Assessing Available Pressure Injury Predictor Tools in the Peri-Operative Setting

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Background: Pressure injuries (PI) have been observed in patients across the peri-operative setting, particularly among patients undergoing prolonged surgical procedures. Yet the majority of instrumentation developed to assess risk for pressure injury has been developed in the acute, intensive, or long-term care settings. As part of a quality improvement initiative at a comprehensive cancer center, validated PI prediction tools were applied retrospectively to patients who experienced a PI post-operatively.

Objectives of Project: The aim of this to evaluate the sensitivity of the Braden Scale and Scott Trigger Tool to predict the occurrence of intra-operative PI in a surgical oncology population.

Process of Implementation: An interprofessional team consisting of nurses, physician assistants, quality officers, physicians, and performance improvement professionals reviewed data of patients who developed an intraoperative hospital acquired pressure injury based on safety intelligence event reports over an 18 month period (September 2016-January 2018). Thirteen reportable cases were identified and the Braden and Scott Trigger assessments were used to evaluate risk for PI development in this cohort of patients based on their pre-operative (within 1-2 hours of surgery) data. A team of three nurses completed the initial retrospective scoring which was then reviewed with the team to validate the results.

Statement of Successful Practice: Outcomes suggested that risk scoring with the Braden Scale was not predictive of intraoperative risk, and that the Scott Trigger Tool was overly sensitive to risk when applied to a later cohort of 72 patients, for which the Scott Trigger score suggested all patients would have skin breakdown. However, of the 72 no intraoperative PI was observed.

Implications for Advancing the Practice of Perianesthesia Nursing: Findings suggest the need for further evaluation of these tools, specifically in the surgical oncology population and possibly in broader populations to evaluate sensitivity and specificity among individuals undergoing prolonged surgery. The ability to refine instruments to predict PI in this population is fundamental to reducing risk for PI events in the peri-operative setting.