

# Quality Improvement Intervention with Patient Repositioning Device Results in HAPU Prevention and Cost Savings

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#### BACKGROUND

Prevention of hospital-acquired pressure ulcers (HAPU) requires multiple interventions, including frequent patient repositioning.<sup>1</sup> It is not uncommon for strains or injuries to occur in health care workers when repositioning a patient.<sup>2</sup> The Occupational Safety and Health Administration has published safe patient handling guidelines that provide guidance on repositioning patients:

"Manual lifting of patients be minimized in all cases and eliminated when feasible and that employers should put an effective ergonomics process in place that provides management, involves employees, identifies problems, implements solutions, addresses injury reports, provides training, and evaluates ergonomic efforts".3

A quality improvement initiative was designed using safe patient handling interventions to help prevent HAPUs in an intensive care unit (ICU).

#### METHODS

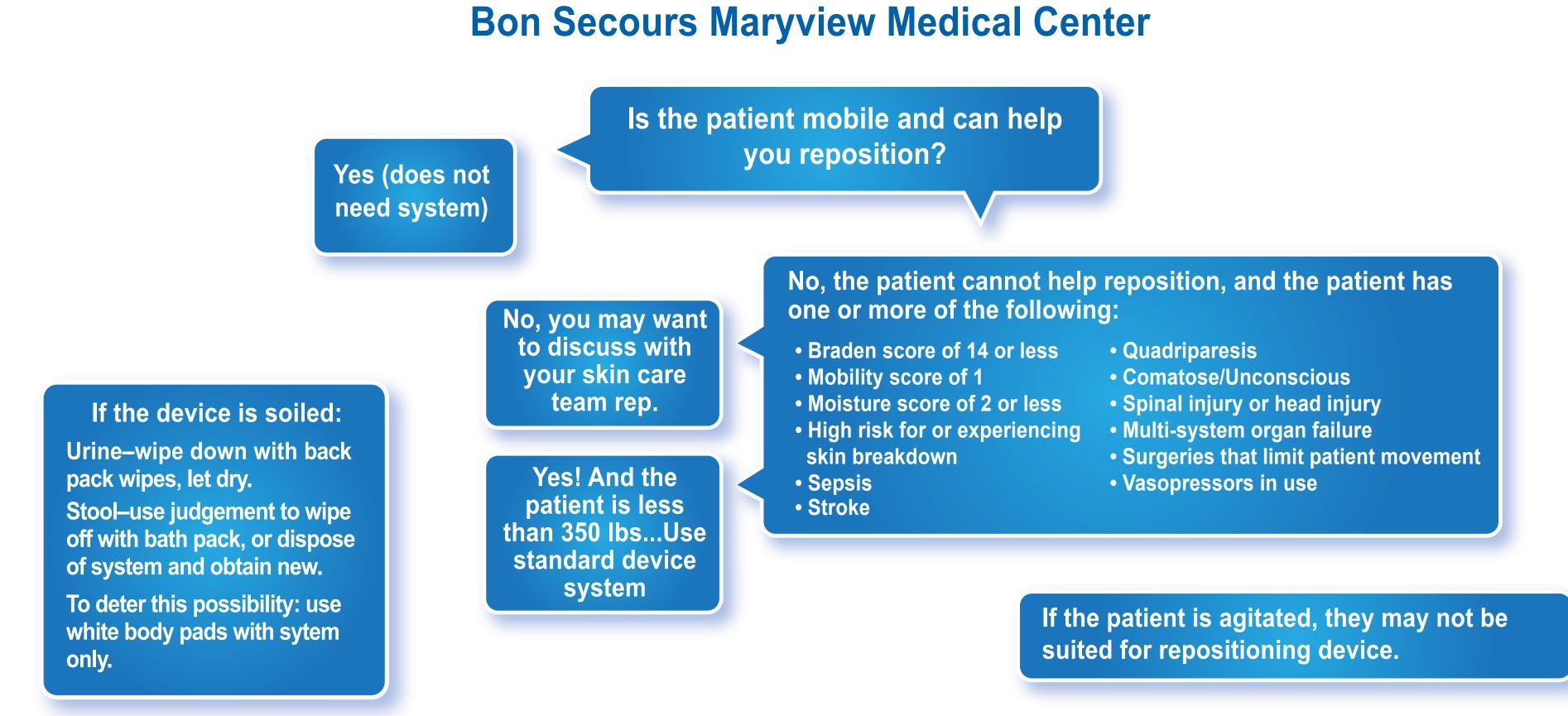
RATIONALE: A point prevalence survey revealed a spike in buttocks and sacral HAPU incidence in the ICU.

**OBJECTIVE**: A quality improvement initiative was designed to help prevent HAPUs by utilizing safe patient handling interventions to help health care workers adhere to best evidence-based practices for prevention.

BUSINESS CASE DEVELOPMENT: The team developed a business case and received approval to trial a repositioning device\* for patients in the ICU.

**INTERVENTION**: A protocol was implemented for appropriate use of a patient repositioning device in an intervention to decrease sacral and buttock pressure ulcers (Figure 1).

# Protocol/Algorithm for Repositioning System

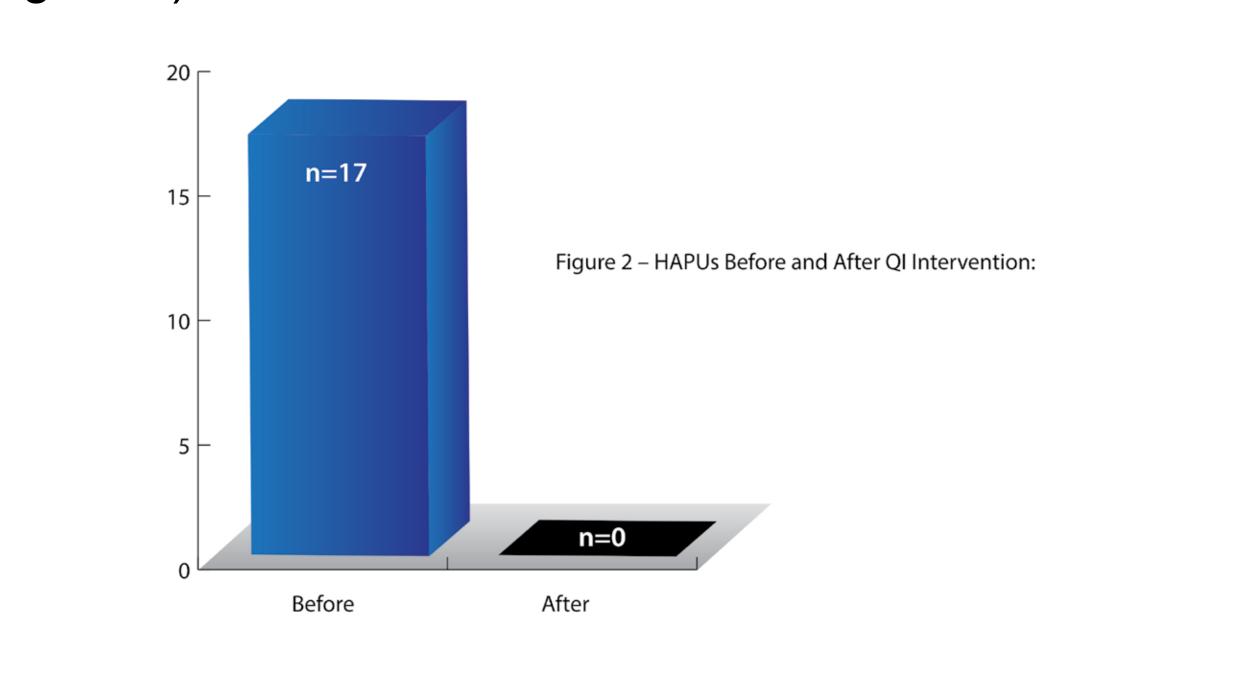


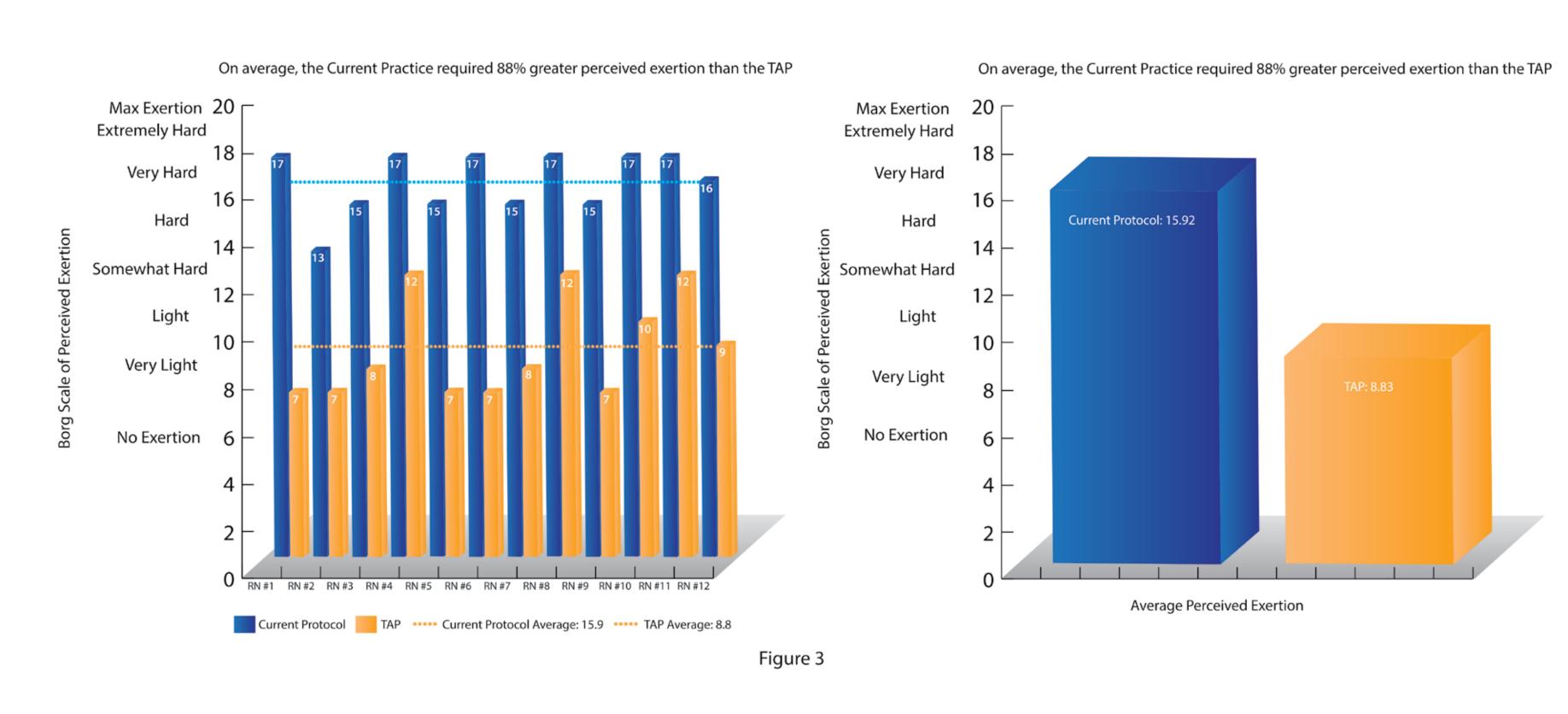
#### **METRICS:**

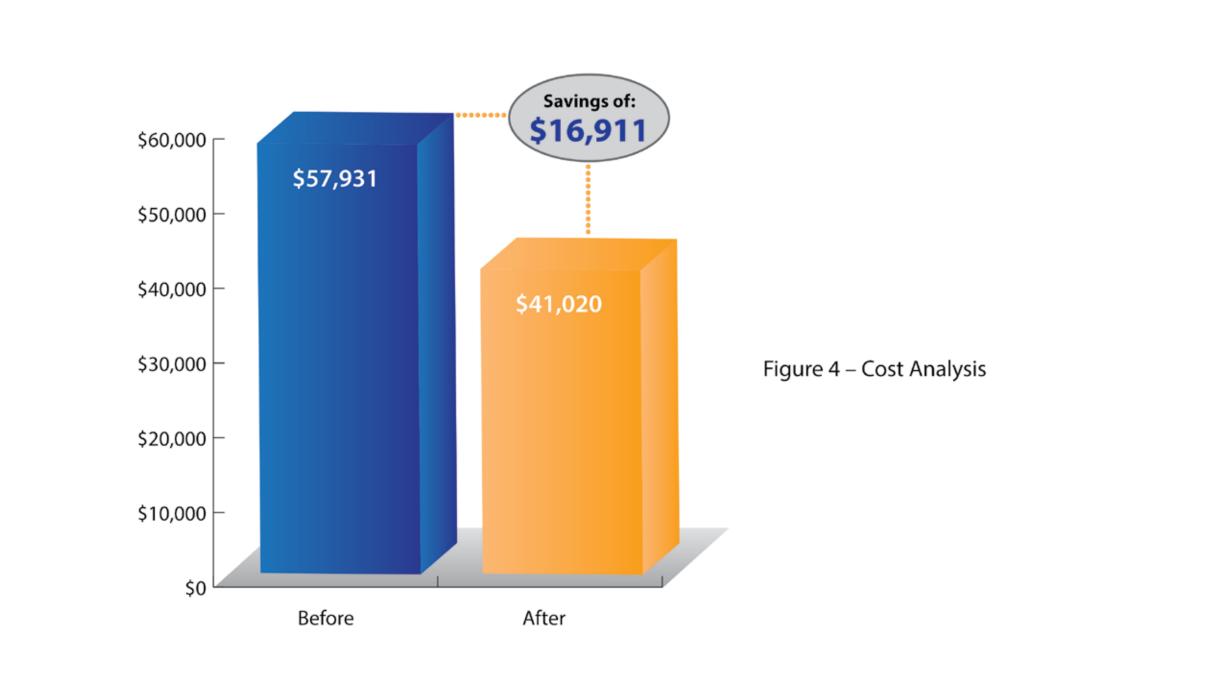
- Nurses were surveyed using a validated tool (Borg scale) on perceived exertion required for use of the repositioning device compared with standard of care.
- A cost analysis was developed by comparing before and after financial data on hospital acquired pressure ulcers.

### RESULTS

The QI intervention was successful in preventing HAPUs, as demonstrated in Figure 2. Health care workers perceived the repositioning device required significantly less effort than standard of care (Figure 3). The improved HAPU outcomes resulted in significant cost savings and a documented return on investment (ROI) (Figure 4).







## CLINICAL IMPLICATIONS

- The safe patient handling intervention resulted in improved adherence to best practices in HAPU prevention because it was easier to reposition patients.
- The use of validated tools helped document the effectiveness of this intervention.
- Use of a cost analysis in a business proposal was a useful tool for documenting the effectiveness of our intervention and obtaining leadership buy-in for the repositioning device to be the new standard of care in our ICU.
- Twice weekly rounding by the CWOCNs has helped reinforce appropriate use of the algorithm.
- HAPUs are an initiative on yearly evaluations of all clinical staff. Nurses and CNAs are challenged to make pressure ulcer prevention a key nursing indicator as reflected in performance reviews. The repositioning device empowers nurses to make turning and repositioning a priority.

#### REFERENCES

- European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel. Prevention and treatment of pressure ulcers: quick reference guide. Washington DC: National Pressure Ulcer Advisory Panel; 2009.
- 2. McCoskey KL. Ergonomics and patient handling. AAOHN J. 2007;55(11):454-62.
- 3. United States Department of Labor. Occupational Safety & Health Administration (OSHA) Safe Patient Handling Guidelines. Available at: https://www.osha.gov/ergonomics/guidelines/nursinghome/final\_nh\_guidelines.html.

\*Prevalon® Turn and Position System (Sage Products LLC; Cary, IL)