Reducing hospital-acquired pressure injuries and the cost of prevention in the OR and ICU setting

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Introduction
Prevention of hospital-acquired pressure ulcers/injuries (HAPU/I) has become an important nursing quality measure in the US with surgical patients, accountable for 45% of HAPU/I's, among those at greatest risk.

Assessment of the problem
In an effort to further reduce HAPU/I's at a 1400-bed quaternary-care medical center in the Midwest, the WOC Nurses conducted an assessment to identify where HAPU/I's originated. A review of benchmarking data revealed that a large number of HAPU/I's were attributed to the operating room. Therefore, the WOC Nurses and the heart and vascular operating room nursing personnel reviewed relevant literature, possible areas of care that could be impacted and time needed to implement change.

Initial intervention
After establishing a HAPU/I rate of 5.4%, the operating room and ICU project leaders initiated a comprehensive prevention plan, including the use of a silicone foam dressing, which led to a comprehensive intervention. The operating room and ICU nurses trained 2 new silicone dressings. The nurses and patients found one of the dressings* favorable for ease of application, adhesion, and partial lift-off and re-adhesion for skin assessment. The project protocol was changed to include the new dressing.*

Results
After 5 months of using the new silicone dressing for prevention, the leaders reviewed HAPU/I data comparing the same 5 months from the previous year. The hospital recognized a cost savings of $64,000 for the 5 month period. The author attributes cost reduction to a combination of lower price and increased dressing wear time. They also identified during the 5 month period a further reduction in HAPU/I rate to 2.3% and 1.5% by the end of the year.**

Revised plan to reduce costs
Two years later, project leaders were asked to investigate other dressings on the market in an effort to reduce the cost of prevention initiatives. The operating room and ICU nurses trained 2 new silicone dressings. The nurses and patients found one of the dressings favorable for ease of application, adhesion, and partial lift-off and re-adhesion for skin assessment. The project protocol was changed to include the new dressing.*

Sustaining the culture
Key to the success were process interventions.

• Unit-based skin care nurses.
• Increased nursing leadership visibility/participation

• Education: Importance of PU/I reduction on patient quality, reimbursement and hospital reputation.
• Multidisciplinary team approach for routine clinical rounds.
• Treatment records color coded based upon risk; interventions assigned according to risk level.

Conclusion
Reducing hospital acquired pressure ulcers/injuries requires identifying those at risk, implementing a comprehensive prevention plan and changing processes to sustain the culture. The use of silicone foam dressings, as part of a comprehensive prevention plan, is a growing practice. In this project, the new silicone foam dressings, contributed to successful clinical outcomes while reducing the costs associated with dressing price and dressing change frequency.

<table>
<thead>
<tr>
<th>Review period</th>
<th>HAPU/I rate</th>
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<tbody>
<tr>
<td>Initial dressing</td>
<td>3.8%</td>
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<tr>
<td>11/01/2012 to 03/31/2013</td>
<td></td>
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<tr>
<td>New silicone foam dressing</td>
<td>2.3%</td>
</tr>
<tr>
<td>11/01/2013 to 03/31/2014</td>
<td></td>
</tr>
<tr>
<td>4th Quarter 2014</td>
<td>1.5%</td>
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For detailed product information, including indications for use, contraindications, effects, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use.

References:
3. Data reported from the National Database for Nursing Quality Indicators® (NDNQI®) with permission from Press Ganey.

*ALLEVYN® LIFE Silicone Gel Adhesive Composite Hydrocellular Foam Dressing - Smith & Nephew Wound Management Inc. Fort Worth, TX
**Decreased rate reflects overall program initiatives.

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