

Back Together Again: Husband and Wife Reunited After Pressure Ulcers were Healed by the Dolphin Therapy Fluid Immersion Simulation Surface

- ↑ Pressure ulcers healed
- ↓ Pain reduced
- ↑ Improved quality of life

Introduction

Margaret* (age 93) had been living in a care home in Northern Ireland for the last five years, due to a decrease in mobility. Her husband Jim* was also a resident in the same home, and they had a daily, well-established routine of spending quality time together in the day room.

Margaret's past medical history included:

- Leaking heart valve
- Atrial fibrillation
- Hypertension
- Congestive cardiac failure
- Chronic kidney disease
- Osteoporosis

She was able to stand, transfer, and walk short distances with assistance.

**Names have been anonymised*



Clinical Challenges

Unfortunately, Margaret developed a respiratory tract infection and became acutely unwell. Her blood oxygen levels reduced from around 96% to 90%, which affected skin oxygenation. Her GP prescribed oxygen therapy to address this, but her blood oxygenation remained lower than normal. She became bed bound, and lost her appetite.

This combination of challenges reduced Margaret's skin perfusion, and after becoming bed bound, she developed two Category 3 pressure ulcers on her sacrum and back. She was being nursed on a traditional alternating therapy dynamic mattress, but developed skin damage in spite of this. Her skin was at very high risk of further deterioration. Margaret and her family were worried she may need to be admitted to hospital if she didn't improve.

The traditional alternating mattress that Margaret had been prescribed was uncomfortable. Inflation of the cells during the alternating cycle was causing pain, and this was affecting her sleep. Staff were worried this could impede her recovery.

Because she was now bed bound, Margaret's normal routine was completely gone. She wasn't able to go to the day room to spend time with her husband Jim, and this was upsetting both of them greatly. Her daughter was worried about the detrimental psychological effect the separation was having on her mum and dad, who had been married for 70 years and hardly spent any time apart.

Clinical and Other Objectives

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

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 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 5,000 patients nursed on has demonstrated that it is extremely effective at treatment of skin damage, with 62% of wounds healed or improved at the end of placement. It also improved comfort, pain management and sleep in over 99% of users who had these as an objective.⁴

Margaret's granddaughter-in-law had heard about fluid immersion simulation through her line of work. After hearing the discomfort and pain Margaret was in, she wanted to help and reached out to Medstrom to discuss accessing Dolphin Therapy.

After an initial phone call, Medstrom's Clinical Advisor visited the care home to assess product suitability. She could see how vulnerable Margaret was, and that the mattress she was currently using was not meeting her clinical or psychological needs. Margaret told her that she was uncomfortable all the time and not sleeping, but the worst thing about everything that was happening was being apart from her husband.

Because Margaret was so unwell, with existing pressure ulcers and at very high risk of developing more, Medstrom's Clinical Advisor felt that Dolphin Therapy would be the best surface for her at that point in time. She hoped it would decrease pain, improve comfort, and therefore sleep, as well as assist with wound healing, and help prevent further skin damage.

She explained this to Margaret, her daughter, and the care home manager, and they all agreed that Dolphin Therapy was the best solution.

She arranged for it to be installed on the same day and provided training on its use, both on installation and ongoing, for the care home staff.

The Dolphin Therapy surface proved hugely beneficial for Margaret; she was instantly more comfortable, with pain significantly reduced.

She immediately slept better, and was able to eat and drink more, as she wasn't constantly uncomfortable.

Both Category 3 pressure ulcers healed completely within two weeks, and she did not develop any further skin damage. This was an outstanding outcome, given that Category 3 pressure ulcers are reported to take an average of more than one to four months to heal.⁵

Once Margaret's pressure ulcers had healed, she was well enough to get out of bed again, and be reunited with her husband. They got their routine and their life together back.



Margaret and Jim reunited following her recovery

Summary

All of Margaret's objectives were met in a very short time period; her pressure ulcers healed, no further skin damage occurred, her pain reduced significantly, and comfort and sleep improved.

This case study demonstrates how the right product, at the right time, can be absolutely transformative for a person's clinical outcomes and their life. The family went from being extremely worried about Margaret to great relief, seeing how quickly Dolphin Therapy helped her improve. The use of Dolphin Therapy may well have saved Margaret an admission to hospital, allowing her to recover in her home, as she had wished. Also, every hospital admission prevented helps the NHS as it faces year-round escalation pressures.



Comfort & sleep improved



Wounds healed



Reunited with husband

Margaret's daughter recorded a voice note, which is written out below with her permission:

"Me and the family would like to say a huge thank you to the Medstrom team for giving Mum access to Dolphin Therapy.

"We've all been so **impressed with the speed of service** and how **friendly** all the Medstrom staff have been.

"We were all **so worried about mum**, but knowing she was on a Dolphin brought us **so much reassurance**.

The product is really special, and **helped to heal Mum's pressure ulcers so quickly**, plus **I've never seen her so comfortable**.

"Again, thank you so much, we really appreciate everything you've done for us, and especially **helping Mum get back to sitting beside my Dad, who really, really missed her**. Many thanks."

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 (2024). 5,000 outstanding Dolphin Therapy patient outcomes. Available online: <https://www.medstrom.com/5000-exceptional-dolphin-therapy-patient-outcomes/>
5. Recognizing and treating pressure sores (2009). Spinal Cord Injury Model Systems. Available online: <https://msktc.org/sci/factsheets/recognizing-and-treating-pressure-sores>

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

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