

DEVELOPMENT OF AN AT RISK SCREENING TOOL FOR EMERGENCY EVENTS AFTER POST ANESTHESIA CARE UNIT (PACU) DISCHARGE

Primary Investigator: Deidra Glisson RN MSN MBA NE-BC

Memorial Medical Center, Springfield, Illinois

Co-Investigators: Jill Chamberlain RN MS CNE CHSE, Theresa Jones RN CCRN, Wanda Ellenburg RN MSN MHA CPAN, Dorinda Jeffers RN BSN, Vince Kodatt RN, Geri Kirkbride RN PhD CENP CPPS, Yvonne Schumde RN MS CCRN, Kris Reichert RN BSN

Introduction: Patient decline must be recognized early in order to implement appropriate interventions and mitigate harm. Existing early warning scoring tools, used to identify patients at risk for clinical deterioration, were designed for use with general inpatients and have limitations in the intra-operative setting.

Identification of the problem: Our organization tracks patients who experience an emergency event within 24 hours of PACU discharge. There was interest in developing a screening tool to identify at-risk patients prior to PACU discharge.

Purpose of the Study: To develop a screening tool to assist in identifying patients at risk for an emergency event within 24 hours of PACU discharge.

Methodology: A retrospective cohort design, with patients (n=62) experiencing an emergency event within 24 hours of PACU discharge, was used to identify the presence of any of 99 possible risk factors identified through a literature review (McConachie, 2009; Rose, 1996; Smith et al, 2012). Eight significant variables were identified: age greater than 65, ASA score greater than two, home medication of anticoagulant, oxygen titrated up in PACU, vasopressor agents administered in PACU, and the presence of one of five diagnosis: COPD, CAD, CHF, diabetes, or hypertension. A new tool was created that assessed for the presence of these eight identified variables and summed to produce a predictor score. The tool was then applied to another cohort group (n=71) to measure sensitivity and specificity.

Results: Through cross tabs analysis, patients with a predictor score of 2 or fewer were determined to have low risk for an emergency event. Total score greater than three risk factors demonstrated tool sensitivity at 64.8 and specificity at 63.6.

Discussion: A tool to assist in the identification of patients at-risk for adverse events following discharge from PACU may prompt additional interventions to mitigate harm, such as interdisciplinary assessment and review of planned level of care.

Conclusion: A screening tool utilized by perianesthesia nurses may assist in identifying postoperative patients at-risk of an adverse event following PACU discharge.

Implications for perianesthesia nurses and future research: There is a need for study replication among larger sample sizes in order to validate this study's results and address the literature gap and lack of evidence-based protocols relevant to the topic.