

The new negative pressure wound therapy pump: Case study reporting on early clinical evaluation in residential care

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Topic

The early adoption and use of a new traditional negative pressure wound therapy* (tNPWT) pump is presented as a case study to demonstrate the safe and effective use in the management of a non-healing wound.

Case Study

A 59-year-old paraplegic, wheelchair bound male presented to a specialist wound care team with a pressure injury to his buttock.

History: The patient had previously suffered a cerebrovascular accident (CVA) resulting in paraplegia, loss of sensation and movement to his legs and buttocks. As a result of the CVA he was also incontinent which had caused significant damage to his skin.

The cause of his skin deterioration was initially due to moisture-associated skin damage, attributed to fecal incontinence. The wound was treated with a wound filler and covered with a soft silicone multi-layer foam dressing[†].

He was not always concordant with pressure relieving regimes, including bed rest, and limiting wheelchair use. The patient had valued his quality of life over the healing of his skin and enjoyed day trips out in his wheelchair.

The pressure from being in a consistent seating position, as well as skin damage due to moisture, resulted in a pressure injury with an extensive cavity wound to his buttock (Figure 1).

Updated plan of care by specialist wound team: After 44 weeks of continued deterioration and non-progression of the wound with the current care plan, the patient, his family, and clinicians from the specialist wound care team devised a plan of treatment to include tNPWT.

tNPWT was delivered using a new pump, which is small and portable. The patient agreed that, in conjunction with pressure reducing strategies, there was a suitable compromise which allowed him to receive advanced wound care therapy and still maintain a degree of mobility.

The patient started tNPWT and after four weeks there had been significant improvement (Figure 2).

tNPWT continued (Figure 3) for 16 weeks until the wound had reached almost full closure (Figure 4).

Figure 1 Presentation of cavity wound to buttock; prior to initiating tNPWT



Figure 2 Cavity wound 4 weeks of treatment with tNPWT



Figure 3 Cavity wound with 8 weeks of treatment with tNPWT



Figure 4 Cavity wound 16 weeks of treatment with tNPWT



Conclusion

- This new tNPWT pump assisted with continued improvement to the wound in conjunction with optimal wound care strategies. The patient and clinician experience exceeded expectations.
- Due to the size and portability of the new pump, the patient felt that he was able to continue with activities.
- This allowed the clinician to compromise a care plan with the patient, who had previously struggled with concordance, which included pressure reducing strategies balanced with mobilizing.
- The agreement between patient and clinician, facilitated by a new pump in tNPWT, demonstrates how advanced wound therapies can be used to progress wound healing while optimizing the patient experience and wellbeing.