Collaborative working using a hydrobalanced antimicrobial dressing* to improve patient outcomes

Southern Health NHS
NHS Foundation Trust

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Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Introduction

The management of complex, reoccurring leg ulcers can be very challenging for the team of healthcare professionals involved, the patient and their family. The reasons for the cycle of improvement and then deterioration are many, but often it can be due to infection. With the use of topical antimicrobials being under scrutiny in most organisations, it is becoming increasingly important to justify their correct, timely, therapeutic use.

This case demonstrates that, with effective team dynamics, evidence-based practice, education and training, the result can be effective leg ulcer healing and a positive patient experience.

Method

Mrs A is a 46 year old woman known to the leg ulcer service for approximately 6 years with venous leg ulcers which would heal, then recur intermittently. She is a large lady, not particularly active, who had a poor diet, was a non-smoker and had a family history of venous disease. Mrs A was not always concordant with her treatment, but never complained and was always philosophical about her ulcers.

Mrs A had undergone a full holistic leg ulcer assessment and had received compression therapy.

The left leg has always been the most problematic, with excoriated areas which wept profusely and dry crusty eczema around the lower leg and forefoot. This was compounded by an allergic reaction to Ramipril, an angiotensin-converting enzyme (ACE) inhibitor. Her leg became swollen and red, as did most of her skin. After treatment with a potent topical steroid prescribed by the Dermatologist, the swelling and redness settled but the area did not heal.

In August 2012 the right leg started to break down into two large, ulcerated areas that quickly became infected, requiring recurrent courses of antibiotics.

A Doppler reassessment was performed. The right ankle brachial pressure index (ABPI) was 1.07 and the left ABPI was 1.07. The left posterior tibial arterial sound was monophasic, suggesting narrowing or potential arterial blockage, a concern in such a young woman. All other arterial sounds were biphasic.

Mrs A was promptly referred to the vascular team following discussion with the General Practitioner (GP) and health screening. She was found to be a borderline diabetic, with some vitamin D deficiency.

Mrs A's care was shared with the Practice Nurse team who had been taught how to apply compression therapy. However, in January 2013 the situation reached crisis point and both legs were infected, highly exudating, excoriated and sloughy. Compression therapy was discontinued at this point. Mrs A was seen in the Practice Nurse clinic every other day and the bilateral dressings were taking an hour each time.

The vascular team reviewed Mrs A in February 2013 and performed a Duplex scan. They prescribed antibiotics and advised that compression therapy could be continued. Skin grafting had been discussed and Mrs A became very despondent at that time.

Following a review of her leg ulcers on discharge from hospital and a review of the different topical antimicrobials used in the past, it was decided to try a hydrobalance wound dressing containing Polyhexamethylene Biguanide (PHMB) antimicrobial* which has no known cytotoxicity or resistance. It has been shown to be effective against Pseudomonas aeruginosa *(Mosti et al, 2008)*, can be used under compression *(Whitaker, 2012)*, can reduce pain *(Mosti et al, 2008)* and can be used for autolytic debridement of slough *(Mason, 2011)*. It was used in conjunction with a superabsorbent secondary dressing and cohesive short stretch compression therapy**.

Results

Dramatic leg ulcer healing resulted from using the PHMB dressing within three weeks, with signs of epithelial islands in April 2013 and almost full healing by May 2013. The new dressing regime addressed the infection, reducing the exudate, excoriation and pain. The Practice Nurses found the dressing easy to use, as the dressing did not break up in contact with exudate.

Discussion/conclusion

The partnership working between the Practice Nurse and the Tissue Viability Nurse was imperative to the successful outcome. Mrs A found the combination of healing, reduced exudate, relief from pain and odour all helped her quality of life and her feelings of despondence. She felt well enough to consider a weight loss programme and made to measure hosiery to enable her to manage her compression herself.

References

Whitaker, J (2012) Superabsorbent dressings under compression in lymphoedema. Poster presentation. EWMA conference, Vienna, May 2012.

Mosti, G et al (2008) First Italian experience with polyhexanide-containing HydroBalance wound dressing in hospitalised patients with critically-colonised or infected chronic wounds. Poster presentation. Wounds UK conference, Harrogate, November 2008.

Mason, S (2011) The use of a HydroBalance antimicrobial wound dressing in the debridement and management of an infected cannula site. Poster presentation. Wounds UK, Harrogate, November 2011.

* Suprasorb® X+PHMB by Activa Healthcare Ltd. ** Actico® Cohesive Inelastic Bandage by Activa Healthcare Ltd.

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