## REDUCED ODOUR AND PAIN AS INDICATORS FOR QUALITY OF LIFE IN WOUND PATIENTS - RESULTS OF AN OBSERVATIONAL STUDY

Karin Bronstering and Alexander Maassen, sorbion GmbH & Co. KG, Germany

**INTRODUCTION** | People living with a wound usually feel different about wound related aspects than, for example clinicians, healthcare organisations and the industry. For the latter key aspects might include measurable signs of wound healing, the prevalence of different wound types, or the evaluation of specific dressing properties. For patients it is probably more important to what extent their wellbeing and thus their quality of life is affected by their wound. <sup>[1]</sup> The following definition of wellbeing in relation to wound management has been suggested:

"Wellbeing is a dynamic matrix of factors, including physical, social, psychological and spiritual. The concept of wellbeing is inherently individual, will vary over time, is influenced by culture and context, and is dependent of wound type, duration or care setting...."[1]

While the measurement of physical wound aspects is fairly easy, the concept of wellbeing is much more difficult to determine. Within research though some indicators are equally useful for the assessment of the specific factors clinicians and patients are interested in. For instance, from a clinical point of view wound odour might represent one indicator of wound infection, while for patients and their social environment wound odour might be associated with feelings of embarrassment that in turn might reduce their quality of life. Also, while for clinicians pain sensations might imply a traumatic and thus detrimental effect at dressing removal, for patients pain might trigger anxieties that yet again may negatively affect their quality of life.

AIM | To evaluate fundamental properties of an atraumatic dressing based on Hydration Response Technology (HRT)\* that are associated with an increase in quality of life in wound patients.

**METHOD** | Between July and December 2013 an anonymous questionnaire survey was conducted by wound care experts from different facilities across Germany. The first evaluation at dressing change allowed an assessment of the properties of the formerly used products. The subsequent up to three consecutive measurements allowed the according assessment of the HRT dressing, and of the wound progress over the course of the treatment.

**RESULTS** | A total of 36 wounds from 23 male and 13 female patients (mean age of 75 years, ranging from 48 up to 89 years) were analysed. Wound types included venous leg ulcers (n=16), diabetic foot ulcers (n=6), pressure ulcers (n=4), skin grafts (n=2) and other wounds such as postoperative wounds (n=7). The average wound duration was 5.5 months, ranging from one week up to two years. Previously used products included, between others, foams (n=16), alginates (n=5), absorbent (n=6) and superabsorbent (n=4) dressings.

## Odour

Figure 1 shows that when the previously used dressing was removed, in one quarter of the cases (25%) moderate to heavy levels of wound odour were present. After only one application of the HRT dressing, this number reduced to 17% and with ongoing HRT treatment further reduced to 3%. In other words, at the end of the evaluation only in one case wound odour was present.

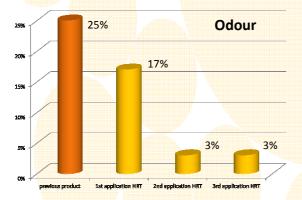


Figure 1: Reduction of odour over the course of the evaluation

## ain

As can be seen in Figure 2, wound pain at dressing change reduced over the course of the evaluation, too. When the previously used dressing was removed, in 61% of the cases moderate pain levels were reported. This number reduced to less than half (28%) when the HRT dressing was removed for the first time and further reduced to 8% with ongoing HRT application.

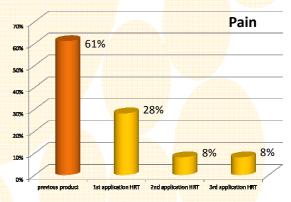


Figure 2: Reduction of pain at dressing change over the course of the evaluation

The patients' decreasing pain experience at dressing change was in line with what the wound care experts described as an atraumatic dressing change. While the removal of the previously used dressing was only in about half of the sample (56%) atraumatic, this number already increased to 94% at the first HRT dressing change and to 100% at the second HRT dressing change.

CONCLUSIONS | The results of the evaluation have shown that with the application of HRT dressings wound odour, and pain at dressing change have substantially been reduced. As control of wound odour<sup>[2]</sup> and pain reduction<sup>[3]</sup> can improve the quality of life for wound patients, it can be concluded that the application of HRT dressings most likely had a positive effect on wound patients' quality of life. This conclusion and the adequacy of the indicators odour and pain for patients' wellbeing are further supported by the finding that all patients preferred to continue their treatment with HRT rather than with the previously used products. Last but not least, while with the formerly used products the wound status had improved in 14% of the cases (when compared to the last dressing change), this number increased to 61% after only one HRT application. More research is required to confirm these promising results.

## Reference

- 1. International consensus. Optimising wellbeing in people living with a wound. An expert working group review. London: Wounds International, 2012. Available from: http://www.woundsinternational.com
- 2. Fleck, C.A. (2006). Palliative Dilemmas: Wound Odour. Wound Care Canada, Vol. 4, No. 3, 10-14.
- 3. Soon, K. & Acton, C. (2006). Pain-induced stress: a barrier to wound healing. Wounds UK, Vol. 2, Nr. 4, 92-101.