

# Take a Bite Out of Hospital-Acquired Pressure Injuries (HAPIs) with Bite-sized Microlearning for Cardiothoracic Nurses

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## Introduction

- Cardiothoracic surgery patients are at an increased risk for deep tissue injury (DTI) due to prolonged surgery times, poor perfusion, hemodynamic instability, altered nutritional status, and co-morbidities.
- Nursing staff's knowledge of pressure injury (PI) identification and prevention is essential to reducing the incidence of hospital-acquired DTIs in this patient population.
- Daily rounding by the wound care nurse team (WCNT) revealed that PI prevention interventions were inconsistently utilized, and that nursing staff frequently failed to identify DTIs on patients with darker pigmented skin.

## Purpose

The purpose was to identify three learning opportunities that our nurses had regarding PI identification and prevention, and to provide microlearning experiences to increase DTI identification and nurses' knowledge of evidence-based interventions.

## Microlearning and Benefits for Cardiothoracic Nurses

- Microlearning is the accumulation of knowledge through small units.
- It is sometimes referred to as "bite-sized content."
- Microlearning opportunities can last anywhere from a few minutes up to 15 minutes, which makes them ideal for nursing huddles or Braden score rounding.
- Microlearning relies on the interactions and connectivity of the participants which increases the retention of educational material.
- Microlearning was selected to fit within the cardiothoracic nurses' high acuity workload with the goal of raising their awareness of their patient's risk for DTIs and the increased use of evidence-based PI interventions.

## Methods

The WCNT conducted pre- and post-intervention surveys following a "1-2-3 Pressure Injury Free" approach. We focused on bite-sized learning opportunities that included:

1. In-person vendor fair and the creation of a virtual library of vendors demonstrating their products.
  2. Two person WCNT rounding on at-risk patients, providing guidance on PI identification and interventions. Some activities included at-risk Braden score checks, mini PI Tip Tuesdays, and vendor videos shared at huddles.
  3. Skin champion team promoting PI interventions during huddles and skin rounds.
- Interactive road shows included: PI Jeopardy, Wheel of PI Interventions, Brownies for Braden Scores, and Staging PIs with Fruits and Berries.

## Results

Based on the results of our initial survey, nurses scored poorly on DTI identification on darker pigmented skin, definition of a stage 1 pressure injury, and recommendations for frequency of repositioning for the seated patient. Nurses were surveyed before initiation of microlearning, one month, and three months after microlearning implementation. The final results were as followed:

- Identification of DTIs on darker pigmented skin increase from 67% to 72%.
- Identification of a stage 1 pressure injury increased from 50% to 72%.
- Frequency of recommended repositioning in the seated patient increased from 55% to 83%.

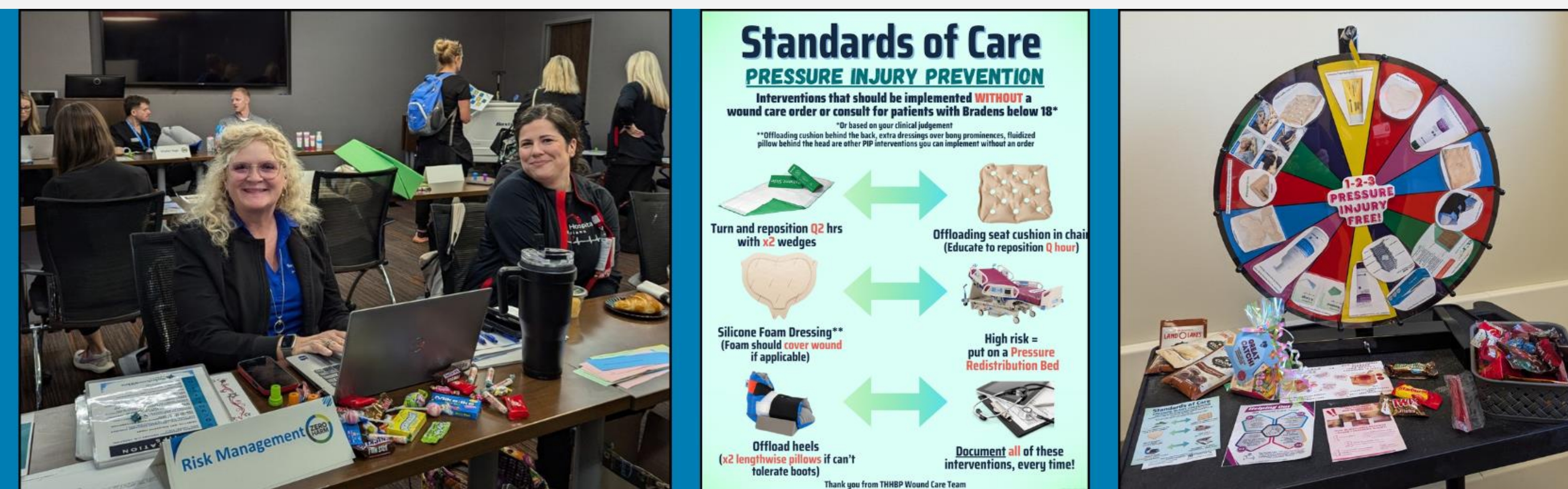
Incidental finding: our HAPI incidence rate decreased 32% from quarter 1 to quarter 2 while microlearning education was being conducted on the nursing units.

## Conclusions

- Although survey gains were modest, microlearning proved to be an effective method for increasing nurses' knowledge of PI identification and use of evidence-based interventions.
- In addition to increasing nurses' knowledge, microlearning appeared to contribute to a decrease in our HAPI rates.
- Continued and consistent use of microlearning for PI identification and prevention can promote a decrease in HAPIs and improve overall patient outcomes.

## References

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When looking for pressure injuries in patients with darker pigmented skin, darker skin will rarely demonstrate a blanching response.

