The Use of a Polymeric Membrane Dressing in the Management of Severe Gout Tophi

Introduction
Gout is an inflammatory-rheumatic disease characterized by raised serum urate concentration. This can result in recurrent flares of hot, red swollen joints and left untreated, this can develop into chronic tophi (urate crystal deposits) which cause destruction and reduced range of movement to joints and swelling to surrounding tissue. While standard treatment for gout is based on dietary changes and medication to manage urate levels, often this does not resolve larger tophi.

This case study presents an example of the management of giant gout tophi. A 76 year old lady presented at the Renal Unit with Chronic Kidney Disease (stage 4/5) and a flare up of gout tophi to all fingers. Adhesive dressings had been applied to both hands and the patient was complaining of increased pain around joints caused by adhesives, reduced range of movement and was becoming increasingly distressed by the appearance of her hands and the discomfort caused by high levels of exudate.

The aim of tissue viability treatment was therefore focused on exudate management, an atraumatic dressing change and managing the infection risk of multiple open areas to the hands as well as considering the psychological impact the wounds had on the patient (WUK BPS, 2013).

Method
The patient was assessed by the Tissue Viability Support Nurse and the fingers were dressed with a shaped polymeric membrane dressing (polymem finger/toe). This dressing contains a cleansing agent (F68 surfactant) and moisturiser (glycerol). This reduces the need to clean the wound at dressing changes, prevents adherence to the wound bed and regulates wound hydration. The glycerol also reduces odour and wound exudate is managed by the foam dressing.

The dressing was changed twice weekly; ward staff were changing the dressing once a week while TVN was visiting the ward to review the patient and carry out second dressing change. Clinical photography was also completed at regular intervals to record wound progress. Dressings could be cut to size and this allowed a single dressing to be used for more than one open area which had implications on costing effective treatment. No other dressings where used.

“Her fingers have never looked as good as this....”

Results
The patient found wearing the Polymem finger dressing comfortable and dressing changes were made both by the patient herself and staff with ease. She reported finding the appearance of her fingers distressing when they were left uncovered and liked wearing a dressing that conformed to the shape of her fingers without limiting her hand dexterity. By the second dressing change (5 days following the first assessment) there were visible improvements, with new epithelial margins to all areas apart from the middle digit to the left hand (see photos). This had been the site of the most prominent tophi. After another 5 days this tophus had also completely debrided.

Staff found the dressing easy to use and felt confident in applying them between tissue viability reviews. Both the patient and her husband commented on the efficacy of the dressing, reporting “her fingers have never looked as good as this” and the patient herself felt satisfied that “the fluid isn’t leaking everywhere”. The patient’s only criticism was that initially she found the dressings limited her finger dexterity as they covered her fingertips. However, due to the rapid action of the dressing, after 11 days the dressings no longer needed to cover the whole finger.

Discussion
Management of this wound required a holistic assessment and regular evaluation (Ousey, K and Atkin, L 2013). Although exudate management and infection prevention were primary concerns, in this case the psychological impact the wound had on the patient and on her quality of life would also dictate how the wound was managed (WUWHS, 2007).

The Polymem finger dressing could be adapted easily to support this patient’s individual need whilst maintaining function without the need for adhesive tape and continuous cleansing action reduced the need for frequent dressing changes. Both of these factors meant the patient experienced fewer and less painful dressing changes. This eased the patients’ anxiety and she found the dressings comfortable to wear (Acton, C 2008).

Conclusion
The Polymem finger dressing aided debridement of tophi build up and reduced the bio-burden of the wound environment. Healing was supported by the moisturiser and cleansing agent while the adaption of the dressing was aesthetically pleasing for the patient. It addressed both the clinical requirements and the psychological effect the wound was having on the patients’ quality of life.

Despite limitations to finger dexterity at the early stage of treatment, concordance was achievable; the patient found the dressings comfortable and was encouraged by the visible results.

References
1. Acton, C (2008), Reducing pain during wound dressing changes, Wound Essentials, 8; 114-122.

Fig. 1 Wound on 12.07.13
Fig. 2 Wound on 23.07.13