

## A Few Words about Medical Error

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### Abstract:

Medical error denotes a general term for an adverse event caused by treatment. Criminal charges may be filed against a health care professional suspected of having committed a medical error ex officio or at the request of a patient or his or her relatives to the police or to the public prosecutor's office for wrongful or negligent treatment. Regardless of the fact that the term "medical error" can be considered from both a medical and legal point of view, the prevailing opinion is that it is still a legal term.

**Keywords:** medicine; error; health care; patient safety

### Introduction:

Like others who have had traumatic experiences, persons affected by medical mistakes may write and publish their own accounts of these experiences [1]. These stories are rich resources for physicians and other health care professionals, for ethicists and patient-safety advocates seeking to improve the way institutions address the problem of medical harm, for survivors of medical harm, for scholars of health care narratives, and for anyone else seeking to understand what happens after a medical mistake injures or kills a patient. What are the medical, financial, emotional, spiritual, interpersonal, legal, professional, and communal ramifications of being harmed by a physician's mistake or of unintentionally harming a patient? How is the same incident perceived and interpreted by each of the persons affected by it? What do patients and families want, need, or expect from physicians after harm? What do physicians want, need, or expect from patients and families after harm? Who is afraid of whom, and why? The answers to these questions can be found in the stories patients, families, and clinicians tell about the mistakes that have touched and, in many cases, permanently altered their lives.

A prominent feature of personal narratives about medical mistakes is the abrupt breaking off, or gradual breakdown, of communications between a physician whose mistake harms a patient and that patient (or family, if the patient has died or become incapacitated). This breaking off or breakdown is usually triggered by or attributed to the physician's or institution's fear that, if injured patients and their families find out "what happened," they will sue. In some stories, it is the unexpected breaking off or breakdown of physician-patient communications that makes a family suspect an error is being covered up. There are other broken aspects to these stories: spiritual brokenness after making mistakes; the fracturing and repairing of patients' trust in caregivers and institutions; the undertow of the hidden curriculum, which teaches medical students and new physicians to break with what they have officially been taught—the professional obligation to tell patients the truth about their health—and to learn, by observing their senior colleagues, how to avoid doing this very thing.

### Health Care:

The health care system is made up of numerous autonomous units or disciplines, each having its own rules, procedures, and cultures [2]. Individuals in each discipline must cooperate toward the same goal, such as diagnosis and treatment of a patient. Informal oral communication within and between these units greatly affects performance of health care processes, whereas many technical systems rely heavily on large volumes of written instructions to guide processes. In health care, information about system changes is communicated horizontally among caregivers, often with little structure for implementation. Changes in a technical complex system are often mediated vertically



in a strict hierarchical organization. Thus, revisions to health care processes can be slow and unreliable and thus add to risks.

In health care, the relationship between an action and the effect of the action is often less obvious than in a technical system. For instance, if an operator in a nuclear power plant wrongly closes a valve that depletes the core of its coolant, the effect is very certain — the core temperature will rise. If a radiologist gives the wrong diagnostic conclusion following an x - ray examination the effect is less certain. It might lead to an adverse patient incident. However, the recipient of the radiologist ' s report might question the conclusion or the exam result may not significantly influence future patient treatment decisions. Thus the health care system is considered loosely coupled, whereas technical systems often are tightly coupled .

### Hospitals:

Large hospitals are centers of day-to-day activities involving thousands of people, health requirements, and those striving to meet those requirements [3]. Today, it is commonplace to replace the title of hospital with more positive sounding names, such as Medical Health Center. At the entrance to such a center one can find shops, cafes, as well as bank and post office branches. Numerous companies offer inpatients and care seekers home comforts in the form of a personal TV and private phone connection. Eye-catching signs direct newcomers to the many institutes, laboratories, and clinics, with slow-moving elevators to convey the needy to all parts of the hospital.

Many of these medical centers began life as small and simple structures. Over time, wings and new buildings were interconnected as one unit by means of complicated passages, staircases, and endless aisles.

A large hospital with a capacity of about 1,000 beds may employ a staff numbering some 2,000, from maintenance personnel, providing a constant supply of electricity and medical gases, to administrative personnel, who collect payments and manage the data collection system and prompt distribution among the various users—and in-between, nurses, doctors, and other relevant professional staff.

The medical center is to all intents and purposes an industrial plant in all respects: at the start of the “production line” are patients prior to medical diagnosis and finally (hopefully), after a series of manual and sophisticated instrumental tests, the appropriate diagnosis and treatment are determined.

Medical systems have not paid sufficient attention to those factors that can cause mishaps, as they are immersed in the implementation of medical research successes. New surgical methods have been developed—but the team itself has never been tested, nor have heart surgeons been monitored, although they stand for hours on their feet, engrossed in a narrow upheaval-prone surgery; nurses and doctors have never been tested, although they are exposed to noise in intensive care: this goes as well for ambulance drivers, laboratory workers, floor cleaners (the most common accident in a hospital is an employee or a patient slipping on a polished floor), and cafeteria staff. A long period of time elapsed before consideration was given to hospital

safety issues.

Diagnosis requires imaging of internal organs by various means— X-rays, injection of radioactive material, sound waves, magnetic fields, and so forth. Any deviation, even a small percentage, and the process could be harmful rather than beneficial. The gap between a harmful dose and a beneficial dose could be extremely narrow.

### Patient Safety:

Medical errors have been identified as the most common type of error affecting the safety of patients [4]. The majority of people that are in contact with the health services, either as services users or service providers, have experiences of a medical error. However, dealing with the aftermath of a medical error and the manner in which this impacts on each individual is not identical or repeatable. The medical error from a psychological perspective to a great degree depends on its ‘history, on the story of its protagonists and on the spatial-temporal features whereby the medical error occurred. Furthermore, whilst there is an immediate and possibly long term effect of the medical error to patients, family members and health professionals, nonetheless this effect is very different. Patient and family members experience the medical errors as victims, whereas health professionals experience the medical errors not just as perpetrators but according to several studies and as second victims.

The purpose of patient safety measurement is to discover, assess, and correct problem areas before a significant untoward patient incident occurs [5]. Evaluation of individual adverse events is often the primary source of information about patient safety. By evaluating the circumstances surrounding an event, clinicians identify sources and causes of the undesirable event, which may in turn result in immediate behavioral or process changes. However, health care organizations cannot rely solely on case - by - case analysis to ensure the safety of high - risk processes. Common patient safety problems will not be identified and corrected if the review focus is only on disastrous events that largely occur randomly and can only be examined after the fact. Case - by - case review must be supplemented by ongoing monitoring of safety - critical steps in high - risk processes. Regular analysis of high - risk process performance gives the organization a snapshot view of patient safety and an understanding of the potential for process failures that may lead to grievous consequences. The data are used to identify and change undesirable practices that increase the chance of an adverse patient event.

Medical errors and patient safety have emerged as concerns in the provision of quality health care [6]. If we are to change the current health care culture, many believe it is important that students begin to understand, appreciate and demonstrate appropriate skills related to medical errors and patient safety early in their professional education. Tremendous opportunity exists to influence the safety of health care delivery profoundly by changing the educational environment, teaching methods and health professional curricula. Adoption of patient safety knowledge by leading health care education groups has been slow. There are elements such as ‘organisational silence’ and unrecognised ‘hidden curriculum’ teaching that can impede



effective implementation of patient safety education. Information systems and technologies are available that can improve significantly the educational process, but they have yet to be fully implemented. Simulation, successfully employed for years in the military and aviation industry, can facilitate patient safety teaching. Team-based teaching, in simulated or controlled real-time situations, emphasises cooperation and clear communication in a context of systems-based care. Fostering trust, honesty and respect between consumers and providers, patients and health care professionals, and among the health care disciplines, empowers patients and health care providers alike.

#### Medical Error

Following the release of the Institute of Medicine report, *To Err Is Human*, the systems nature of healthcare delivery has become broadly recognized [7]. Important efforts have emerged to address clinical systems of care through assessment of process and outcomes measures, as well as analytics relying on tools from aviation, engineering, and systems sciences. This process of quality measurement and error investigation facilitates quality and safety improvement, root cause analysis for medical errors, as well as prospective efforts in designing systems that are more resistant to the inevitable occurrence of human error. Recent healthcare reform efforts have also supported quality and safety endeavors, although there have been some frustrations in the pace and effectiveness of these safety and quality improvement efforts.

Despite these important efforts, attention to disclosure of medical errors has been lacking in systemic strategies to improve patient safety. Although there have been significant clinical efforts, research, and interventions involving patient injury avoidance and an acceptance of ethical mandates to disclose, relatively less attention has been focused upon system-based disclosure and approaches to addressing patient needs when error occurs. Further, the potential for using error disclosure as a learning and culture tool has also been limited.

Medical error exists if a health service provider acted contrary to the rules of the medical profession [8]. Actions contrary to the rules of the medical profession lead to civil law liability only if patient has sustained damage. Sanctions for wrongful behavior which did not cause the damage are imposed within disciplinary proceedings or in drastic violation of medical standards within criminal proceedings. The same applies to omissions contrary to the rules of the medical profession. The fact that actions/omissions are wrongful is determined in litigation, on the basis of opinion of expert witness(es). This does not mean that expert witness(es) can overtake the role of judges. The opinion of any expert witness is to provide the factual base upon which the judge or jury decides on merits of the case. In the past, there were examples when the court reached the conclusion that professional opinion is not reasonable or responsible. Such approach is qualified as a rare case.

The fact that a physician did not achieve success in treating the patient cannot be qualified as medical error. Physicians are not obliged to achieve a certain result, and they are, as a matter of a principle, obliged “only” to perform their work in accordance with the rules of the medical profession and legal requirements. In exceptional situations, the physician could be liable if he/she has not achieved certain result. Typical example is when a physician

has concluded a medical contract with the patient and on the basis of contract has expressly guaranteed for a certain result (as in the field of aesthetic surgery).

When medical errors occur, the effect on patients is two-fold [9]. Patients must not only endure the effects of the injury itself, but also the after effects when the injury or error is mishandled. Research shows that patients want to be informed regarding virtually all unexpected events that occur during the course of treatment. However, they also recognize that being told may raise more questions or make them uneasy. As such, patient education is vital to minimize undue harms during the disclosure process.

When caring for patients after a patient safety incident, it is important for healthcare professionals, particularly surgeons, to believe them, listen to them, and inquire regarding the emotional trauma and psychological impact. Family members and support persons may benefit from emotional support, as they often report feelings of guilt. It should be noted that patients define medical errors more broadly than the medical profession does. Specifically, patients define patient safety as access to care; responsiveness and empathy; good communication; clarity of the information provided; appropriate treatment; relief of symptoms; improved health status; and freedom from medical injury.

#### Ethics:

The ethical case has been made since the beginning [10]. The Hippocratic Oath, the nightingale effect, “do no harm” is the vision statement in all hospitals as posted. Yet we are still doing harm. Zero tolerance for medical errors or HAIs (hospital-acquired infections) would be unrealistic. However, each case that develops should be considered a disaster by each facility, bringing all its expertise to bear. That would begin to bring some accountability to the issue. Causes for medical errors and infections abound; we look the other way at sloppy and unsafe practices, the great white wall, the bottom line, overwork and fatigue, working conditions, rationalization of unsafe practices, contradictions between safety and budgets, lack of protection for whistle-blowers, and increases in workload without the concomitant increase in staff. Each one of the above has an ethical component. A 3% error rate might seem low to administrator for medical errors, but then add a 3% HAI rate and a 3% drug error rate, and you have a 9% error rate—almost 1 out of 10 patients that passes through the door—and, to each of the affected patients, each rate is 100%.

Building the case for systemic change is warranted by the statistical data. Reconfirming that millions of procedures are done without error is as an important measuring figure as the number of mistakes. However, adding the numbers for each category of error (medical error, HAI, and drug error) does produce alarming numbers of harm. The social science perspective also encourages the formation of a social movement on issues of important societal impact, such as public health and national patient safety. The social movement would require health-care workers of all types working with public health officials, legislatures, trade unionists, government agencies, and funding agencies to write a plan of action to challenge the status quo of medical errors and infections on the basis of the systemic causes. Fixing staff ratios, shift work, bullying, overbooking and overcrowding, hiring more labor to



clean facilities, and so on are all possible outcomes, with definitions for each and possible intervention models for our hospitals.

Patient safety and ethics are both fields that seek to operationalize fundamental values in health care [11]. In both areas, broad values drive practical responses in clinical settings. There are two common sites of overlap. First is to ensure safety practices in areas where clinical ethical concerns arise frequently. Clinical ethics is an everyday practice in all settings but ethical conflicts are most common in hospitals. Areas like end-of-life-care have a strong component of clinical ethics and are high-risk areas for errors and compromise of patient safety. The other area of overlap is professional ethics and the commitment to patient safety. Given that patient safety is grounded in ethical principles and the resultant ethical responsibility of health care professionals to serve and protect patients, commitment to patient safety is a professional ethics responsibility.

### Conclusion:

A medical error is omission in professional work, which occurs when a doctor or other health care professional acts negligently in the provision of medical care in his work. To declare some treatment procedure an error in treatment, ie that the procedure does not meet the requirements of the profession in a given situation, such a procedure of a health care professional can be characterized as intentional or unintentional medical error only if it caused worsening of health condition, disability or death. However, if the unwanted outcome of the treatment causes a worsening of the patient's health condition, that damage did not occur as a consequence of the lack of skill, knowledge and conscientious commitment of the health care professional, but due to objective circumstances. For example, the death of an terminally ill patient is an unwanted treatment outcome. The health care professional is not legally responsible for such consequences of treatment.

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