Implementation of a Time-out Structured Pre-Surgical Hand-off Between Pre-Anesthesia Nurses and Certified Registered Nurse Anesthetists

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Introduction: Incomplete hand-off between healthcare providers is often cited as a contributing factor to patient safety incidents. This abstract describes a QI process for implementing a structured hand-off between pre-anesthesia RNs and certified registered nurse anesthetists (CRNAs).

Identification of the problem: A pre-survey of perioperative direct care staff and leadership identified concerns with inadequate hand-off. Staff reported 302 unreported near misses (potential safety events that were stopped prior to affecting patient safety) in six months related to inadequate hand-off. Five reported safety events could have been prevented by hand-off. Twelve weeks pre-implementation, a mean of 19.7 (SD = 2.04) cases/week did not meet The Joint Commission requirements for provider history and physical documentation which could lead to wrong-site surgery.

QI question/Purpose of the study: In patients going to the operating room or having anesthesia, does performing a collaboratively structured hand-off between the pre-anesthesia RN, patient, and CRNA compared to non-collaborative staff assessment of patient decrease the number of reported safety events that hand-off could have prevented divided by the number of cases meeting project inclusion criteria by 50% in 12 weeks?

Methods: An electronically documented structured hand-off using a checklist format was developed based on pre-survey results, stakeholder input, safety event review, and chart review. Outcome measures were developed using expert opinion. Outcome measures were evaluated using a post-survey, chart review, and safety event review.

Outcomes/Results: Hand-off was completed in 73.63% of cases. Unreported near misses related to hand-off decreased by 50%. Safety events that hand-off could have prevented went from 0.57% to 0%. Interdisciplinary satisfaction with communication increased by 28.17%. The hand-off led to an 83.88% mean significant decrease in weekly cases failing to meet history and physical requirements from Pre: 19.7 (SD= 3.42) to Post: 3.17 (SD= 2.04), ($t(18) = -14.36$, $p = <.000$).

Discussion: During the project implementation, the site had a major educational intervention on the need to report near misses that may have skewed one of the outcome measures.

Conclusion: The project improved interdisciplinary communication and decreased the risk of wrong-site surgery.

Implications for perianesthesia nurses and future research: A structured pre-anesthesia hand-off between caretakers should become the standard of care. Valid and reliable empirical outcomes related to hand-off need to be developed by nursing researchers.