

Implementation of a Multimodal Pressure Injury Bundle in Neurotrauma

Helen K. Bloh, BS, RN, CCRN
Lauren Nawrocki, DNP, MS, CRNP, CCRN
Renee Franquiz, DNP, RN, CNE

Background

Centers for Medicare and Medicaid Services consider HAPI to be reasonably preventable through appropriate care delivery including it on their list for “no-pay conditions”

Pressure Injury (PI): breakdown of skin integrity due to unrelieved pressure.

Hospital Acquired Pressure Injury (HAPI): PI that occurred during hospitalization.

Consequences of Pressure Injury Development:

- 2.5 million patients develop PIs yearly in the United States
- US Healthcare spends \$2.2 to \$3.6 billion annually on HAPI
- Prevention has a predicted yearly cost savings of \$82,681

Pre-implementation Data:

- **Facility HAPI rate:** 27 HAPI in January 2022
- **Unit HAPI rate:** 9 HAPIs in January 2022
- Sacrum is most common location of skin breakdown

Purpose & Goals

Purpose: The purpose of this initiative is to implement a multimodal pressure injury prevention care bundle to reduce incidence of pressure injuries on a Neurotrauma Unit.

Long Term Goals:

- 100% decrease of hospital acquired pressure injury incidence on the neurotrauma unit
- 100% of patients on neurotrauma with a Braden score of ≤18 will receive all six elements of the pressure injury prevention bundle

Short Term Goals:

- 100% of patients on neurotrauma with a Braden score of ≤18 will receive the pressure injury prevention bundle.

Methods

Setting: 38 bed Neurotrauma unit

Population: Patients admitted to Neurotrauma

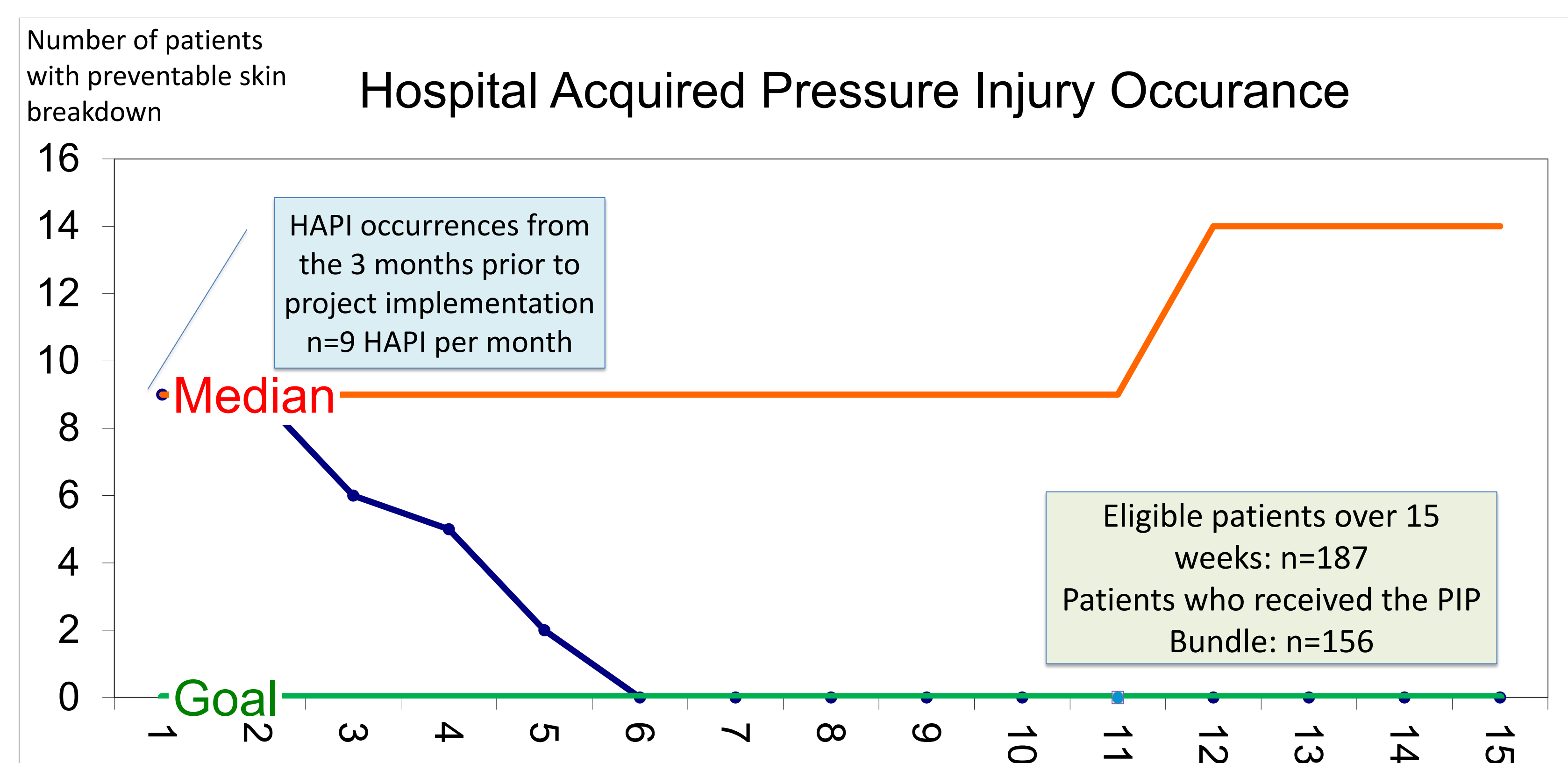
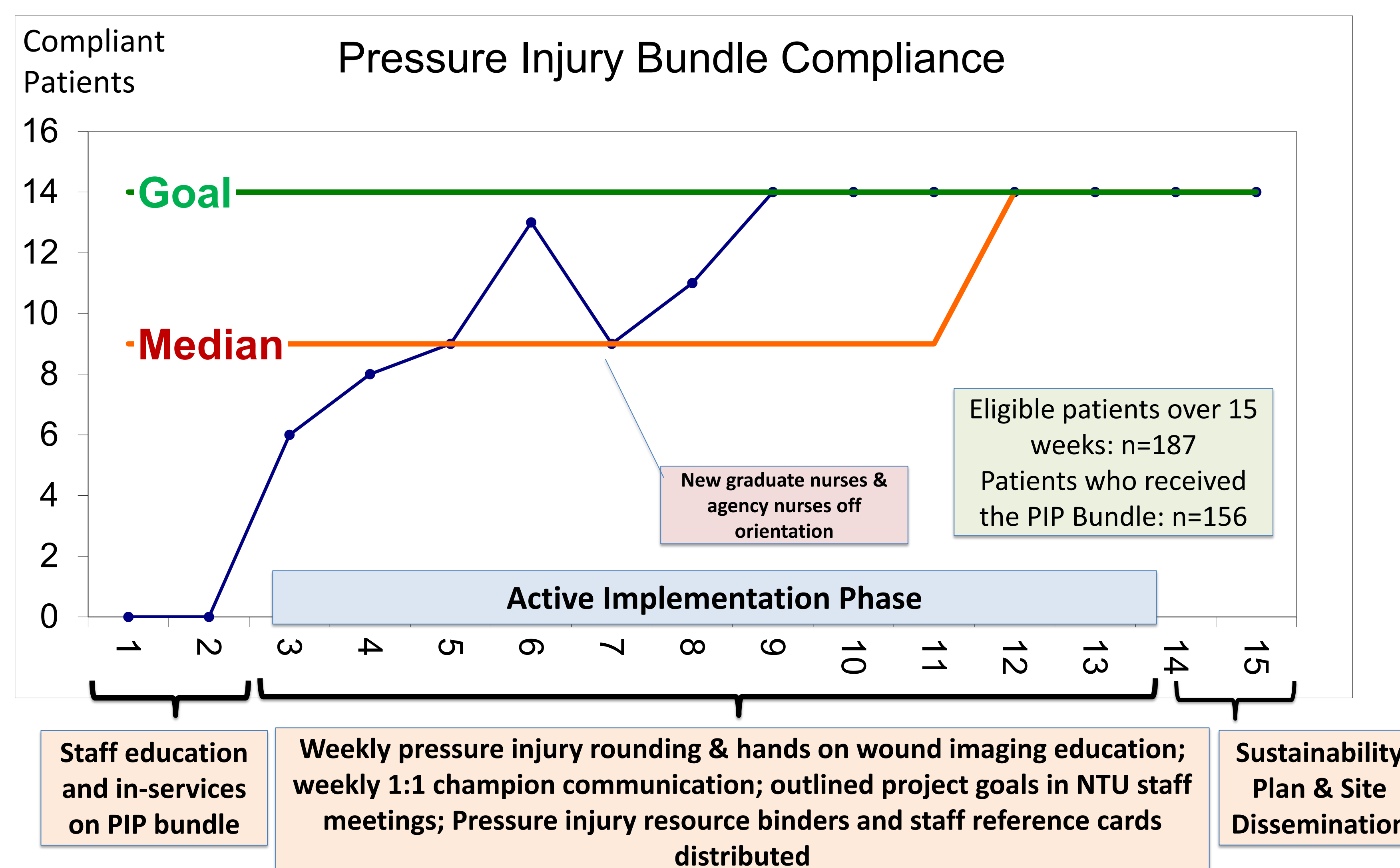
Intervention & Implementation Strategies:

Pressure Injury Prevention Bundle implementation on all patients with Braden ≤ 18

Bundle components: Prevent (sacral foam dressing & wound consult), Inspect (4 eyes skin assessment and/or wound imaging), Movement (turning), Surface offloading, Incontinence Measures, and Nutrition.

- Audits were performed weekly
- Braden scale performed by nursing every shift to determine patient’s risk for PI development

Results



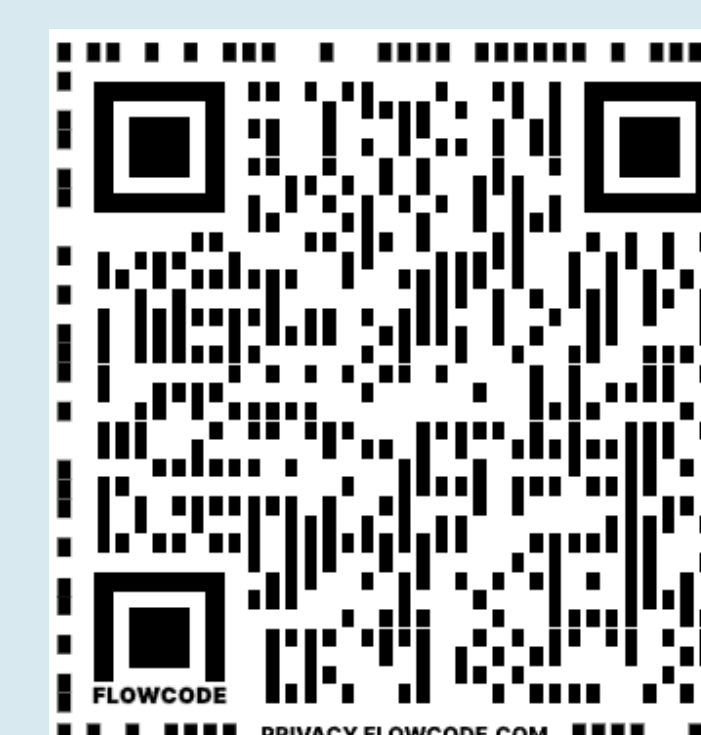
Process Measures

- Compliance for pressure injury prevention bundle completion increased from 43% (pre-implementation) to 100% (post-implementation)

Outcome Measures

- Unit rate of sacral breakdown decreased from 9% (pre-implementation) to 0% (post-implementation)
- HAPI rate decreased from 9 HAPIs per month (pre-implementation) to 0 HAPIs per month (post-implementation)

Scan QR Code for Pressure Injury Bundle Tools



Discussion

Evidence states that early concise documentation with intervention is the number one way to prevent pressure injury incidence

Barriers:

- High rate of nursing turnover, in week 7 new graduate & agency nurses came off orientation
- High rate of travel nurses unfamiliar with hospital and unit policies
- Lack of familiarity with wound imaging software

Facilitators:

- Wound imaging increased nurse autonomy
- Pressure injury bundle incorporated a previous pressure injury bundle that was revised to include wound imaging and a turning protocol
- Improved patient outcomes was identified as a major staff motivator

Conclusions

Implementation of a multimodal pressure injury prevention bundle to incorporate leads to a reduction in pressure injury incidence

- Multimodal PI prevention system reduces PI incidence
- PIs can be prevented by screening patients' risk on hospital admission, daily reassessment of risk, and timely application of prevention strategies.

Sustainability Plan:

- Unit skin care champions identified
- Results dissemination to unit staff, hospital wide skin care committee, and stakeholders.
- Turning team development

References & Acknowledgements

Scan QR code for full list of acknowledgements and references

