

Research - R170

Poster

Abstract Title:

Don't Be Left Out in the Cold: The Chilling Facts of Hypothermia in Trauma Patients

Authors:

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Background & Purpose:

Trauma patients are a unique population posing difficult and time sensitive decisions. Hypothermia in trauma patients is an indicator of mortality that is often missed, leading to increased medical complications or death. Failure to obtain, document, or recognize temperatures of this high risk population could jeopardize patient safety and outcomes, and is a common occurrence. The goal is to improve compliance with obtaining initial temperatures by the following routes, oral, rectal, or core, which is defined as bladder. Improving the recognition and treatment of hypothermia in Level 1 trauma patients is the ultimate goal of patient care and outcome.

Study/Project Design:

Data was collected retrospectively from January 1 to August 11, 2013; results were entered in the trauma registry.

Setting:

Rural teaching, Level 1 Adult and Pediatric trauma center

Sample:

Demographics consisted of 220 trauma patients ages 3-94 with major trauma

Procedures:

A group of nurses dedicated to improve trauma care, recognized hypothermia in trauma patients needed to be evaluated closely. A survey was developed, which consisted of 4 basic questions related to the recognition of hypothermia. Questions included the definition of hypothermia, warming methods, reassessment of temperatures, and other means to warm trauma patients, such as warm fluids or radiant heat. This survey was sent to all Emergency Department nursing staff electronically to evaluate their initial knowledge base. Chart reviews were completed on all level 1 trauma patients meeting hypothermia criteria. Of the 220 trauma patients, 24 had no temperature taken, and 22 were documented hypothermic. Data collection included patients without initial temperatures, defined hypothermia, and routes taken. The plan for evaluation of hypothermia outcomes is staff education and recognition of this high risk population.

Findings/Results:

Out of 160 RN staff members, 105 surveys were returned. Of the responding staff, 52.4% recognized the definition of hypothermia below 36 degrees celsius, 100% recognized a Bair Hugger is not the only method to warm a trauma patient, 50.5% recognized the reassessment of hypothermic temperatures needed to be done every 15-30 minutes, and 49.5% recognized body temperature increases 1-1.5 degrees celsius with active rewarming measures. Outcomes found up to 2/3 of staff responses defined hypothermia, methods used to assist maintaining patient warmth, and the importance of reassessment of the hypothermic patient.

Discussion/Conclusions/Implications:

Early recognition of hypothermia can result in patient death if not identified and corrected. Staff knowledge in regards to hypothermia was inadequate and an education need was identified. Solutions to improving staff compliance and patient hypothermic rates were done by simple reminders sent by e-mail, real-time reminders prior to patient arrival to trauma bay along with realtime feedback to staff, and obtaining reasons for not taking temperatures on trauma patients. With the support of nursing leadership from the both the Emergency Department and the Trauma Center, these solutions and further education is overwhelmingly supported to improve patient outcomes.