Heartland Regional Medical Center Makes A "Fitting Response" to Medical Mistakes

by Landis Downing and Robert L. Potter

Medical mistakes is an issue that challenges many healthcare providers and organizations. The challenges are professional, personal, systemswide, financial, and morally compelling; and a fully fitting response may depend on the answer to questions that H. Richard Niebuhr used to divide all ethical considerations: what is going on here; and what is the fitting response. Heartland Regional Medical Center in St. Joseph, Missouri, asked these questions about medication errors. The response model they developed, although it is very much a work in progress, shows how a facility can go from an ethical analysis to fixing the problem.

Many healthcare organizations share the desire to turn their concern for errors into a system of safety. Heartland Regional Medical Center of St. Joseph, Missouri, has responded to medication mistakes by creating a culture of medication safety. It has sought to go beyond fixing errors to envisioning how a more complete moral framework can engender a "fitting response" to medical mistakes.

What is a "Fitting Response"?

H. Richard Niebuhr, a prominent twentieth-century theological ethicist, indirectly influenced the early stage of the bioethics movement through the writings of his students, especially James Gustafson (1975). Niebuhr himself divided ethical deliberation into two questions: "What is going on here?" and "What is the fitting response to what is going on here?" (1963).

Answering the first question requires a careful analysis of the life-situation. Sorting out the multiple factors that influence an outcome is a difficult task, even in a limited field of action, but it is also a necessary task in ethical deliberation. Asking this ethics question about mistakes in healthcare is the first step toward a fitting response. In the current jargon of mistakes it is the "root cause analysis."

Niebuhr's second question is at the center of ethical reflection and action. Once we understand what is happening, we are expected to respond. Being a responsible self requires knowing and responding to what is happening in one's life. Not any old response will do, however. A reactive or reflexive response will be incomplete. A reflective response that flows from careful consideration of all the important values that guide one's action is more likely to fit one's needs. A fitting response is constructed from careful, reflective deliberation. A fully fitting response to mistakes in healthcare is one that is carefully thought through by a process of ethical deliberation.

Niebuhr's ethical questions create a two-part formula that partitions the work of ethics: descriptive ethics and normative ethics. First, discover what is happening; then, decide the most fitting response to what is happening. Medical mistakes happen; what is the fitting response to mistakes in healthcare?

Elements of Medical Mistakes — Toward a Working Definition

There is no ready consensus on what constitutes a mistake. Lucian Leape (1994) favors a commonly used definition of mistake or error: Error may be defined as an unintended act (either of omission or commission) or one that does not achieve its intended outcome. Two very different ideas about mistakes coalesce in this definition: a mistake is a failure to complete a planned action as intended, or the use of a plan that does not achieve its aim.

Thus, a mistake occurs when a wrong plan is designed. Such a plan is an intentional set of acts, but it will not achieve the intended outcome. Here intention does not succeed in developing a good plan. Mistakes also occur when a plan is wrongly performed. The wrong performance is not intended, but follows from someone's cognitive lapse or slip (Paget 1988). It can be argued that the meaning of mistakes should be expanded to include adopting the wrong goal (Gorovitz and MacIntrye 1976).

Medical mistakes are unintentional; partially preventable; and harmful, or potentially harmful

Unintentional acts do not usually flow from a patterned set of learned behaviors. If the patterned set of behaviors is structured, learned, and performed correctly, there will be no error. Faulty design, incomplete learning, and flawed performances are undesirable types of action, and many of them can be partially prevented. We can, for example, design work processes that take into account weak points in a sequence and thereby reduce errors. Training that raises a skill to maximum accuracy can be repeatedly reinforced to prevent performance failures. Focusing our attention on performance with simultaneous feedback from a mistakes warning system will also reduce error rates. The definition of mistakes must accommodate the fact that mistakes are only partially preventable and, therefore, cannot be eliminated from human action.

The harmful effect on the patient is the moral consequence that gives importance to a mistaken action. If no one is hurt, less importance is attached to the mistake. Types of harm are death, disability, pain and suffering, loss of freedom, and loss of pleasure (Gert 1988). We must also recognize that harm can occur to the *person* as well as more obvious harm to the *body* (Sharpe and Faden 1998). Harm to the body is death, disability or pain. Harm to the person includes suffering, loss of freedom, and loss of pleasure. Violating patients' rights, negating their values, or disrespecting their dignity are specific harms to persons that can be caused by mistakes in healthcare. Such harm to the person is not trivial and ought to be considered as important as bodily harm

A working definition of medical mistakes will include these elements: they will be unintentional; partially preventable; and harmful, or potentially harmful. This definition contains all three categories: wrong goal, wrong plan, or wrong performance.

"Response to Medication Errors" by Heartland Regional Medical Center

The top leadership of Heartland Regional was committed to making "our service area the best and safest place in America to receive healthcare" (2001). They also recognized that they had a medication error problem in their system. The extent of the problem at Heartland was no more severe than at similar hospitals; however, Heartland's leadership decided to empower a team to correct the systemic processes that were allowing errors to occur. They knew that the errors were unintentional and partially preventable, and that preventing such errors is the moral obligation of healthcare organizations. They determined to create a practical action plan to reduce medication error. This plan is now in process, and its outcome will be measured and reported concurrently with the implementation of future strategies.

Niebuhr's First Question

Initially Heartland Regional's investigators asked the question: "What is going on here in regard to medication errors?" They had abundant evidence that they needed to improve the hospital's delivery systems for getting the right medication to the right patient at the right time. (Millenson 1997). Adverse drug events are both unplanned and unwanted. They account for a large portion of medical mistakes. Adverse drug events can be classified as drug reactions, medication errors, or as potential adverse drug events.

Medication errors tend to occur at certain times or as certain action-events: ordering mistakes account for 49 percent of medication errors; administration, for 26 percent; dispensing actions, for 14 percent; and transcription mistakes, for 11 percent. Examples of common error sources of adverse drug events include the following:

- poor handwriting,
- inappropriate abbreviations,
- borrowing a drug from another patient's supply,
- multiple handoffs between ordering and administration,
- confusion of drugs with similar names,
- computer systems that are not designed to avoid errors, and
- failure to note abnormal lab data.

This analysis describes many of the features of "what is going on" in terms of medication errors at Heartland Regional. But other systemic factors also contribute to medication errors that are not on this list. For example, nurse staffing levels, patient acuity, and degrees of patient instruction are causative factors of medication errors (Starck et al. 2001). However, this paper describes Heartland Regional's approach to the "fix it" level of medication errors. It is not yet ready to consider other levels of the question "What is going on here?"

Even at this "fix it" level of analytic description, the members of Heartland's team recognized the pertinence of Niebuhr's second question: "What is the fitting response to what is going on here?" Encouraged by top management, they adopted the goal of becoming "the best and safest place in America to receive healthcare by assuring that medication usage is safe and appropriate." As the first step to making this fitting response a reality, they agreed to the following strategies proposed by a redesign steering team dedicated to reducing medication errors:

1. Physicians will utilize knowledge-based medication protocols linked to appropriate laboratory monitoring in order to facilitate best possible therapy as bench-marked to evidence-based outcomes.

2. There will be ready access to clinical pharmacists who will act as clinical extenders to physicians and nurses.

3. Medications will be accessed via an automated dispensing system so that the right drug is delivered to the right patient at the right time.

4. Drug administration will be verified by bar coding technology for validation, charge capture, reconciliation, and documentation.

Four types of action events were identified: the ordering process, the dispensing/distribution process, the medication administration process, and the tracking/reporting process. A team for each element was assigned to gather solutions taken from others' experience, to look for additional options, and to recommend solutions to the steering team. Each team was made up of a wide spectrum of hospital staff. Three general categories of solutions recurred: policies and procedures, process changes, and technology solutions. These solutions were to be brought on line in three stages: phase I solutions would be implemented immediately, phase II solutions in

the next twelve-to-eighteen months, and phase III solutions in the longer term.

Phase I solutions involve improving data collection by using a blame free, easy reporting system. This change nearly tripled the reporting of adverse drug events. Using this data the interdisciplinary team then did a root cause analysis to determine design flaws. From this analysis came solutions that will help Heartland Regional create the desired change in medication errors.

Other phase I solutions include improved usage of high risk drugs such as insulin, heparin, and potassium chloride; revised medication administration standards; engineering safety into physician orders; engineering evidence-based standards of care into physician orders; conversion to standard generic medication names rather than the mixed use of both generic and trade names.

Phase II solutions were expected to become operational over a period of months. These solutions include developing policy standards to address "zero" tolerance for medication errors; creating a standard to eliminate the order to "resume home meds"; purchasing a new pharmacy computer system; decentralizing access to clinical pharmacists; moving the order entry for medication errors to the pharmacy; exploring increased standardization of orders and therapy; and promoting an organizational standard for nonpunitive reporting.

> ***Fixing the problem of medical errors is a fitting moral response. . . . But we must also consider the consequences of error that cannot be avoided.***

Phase III solutions will include implementing bar coding technology and automated dispensing, installing software that supports Physician Order Entry, and using knowledge-based ordering. Phase III will also include a control system with alarms to alert participants to a potential medication mistake.

In concert, these action plans answer the question: "What is a fitting response to medication errors?" Among the specific insights the plan gives Heartland Regional, the following are very helpful:

1. An easy, nonpunitive reporting method quickly generates increased amounts of data.
2. Collating this data and performing root cause analyses reveals the extent and nature of the problem.
3. Knowing the problem helps the team identify the multiple points at which error tends to occur.
4. Process redesign flows from a deep analysis of the problem.
5. Multidisciplinary teams work best.
6. Implementing the plan in phased sequences allows the organization to adapt by degrees.
7. Having patient safety as an organizational goal is a strong motivating value that can reshape the culture of systems and guide personal performance.

These primary strategies can help fix an error problem and create a culture of safety. The resulting lessons can be applied to the management of other medical mistakes. What the organization learns about medication errors can become the starting point for a fully fitting response to the general problem of medical mistakes. But this action plan does not respond to all the moral consequences of a medical mistake and therefore is not yet an entirely fully fitting response to what is going on.

Toward a Fully Fitting Response

Most published reports have concentrated on the correction of systemic procedures in order to avoid errors (Bates and Gawande 2000). Fixing

the problem of medical errors is a fitting moral response. The moral obligation of healthcare organizations is to provide a safe environment for patients. But not all mistakes can be prevented by a sweeping redesign of systems. Mistakes continue to happen. The fitting response to medical mistakes must also consider the consequences of error that cannot be avoided.

The persistent fact of medical mistakes pushes healthcare organizations toward a more fully fitting response — one that has been characterized by Smith and Forster (2000) as "morally managing medical mistakes." The authors recommend developing a healthcare culture that both admits and accepts responsibility for mistakes. They argue that a blame-free environment that uses mistake analysis as a strategy for quality improvement will be more sensitive to the harm done to patients and the moral damage sustained by providers.

Smith and Forster encourage the careful consideration of the morally harmful consequences of error on the patient, the patient's family, the actors who are involved in the mistake, the organization's managers (on whose watch the mistake occurred), and on the public who trusts the organization in which the mistake occurred.

Consideration of the mistake's moral harm calls for a full response that goes beyond fixing the error. Extending Smith and Forster's argument, a fully fitting response would include the following strategies:

- reporting freely to all affected when a mistake occurs;
- identifying the extent of harm;
- recognizing that harm to the person can be as important as harm to the body;
- helping the patient and family understand and accept how and that this harm occurred;
- apologizing to the patient and family for the breach of safety that caused the harm;
- compensating the patient;
- consoling the provider or other actor; burdened with a sense of shame and guilt;
- helping the erring actor reconstruct a sense of competence to perform well;
- reconciling the mistaken actor and the harmed patient;
- being sensitive to the administrator's concern for litigation;
- challenging the administrator's concern for litigation;
- cooperating with the administrator's anticipation of sanctions by regulatory agencies
- encouraging the administrator's willingness to compensate the harmed patient
- supporting the administrator's desire to maintain the trust of patients, families, and the public; and
- confirming the public's concern that institutions of service be trustworthy for safety.

Although the literature is currently focused on fixing the system, some organizations have made cautious openings to the moral acts of disclosure, apology, and compensation (Wu 1999). Understandably, physicians, risk managers, and administrators often resist disclosure because of fear of litigation; however, institutions that have moved to an action plan of disclosure, apology, and compensation report that a reduction in litigation and legal costs may flow from this open response (Kraman and Hamm 1999). Clearly the concern over costly litigation can be a barrier to an institution's willingness to take public accountability for medical mistakes, but some institutional leaders are showing renewed moral courage to face this responsibility.

The full range of fitting response will embrace some or all of these ideals (Finkelstein et al. 1997). The fitting response is always a compromise among interests (Benjamin 1990). The fitting response in one situation is not necessarily the fitting response for another similar situation.

Deciding on the fitting response requires a process of discernment (Gustafson, 1981 and 1984).

A fitting response to medical mistakes contains four main categories:

- Fix the problem to avoid future harm.
- Disclose the error to the harmed.
- Repair personal harm done to the actor and the harmed.
- Protect the trust between the public and the institution.

The first and most vigorous response of healthcare organizations is to fix the problem to avoid future harm. This action can be seen as the necessary anchor of a more fitting response to medical mistakes.

Disclosing to the harmed party or parties what has happened to them is the particular moral obligation of those responsible for the harm. But disclosure is only possible on the basis of complete awareness and understanding of what actually happened: the harm, its causes and extent.

Consoling the provider and repairing his or her diminished sense of self-esteem is an important part of a complete response to medical mistakes.

Repairing personal harm has two poles: the patient's harm and the harm to the provider/actor who delivered the harm. Apology is the first step for healing the broken relationship between the harmed patient and the harming provider. The apology should be followed by a discussion of reconciliation as a continuation of the process of healing. Consoling the provider and repairing his or her diminished sense of self-esteem is an important part of a complete response to medical mistakes. A sense of incompetence, shame, and guilt can render a provider incapable of performing at a level of excellence. Self-forgiveness is not usually possible apart from the provider's moral community (Blustein 2000).

Protecting the trust between the public and the institution is not a trivial category in the fitting response to medical mistakes. The evidence suggests that healthcare has made a mistake about how to handle mistakes (Witman, Park and Hardin 1996). Reporting mistakes to the public through an annual report card or some other device has not been effective. Healthcare organizations that claim to be safety conscious ought to support their claim by sharing their responses publicly. Administrators of organizations are straining to find a balance between acknowledging mistakes and protecting the interests of the organization. The trust of the public will be protected only by honesty. Integrity is the primary corporate virtue, and the moral management of mistakes tests this virtue.

Heartland has activated one step in the fitting response: the "fix it" step. Three strategic responses remain to be actualized: disclosing the harm, repairing its effects, and protecting public trust. Following the lead of the medication errors team, the ethics committee of Heartland Regional continues to deliberate reflectively on the action steps that will lead to a fully fitting response to medical mistakes.

Conclusion

Examining medication errors at Heartland taught us valuable lessons that we can apply directly to the category of fixing the problem:

- reporting must be easy and blame free,
- multidisciplinary teams work best,
- analyzing systems reveals the action-event points,
- redesigning for safety is central to fixing the problem,
- phased solutions are easiest to implement, and
- the goal of excellence in safety is a strong motivator.

As morally responsible agents, we must continue to progress and to discern the demands included in the other three categories of a fitting response. We must

- report freely,
- identify extent of harm,
- explain to the patient and family,
- apologize to the patient and family,
- compensate for the harm,
- console the grieving actor,
- affirm the actor as competent,
- reconcile those involved,
- respect the concern for litigation,
- challenge the concern for litigation,
- cooperate with regulatory agencies,
- support maintenance of trust, and
- confirm the public expectation of trustworthy safety.

The fitting response to medical mistakes is a heavy duty. Healthcare professionals and organizations have begun the task of responding to mistakes by focusing on fixing the systemic problems that allow errors to occur. Ethics committees must help their organizations morally manage the full range of consequences and help guide the organization toward the "fitting response."

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