

Medical Device-Related Pressure Injuries in Intensive Care Units

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Medical Device-Related Pressure Injuries in Intensive Care Units

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Background

- Patients in intensive care units (ICU) are at greater risk for pressure injuries due increased use of medical devices in combination with mechanical ventilation, vasoactive agents, decreased mobility, and fluid status.
- Stage III and stage IV pressure injuries are considered “never events.”
- Noticed increased incidence of medical device-related pressure injuries (MDRPIs) related to cervical collars (C-collars) and tape-based nasogastric tube (NGT) holders on two critical care units.

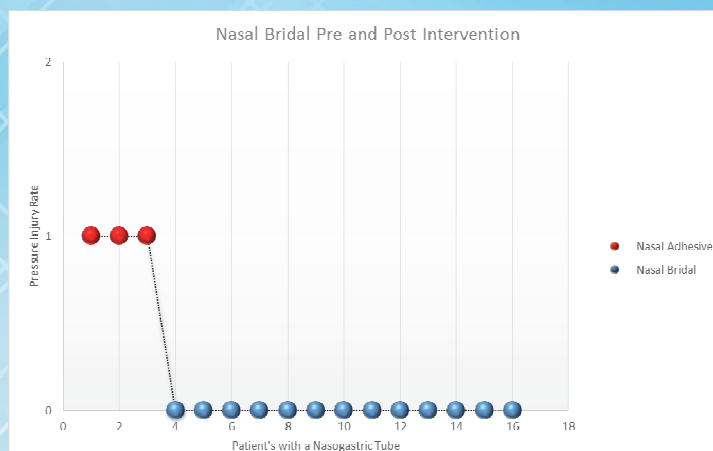
PICO Question

In ICU patients with medical devices such as C-collars or NGT, will the use of extended back panel C-collars or nasal bridles, compared to standard back C-collars and tape-based NGT holders, reduce the incidence of MDRPIs?

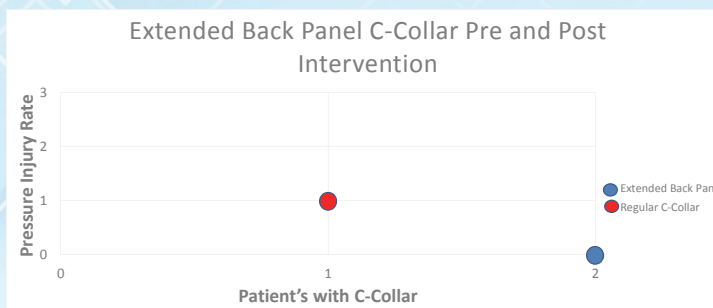
Evidence

- Trauma patients immobilized with a C-collar, which exerts pressure to prevent movement, are at risk for C-collar related pressure ulcers (Ham, Schoonhoven, Galer, & Shortridge-Baggett, 2014).
- The extended back panel collar exerted significantly less pressure on the occiput and mandible than the standard collar. Implementation of the extended back panel collars resulted in 89% reduction in occipital pressure injuries over one year (Jacobson, Tescher, & Miers, 2008).
- The use of nasal bridals, staff education, enhanced documentation, and more frequent site assessment lead to a decrease of MDRPIs (Monarca, Marteka, & Breda, 2018).

Outcome



- Eleven patients received the nasal bridal intervention and as a result no pressure injuries occurred. Patients had a bridal in for, on average, seven days and continued to be free of injury. Data sheet available upon request.



- One patient received the extended back panel C-Collar intervention and as a result, no pressure injuries occurred. One patient who wore a regular C-collar and one pressure injury occurred.

Implementation

- Identified and applied extended back panel C-collar to patients unable to meet criteria to clear cervical spine.
- Identified and applied nasal bridal to non-alert/oriented patients with a NGT.

Limitations

- Small sample size
- Inconsistent patient population
- Time constraints

Next Steps

- Develop standardized criteria for identifying patients who can benefit from these pressure-reducing devices
- Implement nasal bridals and extended back C-collars at all ICU's at LVHN

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