

## PASSING THE TORCH: THE CHALLENGE OF HANDOFFS

By Kathleen Dracup, RN, DNSc, and Peter E. Morris, MD



*Do but take care to express yourself in a plain, easy manner, in well-chosen, significant and decent terms ... labouring as much as possible, not to leave them dark nor intricate, but clear and intelligible.*

—Miguel de Cervantes, Preface to *Don Quixote*

Every day, in every intensive care unit (ICU) in the country, care of patients is transferred from one professional to another. As remarkable as this process is when the complexity of today's severely ill patients is considered, our amazement should intensify when the exact number of transfers is taken into account.

Transfer of responsibility for patients occurs if patients are admitted to the ICU from another unit (eg, the emergency department, a step-down unit) or when patients leave the ICU for surgery or a procedure. Nurse-to-nurse transfers occur at every shift change or for coverage during breaks. Resident-to-resident transfers occur when the medical resident is changing service or has completed a shift. Physician-to-physician transfers occur regularly when the hospital employs hospitalists or intensivists. Interdisciplinary transfers occur when nurses report to physicians and vice versa, as often happens when patients move from one area to another in the hospital. Examples are legion.

Increasingly, transfers of patient care from one person to another are recognized as a point of vulnerability in the process of care; a time when valuable information can and often will be omitted or garbled, leaving critically ill patients at high risk for an error to occur. Generally speaking, the more caregivers who are involved in patient care in a serial fashion, the higher the risk to patients. But what exactly is a handoff and how has it become such a point of vulnerability?

*Handoff* is the term coined to describe the transfer of role and responsibility from one person to another in a process that might be physical (eg, in a relay race or a hockey game) or mental (eg, among air-traffic controllers passing a plane from one zone to another).<sup>1</sup> In these instances the handoff is practiced hundreds, sometimes thousands of times to make sure no seconds are lost in the transfer or no harm comes to those being transferred.

Given the vulnerability of critically ill patients and the increasing number of handoffs required to allow nursing and medical staff time away from the unit, it is amazing that attention to handoffs has only come within the past few years. It is a topic that was rarely discussed in the nursing literature, despite the fact that it happened 2 to 3 times every day for decades due to changes of shift, and it was almost *never* discussed in the medical literature.

Although the increasing use of hospitalists in intensive care has increased the number of physicians

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caring for patients in the ICU, and thereby increased the number of physician-to-physician handoffs required during a patient's hospitalization, it was the reduction of duty hours of medical residents by the Accreditation Council for Graduate Medical Education<sup>2</sup> that shone the brightest light on the topic. With the new restrictions, handoffs increased by almost 50% in some academic medical centers, and many of us began to appreciate the high potential for sins of omission and commission, thereby making handoffs an important focus for patient safety campaigns.

Understandably, the public might assume that handoffs are an intense focus of our education given their frequency and importance. But, of course, they would assume incorrectly. Most medical educators have paid little or no attention to communication in general or to handoffs in particular. In a survey of 125 US medical schools, only 8% taught students how to hand patients off in a formal didactic session; 86% did not.<sup>3</sup> Nursing programs have included communication theory in 1 or more of the prelicensure courses, but the communication that occurs at change of shift was rarely mentioned. Instead, handoffs have been “taught” by apprenticeship, with medical and nursing students watching their clinical preceptors give and receive handoffs.

These new and often impressionable caregivers have watched physicians and nurses give hurried reports in the middle of a noisy unit with multiple interruptions. They have watched preceptors give reports over the telephone or audiotape a change of shift report while looking at a blank wall. They have watched as mentors who were accepting responsibility for the care of patients have scribbled information they received on index cards or scraps of paper (or, in a jam, on scrubs or on the palms of hands).

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#### Are There Best Practices?

What makes a good handoff? Is it the level of detail provided? The organization of the report? The relationship between the person with the information and the person receiving it? The amount of distraction in the environment? The form it takes (ie, written, spoken, or both)? What do we know about this process?

Surprisingly little. Nurses have described high variability in the level of information given during change of shift reports,<sup>4,5</sup> whereas a number of recent publications from the Morbidity & Mortality (M & M) Rounds Web site, sponsored by the Agency for Healthcare Research and Quality,<sup>6</sup> have highlighted significant medical errors resulting from poor communication between physicians. As an aside, the M & M Web site provides “must reading” for all healthcare professionals working in acute care. (In fact, the cases are often both riveting and tragic, and could easily provide the story line for a new dramatic television series.) Many of the tragic errors described in these M & M rounds have occurred because of poor handoffs.<sup>7,8</sup>

The threats to patient safety because of poor handoffs have been highlighted by numerous organizations inside and outside the United States.<sup>9,10</sup> Best practices are highlighted by the Joint Commission on Accreditation of Healthcare Organizations, which made handoffs a focus of the National Patient Safety Goals that went into effect January 1, 2006. Written as a new requirement of Goal 2, “Improve the Effectiveness of Communication Among Caregivers,” the language of the goal requires all healthcare providers to “implement a standardized approach to handoff communications including an opportunity to ask and respond to questions.”<sup>10</sup> Expectations for this goal include interactive communications, up-to-date and accurate information, limited interruptions, a process for verification, and an opportunity to review any relevant historical data.<sup>10</sup>

This goal would suggest that the elements of an appropriate handoff are known, and, in fact, recent research on the topic of handoffs has led to some consensus about what constitutes best practices. One group of researchers examined the coordination and communication strategies used in professions and industries that have the same potential for high consequences for failure as we do in

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healthcare.<sup>11</sup> The researchers observed handoffs at space shuttle mission control at the NASA Johnson Space Center, 2 Canadian nuclear power plants, a railroad dispatch center in the United States, and an ambulance dispatch center in Toronto. All of these settings required error-free operations and had developed specific strategies to achieve this goal. The strategies that they all shared were as follows:

- Face-to-face verbal update with interactive questioning
- Limited interruptions
- Topics initiated by the person assuming responsibility as well as the person being replaced
- Readback by the incoming person to ensure that information was accurately received
- Current status and historical data assessed by the incoming person
- Information presented in the same order every time
- Written summary of activities that occurred during the shift

In addition, all of the settings employed the social norm that the outgoing person maintained responsibility for the position until the handoff update was complete.

### What We Can Start Doing Now

The elements of a safe handoff are known. Although some of the elements will be challenging because of our sometimes chaotic physical environments and the lack of time clinicians often have, it is critical that we adopt practices used religiously in other high-risk settings. It is time for educators to use this information to teach students what they need to conduct safe handoffs before they come to the clinical area. It is also time for hospitals to agree on a standardized format for handoffs.

The challenge of structuring the information for handoffs partially can be met by the electronic medical record system, a system that is being adopted increasingly by hospitals across the globe. This system can facilitate both the process and the structure of handoffs and ensure that an appropriate amount of

information is transmitted each time. It also can ensure that critical information about the process of care is consistent and accessible to all healthcare professionals caring for patients.

However, computers are not the answer. Ultimately, the process depends on the humans who are passing the torch. We can do it better.

The statements and opinions contained in this editorial are solely those of the coeditors.

### FINANCIAL DISCLOSURES

None reported.

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