

Assessing, preventing and managing heel pressure ulcers

KEY WORDS

- ▶ Heel ulcer
- ▶ Pressure ulcer
- ▶ Prevention
- ▶ Social Media

Nearly 30% of pressure ulcers occur on the heels and associated regions of the lower limb, this article looks at the use of implementing a guide to increase staff awareness of prevention of pressure ulcers on the heel alongside the use of promotion through social media. In the current climate of working in healthcare we recognise that healthcare professionals are seldom having the time to research the latest guidance so by using social media we aim to provide them an alternative route to educate.

The International National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP) and Pan Pacific Pressure Injury Alliance classification (PPPIA) of a pressure ulcer is 'localized injury to the skin and/or other underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear' (NPUAP et al, 2014).

Although anyone can develop a pressure ulcer, those who are seriously ill, have impaired mobility, a neurological condition, impaired nutrition, poor posture or a deformity are at the greatest risk (National Institute for Health and Care Excellence [NICE], 2014). Underlying comorbidities, such as peripheral neuropathy and/or peripheral arterial disease (PAD), can increase this risk (National Institute for Health and Care Excellence [NICE], 2012; 2015)

Pressure ulcers are a source of long-term pain and emotional distress for patients and present a large financial burden to the NHS. Nearly 700,000 people in the UK are affected by pressure ulcers each year. They occur across all care settings, including in patients' own homes, with the most vulnerable patients being those over 75 years of age (NHS, 2014). Whilst the most common site of occurrence is at the sacrum the second most common location for pressure ulcers to develop is at the heel. As several studies have shown (Vanderwee et al, 2007; Van Gilder et al, 2012), nearly 30% of pressure ulcers occur on the heels

and associated regions of the lower limb; about 18% of ulcers are on the heel itself, with this region being the second most likely area for pressure damage after the sacrum. The main causes of ulceration to the heel are walking pressure or prolonged static pressure, with or without shear and friction (NPUAP 2014).

The Tissue Viability Service within Coventry and Warwickshire Partnership Trust (CWPT) are committed to providing compassionate care and ensuring patients have a positive experience. The tissue viability team worked with clinical staff from CWPT on their root cause analysis (RCA) for Grade 3 and 4 pressure ulcers to identify learning and actions within the community services. In doing so, we identified a high prevalence: 51% of heel/lower limb pressure ulceration within Coventry in 2015. A key theme from the RCAs was the need for additional focussed education and materials to support specific risk assessment for heels at the bedside. Following this correlation of RCA data, we identified advancements that could be made around education on preventative measures for heel ulcers.

The aim of this project was to produce a guideline for clinicians to identify patients at risk of heel ulceration and support planning and implementation of individualised prevention strategies within the community setting. The tissue viability service reviewed the resources and educational materials we had available to

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Figures 1. Heel Hero

support lower limb pressure ulcer prevention. We identified that we could utilise a learning guide for clinicians within Coventry to keep on-hand when identifying patients at risk of heel ulceration within the community setting and in nursing homes.

SUPPORTING PRACTICE

We also reviewed externally available guidelines on use of heel prevention devices and found they were often very company-focused and limited to one option only; we have found from reviewing and treating patients that one option does not always fit all. We also identified that prevention strategies require rapid identification of risk factors. We used this review to incorporate rapid assessment and a range of preventative options into the new guidance. In order to introduce this to practice, we made the guidance smaller sized (pocket size) and promoted the use of it through pressure ulcer week (our annual pressure ulcer prevention week), during which time we delivered copies to nursing homes within the local area and gave staff copies to carry.

HEEL HERO

The tissue viability team already make extensive use of social media, and are developing innovative ways of engaging staff in education. Alongside the development of guidance, we also identified that our focus for the year would be to improve awareness of heel pressure ulcers within our trust. Since heels are an area of the body where patients often develop pressure ulcers, a “Heel Hero” character was created by the communications team and the Tissue Viability Service to help spread the word ‘React to Red Skin’ across Coventry and Warwickshire (Figure 1). We also created a social media account on Twitter (@Heel_Hero), aiming to use connections on Twitter and Facebook to promote our work on heel prevention.

SOCIAL MEDIA

In Coventry & Warwickshire Partnership Trust, we have created a social media presence through our CWPT Tissue Viability Facebook and Twitter page where we signpost nurses and carers to follow us for latest guidance, pathway updates and training resources. As a service, we had identified

the need to promote these social media forums, so we used the guidance to increase staff awareness of our groups.

DISCUSSION

The guide is set out in three sections covering risk factors, assessment and management (Figure 2) The actions recommended in the assessment section are all simple and do not require additional equipment and so can be carried out in all care settings including the patients home as soon as the patient is identified as potentially being at risk.

CONCLUSIONS

In conclusion, the introduction of new heel pressure ulcer guidance and improved awareness of heel ulceration risk factors has improved staff knowledge and reduced the occurrence of heel ulcerations within the Trust for 2016/17 to 39%; this equates to a decrease of 12%. We continue to use social media as a forum for discussions on improving practice and now have over 490 followers.

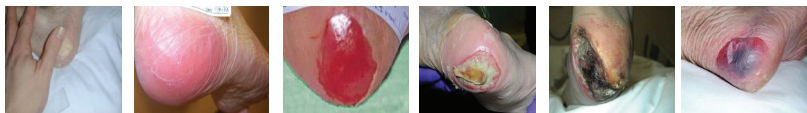
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Pressure Ulcer Prevention Heel Offloading Guide

Coventry and Warwickshire Partnership NHS Trust



Risk Factors

Reduced dietary intake
 Advancing Age
 Abnormalities of circulation
 Sensory deficiency
 Immobility
 Major surgery
 Multiple health problems (co-morbidities)
 Dehydration
 Friction and shear forces
 Diabetes
 Peripheral vascular disease
 Ischemia/ reduced circulation to the area
 Hip fractures
 Low albumin levels/anemia
 Obesity or low body mass index

Assessment

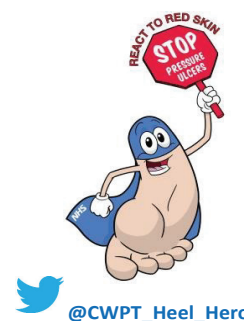
Assess for signs of diabetic associated foot ulceration
 Assess for signs of peripheral arterial disease, palpate foot pulses
 feel skin temperature of foot and legs
 Observe for signs of infection
 For patients with diabetes complete a diabetic foot assessment
 Complete capillary refill times

Management of ulceration

Complete Doppler ultrasound for heel ulcers to determine blood supply and treatment
 Consider offloading with pillows, pads or heel boots
 Consider offloading with foot boot
 Contact podiatry team for their involvement and refer if appropriate
 Contact tissue viability team for advice and refer for support
 Refer all patients with diabetes & foot ulcers to the WISDEM center

Tissue Viability Service

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Ensure that foot is in the correct position and inspect all vulnerable areas on feet and legs
THIS LIST IS NOT EXHAUSTIVE AND AS A RESULT MUST BE USED CONJUNCTION WITH YOUR CLINICAL JUDGMENT.

*Heel images used with kind permissions from Derby Hospitals Foundation Trust

Published October 2016 for review October 2017

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Inspecting heels

Inspect and document according to SSKIN bundle guidance for all patients that have a PURA score of 10 or more
 Encourage patients to check their own heels if they are able to
 The use of hand held mirrors can be a useful tool to assist both the patient and nurse
 Remember to remove socks and stockings to check heels

Educate

Advise patient on prevention of skin damage from friction/shear
 Encourage patient to position legs and feet themselves, advice on mirrors to view
 Promote safe handling & moving techniques
 Liaise with OT for equipment to assist repositioning in bed without shearing heels

Relieve the pressure

Ensure feet are in best position to reduce shear & pressure damage from equipment & other body parts. Use slide sheets to reduce shear.
 Ensure correct mattress Profile bed to use the knee break to offload heel. This also ensures a better position for the hamstring muscle
 Elevate heels using pillows lengthways under the legs to create zero pressure under heels

Aids for pressure relief

Consider other aids for patients who are unlikely to keep their heels suspended with pillows
 Consider benefits of gel pads for intact skin as prevention or once an ulcer has healed ensure these are removed daily and skin is checked as area can become moist
 Consider the use of foam pressure relief boots and pads – these can be applied in conjunction with a dressing when a patient has an active ulcer



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Figures 2. Guidance to assessing, preventing and managing heel pressure ulcers