

## CORRESPONDENCE

receive advice against taking action? Full disclosure accompanied by an informed decision under counsel not to file suit entails substantially different interpretations of the data (e.g., legal malpractice) than incomplete, delayed or failed disclosure (e.g., negligent or intentional medical cover-up). Do the authors and their peer reviewers believe these patients should now be contacted? If not, why not?

As medicine forgoes patient-centered decision-making in favor of population-based determinations aimed at marshaling scarce resources, physicians must be reminded that the legal system will not undergo a parallel transformation. If doctors and other caregivers believe their patients deserve at least the level of personal zealous representation available to a client in a law office, they must also perceive that a tort system, modified to increase the skill level of its actors, is their last, best defense. Society does not tolerate induction of a coma or neuraxial blockade by the unskilled. Should we be surprised

when the bar to practice within a complex and evolving system is so low for physicians and lawyers alike?

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## The Purpose of Peer Review

*To the Editor:*—Edbril and Lagasse's article<sup>1</sup> tends to imply that their method of "structured peer review" is more accurate and reliable in detecting deviations from accepted standards of care than the legal system. Edbril and Lagasse offer their method to the legal system to assist it in its determinations: "If peer review could aid the legal system as a means of detecting deviations from the standard of care, it would offer the advantages of being more applicable to judging clinical competence and more justifiable in compensating injured patients." Their assumption of the accuracy of such a system makes it appropriate to examine the basis for this assumption, and, in addition, makes it worthwhile to consider the purpose of peer review.

Their system categorizes each and every untoward event into one of a small number of categories of "error." Is such a system truly accurate? Are we always able to categorize every event? Are not some events simply not able to be assigned to any category? A similar article by Liang<sup>2</sup> suggests that there is more than one opinion on this subject. In Liang's study, twelve clinical scenarios very similar to Edbril and Lagasse's "narrative of the events" were reviewed and evaluated by 11 faculty members at a Harvard teaching hospital with an average of 15.4 yr of experience. Approximately, one in five of the evaluations was, "Can't Tell."

A "Can't Tell" evaluation is not unexpected given the uncertainties present in all medical care and given the enormously reduced data sets being evaluated by the two groups of anesthesiologists. Recall that meetings of the peer review committee in Edbril and Lagasse's are reviewing "abstracts," sometimes prepared with the assistance of the anesthesiologist(s) involved, sometimes not.

The extraordinary element in Edbril and Lagasse's article, however, is the misunderstanding of the peer review system that it promotes.

Traditionally, the role of peer review has been the prevention of untoward events in the future. Anonymity is guaranteed the participants to permit them to freely discuss cases that they might otherwise feel inhibited in discussing for fear of accusation and blame: all in an effort to prevent future harm to patients.<sup>3</sup> To change the emphasis in peer review to fault finding and calculating patient compensation will have a profound chilling effect on this process. How many patients will suffer in the future because potentially useful lessons derived from the peer review process are lost because of fear and dishonesty promoted by a draconian spirit of crime and punishment which would now enter this process?

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*In Reply:*—We very much appreciate the comments by Drs. Hogan and Laravuso regarding both the recent *Anesthesiology* article<sup>1</sup> and the accompanying editorial.<sup>2</sup> We hope our response stimulates debate in this exceedingly important area.

Drs. Hogan and Laravuso indicate that the “the problem [of discrepancy between peer review assessment and litigation risk] lies not so much in the system of litigation that society has adopted, as in the training and credentialing of practitioners.” Although the training and credentialing of practitioners is, indeed, an exceedingly important consideration for clinical care, the conflict between what medical professionals deem is appropriate care and that care which may result in litigation may be related primarily to weaknesses with how the malpractice system actually functions rather than training and credentialing *per se*. Training and credentialing are important within the profession to assure that physicians practice in a clinically appropriate manner. The legal system, through its agents of judge or jury, are to accept what such appropriately trained and credentialed practitioners indicate is standard and apply it to the case at hand. Edbril and Lagasse found that the connect between what is legally answerable and what is professionally appropriate appears lacking. Assuming that the anesthesiology reviewers are not unqualified either through training or credentialing, something I do not believe Drs. Hogan and Laravuso suggest, the disconnect may reside instead in the application of the law and the medical standard of care by the legal system. This possibility is supported by other studies<sup>3-5</sup> in addition to the Edbril and Lasse piece.

Drs. Hogan and Laravuso also indicate that a justification of the current tort system resides in the contention that “[t]o scrap a system that has accomplished much good (handicap access, gender equity, the tobacco settlement to name a few) would be unwise.” However, medical malpractice, which relies on a professional standard of care that may not be being applied appropriately, is, we believe, quite different from civil rights cases or class action litigation for an unhealthy, but legal, product. The difficulty in medical malpractice cases as illustrated in the Edbril and Lagasse article is that the tort system may not be able to function according to its own rules; thus, its social goals of reducing patient injury and maximizing patient safety may not be accomplished. Further, as pointed out in the editorial, the compensation function is also not being well accomplished. Through reform directly addressing these difficulties, we may be more able to reach the goals of patient safety and compensation; but certainly such reform does not preclude other types of tort litigation.

In addition, Drs. Hogan and Laravuso indicate in their letter that another justification of the tort system is that “the personal injury tort system and its incentives represent the physician’s best weapon in the battle for autonomy against managed care intrusions. . . .” We would respectfully disagree with them on this point. A vast majority of physicians are independent contractors; thus, under traditional independent contractor law, any patient injury liability redounds to the physician him or herself, even if the managed care organization mandates specific utilization review procedures, cost-containment measures, the patients that the physician must see, and so forth.<sup>6-8</sup> Further, federal law, the Employee Retirement Income Security Act, can immunize managed care organizations from state law tort suits.<sup>6</sup> Thus, traditional independent contractor tort law, as well as federal legisla-

tion, most likely do not represent weapons against managed care intrusions. Indeed, this is why legislation designed to provide autonomy to physician and patient decision making may not be effective, such as gag clause legislation.<sup>9</sup>

Drs. Hogan and Laravuso support the call for evidence-based medicine and an assessment of safety outcomes, but indicate that “this alone will fall far short” to accomplish the goal of patient safety. Although perhaps a disagreement only of degree, such study and assessment is essential and is an integral component to improving patient safety as indicated by a recent Institute of Medicine report.<sup>10</sup> Of course, education and a change of culture to clinical decisions based on valid evidence is just as important so that the maximum benefit of these insights can accrue to patient safety.

To survive in the modern delivery environment of health care, a framework of legal medicine should indeed be part of every medical student’s education as Drs. Hogan and Laravuso suggest. Beyond traditional legal medicine topics such as informed consent and medical malpractice, modern health law and policy considerations such as financing mechanisms for health care, managed care concepts, contracting, fraud and abuse, antitrust law, and alternative dispute resolution methods should be taught so as to truly prepare the student for the practice environment he or she will enter.<sup>11</sup> With regard to a legal medicine specialty board, the American College of Legal Medicine certifies competency in legal medicine; however, it currently is not approved by the American Board of Medical Specialties as it once was.

Drs. Hogan and Laravuso also suggest that to improve patient injury litigation, a special medical malpractice bar be created akin to the intellectual property bar, with the standard jury system retained. Of course, very few would argue that a more informed legal profession as to medical delivery would be undesirable. Yet the results of the Edbril and Lagasse study and others discussed above indicate that the dissonance between what is deemed medically appropriate and what is deemed legally appropriate lies with the finders of fact, usually the juries. Thus, the focus of reform might be more suitably placed instead upon promoting medically sophisticated juries.

Finally, Drs. Hogan and Laravuso note that financing decisions that result in population-based care rather than an individual patient focus may not be well reflected in the traditional legal system. They then indicate that “if doctors and other caregivers believe their patients deserve at least the level of personal zealous representation available to a client at a law office, they must also perceive that a tort system modified to increase the skill level of its actors, is their last, best defense.” Financing decisions that result in changes in health care delivery emphasize the need for reform of the traditional tort system to reflect these changes. In addition, a belief that patients should be afforded their legal rights is not necessarily in conflict with a belief in medical malpractice reforms. The evidence suggests that the malpractice tort system does not in practice achieve its goal of deterrence, does not induce physicians to act affirmatively to adopt optimal patient safety activities, and does not compensate patients who are injured in the health delivery system. Physicians who call for a system that does achieve these goals, is continuously responsive to an assessment of errors, and integrates results of patient safety research would appear to have their patients’ and professions’ best interests at heart. Continuing

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to use a system that has been "broken .. for some time"<sup>12</sup> to further patient interests and professional competence would not seem to be the optimal use of the increasingly scarce resources in the health delivery system.

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*In Reply:*—Edbril, Lagasse, Liang, Cullen, Gauge, Hogan, and Lavaruso all agree that the present medical malpractice tort system falls short of its goals of minimizing patient injury, maximizing patient safety, and compensating injured patients. Indeed, our original manuscript examining the relationship between malpractice litigation and human errors merely adds to a growing body of evidence supporting this contention.<sup>1-6</sup> Therefore, the apparent controversy lies only in the possible solutions to the problem.

Liang and Cullen suggest that we need to focus on evidence-based medicine and patient outcomes, encourage open reporting of medical error by providing immunity from legal discovery, and institute data standardization, nonpunitive reporting approaches, and interprovider analyses that might yield insights into methods to maximize patient safety and minimize error.<sup>7</sup> Interestingly, all of these features are characteristics of our structured peer review model. Peer review, conducted under the umbrella of quality management, is protected from legal discovery. Our peer review process examines both system errors and human errors with standardized methods of reporting and analysis. By looking at the system as critically as we look at each other, the anesthesiologists in our department begin to share the responsibility with management for delivering quality health care, thus making quality control through peer review less threatening. Many of the errors that we identify as system errors would be considered as unavoidable and discarded by other review mechanisms. By including these occurrences in our peer review and defining them as system errors, they provide additional interprovider analyses on causative factors contributing to adverse outcome and allow for improved qual-

ity by their elimination. System errors, identified by our peer review process, account for nearly 90% of the errors. Another way to consider this is that without looking at system errors the vast majority of causes for adverse outcomes, as determined through peer review, would be excluded. Hence the major possibility for improvement in quality of patient care would be excluded. Human error, in contrast, contributes only a small portion to adverse outcome (approximately 10%), but in the past dictated the major focus of quality assurance measures. In other words, if all human error could be removed, it would have only a small impact on the overall quality of care (indicator occurrences when compared to the impact of removing all system errors.<sup>8</sup> It is extremely important to understand that error is defined in our model as an act that from ignorance, deficiency, or accident departs from or fails to achieve a desired outcome.<sup>9</sup> Although all errors may be preventable over time, human errors can be prevented by an individual working under our present standards of care, but system errors can only be prevented by changing our standards of care.

Gauge attacks the "accuracy" of our system by comparing it to a study by Liang.<sup>10</sup> Unfortunately, this study was not in print at the time of our original manuscript, so we were unable to comment on its content previously. It is impossible to compare our structured peer review model to the survey of Liang because of differences in methodology. Although both methods provide structure to the review process, the reviewers in the Liang study were acting independently without the benefit of group discussion. Multiple studies have shown that simply providing structure to a peer review process is insufficient to provide adequate agreement among reviewers.<sup>11,12</sup> Although it is

true that our initial abstracts were sometimes prepared without the assistance of the anesthesiologist(s) involved, most adverse events were self-reported by that practitioner.<sup>13</sup> Also, the involved anesthesiologist(s) were generally present for the discussion and error analysis. Finally, the suggestion by Gauge that this peer review mechanism would be corrupted, if it were applied to patient compensation, is an interesting speculation. Perhaps, Gauge would be more comfortable with a no-fault system of medical liability. The stability with which all adverse outcomes occur suggests that this may also be a viable alternative.<sup>1,8</sup>

Hogan and Lavaruso wish to preserve and modify the present malpractice tort system. Their argument that the tort system should be preserved because it is our "best weapon in the battle for autonomy against managed care" must raise a smile on the faces of those who see similar value in both. As for their remaining arguments, the principles of scientific medicine are part of every medical school curriculum in the United States, and a stronger focus is being made on evidence-based medicine as we struggle to be cost effective. Increasing public exposure to courtroom proceedings, however, demonstrates that the legal system does not suffer from the same imposed cost constraints, nor does it adhere to the same scientific rigors. The lack of a response to the growing body of evidence that the tort system falls short of its goals is a good example. The suggestions for a Specialty Board of Legal Medicine and a Medical Malpractice Bar appear to offer a niche for a new breed of practitioner, but the legal profession should test these remedies with the same scientific principles and cost consciousness that the medical profession applies consistently.

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## Postoperative Metastasis Risk: More Than Immunosuppression

*To the Editor:*—An increase in the rate of development of tumor metastasis, controversially attributed to immune suppression related to various aspects of surgery and anesthesia, has been reported for years and is discussed in an article<sup>1</sup> and commentary<sup>2</sup> that appeared in the September 1999 issue of *ANESTHESIOLOGY*. However, it is important to point out that facilitation of metastasis can occur independent of immune mechanisms. Indeed, metastasis can be stimulated by the removal of an angiogenesis inhibitor (such as angiostatin) along with the primary tumor (as reviewed in Cramer<sup>3</sup>). (Angiostatin is a naturally occurring protein shown in animal experiments to strongly suppress metastasis.<sup>4</sup>)

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It seems imperative that continued research into the traditional areas of immune suppression/modulation must be coupled with more recent findings (e.g., angiogenesis inhibitors) if we are to truly understand the pathobiology of perioperative metastasis. Such integrated research seems necessary if we are to devise effective clinical strategies to decrease the incidence of postoperative metastasis.

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