A Comfortable Superabsorbent Dressing for Management of Patients with Moderate-to-Highly Exuding Wounds

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Introduction:
Exudate control is an important aspect of wound management of both acute and chronic wounds, where exudate can be an indicator on the wound condition. Specifically, hyperexudation is a problem that can contain a large amount of macroscopically visible fluid (exudate) and, thus, can cause discomfort to patients as well as an increase in treatment costs.1 A dressing that is able to absorb this exudate will thus be of great benefit to the patient and to the healthcare system.2

Methods:
A survey was developed evaluating the performance of a superabsorbent dressing, suitable for the management of moderate-to-high exuding wounds, in daily clinical practice. The survey was conducted in Germany and comprised physicians from different specialties: 23 general medicine, 13 surgery, 14 internal medicine, 1 vascular surgery, 1 podiatry and 3 dermatology. Both the dressing and the questionnaire were supplied by the sponsor. After dressing use, the physicians scored their findings on usability of the dressing, dressing handling properties, absorbent capacity, user satisfaction and patient comfort on the provided questionnaire. The physicians used the superabsorbent dressing at least for 3 dressing changes in 171 patients (62% 20-35 yrs, 78% 45-65 yrs, 7% 65-80 yrs not scored).

Results:
Dressing choice frequency was depending on the patient and wound condition and was at the discretion of the clinician. For dressing choice and dressing application the central protocol was used. The included patients had various wound types, such as pressure ulcers (60.5%), venous leg ulcers (11.0%), diabetic foot ulcers (8.4%), post-surgery wounds (14.2) and infected wounds (8.4%) such as after abscess drainage (Table 1). Dressing application was rated easy to 168 (99%) of the clinicians and dressing demonstrated a good absorbent capacity as rated by 167 (98%) of the respondents. The dressing was rated easy to remove (168 (99.3%)) and did not soil clothing according to 183 (100%) of the respondents (Fig. 1). Clinicians commented that the dressing reduced foul odor, maceration and improved wound skin condition (Fig 2). N=157 (94%) patients reported to be satisfied with the performance of the dressing as well as 166 (99%) of the physicians, who additionally reported 156 (94.4%) the dressing to be safe and reliable for the task at hand (Fig 3).

Discussion:
The conducted survey gave a description of practice and was not designed to evaluate wound healing. It seems to be an interesting model to evaluate dressing performance in every daily clinical practice. Effective exudate management should shorten wound healing time, optimize resources and reduce the impact on the physical and psychological health status of the patient.2 Copious exudate production, especially in stagnating wounds, may cause maceration or even excoriation of the peri-wound skin, delaying wound healing.3 Patients may experience social isolation and anxiety due to leakage of the dressing. The evaluated super absorptive dressing for moderate-to-high exuding wounds can be applied as a primary and as a secondary dressing. Depending on the wound condition and the amount of exudate produced, on average dressing changes took place twice weekly. The absorbent properties of the superabsorbent dressing evaluated in the present survey enabled effective absorption, avoiding soil of clothing. Dressing application was easy and if required two dressings can be placed side by side (Fig 4).

Conclusion:
The evaluated dressing was easy to use, comfortable and reliable for patients with moderate-to-high exuding wounds. In view of these results, super-absorbent dressings can be interesting for both clinicians and patients. Clinical studies are required to confirm these results.

References:

N = 115 [98%, 10-115 years]

N (%) or mean (SD)

Wound type

Dressings

Acute

112 (99.1%)

Pressure

112 (99.1%)

Compression was used

113 (99.1%)

Offloading was used

113 (99.1%)

Post-surgical healing

12 (10.3%)

Packing was used

114 (98.3%)

Wound location

Head/neck

3 (2.6%)

Torso

23 (20.0%)

Abdomen

13 (11.5%)

Thigh

23 (20.0%)

Calf

28 (24.4%)

Foot

2 (1.8%)

Ankle/heel

4 (3.5%)

Wound size 

(min Wound size)

440.98 (118-1384.15)

Age of the wound

1.37 (20-426.85)

Moist (Wound size)

Moderate

28 (24.4%)

High

78 (67.9%)

Very high

62 (53.6%)

Not specified

3 (2.6%)

Table 1: Wound Types

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Fig 1: Evaluation of dressing application and removal – clinician’s scores

Fig 2: Clinician’s additional comments on absorbent capacity and dressing removal

Fig 3: Patient and user satisfaction with dressing performance

Fig 4: Application option for wounds close to eachother or on difficult locations