

Increasing Competence of PACU RNs Responding to Code Blue

Primary Investigator: Ayumi Fielden MSN RN CCRN-K CPAN

Houston Methodist Hospital, Houston, Texas

Co-Investigators: Pamela Northrop MSN RN CPAN, Laura Ortiz MSN BBA RN CCRN,

Xavia Holmes-Fuller MSN RN CCRN

Introduction: Cardiopulmonary arrest (Code Blue) remains a high risk, low frequency event in Post-Anesthesia Care Units (PACUs). Literature denotes that healthcare facilities should implement Code Blue refresher programs to bridge the gap amid initial and recertification of Advanced Cardiac Life Support (ACLS) and Basic Life Support (BLS) skills due to the loss of knowledge in as little as two weeks after certification.

Identification of the problem: A gap analysis revealed that PACU RN's compliance to the American Heart Association (AHA)'s ACLS and BLS guidelines during mock Code Blues were suboptimal.

QI question/Purpose of the study: The purpose of this project was to increase PACU RN's compliance and competence in ACLS and BLS skills while responding to Code Blues.

Methods: Baseline assessment of PACU RN Code Blue response was completed during mock Code Blue drills using a forty-six item standardized observation tool. Areas of opportunity led to the creation of monthly ACLS refresher workshops focusing on teamwork, ACLS algorithms, medication management, BLS skills, and in-situ Code Blue drills. Participant performances were re-evaluated using the same tool following the workshops during mock Code Blue drills several weeks after the last workshop.

Outcomes/Results: Initial assessment revealed a 33.4% Code Blue management compliance, whereas the post-intervention score increased to 92.2%. Tachycardia and bradycardia algorithm adherence increased from 28% to 91.2% and 21.4% to 81%; BLS adherence increased from 40.6% to 96%. Furthermore, 64.3% of participants initially met AHA's guidelines for initiating chest compressions; however, after intervention 100% of the participants initiated chest compression post-intervention appropriately.

Discussion: The AHA emphasizes the importance of ACLS and BLS skills in the chain of survival. BLS components such as: quality and timing of chest compressions, and ventilation skills improved significantly as did the adherence to ACLS guidelines. The PACU RN's response to cardiac arrest and deteriorating patient conditions using ACLS standards indicate that reinforcing ACLS skills leads to increase in knowledge.

Conclusion: ACLS workshops between recertification times improved PACU RN Code Blue response competence.

Implications for Perianesthesia Nurses and Future Research: ACLS refresher programs should be implemented in PACUs to bridge knowledge gaps between certification and recertification. Reinforcement of AHA guidelines lead to an increase in competence in Code Blue management, in-hospital cardiac survival rates, and improved patient outcomes.