

THE MANAGEMENT OF A CHRONIC LEG ULCER USING KERRAMAX CARE SUPER-ABSORBENT DRESSING UNDER COMPRESSION

Sandra Cotton Community Nurse/Leg Ulcer Clinical Nurse, Leicestershire PCT, Hinckley and Bosworth Community Hospital, Volumetric Unit, District Nurses, Ashby Road, Hinckley, LE10 3DA, Sandra.cotton@leicspart.nhs.co.uk

Introduction

This case study assesses the management of a chronic leg ulcer using a super-absorbent dressing, KerraMax Care (Crawford Healthcare), under compression in an 87 year old female who lived in a residential home. She had restricted mobility, walked with the aid of a frame and had a history of venous insufficiency, osteoporosis, hypertension, and was in remission from cancer of the lymph nodes.

She had a chronic leg ulcer, which was almost 20 months old, on the outer lateral aspect of her left leg. It had initially been caused by trauma and consisted of approximately 50% slough and 50% granulation tissue, which had been swabbed for microbiological assessment. In chronic wounds the wound does not progress through the stages of wound healing, but stalls in the early stages of healing, frequently during the inflammatory stage.¹ Chronic wound fluid from venous leg ulcers has demonstrated inhibition of fibroblasts and failure to stimulate proliferation of endothelial cells and keratinocytes, which are essential to wound healing.²

Certain key performance characteristics required from a super-absorbent dressing are that it must: absorb and retain exudate, keep harmful chronic wound exudate away from the surrounding skin, perform efficiently when used under compression, be easy to remove and demonstrate cost-effectiveness.³

Method

The leg ulcer had initially been dressed on the 16th December, 2012, with Inadine (Systagenix) and Mepilex border (Molnlycke Health Care), by the practice nurse. Aquacel (ConvaTec) was subsequently used to try and debride the wound.

In February, 2014, fourteen months after treatment commenced, the dressing regimen was changed to Cutimed (BSN Medical), KerraMax Care (Crawford Healthcare), secured with a stockinette, and 3 layer compression bandaging. In August, 2014, the lady was referred to district nurses for Doppler assessment. At this point the leg ulcer treatment plan was to manage the exudate, reduce infection, and encourage wound healing, leading to wound closure.

Results

The leg ulcer showed continued improvement with the treatment plan. The area of the wound was:

- 14 x 9 cm² on 4th August 2014
- Reduced in size to 12 x 6 cm² by 22nd September 2014
- 8th October 2014 there was a further reduction in wound size to 11 x 5 cm²
- 6th November 2014 it had reduced further, to 10 x 4 cm²
- Final measurement on the wound was 4 x 2 cm² on 10th August 2015.

The patient tolerated the dressings, was pleased with the current dressing regimen, was concordant and noted the gradual improvement of the leg ulcer under compression bandaging. KerraMax Care were easy to apply and managed the exudate well with very little strikethrough. The patient's leg ulcer care was ongoing and due to improvement in wound healing led to clinician use of the smallest dressing size, with a weekly dressing change regimen.

Discussion

KerraMax Care is a super-absorbent dressing indicated for the control and removal of excess exudate in moderate to heavily exuding wounds. It has demonstrated effective use under compression as the dressing has a thin profile and distributed



Image 1: 4th August 2014



Image 2: 6th November 2014



Image 3: 6th November 2014



Image 4: 13th November 2014



Image 5: 5th January 2015



Image 6: 21st October 2015

exudate evenly throughout the dressing, meaning the wound fluid remains locked away even under pressure.² Due to its mode of action there are fewer leaks under compression compared with traditional absorbent dressings, which simply soak up liquid. Laboratory tests have demonstrated that KerraMax Care locks harmful bacteria away from the wound. After 24 hours 99.7% of *Pseudomonas aeruginosa* and 99% of MRSA was locked inside the dressing and away from the wound.⁴

Exudate treatment dressings cannot always be used in compression bandaging systems as they can distort pressure locally delivering higher pressures than recommended.¹ However, with its ability to wick/distribute exudate evenly (as a result of horizontal wicking) and its thin profile KerraMax Care can be used under compression regimes and maintains its integrity. The super-absorbent properties of KerraMax Care result in less dressing changes ensuring less disruption to the wound bed and, by locking away exudate from the wound and surrounding skin, this prevents maceration. Trauma and pain during wear and at dressing change is also minimised as the soft non-woven outer layer does not adhere to the wound site.¹ The dressing is also stackable and foldable, allowing use with highly exuding wounds.

Conclusion

KerraMax Care fulfilled all of the criteria for modern dressings used for exudate management and demonstrated its effectiveness in helping to manage this chronic leg ulcer when used under compression bandaging.

Its lateral wicking action ensured the exudate was absorbed evenly throughout the dressing and the super-absorbent particles enabled superior bacterial sequestration, removing a barrier to healing.

References

- (1) Hampton S. (2011) Kerramax: managing highly exuding wounds. *Journal of Community Nursing* 25(1): 4-8
- (2) Bucalo B, Eaglstein WH, Falanga V (1993) Inhibition of cell proliferation by chronic wound fluid. *Wound Repair and Regeneration* 1(3):181-6
- (3) White R, Cutting KF (2006) Modern exudate management: a review of wound treatments. *World Wide Wounds*. September, 2006. Accessed 22nd July, 2015: www.worldwidewounds.com/2006/September/White/Modern-Exudate-Mgt.html
- (4) Crawford Healthcare. (2014) Data on file.