Implementing a Pressure Injury Prevention Bundle to Decrease Hospital-Acquired Pressure Injuries in Critical Care

Julie A. Rivera, MSN, RN-BC, CWOCN, Mary J. Deady-Rooney, Mary J. MSN, RN, CCRN, NEA-BC, Erin Donohoe BSN, RN-BC, CWOCN, Maxine Douglas, MSN, RN, Nyishah Samaniego, MSN, CEN, TCRN, NE-BC

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Objectives

- Identify patients at risk for developing hospital-acquired pressure injuries (HAPIs)
- Describe a Pressure Injury Prevention Bundle (PIP Bundle) developed to decrease HAPIs in a Critical Care Unit (CCU)
- Describe implementation of the PIP Bundle
- Discuss results of PIP Bundle initiative

Background

- Patients in CCUs are at higher risk for developing hospital-acquired pressure injuries (HAPIs)
- Risk factors for developing HAPIs include immobility, sedation, vasopressors, mechanical ventilation and hemodynamic instability
- HAPIs negatively impact patient outcomes, patient/family experience, nurse satisfaction and financially
- An increase in HAPIs in the adult CCU prompted the Wound Ostomy Continence nurse and the unit to reduce HAPIs
- Root cause analysis identified inconsistencies in pressure injury prevention strategies

Literature Review

- The Institute for Healthcare Improvement (IHI) (2019) defines a bundle as standardizing processes of care in order to improve patient outcomes
- Anderson M., Guthrie P. F., Kraft W., Reicks P., Skay C, Beal A. L. (2015) conducted a quasi-experimental study on a PIP Bundle, which resulted in a decrease in HAPIs from 15.5% to 2.1%
- Krupp A.E., Monfre J.(2015) reported key components associated with the success of a PIP Bundle include:
  - Involvement of all key stakeholders
  - Staff education
  - Pressure injury prevention teams
  - Audits and feedback

Methods and Procedures

- The unit selected to implement the PIP Bundle was based on the high incidence of HAPIs
- Most common HAPI locations occurred on the sacrum and buttocks
- An interdisciplinary team was established and consisted of:
  - Two Wound Ostomy Continence nurses (WOCNs)
  - A nurse manager and two assistant nurse managers
  - Registered nurses and patient care associates/nurse's aides
  - Respiratory therapists

Pre-Intervention

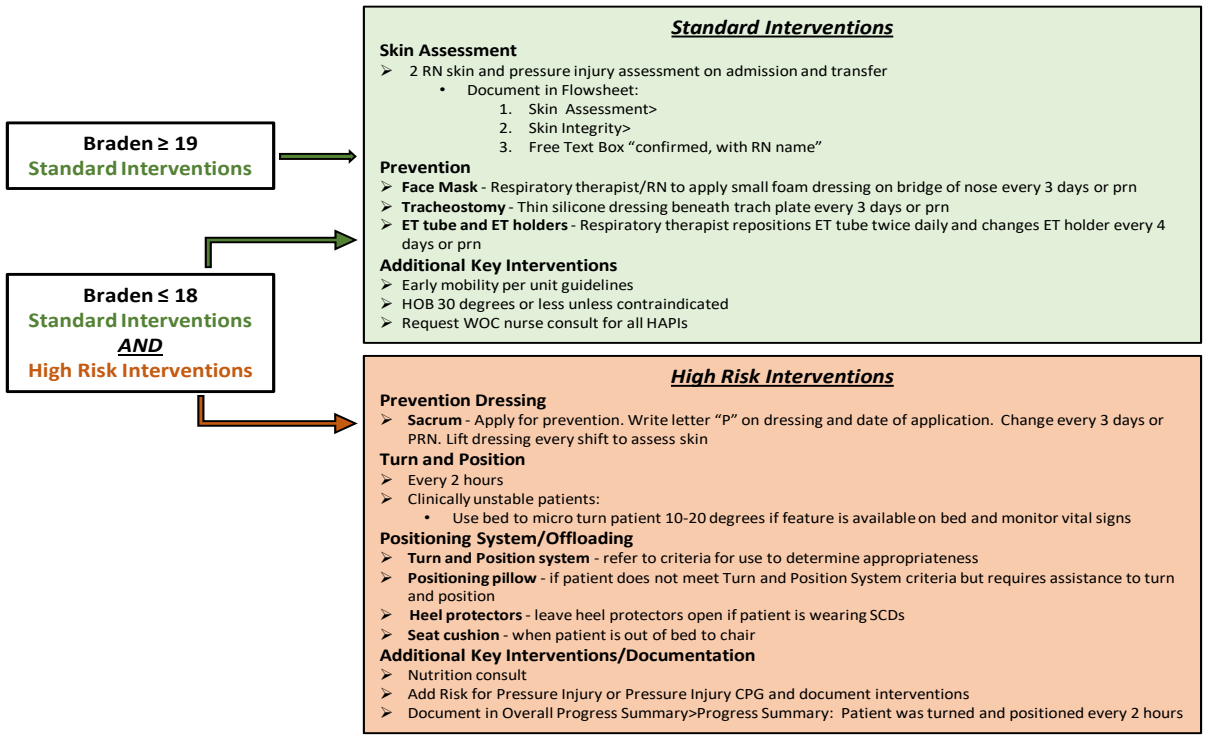
- During the 13 month pre-intervention period there were nine HAPIs, which represented a HAPI index of 3.4%
- A literature review was conducted to identify best practice regarding pressure injury prevention
- An audit tool was developed to assess adherence to the PIP Bundle and gaps in knowledge
- Meetings were held with key stakeholders to inform and engage them in the process
- A staff nurse was identified as a skin champion

The PIP Bundle

Included:

- A risk and skin assessment completed upon admission and every shift
- The Braden Scale was included to identify patients at risk for developing HAPIs
- Appropriate interventions were implemented to reduce risk and were documented in the electronic medical record
- WOC nurse consults for stage 3 and above pressure injuries present on admission and all HAPIs
- An audit tool was used to assess adherence to bundle and gaps in knowledge

The PIP Bundle

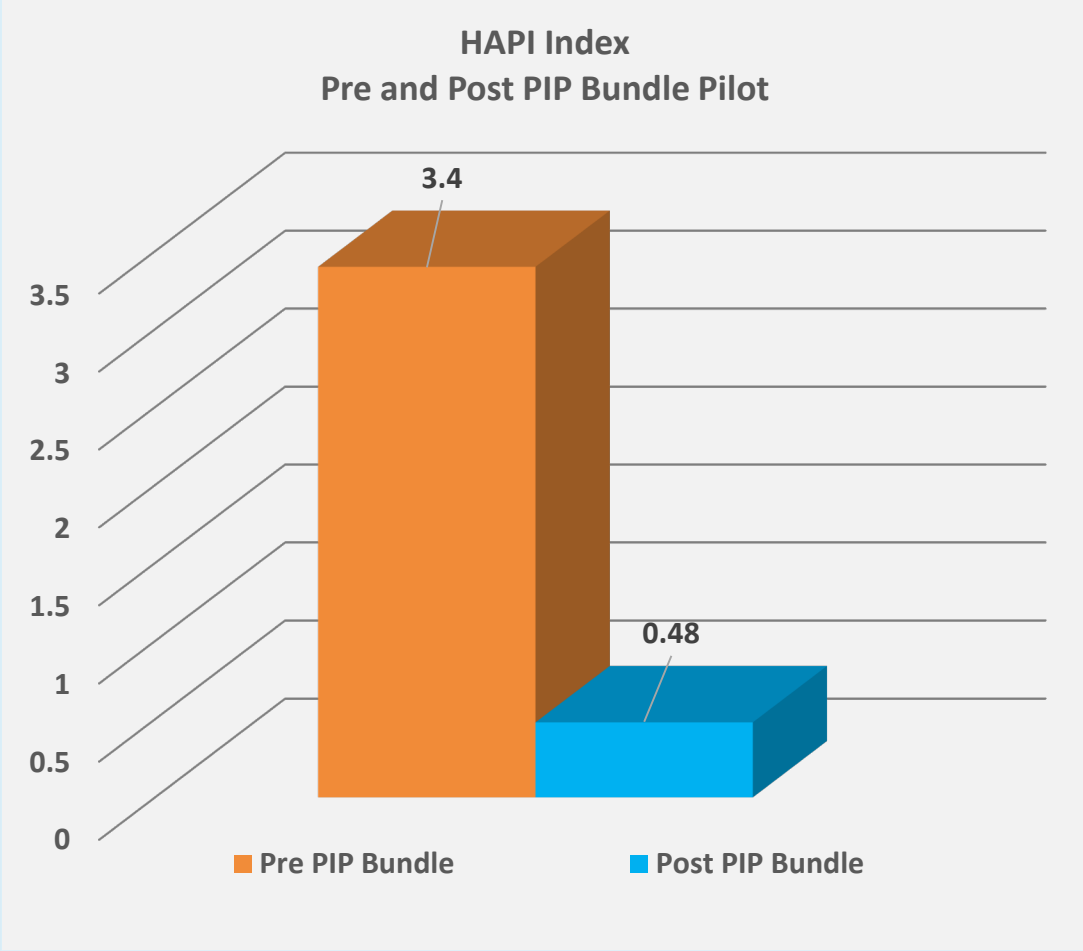


Intervention Period

- WOC nurses, the nurse manager and assistant nurse managers:
  - Provided in-services to staff
  - Conducted daily, then weekly pressure injury prevention rounds
  - Incorporated the PIP Bundle into change of shift meetings
- The skin champion conducted chart audits and promoted use of the bundle
- Laminated copies of the PIP Bundle and turn clocks were placed in the patient's room

Results

- Eight months post implementation, one HAPI occurred, representing an index of .48%
- The PIP Bundle resulted in a decrease from 9 HAPIs during 13 month pre-intervention period, representing a HAPI rate of 3.4% to one post-intervention, representing an index of .48%
- The reduction in HAPIs contributed to improved patient outcomes and nurse satisfaction



Post Intervention

- The PIP Bundle was implemented in all critical care, step-down and medical-surgical units
- Efforts continue to sustain the reduction in HAPIs at a larger scale
- Sustainability of the bundle is dependent on stakeholders remaining vigilant and focused on HAPI prevention

Lessons Learned

- Challenges of sustainability
  - Maintaining consistent use of the PIP Bundle with competing priorities
  - Training new staff
- Larger scale implementation of the bundle
- Audits identified knowledge gaps regarding documentation in the electronic medical record
- WOCNs are including the PIP Bundle in nursing orientation
- Created a multidisciplinary pressure injury prevention committee

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