Certified Registered Nurse Anesthetist to Post-Anesthesia Care Unit Registered Nurse Handoff Using a Standardized Screen

Lindsey Hayde, DNP, CRNA, CCRN, The University of Scranton, Scranton, PA

INTRODUCTION

Communication in healthcare is critical. One particular area where communication is key is during transitions of care specifically from anesthesia providers such as Certified Registered Nurse Anesthetists (CRNAs) to Post-Anesthesia Care Unit Registered Nurses (PACU RNs). CRNA to PACU handoffs lack standardization and are extremely varied in their content and quality. Failures in communication in post-operative handoffs between CRNAs and PACU RNs have the potential to contribute to adverse events that have serious consequences for patients.

PROBLEM

The lack of standardized handoffs between CRNAs and PACU RNs at a large health system in eastern PA often led to loss of vital information and miscommunication. Staff members utilized a handwritten handoff form when a computerized handoff screen existed. However, this handoff screen was underutilized because it was not user friendly, confusing to read, and unorganized.

Based on the author's personal clinical experience and an extensive review of the literature the need for a quality improvement project that created a standardized, computerized handoff screen for this health care system was identified.

PURPOSE OF THE PROJECT

To conduct a quality improvement project that optimized the current underutilized, computerized handoff screen by creating a standardized, handoff screen for CRNAs and PACU RNs.
Goals of the project included:

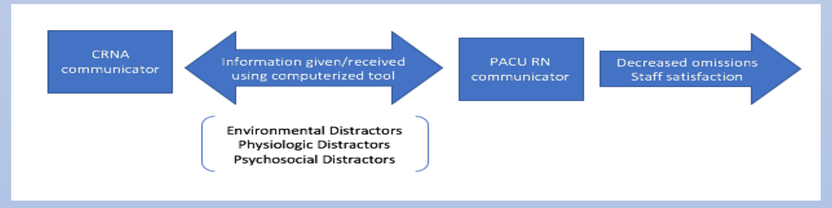
- Decreased handoff time
- Increased CRNA and PACU RN staff satisfaction

REVIEW OF THE LITERATURE

- Handoffs were more effective when checklists were utilized
- Decreases in patient incident reports when standardized communication tools were utilized in handoffs
- Anesthesia providers who used checklists had lower rates of callbacks and better information exchange
- Using a perioperative handoff protocol improves communication and increases nurse satisfaction
- Communication failures are a significant cause of preventable medical errors
- Electronic checklists during handoffs increased staff satisfaction and increased information retention and relay
- Anesthesia to PACU specific handoff tools are lacking
- CRNAs are aware that there is a need for standardized, computerized handoffs.

THEORETICAL FRAMEWORK

Barnlund's (2017) Transactional Model of Communication



The transactional model of communication encompasses the exchange of messages between a sender and a receiver where each party takes turns to send and receive messages. In this model of communication the sender and the receiver's roles are frequently reversed throughout the entire communication process.

This model was specifically applied to the CRNA to PACU RN handoff. CRNAs and PACU RNs primarily utilize this communication exchange. When using this model, the handoff communication process functions on information given and received by both the CRNA and PACU RN communicators. Successful information exchange leads to increased staff satisfaction and decreased information loss in the handoff process.

Email: lindseyhayde@gmail.com

METHODS

- Pre and post-implementation satisfaction surveys administered to CRNAs and PACU RNs
- A usability survey administered to PACU RNs
- Focus groups to identify new handoff screen elements
- Team meetings with information technology staff
- Data downloads to identify average handoff times

RESULTS

- Survey results were obtained from two sites of a large health system in eastern PA
- 36 CRNAs pre-intervention, 33 CRNAs post-intervention
- 27 PACU RNs pre-intervention, 26 PACU RNs post-intervention
- PACU RN's usability survey indicated the screen was easy to use (3.42/4.00)
- Increased staff satisfaction ($t = 2.86$, $p = .006$)
- Handoff time decreased from 7.39 minutes to 7.19 minutes

DISCUSSION

This project utilized pre and post-implementation surveys that evaluated CRNA and PACU RN staff satisfaction with handoff procedures. Pre-implementation surveys identified key elements that staff members wanted changed in the new handoff screen. These suggestions were presented at focus group meetings, which then narrowed down essential handoff screen changes and improvements and created a new handoff screen layout.

The pre-implementation surveys for both the CRNAs and PACU RNs discovered that providers in both specialties desired changes and improvements in their handoff screen.

In addition to the post-implementation PACU RN satisfaction survey, the PACU RNs were asked to complete a usability evaluation tool. In this survey PACU RNs felt confident using the new handoff screen and found it very easy to use.

CRNA and PACU RN satisfaction increased with the new screen. Handoff times post-implementation showed a decrease in average handoff times.

Changing handoff screens to meet the needs of CRNAs and PACU RNs is feasible and can potentially improve quality of care.