Each year, nearly 100,000 hospital patients die and many more are harmed from medication errors, health care-associated infections, surgical mistakes and other preventable causes.

These adverse events are not the result of health care workers’ lack of sophistication or a lack of desire to do the right thing. Instead, they occur because of a variety of factors that workers often can’t control:

• Outdated work systems that can’t support contemporary hospitals’ complex environments;
• A lack of standardized approaches to care delivery;
• Limited or absent information technology; and
• Unreasonable expectations that highly trained, dedicated and capable caregivers will perform flawlessly 24 hours a day, seven days a week.

Control Begins with Classification

Adverse events occur because of three types of errors, according to the Institute of Medicine’s 2006 report, Preventing Medication Errors. Because the most appropriate and effective approach to correcting or preventing an error depends on its type, it is important to understand the distinctions.

Skill-based errors happen when people know what should be done but fail to execute the right action or inadvertently execute the wrong action. These errors are classified as a lapse, as in an intended but omitted treatment, or a slip, as in unintentionally doing the wrong thing.

An example of a lapse might be a physician or nurse who obtains a dose of a preoperative antibiotic, but in the process of anesthetizing the patient, neglects to administer the antibiotic prior to incision as planned. In an example of a slip, a nurse might cause the patient pain by administering a drug through a peripheral venous catheter instead of the central venous catheter as intended.

Corrective action: Distractions, fatigue and stress are all common causes of skill-based errors. They are not effectively corrected through education or training but can be addressed by reducing latent errors in the system. Instituting standard operating procedures or protocols to reduce process variability, properly designing work environments, providing tools such as checklists to decrease reliance on memory and eliminating distractions are some options for reducing latent errors.

Rule-based errors involve problem-solving skills and can be attributed to one of three reasons:

1. The individual who made the error learned the wrong rule for a given situation. Example: A nurse learns a drug dose for an average-size adult patient but applies that dose to a smaller pediatric patient, resulting in a significant overdose.

Corrective action: Re-education regarding the correct approach should quickly address the issue.

2. The worker knew the correct rule or approach but applied a different, incorrect rule. Example: A physician intends to administer a calcium channel blocking agent and has to choose between the two best drugs (A or B) with different dosing schedules. The physician chooses drug A on the basis of its optimal effects for the patient, but orders the dosage for drug B in error.

Corrective action: Reducing this type of error requires that sufficient time for focus and concentration is allowed during the task. In addition, a computerized method of drug ordering could prevent this problem.

3. The individual knows the correct rule and recognizes that it applies in the current situation but decides to bypass the rule or apply it differently because he deems another option to be better at the time. Example: Administration of a drug or blood product requires two clinical personnel to verify the patient’s identity and the correct product to be administered. However, in an urgent situation, it is deemed best to bypass this verification step and the patient receives the wrong treatment.

Corrective action: Counseling or coaching increases awareness of the risks associated with not properly following the appropriate course. This is an area where Red Rules—rules that if broken will lead to significant harm—may have
a strongly positive effect on outcomes.

**Knowledge-based errors** occur when a practitioner operates outside her sphere of expertise and acts incorrectly due to a lack of knowledge that results in an erroneous interpretation and wrong decision. Physicians use professional consults to compensate for their own lack of knowledge in a particular area. Other health care practitioners may not be as adept at this and are sometimes reluctant to ask for clarification.

**Corrective action:** Caregivers should be encouraged to acknowledge their weaknesses, seek assistance, ask questions and express concerns to ensure proper and safe care delivery.

Note that the recommended corrective actions address the individual worker’s knowledge or practice deficiencies. They are neutral regarding any adverse event associated with the error and aim at minimizing recurrences.

**Promote the Right Culture**

When an organization does not classify its workers’ errors and consistently apply appropriate corrective actions, a culture of blame frequently dominates. In this culture, the focus is on who did it, what they did and what harm was caused. If the patient experiences minimal or no harm, no action is taken. When harm does result, disciplinary—rather than corrective—action is taken. In such an environment, practitioners learn to hide errors and suppress problems, and inadequate systems, faulty processes and unrealistic expectations continue to be unexamined and unimproved.

On the other hand, a just culture is founded on accountability. It examines and classifies workers’ errors and consistently applies appropriate corrective actions. Practitioners feel supported by processes designed to help them report errors, discover why errors happen and make corrections that will help prevent similar errors from occurring in the future.

The way an institution supports its staff and patients through these processes is a key component to a just culture. To respond consistently and appropriately to errors and the resulting adverse events, the Joint Commission recommends that organizations:

- Adopt an approach that minimizes further harm and relieves related suffering.
- Investigate the incident to determine the root cause.
- Promote transparency through full disclosure and, where appropriate, apologize to the patient and related parties.
- Ensure that appropriate actions are taken to prevent the occurrence of similar incidents.
- Provide support to staff who may be traumatized by the event.

A commitment to a just culture drives an organization’s transformation into a patient-centric, learning organization that focuses on process improvement to prevent recurrence of the same or similar events. This takes time, energy and leadership. Those at the top must act consistently and fairly, or progress will stall and mediocrity will prevail.

In the past, the general consensus was that admitting responsibility, offering support to erring workers and compensating patients who suffered harm would lead to lawsuits and financial losses. In fact, current evidence demonstrates the contrary. Malpractice claims, time to complaint resolution and attorney fees decline when a supportive, full-disclosure approach is taken.

**A Shared Commitment**

The ultimate goal for improving a health care organization is to keep patients safe. A culture of safety avoids blame and incorporates the just culture approach to openness in reporting and application of appropriate corrective action. According to the Institute of Medicine, a culture of safety minimizes risk and maximizes optimal outcomes by anticipating human frailties, developing operational systems to minimize complications and applying information technology to enhance decision support and knowledge management.

Additionally, a culture of safety requires an understanding among trustees and senior leaders that safety, quality and service are not the responsibility of a single person or department, but broadly shared commitments requiring:

- Clear and consistent goals and priorities, developed centrally but implemented in a decentralized fashion that permits process adjustments to fit specific needs;
- The understanding that human behavior is key to performance improvement;
- Accountability without a focus on blame;
- Teamwork and engagement of clinical leaders; and
- Resources for reliable, current information and rejection of the tendency to question or downplay unfavorable data.

Denying the culture of safety means we risk perpetuating persistent, unexposed flaws in our health care delivery system. The secretive and protectionist attitude that was advocated in the past is counterproductive. Approaching errors and adverse events with an adversarial mindset derails efforts to educate and improve care. However, when organizations approach safety break downs with an attitude of full disclosure, transparency, contrition and appropriate compensation, the health care is improved, and we all become safer.