

Communication and Coordination in Cardiac Surgery Care Using Best Practices to Achieve Quality Outcomes

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1. Purpose and Aims :

The aim of this study is to determine if **Situation- Background-Assessment-Recommendation (SBAR)**, a structured communication tool used during multidisciplinary rounds, unit hand-offs and shift reports contribute to improvement in quality indicator(s) such as length of stay (LOS). This quality improvement research project was conducted with adult cardiac surgery patients in the critical care unit and step-down floor.

2. Background:

An integrated approach to care which includes quality communication and coordination among multiple disciplines is needed to be effective (Narasimham et. al., 2006). A standardized approach to information sharing is needed to ensure that patient information is consistently and accurately imparted. Communication breakdowns between health care providers have been identified as a central feature in episodes of avoidable patient harm. Quality improvement in cardiac care has made considerable progress over the past 30 years (Grover, et. al, 1994). Implementation of a comprehensive best practices program in the last several years has brought evidence-based practices into focus and use at John Muir Medical Center - Concord Campus.

3. Methods and Tools:

A Plan, Do Study and Act (PDSA) methodology was utilized for this quality improvement research. To assess perception and knowledge of SBAR communication, multidisciplinary rounds (MDRs) and use of the established care trail, a Likert-scale questionnaire was given to nursing staff of B3 (ICU) and A-2 (the post surgical floor unit). Quality indicators were defined from data points in the Society of Thoracic Surgeons (STS) surgical database. Informal presentation was made to the quality nurse councils for each unit and staff meetings on A-2. Observational-audited experiences of handoffs and coordinated multidisciplinary rounds were made. In most examples, descriptive statistics has been used to illustrate the basic features of the data collected during this study.

4. Results:

There were 32 respondents to the questionnaire; this represents ~30% of the staff for A2 (Floor) and B3 (critical care). More than half (59%) were from critical care and worked a day shift. The average numbers of years as a nurse was 13.8 and 10 yrs spent at JMH. The nurse perceptions were as follows: 90% admit to understanding the purpose and goals for the care trail

used on cardiac surgery patients. As far as typical behaviors related to SBAR, care trails and rounding, the nurse's responses showed: 47% indicated they always or usually use SBAR communication when giving shift report, while 31% admit to never using at that time.

In 2006 the average length of stay (LOS) for a patient having CABG surgery was 10.3 days. Median 7.0 the LOS for Other Cab+ valve, and valve procedures was anywhere from 11-15 days. In q1 2007, the avg LOS for CABG dropped slightly but then rebounded in Q1 2007 due to several major outliers. Rounder and observational experiences were conducted on all CV surgery patients. Overall pre-op risk of mortality for CABG and CABG valve patients in Q2007 was 3.5% higher than a 2.6% in 2006.

5. Discussion/ Implications/Conclusion;

Evidence shows safe, effective clinical care depends on reliable, sound communication between caregivers. Assessment of perception and knowledge demonstrated that the majority of those surveyed believe and attest to the importance and effectiveness of SBAR, multidisciplinary rounds and use of a care trail for patient outcomes.

Education and SBAR communication tools use were introduced early in 2007, as part of an organizational-wide patient safety initiative policy. It is felt and substantiated by the data that more complicated surgeries have more variance from the care trail thus lengthening stays. Care trail variance was found to be too resource intensive to monitor for this study.

Approximately a third of the desired observational experiences were made. Observational experiences could be seen as subjective and therefore not entirely valid. No observational experience of transfer between the units was made. Although during the same time antidotal evidence suggested important clinical information was not always communicated effectively on transfers between units. Further examination of this aspect of hand-offs should be conducted. At the very least better planning and coordination between units may help to improve that process.

Barriers and limitations of the design for this inquiry were evident. Time and census fluctuation and the opportunity to make this a nurse-driven process are crucial barriers. An informal approach was attempted given the organizational education and policy building that had already been started. The apparent gap between perception (as evidence by the questionnaire results) and the observational auditing of actual behavior was obvious. The questionnaire surveys revealed that staff has strong perceptions and knowledge regarding SBAR, multidisciplinary rounds and care trails. None of the observational experience revealed a structured SBAR method for communication is used for rounding or handoffs. Information that could be regarded as describing the situation, background and assessment or further recommendations could be inferred from these same interactions.

Clearly, more education, auditing of actual performance and reporting of data consistently is needed. The ground work has now been laid. Next step is to report, stay on the continuous quality cycle - reassess and begin again.

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