Systematically Reducing Medical Errors

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Dr. Murphy admitted Marlo Jones to Community Hospital for a mastectomy. During the admission process the admission clerk remarks to Marlo, “I see Dr. King will be doing your surgery today.” Marlo, puzzled, replies, “No, I don’t know Dr. King. Dr. Murphy is doing my surgery.” The admission clerk then inquires, “You are Mary Jones, right?” “No, I’m Marlo!” Ms. Jones exclaims.
Medical error: diverted.

Later that day, as the attendant wheels Marlo into the surgical suite, she hears a member of the operating room personnel give an order to start the intravenous (“IV”) in Marlo’s left arm since her surgery will be on the right side. Marlo quickly informs them that the mastectomy is to be on her left side, not the right.
Medical error: diverted.

In the postoperative phase of Marlo’s recovery, she requests a pain pill. The nurse is in the process of getting pain medication for another patient, Mr. Green; while she is in the medication system, she also pulls Marlo’s pain pill. A second nurse, caught up with her work, offers to medicate one of the patients. Unfortunately, she takes Mr. Green’s medication by mistake and delivers it to Marlo.
Medical error: Marlo is allergic to the medication intended for the other patient.

The above scenarios may seem outrageous to the general public but not to those of us in health care. Similar events occur every day. The narrow escapes illustrate the weak points in the system, just as the dangerous events do, but the latter are at a much higher price. Any task performed by a nurse, physician, pharmacist, or other health care employee may present an opportunity for error. Health care workers perform many of the same tasks repeatedly; are they performed consistently, following a systematic approach, or are the variabilities of these tasks left up to each individual?

In 1999 the National Academy of Sciences Institute of Medicine’s (“IOM”) publication entitled *"To Err is Human: Building a Safer Health System"* shocked the public. This eye-opening study reported that as many as 44,000 to 98,000 people die each year in our country’s hospitals from avoidable medical errors; countless others are injured. Even using the lower estimate of fatalities, this would make medical errors the eighth leading cause of death in the United States, surpassing motor vehicle accidents (43,458), breast cancer (42,297), and AIDS (16,516).

However, while this report may have startled the public, it is not a new finding. Eight years earlier the New England Journal of Medicine reported similar findings, which formed the impetus for the IOM study.

Congress responded swiftly to the IOM publication, but despite this flurry of activity it is difficult to find a single piece of legislation or change in health care that produced positive change in the medical error crisis. Indeed this is a crisis. In many cases, when most vulnerable, patients place their lives and trust in the hands of physicians, nurses, and other health care workers. The medical community's fundamental promise is to "do no harm". Yet this same community offers little guidance to prevent or learn from mistakes.

In addition to the costs to human life, medical errors carry high financial costs. The IOM report estimates that medical errors cost the country approximately $17 to $29 billion each year. However, not all of the costs are tangible. Errors are costly also in terms of loss of trust in the system by patients and dissatisfaction by both patients and health care workers. Physical and psychological issues come into play due to medical errors. Health care professionals are deeply involved, experience loss of morale and frustration at not being able to provide the best possible care, and many times are plagued by errors that may have resulted, at least in part, from their own hands.

The IOM emphasized that the majority of medical errors are systems-related issues, not related to individual negligence or misconduct. They go as far as saying that the health care delivery system should actually be referred to as a "non-system". Health care workers desperately need these systems to assist in life and death decision processes.

Health care organizations must unearth the root causes of errors and change the policies and procedures that allowed the errors. The policy and procedure manual is not simply a book of documents meant to impress the Joint Commission on Accreditation of Healthcare Organization ("JCAHO") or other accrediting bodies. Properly drafted policies and procedures actually make it more difficult for health care workers to make mistakes. However, before these documents can be of assistance, organizations must recreate the steps behind each medical error to uncover where to correct health care workers' behavior and thereby prevent medical errors. Systems that will alert staff to possible errors are a safeguard that cannot be minimized. We would not think of flying with a pilot that announces his instruments are not functioning and insists that we rely solely on his abilities to pilot the flight; we should supply our health care workers with equally vital safeguards.

But what does all of this entail? We all are aware of the time limitations on health care workers and the amount of paperwork that is part of our everyday work environment. Therefore, it is important to find accurate reporting systems that produce the facts without being time-

consuming and intimidating. After careful consideration of each task and safeguards for preventing deviation in processes, organizations should develop checklists that speak to the issues, enlist systems that will alert to possible errors, and develop policies and procedures to prevent deviation from these safeguards.

It is apparent that there are many factors in reducing medical errors, and, as the IOM states, this is truly a system problem. Therefore, organizations must take a systematic approach first to understand the medical error issue and gain a full understanding of human errors. Variability plays a key role, and isolating the variability that came into play in each individual medical error or near-error is imperative.

Prior to starting this initiative, staff education and training is mandatory. Reporting of errors and near-errors is necessary to understand the variabilities and for development of new systems. Staff must be on-board with the new processes and understand that these processes are not meant to place blame but to produce quality care and lessen errors. In the end, employees will be part of the process and reduce many of the frustrations that they currently experience. After all, who is more qualified than the health care worker to identify factors that produce medical errors? A strategy to involve employees must be non-penalizing so that employees are unafraid of telling the truth.

Once the initial steps are taken to gain buy-in, it is time to gather the facts. Organizations must conduct walk-throughs, evaluate current systems, interview employees, and review processes and flows. This due diligence process is extremely important and can be conducted internally or externally for an impartial look and fresh approach. External assessments can also provide cost-effective and practical ways to resolve identified problems. It is advisable to take a detailed look at current policies and procedures and identify holes in the system. Are the policies and procedures informative, do they provide detailed steps preventing deviation, and, finally, are they user-friendly? Often complements to policies and procedures, such as flow charts detailing steps placed in areas where personnel will easily be able to review them, are good solutions that produce positive reinforcement. An example might be a medication flowchart detailing the five “rights” used to administer medication (right patient, right medication, right dose, right route, and right time) placed in the medication room or on the medication cart to serve as a reminder. A medication incident report may also have these five rights incorporated into a checklist to further identify where an error occurred. A foolproof system may be to take the guesswork out of the medication administration area by employing Computerized Physician Order Entry (“CPOE”) and Bar Code Medication Administration (“BCMA”), combined with the previously mentioned processes.

After clearly identifying these gaps and variabilities, organizations must develop accurate policies and procedures aimed at preventing medical errors. As noted earlier, the goal of these

policies and procedures is to ensure clear, accurate procedures and provide other job aids, such as flow charts, that can be used by all health care workers and are available in all work areas. The objective of this detailed process is to guide employees in the decision-making process and help ensure consistency of tasks, alleviating the variabilities that may add to the likelihood of medical errors.

Again, it is important to involve staff in this process and train them on policies and procedures as well as to use job aids, properly utilize electronic systems, and report errors and near-errors. Organizations must train as frequently as possible. In addition to initial training, ongoing training in the form of annual skills training and training aids such as posters, laminated cards, web training, and team meetings, will assist health care workers in developing and maintaining high skill levels. Investing in your employees makes good business sense. It improves employee morale, as the employees recognize your investment and thereby their importance within your organization. Positive worker motivation produces attitudes that lessen the likelihood of errors. Administrators must recognize that this is a very important phase of the system and should not minimize the importance of recognizing employee achievement.

Often medical errors are the results of circumstances that come about due to the way organizations wrote their policies and procedures, disregard for the need of job aids and systems, minimized training, and finger-pointing approaches concerning blame. Assigning time and resources to understanding workforce factors and recognizing and reducing errors and potential error situations through the methods described above will help to significantly improve overall system performance, reduce medical errors, and promote customer and employee satisfaction.

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About the Author

With over twenty-five years of experience in the health care industry, Kathy LePar is a qualified industry professional who contributes a broad scope of knowledge and experience. As a senior consultant for Beacon Partners, she provides the necessary expertise to coordinate the modifications and complements of existing workflow processes, policies and procedures, and training needs necessary to meet challenging HIPAA requirements, patient safety initiatives, and clinical workflow processes.

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