RML Specialty Hospital - Hinsdale - Unit B1
Initiative to Prevent Hospital Acquired Heel Pressure Ulcers (HAPUs)

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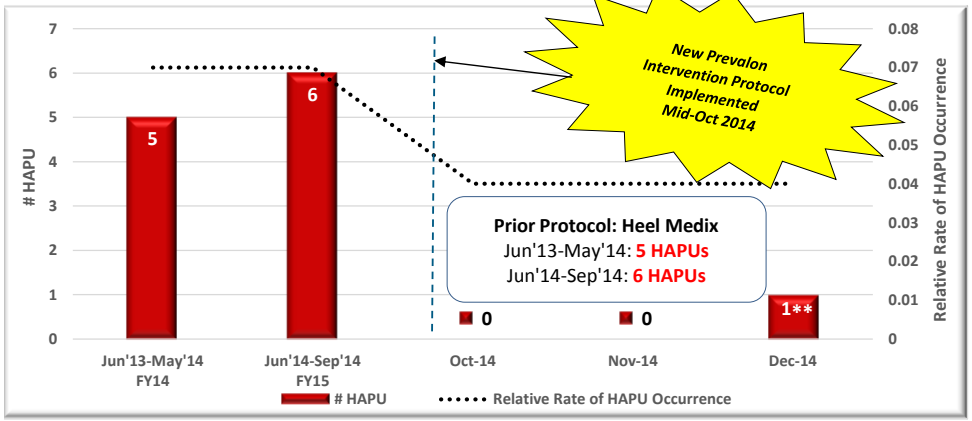
BACKGROUND

- After reviewing data on existing hospital-acquired pressure ulcers (HAPU), RML determined that there was opportunity to decrease the rate of heel pressure ulcers (PU) within the organization. Historical data was analyzed and pilot unit (B1) was chosen based on rate of heel pressure ulcer occurrence. The timeframes of FY14 (June 2013 - May 2014) and beginning of FY15 (June 2014 - Sept 2014) were used as a baseline. The pilot, which began in Mid-October 2014, consisted of a new intervention combining product (Prevalon Pressure-Relieving Heel Protector) and methodology (routine skin assessment), initiated by the bedside staff.

OBJECTIVES

- Reduce/prevent pressure ulcers on the heel by two thirds.
- Use a pressure-relieving heel protector (boot) on all patients who were at risk for developing heel pressure ulcers and foot drop. Establish a team driven approach where staff initiates and performs a daily skin check once per shift. Any changes in skin condition are identified immediately and reported to the Wound Clinician. Daily documentation and random audits were performed.
- Boot is worn at all times when the patient is in bed. Patient/family education performed.
- Boot is removed & replaced every shift for skin inspection & care.

CLINICAL OUTCOME



CONCLUSIONS

3 Key factors contributed to the success of the trial:

- **Clinical** - Patients with existing heel pressure ulcers or those identified as at risk by Wound Care were fitted with a Heel Protector. All patients wore the Heel Protector for an average of 15-20 days and saw positive results in that timeframe.
- **Methodology** - Daily Skin checks were lead by staff champions during each shift. Non-compliance and other concerns that might adversely affect the patient were identified early.
- **Product** - Prevalon Heel Protector with Integrated Wedge was used.

METHODOLOGY

- **Relative Rate of HAPU Occurrence** = HAPU/Total Number of Patient Days on pilot unit. The number of heel PU occurrences during the respected time frames on B1 Unit was divided by the number of patient days, respectively.
- **Time Frames:**
  - » **Pre-Intervention** - FY14, (June 2013-May 2014) & beginning of FY15, (June - Sept 2014) prior to pilot - use of Heelmedix boot
  - » **Post-Intervention** - Oct - Dec 2014 Implementation period during the clinical trial - use of Prevalon Heel Protector

Pre-Intervention Issues Identified:

- » Lack of protocol/process for consistent skin assessment.
- » Inconsistent application of Heelmedix Boot (former boot) due to lack of established criteria and protocol.
- » Application of boot was somewhat complicated, based on design, which affected clinician compliance.
- » The boot contained hard edges which contributed to skin breakdown.
- » Boot allowed shifting of foot, contributing to potential shearing.

Post-Intervention Methodology:

- » Protocol and criteria for qualifying patients was established.
- » Staff education consisted of daily skin assessments, every shift, identifying any changes in skin appearance and notifying the wound clinician immediately to collaborate on action plan.
- » Former Heelmedix boot was discontinued and Prevalon was used in its place.

- **Exclusions:** Patients that were non-compliant during trial.

The goal was to determine if *prescribed (as indicated) Prevalon use, with routine skin assessment and follow-up, resulted in a decrease of heel PU.

* Boots worn at all times except for monitored times off (including bathing), or skin assessment.

RESULTS

- **Relative Rate of HAPU Occurrence Results:**
  - » **Pre-Intervention:** 11 PU/14,210 patient days = **0.07**
  - » **Post-Intervention:** 1 PU/2,761 patient days = **0.04**

Initial Findings:

In a relatively short period of time, the heel PU rate on B1 decreased by almost half. In addition to the **one PU occurrence, we found ***two additional cases where the prescribed methodology not only prevented PU but also contributed to the treatment of newly developing wounds.

**** One PU Occurrence: (Dec 2014)**

» Transplant/vasopressor patient. Vascular impairment r/t disease entity and vasopressors. Boots applied as end-of-life comfort measures. Developed PU despite boots and skin methodology r/t vascular impairment.

***** Additional Findings in Treating PU:**

» Severely contracted patient with heel redness prior to the trial. Boots were not initially applied due to contractures. After case review, staff attempted to apply boots for patient benefit. Boot application was successful and protected against further skin breakdown. This patient's redness and skin was fully resolved. PT was discharged with intact skin on feet/heels.

» Initially, patient was non-compliant as the heel protector was being removed intermittently by spouse. Boot not worn as prescribed, which affected outcome. Once educated on the features and benefits, the boot was no longer removed and the patient's pressure ulcer fully resolved.