Prologue

Where the Rubber Meets the Road

Lucian L. Leape

Traditionally, a primary focus of patient safety research has been to analyze data to identify problems and demonstrate that a new practice will lead to improved quality or safety. Much less research attention has been paid to the details of actually implementing the new practices. This volume begins to remedy that shortcoming.

Implementation issues are, in a sense, "where it's at" for patient safety. Only by putting into practice what we learn in our research will we make care safer. However, it turns out to be very, very difficult. The challenge is threefold:

- 1. What is the right thing to do? Which practices improve safety? What is the evidence?
- 2. How do we do the right thing? What changes in our procedures and systems are needed to implement the new practice?
- 3. How do we make sure that the right thing is done 100 percent of the time? What is required to ensure full compliance of all parties, every time, without fail?

This volume focuses on the second step, implementation: how do we change our care patterns to incorporate a new practice? The third challenge, getting to full compliance, is left for another day.

First, which practices do we implement? From both research and experience in health care and in many other industries, a rich array of practices is available that almost certainly would measurably improve the safety of inpatient care if they were implemented. The National Quality Forum's expert panel has reviewed several hundreds of these and produced a short list of potentially high-impact safe practices for which the evidence is sound. Most agree they should be implemented as soon as possible throughout health care. The Joint Commission on Accreditation of Healthcare Organizations has begun to require their implementation as a condition for maintaining accreditation. Efforts are growing to increase the safety of ambulatory care as well.

How do we do it? Implementing safe practices turns out to be a huge challenge. It never goes easily. As many have noted, and several papers in this volume specifically address, what is at stake is changing a culture—more accurately, changing thousands of cultures. Culture is most simply defined as "how we do things here," and every organization has its own way of doing things. Because implementation of a new practice almost invariably requires changing how things are done, it affects multiple individuals from multiple specialties and their interrelations. Not surprisingly, there is pushback. How to deal with that resistance is the subtext of many of the reports in this volume.

We have a treasure of lessons learned from the front line. Problems ranging from implementing a surgical antibiotic prophylaxis program to team training to dealing with institutional review boards to using personal digital assistants (PDAs) for medication dosing to analysis of human factors aspects of heparin administration—one after another of the authors has confronted the everyday, down-in-the-trenches challenges of changing human behavior. Because these are preliminary reports, most do not present data that demonstrate the effect of their interventions. But they do spell out the hurdles that must be overcome.

Several themes emerge. Perhaps the most important is how difficult it is to get physician buy-in to a new practice. A number of authors present their experiences instituting change and the many important lessons learned, such as the value of involving physicians early in planning the new process and the increased acceptability of changes that save time and work. Yet, even when evidence of effectiveness is substantial and recommendations are clear and nonconflicting, huge amounts of effort are still required to persuade physicians to follow a new practice. One cannot help but wonder if there is not a better way to make progress. No industry outside of health care tolerates such idiosyncratic behavior.

A second theme is complexity. One cannot read the reports in this volume without being struck with the immense diversity of issues that must be confronted in building a safe culture. As J. Reason has noted in a personal communication, not only is health care more complex than other industries, its complexity is primarily one of relationships, which are infinitely more difficult to deal with than technology. Clearly, broad application of one of the most elementary human factors principles, simplification, could have an immense impact.

A third theme, seldom expressed, is the need for involvement and commitment by an organization's top leadership if the implementation of a new practice is to succeed. Setting the goals, bringing people on board, reducing resistance, and ensuring compliance are all leadership tasks. Without leadership support, even a brilliant plan executed by talented and dedicated staff will rarely succeed. Unfortunately, a number of these reports demonstrate the power of this principle in the negative.

Two areas deserve special attention: the application of information technology and the implementation of reporting systems. The papers that focus on information technology provide an intriguing corpus of work that begins to illuminate the problems in implementing these systems. The papers range from wider use of PDA, Web-based reporting and electronic medical records, to application issues with bar coding. As predicted by human factors experts, wider application of information technology can lead to dramatic reductions in errors, but at the price of creating opportunities for new types of errors that pose a significant threat to patient safety. These studies begin to define some of those threats and how to deal with them. They will be the primer for implementation efforts to come.

A major thrust of the first wave of new funding for patient safety was to expand the understanding of the role of error- and adverse event-reporting

Prologue

initiatives in improving safety. As a result, a number of papers describe experiences with reporting systems. These vary from a discussion of the Department of Defense system, which receives more than 64,000 reports a year, to another that reports on the systems for use in primary care, and to yet another that covers defects with medical devices. The themes, however, are strikingly familiar: reporting only works when it is safe, easy, and worthwhile. When there are concerns about confidentiality, especially if the threat of malpractice looms, physicians find reporting difficult. There remain significant barriers to the free collection and dissemination of data. While systems are succeeding even in the absence of adequate protection from discovery, there is little doubt that fear of litigation risk remains a powerful barrier. Difficulty in carrying out the act of reporting continues to surface as a barrier, particularly for harried nurses. All systems face major challenges in performing meaningful analyses and feeding back to reporters information they can use to improve safety.

In years to come, this period at the beginning of the 21st century will be regarded as a time of profound transition in health care. At the heart of that transition is creating the culture change we need to make patient care safe. The papers in this volume bear witness to the turmoil, the progress, and the hope and energy with which myriad individuals are working to make this happen.