guilt too often shackles us. Achieving the culture we need—one of learning, trust, curiosity, systems thinking, and executive responsibility—will be immensely difficult. Harder still, we must now accomplish this cultural change under the spotlight of a newly aroused public that, given our track record, is understandably doubtful that health care can, on its own, do what needs to be done. Indeed, the public's doubt in our commitment may be all too well founded. In truth, no other hazardous industry has achieved safety without substantial external pressure. Safe industries are, by and large, highly regulated. Health care's track record of failure to act on over three decades of accumulating evidence of medical errors offers plenty of ammunition to those who claim that we may need to be forced to do what is, at bottom, right.

The need is obvious, and the mandate is clear. Will we respond adequately and fast enough? Will hospitals and healthcare organisations get serious enough, soon enough, about patient safety? Will they make the changes that are needed, and will they be willing to hold themselves accountable for achieving improvements? Can we accept the legitimacy of the public's right to know when serious accidents occur, and can we honour the public's legitimate expectation that we will admit our mistakes, investigate them, and make the changes necessary to prevent them in the future? As we enter the new century, a key lesson from the old is that everyone benefits from transparency. Both the safety of our patients and the satisfaction of our workers require an open and non-punitive environment where information is freely shared and responsibility broadly accepted.

Are we ready to change? Or will we procrastinate and dissemble—to lament later when the inevitable regulatory backlash occurs? It may seem to some that the race for patient safety has just begun, but the patience of the public we serve is already wearing thin. They are asking us to promise something reasonable, but more than we have ever promised before: that they will not be harmed by the care that is supposed to help them. We owe them nothing less, and that debt is now due.

Lucian L Leape *adjunct professor of health policy*

Harvard School of Public Health, Harvard University, Boston, MA 02115, USA

Donald M Berwick *chief executive officer*

Institute for Healthcare Improvement, Boston, MA 02215, USA

Lucian Leape and Donald Berwick are the guest editors of this theme issue.

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Medical error: the second victim

The doctor who makes the mistake needs help too

Personal view p 812

When I was a house officer another resident failed to identify the electrocardiographic signs of the pericardial tamponade that would rush the patient to the operating room late that night. The news spread rapidly, the case tried repeatedly before an incredulous jury of peers, who returned a summary judgment of incompetence. I was dismayed by the lack of sympathy and wondered secretly if I could have made the same mistake—and, like the hapless resident, become the second victim of the error.

Strangely, there is no place for mistakes in modern medicine. Society has entrusted physicians with the burden of understanding and dealing with illness. Although it is often said that "doctors are only human," technological wonders, the apparent precision of laboratory tests, and innovations that present tangible images of illness have in fact created an expectation of perfection. Patients, who have an understandable need to consider their doctors infallible, have colluded with doctors to deny the existence of error. Hospitals react to every error as an anomaly, for which the solution is to ferret out and blame an individual, with a promise that "it will never happen again." Paradoxically, this approach has diverted attention from the kind of systematic improvements that could decrease errors. Many errors are built into existing routines and devices, setting up the unwitting physician and patient for disaster. And, although patients are the first and obvious victims of medical mistakes, doctors are wounded by the same errors: they are the second victims.

Virtually every practitioner knows the sickening realisation of making a bad mistake. You feel singled out and exposed—seized by the instinct to see if anyone has noticed. You agonise about what to do, whether to tell anyone, what to say. Later, the event replays itself over and over in your mind. You question your competence but fear being discovered. You know you should confess, but dread the prospect of potential punishment and of the patient's anger. You may become overly attentive to the patient or family, lamenting the failure to do so earlier and, if you haven't told them, wondering if they know.[1–3]

Sadly, the kind of unconditional sympathy and support that are really needed are rarely forthcoming. While there is a norm of not criticising,[4] reassurance from colleagues is often grudging or qualified. One reason may be that learning of the failings of others allows physicians to divest their own past errors among

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the group, making them feel less exposed.[5] It has been suggested that the only way to face the guilt after a serious error is through confession, restitution, and absolution.[6] But confession is discouraged, passively by the lack of appropriate forums for discussion, and sometimes actively by risk managers and hospital lawyers. Further, there are no institutional mechanisms to aid the grieving process. Even when mistakes are discussed at morbidity and mortality conferences, it is to examine the medical facts rather than the feelings of the patient or physician.

In the absence of mechanisms for healing, physicians find dysfunctional ways to protect themselves. They often respond to their own mistakes with anger and projection of blame, and may act defensively or callously and blame or scold the patient or other members of the healthcare team. Distress escalates in the face of a malpractice suit. In the long run some physicians are deeply wounded, lose their nerve, burn out, or seek solace in alcohol or drugs.[6] My observation is that this number includes some of our most reflective and sensitive colleagues, perhaps most susceptible to injury from their own mistakes.

What should we do when a colleague makes a mistake? How would we like others to react to our mistakes? How can we make it feel safe to talk about mistakes? In the case of an individual colleague it is important to encourage a description of what happened, and to begin by accepting this assessment and not minimising the importance of the mistake. Disclosing one's own experience of mistakes can reduce the colleague's sense of isolation. It is helpful to ask about and acknowledge the emotional impact of the mistake and ask how the colleague is coping.

If the patient or family is not aware of the mistake the importance of disclosure should be discussed. The physician has an ethical responsibility to tell the patient about an error, especially if the error has caused harm.[7] We should acknowledge the pain of implementing this imperative (as does the writer of this week's personal view, p 812). However, we can convey the great relief it can be to admit a mistake, and that, confronted by an empathetic and apologetic physician, patients and families can be astonishingly forgiving. Only then is it appropriate to approach the mistake with a problem solving focus, to explore what could have been done differently, and what changes can be made at the individual and institution level to prevent recurrence. In the case of the misread electrocardiograph the educational and emotional experience for the resident —and the team—would have been transformed if a respected senior clinician had led an open discussion of the incident and acknowledged the inevitability of mistakes.

Nurses, pharmacists, and other members of the healthcare team are also susceptible to error and vulnerable to its fallout. Given the hospital hierarchy, they have less latitude to deal with their mistakes: they often bear silent witness to mistakes and agonise over conflicting loyalties to patient, institution, and team. They too are victims.

I'll conclude with an assignment for the practising doctor: think back to your last mistake that harmed a patient. Talk to a colleague about it. Notice your colleague's reactions, and your own. What helps? What makes it harder? Physicians will always make mistakes. The decisive factor will be how we handle them. Patient safety and physician welfare will be well served if we can be more honest about our mistakes to our patients, our colleagues, and ourselves.

Albert W Wu *associate professor*

School of Hygiene and Public Health and School of Medicine, Johns Hopkins University, Baltimore, MD 21205, USA (awu@jhsph.edu)

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Accreditation's role in reducing medical errors

Accreditors can provide some leadership, but they can't do it on their own

The admonition "First, do no harm," paraphrased from the Hippocratic oath,[1] has long been a guiding principle for the practice of medicine and the delivery of healthcare services around the world. But harm is done every day in health care. This has been well documented in the medical literature.[2] Now public awareness of medical errors and unexpected adverse patient outcomes is growing.[3] We have a serious problem, and it cries for timely, effective solutions. No one feels this more keenly than practising physicians, healthcare executives, and the overseers of healthcare quality. Effective solutions, however, are proving to be a daunting challenge.

The oversight of healthcare quality in the United States is accomplished both through professionally based, private sector accrediting bodies and through federal and state regulatory agencies. Many variations of this framework are now increasingly in evidence throughout the world. The initial model for external quality oversight in the United States was created by physicians in 1917. The resulting hospital standardisation programme of the American College of Surgeons was the forerunner in the US of both the national Joint Commission on Accreditation of Healthcare Organizations and the federal and state regulatory framework now in place for all types of healthcare organisations.[4] While these parallel oversight mechanisms are potentially duplicative, regulatory agencies commonly defer to accrediting bodies that meet their performance criteria.

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