Abstract

On May 12th & 13th, 2008 all of the residents at Deer Lodge Centre (DLC) had their heels examined for any evidence of skin breakdown. Of the 419 residents examined, there were a total of 24 heels that showed evidence of skin breakdown of any stage. For mobile and immobile residents the usual practice has been to arrange for the fitting of rigid boots to assist with heel off-loading. For those residents who were non-ambulatory a soft boot such as the Prevalon Pressure-Relieving Heel Protector was considered for trial to see if it could help prevent and treat pressure sores on the heels. The main advantages of these boots are that they are lighter, potentially more comfortable, less expensive, and would prevent putting individuals at increased risk for skin breakdown if they were wearing a poor fitting, rigid off-loading boot. Our review has found that with the use of the Prevalon soft boot to off-load at-risk heels, our heel ulcer prevalence rate for residents at DLC has significantly decreased. A total of 16 heel ulcers with various staging had the soft Prevalon boot applied between March and August 2008. 11 of these heel ulcers have healed (69%).

Background

Heel pressure ulcers (hPUs) are caused by pressure or shearing forces to the bony surface of the heel which can damage microcirculation and cause anoxia of the skin tissue.1 Patients in long-term care settings are at significant risk of hPUs.2 One U.S. study of 95 long-term care facilities estimated that 19% of patients developed a new pressure ulcer, and the most common location for either pre-existing or new pressure ulcers was the heel (22%; N = 2,420).2 Historically, the majority of evidence-based literature on the prevalence and incidence of hPUs has been derived from findings of U.S-based studies, because the Canadian healthcare system tracked the prevalence and incidence of these conditions in a different manner. As dissemination of evidence-based medicine and best practices has expanded in recent years, health professionals in Canada have become aware of the need to conduct independent studies of the prevalence and incidence of hPUs.

Quality Improvement Methods and Results

Baseline survey

The heels of all long-term residents were examined on 05/12/08 and 05/13/08. At that time, 7% of residents showed some degree of heel skin breakdown.

Quality improvement intervention

Non-ambulatory patients with stage I-IV hPUs, unstageable ulcers, or deep tissue injury (DTI) were treated with a soft heel protector. Antimicrobial wound dressings continued in conjunction with heel offloading. Caregivers were educated through in-service programs on the necessity of offloading heels to prevent and treat hPUs.

Clinical Implications

◆ A soft heel offloading device was successful at preventing additional heel skin breakdown and effective at offloading existing hPUs.

◆ Greater than half of the hPUs treated with the heel offloading device resolved with continuous offloading and antimicrobial wound dressings.

◆ This intervention showed that continuity of care and early intervention improves patient outcomes.

◆ Ongoing caregiver education is essential to successfully implementing an hPU-prevention protocol to ensure consistent application of heel offloading devices in the at-risk patient population.

References


