

Prologue

The Shift toward Performance and Tools

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The articles in this volume provide a number of perspectives on performance and tools used to improve the safe delivery of health care. They include a wide variety of approaches that underscore the importance of teamwork and communication, the incorporation of human factors and ergonomic principles, and the use of various tools and best practices that steer us in the direction of more accurate, increasingly reliable, and safer health care delivery.

Historically, knowledge acquisition has been considered the essential ingredient for ensuring highly qualified clinicians and safe, high quality medical care. However, over time it has become abundantly clear that knowing the right thing to do and doing the right thing (i.e., performance) do not necessarily go hand-in-hand. The old adage of “see one, do one, teach one” tended to minimize the indispensable role of skilled performance and practice. While patients certainly want highly knowledgeable clinicians, they also expect their health systems to perform on par with the Nation’s better run organizations. Hence, there is an increasing focus on performance and the skilled use of tools in support of the optimal delivery of care.

As medicine has moved from the independent solo practitioner, low tech model involving long hospital stays to a high tech, complex, systems-based model reflecting increased use of specialists, shorter hospital stays, limited work hours, multiple hand-offs, and growing use of non-hospital settings, it has become ever more apparent that health care delivery in today’s environment requires excellent teamwork and communication skills. Evidence of this can be found in the volume’s first section. Here the authors address various approaches to teamwork and sets of tactics to enhance communication, empower teams, and make the best use of technology to enhance the safety of care.

The performance-based component of clinical competency is further illustrated in the set of papers that focus on simulation. Given advances in medical simulation technology, a lowering of associated costs, and a national spotlight on patient safety, the recent growth of simulation centers in schools of medicine and nursing, and its increasing migration as a training tool to other clinical settings, is indeed impressive. Just as other hazardous environments—e.g., aviation, military operations, disaster preparedness—have reduced the risk of achieving high levels of individual, team, and system performance using simulation, so too are health care practitioners finding a diverse range of application involving simulation. The authors in this section describe their efforts in using various forms of simulation to improve proficiency, reinforce behaviors, and identify both individual and systems issues in a range of environments and settings. The use of in situ techniques—i.e., bringing the simulation on site to the place of patient care—is quite evident. In brief, these authors do a nice job of demonstrating the potential of simulation as a valuable tool for improving patient safety without minimizing the challenges yet to be addressed.

Following the simulation section, the reader finds papers on human factors. Since World War II, the role of human factors in high performance and high stress environments has been recognized. Likewise in health care, it is essential that human capabilities and limitations be taken into account in the design of interactive systems of people, tools, technology, and work environments to ensure their safety, effectiveness, and ease of use. Far too often, the fit between practitioners and the systems within which they must function is less than optimal. In this section, the authors of five papers, representing different clinical settings, address a range of human factors issues and their impact on the safe delivery of health care. These papers address topics such as safe operating rooms of the future, transitions of care, the use of resilience engineering, and human factors impact in specific treatment environments and with selected technology.

Tools can be viewed as a way of extending and enhancing human and system performance. It is thus appropriate that the volume concludes with a series of articles focused on tools and best practices that support the safe delivery of health care. Some of the authors focus on clinical processes—such as anticoagulation management and the prevention of pulmonary emboli—while other authors focus on administrative processes such as leadership, discharge procedures, work process control methods, and standardization of critical laboratory values. Yet another paper describes the development and value of a widely-used, government-sponsored patient safety Web site.

Given the increasing complexity of medicine and the health care system in general, it is gratifying to witness the growing awareness and interest in the performance-based aspects of health care delivery as found in this volume. However, having access to a performance-enhancing technique or tool is not the same thing as using it effectively. There is a significant learning curve to many of the techniques described here. Proficiency takes practice. The authors in this volume are to be applauded for their willingness to master the learning curve.