#### **ORIGINAL ARTICLE**

# The American medical liability system: An alliance between legal and medical professionals can promote patient safety and be cost effective

#### Steven E. Pegalis

New York Law School, New York, USA

**Correspondence:** Steven E. Pegalis. Address: Pegalis Erickson, LLC, 1 Hollow Lane, Suite 107, Lake Success, New York, 11042, USA. E-mail: spegalis@pegalisanderickson.com

Received: January 14, 2013	Accepted: March 14, 2013	Online Published: March 27, 2013
DOI: 10.5430/jha.v2n3p97	URL: http://dx.doi.org/10.5430/jha.v2n3p	97

#### Abstract

**Objective:** The aim of this paper is to evaluate a hypothesis premised on the idea that if medical leaders in the United States support an unfettered access for patients injured by medical error to the American civil justice system, that approach would improve patient safety and be cost effective.

Method: An analysis of the relevant legal and medical literature.

**Results:** Medical liability in the American civil justice system derived from traditional tort law is based on accountability. Reforms applied to medical liability cases urged by healthcare providers limit and in some cases eliminate legal rights of patients injured by healthcare error which rights exist for all others in non-medical cases. Yet medical liability cases have promoted a culture of safety. Information learned from medical liability cases has been used to make care safer with a reduced incidence of adverse outcomes and lower costs. A just culture of safety can limit provider emotional stress. Using the external pressures to reduce the incidence of law suits and promoting ethical mandates to be safer and disclose the truth can promote provider satisfaction.

**Conclusions:** An alliance between legal and medical professionals on the common ground of respect for the due process legal rights of patients in the American system of justice and the need for accountability can make care safer and can be cost effective.

#### Key words

Medical liability, Patient safety, A culture of safety, Tort reform

### **1** Introduction

The hypothesis presented herein is that American medical leaders should promote a change in what is an existing mind-set of many healthcare professionals by supporting an acceptance for all patients injured by medical error of an unfettered access to the civil justice system. Influential members of the medical professional have characterized the American civil justice system as a chaotic and unpredictable process that has produced a financial "crisis". As such, they advocate

eliminating liability claims for some with a "no-fault" system. For other cases they urge "reforms" (often called tort reform). The "reforms" urged include monetary damage caps and other changes <sup>[1]</sup>. Organized efforts on behalf of those who potentially would be defendants in American medical liability cases to change traditional tort laws for medical liability cases is the antithesis of support for an unfettered access to the American civil justice system.

Substantive and procedural civil tort law in America has evolved over many decades. The intent for these medical liability cases is that the errant provider be held accountable for reasonably avoidable injury. Due process is built into the procedural law intended to create a fair balance between the obligation of the patient to establish liability and the right of the provider to oppose a claim perceived to lack merit. The endpoint goal of the substantive and procedural law so carefully crafted over many, many decades is to achieve to the greatest extent possible justice, based on the true merits of each individual case. As such, consumer groups and attorneys who represent patients (plaintiff attorneys) have opposed immunity in the form of a "no-fault" system and have opposed "reform" changes created at the urging of the medical profession which changes are perceived to reduce or eliminate the legal rights of patients <sup>[2]</sup>.

All American citizens in non-medical cases have no restrictions on their legal rights similar to the "reform" changes described above when they have been injured by careless error. Organized efforts by the American medical community to eliminate or limit the legal rights of patients and a widespread hostility to the due process spirit of the civil justice system are perceived by opponents of efforts by the medical community to change laws as counterproductive allowing an ethical conflict to fester within the medical profession. A premise of the hypothesis proposed herein is that a more proactive use of the information gained from the civil justice process will promote greater safety and be cost effective.

#### 2 Search strategy and criteria

The websites of all recognized medical specialties in the United States were examined to see which ones had instituted patient safety measures derived from an examination of closed medical negligence claims specific to that society. We limited the search to those societies that had instituted such measures at least 10 years previously to allow sufficient time for published evidence of any efficacy of such measures. To identify articles related to the efficacy of medical society safety guidelines derived from closed claim review, we then searched the Ovid Medline database using selected keywords such as "medical errors" and "negligence" with the assistance of a professional librarian. From these sources, the information that follows was derived.

#### 3 The Institute of Medicine (IOM) Report

The mindset urged by the Institute of Medicine (IOM) in its landmark report entitled: To Err is Human: Building a Safer System was to adopt a culture of safety <sup>[3]</sup>. That culture requires an integration of safety thinking and practices into clinical activities. That integration should include the development of systems for data collection and reporting; the reduction of tendencies to place blame on individuals, and a focus on real or potential system latencies <sup>[4]</sup>.

Large studies conducted in the early 1980's found that adverse events occurred during hospitalizations caused by medical errors that could have been prevented resulting in staggering financial consequences. For example, it is estimated that more people die in a given year during hospital admissions as a result of medical errors than from motor vehicle accidents, breast cancer or AIDS. Yet, the IOM complained that "...silence surrounds this issue"<sup>[5]</sup>.

The total national costs (lost income, lost household production, disability and healthcare costs) of preventable adverse events (medical errors resulting in injury) are estimated to be between \$17 Billion and \$29 Billion, of which healthcare costs represent over one-half<sup>[6]</sup>. Healthcare services are increasingly more complex and increasingly capable of achieving better patient outcomes. Thus, the likelihood of error producing a preventable adverse outcome with increasing costs is incrementally increasing<sup>[7]</sup>.

During the time frame in which studies identified a staggering rate of errors and the IOM response in 1999, it was noted that "concerning medical error and its prevention, the profession has, with rare exceptions, adopted an ostrich-like attitude..." <sup>[8]</sup> Clearly, the medical profession seeks autonomy so that it may set its own standards to achieve its ethically-motivated goals <sup>[9]</sup>. Yet, studies reveal that large segments of physicians have acknowledged failure to speak-out and report unsafe colleagues and practices that they knew were dangerous to patients <sup>[10]</sup>.

The medical specialty of anesthesia was cited by the IOM as the model for safety <sup>[11]</sup>. The American Society of Anesthesiology (ASA) was confronted with a crisis involving an increasing number of lawsuits, increasing liability premiums, and declining patient satisfaction. ASA leadership addressed these concerns by investigating complications and errors in a study of closed anesthesia-related medical liability cases. The ASA leadership proceeded on the premise that patient-safety was imperfect in the profession and that like other medical problems was amenable to investigation and corrective measures. With information learned from closed malpractice cases, root causes for avoidable injury and death were identified and minimum safety standards established. Each liability claim contained a wealth of information related to medical error and resulting injury. Thus, anesthesia was made safer, and "liability insurance premiums dropped dramatically". Physician satisfaction and peace of mind correspondingly improved <sup>[12]</sup>.

One striking statistic frequently cited in discussions of patient-safety is that death attributable to anesthesia were occurring at a rate of 1 to 2 for every 10,000 anesthetic procedures prior to the safety initiatives and at a rate of 1 for every 200,000 to 300,000 anesthetic procedures after the safety initiatives were implemented <sup>[13]</sup>.

Yet, in the time interval between the initial medical malpractice liability insurance "crisis" in the early 1970's and the issuance of the IOM's report in 1999, anesthesia was the only medical specialty that responded in the manner described. Why is that? Why should "silence" surround such an important societal issue?

#### 4 Obstetrical safety initiatives

Since the ASA initiatives in the 1970s and 1980's and since the IOM report urging a culture of safety in 1999, the obstetrical specialty has produced a number of important study results. Two recent independent studies have addressed medical liability costs related to labor and delivery obstetrical claims brought on behalf of brain-injured children; these cases attract attention because they are associated with large payments and high insurance costs.

One study reviewed prior closed obstetric liability claims that led to the formulation and implementation of a comprehensive redesign of the patient-safety process. Beginning in a 2000 study, authors implanted a unique, integrated approach to addressing errors and the approximately 220,000 deliveries performed annually at the Hospital Corporation of America, the nation's largest private health care delivery system. Working with a clinical advisory board and work group, consisting of physicians and nurses, uniform processes, procedures and check lists were developed. Every member of the obstetrical team was empowered and required to intervene and halt any process deemed to be dangerous. Improved perinatal outcomes were realized with a lower maternal and fetal injury rate, lower primary Caesarean delivery rate, and reduced rates of litigation <sup>[14]</sup>.

A second large obstetric study also used a similar approach. In this study, the dollar-amount of liability compensation payments and the incidence of sentinel events such as evidence of newborn brain injury were used as benchmarks to compare the delivery of care before and after the implementation of safety initiatives. The authors reported that the average compensation payment decreased dramatically from more than \$27-million dollars per year to approximately \$2.5 million per year and that sentinel events decreased from 5 per year to none <sup>[15]</sup>.

In another study report with a hypothesis that a multi-faceted approach should be used to enhance the overall safety climate that would reduce the rate of adverse outcomes, a partnership was created between the Yale New Haven Hospital

and its malpractice carrier to assess and improve its safety climate. Using an approach similar to that used in the two large studies described herein, the medical authors concluded that a systemic strategy to decrease obstetrical adverse events can have a significant impact on patient safety <sup>[16]</sup>.

Pointfully, the article noted that the initial costs of the program are estimated at \$210,000 with the ongoing yearly costs at \$150,000. This investment was noted to be dwarfed by an average payment for just one obstetrical liability case that could range from \$500,000 to \$1.9 million. Putting aside for the moment the ethical imperative to try to avoid or limit a serious disabling perinatal injury, these comments give insight into why a penny-wise pound-foolish philosophy must be rejected. The IOM has noted the process should include an external environment that creates pressure to make errors costly.

It was a proactive use of information learned from closed medical liability claims that produced demonstrable improvements in anesthesia safety. The anesthesia model allowed the IOM in its 1999 report to conclude that notwithstanding complexities in medical care not identical to safety issues in other industries a culture of safety approach could also work to reduce the incidence of medical errors.

These processes continue to exist in a medically dynamic state where improved ability to get better patient outcomes are often connected to more complex systems of care. As such, greater complexity increases the likelihood of error in relation to healthcare that without error increasingly benefits patients. Yet, statistics reveal that the number of medical liability cases is not increasing in an environment in which the likelihood for medical error and avoidable injury has been increasing. On the contrary, the incidence of medical liability cases has been decreasing <sup>[17]</sup>. Why? The common sense suggestion is that the combination of external financial pressures coupled with intrinsic ethical motivation can work, is working, and must not be weakened or diminished in the future.

There are a number of literature and literature search limitations. Some medical societies may have developed safety guidelines from closed claims data analysis, but validation for such guidelines may as yet be lacking. Further, a safety model derived from past closed claims may need revision with changes in technology and other changes. It is suggested however, that examining past errors identified during the American civil justice process is intuitively valuable to not only develop practice guidelines but also for individual practitioners to think about how and why other practitioners in the past unintentionally allowed otherwise avoidable patient harm.

#### 5 The American civil liability tort system

Evidentiary information is developed in a context of responsibilities owed by institutions and individual health care providers to use reasonable care and diligence to accomplish the health care goals for each individual patient. Each patient has a right to receive the benefits from that reasonable care <sup>[18]</sup>. The medical profession has established its own ethically-motivated means to accomplish these goals which include a requirement that appropriate precautions be used to minimize risk <sup>[19]</sup>. The legal premise is that immunity from liability is not acceptable because liability requires the errant provider to pay full damages in a monetary amount equal to the harm (compensatory damages) and additionally legal enforcement of the moral concept that the responsible party shall pay, reflects that the societal law imposing the obligation to pay is acting as a warning that the law demands the exercise of due-care <sup>[20]</sup>.

Recently, in an article published in the New England Journal of Medicine, George Annas, a professor of law advocated an expansion of hospital liability as a mechanism to improve patient safety. Annas urged an expansion of legal rights for patients by creating an explicit judicial recognition that each hospital patient has a "right to safety." <sup>[21]</sup> The premise for this advocacy is that such would motivate hospitals to develop and implement systems for improved patient safety, since failure to improve patient safety which results in injury would create hospital liability.

This author proposes that physicians would thus use the threat of liability as a means of working together with patients and their attorneys to improve safety. Physicians working together with patients and their attorneys to improve safety are part of the alliance that is proposed in this article.

This author states:

"Effective pressure for a change in safety culture seems most likely to come from an increased risk of liability, which is signaled by an increase in patient safety lawsuits, one incentive to which hospitals seem to respond."

However, an expansion of liability with new legal theories as this author urges would be controversial and is not a necessary part of the change in thinking that this article contemplates.

#### 6 A just culture of safety

It has been noted that an errant physician will often react to his or her error with a profound emotional response that typically includes a mixture of fear, guilt, anger, embarrassment and humiliation<sup>[22]</sup>.

Punishing errant providers so they will make fewer errors has been cited as a past traditional response in the medical profession. The alleged merit for that punitive approach has been characterized as a myth that works against an open and fair environment needed to improve patient safety. A reluctance or unwillingness to admit error and reluctance or unwillingness to act on error adds "cover-up" to the ethically compromised scenario.

A just culture of safety identifies errors so corrective measures are directed toward preventing a similar recurrence by focusing on the underlying cause of the error and by creating a better system for all providers. Individual providers are, if necessary, consoled so that "blame" leading to humiliation and fear does not produce a counterproductive and unfair result. Individuals who revealed "at risk" behavior are coached on how to be safer. Individuals who reveal a reckless disregard to safety are referred for remedial action <sup>[23]</sup>.

Using punishment as a perceived appropriate response for errant providers is now understood to be a myth that will not promote patient safety, but another myth persists. That myth is that the malpractice tort litigation system capriciously metes out punishment for errors. Punishment is not the goal of the civil justice system. Indeed, in the small minority of cases where remedial action by, for example, a State Board limits a provider's right to practice that action is not intended, per se, to be punitive but rather is intended to protect the public.

As stakeholders, patients and their attorneys who bring suit are not seeking to capriciously mete out punishment. Patients who have meritorious cases wish to receive fair compensation. Those patients who have experienced injury from unsafe care are vested with a desire that others in the future receive safer care. Adopting and implementing a just culture of safety is a concept that medical stakeholders have control over which can limit unintended and unfair emotional harm.

Medical authors who appropriately emphasize that "critical safety rules simply must be enforced" continue to trash the American liability system as one, in which doctors are made the victim of a "blame and shame game"<sup>[24]</sup>. Yet these same physicians candidly concede that physician self-policing is "inept and ineffectual" as doctors tend to "protect their own, sometimes at the expense of patients" as physicians do not like confrontation<sup>[25]</sup>.

Physicians and other medical providers as humans can and some inevitably will err producing patient harm. It is also part of human nature to wish that harm was not due to one's own error or that of one's colleagues. It is not easy to do the right thing by admitting error and it is not easy to confront an errant colleague. Stubborn reckless individuals referred to as "bad apples" are perceived to be relatively few in number <sup>[26]</sup>. The IOM report notes that the patient safety issue is not limited to these "bad apples." Another myth is that if one could eliminate the "bad apples" the error problem would go away.

Errors may be caused by a lack of attention to detail and the incidence of those errors can be reduced with better systems. Errors may also be caused by a lack of caring enough to make sure you are correct <sup>[27]</sup>.

### 7 Ethical accountability

The ethics of the medical profession are clear and unambiguous:

"Physicians should also acknowledge that in health care, medical errors that injure patients do sometimes occur. Whenever patients are injured as a consequence of medical care, patients should be informed promptly because failure to do so seriously compromises patient and societal trust. Reporting and analyzing medical mistakes provides the basis for appropriate prevention and improvement strategies and for appropriate compensation to injured parties." <sup>[28]</sup>

It is a fundamental ethical obligation for each physician to be open with patients and to disclose "all the facts." Fear and concern about a lawsuit is not an excuse for nondisclosure. Fear of a lawsuit should promote, not hinder, disclosure of the event <sup>[29]</sup>. Honesty has consistently been shown to be the best policy to defend and sometimes avoid lawsuits <sup>[30]</sup>. As Dr. Leape stated:

"Too often patients do not receive a full complete explanation of what happened, and too often they do not receive an apology when errors and system failures occur . . .

The ethical case for full disclosure is straightforward: the patient has a right to know what happened. Hospitals, physicians or nurses have no moral or legal right to withhold information from patients. Full disclosure is not an option; it is an ethical imperative . . .

A serious preventable injury causes severe emotional trauma; the first step in healing this emotional wound is to explain what happened and take responsibility for it . . .

The practical aspects of full disclosure and apology are first that it works; that is, it does really help patients and caregivers recover and second, it is less likely to lead to litigation than the 'silent treatment' alternative ..."<sup>[31]</sup>

A study comparing U.S. and Canadian physicians' error disclosure, attitudes, and experiences are similar despite different malpractice environments, thereby refuting the notion that the American malpractice environment was a significant determinant concerning error disclosure <sup>[32]</sup>. Another study disclosed that when mistakes were perceived by the doctor and those mistakes were less likely to be noticed by the patient, the doctors were more likely not to make the disclosure to the patient <sup>[33]</sup>.

## 8 21<sup>st</sup> century medicine

Among the significant changes urged by the IOM report was to align payment systems and the liability system so they encourage safety improvements <sup>[34]</sup>. Another IOM report entitled: Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century discussed principles for that alignment <sup>[35]</sup>. That report notes that it is critical that payment policies be aligned to encourage and support quality improvement. A stated goal is to reward high-quality care, provide fair payment for good clinical management and to resist payment for overuse (potential for harm exceeds benefit) and misuse (preventable complication occurs with an appropriate service) <sup>[36]</sup>.

Thus, each medical specialty must focus on a utilization that does not permit an underuse (failure to provide a service that would have produced a favorable outcome for a patient) and a monetary reimbursement commensurate with responsibility, and accountability <sup>[37]</sup>. A high road approach demonstrating an acceptance of an unfettered right of each patient to sue and an acceptance of the due-process of the civil justice system sends the right message to those who approve utilization and reimbursement.

If the Yale New Haven Hospital spends \$150,000 each year to make care safer for newborns and accepts the right of those who experienced a preventable complication to hold them accountable that is a 21<sup>st</sup> century message that is in the best interest of those providers and the patients' they are responsible for. On the other hand, seeking immunity on the premise that they can't prevent bad outcomes would raise ethical and utilization ambiguities that are best left behind in the 20th century.

#### 9 Discussion

It is beyond the scope of this article to discuss whether the American civil justice system is better or worse than systems in other countries. There is however, in the United States an intrinsic ethical conflict if physicians who should be proactively advocating for what is best for their patients are advocating to limit the legal rights of their patients' harmed by error. If these patients cannot sue ("no-fault") or are denied access to motivated competent counsel as occurs with damage caps that will produce a legal advantage to physicians and hospitals and a legal disadvantage to patients.

The actual litigation costs are extremely low (0.36%) in relationship to overall healthcare spending in the United States. Further, blaming a rise in healthcare costs on "defensive medicine" in response to fear of lawsuit has been demonstrated to be factually unproven as for example healthcare costs have risen with our without the reforms described herein <sup>[38]</sup>.

Intentionally ordering a test or doing a procedure that is not in the patient's best interest solely to protect the provider (defensive medicine) is an unethical act. Ironically physician polls have revealed that awareness of liability risk has "defensively" spurred many physicians to order increased diagnostic testing, increased referrals, increased follow up, and more detailed explanations and note taking <sup>[39]</sup>. If each of these were indicated steps in the best interest of the patient there was no negative effect and the cost savings for avoidable harm would be enormous.

#### **10 Conclusion**

The IOM report urges a more conducive environment to encourage providers to identify, analyze, and report errors without the threat of litigation and without compromising patients' legal rights.

A conducive environment that encourages providers consistent with their ethical obligation to disclose error that has occurred is an endpoint result that is under the sole control of the providers. A change in mind-set urged herein effectively using consoling and coaching when indicated and disclosing the truth to patients without allowing an ostrich-like response to error is an approach medical leader can embrace.

#### References

- See, e.g., Weinstein, SL. Medical liability reform crises, 2008. Clin. Orthop. Relat. Res. 2009; 467: 392-401. PMid:18989732 http://dx.doi.org/10.1007/s11999-008-0603-y
- [2] See, e.g., Carmel Sileo and David Ratcliff, Straight Talk about Torts, Trial, July 2006, p. 42. See also: Public Citizen: July 2012: Medical Malpractice Payments Sunk to Record Low in 2011 [Internet]. Available from: www.citizen.org.
- [3] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press; 1999.

- [4] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press; 1999; 1-16.
- [5] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press; 1999; 1-3.
- [6] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press; 1999; 1-2.
- [7] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press; 1999; 65-66.
- [8] D. Blumenthal, Making Medical Errors into "Medical Treasures; 272 JAMA 1867.
- [9] R. Goldman, The Reliability of Peer Assessments of Quality of Care. 1992; 267 JAMA 958.
- [10] Campbell, etc., Professionalism in Medicine: Results of a National Survey of Physicians. Ann. Int. Med. 2007; 147: 795- 802.
- [11] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press; 1999; 144-145.
- [12] See e.g. J. Eichhorn et al, Standards for Patient Monitoring during Anesthesia at Harvard Medical School. JAMA. 1986; 256: 1017.
  D. Gaba, Anaesthesiology as a model for patient safety in health care. Brit. Med. 2000; 320: J 785; J. Cooper & D. Gaba, No Myth: Anesthesia is a Model for Addressing Patient Safety. Anesthesiology. 2002; 97: 1335.
- [13] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press. 1999; 144.
- [14] S. Clark, et al. Improved Outcomes, Fewer Cesarean Deliveries and Reduced Litigation; Results of a New Paradigm in Patient Safety. Am. J. Obstet. Gynecol. 2008 Aug; 199(2): 105. e1-7.
- [15] A. Grunebaum, F. Chervenak, D. Skupski. Effect of a Comprehensive Obstetric Patient Safety Program on Compensation Payments and Sentinel Events, Am. J. Obstet. Gynecol. 2011 Feb; 204(2): 97-105.
- [16] Pettker CM, Thung SF, Norwitz ER, et al. Impact of a comprehensive patient safety strategy on obstetric adverse events. AM J Obstet Gynecol. 2009; 200: 492.e1-492. e8.
- [17] Public Citizen: July 2012: Medical Malpractice Payments Sunk to Record Low in 2011 [Internet]. Available from: www.citizen.org
- [18] See, e.g., Pike v. Honsinger, 155 N.Y. 201 (1898). See also, Bal BS. An introduction to medical malpractice in the United States. Clin. Orthop Relat Res. 2009; 467: 339-347.
- [19] See, e.g., Toth v. Cmty Hosp. Of Glen Cove. N.Y. 1968; 22: 2d 255, 263.
- [20] See, e.g., Bing v. Thunig. N.Y. 1957; 2: 2d 656, 666.
- [21] George J. Annas, The Patient's Right to Safety Improving the Quality of Care through Litigation against Hospitals. New Eng. J. Med. 2006; 354: 2063. PMid:16687721 http://dx.doi.org/10.1056/NEJMsb053756
- [22] L. Leape, Error in Medicine, JAMA. 1994; 272(23). http://dx.doi.org/10.1001/jama.1994.03520230061039
- [23] D. Marx Outcome engineering A Just Culture of Safety, Missouri Center for Patient Safety [Internet]. David Marx. Available from: www.justculture.org
- [24] See, e.g., R. Wachter & K. Shojania, Internal Bleeding: The Truth behind America's Terrifying Epidemic of Medical Mistakes. 2005; 325: 312. http://dx.doi.org/10.1001/jama.1994.03520230061039
- [25] See, e.g., R. Wachter & K. Shojania, Internal Bleeding: The Truth behind America's Terrifying Epidemic of Medical Mistakes. 2005; 322-23. http://dx.doi.org/10.1001/jama.1994.03520230061039
- [26] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press. 1999; 241: 12.
- [27] L. Leape, Error in Medicine, JAMA. 1994; 272(23).
- [28] Medical Professionalism in the New Millennium: A Physician Charter, Ann. Intern. Med. 2002; 136: 243-246. PMid:11827500
- [29] A.M.A Ass'n Council on Ethics & Judicial Affairs, Code of Med. Ethics: Patient Information. 1994; E-8. 12.
- [30] S. Kraman and G. Hamm, Risk Management: Extreme Honesty May Be the Best Policy, 131 Arch. Inter. Med. 1999; 963, 966.
- [31] L. Leape, Forward to Joint Commission Res. Disclosure medical Errors: A Guide to an Effective Explanation and Aplogy. 2007; V-VI.
- [32] T. Gallagher, et al., U.S. and Canadian Physicians' attitudes and experiences regarding disclosure of error to patients, 166 Arch. Intern. Med. 2006; 1605. PMid:16908793 http://dx.doi.org/10.1001/archinte.166.15.1605
- [33] T. Gallagher, et al., Choosing your words carefully: How physicians would disclose harmful medical errors to patients 166 Arch. Intern. Med. 2006; 1585. PMid:16908791 http://dx.doi.org/10.1001/archinte.166.15.1585
- [34] Committee on Quality of Healthcare in America, Institute of Medicine, Kohn L, Corrigan J, Donaldson M, eds. To Err is Human: Building a Safer Health System. Washington, D.C.: National Academy Press. 1999; 15.

- [35] Committee on Quality Health Care in America: Crossing the Quality Chasm: A New Health System for the 21st Century, Institute of Medicine, National Academy Press. 2001.
- [36] Committee on Quality Health Care in America: Crossing the Quality Chasm: A New Health System for the 21st Century, Institute of Medicine, National Academy Press. 2001; 182-183.
- [37] Committee on Quality Health Care in America: Crossing the Quality Chasm: A New Health System for the 21st Century Institute of Medicine, National Academy Press. 2001; 192-193.
- [38] Public Citizen: July 2012: Medical Malpractice Payments Sunk to Record Low in 2011 [Internet]. Available from: www.citizen.org
- [39] Sumemrton, N. Positive and Negative Factors in Defensive Medicine: A Questionnaire Study of General Practitioners. BMJ. 1995; 310: 27-29. http://dx.doi.org/10.1136/bmj.310.6971.27