

# Offsetting benefits vs. risks: using Negative Pressure Wound Therapy to help improve the quality of life for a terminally ill patient with a very complex wound

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## Introduction and Treatment Aim

The patient was a 65-year old male with acromegaly. He was diagnosed with a rectal gastro-intestinal stromal tumour in 2003 and underwent a partial bowel resection with stoma. The patient received ongoing oral chemotherapy and in March 2012 underwent deep tissue X-ray therapy for the tumour.

**25/10/12:** The patient presented with an acute sacral lesion of unknown origin (see Figure 1).

**30/10/12:** Excision and several debridements of infected tissue in theatre resulted in a very extensive wound with significant undermining in several directions (see Figure 2). Endoscopy was required to visualise the full extent of the wound cavities.

The immediate treatment aim for this patient was to preserve life by managing the very high risk of sepsis. Ongoing aims were balancing effective wound management with quality of life.



**FIGURE 1.**  
Patient's sacral area on admission



**FIGURE 2.**  
Wound after excision and debridement

## Methods

Tissue viability identified Negative Pressure Wound Therapy (NPWT) as an effective way of managing the initial risk of sepsis, exudate management and maintaining periwound tissue integrity. Although NPWT is contraindicated for cancer, in this exceptional case clinical opinion was that the potential benefits outweighed possible risks.

Clear discussions took place between the clinical teams and the patient regarding the risks involved in using NPWT on potentially malignant tissue. All parties agreed that NPWT offered the best treatment option and the patient gave written consent to treatment.

**01/11/12:** NPWT began in theatre with several drains into two pump units. Debridement of necrotic tissue took place over the next four weeks with two to three visits to theatre per week.

**01/12/12:** Dressing changes could be done on the ward however each dressing change took two hours and required four staff members. This continued into mid-January 2013.

**17/01/13:** To enhance patient quality of life, acute and community TVNs aimed to discharge the patient home. A multidisciplinary team meeting was held to determine a plan for safe discharge.



**FIGURE 3.**  
Progress of wound on 21/12/12

## Results

**20/02/13:** The patient was discharged home with the VENTURI® COMPACT from Talley. This is a portable, gauze based NPWT system which made dressing changes easier to manage (see Figure 4 and Figure 5). The consultant surgeon made several visits to the patient's home to ensure they could be successfully managed in the home setting.



**FIGURE 4.**  
VENTURI® COMPACT  
Negative Pressure Wound Therapy  
system

NPWT continued for six months with the wound making excellent progress until it could be managed effectively with conventional dressings.

The use of NPWT prevented initial sepsis and significantly reduced wound area/volume throughout the treatment period (see Figure 6). Using a portable, gauze based NPWT system enabled the patient to return home where he remained for eighteen months, enjoying time with family and friends.

Returning home significantly improved the patient's quality of life. In addition to the clinical benefits, the ease of using a gauze based NPWT system allowed the patient to move from secondary, to primary care earlier than if they had used conventional wound dressings. From a provider perspective, expediting the return to primary care is highly cost effective as the 'bed cost' alone in secondary care is a significant consideration (approx. £250/day).<sup>1</sup> In this specific instance NPWT was a highly cost effective treatment option.



**FIGURE 5.**  
Wound on 20/02/13



**FIGURE 6.**  
Wound on 13/06/14

## Discussion / Conclusion

It is now widely accepted that NPWT can offer significant benefits when managing very complex wounds. Although in this exceptional case NPWT was contraindicated as it was being used on potentially malignant tissue, it represented the most appropriate treatment option for this specific patient.

Identifying the potential risks and benefits of using NPWT on this wound enabled the patient to make a fully informed choice about their treatment. Opting to use NPWT undoubtedly helped manage this acute episode while also playing a major role in allowing the patient to return home. The opportunity to return to their family and friends significantly increased the patient's quality of life.

Although this wound failed to heal completely, the use of NPWT enabled effective symptom control and ensured that the patient had the best possible quality of life. These alternative outcomes to wound healing are recognised in the literature as valid treatment goals when managing patients with complex, hard to heal wounds.<sup>2, 3</sup>

## References

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