

To Err Is Human: Building A Safer Health System



To Err is Human concluded that complex and faulty systems are major contributors to preventable medical errors.

Key Points

- At least 44,000 people and perhaps as many as 98,000 die in hospitals each year as a result of medical errors that could have been prevented
 - Medication errors alone are estimated to account for more than 7,000 deaths annually.
- Most medical errors do not result from individual recklessness, but are caused by faulty systems, processes, and conditions that lead people to make mistakes or fail to prevent them.
- The IOM report identifies complex systems with multiple steps as primary contributors to medical errors.
 - The medication use process, which has 16 steps, is considered to be a highly complex system.
 - In contrast, the traditional blood analysis process, which has more than 60 steps, is even more complex.

Report Overview

The Institute of Medicine (IOM) Quality of Health Care in America Committee was established in June 1998 to examine the quality of health care in the United States and to develop a strategy that would result in a threshold improvement in quality over the next 10 years. *To Err is Human: Building a Safer Health System* was released in November, 1999 and was the first report from this IOM committee.

To Err is Human focused on quality concerns that fell into the category of medical errors and concluded that it is not acceptable for patients to be harmed by a health care system that is intended to offer healing and support. To remedy the problem, the committee laid out a comprehensive strategy by which government, health care providers, industry, and consumers could reduce preventable medical errors. Although no single activity can offer a total solution for reducing medical errors, the combination of activities proposed in *To Err is Human* offers a roadmap toward a safer health system.

You can obtain full-text copies of *To Err is Human: Building a Safer Health System* at:
<http://www.nap.edu/books/0309068371/html>

Solving The Problem

- Mistakes can best be prevented by designing the health system at all levels to make it safer, that is, to make it harder for people to do something wrong and easier for them to do things right.
- Building safer systems means designing processes of care to ensure that patients are safe from accidental injury.
- One solution offered in the IOM report is to make available information about the patient, medications and other therapies at the point of care.
- Accelerating laboratory turn-around times was identified as one example of system improvement.

Expert Commentary By Clarke Woods, BS, RRT, FABC, Director, Cardiopulmonary Services, Pinnacle Health System

The publication of *To Err is Human* in 1999 was a watershed event because it dared to discuss an unspoken concern in health care delivery: preventable medical errors. Intensive care units, operating rooms, and emergency departments are high-impact areas where the potential for error with the resulting serious consequences is high.

Medical errors exact not just a human toll; they drive up the costs of health care delivery. Estimates suggest that in the United States alone medical errors result in total costs (including the expense of additional care necessitated by the errors, lost income and household productivity, and disability) of between \$17 billion and \$29 billion per year. As technology continues to advance and health care delivery systems become even more complex, the number of preventable medical errors will escalate unless we implement processes to protect patients from accidental injury.

One system that should receive our attention is clinical laboratory testing. *To Err is Human* paints a broad picture of medical errors, and does not identify the percentage of medical errors attributable to laboratory errors alone. However, data from one analysis by Plebani and Carroro in 1997 show that 0.5% of 40,000 laboratory results were erroneous and 6% of these errors led to inappropriate care. The majority of errors (68%) occurred during the preanalytic phases, but errors also occurred during the analytic and postanalytic phases as well.

Point-of-care (POC) blood analysis represents an improvement over traditional laboratory blood analysis and is one way to simplify what has traditionally been a highly complex process. When compared with the medication administration process, the traditional blood analysis process includes nearly 4 times more steps and is far more prone to errors that can delay treatment. With POC testing, the clinician no longer has to leave the patient to transport the sample to a central location, await the results, and then return to the bedside. The hand-held analyzer delivers results in minutes at the patient's bedside.

POC testing is just one example of how we can streamline health care delivery and, as a result, reduce medical errors, improve patient outcomes, and do so in a cost-effective manner.