Performance assessment by a hydroactive wound dressing as part of a clinical and cost effective wound treatment

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Aim: Beside the treatment of the underlying disease in the therapy of patients with chronic wounds there are different other major influences on the success of the whole treatment. The maintenance of a physiological environment is the essential principle of the hydroactive wound treatment.

Further basic influences are the clinical effectiveness, patient convenience and economic aspects. Pain reduction is often in the first place for the patients, extension of dressing change interval and inducement of wound healing processes are in the focus of the attending physicians and nurses.

Material and methods: During an international, multicenter application study data have been collected regarding dressing performance (easiness of application, adaptability, shrinking, convenience, removability, improvement wound condition, protection of wound edge, skin condition and management of exudate) and rating of pain (NRS=numeric rating scale 0-10). Conclusion and general notes took place after the last visit.

Case example:
- Female, 72 years old, Ulcer since 2 months, Diseases: chronic venous insufficiency, hypothyroidism, bradynathymia, anaemia

Day 1: Wound-size: 15,44 cm², medium exudation, Wound bed: covered with sloughy tissue, partly pink granulation tissue visible, Wound edge: dry, Wound cleaning: mechanical realignment (pauze and saline solution)

Day 2: Visible improvement of wound bed: reduction of sloughy tissue, granulation tissue partly red and well perfused, reduction of wound size Wound edge: unstructured

Day 17: Wound closure, stable epithelial tissue

Discussion: Efficacy of a wound dressing is consist of different parameters: Effectiveness, usability, patient convenience, user satisfaction, tolerability and safety. In all areas, the tested product was assessed either with „very good“ (rating 1=excellent – 6=insufficient) or with „yes“ (rating 1=eyes, 2=mo).

Conclusion: Efficacy of the hydroactive dressing* is confirmed by clinical effectiveness as well as by results of patient convenience. The results and the wide range of indications offer a noticeable facilitation in daily routine. Pain reduction and high patient convenience leads to better quality of life and treatment satisfaction of the patient.

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This work has been made possible by an educational/research grant from Lohmann & Rauscher GmbH & Co. KG

Results:
64 patients (4 patients with respectively 2 wounds) with 68 wounds and different aetiologies (burns=2, lower leg ulcer=33, diabetic foot syndrome=5, pressure ulcer=4, donor sites=6, other=8) have been included into the statistical evaluation (male=28, female=36).

Mean age is 69,9 years, 77,4 % wounds are superficial and 22,6% deep at the first visit. The wounds exists in median since 6,1 months (0,5 – 31 months), 92,5 % are placed on foot/leg/hp, 1,5 % on back, trunk/fundament/os sacrum, 3% on arm/elbow/shoulder, 3% on front of trunk. Infection was assessed in 17,9 % (n=12). Amount of exudate was assessed as 4,26 (0=no, 10=highest exudate level). Pain level was stated from the patients with 3.37 (VAS).

Dressing performance (understandability instruction of use, easiness of application, shrinkage of dressing, removability [non adherence, in one piece], improvement of wound, wound edge, skin condition, management of exudate, uncomplicated use, reduction of maceration, would you use it again) was assessed in median with 1,51 (1=excellent, 2=very good).

Regarding patient convenience (softness, non adherence, removability in one piece), the hydroactive dressing was assessed in median with a quality of 1,74. Improvement of wound condition was confirmed in 95,2 % of all cases. Significant pain reduction was demonstrated (3.37 [VAS] at visit 1, 1,80 at visit 4, p=0,000).

Opposite the first visit infection was assessed in 2 cases at visit 4. All other cases have been declared as not infected (p=0,010). Decrease of amount of exudate was also found (4,26 at visit 1, 2,85 at visit 4 [p=0,000]).

The electronic evaluation (W.H.A.T) showed a decrease of sloughy tissue/necrotic tissue from 79,94 % (visit1) down to 29,56 % (visit 4 or final visit at former wound closure) and an increase of granulation tissue from 20,06 to 70,44 %. Regarding the product safety, no safety-related reports have been served.

Wounds UK Annual Conference, 9th Nov 2015 to 11th Nov 2015, Harrogate