

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

Georgiadis Efsthios, MD¹, Münter KC, MD², Eberlein Thomas, MD³, Andriessen Anneke⁴, de Lange Stefanie⁵, Abel Martin⁵

¹Dres. Thomas Heinicke und Efsthios Georgiadis, Mettmann, Germany; ²Hamburg, Germany; ³Lionstraße 5, 04177 Leipzig, Germany; ⁴Radboud UMC, Nijmegen & Andriessen Consultants, Malden, The Netherlands; ⁵Lohmann & Rauscher GmbH & Co.KG, Germany

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 bed condition, specifically inflammation.^{1,2} A polyacrylate containing super absorbent dressing can be used for patients with exuding wounds to successfully manage moderate-to-high exudate production. The dressing has the capacity to absorb large amounts of exudate and holds it within its core without the potential for reflection of fluid back onto the skin, thus preventing soiling of the patients clothing and/or bed sheets.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 participants comprised physicians from different specialisms: 23 general medicine, 13 surgery, 14 internal medicine, 1 vascular surgery, 1 podiatry and 3 dermatology. Both the dressing and questionnaire were supplied by the sponsor. After dressing use the physicians scored their findings on usability of the dressing, handling properties, absorbent capacity, user satisfaction and patient comfort on the provided questionnaire. The physicians used the super absorbent dressing for at least 3 dressing changes in 171 patients (86 (50.3%) men, 78 (45.6%) women, 7 (4.1%) not scored).

N = 171 (100%)		N (%) or mean (SD)
Wound type	Chronic	138 (80.7%)
	Acute	33 (19.3%)
Wound aetiology	Pressure ulcer	8 (4.7%)
	Preventive measures were used	8 (100%)
	Venous leg ulcer	113 (66.1%)
	Compression was used	113 (100%)
	Diabetic foot ulcer	8 (4.7%)
	Offloading was used	8 (100%)
	Acute post-surgical healing by secondary intention	14 (8.2%)
	Post-trauma	2 (1.0%)
	Incised abscess	8 (4.7%)
	Wound at risk for infection	3 (1.8%)
Wound location	Superficial burn grade 2	6 (3.5%)
	Other	9 (5.3%)
	Head/neck	1 (0.6%)
	Arm	1 (0.6%)
	Torso	1 (0.6%)
	Abdomen	13 (7.9%)
	Thigh	2 (1.0%)
	Lower leg	111 (65.3%)
	Foot	28 (16.6%)
	Sacrum, buttock	6 (3.5%)
Wound size cm ² : mean (SD), median		44,96 (SD±126.84) 15
	Age of the wound: months Mean (SD) median	13 (SD±8.89) 4
Amount of exudate	Moderate	28 (16.6%)
	High	78 (45.6%)
	Very high	62 (36.3%)
	Not specified	3 (1.8%)

Table 1: Wound types

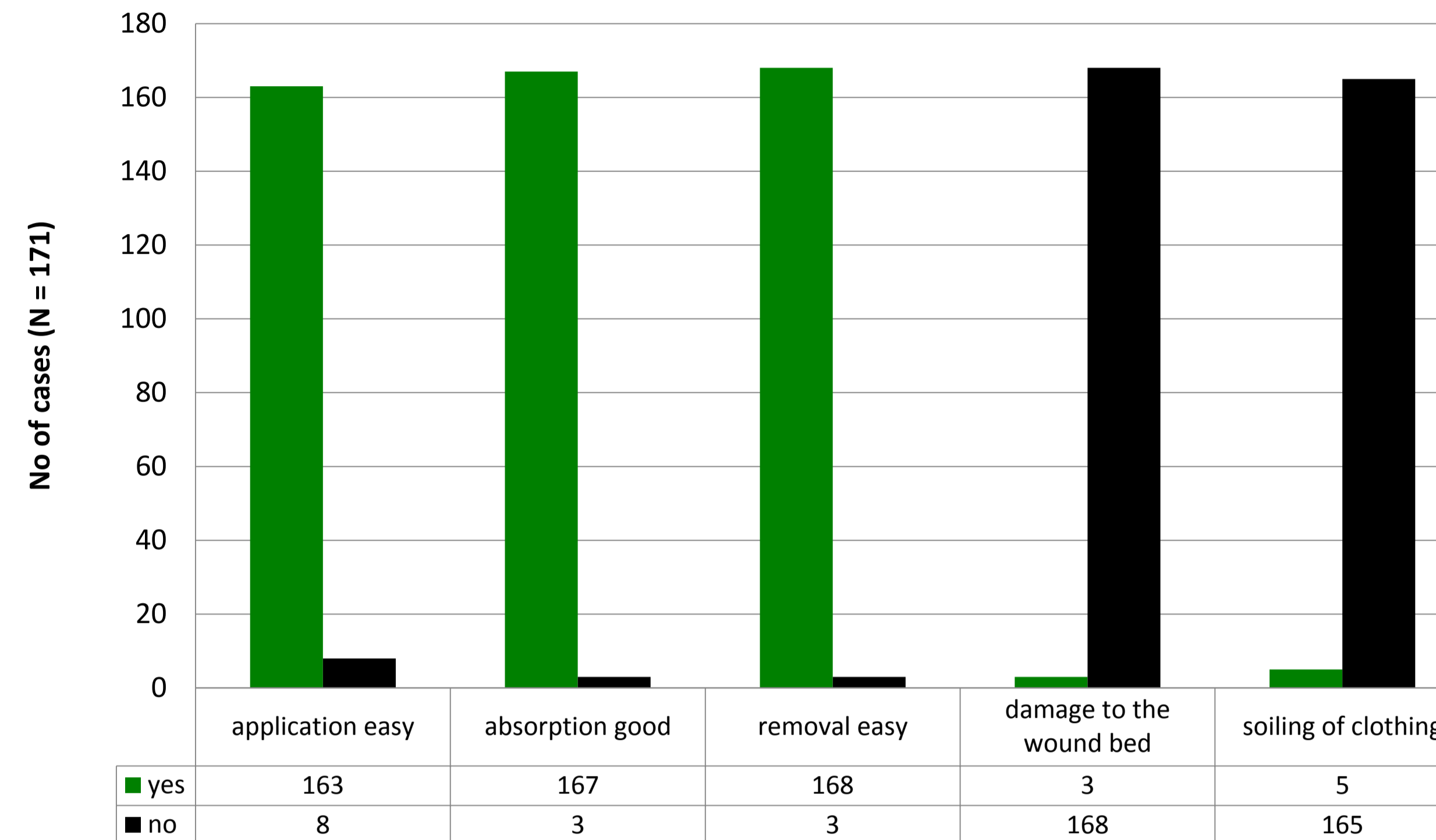


Fig 1: Evaluation of dressing application and removal – clinician's scores

Results:

Dressing change frequency was depending on the patient and wound condition and was at the discretion of the clinician. For wound cleansing and dressing application the centers current protocol was used. The included patients had various wound types, such as pressure ulcers (8 (4.7%)), venous leg ulcers (113 (66%)), diabetic foot ulcers (8 (4.7%)), post-surgery wounds (14 (8.2)) and infected wounds (8 (4.7%)) such as after abscess drainage (Table 1). Dressing application was rated easy by 168 (95%) of the clinicians and the dressing demonstrated a good absorbent capacity as noted by 167 (98%) of the respondents. The dressing was rated easy to remove (168 (98.3%)) and did not soil clothing according to 165 (97%) of the respondents (Fig 1). Clinicians commented that the dressing reduced foul odour, maceration and improved peri-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 (94.6%)) the dressing to be safe and reliable for the task at hand (Fig 3).

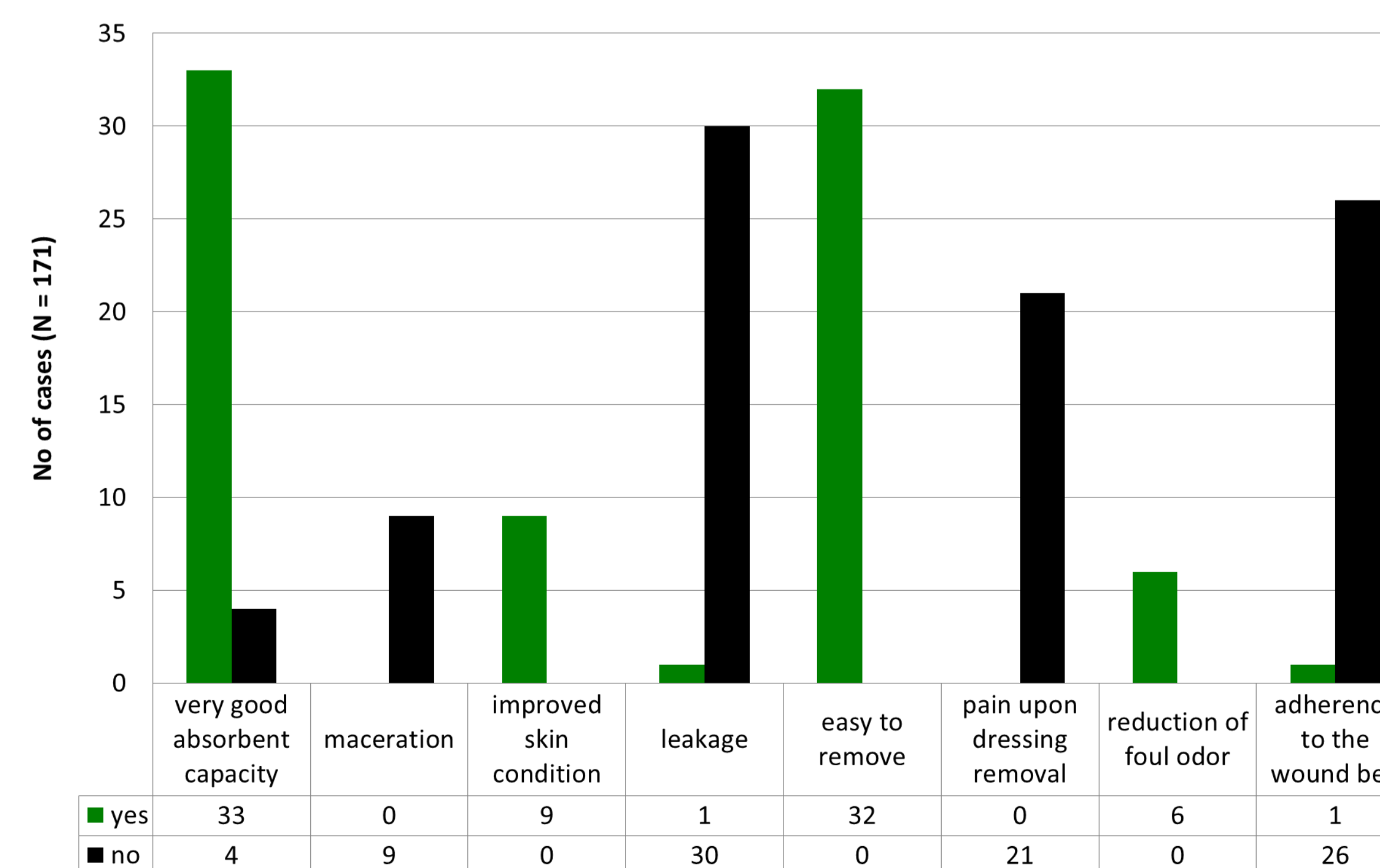


Fig 2: Clinician's additional comments on absorbent capacity and dressing removal

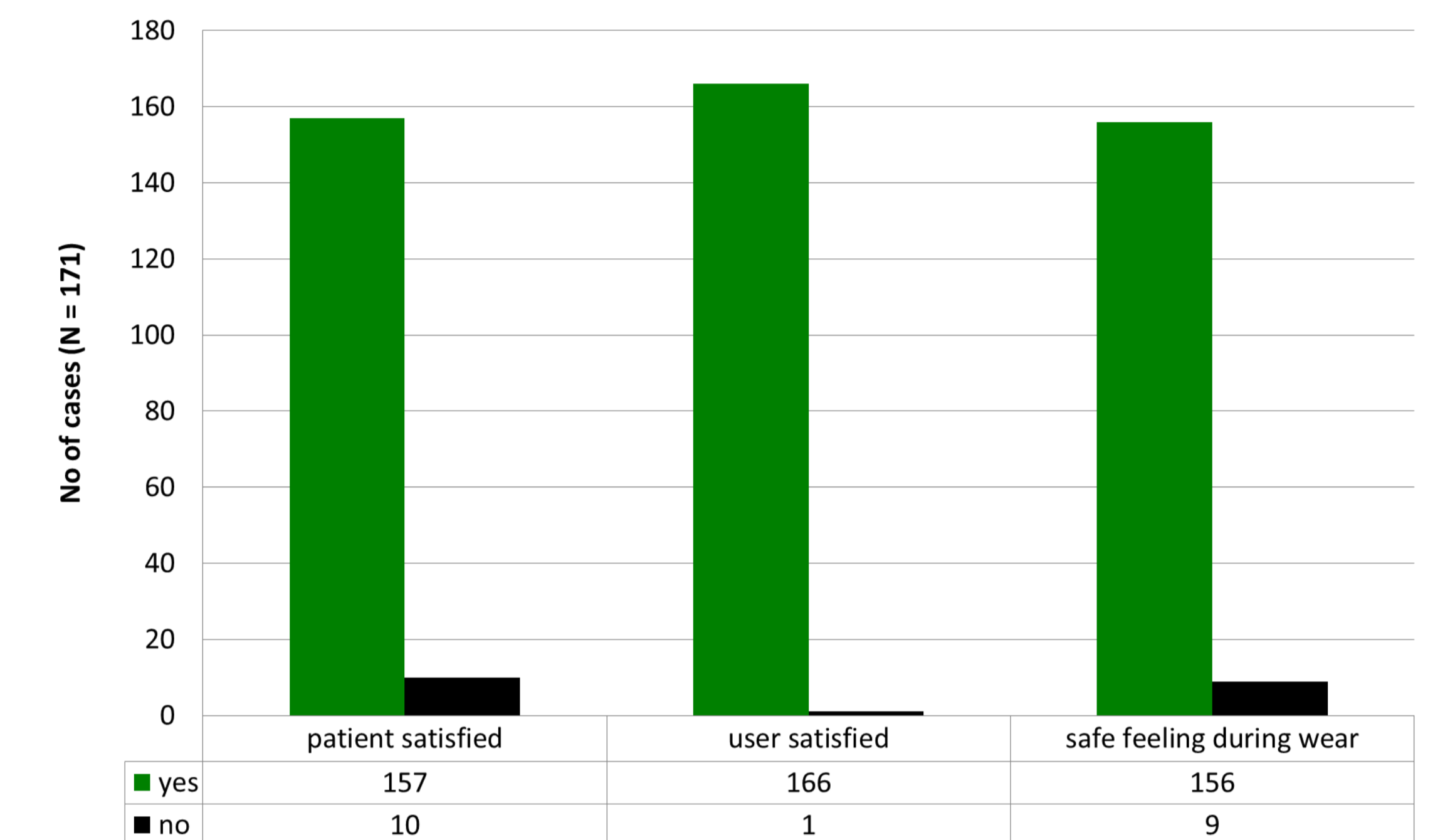


Fig 3: Patient and user satisfaction with dressing performance

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 wound dressing performance in every day clinical practice. Effective management of exudate should shorten wound healing time, optimize resources and reduce the impact on the physical and psychosocial health status of the patient.¹ Copious exudate production, especially in stagnating wounds, may cause maceration or even excoriation of the peri-wound skin, delaying wound healing.¹ Patients may experience social isolation and anxiety due to leakage of the dressing. The evaluated super absorbent 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 soiling of clothing. Dressing application was easy and if required two dressings can be placed side by side (Fig 4).



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

Conclusion:

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

References

1. Tadej M. The use of Fliwasorb in highly exuding wounds. British Journal of Nursing. Tissue Viability Supplement 2009; Vol 18, No 15
2. Steinlechner E, Rohrer C, Abel M (2008) Absorbent Dressings with Superabsorbent Polymers – A New Generation of Wound Dressings. Available at: <http://tinyurl.com/klofz7> Accessed 31 July 2017