Increasing ICU Nurses' Knowledge About Post-Anesthesia Patient Care

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Introduction

During and after anesthesia, many of the patients' life sustaining reflexes are subdued and the ICU nurse caring for these patients must ensure adequate and timely assessment to recognize any change in patient status (Odom-Forren & Drain, 2013). Nurses need to assess for airway management, reflexes, temperature, hemodynamic stability, and monitor for immediate post-operative complications (Preston & Gregor, 2015). To ensure the best outcomes, patient safety, and nurse competency, it is crucial that ICU nurses receive the education about the post-operative patient care to ensure the same standards of care provided by nurses working in the PACU.

Background and Significance

The American Society of Anesthesiologists (2014) standards for post anesthesia care states that all patients who received general anesthesia should immediately go to a PACU or an area that provides the equivalent level of care. The *American Society of Anesthesiologists* recognizes that recovery from anesthesia is occurring more frequently outside of the traditional PACU setting. According to the Standards for Post Anesthesia Care (2014) published by the *American Society of Anesthesiologists*, the same standards of care should be applied to recovering patients from anesthesia in both PACU and PACU equivalent locations. As part of the proposed educational session, ICU nurses be educated about caring for the patient in the immediate post-operative period.

Aims and Objectives

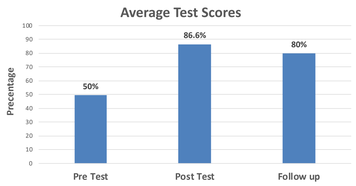
The primary aim of this project was to improve ICU nurses' knowledge on recovering a patient from anesthesia, thereby ensuring that patients safe, effective, and competent care. Objectives to accomplish this aim included:

- Evaluating and addressing the current gaps in knowledge of ICU nurses caring for the postoperative patient.
- Developing an educational session about the care of the patient in the immediate postoperative period.
- Implementing this educational session.
- Evaluating the effects of an educational session on the ICU nurses' knowledge of caring for the post-operative patient by providing a pre-test, posttest, and a test one month following the intervention.

Methodology

Intervention: A one-hour classroom session about care of the post-operative patient. Participants completed a pre-test, post-test, and one month follow up test.
Design: This project is a one group pre-test and a post-test interventional design.
Sample: All registered nurses (full time/part time/per diem/float) working in the ICU.
Setting: This setting for this project is the 14 bed ICU of a community hospital in a suburban town in Central New Jersey
Measures: This project measured changes in knowledge as result of the educational session.
Analysis: Descriptive statistics were used to assess the mean scores of each test. Analytical statistics were used to determine the efficacy of this project.

Results



Correct Responses for Care of the Post-Operative Patient

Question (Short Description)	% Correct *Pre-Test* (n = 17)	% Correct *Post-Test* (n = 17)	% Correct *Follow Up* (n = 10)
1. Respiratory Problems	76%	100%	90%
2. Neurological Assessment	35%	82%	80%
3. Ventricular tachycardia	59%	88%	100%
4. General Anesthesia	76%	88%	100%
5. Cause of malignant hyperthermia	29%	65%	80%
6. Symptoms of malignant hyperthermia	41%	100%	80%
7. Temperature Regulation	53%	82%	60%
8. Post-op Shivering	47%	65%	90%
9. Vital Signs	24%	88%	60%
10. Inhaled Anesthetics	70%	100%	90%

Wilcoxon test - there was a significant change in test scores for the pretest compared to the posttest and the pretest compared to the follow up test

Test Statistics[a]

	PostTest – PreTest	FollowupTest – PreTest	FollowupTest – PostTest
Z	-2.805[b]	-2.803[b]	-.357[c]
Asymp. Sig. (2-tailed)	.005	.005	.721

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.
c. Based on positive ranks.

Discussion

Economic Benefits: Training the ICU staff to recover patients can help reduce the amount of money the hospital spends having PACU nurses come in on-call.
Impact on Healthcare Quality:
As a result of implementing this project, nurses can practice safely and avoid negligence and malpractice claims
Policy Implications:
Research of the American Nurses Association, New Jersey Nurses Association, American Association of Critical Care Nurses, and American Society of Paranesthesia Nurses revealed that there are no formal position statements about recovering a patient from anesthesia in ICU. This project may be the foundation for other projects about post-anesthesia recovery by ICU nurses.

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