Communication: Making Patient Transitions Safer with Standardized Handoffs

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Sentinel Event Case Scenario

The clinical deterioration of a 20 month old with hypoplastic left heart syndrome status post a Fontan operation was not recognized due to miscommunication. The cardiovascular surgery fellow reported that the Fontan was fenestrated (a physiology that allows some right to left shunting). Overnight the patient had oxygen saturations in the 80s that were not properly recognized as a sign of deterioration. The Fontan was not fenestrated and the child should have had oxygen saturations in the 90s. It was not until the surgery attending rounded on the patient in the morning that appropriate therapy was implemented.

The Advocacy Role of JCAHO

JCAHO (The Joint Commission on Accreditation of Healthcare Organizations) collects information on sentinel events. Poor communication was the most common root cause of sentinel events across medical disciplines from 1995 to 2006. More specifically, nearly 70% of reported sentinel events were caused by communication problems. At “least half of the communication breakdowns occurred during hand-offs.” Based on this data, JCAHO Set the following safety goals for 2008 which are listed below verbatim:

JCAHO 2008 Patient Safety Goals

Requirement 2E
Implement a standardized approach to “hand-off” communications, including an opportunity to ask and respond to questions.

Rationale for Requirement 2E
The primary objective of a “hand off” is to provide accurate information about a [patient’s] care, treatment, and services, current condition and any recent or anticipated changes. The information communicated during a hand off must be accurate in order to meet [patient] safety goals. In health care there are numerous types of [patient] hand offs, including but not limited to nursing shift changes, physicians transferring complete responsibility for a [patient], physicians transferring on-call responsibility, temporary responsibility for staff leaving the unit for a short time, anesthesiologist report to post-anesthesia recovery room nurse, nursing and physician hand off from the emergency department to inpatient units, different hospitals, nursing homes and home health care, critical laboratory and radiology results sent to physician offices.

Implementation Expectations for Requirement 2E
1. The organization’s process for effective “hand off” communication includes: Interactive communications allowing for the opportunity for questioning between the giver and receiver of [patient] information.

2. The organization’s process for effective “hand off” communication includes: Up-to-date information regarding the [patient’s] care, treatment and services, condition and any recent or anticipated changes.

3. The organization’s process for effective “hand off” communication includes: A process for verification of the received information, including repeat-back or read-back, as appropriate.

4. The organization’s process for effective “hand off” communication includes: An opportunity for the receiver of the hand off information to review relevant [patient] historical data, which may include previous care, treatment and services.

5. Interruptions during hand offs are limited to minimize the possibility that information would fail to be conveyed or would be forgotten.

**Effective Handoffs**

A handoff in care is defined as the transfer of accountability and responsibility of a patient from one health care provider to another. Handoffs can also serve educational and team-building roles. Accurate and up to date information is needed to promptly recognize any change in patient condition and to improve problem solving and decision making.

Handoffs are inherently risky in nature especially in pediatric patients. Accurate and complete information needs to be communicated in the presence of time constraints. Also, children have a reduced capacity to advocate for themselves and provide information regarding their medical history. Furthermore, parents may not always be present to provide this information.

The communication patterns from four high risk industrial settings were analyzed. These settings included space shuttle mission control, nuclear power, railroad dispatching, and ambulance dispatching. The handoffs were (1) interactive (2) verbal and (3) face-to-face. Face to face communication has several advantages. Body language and facial expressions often provide information regarding the level of concern regarding a patient’s medical problems. Several studies have shown that a combination of verbal and written communication are better than either alone.

Standardized information that all team members agree is essential should be communicated during each handoff in a routine sequence. Reducing the variability of the handoff process results in fewer errors. An analysis of errors in 2-person flight crews noted that homogeneity of speech patterns characterized low-error rate crews, while heterogeneous speech patterns characterized high-error crews.

Distractions during the handoff must be eliminated or minimized. Distractions have a significant impact on the memory of the clinician involved. The opportunity to ask questions is an essential part of an effective handoff. This ensures that the listener really understands and gives the opportunity to get clarification or voice concerns.

**Barriers to Effective Communication**

The effectiveness of a handoff can be impaired by the relationship between the individuals involved in the handoff. Flattening of the traditional healthcare hierarchy promotes a culture where individuals feel comfortable asking questions and voicing concerns. Disciplines have different perspectives on the appropriateness of a junior team member questioning the decisions of senior team members. A survey of
1,033 doctors, nurses, fellows, and residents working in operating rooms and intensive care units revealed which disciplines supported flat hierarchies. The rates were as follows: Cockpit crew members and intensive care staff (94%) vs. consultant surgeons (55%).

The use of intermediaries should be limited because increasing the number of times a handoff is given can increase the chance that key pieces of information are distorted or corrupted. The handoff process should take place between the individuals who are the primary health care providers of the patient.

Doctors and nurses communicate differently. Nurses are very narrative and broad in their descriptions, whereas physicians are taught to be concise and get to the point quickly. SBAR can help bridge the gap in these differences in communication styles.

**The SBAR Method for Handoffs**

SBAR is a mnemonic that stands for Situation, Background, Assessment, and Response. SBAR was originally developed by the United States Navy and adapted for use in the medical setting by Kaiser Permanente. Many leading healthcare institutions support the use of SBAR. These include: Kaiser Permanente, Institute for Healthcare Improvement, and JCAHO.

There is some evidence that SBAR improves patient safety. St. Joseph Medical Center implemented the use of SBAR communication in 2005. Adverse events were measured using the Global Trigger Tool (a list of triggers related to general care, surgical care, intensive care, emergency department, medication, laboratory, and perinatal care that prompt the reviewer to look further for evidence of an adverse events). The rate of events was reduced from a baseline of 89.9 per 1,000 patient days in October 2004 to 39.96 per 1,000 patient days in FY 2005. Adverse drug events were reduced from 29.97 per 1,000 patient days to 17.64 per 1,000 patient days.

**Implementing a Process for Standardized Handoffs**

Implementing a process for Standardized Handoffs is a very large scope endeavor. Success depends on the cooperation of multiple departments and providers including anesthesiologists, nurses, surgeons, intensivists, neonatologists, clerks, and emergency medicine physicians. Hospital leadership (physician-in-chief and hospital executive level) support is key in motivating stakeholders that may require a significant change in culture to actively participate in the handoff. In order to avoid a disincentive to participating in a quality handoff, the anesthesiology and surgery department leadership must allot extra time for transfer of patients between hospital units.

A team should be formed to implement the standardized handoff initiative. The team should include all stakeholders (division chiefs, front line attendings, fellows, residents, physician assistants, nurse practitioners, registered nurses, and unit clerks) that will be affected by the change in the handoff process. With the goal in mind of standardizing the information, the team should work together to design a handoff checklist that includes the key information that is agreed upon. Both handwritten anesthetic records and electronic anesthetic records should be updated to include the handoff communication information.

Measuring the success of improving the handoff process can be a challenge because it involves assessing the quality of communication, which can be very subjective. Success and progress can be measured using pre-implementation and post-implementation surveys to assess the satisfaction felt by all members of the
team with the handoff process. The survey should collect information regarding (1) the presence of all
needed team members (2) the use of a standardized format (3) the absence of distractions (4) the
opportunity to ask questions (5) the accuracy of information received and (6) overall satisfaction with
information received.

Summary

Poor communication during patient handoffs is a common root cause of sentinel events. JCAHO set a
safety goal to “Implement a standardized approach to “hand-off” communications, including an
opportunity to ask and respond to questions.” Effective handoffs include both a verbal and written
component. They are free on interruptions, are given in a standardized format, and allow the opportunity
to answer questions. St. Joseph Medical Center was able to demonstrate a reduction of adverse events
after successful implementation of SBAR communication. Implementation of a standardized handoff
process is a large scope initiative that requires cooperation between multiple departments. All
stakeholders should be involved in the development of a standardized checklist of what information
should be communicated.
References