

The DRY FLOATATION® Mattress System

A Cost Effective Pressure Reduction Product

Clinical Case Study

Introduction

Providing effective pressure reduction for patients with pressure ulcers continues to be a major challenge for health care facilities and agencies. In these fiscally tight times the need for a cost effective system has become increasingly more important. Health care workers understand that the cost of treating ulcers is very high and know that the sooner they can provide intervention to give pressure reduction, the lower the cost of overall treatment and the higher the comfort level of the patient.

Patient's History

On May 19, 1994, Mr. M. was admitted to a chronic care hospital for management of his lower extremity post tendon release surgery. Mr. M. was admitted with multiple pressure ulcers varying in size and severity from stages I to IV. He was in 24-hour-a-day pin traction. Mr. M. also suffered from end stage multiple sclerosis. He was confused, immobile, incontinent and had bilateral lower extremity edema.

Care Management

On admission, Mr. M. was assessed for and received an alternating low air loss pressure reduction mattress. His wounds were cleansed daily with savlon, rinsed with saline and covered with INTRASITE gel and OPSITE.

This treatment continued for eight months at a substantial cost to the nursing unit for the rental of the bed and supplies. The ulcers did improve, but they did not completely heal.

On January 24, 1995, Mr. M. still had a 5.0 cm x 3.5 cm (fig. 1) area on his left heel with a necrotic area the size of a nickel.

The left hip had a minute necrotic area in the midst of a 7.0 cm x 5.0 cm ulcer (fig. 2). His right heel area was healed, but the skin was still fragile within a 5.0 cm x 5.0 cm area. His right hip showed a healed area 5.0 cm x 6.0 cm and the 11.5 cm x 4.0 cm sacral ulcer was also healed.



fig. 1. Left heel. Ulcer measured 5.0 cm x 3.5 cm with a nickel-sized necrotic area. (Jan. 24, 1995)



fig. 2. Left hip. Ulcer measured 7.0 cm x 5.0 cm with a minute necrotic area. (Jan. 24, 1995)

In the eight months that Mr. M. was on the air loss bed, he had cycles of healed or nearly healed skin that would break down within 24 hours. Positioning off of the ulcerated areas was impossible due to the locations and the pin traction. Mr. M. was also not compliant with a positioning routine.

On January 25, 1995, Mr. M. was given three sections of the ROHO DRY FLOATATION system with a STAPH-CHEK® pad for under his head. The established procedures for his skin care remained the same.

Conclusion

Within ten days of being placed on the DRY FLOATATION system, the necrotic area on the left heel was gone. Within one month, the left heel ulcer measured 4.0 cm x 2.0 cm (fig. 3), while the left hip measured 1.0 cm x .75 cm (fig. 4), and the necrotic spot was gone.



fig. 3. Left heel. Ulcer measured 4.0 cm x 2.0 cm. (February 1995)



fig. 4. Left hip. Ulcer measured 1.0 cm x .75 cm. Necrotic spot disappeared. (February 1995)

Mr. M. continued to show improvement in his skin health: at two months the left hip ulcer was healed, and the heel measured 3.5 cm x 2.0 cm.

On March 30, Mr. M. was placed on an antibiotic to address the presence of an infection in the heel ulcer. At this time, multiple necrotic spots appeared.

By April 25 (4 months), the infection was cleared, the necrotic spots had cleared, and the ulcer measured 2.5 cm x 2.0 cm (fig. 5). By this date, the left hip ulcer had healed (fig. 6), and by June, the left heel had healed.



fig. 5. Left heel. Ulcer measured 2.5 cm x 2.0 cm. (April 25, 1995)

The family was so pleased with the results of his healing that they purchased a complete DRY FLOATATION mattress for Christmas.

Mr. M. continues to use the mattress as his skin is still fragile. He now gets up in his wheelchair, where he uses a ROHO cushion, on a regular basis. He remains ulcer free despite fluctuations in his general medical health.



fig. 6. Left hip. Ulcer healed. (April 25, 1995)



fig. 7. Left heel. Ulcer healed. (June 1995)

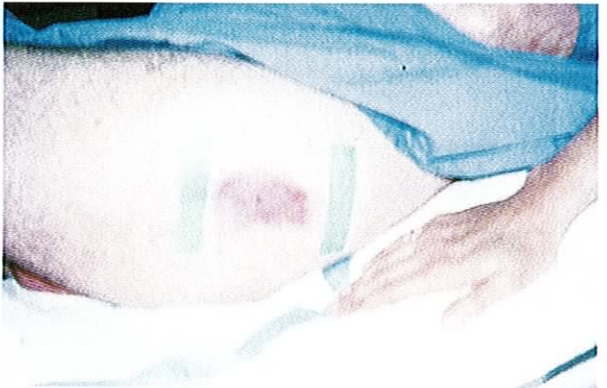


fig. 8. Healed left hip. (June 1995)

Summary

The cost to purchase his own DRY FLOATATION mattress was one-tenth the cost of the air loss bed, and the mattress has been in use for twice the length of time. Assuming that the dressing types were the same on each type of bed, as was the case for Mr. M., then clearly this appears to be a cost effective way to manage multiple ulcers.

In our facility, the equivalent of six DRY FLOATATION mattresses were purchased at a cost equivalent to the expenditures of one air loss bed rental for eight months. We now have the ability to place patients on the DRY FLOATATION mattress system at the first sign of any skin breakdown. We have also found the DRY FLOATATION mattress system useful with our palliative care patients as it provides a comfortable, preventative and cost effective method of caring for them.

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