

PERFORMANCE OF DRESSINGS WITH CHARGED POLYABSORBENT FIBERS IN THE CONTINUOUS DEBRIDEMENT OF 90 PATIENTS WITH DIABETIC FOOT ULCERS

A MULTICENTRE, PROSPECTIVE, REAL-LIFE STUDY • FOCUS ON CONTINUOUS DEBRIDEMENT

Tino Breitfeld¹ · Laetitia Thomassin^{2*}

¹ Wound Competence Center, Harzlinikum, Klinikum Wernigerode, Wernigerode, Germany - ² Global Medical Affairs, Laboratoires Urgo, Chenôve, France *Presenting author

CONTEXT & AIM

Excess amount of **slough** on cutaneous wounds is associated to inflammation, malodour, infection, biofilm and delayed healing.

Continuous integral debridement is key but may be challenging in real-life practice.

Negatively charged polyabsorbent fibre dressings (Magnet Fibers™ technology) enhance continuous debridement by leveraging electrostatic charge attraction to physically trap and remove slough residues, bacteria and exudates.

Aim: To evaluate the performance of these dressings in the local treatment of exuding wounds under real-life conditions — here focusing on the diabetic foot ulcers (DFUs) and on desloughing efficacy.

METHODS

STUDY DESIGN: Prospective, multicentre, observational study in Germany, From May 2025 to March 2026

PRIMARY DRESSINGS: Negatively charged polyabsorbent fibre dressings (pad, border, rope, UrgoClean dressing range, Laboratoires Urgo, France)

INDICATION: Patients with chronic wounds treated with the evaluated dressings, focus on **90 patients with DFUs**

ENDPOINTS: Continuous debridement, healing progression, acceptability, tolerability

FOLLOW-UP: Up to 3 visits, 8 weeks maximum (13 early withdrawals: 1 consent withdrawal, 4 lost to FUp, 8 serious AE, unrelated to the dressings)

MEAN TREATMENT DURATION: 47±24 days

STUDIED POPULATION (N = 90 DFUs) at baseline

Male / Female **79% / 21%**

Mean age (± SD) **69 ±11.8** years old

Mean BMI (± SD) **30,4 ±6.6** kg/m²

Median wound duration (IQR) **2 MONTHS** (0.6 ; 6.0)

3.3cm² Median wound area (20% cavity wounds)

91% With sloughy / necrotic tissue

62% At debridement stage (≥50% slough/necrotic)

44% Clinical signs of local infection (malodor 21%, stagnating 17%)

18% Diagnosed local infection

44% Macerated periwound skin

8% Healthy periwoundskin

FOCUS - CONTINUOUS DESLOUGHING EFFICACY

Debridement performed in addition to dressings:

- Mechanical: 36% of DFUs
- Sharp: 50% of DFUs

Person who performed the debridement:

26% physicians
32% nurses
42% other HCPs

Weekly care frequency (mean values):

Dressing changes **2.7** times / week
Mechanical debridement **1.6** times / week
Sharp debridement **0.4** times / week

Reduced from 1.9 to 1.5 between first follow-up visit and final visit

Reduced from 0.5 to 0.2 between first follow-up visit and final visit

Change in wound bed tissue

■ Necrotic
■ Sloughy
■ Granulation

Median reduction in slough:

- 88% (IQR 60% – 100%) at final visit

17%
62%
22%

Initial visit

40%
49%
11%

After 15d ± 6d

62%
32%
6%

After 31d ± 14d

82%
15%
3%

After 47d ± 24d

Median time to reach:

- ≥ 70% granulation tissue: 28 days (IQR 21 – 42)
- ≥ 100% granulation tissue: 39 days (IQR 28 – 52)

IN WOUNDS AT DEBRIDEMENT STAGE (N=56)

Dressing assessment by clinicians

96% 'Effective' or 'very effective' in slough removal (physicians)

98% Facilitated mechanical (98%) and % sharp debridement (100%)

84% Reduced the need for sharp debridement

83% Better continuous desloughing vs previous dressings

96% Pain-free slough removal at dressing removal, according to patients

HEALING OUTCOMES

Global wound evolution at final visit (N=77)



90% of wounds healed or improved

Median RWAR: 91.3% (IQR 64.0 – 100.0). **Decrease in clinical signs of infection** (from 44% to 8%), **malodour** (from 21% to 3%), **stagnation** (from 17% to 1%). **Improvement in healthy periwound skin** (in 68%)

ACCEPTABILITY & TOLERABILITY

87%
Atraumatic removal (physicians)

99%
Comfortable or very comfortable (patients)

87%
No pain at dressing removal (patients)

99%
Well or very well tolerated (patients)

97%
Useful or very useful (physicians)

100%
Well or very well accepted (patients)

CONCLUSION

These results are consistent with previous clinical evidence on these dressings with negatively charged polyabsorbent fibres and comfort their good efficacy in continuous debridement and promotion of healing of cutaneous wounds.

Their good tolerability and acceptability support their use in the management of patients with DFUs.

Sponsored by Laboratoires Urgo. Col: L. Thomassin is an employee of Laboratoires Urgo.