



Title: Collaring Pressure Ulcers

Presenting Author: Heather Ditzler, BSN, RN

Additional Authors:

Cecile DHuyvetter, RN MSN

Allen Tanner II, MD

Design: Adult trauma patients retrospective pre-post study. Pre- study 1/1/15 to 10/31/16. Post-study 11/1/16 to 8/31/18.

Setting: 522 acute bed urban ACS Level 1 Trauma Center in Colorado.

Sample: Data abstracted from trauma registry which included trauma patients ≥ 18 years with a coded cervical spine injury (CSI). 138 CSI patients in pre-study to 198 in post-study.

Method/Procedure: Root cause analysis performed October 2016 identified inconsistent assessment, skin care, along with appropriate collar use and fit. Areas identified for improvement; product, education, and process.

Cervical collars were reviewed in collaboration with neurosurgical partners. Appropriate collars determined for specific use. Field collars not cleared in the emergency department, changed to a Philadelphia Collar. Patients admitted and requiring cervical stabilization were placed in an Aspen or Miami-J.

Our nursing staff, orthotic company, and neurosurgical partners, assisted in development of educational materials and policies.

Process changes included daily chart review for appropriate C-Collar usage, skin care. Daily review during multi-disciplinary trauma rounds. Concerns or issues discussed in real time. MDRPU complications tracked in registry. Education incorporated into trauma nursing orientation.

Results: Although not statistically significant at 0.5 (Fischer exact test), our incidence decreased from 1.45% to 0.5% as only one patient developed a cervical collar MDRPU in the post study period.

Discussion: Research shows trauma patients are at an increased risk of MDRPU due to injury severity, decreased consciousness, potential immobility, and use of multiple medical devices³. This project successfully reduced the incidence of this 'never event' by 60% through a collaborative effort of our trauma specialists through product analysis, process change, and education. From our review we determined Aspen Collars are easier to fit, provide increased padding and coverage on skin surfaces, we continue to use Miami-J for certain physical habitus or clinical conditions.

Based on drill down and review of our program, recommendations include determination of incidence, product assessment, and the expectations of proper skin and collar care for your facility. Identify deficiencies and implement required modifications to improve outcomes. Include skin assessment and collar care as a component of nursing report in daily multidisciplinary rounds which enables for just in time education. Include MDRPU in annual education, as this remains a high-risk/low-volume incident. For ease of trending, develop specific fields and reports within the trauma registry.