



SUCCESSFUL QUALITY IMPROVEMENT INITIATIVE RESULTS IN 95% DECREASE OF FACILITY-ACQUIRED HEEL PRESSURE ULCERS

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INTRODUCTION

The heel is at increased risk for pressure ulcer formation due to its anatomical location with minimal adipose tissue and muscular structure between the skin and bony prominence, making it vulnerable to excess shear and friction.¹ Patients who develop a facility-acquired heel pressure ulcer (FAHPU) experience increased morbidity, discomfort, and decreased quality of life.²

The occurrence of a heel ulcer impacts dramatically on mobility which in turn can impact on nutrition, cognition, continence, pressure, shear and friction – all of which can predispose our patients to an increase risk for further skin breakdown.



Skin over bony prominences is at increased risk of pressure ulceration.

Evidence-based FAHPU prevention requires effective interprofessional clinical team collaboration, heel off-loading, frequent repositioning, and multiple other interventions outlined in evidence-based recommendations. Refs 3.

In 2009, our large acute care teaching facility conducted a prevalence and incidence survey to gain a clear understanding of how our patient population was impacted by pressure ulcers, and determined that FAHPU prevention efforts needed to be enhanced to decrease FAHPU incidence. In mid 2010, a strategic commitment across the hospital's community identified pressure ulcer prevention as a "Big Dot" indicator at the Board level. This was critical in driving the development of an effective quality improvement initiative. Our quality improvement initiative was designed as a proactive/preventive heel ulcer prevention program – identifying those at risk through the use of the Braden Risk Assessment Tool and the Heel Protector Algorithm, and preventing pressure-related breakdown.

METHODS

Clinical Setting: Large community teaching center (>600 beds)

Standardized Heel Protector: One of the clinical challenges identified when planning the quality improvement initiative was the presence of a variety of very dated heel protectors, which neither were single patient use nor truly pressure off-loading. The lack of standardization of heel protectors presented a challenge to clinical staff for ensuring consistent heel offloading. A comprehensive search was conducted to identify available pressure off-loading heel protectors and evaluate effectiveness through staff satisfaction surveys. Products and processes were standardized to avoid confusion.

Interprofessional Collaboration: A collaborative interprofessional team (1) conducted a comprehensive and rigorous product review of heel protectors; (2) identified and leveraged important relationships for Interprofessional collaboration; (3) employed comprehensive education and engagement methodology for FAHPU prevention; and (4) implemented supporting structures and processes to ensure best practices were implemented at the patient's bedside.



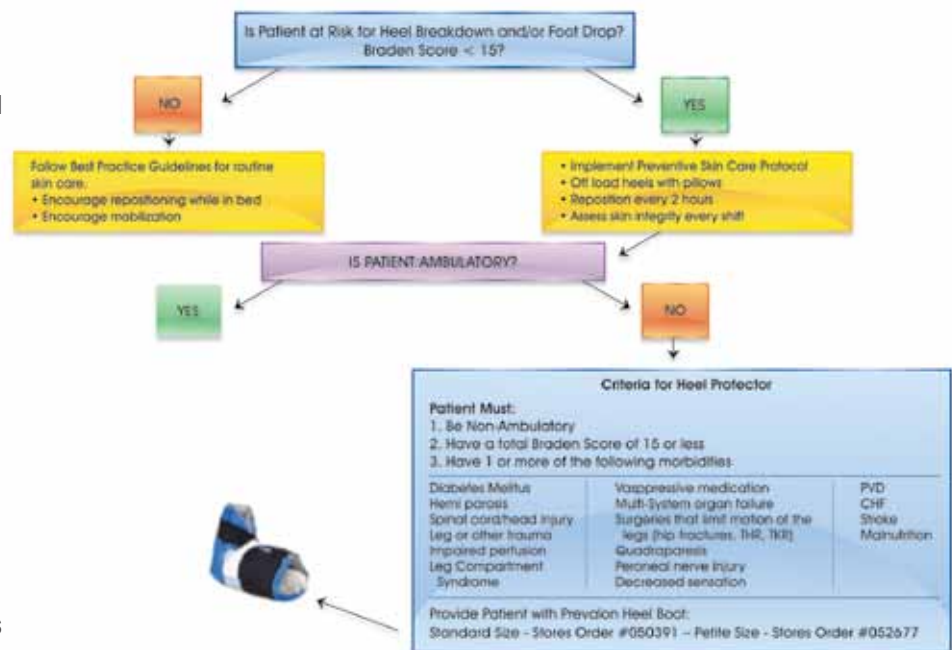
Algorithm for Heel Protector Application: An algorithm for application of heel protectors was implemented in 2010 to ensure at-risk patients received appropriate heel offloading.

Staff Education:

Comprehensive evidence-based education was provided to nurses on FAHPU prevention as part of the quality improvement program.

Patient/Family Education:

Patient and family educational brochures were developed to reinforce the need for heel protectors in FAHPU prevention. Staff were taught to “contract and negotiate” with patients and families, explaining the importance of heel offloading but providing opportunities for periods when the protector was not worn (e.g., during meals). Patient and families responded well to this approach.



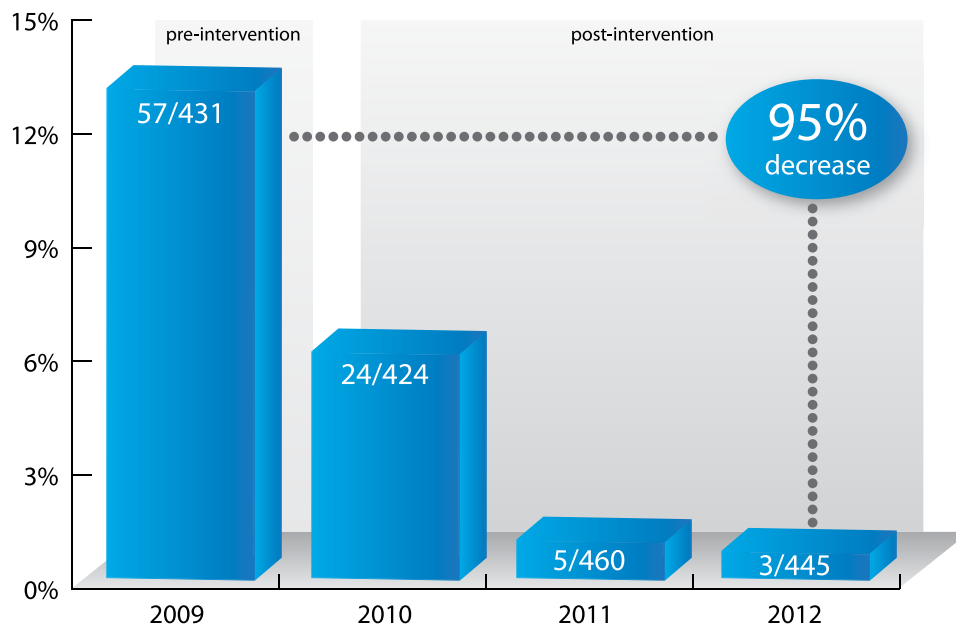
Heel Protector Algorithm - Developed by Christine Baker, RN, MSN, CWOCN, APN. Adapted by Alison Anger RN, APN, ET and Shauna Rekker RN, BScN©

Prevalence & Incidence Surveys: Annual P&I surveys were conducted every March to assess the effectiveness of the Interprofessional evidence-based QI initiative. Interim P&I surveys were conducted every 6 months for qualitative metrics regarding the effectiveness of FAHPU prevention efforts.

RESULTS

After comprehensive caregiver education and staff engagement to ensure accountability and increased communications, FAHPUs decreased significantly as follows: 6% (24/424) by March 2010; 1% (5/460) by March 2011; and 0.7% (3/445) by March 2012, representing a 95% decrease from 2009.

Facility-acquired heel pressure ulcer (FAHPU) reduction 2009-2012



CLINICAL IMPLICATIONS

- By enhancing communications in an Interprofessional nature across the health care system, and ensuring evidence-based best practices in FAHPU prevention were implemented at the patient's bedside, FAHPUs were prevented and patient quality of care and safety increased.
- Standardization of a single-use heel protector and an algorithm for when to apply one helped eliminate confusion among clinical staff regarding appropriate application and FAHPU prevention.
- Contracting and negotiating with patients and family is an effective method of compromise in patients who understand the need for heel offloading but want a break from wearing the heel protector at certain time points.

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