Keeping the Pressure Off: Sustained Efforts to Reduce OR-Acquired Pressure Injuries

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Clinical Problem/Significance

Patients undergoing surgery are at high risk for developing OR-acquired pressure injuries. Patients with cancer are at an increased risk for developing OR-acquired pressure injuries because the oncological nature of these surgeries makes them extraordinarily complex.

The risk factors include:

- ❑ General anesthesia
- ❑ Immobility
- ❑ Hypothermia
- ❑ Hypotension
- ❑ Uneven distribution of body weight
- ❑ Surgical position
- ❑ Impact of instruments and positioning devices

Background

The Centers for Medicare & Medicaid Services does not reimburse the cost of care related to Stage 3 and Stage 4 hospital-acquired pressure injuries. To reduce OR-acquired pressure injuries, a nurse-led initiative at an NCI, multi-site academic cancer center standardized the application of prophylactic multilayer foam dressings in the OR.

Clinical Questions

1. In surgical patients, how does an OR-specific risk assessment tool, compared to an inpatient risk assessment tool, affect OR-acquired pressure injury rates?
2. In surgical patients, how does the application of prophylactic multilayer foam dressings compared to usual care affect OR-acquired pressure injury rates?

Description of Evidence-based Protocol

Patient Criteria:

- ❑ Inpatient **or** Same-day Admission
- ❑ BMI < 19 **or** Surgery time > 4 hours

Interventions:

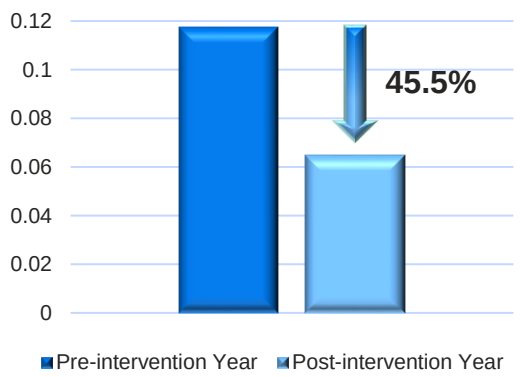
- ❑ Comprehensive pre-operative and post-operative skin assessments
- ❑ Application of prophylactic multilayer foam dressings
- ❑ Wound Care Team consultations

Implementation of Evidence-based Protocol

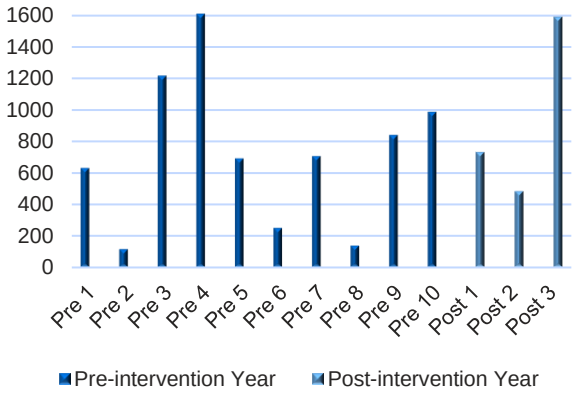
- ❑ Daily high-risk for pressure injury report
- ❑ Modification of electronic health record
- ❑ Anatomical chart depicting placement of prophylactic multilayer foam dressings for each surgical position
- ❑ Staff education
- ❑ Chart reviews

Results

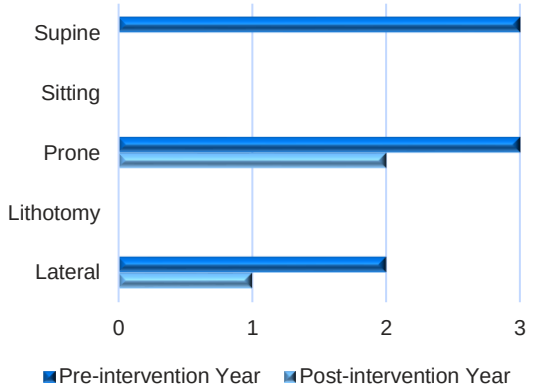
Pressure Injury Rate



Surgery Time (min)



Surgical Position



Conclusions/Discussion

One year following the initiation of the interventions, prophylactic multilayer foam dressing usage increased by 95.9%, and the OR-acquired pressure injury rate dropped by 45.5%.

Surgery time and surgical position were the main risk factors for developing an OR-acquired pressure injury.

A cost analysis revealed five injuries were prevented in the post-intervention year, resulting in $80,210 in cost savings for the institution.

The next steps include re-evaluating the risk criteria and exploring OR-specific risk assessment tools to achieve zero OR-acquired pressure injuries.

Perioperative Nursing Implications

There are **no limits** to what Perioperative Nurses can achieve when using a collaborative approach with Wound Care and Nurse Informatics Specialists to reduce OR-acquired pressure injuries.

By implementing an OR-acquired pressure injury prevention program, Perioperative Nurses can improve patient outcomes, enhance nursing practice, and achieve institutional goals.

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