician must be taught effective risk-reduction methods already found to be successful, as per the published literature.

This book starts out then with at least the minimum of what the medical expert witness and all practicing physicians must know about his field and the subject.

The minimum core common denominators to decrease risks in the entire spectrum of medical practice—no matter what the details or specificities of that field of medicine—are these:

To disclose to the patient any information that a reasonable practitioner in a similar situation would disclose.

To disclose any information that a reasonable patient would find significant to his or her decision.

Informed consent should be obtained from all adult patients prior to the initiation of treatment, and from minor patients who are not legally authorized to provide consent. For minors who cannot provide consent, it should be obtained from parents or other legal custodians. Without proper documentation of consent, negligence claims are more likely to be successful.

To maintain documentation of all communications to and from patients and to and from a third party about a patient with an automatic systematic mechanism for these notes to get into the appropriate patient's chart in a timely manner.

To carefully choose a colleague to cover your practice when you are unavailable—whom you trust and know to be responsible and whose practice style is similar to your own.

To be up-to-date in all the published guidelines of your practice, and document the reasons in the medical record of the patient why a treatment has *or has not* been performed according to the appropriate published guidelines for that disorder.

Finally "a cover-up often has worse consequences than the initial mistake."

Truly, being forewarned is forearmed "*Praemonitus, praemunitus.*"

Summary and Conclusions

More physicians should be expert witnesses.

The irresponsible expert witness is the product of failure of our current biomedical GME.

Review and scholarly study of medical negligence cases should be an essential part of medical school and residency programs.

All physicians must know the minimum core common denominators in decreasing litigation risks in all fields of medicine.

"In our society it is well for a physician to know something of the workings of court and how to interact with attorneys. One need not go to law school to successfully navigate a legal proceeding as a physician witness. Skillful testifying is simply the transmission of medical information in court in a professional, polite, and compelling manner, an ability within the grasp of any physician who has mastered the art of working with colleagues and patients. Careful, honest assessment of the medical matters in a legal case places a physician in a strong position, which the physician can maintain by remaining polite, even in the face of attempts by an attorney to denigrate the physician's professional abilities. The best witnesses tell the truth in a manner that compels people in the courtroom to listen."[14]

An experienced medical lecturer taught me before I gave my first medical lecture to make sure to quit talking after I had accomplished just three things:

1. Tell them what you are going to tell them
2. Tell them
3. Tell them what you told them

I have just completed first of the three lecture points. Now let us go on to the next two.

Addendum: Readings and Quotations

1. The problems associated with inaccurate, misleading, or biased testimony from expert witnesses are well known. Expert witnesses are actively pursued for their views, their presentation style, and their willingness to tailor their testimony according to the particular needs of the case.[15]
2. The rewards for suits for medical negligence have generated a service

industry for plaintiff's lawyers. The provision of "experts" for a contingency fee and the solicitation of plaintiff's attorneys by some physicians to serve as "experts" for large fees may result in highly biased and inaccurate testimony. Ethical expert witness testimony involves knowledge of the commonly accepted principles of treatment at the time of the alleged negligence, recognition of possible multiple accepted avenues of therapy, and testimony that educates the court and jury rather than obfuscates and distorts for personal gain.

3. Physicians have a responsibility to society, their peers, and patients to participate in malpractice litigation in a manner that ensures that medical malpractice cases are properly evaluated. Physicians are reluctant to involve themselves as expert witnesses in medical malpractice litigation because of not wanting to further any malpractice suits, mistrust of attorneys, and misconceptions about expert witnesses and the legal system in general. The expert witness should be an impartial practicing physician who can select those suits that should or should not be filed and identify which parties were negligent in each case. If impartial physicians do not evaluate cases for attorneys, other more partisan and less objective physicians will. The courts are entitled to expect both medical competence and expertise in conveying medical knowledge. Doctors should be familiar with their obligations as competent expert medical witnesses. *There is a pressing need for medical schools to train doctors in the skills required of an expert medical witness.*[2]
4. Many forces have created the epidemic of negligence and malpractice litigation. One of the contributing factors to the rising rate of nonmeritorious litigation is the increasing number of unqualified and irresponsible expert witnesses. The high remuneration has attracted physician-scientists who are unaware of the proper role of an expert witness. They are frequently manipulated by the attorneys and function as partisans rather than scholars. *The role of the expert witness should be taught in medical and graduate school. Testimony should be taught in medical and graduate school. Testimony should be treated as a scholarly endeavor and experts should be encouraged to seek peer review of their opinions and not to testify secretly and in isolation.* It is suggested that greater visibility of experts and their testimony (light of day phenomenon) should raise the quality of expert witness testimony and encourage more qualified experts to participate as expert witnesses, thus removing the stigmata usually associated with unqualified expert witnesses.

5. Residency programs routinely review cases involving "morbidity and mortality." It would be a valuable experience to similarly review medical malpractice cases and the associated testimony by medical experts. *When available, the cases reviewed in residency programs would be those in which faculty members at the same institution had testified.* The faculty member in such cases would be intimately familiar with the case and able to share the knowledge necessary to take part in the legal process. This case review process would expose residents to the *legal realities of medical practice, provide a forum for peer review of legal testimony by experts, and show residents how to participate in the legal system should the need arise.*[3]

References

1. Gorney M. Coping with bad news: the physician executive's role in a lawsuit. *Physician Exec.* 2002; 28: 26–29.
2. Fish R, Rosen P. Physicians should be expert witnesses. *J. Emerg. Med.* 1990 Sep–Oct; 8: 659–663.
3. Fish R, et al. Review of medical negligence cases: an essential part of residency programs.
   J. Emerg. Med. 1992 Jul–Aug; 10(4): 501–504.
4. Danner D, Sagall EL. Medicolegal causation: a source of professional misunderstanding. *Am. J. Law Med.* 1977 Fall; 3(3): 303–308.
5. Ashar B, et al. Extent and determinants of physician participation in expert witness testimony. *South Med. J.* 2005; 98: 444–449.
6. Gibson JM, Schwartz RL. Physicians and lawyers: science, art, and conflict. *Am. J. Law Med.* 1980; 6: 173–182.
7. Levy DA. Physicians are currently being persuaded to participate as medical witnesses more frequently. *Ann. Intern. Med.* 1996; 125: l40.
8. American College of Physicians. Guidelines for the physician expert witness. *Ann. Intern. Med.* 1990; 113: 789.
9. Professional Liability Committee of the American College of Surgeons' statement on the physician expert witness. *Bull. Am. Coll. Surg.* 2000; 85: 24–25.
10. Weintraub MI. Expert witness testimony. *Neurol. Clin.* 1999; 17: 363–369.
11. McAbee GN. Improper expert witness testimony. *J. Leg. Med.* 1998; 19: 257–272.
12. Darvall L, McMahon M, Piterman L. Medico-legal knowledge of general practitioners: disjunctions, errors and uncertainties. *J. Law Med.* 2001; 9: 167–184.
13. Kachalia G, Studdert DM. Professional liability issues in graduate medical education. *JAMA* 2004; 292: 1051–1056.
14. Davis L. The art of attorney interaction and courtroom testimony. *Arch. Pathol. Lab Med.* 2006; 130: 1305–1308.
15. Spencer FC, Guice KS. The expert medical witness: concerns, limits, and remedies. *Bull. Am. Coll. Surg.* 2000 Jun; 85(6): 22–23.

For Further Reading

American Medical Association. Expert witness testimony (H-265.992). Available at: http://www.amaassn.org/

Asch DA, Jedrziewski MK, Christakis NA. Response rates to mail surveys published in medical journals. *J. Clin. Epidemiol.* 1997; 50: 1129–1136.

Cummings SM, Savitz LA, Konrad TR. Reported response rates to mailed physician questionnaires. *Health Serv. Res.* 2001; 35: 1347–1355.

Goldberg JH. Primary care earning plummet. *Med. Econ.* 2000; 77: 141–157.

Greenberg M. Developing alternative revenue sources. *Med. Group Manage. J.* 2000; 47: 26–29.

May WF. Money and the medical profession. *Kennedy Inst. Ethics J.* 1997; 7: 1–13.

McCrary SV, Swanson JW, Perkins HS et al. Treatment decisions for terminally ill patients: physicians' legal defensiveness and knowledge of medical law. *Law Med. Health Care.* 1992; 20: 364–376.

Moser JW. *Socioeconomic Characteristics of Medical Practice 1997/98.* Chicago, IL: Center for Health Policy Research, American Medical Association, 2000, pp. 5–14.

Pham HH, Devers KJ, May JH et al. Financial pressures spur physician entrepreneurialism. *Health Aff.* 2004; 23: 70–81.

Thompson DF. Understanding financial conflicts of interest. *N. Engl. J. Med.* 1993; 329: 573–576.

Weintraub MI. Expert witness testimony. A time for self-regulation? *Neurology* 1995; 45: 855–858.