EXPLORATION OF THE SCOTT TRIGGERS™ INSTRUMENT IN PREDICTING POSTOPERATIVE PRESSURE ULCER RISK IN THE ON-PUMP CARDIOVASCULAR SURGERY POPULATION

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Introduction: Hospital acquired pressure ulcers continue to pose a significant health problem in the US, affecting up to 3 million adults at a cost of up to $11 billion annually. Postoperative pressure ulcer (PPU) rates are as high as 66%, with the incidence rates in cardiovascular (CV) surgical patients ranging as high as 50%.

Identification of the problem: The Braden Score (BrS) is well accepted as a predictor of pressure ulcer risk; however, the preoperative BrS may not accurately reflect postoperative risk. The Scott Triggers™ (ST) scale shows great potential as a predictor of PPU development, but has not been tested for accuracy and precision.

Purpose of the study: The purpose of this study was to explore the use of the ST instrument in predicting PPU risk in on-pump CV surgical patients.

Methodology: A retrospective, exploratory design was used. A purposive convenience sample of medical records of adult patients ($\geq$ 18 years) undergoing an on-pump surgical procedure over a 1-year period was included. Data were abstracted via electronic medical record abstraction.

Results: 675 charts were abstracted. First postoperative BrS was used as a proxy for PPU risk due to an absence of PPU. Significant decreases in mean preoperative to postoperative BrS were noted (20 to 14 respectively, $p < 0.01$), particularly in patients with preoperative scores > 18. Most patients were considered at risk for PPU, with 98% having a ST score $\geq$ 2 on a 4 point scale. Surgery duration was highly predictive of BrS change from preoperative to postoperative scoring ($p = 0.06$).

Discussion: The ST score shows greater capacity for prediction of PPU risk in the CV surgery as compared to the preoperative BrS score.

Conclusion: The ST instrument is a simple, preoperative risk assessment tool that can be used to assess PPU risk in the CV surgical population.

Implications for perianesthesia nurses and future research: Implementation of a simple, preoperative PU risk assessment tool enables perianesthesia nurses to work proactively in implementing preventative interventions to reduce PPU development in high risk populations. Further exploration of the accuracy of ST in broader surgical populations is encouraged.