

HEEL PRESSURE ULCERS: HOW DO WE PREVENT THEM AND EVALUATE PRACTICE? AN EXAMPLE WITHIN AN ACUTE CARE HOSPITAL

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INTRODUCTION

Pressure ulcers remain an issue within the hospital environment and impact resources and patient quality of life.¹ As a patient population ages, pressure-related injuries increase with clinical acuity. Reducing pressure ulcers on the heels remains a challenge in immobile patients with multiple co-morbidities. This poster reviews the incidence of heel pressure ulcers within an acute care hospital setting over a 5-year period, and assesses the prevention strategies employed to reduce the incidence of heel pressure ulcers.

METHODS

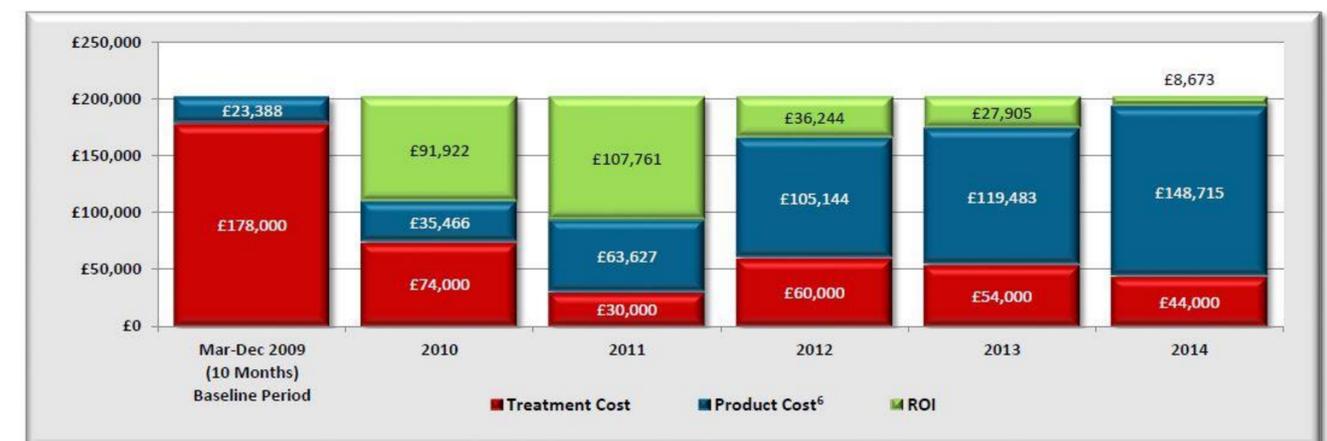
A retrospective review of audit data was conducted from the E-trace[®] database (2009-2014), which is used to record pressure ulcers in an acute care hospital setting. Pre-intervention and post-intervention heel pressure ulcer incidence was compared (stages 3 and 4) before and after quality improvement interventions. Interventions included use of relevant equipment*, robust skin review practices, and staff education.

*Prevalon[®] Heel Protector (Sage Products LLC; Cary, IL)

RESULTS

There has been a sustained 67% reduction in stage 3 and 4 pressure ulcers to the heels (Figure 1). This sustained reduction has been observed despite increases in patient acuity within the Trust according to a robust skin assessment conducted on all patients on admission and throughout their hospital stay. These findings suggest the use of a heel protector has aided in the reduction of heel pressure ulcer incidence. Use of the heel protectors has risen from 448 devices in 2009 to 3,008 in 2014, resulting in a total return of financial resources of £272,505 (Figure 2).

Figure 1. Return on investment of QI initiative

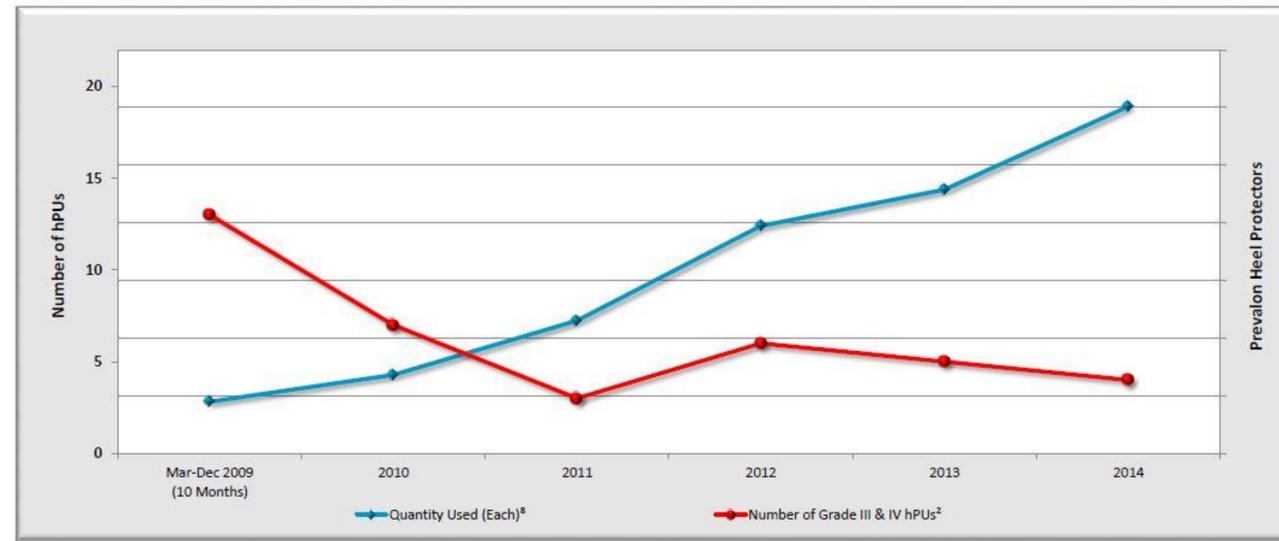


Addresses known risk factors for hPUs¹

1. Coats-Bennett U, Critical Care Nursing Quarterly. May 2002; 25 (1):22-32. 6. Based on ordering history provided by manufacturer.

RESULTS *continued*

Figure 2. Outcomes of QI initiative



Addresses known risk factors for hPUs¹

1. Coats-Bennett U, Critical Care Nursing Quarterly, May 2002; 25 (1):22-32. 2. Usage based on ordering history provided by manufacturer. 2. Data provided by facility.

Year	Mar-Dec 2009 (10 Months)	2010	2011	2012	2013	2014
Number of Grade III hPUs ²	1	6	3	6	4	3
Number of Grade IV hPUs ²	12	1	0	0	1	1
Heel Pressure Ulcer Treatment Costs						
Grade III hPUs - £10,000 ²						
Grade IV hPUs - £14,000 ²						

2. Provided by facility.

DISCUSSIONS

This heel pressure ulcer prevention initiative utilised an ongoing review and audit of pressure ulcers and evidence-based interventions, which enabled constant reassessment of effective practices. The continuous quality improvement methods employed throughout this initiative enabled the clinical team to validate the strengths and weaknesses of current practice interventions and make appropriate changes as necessary.

The clinical implications associated with this initiative are as follows:

- Use of heel protectors when skin damage is first noted at an early stage, alongside suitable education and clinical input, can significantly decrease the severity and incidence of pressure-related damage.
- This quality improvement initiative required changes in clinical practice to utilise the heel protectors in high-risk patients (e.g., vascular disease) and at an earlier stage in the presence of non-blanching erythema.
- The reduction in heel pressure ulcers has resulted in increased patient quality of care, improved patient outcomes, and cost efficiency.

REFERENCES

1. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Emily Haesler (Ed.). Cambridge Media: Perth, Australia; 2014.