Handoffs in the Postoperative Anesthesia Care Unit: Use of a Checklist for Transfer of Care

Holly-May Robins, CRNA, DNAP, MBA
Feng Dai, MS, PhD

Information loss can occur during all phases of care. The transfer of care (handoff) from the operating room to the postoperative anesthesia care unit (PACU) is an especially susceptible time. Information loss can lead to an increase in medication errors, sentinel events, and poor patient outcomes. High-reliability organizations, such as the aviation industry, use checklists to decrease errors and improve safety. As the healthcare industry becomes more complex, it is in the interest of patient safety to develop, validate, and use similar objective procedures as those used in high-reliability organizations. The purpose of this research was to determine if the utilization of a formulated checklist with objective measures during the handoff from the operating room to the PACU decreased information loss, the need for information clarification, and anesthesia providers' time spent in transfer of care, with improved adequacy of the handoff. Specific metrics were monitored before and after implementation to assess for information loss, information clarification, anesthesia providers' time, and to rate the adequacy of the report.

Keywords: Checklist, handoff, information loss.

Healthcare, especially during the perioperative period, has become complex. This increasing complexity helps to create additional opportunities for errors to be made. The risks associated with administering an anesthetic do not end when the patient emerges from anesthesia; the potential for complications continues during the transfer of care from the operating room to the postoperative anesthesia care unit (PACU). On arrival to the PACU, a transfer of care occurs between the anesthesia provider and the PACU registered nurse (RN). The handoff is usually completed at the patient's bedside, with the anesthesia provider verbally reporting to the PACU RN. Important details related to the patient's medical history, intraoperative events, and postoperative plan are detailed in the discussion. The PACU RN then assumes care of the patient. This information, exchanged between providers, is vulnerable to content loss and miscommunication. The Joint Commission estimates that 80% of medical errors are due to communication failure during the handoff process.[1] Handoff communication is defined as the "transfer of information with authority and responsibility during transitions in care across the continuum for the purpose of ensuring the continuity and safety of the patient's care."[2] A handoff includes the exchange of pertinent medical information and occurs throughout all phases of care, including transfers from one institution to another.[3] During a handoff, information is at risk of degradation and miscommunication.[4] Information loss and misunderstanding are contributing factors linked to an increase in sentinel events, medication errors, and poor patient outcomes.[5] Communication errors have also been associated with a decrease in patient satisfaction and increased length of hospital stay.[6] The Joint Commission has recommended improvements to the handoff process as a national goal to improve patient safety.[7]

To improve the handoff process, institutions have made efforts to decrease the number of handoffs for each patient. Limiting the number of handoffs is a difficult task in the hospital setting, however. Nursing shifts, operating room schedules, and resident work hours require multiple patient handoffs. The Accreditation Council for Graduate Medical Education guidelines on resident physicians' duty hours have required institutions to limit the work hours of residents.[8] The effort to decrease errors associated with fatigue and sleep deprivation have resulted in an increased number of handoffs. This is especially evident in the operating room, where the anesthesia provider who starts the case may not be the same provider who finishes the case and transports the patient to the PACU. Information is particularly vulnerable to degradation during frequent handoffs, as is often seen in these cases of multiple providers.

In addition to the problem of multiple providers, communication styles can also alter or affect the information exchanged. Communication styles vary among providers and affect how the information is exchanged. The tone, volume, and speed of the communication can affect the handoff. The provider may not deliver all the pertinent information, or the receiver may misunderstand the message.[9] A lack of standardization, coupled with varied communication styles, further compounds the issue.

The environment in which the handoff exchange occurs plays an important role in the process. Distractions and ex-