

Significant Improvement: Treatment of an Unstageable Pressure Ulcer Using Dolphin Therapy in a Patient Receiving End-of-Life Care

- ↑ Significant improvement of an unstageable pressure ulcer over seven days
- ↓ No new pressure damage
- ↑ Comfort improved

Introduction

Caroline* (age 62) was admitted to hospital following a 'long lie' at home. She had been lying on the floor for five days before being discovered and taken to hospital. She was suffering from alcohol withdrawal and pneumonia on admission, taken to intensive care, intubated and placed on mechanical ventilation.

Her past medical history included:

- Alcohol dependency
- Alcoholic liver disease

On admission, Caroline had a large (8 x 10cm) unstageable pressure ulcer to her sacrum, which had developed as a result of the long lie. She was also extremely thin and malnourished.

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



Clinical Challenges

Caroline was clinically extremely unwell, and her skin was at very high risk of further breakdown. Her malnourished state and sedation added to this risk. She was fed via a NG tube to try to improve her nutritional status.

A support surface was required to help treat the sacral pressure ulcer and prevent any further skin breakdown.

Patient Objectives

Caroline underwent active treatment at first, but despite this she was unable to maintain sufficient oxygen saturation levels, and was identified as being at end of life.

The objectives for Caroline were to :

- **Treat the sacral pressure ulcer**
- **Prevent further skin damage**
- **Maintain comfort**

The Dolphin Therapy Fluid Immersion Simulation Support Surface

Dolphin Therapy is a unique reactive support surface that simulates a fluid environment. Research has demonstrated that it maintains tissue symmetry,¹ minimises vascular occlusion² and prevents tissue ischaemia, even when the patient is nursed directly on a wound.³ Data collected from over 3,000 patients showed that 58% of wounds which were nursed directly on the Dolphin surface healed or improved.⁴

Caroline was placed on Dolphin Therapy on admission to A&E, because she was at such high risk of skin deterioration and further breakdown. She was nursed lying directly on her sacral pressure ulcer as well as spending some time off it, on her side.

Caroline spent seven days on the Dolphin Therapy surface. During that time, the unstageable pressure ulcer to her sacrum was reported as having significantly improved, and she had developed no further skin damage. She remained sedated and appeared comfortable and settled.

After seven days, when it was confirmed that she would not be able to be successfully weaned from the ventilator, life support was discontinued, and she passed away peacefully shortly afterwards.



Wound improved



No new skin damage



Comfort maintained

Summary

Dolphin Therapy helped to significantly improve Caroline's unstageable pressure ulcer and prevent further skin damage. This was a remarkable achievement, given how unwell she was, with low blood oxygen saturation, severe malnutrition, and being nursed some of the time directly on her sacral wound. Early adoption of Dolphin Therapy was likely a significant contributor to this; using the most effective surface for pressure area care from the outset gave maximum protection and helped with healing of existing damage.

Dolphin Therapy is often the most appropriate choice of support surface for patients like Caroline, with multiple, highly complex needs and at extremely high risk of skin deterioration. It allowed her to remain comfortable and ensure that the end of her life was comfortable and peaceful.

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). Data on file.

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

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