

Repositioning and Pressure Area Care: The Dolphin Therapy Support Surface and Eleganza 5 Bed Significantly Improved Quality of Life for a Highly Complex Patient

- ↑ Skin improved
- ↓ Pain reduced
- ↑ Adherence to care improved

Introduction

Dennis* (age 68) was admitted to hospital from home with severe shortness of breath and poor blood flow to his legs. He was diagnosed with an aortic aneurysm.

The reduced blood flow to his legs had resulted in ischaemia and gangrene to his lower left leg.

He was taken to theatre for a below knee amputation of his left leg, but suffered a right sided CVA in theatre, leaving him with severe left sided weakness.

His past medical history included:

- Type 2 diabetes
- Deep vein thrombosis
- Atherosclerosis
- Myocardial infarction
- Non-Hodgkins lymphoma

Prior to his operation, Dennis' skin was intact, but at high risk of breakdown.

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



Clinical Challenges

Following his surgery, Dennis was nursed on a general med/surg bed and a traditional alternating pressure mattress. Unfortunately, he was non-adherent to repositioning due to pain, and developed a Category 4 pressure ulcer to his right buttock and a DTI to his right heel.

These areas of skin breakdown, together with his amputation wound, were resulting in excruciating pain whenever any hands-on interventions were attempted. All of these factors were increasing the risk of further skin breakdown, and the situation was highly distressing for Dennis, his family, and his caregivers.

Dennis couldn't tolerate lying on his left side or back for long due to pain. He therefore spent a lot of time on his right hand side, and the staff were worried about further skin breakdown on that side.

Patient Objectives

- Reduce pain
- Improve comfort
- Treat existing skin damage
- Prevent further skin breakdown
- Improve adherence to care
- Reduce turning/repositioning frequency

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 prevention of skin damage. It has also improved comfort and pain management in over 99% of patients who had these as an objective, and helped to reduce turning frequency in 98% of patients. Adherence to care was improved in 94% of patients.⁴

The TVN assessed Dennis and arranged for him to be transferred onto a Dolphin Therapy surface, because of the very high risk of further skin breakdown, and to treat existing damage.

Dennis was more settled on the Dolphin Therapy surface, and said he was more comfortable and in less pain. His skin at that point had remained static, with no new breakdown. However, he was still in severe pain when being repositioned or having personal care; any form of hands-on care was still traumatic for him.

With this in mind, the Ward Manager contacted Medstrom's Clinical Advisor to ask if she could think of any solution. She suggested using an Eleganza 5 bed, with lateral tilt, to facilitate repositioning and reduce hands-on care. Eleganza 5 is a specialist bed, often used in intensive care.

When the Ward Manager saw a picture of the bed, she was hesitant to try it at first, because it had so many controls, and she thought the staff would not get to grips with how to use it. Medstrom's Clinical Advisor explained that they only need to know how to perform a few functions at first, and that they could learn how to use more functions once they got more familiar. The Ward Manager agreed to try the bed for Dennis' care.

Eleganza 5 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.

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 hands-on repositioning required, as well as the number of staff needed.

The addition of the Eleganza 5 bed proved extremely beneficial for Dennis. Although he was still experiencing pain, he was able to tolerate being repositioned much better using lateral tilt, and was a lot more settled in himself during this procedure. He also tolerated being on his left side for longer, helping with pressure redistribution.

As the staff became more familiar with the bed, and received further training, they were able to use more functions, including the built-in Class III weighing scale, for regular Malnutrition Universal Screening Tool (MUST) assessments.

Dennis was nursed on the Eleganza 5 bed and Dolphin Therapy surface for a further four months, until he passed away peacefully.



Summary

The combination of the Eleganza 5 bed and Dolphin Therapy surface significantly improved Dennis' quality of life while he was nursed on them.

The Category 4 pressure ulcer, DTI and amputation wound all improved. No new areas of skin damage occurred. These achievements were remarkable given Dennis' pressure ulcer risk level, but they mirrored many other Dolphin Therapy patients' outcomes with similar risk scores and wounds.⁴

The Dolphin Therapy surface improved Dennis' comfort and helped reduce pain, but this was enhanced by the addition of the Eleganza 5 bed. The combination significantly reduced his pain further, reducing his anxiety and increasing overall comfort and well-being. It also meant he could tolerate repositioning, which improved adherence to care.

One of the original objectives was to reduce turning frequency, because of Dennis' pain. However, with addition of the Eleganza 5 bed, that objective was no longer applicable.

This case study demonstrated how Eleganza 5 can be used with great success outside of intensive care.



Comfort improved



Anxiety reduced



No new skin damage

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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