

---

## Clinical Evaluation Of The Effectiveness Of A Multimodal Static Pressure Relieving Device

*J. Osterbrink*<sup>(1,2)</sup>, *H. Mayer*<sup>(2)</sup>, *Gerhard Schröder*<sup>(3)</sup>

<sup>(1)</sup> Florida International University, Miami, USA <sup>(2)</sup> Institut für Pflegewissenschaft, Private Universität Witten/Herdecke, Stochumer Strasse 12, 58453 Witten, Germany <sup>(3)</sup> GSK Kommunikation, Ulsar-Sohlingen

---

### Introduction

The aim of the study was to provide proof of the effectiveness of a support aid for the prevention or treatment of pressure sores. The system under review was Repose®, a range of air-filled polyurethane products comprising a Mattress Overlay, a Cushion, Foot Protectors and a Wedge.

### Methods

The study was conducted according to a randomised, comparative and explorative design. The ethical approval was given by the ethical committee by the University of Witten-Herdecke.

All patients were supported either by the Repose® system or by small or large-celled alternate pressure systems. All available patients in one hospital and residents of eight nursing homes who met the inclusion criteria (pressure sore minimum grade 2, geriatric patients, or those with neurological illness or patients undergoing operations) were randomly allocated to the included products for a total period of nine months. Measurements, realised by a standardised protocol which considered preventive and therapeutic aspects of the measured systems, occurred over a maximum of 28 days per subject. The main parameters were: general wound healing, weekly changes in wounds, wound healing success according to support system.

### Results

50 patients were included in the study. The study showed a clear superiority ( $p = 0.009$ ) of Repose® compared to the small-cell support system regarding the wound healing tendency as well as the healing period. Repose® were in those parameters comparable to the large-cell systems ( $p = 0.212$ ) in this study group. Patients were significantly more satisfied with the Repose® system than patients who were cared for using comparative systems ( $p < 0.001$  small-cell system and  $p = 0.024$  large-cell system).

### Conclusion

Repose® provides a highly effective system that can be used in multimodal fashion for both preventative and therapeutic purposes within the study group. Evidence was presented that the patients with wounds in the classically exposed body points at risk of pressure sores who were supported on the Repose® system showed an improved tendency to heal.



## An effective aid in the prevention and treatment of pressure ulcers

Clinically effective<sup>1,2,3</sup>

Cost effective<sup>4,5,6</sup>

Easy to use

No maintenance

Portable



- **Repose** has contributed to the successful treatment of more than **1 million patients**

- **Repose** “appears to offer a similar level of benefit in preventing pressure ulcers, with the potential for major cost reduction.”

Clinical trial; pressure ulcers; RCT; Repose v Nimbus™. <sup>7</sup>

- The **Repose** mattress is reactive, it reduces contact pressure by immersion

- More patients are currently treated on Repose than any other pressure redistribution mattress in the UK

1. Price, P. et al. 1999. Challenging the pressure sore paradigm Journal of Wound Care, April, Vol 8, No 4. 2. Osterbrink J, et al. Clinical evaluation of the effectiveness of a multimodal static pressure relieving device. 8th European Pressure Ulcer Advisory Panel Open Meeting, Aberdeen, 2005. 3. Price P, et al. The use of a new overlay mattress in patients with chronic pain: impact on sleep and self-reported pain. Clin Rehabil 2003;17:488-92. 4. Wilson.A. Pressure Ulcer Prevalence Audit: What are the benefits of doing it? EPUAP, Berlin, Poster presentation, 1999. 5. Hampton, S. 2000. Repose: the cost-effective solution for prompt discharge of patients. British Journal of Nursing, Vol 9, No 21. 6. MacFarlane A, Sayer S. Two clinical evaluations of the Repose system. Wounds UK 2006;2:14-25. 7. Nimbus is a trademark of Huntleigh Technology PLC.