

Healed and Improving: The Dolphin Therapy Support Surface Successfully Treated Multiple Areas of Skin Damage for a Patient Non-Compliant with Care

- ↑ DTIs and Category II pressure ulcer healed
- ↑ Category IV pressure ulcer healing
- ↑ Compliance with care improved

Introduction

Trevor* (age 70) was admitted to intensive care with diabetic ketoacidosis. This had developed at home following a fall and a two day 'long lie' before he was discovered and taken to hospital.

His past medical history included:

- Type 2 diabetes
- Osteoarthritis
- DVT
- Depression

On admission, Trevor had DTIs to his sacrum, both heels, both elbows and a Category II pressure ulcer to his head. All developed as a result of the extended time he lay on the floor.

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



Clinical Challenges

Trevor was very unwell and haemodynamically unstable. His skin was at very high risk of further breakdown. This was compounded by him being in pain and extremely agitated and restless; he was wearing safety mittens because he kept attempting to pull his tubes and lines out, and he was non-compliant with repositioning and other care interventions.

Trevor was originally nursed on an air immersion mattress, but five days after admission the DTI on his sacrum had deteriorated to an unstageable pressure ulcer. The unit contacted Medstrom's Clinical Advisor for help as they were extremely concerned about Trevor's skin deteriorating further, and he was transferred to a Dolphin Therapy support surface.

Patient Objectives

- **Treat existing skin damage**
- **Prevent new skin damage**
- **Improve compliance with care**
- **Improve pain management**

Introduction of 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 prevents tissue ischaemia, even when the patient is nursed directly on a wound.¹ This would be key to meeting Trevor's pressure area care objectives, as he was non-compliant with repositioning and spending long periods of time lying on his back.

Data collected from over 3,000 patients nursed on Dolphin Therapy has shown that where improved compliance with care was an objective, it was fully or partially met in 94% of cases.² It was hoped that Trevor's pain would be reduced due to the immersive properties of Dolphin Therapy, and that this may help him to become more settled and compliant with care.

Trevor was nursed on Dolphin Therapy for a total of 77 days. He was transferred from intensive care to a medical ward and then stepped down to an air immersion mattress.

Dolphin Therapy had proven highly beneficial for Trevor. The Category II pressure ulcer to his head and the DTIs on his heels and elbows had healed. The pressure ulcer on his sacrum, which was originally classed as unstageable, had been re-classified to a Category IV and was healing. He had no new skin damage.

Trevor was more settled on the Dolphin Therapy support surface and appeared to be in less pain. Initially he still refused to be repositioned but the immersion that Dolphin Therapy provided helped to prevent tissue ischaemia and maintain blood flow. There was therefore no further deterioration to his sacrum.

After he started to improve both physically and psychologically, he became more compliant with care and allowed staff to help him reposition. He eventually became more mobile, to the point where he was getting out of bed. At that point, it was decided to step him down to the powered semi-dynamic mattress.

All objectives for Trevor had been met; he did not develop any new skin damage, and all other areas of damage had either healed or improved. His pain was reduced, and he became compliant with care.



Skin improved



Pain reduced



Compliant with care

Summary

The clinical staff felt that Dolphin Therapy was key to Trevor's treatment and rehabilitation. The healing of several DTIs and a Category II pressure ulcer, together with an improving Category IV pressure ulcer was an outstanding achievement given how unwell he was, and his initial refusal of care.

This case study demonstrates how Dolphin Therapy can be used successfully for patients with highly complex physical and psychological needs, to improve both pressure area care and holistic care.

References

1. 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.
2. 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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