



Background

Wound infection is without doubt the most troubling of all wound complications. Foot ulcer infections are common in patients with diabetes. Although infection is not considered to be a direct cause; it does play a major role in wound healing impairment, and often leads to hospitalisation, high mortality rates and the incidence of lower extremity amputation (Bader, 2008). Therefore, early management of infection is imperative, if left undetected or treatment is delayed it can become limb and life threatening (Sheppard, 2005). Wound infection develops as a result of imbalance between patient's immune system and conditions in the wound, which subsequently can promote bacterial proliferation (Wounds UK, 2013).

PHMB has been used for a number of years as an antiseptic agent, however it has been recently added to wound care products. PHMB works by inhibiting bacterial cell metabolism and binding to the bacteria's phospholipid (outer) membrane. (Kingsley & Kiernon, 2012). The mode of action, which demonstrates the ability of the microorganism, supports the observation that there is no evidence of resistance and the risk of resistance is low (butcher, 2012). Advanced Medical Solutions has an antimicrobial foam in the ActivHeal range as ActivHeal PHMB foam, which includes a non adhesive and an adhesive border range of dressings to address the clinical needs of patients. The dressing is a three layer construction, and each layer contributes to the overall performance of the dressing. The case study will explore the management of a Post operative surgical wound using the ActivHeal PHMB Foam.

Method

An 82 year old male patient with type 2 Diabetes, with previous history of Peripheral vascular disease including treatment with femoral bypass and graft. The patient presented with a right foot 5th toe on antibiotics for a left foot infection / gangrene. A full assessment was undertaken

Results



Initial assessment the ulcer measured 6.2cm x 2.7cm with a depth of 0.2cm. The ulcer had 60% slough and 40% granulation tissue and moderate to high exudate levels. The wound was sharp debrided. The foot did not show any clinical signs of infection however the patient was on antibiotics for his infected left foot and at risk of developing an infection. Using topical antimicrobial in certain high risk individuals / wounds can also prevent an increase in microbial bioburden and the possible onset of infection (Swanson et al, 2014) The ActivHeal PHMB non adhesive Foam was selected to assist in reducing the risk of wound bioburden, absorb levels of exudate, maintain a moist wound environment, and promote healing.



The patient had been in hospital for 4 weeks where the ActivHeal PHMB foam continued to be applied to the wound. The wound was reassessed and had 40% sloughy tissue and 60% granulating. The wound measured 6cm long and 2.7cm wide. The exudate levels remained moderate and the peri wound skin was normal. The wound was no longer showing signs and symptoms of clinical infection. The ActivHeal PHMB foam was reapplied, and was being changed every 3 days. The nursing staff on the ward commented on the ease of dressing



Significant progress was then noted in the wound, with the wound reducing in size and showing wound progression and onto 100% epithelisation. The ActivHeal PHMB foam assisted in the facilitation of sloughy tissue. The wound measured 0.2cm long x 0.1cm wide. There were no clinical signs and symptoms of clinical infection and exudate levels had reduced to low. Therefore the dressing was discontinued.

Conclusion

The ActivHeal Foam with PHMB was found to be an appropriate dressing in the management of the post operative wound with moderate to high exudate levels. The dressing produced very positive patient outcomes. The ease of one dressing rather than an antimicrobial primary dressing with a secondary foam could assist in reducing costs. The correct dressing choice in this case enabled the patient to be managed quickly and effectively without an overly long treatment time and assisted in the management of clinical indications of exudate management and to prevent wound bioburden a long with being safe and acceptable to the patient. The case study illustrates the importance of a holistic approach when caring for a patient with a challenging wound and ensuring that the correct diagnosis is made based upon a thorough assessment ensuring good clinical outcomes for the patient.

References

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