

Impact of Malpractice Reform on Defensive Medicine

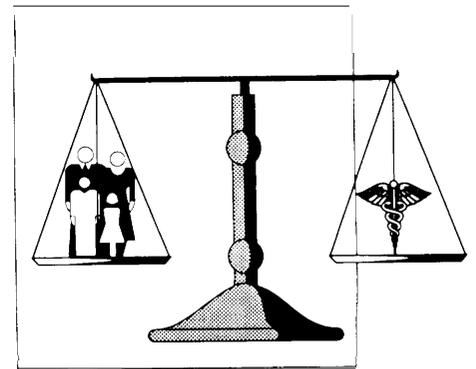
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Although it is impossible to measure with much Precision the extent of defensive medicine, the evidence summarized in Chapter 3 implies that it is neither a trivial nor a major contributor to health care costs. This chapter examines how different approaches to reforming the medical malpractice system might affect the frequency of defensive medicine. The chapter examines the potential for tort reforms (i.e., changes in the legal rules for resolving malpractice claims) to reduce defensive medicine.

This is a limited policy analysis; other impacts of tort reform may be equally or more important, including:

- *Quality of care:* A principle objective of medical malpractice law is to deter physicians from rendering lower-quality care, but the effect of the malpractice system on quality of care has hardly been studied. Although there is reason to believe it may have some positive effect on quality (e.g., increased investment in risk management and quality control), the scant empirical evidence available does not support the contention that the malpractice system as it is presently configured does improve quality of care.¹ Nonetheless, tort reforms that limit physicians' liability could adversely affect the quality of care.

¹For example, in an attempt to estimate the deterrent effect of medical malpractice, researchers at Harvard University recently analyzed the relationship between the number of malpractice claims per negligent injury and the rate of negligent injuries in New York State hospitals in 1984. They failed to demonstrate a significant relationship between malpractice claim activity and the rate of negligent injury in a hospital (254). The analysis was limited by a small sample size (less than 50 hospitals) and a single year of data. Thus, the analysis may not have had sufficient statistical power to detect a deterrent effect if it did exist.



- *Plaintiffs' access to the legal system:* Evidence exists that the vast majority of patients injured by negligent medical care do not file a claim (130),² and tort reforms could either make it easier or more difficult, especially for patients with limited financial resources;
- *Cost of compensating victims of malpractice:* Some reform proposals promise lower administrative costs (e.g., lower lawyers fees) but also would compensate a greater number of individuals. The Office of Technology Assessment (OTA) has not examined whether the overall impact of these changes would be to increase or to save costs.
- *Physician-patient relationships:* Physicians claim that their concern about malpractice liability causes their relationships with patients to suffer. Depending on its configuration, tort reform could either improve or hurt the physician-patient relationship.

More general discussions of the range of potential impacts of tort reforms are available in a number of review articles (12,2 1,37,122,208a). In this chapter OTA focuses mainly on the effects of malpractice reforms—both conventional approaches and new proposals—on defensive medicine.

Since the first malpractice insurance crisis in the mid- 1970s, almost every state has reformed one or more aspects of malpractice law (22,236). The tort reforms implemented in the states were designed primarily to reduce malpractice insurance premiums by limiting the frequency of suits, payments per paid claim, or the cost of resolving claims. Conventional tort reforms implemented in the states have maintained the malpractice liability system while tinkering with one of more aspects of the claim resolution process.

Newer reform proposals would substantially alter the process for resolving malpractice claims or would limit the physician's personal liability and substitute other quality control systems. Since

most of these newer reform proposals have not been implemented, it is difficult to predict their impact on defensive medicine.

THE IMPACT OF CONVENTIONAL MALPRACTICE REFORMS ON DIRECT MALPRACTICE COSTS

Most of the traditional tort reforms retain the courts as the forum for resolving malpractice suits but change certain legal rules, such as imposing limits on the time after an injury or its discovery in which a suit can be filed, or limiting the damages that can be awarded.

These “conventional” tort reforms have been labeled pro-defendant, because they often restrict plaintiffs' access to courts or limit the amounts plaintiffs can recover (254). For example, requiring a plaintiff to obtain a “certificate of merit”—an affidavit by a physician that the claim is valid—prior to filing a suit can make it more difficult for low-income plaintiffs to sue (see box 4-1) (166).³ Box 4-2 contains a brief description of the traditional legal reforms.

In a separate background paper, OTA reviewed the results of six multistate studies that used statistical techniques to estimate the impact of specific malpractice reforms on four indicators of direct malpractice costs: 1) frequency of suit, 2) payment per paid claim, 3) probability of payment, and 4) insurance premiums (236). The six studies were selected because they used the most methodologically rigorous approaches to isolating the impact of malpractice reform on malpractice costs.

OTA also identified several studies that either examined trends in malpractice activity in states with malpractice reforms or compared trends in such a state with those in other states without the same reforms.

The results of OTA's review of the six multistate study and of the more compelling single-

² A recent study of New York State hospital stays revealed that approximately one in 50 negligently injured plaintiffs brought a malpractice claim (130).

³ Low income plaintiffs are already less likely to sue than more affluent plaintiffs (1,230,239).

BOX 4-1: Impact of Maryland's Certificate of Merit on Low-Income Plaintiffs

Many tort reforms explicitly limit the amount the plaintiff or his or her attorney can recover from a malpractice case (e.g. caps on damages, collateral source offsets or limits on attorney fees) or increase the costs of bringing a suit (e.g. certificates of merit). Such reforms make filing a malpractice suit less attractive for all plaintiffs. Whether these reforms disproportionately affect people's ability to sue has not been studied.

As part of this study, OTA was asked to examine whether low-income obstetric patients are more litigious than privately insured patients. OTA issued a background paper on this issue which found that Medicaid and Medicare patients sue physicians less often than would be expected given their relative proportion of the population (Medicaid patients) or heavy use of health services (Medicare patients) (239). OTA also commissioned a study by Morlock and Malitz to examine the impact of Maryland's tort reforms on claim filings by Medicaid, Medicare and self-insured plaintiffs.

In July 1986, Maryland implemented a package of tort reforms:

- a requirement that a certificate of merit be obtained within 90 days of filing a malpractice claim,
- a \$350,000 cap on noneconomic damages,
- a provision for periodic payment of damages,
- a shortened statute of limitations for minors and
- administrative reforms to improve the pretrial screening process.

Of these reforms, the requirement that a certificate of merit be obtained within 90 days of filing is most likely to pose a differential barrier based on the plaintiff's income. Obtaining such a certificate costs \$600 to \$1,000 and some attorneys may require that these costs be paid by the claimant in advance of settlement or other disposition.

Morlock found a substantial drop in the number of claims filed by patients with no insurance and by Medicaid patients following the implementation of the Maryland reforms. The following table shows the number of malpractice claims filed per 100,000 hospital discharges in Maryland. The rates are displayed by insurance status of the injured party. A certificate of merit was required beginning in July 1986, but the legislation requiring the certificate was passed during the legislative session from January to April, 1986.

Malpractice Claims Filed in the Legal System as a Result of Hospital Incidents per 100,000 Discharges in Maryland, 1979-89

Insurance Status	1979-1985 (Pre-reform)	Jan. '86 - June '86 (Transition)	July '86 - June '87 (Post-reform)	July '87 - Dec. '89 (Post-reform)
Total number of claims	401	599	366	297
Claims by privately insured patients	491	759	467	441
Claims by Medicare patients	289	519	326	263
Claims by Medicaid patients	291	671	395	7.4
Claims by uninsured patients	552	83	59	154

SOURCE: L.L. Morlock and F.E. Malitz, *Short-Term Effects of Tort and Administrative Reforms on the Claiming Behavior of Privately Insured Medicare, Medicaid, and Uninsured Patients*, prepared for the Office of Technology Assessment, U.S. Congress (Washington, DC: U.S. Government Printing Office, September 1993).

BOX 4-2: Traditional Tort Reforms

Aimed at the Number of Lawsuits:

1. *Attorney fee limits:* Plaintiff attorneys are paid on a contingency basis, that is, they are paid a portion of the plaintiff's damages as a fee but receive no fee when the plaintiff loses. The typical contingent fee is 33-1/3 percent of the award. Some states limit the contingency fee percentage in large damage cases.
2. *Certificate of Merit:* Some states require that a plaintiff obtain an affidavit from a physician or other expert attesting that the plaintiff's malpractice claim has merit prior to filing the suit.
3. *Costs awardable:* If a plaintiff files a claim that is subsequently judged to be without any merit, a judge may force the plaintiff to pay the defendant's court costs, and in some states the defendant's legal fees.
4. *Pretrial screening panels:* As a prerequisite to filing a suit in a court, parties may be required to submit the malpractice claim to a hearing before a panel consisting of one or more attorneys and health care providers, and, in certain states, a judge or lay person. The panel will render a decision on liability and sometimes damages. The parties may choose to accept the panel's findings and settle the case or file a suit in court. In some states, the panel's findings may be entered into a subsequent legal proceeding. Some states offer panels as a voluntary option.
5. *Statutes of limitations:* The statute of limitations prescribes the time period after the injury in which a legal claim may be brought. In medical malpractice this time period is either measured from the date of the negligent treatment or from the date the injury could have reasonably been discovered (the "discovery rule"). Some states have shortened the time period in which a claim can be brought or limited the application of the discovery rule.

Aimed at Size of Recovery (Payment Per Paid Claim):

1. *"Caps" on damages (noneconomic, total):* Damages in medical malpractice consist of 1) economic damages, which are monetary awards for incurred and future costs arising from the injury (primarily medical and rehabilitative expenses and lost wages), and 2) noneconomic damages, consisting of monetary awards to compensate for the pain and suffering associated with the injury. Certain states have placed limits (i.e., "caps") on the amount the jury can award for noneconomic damages, or for total damages (i.e., economic and noneconomic damages).
2. *Collateral source offset (mandatory, discretionary):* Certain states require or permit the jury to reduce the plaintiff's malpractice award by the amount the plaintiff is entitled to receive from collateral sources, such as health and disability insurers.
3. *Joint and several liability changes:* Traditionally, when multiple defendants were responsible for a plaintiff's injury, the plaintiff had the right to collect from each defendant in the amount of their responsibility (joint liability) or the plaintiff could collect the entire amount from a single defendant (several liability), forcing that defendant to sue the other defendants for the amount that they were responsible for. Some states have eliminated several liability, usually with respect to noneconomic damages only.
4. *Periodic payments of damages ("structured" awards):* Damages awarded to pay for future economic and noneconomic losses may be paid on a periodic basis, rather than in one lump sum.

Aimed at Plaintiff's Difficulty (or Costs) of Winning:

1. *Expert witness requirements:* Expert witnesses are used to establish the standard of care in a malpractice trial. Some states impose specific requirements on the expert's qualifications, for example, requiring that the physician have practiced in an area of medicine that is related to the subject of the case.

(continued)

BOX 4-2: Traditional Tort Reforms (Cont'd.)

2. Informed consent limits: Physicians must obtain informed consent from patient before performing a procedure. Some malpractice cases allege that the physician did not provide adequate information for the plaintiff to make an informed judgment. The adequacy of the information provided can be judged on the basis of whether a reasonable patient would consider the information provided adequate, or by looking at the practice of other physicians. The former standard is often characterized as pro-plaintiff, and some states restrict the use of this patient-oriented standard.

3. *Res ipsa loquitur* restrictions: In medical malpractice, when the incident causing the injury was under the exclusive control of the physician and it is obvious to a nonmedically trained person that the plaintiff's injury would not have occurred in the absence of negligence, a plaintiff will not be required to offer expert testimony of negligence. Some states restrict the use of this doctrine.

SOURCE: S. R. Bovbjerg, "Legislation on Medical Malpractice: Further Developments and a Preliminary Report Card," *University of California Davis Law Review* 22:199-557 (1989); U.S. Congress, Office of Technology Assessment, *Impact of Legal Reforms on Malpractice Costs* (OTA-BP-H-119) (Washington, DC: Government Printing Office, 1993).

state studies are summarized below. (See appendix G for a complete summary of the single-state studies).

■ Statistical Studies Using Multistate Data

The six empirical studies reviewed in OTA's background paper examined the impact of a number of different reforms, but not every study examined the same set of reforms. The majority of the studies looked at the following reforms;

- shortening the statute of limitations.
- limiting plaintiffs' attorney fees,
- requiring or allowing pretrial screening of claims,
- caps on economic and noneconomic damages.
- amending the collateral source rule to require offsets for the portion of damages covered by health or disability insurance, and
- periodic payment of damages.

Across all studies, only caps on damages and amending the collateral source rule consistently reduced one or more indicators of direct malpractice costs (236).

Shortening statutes of limitations and implementing pretrial screening showed inconsistent results across studies (236). Limits on attorney fees and periodic payments showed no statistical -

ly significant results in reducing one or more malpractice costs indicators (236).

Several of the studies looked at the impact of legislation authorizing agreements for voluntary binding arbitration. Only one found that arbitration reduced malpractice costs, but this finding is suspect because arbitration was not used often in the states studied (236).

Although each of the six studies reviewed by OTA suffered from methodological and data limitations, taken together their results suggest that malpractice reforms involving caps on damages or restricting payment when collateral sources have paid do, indeed, reduce the direct costs of medical malpractice. The effects of other reforms, as they have been implemented in the states, may have only modest effects on direct malpractice costs.

■ Single-State and Small Multistate Studies

The Indiana Study

Gronfein and Kinney studied the impact of Indiana's 1975 tort reforms on average payment per paid claim for large claims (those with paid damages of \$100,000 or more) (79). Indiana passed a \$500,000 cap on total damages and created a Patient Compensation Fund (PCF), a state-run insur-

ance fund that paid damages exceeding \$100,000, up to the **\$500,000** cap.⁴

Gronfein and Kinney found that the average payment per large paid claim was 33 and 40 percent higher in Indiana than in the neighboring states of Michigan and Ohio, respectively. This outcome probably resulted from the operation of the PCF, which gave the insurer an incentive to settle large claims when the issue of negligence was unclear, thereby shifting a portion of the liability to the PCF. On the other hand, Indiana had no payments over \$500,000, whereas in Michigan and Ohio the few cases in which more than \$1 million was awarded accounted for 21 and 14 percent of all malpractice payouts, respectively (79). Therefore, overall payments for malpractice may be higher in those states despite the fact the average payment is less.

The California Studies

Supporters of malpractice reform often point to California as an example of the impact tort reform can have on malpractice costs. In 1975, California passed the Medical Injury Compensation Reform Act (MICRA), which included a \$250,000 cap on noneconomic damages, limits on attorney fees, discretionary collateral source offsets, and periodic payments for future damages in excess of **\$50,000**.

Two studies concluded that MICRA significantly lowered malpractice insurance premiums or claims costs⁵ in California (32,34). One study found that the average malpractice insurance pre-

mium (adjusted for inflation) declined by over 60 percent from 1976 to 1991 (34), but this result in and of itself is inconclusive because 1976 marked a peak and 1991 a trough in the national cycle of malpractice premiums (236).⁶ More compelling is evidence that California malpractice premiums declined at a compound annual rate of 0.4 percent between 1976 and 1991 compared with a national average annual rate of increase of about 12 percent over the entire period.⁷ Although critics of MICRA point out that the average 1992 California malpractice premium was only slightly below the national average premium (200), California's average malpractice premium was 65 percent above the national average as recently as 1985 (261).

Not all of the relative savings can be attributed to MICRA, however, because a simple pre-post comparison does not control for other changes in the malpractice and health care markets in California over the study period. For example, physician-owned malpractice insurance companies replaced commercial malpractice insurers shortly after MICRA was passed. Also, the largest California health maintenance organization (HMO), Kaiser Foundation, with over 4 million enrollees (141), initiated arbitration for all medical malpractice cases in the early 1970s (236). California has experienced rapid growth in HMOs over the past 10 years.⁸

Still, it is likely that MICRA's stringent cap did reduce California malpractice insurance premiums to some extent. The observation that malpractice insurance premiums increased more

⁴The Indiana cap on total damages was raised to \$750,000 in January of 1990 (79).

⁵Claims costs include payments made to plaintiffs and the insurer's direct costs attributable to the claim (fees for investigative work, expert witness fees, and legal defense work).

⁶Trends in insurance premiums are characterized by cycles. These cycles are tied to some extent to the investment climate, because insurers earn part of their income from investing premiums in income-producing assets. As the interest rate expected from capital investments rises and falls, premiums are adjusted accordingly to assure a competitive rate of return to investors (210).

⁷The comparison is based on premiums in current dollars. OTA calculated the change in California premiums from data reported in a study by the Coalition to Preserve MICRA (34). In that study the 1976 premium (adjusted for inflation to 1991 dollars) was \$18,000 and the 1991 premium was \$7,000. Using the consumer price index-unadjusted (CPI-U) for 1976 and 1991, the 1976 premium unadjusted for inflation is \$7,427. The national estimate is based on increases in malpractice insurance reported by the U.S. Health Care Financing Administration (51 F.R. 28772, 28774, 57 F.R. 55903).

⁸Approximately 34.4 percent of the population is enrolled in HMOs in California, compared with 17.3 percent nationwide (141).

slowly in California after MICRA is consistent with the finding that caps on noneconomic damages lower malpractice costs. California has one of the lowest caps on noneconomic damages in the country, and it has not been adjusted since 1975 (236).

Pretrial Screening Studies

Five separate studies of pretrial screening panels (three of Arizona, one of Hawaii, and one of 15 different states including Arizona) found that most plaintiffs did not appeal adverse panel decisions, which may indicate that pretrial screening led to early resolution of cases (see appendix G). Because most of the studies failed to report claim frequency before and after the screening panel was initiated, however, it is possible that pretrial screening prompted filing of more nonmeritorious claims, which were dropped after adverse panel decisions. In addition, almost every study found that pretrial screening panels caused significant delays in claim resolution (see appendix G). These delays may have led some plaintiffs to drop or settle cases because of the added expense of the pretrial screening process.

■ The Impact of Changes in Direct Malpractice Costs on Defensive Medicine

The empirical literature discussed in chapter 3 suggests that physician behavior may be influenced in certain clinical situations by the strength of signals that the malpractice system sends about the risk of being sued. If tort reforms reduce the direct costs of malpractice, they may soften the signal and therefore also reduce defensive medicine.

The best evidence for this association comes from a single study of the impact of malpractice signals on Caesarean delivery rates in New York State (129, 131). Localio found a strong association between the strength of the malpractice signal (i.e., high claim frequency and insurance premiums) and Caesarean delivery rates (129). This study supports the hypothesis that malpractice reforms that reduce claim frequency and premiums

reduce defensive behavior. Yet, it is not known whether Localio's findings for obstetricians and Caesarean delivery rates are generalizable to other procedures, other specialties, or other states, especially in light of the failure of other studies funded by OTA to find such a relationship (see chapter 3).

There are reasons to be skeptical that traditional tort reforms can reduce defensive medicine. Physicians may not react to mere reductions in malpractice risk. Instead, they may try to limit their personal risk of suit to as close to zero as possible. In the absence of any financial penalties for doing so, such an objective is a rational response to any level of malpractice risk.

The long-standing concern about defensive medicine suggests that traditional tort reforms may not do much to reduce defensive medicine. In the early 1970s, when direct malpractice costs were quite low and when the malpractice signals were much weaker than they are today, there was still considerable concern about defensive medicine (14,20,58,243).

IMPACT OF NEWER MALPRACTICE REFORMS ON DEFENSIVE MEDICINE

Recent reform proposals either expand on traditional reforms—for example, redefining the standard of care using practice guidelines—or call for more sweeping changes, such as removing medical malpractice from the judicial system, relieving the physician of malpractice liability or eliminating the fault-based malpractice system completely. These reforms all seek to make the claims resolution process more timely and less costly. Some of them would provide greater access to compensation for deserving plaintiffs. All seek to decrease the impetus for defensive medical practices. The new reform proposals fall into four categories:

- *Clinical practice guidelines as the standard of care.* At present, clinical guidelines may sometimes be entered into malpractice trials as evidence of the standard of care along with expert testimony. Several states are developing programs in which certain clinical guidelines will be used as the definitive statement of the stan-

dard of care, replacing expert opinion when applicable.

- *Enterprise liability:* Enterprise liability would retain the current malpractice system, but the physician would no longer be a named defendant. Instead, the enterprise in which the physician practices would assume the liability for medical negligence (1). As originally conceived, the enterprise would be the hospital or HMO in which the physician practices(1). Under a managed competition system, liability could rest with the health insurance plan (16 1).
- *Alternative dispute resolution:* Alternative dispute resolution (ADR) removes the claim from the legal system to reduce the time and money involved in its resolution and to make the proceeding less public and adversarial. In *binding* ADR the dispute is heard and decided through a nonjudicial procedure, and opportunities for appeal are very limited. Because state constitutions guarantee the right to trial, binding ADR to date has been a voluntary procedure, agreed to by both parties.
- *Selective no-fault malpractice compensation:* Proposals for a selective no-fault malpractice compensation system envision a process similar to workers' compensation. The leading proposal would designate certain adverse medical events that are generally avoidable as compensable under a no-fault system (221). More patients could receive compensation for medical injuries that are generally avoidable, even if there is no evidence that the injuries were caused by negligent care.

The potential impact of each of the proposed reforms on defensive medicine is examined below. OTA has not attempted to address in detail other potential benefits or limitations of these reforms, including the cost of implementing a reform compared with the present system, the impact on

quality of care, or the potential impact on plaintiffs.

■ Clinical Practice Guidelines⁹

A handful of states has passed legislation to make it easier to introduce clinical practice guidelines or to increase their evidentiary status in medical malpractice litigation. These changes are recent and there is as yet no evidence of their impact on medical liability or practice. The Medical Liability Demonstration Project in Maine has become a model for such efforts (230,229,236).

In an ongoing demonstration project in Maine, selected guidelines can be used by physicians as an affirmative defense¹⁰ in medical malpractice cases (24 M.R.S. Secs. 2971 *et seq* (1993)). Minnesota, Florida, and Vermont have also passed laws that change the role of guidelines in legal proceedings, and a number of other states have begun developing guidelines with an eye toward using them as legal standards.

The Maine project demonstrates how guidelines can be used to target defensive medicine. Maine developed guidelines to reduce the inappropriate use of procedures thought to be practiced defensively (e.g., Caesarean deliveries, cervical spine x-rays for minor head injury, and preoperative testing).

For example, one guideline provides emergency room physicians with explicit criteria for when it is *not* necessary to obtain a cervical spine x-ray. Under the demonstration project, if a physician did not do an x-ray on a patient who met those criteria, then that patient could not successfully sue the physician for failing to do the test—even if a fracture was subsequently discovered.

What impact on defensive medicine can we expect from increasing the evidentiary weight of guidelines in court? The impact will vary depending on how explicitly the guidelines can be writ-

⁹See appendix H for a more detailed discussion of the legal use of clinical practice guidelines, including a review of state initiatives in this area.

¹⁰An affirmative defense is a response by the defendant in a legal suit which, if true, constitutes a complete defense against the plaintiff's complaint.

ten. In cases where the criteria in the guideline are clear, it should reduce defensive medicine. For example, there is some early evidence that adoption of the Maine guideline has substantially reduced cervical spine x-rays in emergency rooms (11 5).

In cases where criteria for doing or not doing a procedure are less clear, the impact is more questionable. In Maine, for example, if a plaintiff proves that the guideline was not relevant given the clinical circumstances, the physician cannot use it as an affirmative defense. Because much of medical practice is subject to uncertainty, opportunities may be limited for developing guidelines explicit enough to be truly protective and to reduce defensive medicine.

Physicians have also expressed concern that, if given greater weight in courts, guidelines could be used against them by patients for whom they had decided not to perform certain procedures. This concern might be particularly valid in cases where the guideline itself left considerable room for physician judgment—and many guidelines do. In these cases, the court would presumably defer to expert testimony to determine whether the physician exercised fair judgment.

Maine addressed this concern by including a provision that specifically denies plaintiffs the right to introduce guidelines developed under the demonstration project as evidence of the standard of care. Some critics have questioned the constitutionality of this provision and the feasibility of actually preventing plaintiffs from introducing the guidelines as evidence (155.1 79).

In the absence of specific legislation to give guidelines more evidentiary weight, the continued development of guidelines will probably help to make practice in certain areas of medicine more uniform and hence help to clarify the legal standard of care (236). Recent evidence that guidelines are playing an increasing (though still small) role in medical malpractice litigation supports this conclusion (see appendix H) (100). However, there are a number of factors that could limit their impact on medical liability and defensive medicine (see box 4-3).

A major limitation is the ability to write sufficiently explicit guidelines. Many clinical condi-

tions involve so much medical uncertainty that specific recommendations on appropriate use of technology will not be possible. For example, the National Cancer Institute (NC I) recommends routine mammography screening for women over 50 years of age but notes that "[e]xperts do not agree on the role of routine screening mammography for women ages 40 to 49" (172). Thus, the appropriate frequency of mammography screening for women under age 50 is left to physician judgment. Indeed, the majority of clinical practice guidelines written to date—including those developed by the federal Agency for Health Care Policy and Research—list several diagnostic and therapeutic options for addressing specific medical conditions, leaving considerable room for physician judgment.

A guideline that leaves substantial room for physician judgment may be no more helpful in defining the proper standard of care than expert witnesses. In addition, in the absence of specific legislative changes such as those in Maine (i e., where only certain guidelines are afforded elevated legal status), juries may choose to disregard guidelines or may be asked to make judgments about conflicting guidelines, just as they are now sometimes presented with conflicting expert testimony.

Despite the limitations of guidelines, they offer several potential advantages over other malpractice reforms. Tort reforms are predicted to alter physician behavior because they dull the tort signal and therefore allow physicians to make clinical judgments with less anxiety about the risk of being sued. Yet, with a reduced malpractice signal, there could be a reduction in beneficial defensive medicine as well as defensive medicine that has less clinical value. Softening the tort signal will also change only those practices that are consciously motivated by fear of liability.

Guidelines, on the other hand, can selectively target defensive medicine that does not improve the quality of care. Also, guidelines present an opportunity for experts to reevaluate clinical practices that are performed routinely but with little evidence that they make a real difference to patient care. Therefore, guidelines have the potential to

BOX 4-3: Factors That May Limit the Extent to Which Guidelines Influence Defensive Medicine

Guidelines factors

- Extent to which guidelines are targeted to address defensive medical practices
- Comprehensiveness of guidelines (i.e., how much of medical practice is now or can be expected in the near future to be addressed by guidelines?)
- Ability of guidelines to keep pace with advances in medical technology and practice
- Existence of multiple conflicting guidelines
- Criteria and process used in guidelines development (e.g., medical effectiveness versus cost-effectiveness; broad consensus versus expert opinion)
- Source of guidelines (e.g., national medical specialty society, state or federal government, Insurance company)

Legal system factors

- Extent to which practice guidelines are admitted as evidence in medical malpractice litigation
- Evidentiary weight accorded to guidelines in litigation process
- Court's willingness to accept cost-effectiveness and other measures of social utility as basis for the legal standard of care

Physician factors

- Physicians' awareness of guidelines
- Physicians' perceptions of the impact of guidelines on their professional liability (i.e., their confidence in the protective effect of guidelines)
- Physicians' willingness to adopt guidelines into practice

Patient factors

- Patients' awareness of guidelines
- Patient demand for services

SOURCE: Office of Technology Assessment, 1994.

get at both conscious and unconscious defensive medicine.

■ Alternative Dispute Resolution

ADR can take many forms, but its basic characteristic is that disputes are heard by one or more arbitrators or mediators rather than by a jury. The arbitration proceeding is often less formal, less costly, and less public than a judicial trial. In *non-binding* ADR, if a party is not satisfied with the result, he or she can continue to pursue the claim through the legal system. Therefore, nonbinding ADR may not eliminate physicians' anxiety about a potential malpractice trial. *Binding* ADR may be the most effective approach to eliminating the

physician's anxiety about a trial. The two leading binding ADR proposals are: voluntary binding arbitration under pretreatment contracts between patient and providers (or health plans), and the American Medical Association/Specialty Society Medical Liability Project's (AMA/SSMLP's) fault-based administrative system, which would remove all malpractice cases from the judicial system.

Voluntary Binding Arbitration

To implement voluntary binding arbitration, the parties must agree to waive their right to trial and instead retain one or more arbitrators to render a decision. In medical malpractice the patient and

¹¹In addition nonbinding ADR may not lead to reductions in direct "malpractice costs" (i.e., the costs directly associated with resolving a malpractice claim) because of the potential for two proceedings (42.75,209).

physician (or insurer) may agree to arbitrate either after an injury has occurred or before the treatment is even provided. An agreement made before treatment is rendered is called a pretreatment arbitration agreement. From the physician perspective, pretreatment arbitration agreements can provide upfront assurance that the case will be arbitrated. After an injury has occurred, the physician-patient relationship may not be conducive to negotiation of an arbitration agreement.

Arbitration has several potential advantages. Arbitration replaces the lay jury with professional decisionmakers, who may have previous experience with malpractice cases. Many arbitrators are ex-judges or otherwise legally trained individuals. Though there is no good empirical evidence that jury decisions are worse than or very different from arbitration decisions,¹² physicians may perceive this to be the case. Arbitration proceedings are also less public and often may be scheduled sooner than trials.

Binding arbitration has not been used frequently in malpractice cases, but it is used extensively in commercial settings. Companies claim significant savings in legal costs (2 16). The very limited data available on malpractice arbitration indicates that arbitration may be less costly for resolving disputes.¹³

Arbitration may be infrequent in medical malpractice for several reasons. Some plaintiff and defense attorneys believe that the jury is an appropriate dispute resolver, especially when factual

issues are involved (159). Yet the reluctance to accept arbitration may also result from a lack of experience with arbitration.¹⁴ Attorneys familiar with arbitration also claim that arbitrators tend to reach compromise decisions in which the physician is held partially responsible (42, 158, 185). Because physicians take malpractice claims so personally, compromise decisions may not satisfy their desire to “vindicate their conduct” (159). On the other hand, arbitrators are very unlikely to award large damages, as juries sometimes do. This may be seen as a disadvantage to arbitration for plaintiffs (42, 158, 185).

Pretreatment arbitration agreements also have limitations. Some states permit the patient to revoke the pretreatment agreement within a certain time after signing the contract usually 30 to 60 days) (23 1). In states without such statutory rules, the enforceability of pretreatment contracts is governed by case law. The courts often closely scrutinize such contracts, because the health care provider may have superior bargaining power (236).¹⁵ For example, a health care provider could refuse to enter into a physician-patient relationship unless the patient relinquished his or her right to a trial.¹⁶ Statutes that allow patients to revoke pretreatment agreements and court scrutiny of such contracts render pretreatment contracts of uncertain value, especially to health care providers.

Whether arbitration would reduce defensive medicine depends upon the extent to which the threat of a court trial drives physicians to practice

¹² For a review of the strengths and weaknesses of juries as decisionmakers, including a review of the empirical literature on this subject, see works by Litan and Saks (127,202).

¹³ A comparison of 65 arbitrated malpractice claims with more than 400 litigated malpractice claims (claims filed in court) in Michigan found that the mean time to resolution for an arbitrated claim was 26 months (median, 19 months), compared with a mean of 37 months (median, 35 months) for a litigated claim. The average payment was \$135,591 for arbitration (median \$43,120), compared with \$148,862 for litigated claims (median \$69,500) (233). However, because the decision to arbitrate is voluntary, it is possible that smaller claims or less difficult claims were self-selected for arbitration (see app. G).

¹⁴ In a recent study of mandatory nonbinding arbitration in federal courts, the overwhelming majority of attorneys found the process to be fair, and 37 percent of attorneys who had gone through arbitration preferred an arbitrator over a jury or judge (157). A RAND study surveyed attorneys who had just gone through nonbinding arbitration for small personal injury cases (damages < \$15,000) arising from automobile accidents. Attorneys were almost evenly split on the question of whether arbitration or a judicial trial was fairer, but most attorneys agreed that arbitration is much more efficient than either a jury or judge-only trial (139).

¹⁵ See, e.g., *Madden v. Kaiser Foundation Hospitals*, 552 P.2d 1178 (CA, 1981).

¹⁶ *Broemmer v. Abortion Services of Phoenix, Ltd.*, 840 P.2d 1013 (AZ, 1992).

defensive medicine. If the small risk that a suit will proceed to trial drives physicians to practice defensively, then ADR should reduce defensive medical practices. If the real driver of defensive medicine is the desire to avoid any process that judges the physician's actions, then arbitration may not affect physician behavior. It is also possible that pretreatment arbitration provisions might increase the frequency of suits, because plaintiffs may prefer arbitration over a jury trial.]⁷ Plaintiffs who would otherwise have settled their case because of the expense of trial may also decide to arbitrate.¹⁸ The resulting increase in malpractice liability proceedings could lead to more defensive medicine.

AMA/SSMLP Administrative System

The AMA/SSMLP proposed a mandatory administrative system to replace the civil jury system for malpractice claims. The AMA/SSMLP administrative system would be part of the state medical licensing organization and would be run by a seven-member state medical board, which would include at least two physicians and possibly another health care professional.

Damages awarded under this system would be limited to economic damages as determined by guidelines and reduced by collateral sources, and noneconomic changes limited to an amount equal to one-half of the average annual wage in the state multiplied by the life expectancy of the plaintiff (approximately \$700,000 for a person with a

70-year life expectancy and \$150,000 for someone with a 15-year life expectancy) (9).

Plaintiffs would not need an attorney to file a claim. If a claim were found to have merit by a claims examiner, the plaintiff would be provided an attorney for further proceedings. If the claims examiner were to reject the claim, the claimant would have the right to appeal to one member of the medical board. If the claimant prevailed, an attorney would then be provided to him or her. If at any subsequent point in the process the claim is determined not to have merit, the plaintiff would have to obtain his or her own counsel and a certificate of merit to appeal the adverse decision.

Because the proposal contemplates limiting damages, the requirements of personal counsel and a certificate of merit would discourage appeals of adverse decisions, and many cases would probably be eliminated with a single review by a claims examiner or one member of the medical board.⁹

For physicians, the AMA/SSMLP proposal promises quicker claim resolution, with few claims decided in a formal proceeding resembling a trial, or even in an arbitration process.

The AMA/SSMLP also proposes a number of legal changes, including: moving from the customary standard of care to a standard that accepts a physician's action if it is "within a range of reasonableness;" adding new requirements for expert witnesses; admitting practice guidelines and medical literature without requiring that an expert witness validate its usefulness; changing informed

¹⁷ Much is made in the malpractice literature about the impact of the trial on a physician, but many plaintiffs may also find the prospect of a legal battle unappealing. Indeed, this prospect has been found to be one factor that discourages plaintiffs from filing suits (145).

¹⁸ In Michigan, 811 claims were filed for arbitration and 247 (30 percent) went to an arbitrator (233). Only 10 to 20 percent of litigated claims typically go to trial (171,222,235).

¹⁹ Claims proceeding beyond the initial review would be subject to peer review by an expert retained by the board in the health provider's field of expertise. If the first expert decided the claim had no merit, a second expert would be retained. If two independent expert reviewers determined that the claim did not have merit, it would be dismissed. If the claim were determined to have merit by a health care provider, the parties would proceed through a settlement procedure with the assistance of a hearing examiner (9). To promote settlement, the system would include financial penalties for parties refusing a settlement offer that a hearing examiner determines is reasonable (9). Very few claims would get a full hearing before the medical board.

consent law; and limiting noneconomic damages. The new standard of care would also be amended to take into account the resources available to the physician, a factor not explicitly considered today (9,23).

Though many claims would be resolved with minimal physician involvement, the proposal would increase patients' access to compensation. Thus, physicians may find themselves subject to more claims. Some experts believe, however, that claims might not increase without a consumer outreach program (23).

The proposal retains the negligence standard and establishes a stronger link between malpractice claims and professional licensing. Each finding of negligence would be investigated by the medical board. This investigation might consist merely of a review of the file maintained by the medical board on that physician (e.g., previous liability determinations, settlements, disciplinary actions) to determine if a disciplinary investigation were warranted. The proposal also requires malpractice insurers to report to the medical board all cancellations, terminations, and decisions not to renew coverage (9).

It is difficult to predict how physicians' behavior might change in response to such an administrative system. The elimination of trials (indeed, the limits on any type of formal hearing) might reduce physicians' anxieties about being sued. Physicians should also have greater confidence in the fairness of the system, because it would be run by a medical board with substantial physician representation. Yet a large increase in claims could dampen physicians' enthusiasm for the proposal, and stronger links between malpractice decisions and disciplinary actions could create additional pressure to practice defensively.

■ Enterprise Liability

In a system of enterprise liability, the physician would no longer be personally liable for his or her malpractice. Instead, the institution in which he or she practices, or the health plan responsible for paying for the services, would assume the physician liability. Although some hospitals and staff-

model HMOs already assume liability for their physicians' malpractice claims, few health care institutions today are fully liable for all claims originating within their organizations.

Enterprise liability would eliminate the costs associated with multiple defendant suits and thereby facilitate settlement. It would promote stronger quality control within institutions and health plans while relieving physicians of some of the psychological burdens of a malpractice suit. Institutions bearing the liability risk would have a greater incentive to evaluate physicians' performance. Institutional quality control programs may be a more effective deterrent to poor quality of care than the current malpractice system, because the vast majority of negligently injured plaintiffs do not sue (130).

A model of an enterprise liability program exists today at the hospitals owned and operated by University of California. Under California law, university hospitals are liable for the actions of physicians practicing within their hospitals. When a claim is filed against a staff physician, the general counsel office requests the plaintiff attorney to drop the physician as a party to the suit and make the Regents of the University of California the sole defendant (137). In virtually all cases this request has been granted. Consequently, the physician does not play as great a role in the pre-trial discovery process, but if the case goes to trial the physician is the primary witness and is required to defend his or her actions (137). Other institutions, particularly some teaching hospitals, have similar arrangements (74).

Some large teaching hospitals have an arrangement known as "channeling," in which the institution and the physicians practicing in the hospital are insured under the same malpractice insurance policy. The physician pays the hospital for the insurance and is often required to agree to a joint defense. In return, the physicians receive favorable malpractice insurance rates and often high coverage limits (108, 142, 197). Therefore, even without true enterprise liability, some of the administrative efficiencies of a joint defense already exist in these settings.

The impact of enterprise liability on physician practice is difficult to predict. Because enterprise liability retains the fault-based system and still calls upon physicians to defend their actions, it is unclear whether the psychological benefits of not being personally named in a claim would lead physicians to practice less defensively. To the extent that enterprise liability induces greater oversight of outcomes of care or review of malpractice claims by the enterprise, physicians may still feel pressure to practice defensively so as to avoid at all costs a poor outcome or a claim. To the extent that physicians are good judges of how to improve outcomes, this kind of defensive behavior would be beneficial to patients, though it might also be very costly.

The medical profession has not seized the opportunity offered by enterprise liability to be excused as a party to malpractice suits. Some critics claim that enterprise liability threatens professional autonomy (148,149). Others doubt that physicians' autonomy is really threatened by enterprise liability, because physicians have a great deal of influence over hospital and HMO policies, especially with respect to clinical practices (46).

Yet if enterprise liability were implemented at the insurance plan level, the quality control function would be one step removed from the institution in which care is provided. The insurance plan would need to understand the quality control issues at many different institutions. Physicians might resent the suggestions or dictates of "outside" insurers. Finally, insurers would not be as aware of the physician abilities, skills, and other contributions to the institution, possibly leaving physicians feeling unfairly judged.

Enterprise liability could increase the number of suits if patients felt more comfortable suing a corporate enterprise rather than physicians (148, 149). In return for no personal liability, physicians might therefore find themselves witnesses in a

greater number of cases and subject to greater scrutiny from the enterprise in which they provide care. It is difficult to predict the resulting impact on practice.

■ No-Fault Proposals

Some malpractice reform proponents seek to replace the fault-based system with a no-fault system, because they consider the current malpractice system ineffective in reaching its two primary goals: deterrence of poor quality care and compensation of victims of negligent injuries. Presently, very few injured patients receive compensation, and judgments about negligence can be costly and time-consuming. Certain no-fault proposals promise more equitable compensation and create other mechanisms for quality control. Other no-fault proposals address compensation issues only.

Limited no-fault systems for birth-related injuries already exist in Florida and Virginia. The Virginia and Florida programs provide compensation for a limited number of obstetric injuries; they do not focus on improving the quality of care. In part this is because many injuries removed from the malpractice system by the Florida and Virginia programs may not be preventable by better quality care.

A selective no-fault proposal that would cover a broader range of medical practices is in development. This proposal, which is as yet untested, would use certain adverse medical outcomes called *avoidable classes of events* (ACES) as a mechanism for determining liability for selected injuries. ACES could be used both to promote high-quality care and to quickly and objectively determine which patients should be compensated. When an ACE occurred, the patient could be quickly compensated through a nonjudicial insurance process, so ACES are also known as *accelerated compensation events*. (221).

The Virginia and Florida Birth-Related Injury Compensation Programs

Virginia and Florida have implemented an accelerated compensation program for a selected set of severe neurological birth related injuries.²⁰ The Virginia program was conceived out of necessity when Virginia malpractice insurers stopped writing any new obstetric policies following a Virginia Supreme Court decision upholding an \$8 million obstetric award (236). Florida initiated its program shortly thereafter. Both programs came about in part because high malpractice insurance rates were thought to be responsible for a decline in the availability of obstetric services, especially for low-income people (57).²¹

Severe neurological injuries were chosen because the issue of causality was so muddled and malpractice insurers were frustrated by the difficulty of defending against allegations that the injury resulted from the physician's actions (or inactions) during the delivery. Many of these claims involve very large damages.

Both programs stop short of being true no-fault systems. In both states, there must be evidence that the injury resulted from deprivation of oxygen or a mechanical cause during delivery (Va. Code Sec. 38.2-5008 (1989); Fla. Stats. Sec. 766.302 (1991)).²²

The Virginia and Florida programs have been operational for approximately 5 years. Many more claims have been brought under the system in Florida than in Virginia, probably because Florida promotes its program more aggressively (174, 236).²³ Malpractice insurance for obstetricians is now readily available in both Virginia and Flori-

da; at least in Virginia, the program can be credited with keeping malpractice insurers in the market.

The impact on malpractice insurance premiums is unclear (57,90). No studies have documented whether these programs have increased the availability of obstetric care, but the Virginia act successfully required participating physicians to work with the commissioner of health to develop a program to provide obstetric services to low-income patients (Code of Va. Sec. 38.2-5001 (1987)).²⁴

Because the subset of injuries that falls under these programs is so small and the link between these injuries and physician practices so unclear, removing personal liability for the specified birth-related injuries probably has very little impact on defensive medicine and may have little impact on the quality of care as well.

Accelerated Compensation Events

Under this system, medical experts would identify categories of medical injuries that are generally avoidable when a patient receives good medical care. Patients experiencing an ACE would be automatically compensated through an administrative system. Compensation would be paid either by the physician's insurer or another responsible organization.

Because ACES would not account for all claims, the ACE proposal would have to operate within a larger injury compensation system, which could be the existing fault-based malpractice system or some alternative fault-based approach. Non-ACE claims could be resolved through the tort system or ADR (220).

²⁰ For a detailed description of the Florida and Virginia no-fault programs, see OTA's background paper (236).

²¹ *Coy v. Florida Birth-Related Neurological Injury Compensation Plan*, 595 So.2d 943 (Fla. 1992).

²² There is debate in the medical literature as to whether deprivation of oxygen during the delivery is always the cause of severe neurological impairment (236).

²³ Florida had approximately 92 claims in the first 5 years of operation, compared to eight claims in Virginia (174).

²⁴ A plan was developed by obstetricians and endorsed by the commissioner of health in 1988 (44). It delegates the responsibility for program implementation to local health departments. A number of local health departments have implemented programs that provide low-income women with obstetric care by private physicians. However, some of the impetus for the programs also came from increased Medicaid reimbursement for obstetric care (44).

Experts have developed 146 ACES for general surgery, orthopedic surgery, and obstetrics, but the list is still being revised.²⁵ Examples of ACES include:

- complications secondary to anticoagulant therapy in preparation for surgery,
- consequences of misdiagnosis of breast malignancy,
- complications from failure to diagnose and treat hypoglycemia in a newborn,
- complications to infant(s) from syphilis during pregnancy that was unrecognized during prenatal care,
- complications to infant(s) from fetal distress (including brain damage) that was unrecognized or untreated during attended delivery, and
- certain complications or injuries resulting from surgical procedures, including failing to remove a foreign body from the surgical site (221).

In a sample of 285 hospital obstetric claims in 24 states, the obstetric ACES accounted for 52 percent of claims, with a disproportionate number of serious injury claims and paid claims involving ACES (25).

The primary benefit of ACES may be to promote predictability and consistency in the disposition of claims. ACES are developed by medical experts using epidemiologic concepts of “relative avoidability” on a population basis (221). In conventional malpractice cases, negligence is based on a lay jury’s judgment about an individual incident. It is quite possible that the same adverse outcome will be compensated by one jury but not by another because juries will differ on whether the standard of care was met.

Under a system using ACES, the primary analysis would be whether a covered adverse outcome

occurred as a result of certain clinical actions (e.g., the patient is blind following the occurrence of air embolism during a surgical procedure to remove acoustic neuroma). Compensation would be provided once a factual finding was made that certain clinical events have occurred. There would be no judging of whether an individual physician’s actions were clinically acceptable or met a standard of care.

Use of ACES should allow a greater number of injured patients to be compensated more quickly and for less administrative expense²⁶ (221). It would not be necessary to determine anew in each case the proper standard of care and to evaluate the physician’s behavior against this standard. The proposal also contemplates limiting noneconomic damages, which are often high and sometimes inconsistent because of (the difficulty of assigning monetary values to injuries such as pain and suffering (236). Limiting these damages would decrease the open-endedness of damage awards and perhaps ease physicians’ anxieties about medical malpractice (see chapter 2).

ACES could also have an impact on defensive medicine. ACES could relieve physicians of the psychological burden of a process that retrospectively judges their actions. Using ACES would eliminate the process of finding that the physician’s actions did not meet the standard of care. Without the threat of a trial in which personal blame is assigned by a finding of negligence, there could well be less motivation to practice defensive medicine in the clinical situations surrounding ACES.

Because ACES are based largely on the occurrence of bad outcomes in certain clinical situations, physicians should have little incentive to perform tests or procedures that they know will not improve outcomes but merely document care

²⁵ The unpublished list of research ACES were provided to OTA for review only; OTA was not permitted to publish the list or any ACES that have not been published previously.

²⁶ According to one estimate, \$0.50 to \$0.60 of every dollar spent on the malpractice system goes to administrative expenses, the majority of which are legal expenses (106). The elimination of a proceeding to establish fault and causation should lead to a significant reduction in administrative costs.

in these cases (221). Thus, ACES should reduce the occurrence of certain wasteful defensive medical procedures.

ACES could also promote good defensive medicine (i.e., defensive medicine that improves outcomes). Implicit in the development of ACES is the judgment that the injury could probably have been prevented with good medical care. Thus, physicians and institutions would have incentives to change their practices and implement quality control systems to prevent the occurrence of such events. Because ACES are based on outcomes, however, they might not always provide the physician with upfront guidance on the clinical decisions necessary to avoid these outcomes. In addition, because ACES are based on statistical avoidability, a single ACE event would not necessarily be a sign of poor care.

The authors of ACES say that use of the concept would not stimulate defensive medicine, because most ACES do not involve adverse events that can be avoided by diagnostic testing (20.2 18). Indeed, one of the criteria for designation of certain adverse medical outcomes of an ACE is that doing so will not distort medical practices or lead to unnecessary testing.

Yet some ACES developed to date do involve omissions of care, including missed diagnosis. For example, complications resulting from misdiagnosis of early breast malignancy has been specified an ACE. In designating this situation an ACE, the developers of the proposal made an explicit judgment that physicians should have strong incentives to diagnose breast cancer, even if there are many false negatives.

Any determination that such an ACE occurred implies that the doctor omitted necessary procedures: thus, the physician may still feel personally responsible.²⁷ In such situations, some physicians may feel compelled to do tests of marginal medi-

cal benefit to reduce the risk of an adverse outcome to as close to zero as possible. On the other hand, if the physician is already practicing defensively because he or she believes that any adverse outcome might lead to litigation, then having this situation removed from the fault-based liability system might reduce some of this concern. In other words, if physicians are more comfortable with an ACE compensation system than with the tort system, designation of complications from certain missed diagnosis as an ACE could relieve some anxiety about potential liability.

Finally, the impact of ACES on defensive medicine might depend upon how they fit into the larger system of compensation for medical injuries. ACES will not cover all medical practices. If an ACE compensation system were layered onto the existing malpractice system, physicians might not know whether particular clinical situations could result in ACE liability or tort liability.

More importantly, ACES might not address the clinical situations that trigger the most defensive medicine. Since the claims that remain in the tort system might still trigger defensive medicine, the developers of ACES have suggested that an ADR system for the remaining cases would eliminate some aspects of the tort system that may drive defensive behavior—e.g., adversarial proceedings, juries, or potentially large damage awards (24). As discussed earlier, however, the impact of ADR on defensive medicine is not at all clear.

DEFENSIVE MEDICINE AND HEALTH CARE REFORM

Economic theory predicts that the threat of liability will drive individuals (or organizations) to invest in activities to prevent liability until the cost of prevention exceeds the expected cost of liability (255). In a fee-for-service system, physicians

²⁷ Indeed, compensation under ACES may have economic consequences for the physician if health care purchasers base their purchasing decisions on providers' experience under ACES. This may be desirable if ACES are true markers of quality of care, but potential for misuse exists if the concept of statistical avoidability gets confused with negligence.

often do not bear the costs of extra tests and procedures and may sometimes get paid more money when they order them.

Without counterincentives to investment in prevention of liability, extra tests or procedures would be ordered even when their marginal benefit to the patient is extremely low. As long as the “investment” in liability prevention is free or even remunerative, reducing the threat of liability might do little to change the incentive to practice defensive medicine. On the other hand, changes in health care payment that increase the cost to the clinician (or to the organization) of avoiding liability would probably reduce defensive medicine.

Several current health care proposals embrace the concept of managed competition.²⁸ Under such a system, health plans would have strong incentives to limit total expenditures on behalf of their enrollees. Plans and their physicians would weigh the cost of performing a test or procedure against the potential savings in liability costs that performing such tests can be expected to provide. Without the threat of liability, or some other effective method of quality assurance, managed competition could create too great an incentive to “do less” for the patient, leading to lower quality of care.

Under certain health care reform proposals, physicians could find themselves in the position of not being reimbursed for delivering care they believe is appropriate. Since the legal system does not now and probably will not recognize negative reimbursement decisions as evidence of the standard of care, physicians could be caught between competing pressures of bearing the cost of procedures or bearing the risk of liability (84).

CONCLUSIONS

Conventional tort reforms that tinker with the existing process for resolving malpractice claims

while retaining the personal liability of the physician are more likely to be successful in limiting the direct costs of malpractice-claim frequency, payment per paid claim, and insurance premiums than in altering physician behavior. Indeed, 20 years ago, when the frequency of malpractice suits, payments per paid claim, and premiums were much lower than today, physicians still claimed to practice defensive medicine frequently.

Greater use of practice guidelines in malpractice proceedings may reduce defensive medicine, because practice guidelines may offer physicians specific guidance about what the courts will accept as the standard of care. Although guidelines will not be a panacea, they are likely to play an increasingly important role in malpractice proceedings. Under a payment system that seeks to reduce costs, guidelines can be used both to specify appropriate clinical actions and to shield physicians from liability for adverse outcomes occurring when the guidelines have been followed. The overall impact of guidelines on defensive medicine will probably be limited, however, because of the tremendous uncertainty in medical practice.

Alternative dispute resolution relieves the physician of the prospect of a trial. An arbitrator may possess greater technical expertise in malpractice than a lay jury, and the process may be less adversarial and quicker. If concern about the competency of juries and the trial process is the primary motivator of defensive medicine, then this reform may have an impact on behavior. Physicians may find the process more rational and fair and therefore more readily accept the result. However, the process still involves judgments about the appropriateness of the physician clinical decision. In addition, ADR may increase the number of claims and strengthen the link between malpractice claims and professional licensing. Both of

²⁸ *Managed competition* in this report refers to a system in which each consumer chooses among competing health plans that offer a standard set of benefits at different prices (i.e., premiums). Competition among plans for patients on the basis of price as well as quality would presumably force plans to look for opportunities to eliminate wasteful or only marginally useful services. In addition, the Administration's proposal imposes caps on increases in premiums. It is expected that plans will exert greater influence on their participating doctors and hospitals to be more cost-conscious in making clinical decisions.

these factors could offset the psychological benefit of eliminating a trial.

Enterprise liability removes personal liability, but the physician is still likely to be called as a witness to defend his or her clinical decision if the case goes to trial. The main advantages of this concept are reduction in administrative costs associated with multiple defendants and the prospect for better quality control systems. In addition, physicians may have less anxiety when they know they will not be named in any suit.

Selective no-fault using ACES would probably limit physicians' involvement in the claims process, and a payment to the plaintiff would not necessarily imply that the physician was negligent. However, the criteria used to develop ACES—i.e., generally avoidable adverse events does leave some notion of personal responsibility in the system. As for defensive medicine, it is not clear that ACES would address many of the situations in which much defensive behavior occurs. If these

situations are left in the tort system, the motivation to practice defensively may not change. Consequently, the impact of selective no-fault on defensive medicine is unpredictable.

The projected impacts of these new malpractice reform proposals on physician behavior are based on logic, not experience. Missing is information about what aspects of the malpractice system drive physician behavior. If physicians mainly want to avoid jury trials, then ADR may be sufficient to reduce defensive medicine. On the other hand, if physicians are distressed about any process that questions their clinical judgment, then reforms retaining a fault-based system may not result in changes in physician behavior.

Health care reform may also have an impact on defensive medicine. A different health care financing arrangement may create financial disincentives for practicing defensive medicine, making tort reform unnecessary or even unadvisable.