

Pressure Injury Reduction Through Increased Mobility and Pressure Redistribution

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Significance for Practice

- National prevalence of pressure injuries in Intensive Care Unit (ICU) is 13.1-45.5%.¹
- Skin Care bundles can reduce hospital acquired pressure injuries (HAPI).²
- Most skin care bundles include patient repositioning, mobilization and friction reduction.

Objective

This 2022 pilot study focused on early patient mobility as an intervention to reduce Pressure Injuries (PI).

Secondary endpoints included use of a low-pressure air chamber sling for pressure redistribution.

Methods

¹ Literature review: Evidence-based guidelines³ were identified as framework for increased mobility and pressure redistribution in preventing pressure injuries.

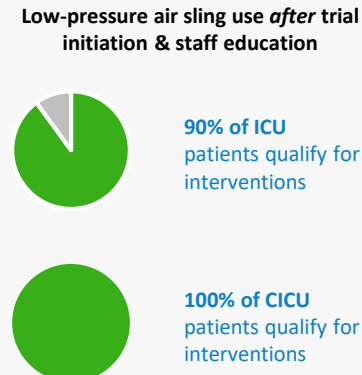
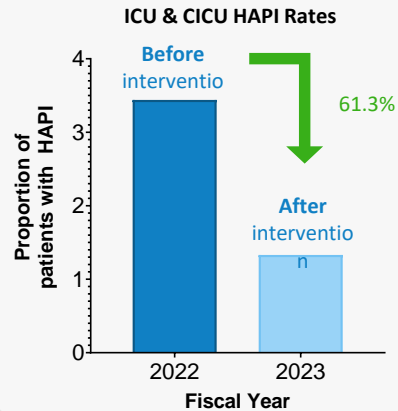
² Process evaluation: Researchers used an Ishikawa fish bone assessment and an initial audit on staff compliance with preventative measures for at risk patients. 53.8% of the ICU patients and 33% of the Cardiac Intensive Care Unit (CICU) met the criteria for "at risk".

³ Logistics and algorithm development: Identify which units would benefit from the pilot of low-pressure air chamber sling, and then develop practice algorithm with criteria to ID appropriate patient population

⁴ Staff education: Comprehensive education campaign across all shifts for all qualifying units, including staff education material review.

Study Results

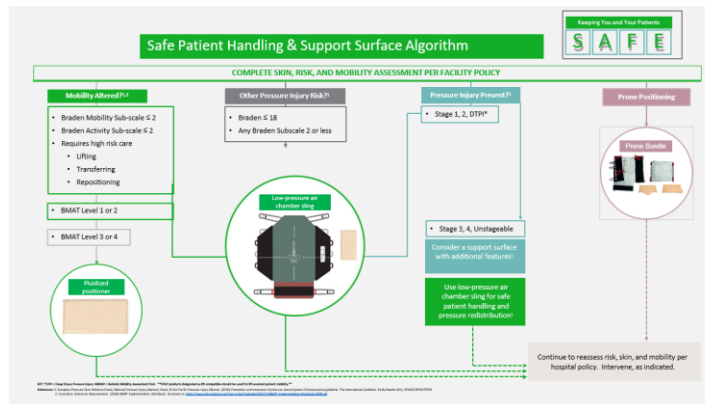
- With staff education and trial initiation, low-pressure air sling use increased from 53.8% to 90% in the ICU and from 33% to 100% in the CICU.
- As a result of these interventions, the HAPI rate in the ICU/CICU went from 3.44 (FY2022) to 1.33 (FY2023), a decrease of over 61.3%
- Initiation of evidence-based practices, such as low-air chamber slings increased the accessibility of equipment, increased mobility of patients, and decreased the risk of pressure injuries.



Conclusions

The low-pressure air chamber sling for patient positioning, bundled with pressure injury interventions, has an impactful influence on pressure injury prevention and reduction as well as early mobilization.

- Initial process evaluation identified low availability of lift slings and product use oversight as a gap.
- Use of the low-pressure air chamber sling:
 - ✓ Maintained patient position
 - ✓ Reduced the need for boosting
 - ✓ Maintained seated position
 - ✓ Reduced HAPI rate



Support Surface Algorithm

References:

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- Wound, Ostomy and Continence Nurses Society-Wound Guidelines Task Force. WOCN 2016 Guideline for Prevention and Management of Pressure Injuries (Ulcers): An Executive Summary. *J Wound Ostomy Continence Nurse*. 2017;44(3):241-246. doi:10.1097/WON.0000000000000321

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