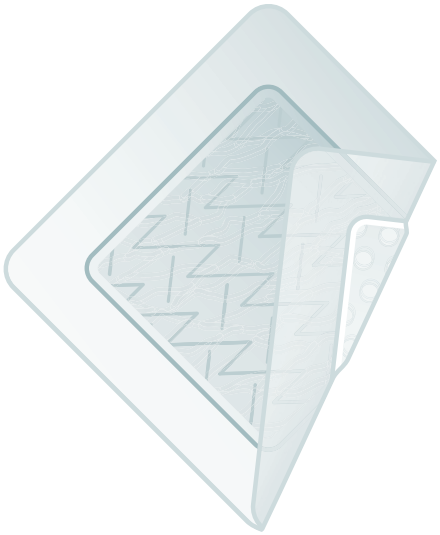
Kliniderm®
foam silicone border flexible



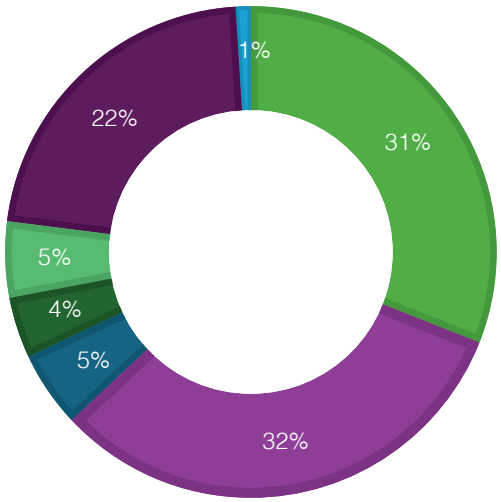
Results of a 75 patient Clinical Comparison Study

This evaluation was conducted to rate the performance and effectiveness of **Kliniderm® Foam Silicone Border Flexible** dressings against the main competitor product. The evaluation was performed by 2 healthcare professionals* in Budapest, Hungary, EU. A cohort of **75 patients** was used over a **2 month** period.

The Healthcare Professionals (Physician and Vascular Surgeon) were using the main competitor product prior to testing the Kliniderm® Foam Silicone Border Flexible dressing.

What type of wound was Kliniderm® Foam Silicone Border Flexible used for?

75 patients



Average age: 64

Female 45%; Male 55%

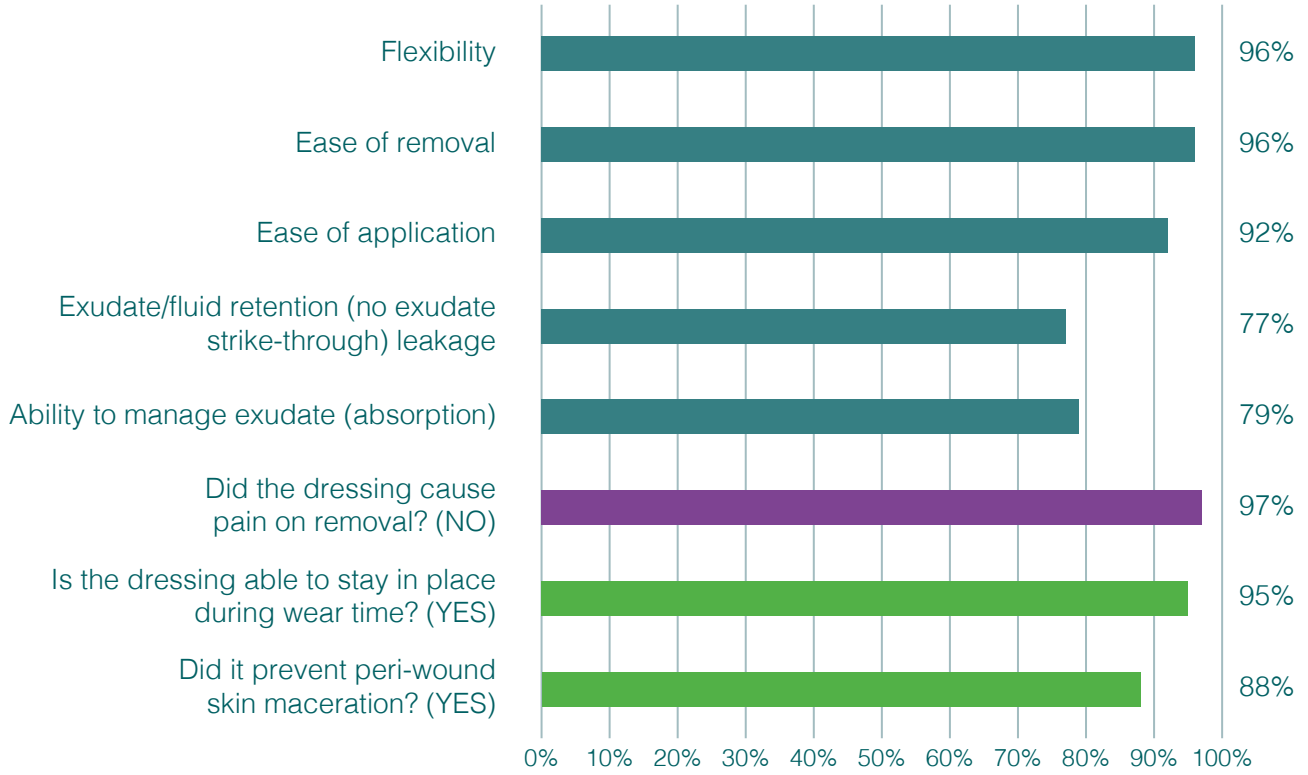
- Pressure ulcer
- Venous leg ulcer
- Diabetic Foot ulcer
- Laceration
- Skin tear
- Postoperative wound
- Other

37% of wounds were threated in combination with compression therapy.

Dressing changed after:

Results

The following percentage of responses said the factors below were exceptional:



Average of '*How did the patient rate the comfort of the dressing during wear of time on a scale of 1-10*':

9.33

Product evaluation results compared to the main competitor product:

Would you be happy to switch from the previous product to the one trialled?

84%

WOULD CHANGE

Regarding skin irritation, how would you rate the tested product against the competition?

Less	**27**	**36%**
Same	**45**	**60%**

Overall comparability to previous dressing used?

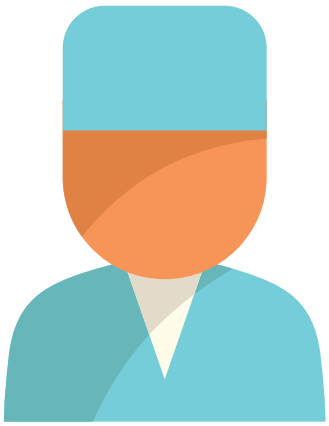
Excellent	**58**	**77%**
Good	**12**	**16%**

Feedback from the patients why they would switch to **Kliniderm® Foam Silicone Border Flexible** dressings (written by the healthcare professionals, adding their thoughts as well):

„The wound healing is excellent, and the patient can bathe with the dressing"

„It was more comfortable at the sacral side"

„She could bathe with the dressing and good absorption capacity"



„It reduced the pressure very well, the patients ankle did not hurt"

„The dressing significantly reduced the patients heel pain"

„No pain during dressing removal"

Conclusion

The results of this evaluation are favourable in terms of clinical use, clinical effectiveness, and patient satisfaction. **Kliniderm® Foam Silicone Border Flexible** dressings are safe and gave excellent results regarding absorption capacity, flexibility, fluid retention, comfort during wear time, ease of removal (without pain) and application. The dressing stays in place during wear time and prevents peri-wound skin maceration.

Evaluation against the main competitor product showed 96% saying the product was at least the same or better in the level of irritation while **overall comparability** was **excellent (77%)** or **good (16%)**.

84% of the patients would be **happy to switch** from the previous product to the one trialled.

*Dr. Tímea Hevér PhD, Vascular Surgeon, Army Hospital, Budapest, Hungary & Dr. László Zoltán Ternyik, Physician and Wound Care Specialist, Medicover Private Hospital, Budapest, Hungary

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Medeco B.V.
Brandpuntlaan Zuid 14
2665 NZ Bleiswijk
The Netherlands

www.medeco.org

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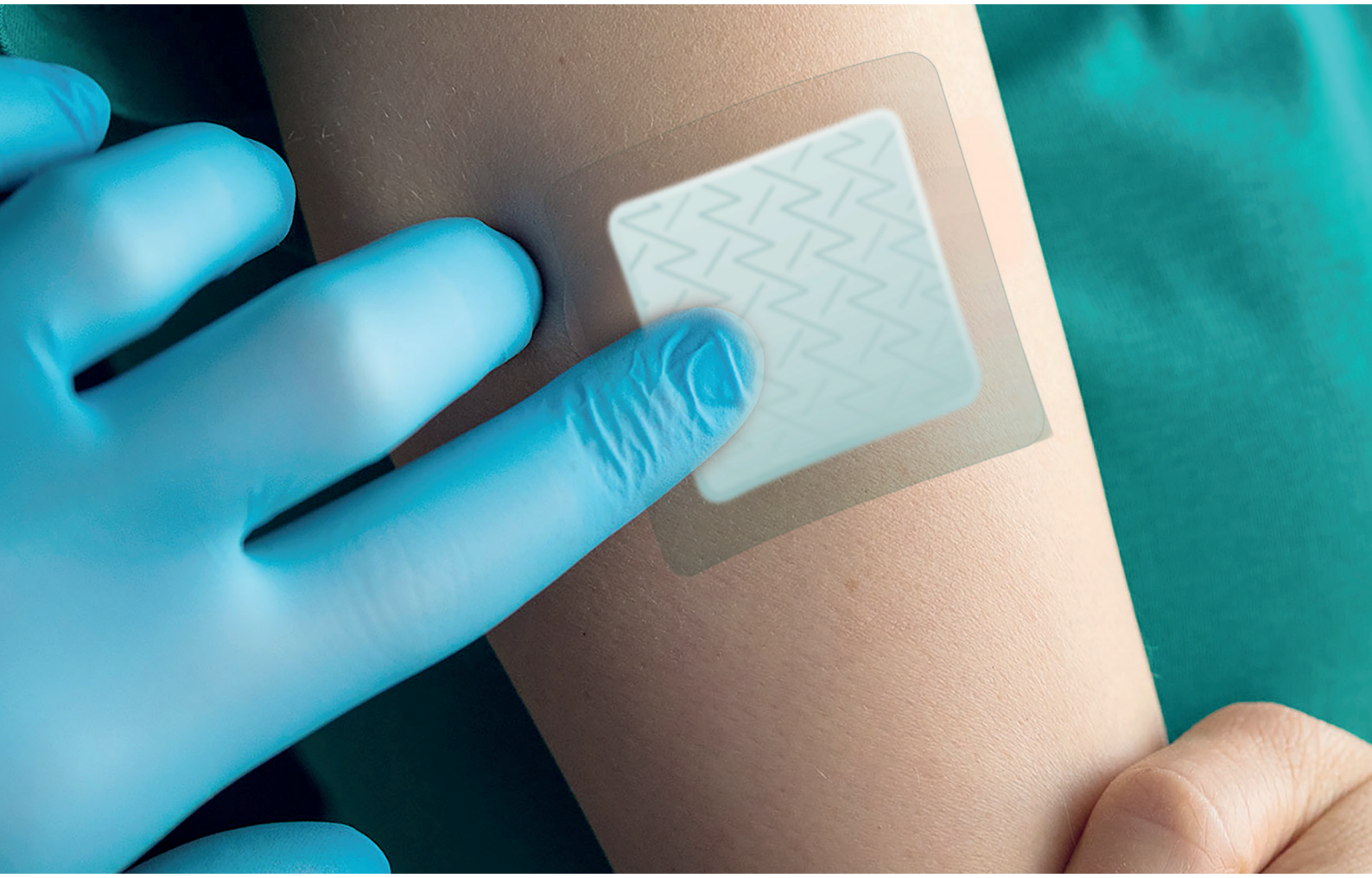
Evaluation of Kliniderm® Foam Silicone Border Flexible in Clinical Wound Care:

A Case Report-Based Approach

Dr. László Andrási PhD Surgeon
Assistant Professor
University of Szeged, Department of Surgery



Abstract

Wound care is an essential part of clinical practice, and the need for advanced wound dressings has grown significantly. **Kliniderm® Foam Silicone Border Flexible** is a newly developed wound dressing designed for moderate to heavily exuding wounds, offering **extra flexibility and transparency** to optimize patient care. This article evaluates its effectiveness through **clinical case reports**, focusing on **exudate management, dressing adherence, and patient comfort.** The results demonstrate its benefits in clinical wound management, supporting its use in various healthcare settings.

1. Introduction

Wound healing is a complex biological process requiring a **moist environment, proper exudate management, and appropriate dressing selection** to optimize outcomes (Harding et al., 2019). Poor dressing selection can lead to **delayed healing, increased pain, and infection risk** (Upton, 2014).

Traditional wound dressings may not provide the required **flexibility, transparency, and adherence** needed in **high-movement areas. Kliniderm® Foam Silicone Border Flexible** introduces a novel **Z-shaped cut design,** offering superior **adaptability and comfort**, particularly in challenging wound sites.

1.1. Objective of the Study

This article evaluates **Kliniderm® Foam Silicone Border Flexible** in clinical practice by analyzing case reports of patients treated for:

- **Diabetic foot ulcers (DFU)**
- **Pressure ulcers (PU)**
- **Surgical wounds**

The key assessment parameters include:

- ☑ **Exudate management**
- ☑ **Dressing adherence & flexibility**
- ☑ **Impact on wound healing**
- ☑ **Patient comfort and ease of use**

2. Materials and Methods

2.1. Product Description

Kliniderm® Foam Silicone Border Flexible is an advanced wound dressing composed of foam, superabsorbent fibres and a silicone border, specifically designed for moderate to heavily exuding wounds.

Key Features:

- **Z-shaped cuts for enhanced flexibility** and adaptability.
- **Transparent design for better exudate monitoring** without removal.
- **Secure yet gentle adherence,** preventing trauma upon removal.
- **Available in 7 different sizes for various wound types.**

2.2. Clinical Case Selection

The study included patients with various wound types, focusing on those with:

- **Moderate to high exudate levels**
- **Challenges with previous dressings**
- **Wounds in high-movement areas requiring flexible adherence**

Dressing application followed standard wound care protocols, with assessments after reasonable intervals post-application.

3. Results

Case 1: Diabetic Foot Ulcer (DFU)

- **Patient:** 52-year-old male with a chronic DFU on the plantar foot.
- **Previous issue:** Frequent dressing dislodgement due to movement, no sign of granulation tissue formation
- **Outcome:** The **Z-shaped flexibility** allowed for better conformity, **reducing friction** and enhancing **exudate control**, promoting granulation tissue formation.
- **Healing progress:** Increased granulation tissue formation by day 5.

Case 2: Pressure Ulcer (PU)

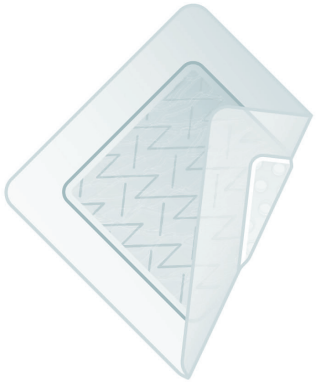
- **Patient:** 53-year-old male with a submandibular pressure ulcer.
- **Previous issue:** Unfit dressings due to special anatomical location
- **Outcome:** The flexible silicone **design** allowed better adhesion, and reducing unnecessary dressing changes
- **Healing progress:** Reduced wound size by day 7.

Case 3: Pressure Ulcer (PU)

- **Patient:** 58-year-old female with a dorsal pressure ulcer.
- **Previous issue:** Painful dressing removal and periwound skin inflammation, dressing migration, severe septic condition due to orthopedic origin, broad spectrum antibiotics was administered during ICU care
- **Outcome:** The **silicone border provided strong adhesion** while ensuring **painless removal**, improving patient comfort and periwound skin.
- **Healing progress:** Reduced inflammation and size, improved tissue perfusion.

Case 4: High-exuding surgical wound (HeSW)

- **Patient:** 42-year old male with high-exudate level abdominal surgical wound
- **Previous issue:** Frequent and painful dressing changes
- **Outcome:** Advanced exudate absorption and comfortable wearing
- **Healing progress:** Ensures complete healing of the wound preserving the periwound skin



4. Discussion

4.1. Exudate Management

- The dressing **effectively absorbs exudate**, preventing **maceration of periwound skin**
- Transparent design allows for **better exudate monitoring** without frequent removal.

4.2. Dressing Stability and Flexibility

- The **Z-shaped cuts** provided **better conformity**, especially in **high-movement and special anatomical areas.**
- **Patients reported less discomfort during** movement compared to **traditional foam dressings.**

4.3. Patient Comfort and Atraumatic Removal

- The **silicone border ensures atraumatic removal,** reducing **pain and irritation.**
- Particularly beneficial for **elderly patients and those with fragile skin.**

4.4. Clinical Implications

- **Kliniderm® Foam Silicone Border Flexible** demonstrates:
  - ☑ **Superior flexibility (vs. standard foam dressings)**
  - ☑ **Less frequent dressing changes (vs. gauze-based dressings)**
  - ☑ **Higher patient satisfaction**

5. Conclusion

This study demonstrates that **Kliniderm® Foam Silicone Border Flexible** is a **clinically effective dressing for moderate to heavily exuding wounds,** offering:

- ☑ **Improved wound healing outcomes**
- ☑ **Enhanced patient comfort**
- ☑ **Reduced unnecessary dressing changes**
- ☑ **Optimal adherence with atraumatic removal**

The dressing proves to be an **innovative solution** for **chronic and acute wound management**, making it a recommended choice for **clinical use.**

6. References

1. King, B., Barrett, S., & Welch, D. (2021). A clinical evaluation of 21 patients using Kliniderm foam silicone lite. Wounds UK, 17(1), 112-115.

2. Pramod, S. (2021). Preventing and managing device-related pressure ulcers in oncology. British Journal of Nursing, 30(1), 1-3.

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4. Stephens, C. (2022). Clinical benefits of silicone foam dressings in wound care: A 60-patient evaluation study. Woundcare4heroes.

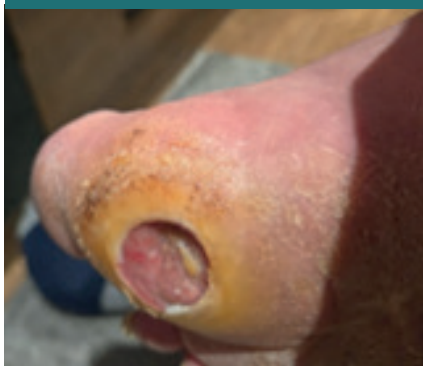
5. Drewery, K. (2015). Is Kliniderm foam silicone a suitable, cost-saving alternative to other silicone foam dressings? Wounds UK, 11(2), 98-103.

6. Upton, D. (2014). Psychological aspects of wound care: Implications for clinical practice. Journal of Community Nursing.

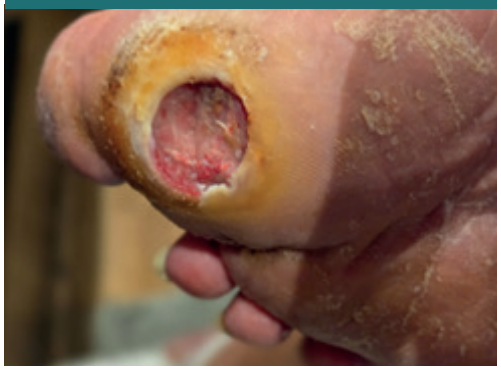
Case 1

52 yo male patient, T2DM, obesity are known. DM ii well controlled by insulin, and diet. He has a history of recurrent osteomyelitis and several minor operations (incision and drainage, toe amputation on the contralateral side). A finger-tip-shaped ulcer was developed on the right sole showing low healing progress with conventional dressings.

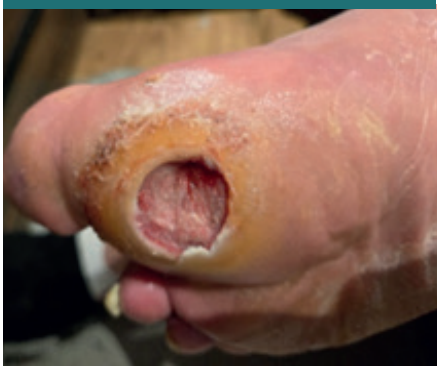
D1:



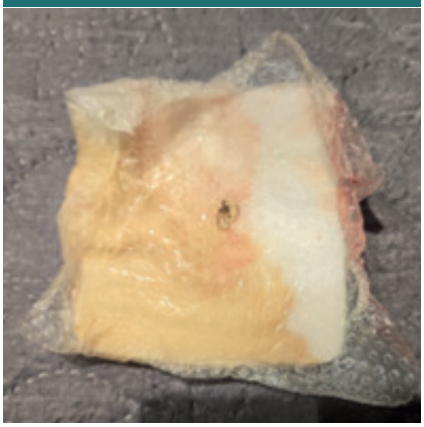
D3:



D5:



Dressing right after removal:

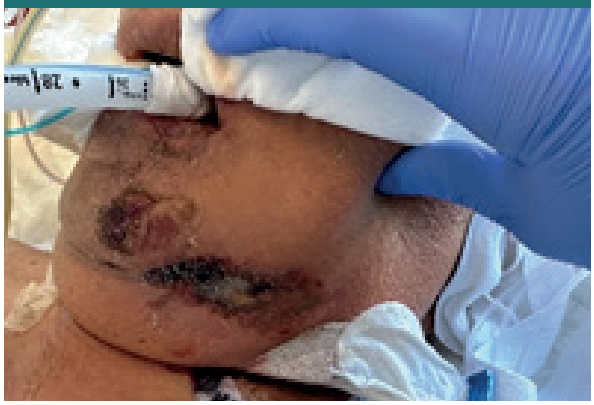


Outcome and explanation: The previous dressing was sterile gauze pad, it had to be changed every day, or twice a day, especially due to lack of fluid absorption. After initiation of the new dressing, the exudate management has been improved, the patient comfort was increased and the dressing stayed in correct position. After reaching the full load of fluid absorption, minor dislodgement was noted during physical activity. Because of this, the product needed to be changed almost daily. (Klinion Superabsorbent Dressing could have been used instead to deal with the high amount of exudate). Despite the abovementioned factors, the slough layer over the wound bed disappeared and healthy granulation tissue formation advancement was observed on day 5.

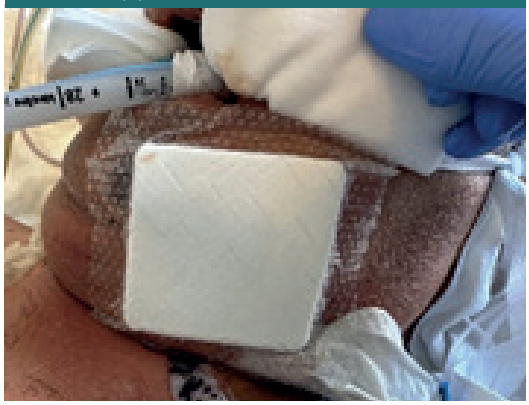
Case 2

54-year-old male patient with no significant comorbidities. He was admitted to Intensive Care Unit due to severe respiratory failure. Forty-eight hours after admission, due to worsening respiratory failure, we sedated him, initiated invasive mechanical ventilation, and placed him in the prone position under analgesia and muscle relaxation to improve gas exchange. However, this rescue maneuver did not improve gas exchange, so we initiated veno-venous extracorporeal membrane oxygenation (V-V ECMO) to ensure adequate oxygenation. While on ECMO support, the patient was placed in the prone position again, maintaining this maneuver for nearly 36 hours before being returned to the supine position. As a result, pressure-related skin lesions developed. One such lesion appeared in the left submandibular region, where we performed regular dressing changes (day 1, d4, d7).

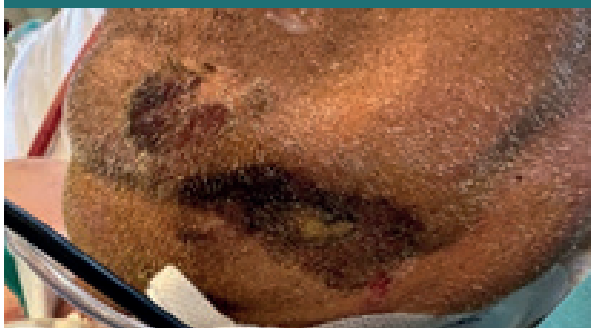
D1:



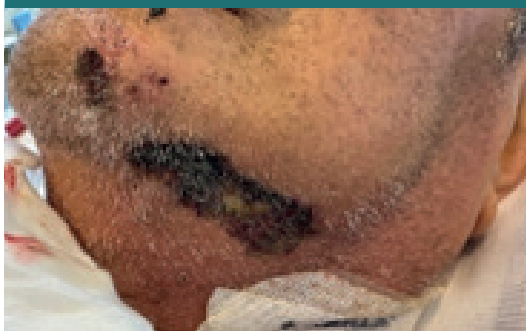
After d. application:



D4:



D7:

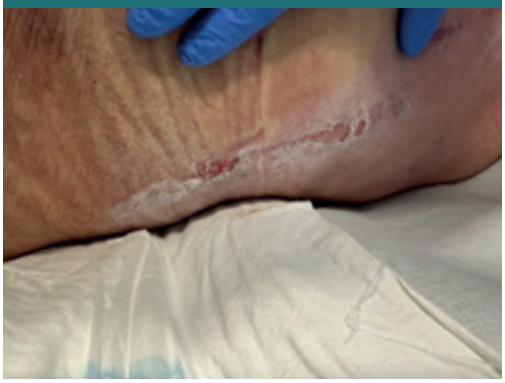


Outcome and explanation: The width of the wound and the central area within the wound also reduced in size during the wearing time of the dressing.

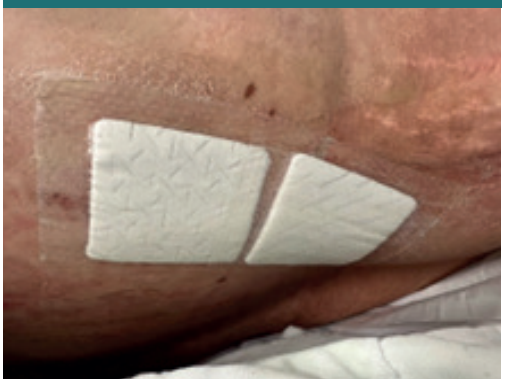
Case 3

58 year-old lady with a history of septic complications after orthopaedic surgery receiving intensive care. T2DM, ESRD are known. After couple of days in ICU, multiple pressure ulcers developed especially on the thoracal back areas. She has been analgosedated and intubated.

D1:

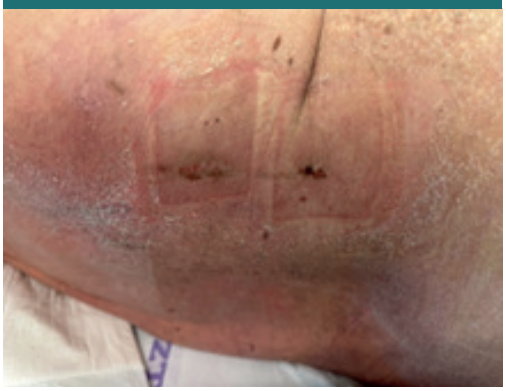


D3:



D3 after d. removal (photos taken from the other side):

D7:

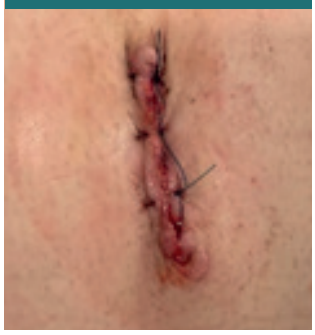


Outcome and explanation: Almost complete healing was achieved of the back-located pressure ulcers. After 2 dressing changes during the period of 7 days, full granulation and epithelisation was observed. Unnecessary dressing changes were avoided saving cost and nursing time too. During dressing changes with the new method, the VAS score was dropped to 1/10 from 4-5/10.

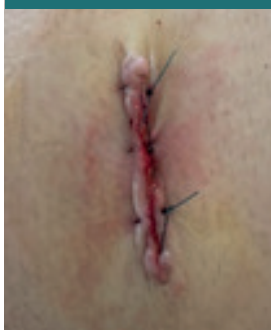
Case 4

45 year-old male with a history of rectal cancer (ypT0N0) resection and protective ileostomy. Ileostomy closure was successful, on the site of the previous stoma the skin was sutured thereafter the dressing application and regular changes introduced. The wound was expected to be exuding due to previous stoma site and possible bacterial contamination.

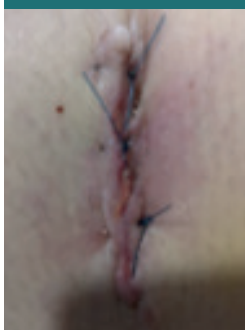
D1:



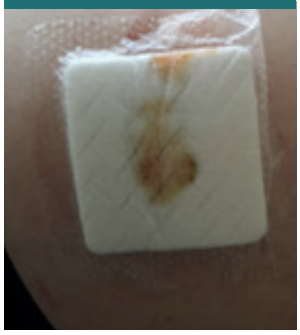
D4:



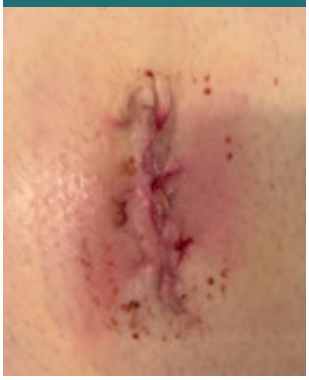
D7:



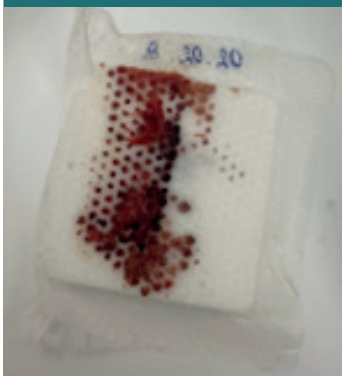
D7 before d. removal:



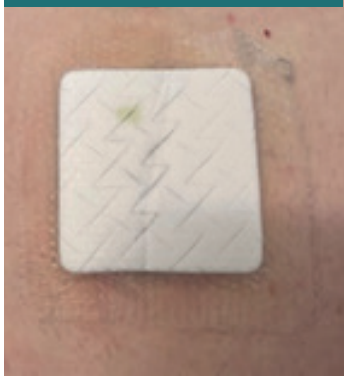
D10:



After d. removal:



D10 before removal:



Outcome and explanation: The dressing changes were performed almost daily in the early postoperativ period due to high exsudate level (the wound was tend to be infected with gut flora, previous stoma site). Dressing changes were based on the fluid-dressing interaction observed on the transparent layer of the product. After no sign of fluid overload of the dressing, we kept that on the wound. The comfort and the adhaesion of the dressing was excellent, the dressing changes were not painful, complete wound healing were achieved with satisfactory patient reported outcomes.

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Medeco B.V.
Brandpuntlaan Zuid 14.
2665 NZ Bleiswijk
The Netherlands

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