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## CRNA to CVICU RN: Implementation of a Standardized Patient Handoff Checklist for Post-Surgical Heart Patients

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### **Introduction of the Problem**

Stakeholders identified an issue with the transfer of care from the certified registered nurse anesthetists (CRNAs) and the cardiovascular intensive care unit (CVICU) registered nurses (RNs) at a 294- bed hospital in Illinois. The inconsistent and incomplete report process that was previously done caused the development and utilization of a standardized-handoff checklist for post-heart surgery patients.

The scope of change that was implemented for the facility included a standardized handoff tool to improve the transfer process. The previous handoff process between CRNAs and CVICU RNs resulted in report beginning as the patient was placed on the monitors. The lack of adequate communication, eye contact, and a varying degree of information that was relayed resulted in employee dissatisfaction and missed information, and wrong clinical information gathered. The design of the handoff tool was created with the input of a CRNA, two CVICU RNs, and the ICU clinical educator to create a concise and complete report.

### **Literature Review**

A literature review was conducted to evaluate and examine the variables that influence the handoff process and the research on different strategies to decrease missed communication in the TOC of a patient. The literature shows that the transfer process was improved when a standardized form or checklist is incorporated into practice (Bruno & Guimon, 2017; Feng & Robin, 2015; Petrovic et al., 2015; Salzwedel et al., 2013). The literature review addressed different elements affecting the TOC process: effective communication between providers and the environment are two significant factors. Bruno & Guimon (2017) also found that ineffective handoffs were directly related to poor communication. Contributing factors of poor

communication with patient handoffs are multitasking, interruptions, and noise during the report (Bruno & Guimon, 2017).

Ineffective communication during the critical postoperative phase of the TOC process results in extended hospital stays, increased healthcare costs, patient dissatisfaction, and death (Rose, 2016). In all the studies reviewed, poor communication is perhaps the main culprit in ineffective postoperative patient handoffs. The literature review has found checklists added along with verbal communication to exhibit positive results when implemented in the clinical setting (Bruno & Guimon, 2017; Feng & Robin, 2015; Petrovic et al., 2015; Salzwedel et al., 2013). Continued education and implementation of a standardized handoff form would significantly reduce the incidence of omitted information associated with the verbal report.

### **Project Methods**

The purpose of this project was to implement a standardized patient handoff checklist. The initial implementation of the project was to educate the anesthesia providers and the CVICU nurses that are directly involved with the TOC of a post-heart surgery patient on the importance and use of a standardized patient handoff checklist. The standardized patient handoff checklist for post-heart surgery patients included pertinent patient information to make the report complete and efficient. The information in the checklist included vital details of the patient, issues encountered, problems to look out for, fluid and blood products administered, current medication drips, and the ability of the staff to ask any questions at the end. This non-experimental quality improvement project obtained exempt Institutional Review Board (IRB) status from both, Belleville Memorial Hospital and Southern Illinois University of Edwardsville.

The setting for this project was a CVICU at a 294-bed hospital in Illinois, where there was a lack of a standardization report for post-heart surgery patients between cardiac CRNAs and

CVICU RNs. The standardized handoff checklist for this project was intended to for any transfer from the operating room to the CVICU on all post-heart patients. With the support of the administrative stakeholders and two CVICU RNs, a standardized patient handoff checklist was created and revised until it met the criteria for those involved. The sample population included eight cardiac anesthesia providers and ten CVICU nurses that are involved in the care of post-surgical cardiac patients. After face-to-face education over one week on the observation audit and the standardized patient handoff checklist was complete, the implementation of the standardized handoff checklist between cardiac CRNAs and CVICU RNS for post-heart patients occurred over a total of five weeks.

### **Evaluation**

The evaluation of the project was completed by the collection of the pre-implementation and post-implementation surveys. The pre-evaluation surveys and post-evaluation surveys were compared and input into an Excel spreadsheet. The comparison of the completeness, efficiency, missed information, quietness, and employee satisfaction is just a few of the categories that were compared during the evaluation process from the pre- and post-implementation surveys.

Pre-implementation surveys were distributed and voluntarily completed by the participants after formal education about the standardized patient handoff checklist, the observation audit form, and the survey was done through a PowerPoint by the author. The pre-implementation survey consisted of a ten-question survey used to evaluate the effectiveness, efficiency, and satisfaction of the current handoff process, before the implementation of the checklist. A total of eighteen participants completed the pre-evaluation survey: eight CRNAs and ten CVICU RNs. The results gathered from the pre-evaluation survey portrayed that information

was commonly missing, the report was not efficient or precise, the environment was loud, and the report began before hooking the patients up to the monitors.

The standardized handoff checklist was implemented over a total of five weeks, with a total of thirteen transfers of post-heart patients occurring between CRNAs and CVICU RNs. Of the thirteen hearts, there were only two observation audit tools filled out and returned to the locked box. A comment made regarding the lack of submission of forms to the locked box was that they did not have enough staff to complete the observation part of the project. The observation audit checklist was used to evaluate important factors that affect the TOC process. For example, the number of interruptions, attentiveness of the CVICU nurses to the CRNA giving report, and essential times related to each handoff were gathered from the two completed observation audit checklists.

Post-implementation surveys were distributed over one week and voluntarily completed and returned to the locked box by the participants of the project. The post-implementation survey consisted of the same ten-question survey that evaluated the effectiveness, efficiency, and satisfaction of the handoff process with the use of the standardized handoff checklist. A total of fifty percent of the participants completed the post-evaluation survey: seven CVICU RNs and two CRNAs. The results of the post-evaluation survey showed an improvement of missing information, a quieter environment, and the completeness of the report. Other areas that resulted in a mixture of roughly half agreeing and half disagreeing were that the process was efficient and clear, and the participants' satisfaction with report. The limitations of the project include: the success of the project was dependent upon anesthesia providers and CVICU to participate in the surveys; the staff was hesitant to accept the use of a new handoff process involving a standardized handoff checklist; no validated tools were used to examine the checklist.

### **Impact on Practice**

The immediate impact on the organization and the providers involved in the project is beneficial. The CRNAs and CVICU nurses now have a standardized tool to promote a safe patient handoff and current, and future anesthesia providers and CVICU nurses will be able to use this resource to help maintain communication and provide an efficient handoff process using a standardized checklist. By standardizing the patient handoff through a consistent and standardized handoff tool, the transfer of heart surgery patients will be thorough and efficient. The predicted long-term impact of the improvement of the TOC process of post-heart surgery patients is the potential for a reduction in adverse effects and the improvement of both patient care and job satisfaction.

Ongoing implementation of this project requires the participation of the providers involved in the TOC process to continue to utilize the handoff checklist. The ICU educator is a stakeholder in this project and will encourage the staff to continue to use the checklist. Alterations of the handoff checklist can be done based on feedback from the healthcare providers. While there was an opportunity to write comments on the evaluation surveys, there were not any comments made to revise and improve the handoff tool.

### **Conclusion**

The results of this quality improvement project identified that the use of a standardized handoff checklist decreased the omission of critical information. The use of a standardized patient handoff checklist has a positive impact on patient safety. Through education and the utilization of standardized patient handoff checklist, CRNAs and CVICU RNs are provided with the knowledge and tools to participate in a practical and concise handoff process for post-heart surgical patients in the future. The utilization of a standardized handoff checklist can be

incorporated into all transfers that occur, further improving the TOC process throughout the hospital system. This project is an expansion of a previous project done from the post-anesthesia care (PACU) department and ICU. Future implications of the study would include opportunities for prospective students to expand on this project by implementing a standardized checklist for all patients that are transferred from OR to the ICU, without the limitation of cardiac patients.

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