

Easier, Safer Repositioning: The Dolphin Therapy Support Surface and Eleganza 5 Combination Treated Skin Damage, Facilitated Repositioning and Reduced Pain

- ↑ Pressure ulcer healing
- ↓ Pain reduced
- ↑ Safer repositioning

Introduction

Vincent* (age 67) was admitted to hospital from home following a CVA, resulting in severe left sided weakness. He was in A&E for 40 hours, on a trolley with a standard foam mattress, before being moved to a ward.

His past medical history included:

- Hypertension
- Type 1 diabetes
- Peripheral vascular disease
- Transient ischaemic attacks
- Myocardial infarction

Unfortunately he developed a Category 3 pressure ulcer on his sacrum in A&E.

**Vincent is not the patient's real name*

Clinical Challenges

Vincent was placed on a traditional alternating pressure mattress when he first arrived on the ward. His PURPOSE-T pressure ulcer risk assessment was red (high risk).

In addition to the existing Category 3 pressure ulcer on his sacrum, he was at very high risk of further skin damage due to immobility, unstable blood glucose levels and poor peripheral circulation.

Within 24 hours of being on the ward, the Category 3 pressure ulcer had deteriorated to a Category 4.

Staff were finding it very challenging to reposition Vincent so he was off his sacral wound. They were using pillows, but these weren't working well and he was quickly rolling back onto them (and therefore onto the wound).

The caregivers had difficulty both repositioning Vincent and providing personal care. He wasn't able to assist, which further increased manual handling risks. He had significant pain on his affected side which became worse when he was handled or turned onto that side.



Patient Objectives

- **Treat existing skin damage**
- **Prevent further skin breakdown**
- **Improve pain management**
- **Improve comfort and sleep**

Introduction of the Dolphin Therapy Fluid Immersion Simulation Support Surface, then the Eleganza 5 Bed

Dolphin Therapy is a unique reactive support surface that simulates a fluid environment. Research has demonstrated that it maintains tissue symmetry,¹ minimises vascular occlusion,² and prevents tissue ischaemia even when the patient is nursed directly on a wound.³ Data collected from over 3,000 patients has demonstrated that it is extremely effective at treatment of skin damage, with 58% of wounds healed or improved at the end of placement. It has also improved comfort, pain management and sleep in over 99% of patients who had these as an objective.⁴

The TVN decided, after Vincent's pressure ulcer deteriorated from a Category 3 to 4, to step him up to a Dolphin Therapy surface. She hoped it would both help to treat the existing pressure ulcer and prevent further skin breakdown.

Vincent said he was more comfortable on the new surface, and in less pain. However, he was still in pain when being repositioned, and the TVN still wanted pressure off-loading from his sacrum.

Documentation of positioning was also proving problematic because Vincent was rolling back onto the pillows shortly after being turned.

When Medstrom's Clinical Advisor visited the ward to see how Dolphin Therapy was working for Vincent, the TVN commented:



"Vincent is doing well on Dolphin. He's **more comfortable**, his pressure ulcer is now **static** and he has **no further skin breakdown**.

"But we've still got a **problem with repositioning and off-loading** his sacral wound. What we really need is a **Dolphin that turns!**"

Medstrom's Clinical Advisor explained that the Eleganza 5 bed may work well for Vincent, in conjunction with Dolphin Therapy. Eleganza 5 is a specialist bed, often used in intensive care. However, it can also be of great benefit to general ward patients with particular challenges such as those being experienced by Vincent.

The bed has full platform electrically operated lateral tilt, up to 15° to both the left and right. It helps to reduce the amount of physical handling, and provides a more ergonomic position for caregivers to work at, as they are not stretching and bending over the patient. Dual-sided foot pedals allow the caregiver to tilt the bed without pressing a button, freeing up both hands to work with the patient.

It can be moved to lower angles of tilt (approximately 5° to 7°) by one caregiver, which helps to off-load and redistribute pressure. This helps to reduce the amount of physical repositioning required, as well as the number of staff needed. For personal care, with two caregivers, the bed can be tilted to 15°.

An Eleganza 5 bed was installed with the Dolphin Therapy surface. The staff tilted it by 6° to both the left and right to off-load pressure from the sacrum. They no longer needed to use pillows. It was better for Vincent, as it reduced physical handling with the associated pain, and was much easier for the staff to reposition him, and to provide personal care.

Summary

While the Dolphin Therapy surface was highly beneficial for Vincent, it didn't address all of his challenges. It helped to protect and heal his skin, but it couldn't turn to aid repositioning. Although turning mattresses are available, they do not offer the same level of immersion as Dolphin Therapy, and Vincent needed that very high level of support.

The addition of an Eleganza 5 bed addressed the off-loading, turning and repositioning challenges associated with Vincent's care. It also made accuracy and documentation of his care much easier; the precise times, position and angle could be recorded.

At the time of writing this case study, Vincent was still in hospital. All objectives for him had been met; his sacral pressure ulcer was healing, and he had no further skin breakdown. He was in less pain, due to both the Dolphin Therapy surface's immersive properties, and less hands-on care through using the lateral tilt on the bed. He was much more comfortable and sleeping better, with fewer direct nursing interventions needed.

A Healthcare Assistant commented to Medstrom's Clinical Advisor:

"The tilting bed has been a real **game changer** for nursing Vincent.

"It was taking three of us to turn him on his side, and three or four to provide personal care. Now, usually just **one person can reposition him much more quickly**. Personal care now only needs two of us. This has **freed up time**, is helping to **protect our backs** and is so **much nicer for Vincent**. He's far **more settled** now, and in a lot **less discomfort and pain**, which is great to see."



Skin improving



Comfort improved



Pain reduced

References

1. CT scans from St Joseph's Hospital, Tampa, Florida.
2. Worsley PR et al (2015). The effects of a fluid immersion mattresses; an evaluation of fluid immersion therapy for the prevention of pressure ulcers. 18th Annual Meeting of the European Pressure Ulcer Advisory Panel, 17th September 2015. Faculty of Health Sciences, University of Southampton.
3. Mayes KL et al (2012). Cost effective care without clinical compromise: Incorporating the Dolphin Fluid Immersion Simulation Mattress System into the postoperative care of patients undergoing myocutaneous flaps. Poster presented at Wild on Wounds National Conference, September 12 - 15, 2012, Las Vegas, NV.
4. Medstrom (2023). The effectiveness of Dolphin Therapy fluid immersion simulation support surface. Outcomes for over 3,000 highly complex patients. Available online: <https://www.medstrom.com/wp-content/uploads/2023/03/SM1153-Dolphin-Therapy-3000-Patient-Outcomes-Report-Rev1-Mar-2023-1.pdf>



To discover more about Dolphin Therapy, Eleganza 5, and how Medstrom can support you, contact our Clinical Advisors 24/7/365 on:

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