

# Performance of a Hydration Response Technology (\*) dressing in managing heavily exuding wounds

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## Introduction

Chronic exudation represents an obstacle to wound healing. New technologies like Hydration Response Technology could provide a range of clinically relevant properties even beyond removing exudate. This includes significant debriding effects and an improvement in healing rates.

This aim of this initial trial was to evaluate the effects of a dressing with Hydration Response Technology on ten patients presenting wounds with a mix of necrosis and heavy exudation. All wounds would have been treated with negative pressure wound therapy (NPWT) but were contraindicated.

## Patients description and Method

10 patients presenting leg ulcers or pressure ulcers persisting between 6 weeks to 9 months have been included. Due to heavy exudation their dressings had to be changed twice a day under the previous treatment regimen using alginates or hydrofiber dressings.

Maceration of the edges of the wound was present and pain was significant, evaluated to 8 on the VAS scale. Partial necrosis was noted on the edges of the wounds in 7 cases, fibrin was noted in all 10 cases, and inflammatory signs present in all cases. All wounds showed both, indications for applying NPWT as well as clear contraindication. Upon inclusion dressing with Hydration Response Technology were applied to the patients. There were no other changes to the treatment regimen. Dressings were changes as required by the amount of exudate.

## Results

For all patients the frequency of dressing changes was immediately reduced to once every day, then later on once every three or four days. Necrotic tissue disappeared from the wound surface without additional mechanical

debridement within three days, and a progression of the tissue granulation was observed. Within a mean period of 12 days, exudation was reduced to physiological levels and the wound was brought into the stage of epithelialisation. The evaluated dressing is better applied when the wound does not present excessive tumefactive contours.

## Discussion

Dressings may solve difficult problems of excessive exuding wounds. However, they frequently concentrate on mere absorption capacities. The evaluated dressing provided professional exudate management. Beyond this, active fluid extraction as provided by Hydration Response Technology also helps to dissolve necrotic fragments present on the wound surface. This results in the significant wound bed preparation observed in all patients. Also, in all cases the inflammation was reduced within days as granulation started. In the past it was shown that this dressing has a significant binding capacity for matrix metallo proteinases (Wiegand et al. 2008).

Although the design of this initial trial does not allow a comparison of the results to those obtained by other techniques. The results were convincing with respect to debridement and removal of exudation. While the selected wounds were stagnating and reluctant from healing at the beginning of this trial, significant improvement of the wound conditions were recorded within days. This development was achievable while reducing the overall treatment costs due to prolonged dressing wear time and less nursing time required.

## Conclusion

This short series indicated that dressings with Hydration Response Technology in some cases might provide an efficient and cost-effective solution, complementary to NPWT especially when necrotic tissue is present.



88 year old lady, cardiac and pulmonary diseases, pressure ulcer of shoulder blade. Dec 2009 - Jan 2010. Maceration, excoriation, presence of slough and inflammation significantly reduced during study.