**Introduction & Background**

- Critically ill patients are disproportionately affected by hospital-acquired pressure injury (HAPI) compared with general inpatients.1,2,3
- HAPIs are associated with increased pain, infection, prolonged length of stay, healthcare costs, caregiver burden, and patient mortality.4
- HAPIs effects ICU patients globally, nationally, and locally.
- HAPI prevalence at the study facility averaged 16% from 2019-2020, above the national benchmark of 5.2%.5

**Purpose & Aims**

Decrease the prevalence of HAPI in the ICU after implementing a HAPI prevention bundled skincare algorithm along staff education.

**Aim 1: HAPI Prevalence**

- HAPI prevalence rates in the ICU will decrease to at or below National Database Nurse Quality Indicator (NDNQI) benchmark of 5.2% for three consecutive months after project implementation.

**Aim 2: ICU nurses’ knowledge**

- ICU nurses will have increased knowledge and awareness of HAPI prevention bundle components and HAPI prevention after project implementation measured by using the validated Pressure Ulcer Knowledge Test (PUKT).6

**Aim 3: Bundle Compliance**

- There will be an increase in compliance with the HAPI prevention bundle components and interventions delineated by the acronym SKINCARE.

**Intervention**

**SKINCARE:**

- S: Sacral foam dressing
- K: Keep skin clean and dry
- I: Inspect under devices
- N: Nutritional support
- C: Consult Wound Ostomy Nurse
- A: Assess the need for heel elevation devices
- R: Reposition every 2 hours or per turn schedule/early mobility
- E: Elevate the head of bed 30 or less

**Method & Sample**

**Design:** Quality Improvement pre-post design from June 2021 through December 2021

**Setting:** Within 24-bed ICU in a 230-bed community-based acute care hospital in the mid-Atlantic, USA

**Timeline:**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intervention</th>
<th>Skincare Algorithm</th>
<th>Bundle Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Post-</td>
<td>97.5%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Results**

**Aim 1: HAPI Prevalence**

- HAPI nurse sample: 46 nurses (47.8%) strongly agree on a 4-point Likert scale for both awareness and usefulness

**Aim 2: Nurses’ Knowledge**

- 22 of 46 nurses (47.8%) strongly agree on a 4-point Likert scale for both awareness and usefulness

**Aim 3: Bundle Compliance**

- Acronym: SKINCARE (S: Sacral foam dressing; K: Keep skin clean and dry; I: Inspect under devices; N: Nutritional support; C: Consult Wound Ostomy Nurse; A: Assess the need for heel elevation devices; R: Reposition every 2 hours or per turn schedule/early mobility; E: Elevate the head of bed 30 or less)

**Intervention**

**Prevention**

- Bed mobility
- Early nutrition
- Nutritional support
- Skincare algorithm along with staff education.

**Aim 3: Bundle Compliance**

- Table 1.

**SKINCARE ALGORITHM**

**Table 1. Nurse Sample Demographics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SD)</th>
<th>Median (IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>42.9 (15.4)</td>
<td>38.0 (29.5)</td>
</tr>
<tr>
<td>Experience (years)</td>
<td>6.4 (5.6)</td>
<td>5.0 (5.0)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male 28 (59.6%)</td>
<td>Female 28 (59.6%)</td>
</tr>
<tr>
<td>Education</td>
<td>BSN 22 (47.8%)</td>
<td>RN 24 (52.2%)</td>
</tr>
<tr>
<td>Position</td>
<td>Staff Nurse 32 (69.6%)</td>
<td>Charge Nurse 8 (17.4%)</td>
</tr>
<tr>
<td>PI Questionnaire Non-Encounter Skincare Score</td>
<td>6.3 (2.8)</td>
<td>7.9 (2.9)</td>
</tr>
</tbody>
</table>

**Table 2. Patient Sample Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Prevalence Rate</th>
<th>Incidence Rate</th>
<th>Bed Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>6.3 (2.8)</td>
<td>7.9 (2.9)</td>
<td>8.3 (1.9)</td>
</tr>
<tr>
<td>Sex</td>
<td>Male 28 (59.6%)</td>
<td>Female 28 (59.6%)</td>
<td>8.3 (1.9)</td>
</tr>
<tr>
<td>Race</td>
<td>White 30 (65.2%)</td>
<td>Black 10 (21.7%)</td>
<td>8.3 (1.9)</td>
</tr>
<tr>
<td>Skin Type</td>
<td>Normal 28 (59.6%)</td>
<td>Dry 28 (59.6%)</td>
<td>8.3 (1.9)</td>
</tr>
</tbody>
</table>

**Conclusion & Implications**

- The intervention may increase nurses’ knowledge and help reduce HAPIs
- Monthly reinforcement and WOCN presence could aid in compliance
- Potential reasons for lack of compliance: staff turnover, extended use of temporary RN staff, increased workload, lack of supplies, and patient-specific factors
- HAPI prevention is interdisciplinary

**References**