Communication breakdowns are one of the leading causes of medical errors. In a root cause analysis of over 4,000 adverse events, the Joint Commission reported that 70% of sentinel events were caused by communication breakdowns. In a typical teaching hospital, there are an estimated 4,000 patient handoffs every day, or 1.6 million per year. The frequency of these handoffs increases the chance of losing a critical piece of information during the transition. In fact, poor quality and incomplete handoffs play a role in 80% of preventable adverse events. The Joint Commission responded to these statistics by requiring healthcare organizations to implement a standardized approach to handoff communications, including a face-to-face report that allows an opportunity to ask and respond to questions, minimized interruptions, and a verification process.

**Patient handoffs**

Handoffs involve the transfer of essential information when the responsibility for care of the patient shifts from one healthcare provider to another. When done effectively, there should be a seamless transition of critical information that results in continuity of patient care. As a result of the evolution and specialization of healthcare, patients are more likely to encounter a greater number of handoffs than in the past due to the increased number of clinicians involved in care.

During handoff, critical information regarding the patient’s health is reported to the receiving provider. The complexity and type of information, communication methods, and variety of providers in charge of a patient are factors that influence handoff efficiency, and as a result, impact patient safety. According to the Institute of Medicine, safety failures often
begin as a result of an inadequate handoff.\textsuperscript{5} Time constraints require nurses to share essential information quickly, but the way this information is communicated varies. Information that one nurse may view as inconsequential may be interpreted differently by another nurse. Using a standardized format ensures that the information is consistently communicated.

\textbf{Perioperative handoffs} 
In certain hospital settings, handoffs may present challenges. The OR is one of the most complex work environments in the healthcare setting with an average of 4.8 handoffs per case during the intraoperative phase alone.\textsuperscript{6} Even during a simple surgical procedure, the OR nursing staff may handoff the care of the patient 2.8 times if a perioperative nurse goes on break during the procedure.\textsuperscript{6} Longer and more complicated cases may have up to seven handoffs once breaks and shift changes are factored in.\textsuperscript{6}

Throughout the entire perioperative process (preoperative, intraoperative, and postoperative), the surgical patient can be more susceptible to handoff errors due to the number of checkpoints and transitions that occur. Each of the perioperative phases offer various factors and environmental distractions that can increase the potential for errors. However, handoffs don’t have to be viewed as a risk factor; an effective handoff provides an opportunity for a fresh pair of eyes to detect potential errors, collaborate on the plan of care, and improve the quality of patient care.

\textbf{Solutions and strategies} 
Handoffs are a fundamental element of clinical practice, yet there’s little research available regarding what constitutes best practice. Communication during a handoff from one provider to another shouldn’t be an abrupt summary concluding one healthcare provider’s responsibility, but rather a coordinated effort among all professionals involved in the changeover of patient care.\textsuperscript{7}

\textbf{Standardized handoff tools.} The Joint Commission requires that a standardized process be instituted to help guide the transfer of critical information. However, the Joint Commission doesn’t state which process must be used, leaving organizations free to choose or develop their own. To that end, there are a variety of protocols and strategies from other industries that can be adapted for use in healthcare. Many of them include the use of simple phonetic and numeric clarifications to help ensure that information is being conveyed accurately. AORN offers a tool kit that includes provider resources for effective handoff communication in the perioperative environment.\textsuperscript{8} Examples of a standardized framework include the SBAR (Situation, Background, Assessment, Recommendations) communication technique and the I PASS the BATON tool (see “I PASS the BATON” mnemonic for handoffs and healthcare transitions).

In addition to the standardized format, the handoff must involve face-to-face communication (with both or all parties taking responsibility for ensuring accurate communication), verbal and written communication, and adequate time to ensure accuracy of communication.\textsuperscript{9} An additional tool available to assist with this requirement is the “talk back” method, which is similar to the “teach back” methodology used for patient education. Using the “talk back” method, the receiving party repeats the information back, thereby confirming its accuracy. This positive feedback mechanism facilitates two-way communication and ensures nothing is lost in the transfer of care.\textsuperscript{10}

\textbf{Electronic health record (EHR).} Technology now plays a part in standardizing handoff communication with the expansion of EHRs. In spite of the criticism that information technology may be dehumanizing, it has the ability to enhance communication by allowing greater efficiency, accountability, and data completeness. This improved communication and efficiency allows nurses to spend more time in patient care activities.\textsuperscript{11} Information technology, through the use of EHRs, is able to pull or extract data from one entry into other fields. This feature allows the nurse to populate or document once and create a standardized report sheet or tool from the preselected and relevant data already embedded in the record.\textsuperscript{11}

Healthcare professionals can learn from teams outside of healthcare. For example, Formula 1 racing teams’ approach for handoffs involves proactive learning with briefings and checklists to prevent errors, active management using technology to transfer information, and learning from the storage and analysis of electronic data records.\textsuperscript{12} One hospital applied these principles and significantly reduced the number of omissions of information and technical errors in patients transferred from the OR to the
Prior to implementation at this facility, the perioperative nurse and anesthesia provider gave separate reports, resulting in gaps and misinterpretation of information. Now the entire team (surgeon, anesthesia provider, and perioperative and ICU nurses) are present during the handoff to allow questions to be answered in real time.12

**Barriers**

The Joint Commission’s goal seems a simple one, however, it’s challenging to develop and implement effective strategies for standardized handoffs across various healthcare settings given the complexity of healthcare delivery. Culture influences the effectiveness of all communication. Nurses must recognize that communication isn’t a single function but rather a means to achieve multiple functions in distributed work. Overconfidence and complacency are common issues and should be discouraged by setting standards of communication and developing individual and organizational communication skills.

Standardization can enhance handoffs by providing an opportunity to restructure how they’re conducted.13 In high-reliability organizations outside of healthcare, hand-offs occur the same way every time. However in healthcare, providers may do it differently every time, not because they don’t care, but because they believe that their way works. It might work, but the inconsistencies in care across the organization can create a risk to patient safety.

**The role of nursing leaders**

It’s important to remember that checklists, protocols (SBAR, I PASS the BATON), and the use of EHRs only guard against unintentional slips or errors. Leaders must be aware that protocols and checklists do not address other risk factors, such as professional disrespect or shortcuts and workarounds.14 Nurse leaders play a critical role in implementing processes that help to clearly define the transfer of responsibility from one healthcare provider to another, standardize the communication process, and allow for an interactive exchange between the parties involved. The promotion of a standardized reporting tool, such as SBAR, must come from the leadership team. Without buy-in and monitoring from key leaders, nonadherence, rather than lack of knowledge, becomes the greatest barrier to effective handoffs.

Changing communication processes requires a re-learning process. Simulation has been shown to be an effective learning tool to improve the quality of handoff communication and foster team building.15 Historically, the focus has been on communication styles rather than the relationship aspect of handoffs. However, to communicate effectively, providers also need to have a working relationship that’s built on

---

**“I PASS the BATON” mnemonic for handoffs and healthcare transitions**

<table>
<thead>
<tr>
<th>I</th>
<th>Introduction</th>
<th>Introduce yourself and your role/job (include patient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Patient</td>
<td>Name, identifiers, age, sex, and location</td>
</tr>
<tr>
<td>A</td>
<td>Assessment</td>
<td>Presenting chief complaint, vital signs and symptoms, and diagnosis</td>
</tr>
<tr>
<td>S</td>
<td>Situation</td>
<td>Current status, circumstances, including code status, level of (un)certainty, recent changes, response to treatment</td>
</tr>
<tr>
<td>S</td>
<td>Safety Concerns</td>
<td>Critical lab values/reports, socioeconomic factors, allergies, alerts (falls, isolation)</td>
</tr>
<tr>
<td>THE</td>
<td>Background</td>
<td>Comorbidities, previous episodes, current medications, family history</td>
</tr>
<tr>
<td>A</td>
<td>Actions</td>
<td>What actions were taken or are required, and provide brief rationale</td>
</tr>
<tr>
<td>T</td>
<td>Timing</td>
<td>Level of urgency and explicit timing, prioritization of actions</td>
</tr>
<tr>
<td>O</td>
<td>Ownership</td>
<td>Who is responsible (nurse/physician/team) including patient/family responsibilities</td>
</tr>
<tr>
<td>N</td>
<td>Next</td>
<td>What will happen next? Anticipated changes? What’s the plan? Contingency plans?</td>
</tr>
</tbody>
</table>


Nurse leaders need to empower nurses, physicians, and staff to be proactive with communication and collaboration to facilitate positive patient outcomes throughout the healthcare continuum. OR

REFERENCES


Kim K. Wheeler is an OR clinical educator at the Lahey Clinic, Burlington, Mass.

The author has disclosed that she has no financial relationships related to this article.

DOI:10.1097/01.ORN.0000438472.00326.1a