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The use of PICO[◇] 7 Single Use Negative Pressure Wound Therapy (sNPWT) under compression therapy on a non-healing leg ulcer

+ Case study plus points



Patient reported PICO 7 sNPWT to be lightweight and quiet



PICO 7 sNPWT used in combination with reduced compression



Reduced patient anxiety associated with having a non-healing wound

Introduction

Leg ulcers, regardless of aetiology, are a well-known and a significant financial burden to the NHS, and present a large demand on clinical resources.¹ Not only do these wound types have an impact on clinical services but also on the quality of life of the patient living with the wound. It is reported that 1.5% of the adult population have a leg or foot ulcer in the UK and is estimated that the annual cost of treating patients with a leg ulcer to be between £168 million and £198 million.¹ This case study follows the journey of an elderly patient with a leg ulcer, amongst other health issues, suffering with pain related to the wound and feelings of anxiety about having a wound present for 6 weeks.

Case presentation

A 77-year-old patient presented to the community hospital with a wound to the right lower leg caused by a trip on the threshold of a door. At the first examination with the community hospital nurse, the patient was prescribed antibiotics for the treatment of cellulitis to the right leg. The wound was cleaned and dressed with a conventional dressing and the patient was referred to the practice nurse for routine dressing changes at the local clinic. The wound was dressed by the practice nurse twice weekly with a hydrogel and a secondary foam dressing. Following six weeks into the treatment with the practice nurse, the wound had become static and was not showing signs of progressing towards healing. The patient had reported that although the wound had not impacted her on a daily basis as such, they felt discomfort caused by the wound, especially at night and so was feeling anxious to get the wound healed as quickly as possible. The patient was referred to the Lower Leg Service for further treatment and support.

Treatment and outcomes

The Lower Leg Specialist undertook a clinical assessment of the patient's medical history, wound history and an Ankle Brachial Pressure Index (ABPI) to see if the patient had any signs of venous insufficiency. The ABPI, in conjunction with the rest of the clinical assessment, was recorded as 1.2, which indicates it is safe to use compression. The patient's leg ulcer aetiology was confirmed as being a venous leg ulcer which would normally indicate full compression, however due to the patient's recent stroke, the clinical judgement was made to use a reduced level of compression. The patient had expressed their anxiety around wanting the wound to heal as quickly as possible, as it had already been present for 6 weeks by this point and was causing pain at night.

At this initial assessment, the reduced compression therapy was applied in conjunction with PICO 7 sNPWT. The combination of both compression and sNPWT was decided due to the benefits of the mode of action (MOA). sNPWT was also preferred compared to standard Negative Pressure Wound Therapy (NPWT) as it allowed the patient to mobilise more freely and was light weight to carry. Levels of exudate were moderate, which fitted into the Indications for Use (IFU) for wound exudate with PICO 7 sNPWT. The wound at this stage measured 3.2cm in length x 2.8cm wide and a depth of 0.4cm (Image 1). A NPWT gauze wound filler was used as there was slight undermining at several points of the wound measuring 2cm and 0.5cm. The wound bed was 80% granulation and 20% slough. sNPWT was applied over the top of the gauze and the two-layer reduced compression dressing was used in conjunction with the sNPWT.

After 7 days of PICO 7 sNPWT and reduced compression, the wound had reduced to 3cm in length x 2.5cm wide and the depth had reduced to 0.2cm. The NPWT gauze was continued for the slight undermining that was still present at this point. The patient fed back that they found the device very comfortable to have on and found the device easy to manage.

By day 14 of therapy (Image 2), the wound showed further signs of healing and now measured 3cm in length x 2.4cm wide, the depth was less than 0.2cm. The NPWT gauze was discontinued but sNPWT and reduced compression were continued for a further 4 days.

At the final assessment (Image 3), and a total of 18 days of PICO 7 sNPWT use, the Lower Leg Specialist made the clinical decision to discontinue therapy as the wound had responded well, now presenting with no depth and the wound reducing to 2cm x 1.5cm. The wound bed at this point was 95% granulation tissue with 5% slough. A conventional dressing was applied, and reduced compression therapy continued until the wound was fully healed.

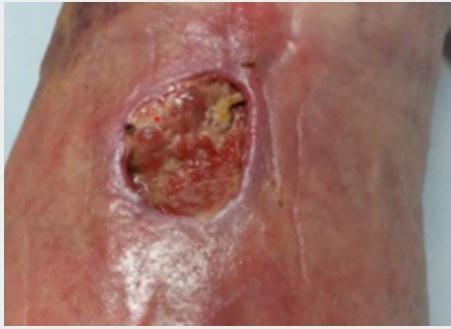


Image 1 Initial assessment - 3.2cm x 2.8cm, depth - 0.4cm with slight undermining of 0.5cm. The wound bed had 80% granulation and 20% slough.



Image 2 Day 14 of PICO 7 sNPWT application – The wound measures at 3cm x 2.4cm Depth-0.2cm, 80% granulation, 20% slough



Image 3 Final image. Date: 18 days post PICO 7 application, therapy discontinued. Final Assessment – 2cm x 1.5cm with 95% granulation and 5% slough.

Outcomes may vary

Conclusion

Consistent and integrated care among multidisciplinary teams is very important when dealing with leg ulcers. Early intervention with PICO 7 sNPWT aided in changing the wound healing trajectory. The PICO 7 sNPWT was used in conjunction with precautionary reduced compression due to the patient's existing comorbidities. Implementing sNPWT on this patient combined with the gold standard treatment of compression, helped to promote faster healing rates, reduce painful dressing changes, and reduce the anxiety the patient was having which was associated with having a wound for a prolonged period. The patient found the PICO 7 sNPWT very comfortable to wear and quiet when in situ.

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For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.

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References

1. Guest et al (2016) Health economic burden that different wound types impose on the UK's National Health Service. International Wound Journal – volume 14, issue 2, April 2017, pages 322-330.