

Disclosure and Apology: Patient-Centered Approaches to the Public Health Problem of Medical Error

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The recognition of preventable medical errors as a public health problem of the size, magnitude, and cost equal to other chronic and acute illnesses or injuries long thought of as classic public health challenges occurred less than a decade ago. In 1999, the Institute of Medicine of the National Academies (IOM) released its groundbreaking report *To Err is Human: Building a Safer Health System*. Since that time we now know that as many as a million lives have been lost in US hospitals as a result of medical errors and that one-half of all surgical complications are preventable. The IOM estimated the cost of medical errors in hospitals alone as \$17 to \$29 billion a year. *To Err is Human* noted not only the high mortality and cost associated with medical errors, but went much further, reframing these errors as a chronic threat to public health, much like automobile accidents, breast cancer, and HIV/AIDS had been reframed in earlier IOM and other government reports.

Not surprisingly, such nascent recognition of a preventable population-level problem means that actual efforts to craft the complex interventions needed to mitigate the medical error problem are themselves no more than a few years old. Subsequent IOM¹ and other²⁻⁴ reports went beyond simply defining and estimating the magnitude of the challenge, and suggested solutions that health care organizations might adopt to better ensure safety or even prevent medical error in the first place. These solutions included mandatory reporting systems,⁴ tip lists,⁵ and surgery checklists.⁶ Despite these efforts, a groundswell endorsement of patient safety campaigns has not yet occurred.²

What is surprising, however, is how far physicians, other professionals, providers, and patient safety and quality care organizations have come in identifying targets for future research and intervention. Error disclosure is one topic that illustrates this trend at the system level through perceptions

of risk, barriers to “apology laws,”⁷ at the organizational level by functioning as a team, incorporating a culture of infallibility; and at the provider-patient level through challenges to transparency, strategies to achieve effective communication, and prompt disclosure. The next step is to begin to shift social norms to more widely embrace a belief in the effectiveness of disclosure accompanied by apology as a central tenet of any response. Taking such a next step, however, requires fuller

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empirical documentation, possibly randomized control trial data, if it is not to become simply a “bleeding heart” recommendation but a widely accepted imperative.

Our goal in this commentary is to define patient safety and the scope of medical errors, look briefly at root causes, and then identify disclosure and apology as a specific set of solutions for addressing medical errors in health care settings. Although a small but growing body of evidence exists on systematically addressing ways to ensure patient safety at regulatory, legislative, and organizational levels,⁷ in this commentary we

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place special emphasis on increasing patient safety through improving patient-provider communication. In practice this means more frequent, more prompt disclosure of medical errors' occurrence and quicker, more earnest apologies once they have occurred.

Defining Medical Errors

What is a medical error? The IOM describes it as an act or omission that would have been judged wrong by knowledgeable peers at the time it occurred.⁸ In defining patient safety, the Agency for Healthcare Research and Quality (AHRQ), the government entity primarily responsible for investigating the sources of medical errors, their scope, and strategies for reducing them—describes patient safety in a two-fold way as, “the absence of the potential for...healthcare-associated injury to patients created by avoiding medical errors” and “taking action to prevent errors from causing injury.”⁴ While somewhat convoluted as a definition, the important point about the AHRQ's statement is its inclusion of problems arising from actions not taken as well as from those mistakenly taken. Medical errors come in many forms and can result from an action that does not proceed as intended as often as an action taken incorrectly; there may be both errors of omission and commission.

The National Patient Safety Foundation further asserts that “errors may be made by any member of the health care team in any health care setting.”⁹ Similar to the etiology of other major public health problems, the sources of medical errors are numerous. They range from prescribing errors to poor surgical technique. Errors occur in diagnosis and missed diagnoses, in therapeutics and failed execution of intended treatment or even failure to treat in a timely manner, as well as “near misses.”¹⁰ Critical error incidents, defined by the American Society for Health Care Risk Management as “unexpected or unanticipated events or circumstances not consistent with the routine care of a particular patient, which could have, or did lead to, an unintended or unnecessary harm to a person, or a complaint, loss or damage,”¹¹ are so broadly defined as to make them a challenge to measure or as the subject of research. On the other hand, it is important to note that non-preventable adverse events, often referred to as medical complications, lie outside the AHRQ, IOM, and Risk Management Society's definitions, lacking, as they do, a component of provider awareness that a wrong has occurred. Although many, if not most, treatments are accompanied by the potential for complications, medical errors involve an element of *unnecessary* harm or *potentially avoidable* wrong judgment.

Although many medical errors are committed, almost always unintentionally, by individual health care providers every day, the root cause of most errors is not individual negligence. Rather, errors result from organizational-level deficiencies “caused by faulty systems, processes, and conditions that lead people to make mistakes or fail to prevent them.”⁸ While some level of error can be expected in any large scale

organization, even individual medical errors usually stem from systematic factors such as over-reliance on human memory, unrealistic demands on human vigilance, or failure of communication.¹⁰ Transitions from one venue or provider to another are frequently implicated in the occurrence of error.¹² Providers who lack appropriate knowledge, are fatigued, or are over-burdened are other common sources of adverse medical events.¹³ Given the multiple systems that can go awry, it is not surprising that almost one-half the American public (42%)¹⁴ has been touched by medical error, either personally or through friends and family. Indeed, more than one-third of all physicians have been involved in an error, half of these serious.¹⁴

Addressing Medical Errors

Given that errors are, and will undoubtedly remain, an inevitable part of medical care, how can we best address them? How can we also address those “near misses,” the errors that patients never recognize that occur nevertheless? Although physicians are ethically required to report errors as a part of their commitment to act solely in the patient's interest, to tell the truth and to respect the patient as a person,^{15,16} a grey area remains about whether reporting is obligatory only to existing state and federal agencies or to patients as well. As early as 1957 the American Medical Association (AMA) “enjoined” physicians to report errors, but their statement was ambiguous and ultimately left reporting to physicians' discretion.¹⁵ The Ethics Manual of the American College of Physicians concurs with the AMA's sentiment, stating that disclosing errors to patients is respectful of patients and particularly respectful of patient autonomy.¹⁵ The Patient Safety and Quality Improvement Act (PSQIA) of 2005 went several steps further and established a confidential—although voluntary—system for providers to report adverse medical events. Their intention was a dual one: to share data and to remove the fear of litigation.

While the PSQIA ruling does not mandate reporting of errors to patients themselves, but rather to patient safety organizations,^{17,18} it nonetheless established a precedent for reporting adverse events that occur in a care setting. It is increasingly clear that reporting errors to state and federal agencies and/or professional organizations is a practice that not only should be encouraged, but one for which practitioners need legal protection. In 2006, then Senators Hillary Clinton and Barack Obama cosponsored federal legislation to make disclosure of mistakes, and apologies for them, inadmissible as evidence in court.¹⁹ While reporting of errors directly to patients is not yet mandatory, the Joint Commission does require that *unanticipated outcomes* be disclosed to patients as part of the hospital accreditation process.¹⁷ Hospitals found to be out of compliance, as discovered through a survey process or complaints filed with the Joint Commission, can jeopardize their accreditation status. However, the Joint Commission does not have the authority to impose sanctions such as fines, penalties, or closure, but instead leaves the imposition of such penalties up to federal, state, or local authorities.²⁰

Professionals and health care organizations are often resistant to mandatory reporting of errors. As we discuss below, however, this practice can be beneficial for practitioners, organizations, and patients. Undoubtedly the perceived benefits of disclosure are the reason why a number of prestigious medical schools including Johns Hopkins, Harvard, Michigan, Stanford, and University of Illinois at Chicago and hospitals, including Kaiser and Minneapolis Children's, have made efforts to bring to light and document errors that have occurred in their hospitals. As Rowe states, "Hiding errors denies to the practice of medicine and, ultimately, to all patients, the opportunity to turn errors into learning that could prevent future errors."¹⁵ While prevention of future errors and improvements in the quality of medical care are central to the reporting argument, the relatively new federal policy that forbids Medicare reimbursement for procedures necessitated by the need to repair medical problems resulting from error, bolsters this idea with sanctions.²¹ The heart of the transparency campaign, however, for patient safety pioneers such as Donald Berwick and Atul Gawande is the delivery of patient-centered care, with its mandate to physicians to provide care that is respectful of and responsive to individual patient preferences, needs, and values, and that ensures patient values guide all clinical decisions.^{22,23} The patient-physician relationship is also at stake; concealing errors significantly diminishes the trust that is central to that relationship. It remains a researchable question whether it also fuels lawsuits by indignant patients who discover the truth.²⁴

Negative consequences of hiding adverse medical events occur at all levels. What is needed now is for health services researchers to design and test organizationally feasible, easily replicable, and reliably disseminated interventions to enhance transparency or enable greater disclosure. To get the most from future intervention trials, several earlier steps in patient advocacy research must happen. We need to examine systematically not only the circumstances under which errors are revealed versus concealed, but also to identify what the subjective versus objective barriers to full disclosure are, as well as those factors that make disclosure of adverse events to patients and their families easier.

Disclosure of Medical Errors

From the oft quoted admonition of Hippocrates, "First, do no harm," to the more prosaic "Honesty is the best policy," the reporting of medical errors could be viewed as a cultural expectation by our society. Recent studies of Judeo-Christian traditions of confession, repentance, and forgiveness underlying medical error disclosure also reflect these cultural expectations.²⁵ Furthermore, it is questionable whether patients can give true informed consent, required not only for informed medical decision-making, but also for subsequent medical treatment, if they are unaware of all that has transpired during their hospital or nursing home stay. Yet recent studies suggest that only one in four errors is disclosed.²⁶ Unfortunately, if physicians or

other health care providers do not acknowledge medical errors, most such errors will remain undiscovered by patients.²⁷

It is likely that reporting of medical errors to patients can be beneficial for physicians as well. This is a challenging area of research, obviously, given that before the benefits of acknowledging error can be documented physicians must first be trained to recognize errors that occur and then to overcome their strongly socialized reluctance to disclose them. Wu and colleagues suggest that because of their training, and particularly the implicit cultural expectations and social norms that constrain physicians' emotional repertoire, they often silently bear the burden of medical errors in an attempt to uphold expectations about the infallibility of doctors.¹⁶ As one physician put it, "We have been trained to feel that if we were just alert enough, smart enough, and dedicated enough, we should have been able to overcome whatever impediments we encountered."²⁸

To turn what is still most often viewed as a secret badge of shame worn by an individual into an institutional learning process will require hospital improvement committees to openly examine and discuss cases that, until now, have likely been handled in anything but a transparent manner.²⁴ Besides providing a teaching opportunity and reinforcing the trust that is at the heart of the doctor-patient relationship,⁷ disclosing errors to patients can be a source of emotional relief, especially when forgiveness is offered by the patient or family. In fact, "full disclosure after a medical error reduces the likelihood that patients will change physicians, improves patient satisfaction, increases trust in the physician, and results in a more positive emotional response."²⁹ Further, some evidence suggests that disclosure of medical errors may reduce malpractice claims,^{30,31} presumably by defusing the anger that often fuels lawsuits. A humanistic risk management policy³⁰ in which full disclosure, apology, and fair compensation is offered may also result in lower litigations costs arising from medical error.⁷ After adopting a full disclosure policy, the University of Michigan reported a significant reduction in both malpractice claims and legal expenses, as did the VA Medical Center in Lexington, Kentucky.⁷

Perhaps the greatest barrier to full disclosure is the fear of legal repercussions, including medical malpractice suits. To date, however, we could find no evidence to suggest that full disclosure increases the risk of negative consequences for physicians.²⁹ Perhaps this is the case because the vast majority of patients who suffer from medical errors never file malpractice claims,³² possibly because they are unaware those errors occurred. Thus, it remains a researchable question whether, if disclosure rates were higher, malpractice claims would rise.³³ It is evident that many lawyers believe they would, since they routinely counsel their physician clients against disclosure of such errors.^{34,35} Yet some evidence suggests that the reverse is true, i.e., that when a patient suspects an error has occurred, nondisclosure actually increases the likelihood of patients seeking legal advice. There is evidence that many patients who do file suit do so in an attempt to understand what happened

to them and to prevent future injury to others.³⁶ While disclosure may seem counterintuitive to reducing the number of medical malpractice suits filed, there are lessons to be learned from the experiences of the VA hospital in Lexington, Kentucky, mentioned above. This VA Medical Center settled more claims out of court, won more verdicts in court, and decreased the amount of money paid out per claim after embracing a full disclosure and fair settlement policy.⁷ Their liability payments after adoption of the policy remained comparable to those of similar facilities.³⁰ As a result of the success of this policy at the Lexington VA, a full disclosure policy was adopted across all hospitals in the VA system.³⁷

Disclosure can have important benefits for patients as well as providers. While physicians may be hesitant to report errors to patients, research suggests that patients want to be told about errors. A review of 17 studies revealed that “patients prefer detailed disclosure about what happened, why it happened, the consequences, and strategies for preventing future errors.”³⁸ Furthermore, if mistakes are not acknowledged in a timely manner the appearance of a cover-up may lead to even more negative outcomes. In fact, failure to disclose an error to a patient can exacerbate families’ suffering and intensify patients’ anger.³⁹

While there appear to be benefits of disclosure for both physicians and patients, several barriers other than medical culture norms affect physicians’ decisions to fully disclose adverse medical events. First, some physicians believe that by not providing detailed information, they can protect their patients from undue anxiety.⁴⁰ Often they see no useful purpose being served by full disclosure while simply reducing patients’ confidence in physicians and the medical system. In addition, physicians often feel that disclosure is time consuming, difficult to do, erodes patients’ trust, and unfairly targets doctors as the sole source of what is often an institutional mistake.⁴⁰ For example, what appears to be a prescribing error may instead be a medication labeling or shelving problem.⁸ While it is hard to make a case for disclosure not being time consuming, for the most part the other barriers have not been documented as occurring more frequently when medical error reporting increases.

In the case of those physicians who do want to fully disclose an error, most have little or no experience having this type of conversation with their patients. Because of a lack of training in medical error disclosure, many well-intended opportunities for these conversations may be missed.⁴¹ What is needed is to include disclosure as a standard part of every medical student’s training. We should be teaching physicians how to provide a detailed explanation in a truthful and compassionate manner, how to include a sincere apology following the disclosure, and also how to provide assurances that steps will be taken so that the error does not occur again, to them or to anyone else.⁴² Pragmatically our emphasis on the importance of disclosure and methods for teaching physicians how to be forthright with patients and their families when errors occur, as well as our support for state “apology laws” to protect physicians who admit mistakes and try to make amends, might suggest that we believe our present health care system probably can’t eliminate

most risks, and hence errors. In addition, when faced with a public health problem of the magnitude of preventable medical errors, transparency about errors’ occurrence and forthrightness about the impossibility of eliminating them completely would seem to be called for. Moreover, medical school mentors and role models could attempt to reframe providers’ views of risk to teach trainees that “mistakes happen” and that, when they do, it is beneficial for them to occur in an institutional climate of transparency where “patient safety is not about blaming doctors but finding ways to build safety into the larger system.”⁴³ A first step in initiating changes such as these is for practitioners and patients to join together often as equal members of patient and family hospital advisory boards to improve patterns of communication.⁴⁴ In this way, if there are error-prone physicians whose negligence should be spotlighted, a more transparent reporting environment is likely to highlight or underscore such cases.

Apologies for Medical Errors

While disclosure is the communication of the facts, regret or apology is an expression of remorse for those facts. These two actions do not always go hand in hand.⁴⁵ As stated earlier, we believe it is an ethical obligation for physicians to disclose errors to patients. The elements a disclosure should include, however, are often left to the discretion of the individual physician. While the Joint Commission and some states require disclosure, the evidence base for how such disclosure conversations should proceed is lacking. In 2004, the National Quality Forum recommended that physicians and other providers offer expressions of regret to patients at the time an error is disclosed.³⁶

A lack of consensus among providers exists not only about whether to apologize following an error but also about *how* to apologize. This dissension makes it more likely that patients’ expectations vis-à-vis disclosure (i.e., that they have a right to be told when an error occurs, receive an apology, and receive assurances that steps are being taken to prevent similar events in the future)²⁹ are not being met.⁴⁶ Resistance to and misconceptions about apologies is very similar to resistance and misconceptions about full disclosure. Perhaps the most notable source of physicians’ hesitation is fear of litigation, as discussed earlier, even though most patients injured through medical negligence do *not* seek to take legal action.⁴⁵ Further, it seems equally possible that patients will sue less often if physicians apologize for errors and take responsibility for them.³⁶ It may even be the case that a failure to offer an apology leads more often to litigation, rather than the opposite.

Another common argument against the use of full disclosure and apology is the belief that it holds limited value. Yet the increasing number of medical institutions that have instituted disclosure and apology policies raises questions about the empirical validity of such a belief. Beyond the possible financial and institutional benefits, apologies hold perhaps their greatest appeal on a personal level. The use of apology is often part of the healing process for both the patient and the physician,

and its therapeutic value should not be underestimated.^{16,48} An apology may remove or reduce emotion so that the focus can shift from recrimination toward resolution. An apology can also restore power to the patient by demonstrating how changes will be made to prevent similar errors in the future.⁴⁹ Apologies also provide assurance of shared values between provider and patient, an essential element for continued trust.⁴⁹ By accepting responsibility and apologizing, the physician can begin restoring confidence to the patient that was probably shaken as a result of the error and/or any cover-up of it. As Lazare has put it, to move forward, “the patient must have confidence that the physician or facility is committed to correcting the faulty procedures and avoiding similar offenses.”⁴⁹ In essence, apologies can reduce the toxicity of the environment and increase optimism that solutions are possible, or at least worth looking for. In this way institutional and personal energies can be directed toward finding future common ground rather than mired in dissecting past mistakes or repeating debilitating recriminations.

While an apology may seem instinctual, not all apologies meet the criteria for relieving the anxiety associated with medical errors. In fact, if done with insincerity, ambivalence, or disingenuousness, expressions of regret may exacerbate, rather than relieve, negative feelings or tensions.⁴⁹

Delivering an Apology

Effective disclosure and apologies have several different elements (see Table 1). These elements should be implemented only after it has been definitively determined that an error has occurred. If an investigation is ongoing, keeping patients and their families informed of its progress, and eventually its findings, is a must. When apologizing, do the following:

1) Express empathy.

Empathy should always be expressed, even before the root cause of the error has been discovered, in an effort to mitigate any anger that may exist toward the physician and restore trust in the patient-physician relationship. Expressing empathy is not the same as admitting fault.

Do say: “I am sorry we did this to you.” Follow up with “I want to help you understand what happened and what we are doing to support you and make sure such a mistake won’t happen (to others) again.”

Table 1.
Guiding Principles to Effectively Implement Disclosure and Apology in Practice

The Five “R’s” of Apology ⁴⁸	
Recognition	Understand the patient’s feelings, your own feelings, and the basis for these feelings. Recognize when an apology is in order.
Regret	Respond to patients with empathy and acknowledge their feelings. Tell them you regret what they are going through. Remember that an apology does not imply guilt.
Responsibility	Acknowledge responsibility for what happened and disclose all the details that led to the outcome.
Remedy	Make clear to the patient what is being done to remedy the problem. Discuss what costs or financial reparations they think would be appropriate.
Remain Engaged	Focus on providing continuous care for your patient after the outcome. By remaining engaged, you reassure patients that you will be there for them.
The Five “A’s” of Making Amends ³¹	
Accurate	Truthfully and accurately report to the patient that an error occurred.
Answers	Anticipate a patient’s need for answers about what the error was and what its clinical implications are.
Accountability	Explain how the error occurred. Be accountable to the patient and family about future actions to prevent similar errors from occurring.
Apology	Apologize to the patient for the error.
Acknowledge	Acknowledge the patient’s range of emotions caused by the error and address any concerns raised.

Do *not* say: “Mistakes happen” or, even, “I am sorry this happened to you.”

2) Admit fault.

Once it has been documented that an error has occurred, the next step is to take ownership of the error and continue with a full apology to the patient and/or family members for its occurrence.

3) Explain what happened.

Disclose all the details that led to the error and explain why it happened. Language should be appropriate for the patient, and tone and format should be conversational. This step should include, if possible, letting patients know how such errors will be prevented in the future.

4) Offer compensation and/or fix the problem.

While most compensation will be monetary, including the costs of fixing the error, several other forms of compensation are possible. Examples include paid lodging and meals (for family members as well as patients) while the problem is being resolved; an endowment set up in the patient's or loved one's name; lost wages for the period of recovery; or naming a lecture series on errors, patient safety, and disclosure in honor of a patient who has passed away because of an error.⁵⁰

Before beginning a disclosure and apology conversation, providers need to pick a time and place that is comfortable for the patient. In many cases, this time may not be immediately after the error occurred. In order to deliver an effective apology that is well-received, providers must take time to reflect before speaking with patients erred against. This is a time in which physicians can attempt to come to terms with what has happened, try to understand the problem from the patient's perspective, and start to forgive themselves for their role in the incident.⁴⁸

When the conversation begins, the physician should sit down with the family so that all parties are eye to eye. He or she should speak slowly and pause often to solicit and answer questions. This dialogue should be a conversation rather than a lecture or a series of rationalizations, two-sided rather than one-sided. Most importantly, physicians need to be honest and sincere. For the most part, patients are interested in learning what happened, not in gaining some sort of confession to be used against the physician later on.^{32,36} While apologizing may seem like a logical and simple, if uncomfortable, process, it can often be very complicated and anxiety-provoking for those inexperienced with saying "I'm sorry." Practicing these conversations first can help ensure that they proceed as intended.

Implementing Disclosure and Apology Policies

Although many barriers still exist to fully implementing a disclosure and apology policy when a medical error occurs, most of the barriers stem from strongly held, but empirically unsupported, beliefs that are reinforced by the gestalt of medical culture and perhaps a historical lag in the normative expectations about what it means to be a physician. Training programs can change these beliefs and norms. Legislation such as apology laws can make these changes easier to bring about. Economic sanctions may hasten the change. As of yet, however, neither providers nor the public have fully acknowledged that medical errors are a public health problem and, like other public health problems, its etiology, size, and methods for prevention or amelioration are describable, systemic, and treatable. Until this level of recognition is achieved, medical educators and legislative champions of transparency will have a difficult time instituting programs to reduce the problem or mitigate its results. Inevitably, however, as awareness and acceptance of the magnitude, causes, and impact of errors grow, and their systematic, although often hidden, nature is exposed, disclosure of errors and apologies for them will occur more frequently, as a result of training programs to prevent as well as reframe and defuse them. The trajectory this process takes will in some ways parallel the trajectory for achieving true patient-centered care. Patient advocacy efforts and commentaries, such as those included in this issue of the *Journal*, will be important in the effort to bring about greater health care quality, more transparent interactions between providers and patients, and ultimately achieve the IOM's vision for patient-centered care as the actual cornerstone of every medical encounter. **NCMJ**

REFERENCES

- 1 Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.
- 2 Leape LL, Berwick DM. Five years after *To Err Is Human*: what have we learned? *JAMA*. 2005;293(19):2384-2390.
- 3 Agency for Healthcare Research and Quality. *10 Patient Safety Tips for Hospitals*. Rockville, MD: Agency for Healthcare Research and Quality; 2007. AHRQ Pub. No. 08-P003.
- 4 Agency for Healthcare Research and Quality. *Patient Safety Initiative: Building Foundations, Reducing Risk*. Rockville, MD: Agency for Healthcare Research and Quality; 2003. AHRQ Pub. No. 04-RG005.
- 5 Speak up. The Joint Commission website. <http://www.jointcommission.org/PatientSafety/SpeakUp>. Accessed February 23, 2009.
- 6 Surgical safety checklist. World Health Organization website. <http://www.who.int/patientsafety/safesurgery/en/>. Accessed February 23, 2009.
- 7 McDonnell WM, Guenther E. Narrative review: do state laws make it easier to say "I'm sorry?" *Ann Intern Med*. 2008;149(11):811-816.
- 8 Kohn LT, Corrigan JM, Donalson MS, eds; Committee on Quality Health Care in America, Institute of Medicine. *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 2000.
- 9 National Patient Safety Foundation website. <http://www.npsf.org>. Accessed February 14, 2009.
- 10 Murphy JG, Stee L, McEvoy MT, Oshiro J. Journal reporting of medical errors: the wisdom of Solomon, the bravery of Achilles, and the foolishness of Pan. *Chest*. 2007;131(3):890-896.
- 11 American Society for Healthcare Risk Management website. <http://www.ashrm.org/>. Accessed February 14, 2009.
- 12 National Transitions of Care Coalition. Improving transitions of care: the vision of the National Transitions of Care Coalition. National Transitions of Care Coalition Concept Paper; 2008.
- 13 Wu AW, Folkman S, McPhee SJ, Lo B. Do house officers learn from their mistakes? *Qual Saf Health Care*. 2003;12(3):221-227.

- 14 Blendon RJ, DesRoches CM, Brodie M, et al. Views of practicing physicians and the public on medical errors. *N Engl J Med*. 2002;347(24):1933-1940.
- 15 Rowe M. Doctors' responses to medical errors. *Crit Rev Oncol Hematol*. 2004;52(3):147-163.
- 16 Wu AW, Cavanaugh TA, McPhee SJ, Lo B, Micco GP. To tell the truth: ethical and practical issues in disclosing medical mistakes to patients. *J Gen Intern Med*. 1997;12(12):770-775.
- 17 The Joint Commission. Standard R1.01.02.01, Comprehensive Accreditation Manual for Hospitals. 2009.
- 18 Patient Safety and Quality Improvement Act of 2005. Public Law 109-041. S 544, 109th US Congress. 2005.
- 19 Clinton HR, Obama B. Making patient safety the centerpiece of medical liability reform. *N Engl J Med*. 2006;354(21):2205-2208.
- 20 Accreditation process. The Joint Commission website. http://www.jointcommission.org/AccreditationPrograms/AmbulatoryCare/Accreditation_Process/ahc_deemed_status_faqs.htm. Accessed February 6, 2009.
- 21 Sack K. Medicare won't pay for medical errors. *New York Times*. September 30, 2008.
- 22 Berwick DM. A user's manual for the IOM's 'Quality Chasm' report. *Health Aff*. 2002;21(3):80-90.
- 23 Gawande A. The malpractice mess: who pays the price when patients sue doctors? *The New Yorker*. November 14, 2005:62.
- 24 Sack K. Doctors say "'I'm sorry' before 'see you in court.'" *New York Times*. May 18, 2008.
- 25 Berlinger N, Wu AW. Subtracting insult from injury: addressing cultural expectations in the disclosure of medical error. *J Med Ethics*. 2005;31(2):106-108.
- 26 Fein SP, Hilborne LH, Spiritus EM, et al. The many faces of error disclosure: a common set of elements and a definition. *J Gen Intern Med*. 2007;22(6):755-761.
- 27 Waite M. To tell the truth: the ethical and legal implications of disclosure of medical error. *Health Law J*. 2005;13:1-33.
- 28 Wears RL, Perry SJ. Human factors and ergonomics in the emergency department. *Ann Emerg Med*. 2002;40(2):206-212.
- 29 Mazor KM, Simon SR, Yood RA, et al. Health plan members' views about disclosure of medical errors. *Ann Intern Med*. 2004;140(6):409-418.
- 30 Kraman SS, Hamm G. Risk management: extreme honesty may be the best policy. *Ann Intern Med*. 1999;131(12):963-967.
- 31 Hobgood C, Tamayo-Sarver JH, Weiner B. Patient race/ethnicity, age, gender and education are not related to preference for or response to disclosure. *Qual Saf Health Care*. 2008;17(1):65-70.
- 32 Marchev M. *Patients, Doctors, and Lawyers: Medical Injury, Malpractice Litigation, and Patient Compensation in New York*. Cambridge, MA: President and Fellows of Harvard College; 1990.
- 33 Studdert DM, Mello MM, Gawande AA, Brennan TA, Wang YC. Disclosure of medical injury to patients: an improbable risk management strategy. *Health Aff*. 2007;26(1):215-226.
- 34 Tabler NG. Should physicians apologize for medical errors? *Health Lawyer*. 2007;19:23-26.
- 35 Hyman DA. When and why lawyers are the problem. *DePaul Law Review*. 2008;57:267-280.
- 36 Robbennolt JK. Apologies and medical error. *Clin Orthop Relat Res*. 2009;467(2):376-382.
- 37 National Ethics Committee, Veterans Health Administration. *Disclosing Adverse Events to Patients*. Washington, DC: US Dept of Veterans Affairs; 2003.
- 38 Calvert J, Hollander-Rodriguez J, Altas M, Johnson K. What are the repercussions of disclosing a medical error? *J Fam Pract*. 2008;57(2):124-125.
- 39 Winslade W, McKinney EB. To tell or not to tell: disclosing medical error. *J Law Med Ethics*. 2006;34(4):813-816.
- 40 Hingorani M, Wong T, Vafidis G. Patients' and doctors' attitudes to amount of information given after unintended injury during treatment: cross sectional, questionnaire survey. *BMJ*. 1999;318(7184):640-641.
- 41 Rosner F, Berger JT, Kark P, Potash J, Bennett AJ. Disclosure and prevention of medical errors. Committee on bioethical issues of the medical society of the state of New York. *Arch Intern Med*. 2000;160(14):2089-2092.
- 42 Straumanis JP. Disclosure of medical error: is it worth the risk? *Pediatr Crit Care Med*. 2007;8(2 suppl):S38-43.
- 43 PULSEAmerica. Giving the patient and family a voice! PULSE update [email newsletter]. January 26, 2009.
- 44 Seyda B, Shelton T, DiVenere N. Family-centered care: why it is important, how to provide it, and what parents and children are doing to make it happen. In: Earp JA, French EA, Gilkey MB, eds. *Patient Advocacy for Health Care Quality: Strategies for Achieving Patient-Centered Care*. Sudbury, MA: Jones and Bartlett; 2008.
- 45 Weiss PM, Miranda F. Transparency, apology and disclosure of adverse outcomes. *Obstet Gynecol Clin North Am*. 2008;35(1):53-62.
- 46 Gallagher TH, Garbutt JM, Waterman AD, et al. Choosing your words carefully: how physicians would disclose harmful medical errors to patients. *Arch Intern Med*. 2006;166(15):1585-1593.
- 47 SorryWorks! Coalition website. <http://www.sorryworks.net/>. Accessed February 14, 2009.
- 48 Woods MS. *Healing Words: The Power of Apology in Medicine*. 2nd ed. Oakbrook Terrace, IL: Joint Commission Resources; 2007.
- 49 Lazare A. Apology in medical practice: an emerging clinical skill. *JAMA*. 2006;296(11):1401-1404.
- 50 Wojcieszak D, Saxton JW, Finkelstein MM. *Sorry Works!: Disclosure, Apology, and Relationships Prevent Medical Malpractice Claims*. Bloomington, IN: AuthorHouse; 2008.

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