

CATEGORY: NPWT

AVELLE™ NEGATIVE PRESSURE WOUND THERAPY SYSTEM

MAKING THE CASE

WHAT IS THE AVELLE NPWT SYSTEM?

The Avelle™ Negative Pressure Wound Therapy System (ConvaTec) is the only product currently available that combines negative pressure wound therapy (NPWT) with unique Hydrofiber® dressing technology (ConvaTec, 2017; Figure 1). The Hydrofiber dressing is specifically designed to help create an optimum moist wound environment for healing (Wounds International, 2010; Bishop et al, 2003).

THE AVELLE DRESSING

The Avelle Dressing (Figure 2) comprises a stitch-bonded Hydrofiber wound contact layer, which is designed to maintain dressing integrity on removal; and a Hydrofiber core, which gels on contact with wound fluid. The dressing is designed to lock in exudate and remove pathogenic bacteria it contains, encouraging healing and protecting periwound skin. Fenestrations in the Hydrofiber core allow fluid to move throughout the dressing, to effectively lock away exudate (ConvaTec, 2017). Hydrofiber technology also provides a moist wound environment, encouraging autolytic debridement and removing non-viable tissue from the wound bed (Sharp, 2017).

The dressing also contains a gentle silicone adhesive border, which secures the dressing in place; a foam layer, designed to aid distribution of negative pressure across the dressing; a film layer to provide a bacterial and viral barrier, which is showerproof and allows evaporation of exudate; port and soft tubing designed to create a vacuum and contour closely to the body.

THE AVELLE PUMP

The Avelle Pump unit is small and portable (pocket-sized), disposable, and has a 30-day lifespan. It comprises a simple, one-button operation, which is battery-powered and includes indicator lights so that the user can see it is working correctly (it will alert the user if there is a leak or the battery is low). The system continuously delivers a nominal negative pressure of 80 mmHg across the wound contact layer, even when the dressing is fully

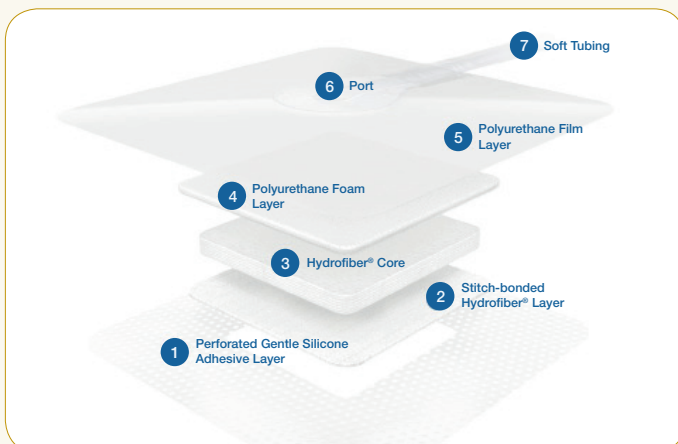


Figure 2: Construction of the Avelle dressing



Figure 1: The Avelle Negative Pressure Wound Therapy System

The Avelle NPWT System can be used on a broad range of wound types, including (ConvaTec, 2016):

- Chronic wounds
- Acute wounds
- Traumatic wounds
- Subacute and dehisced wounds
- Flaps and grafts
- Surgically closed incisions.

hydrated, and when used in combination with multiple Hydrofiber filler layers. (ConvaTec, 2017).

The Avelle NPWT System can be used on wounds up to 2cm in depth, with low to moderate levels of exudate. The product should be used on wounds that can fit comfortably within the pad area, allowing for the port to be positioned over intact skin (the wound area should be no more than 25% of the pad area and there should be a 1cm overlap of the pad onto the periwound skin). The Avelle NPWT System can be used in conjunction with compression therapy if required (ConvaTec, 2016). Wounds greater than 0.5cm and up to 2cm in depth may need to be used in conjunction with AQUACEL® Extra™ or AQUACEL® dressings, or, if not available, standard gauze (ConvaTec, 2016).

CLINICAL EVIDENCE

A multi-site clinical evaluation of the Avelle NPWT System in wounds of varying aetiologies (Torkington-Stokes, 2017) found the system to be clinically effective, and resulted in cost savings versus a comparator system. All HCPs involved stated that they would continue to use the product and recommend to others in practice.

A further study (Barnard, 2017) concluded that the Avelle NPWT System provides an effective way of managing sometimes challenging wounds. Clinicians all rated the product as 'good' or 'very good' at managing exudate; all patients found the dressing comfortable (on application/removal and in situ). The wounds progressed well; two of the wounds assessed had initial peri-wound maceration, which was resolved by the end of therapy.

Explanation of how to use this guide: This document can be used to make the case for implementing effective prevention and management measures and may be supported by data from your own care setting. As well as economic impact, it is important to know the impact of interventions on patient quality of life and outcomes.

MAKING THE CASE

PATIENT-CENTRED BENEFITS

The Avelle NPWT System provides patients with a unique combination of NPWT and Hydrofiber technology to deliver an optimal moist wound healing environment. It can be used across care settings and its ease of use encourages self-management in suitable patients (ConvaTec, 2017).

A proprietary one-way valve in the dressing tubing means that when the dressing is disconnected, the negative pressure can remain for up to 60 minutes. Thus the dressing can be detached from the pump for short periods during routine use, greatly increasing convenience to the patient without interrupting the delivery of NPWT.

PRACTICAL BENEFITS

Each pump lasts for 30 days, which reduces wastage compared to products with a shorter lifespan.

The Avelle Pump and Dressings are packaged separately, and can be ordered separately, enabling greater flexibility of treatment – reducing wastage and providing cost benefits (i.e. an entire new unit does not have to be used at dressing change, or vice versa). The maximum wear time for the dressing is 7 days, with a typical dressing wear time of 3–4 days (ConvaTec, 2017), although more frequent dressing change may be required (the dressing should also be changed if there are any signs of leakage, pooling around the port, or loss of adhesion).

ECONOMIC BENEFITS

Table 1 and Figure 3 show the cumulative savings made by using the Avelle NPWT System, assuming an even distribution of dressing cost over time and using the Avelle Dressing size 12 x 21cm as an example (costs vary slightly depending on the dressing size used; Drug Tariff, August 2017). The Avelle Pump lasts for 30 days' use; the alternative product has a 7-day pump lifespan and costs are given accordingly over the 8-week period.

Week	1	2	3	4	5	6	7	8
Avelle Pump cost	£99				£99			
Avelle Dressing cost (x2 per week)	£30	£30	£30	£30	£30	£30	£30	£30
The Avelle NPWT System total cost	£129	£159	£189	£219	£348	£378	£408	£438
Alternative product	£127	£254	£381	£508	£635	£762	£889	£1,016
Saving	-£2	£95	£192	£289	£287	£384	£481	£578

The cost comparison assumes the use of two dressings per patient per week, not including the potential use of any additional dressing or filler material. On this basis, this cost comparison demonstrates that there are economic benefits to using the Avelle NPWT System (ConvaTec, data on file).

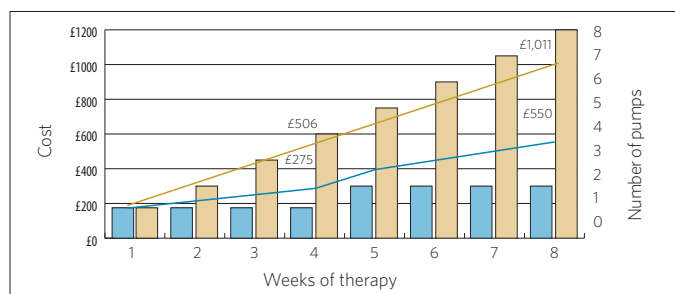


Figure 3: Cumulative savings made using the Avelle NPWT System over 8 weeks' treatment (Drug Tariff, August 2017)

If you were to explain to a colleague why you have chosen the Avelle NPWT System, what would you give as the main benefits?

- Unique combination of NPWT and Hydrofiber technology
- Hydrofiber dressing effectively locks in exudate and helps to maintain an optimum moist wound healing environment
- 30-day pump lifespan for up to 4 weeks of therapy per pump
- Enables patient to resume everyday activities, improving patient quality of life
- Patient-friendly and simple to use, encouraging self-care where appropriate
- Cost savings compared to alternative products.

CASE STUDY

Background: A 39-year-old male had a motorcycling accident resulting in a pre-tibial haematoma. The wound was debrided and left to heal by secondary intention.

Duration of wound: 4 weeks

Previous management: Hydrofiber dressing, held in place with melanin, wool and crepe.

Wound on presentation: 8 x 4 x 1.5cm, 100% granulation tissue and moderate exudate volume.

Treatment: The wound was treated with the Avelle NPWT system. Due to wound depth of 1.5cm, the wound was filled using AMD gauze.

Outcome:

Day 5: Wound reduced in size to 6 x 3 x 0.7cm

Day 12: Wound measured 5.5 x 2.5 x 0.5cm

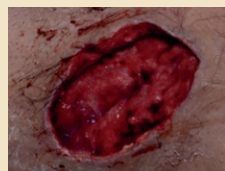
Day 26: Wound was on a healing trajectory and NPWT discontinued

Number of pumps used: 1

Number of dressings used: 4

Cost of NPWT (excluding additional treatment costs): £219 (1 x Avelle Pump and 1 x box of Avelle 12 x 31cm dressings)

Potential cost saving: This represents a saving of £286 when compared to an alternative NPWT System requiring 4 x kits containing 1 pump and 2 10 x 30cm dressings.



Wound on presentation



Wound on day 26

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References

Barnard J (2017) Poster presented at the EWMA Conference, Amsterdam, May 2017
 Bishop SM et al (2003) *J Wound Care* 12: 125-8
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 ConvaTec (2017) The in vitro physical performance characteristics of the Avelle™ Negative Pressure Wound Therapy System

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