

RE PRINT

**MEDIZIN &**  
**PRAXIS** *Special*

– Decubitus –

Vacutex – an effektive  
debridement procedure for  
the treatment of decubitus

A. Probst



## Vacutex – an effective debridement for the treatment of decubitus

***In 2005, the TIME method for wound treatment was presented for the first time. As part of this presentation, the importance of a debridement was referred to, among others.***

***In 2013, the EWMA reviewed its position paper on the subject „debridement“, in which various types of debridement were presented. In an inpatient setting, e.g. in a hospital, a debridement procedure is available to almost every patient. In an outpatient setting, this might be a bit more difficult.***

***A very interesting approach regarding debridements in an outpatient setting is the use of dressings and hydrogels.***

***While mainly hydrogels have been used in the past, nowadays dressings are used more and more, e.g. alginates, hydrofibers or sterile foils.***

### Characteristics of decubitus

This special issue is about decubitus. This can be found, both in an inpatient and in an outpatient setting, in which the original causes are always the same, pressure and time.

Figure 1 shows a rather untypical decubitus that was caused by stockings which were too tight.

Figure 2 shows a decubitus at a cachectic patient who could barely be positioned due to the present contractures only. The patient developed this decubitus under inpatient care. Although the wound



Abb. 1

bed appears to be clean, the wound had a rather strong odour and discharged fluids to a large extent. For this reason, we decided to use the wound dressing Vacutex™.



Abb. 2

Which conditions can be found in a decubitus ulcer?

Depending on the colonisation with germs, wounds can discharge fluids or odour to a large extent and be covered with dry and/or moist necrosis. For this procedure, surgeons who could perform debridements are not always available in an outpatient setting. For this reason, other options must be considered. Until mid-2016, maggots could still be used for debridement procedures in an outpatient setting. Unfortunately these costs are not assumed anymore by health insurance companies.

Therefore, other options for debridements have to be found. For this purpose, various wound dressings, such as alginates, hydrofiber or cavity dressings are options.

Another option is Vacutex™, a capillary dressing.

### What is Vacutex™ and how does the wound dressing work?

Vacutex is a wound dressing with a so-called capillary effect. What does this mean? Vacutex™ consists of three layers of polyester filaments and polyester-/cotton fibres which do not contain any additives or medication. The wound dressing (WD) can be used independently of this side.

If the WD is placed onto the wound bed, then a suction effect is created by this structure. Wound exudate is transported from the wound bed into a central storage layer until this layer is saturated. From there, the exudate taken up is then forwarded to another absorbing layer. If this absorbing layer is also saturated, then the exudate and the bacteria contained therein are absorbed by the secondary dressing (Fig. 3):

Due to this „suction effect“, Vacutex™ should only be used with caution on wounds with less exudation. In this context, a combination with wound contact layer is recommendable, e.g. UrgoTul or Cutimed Sorbact in the event of a present infection, (Fig. 4).

**1. ABSORB**

VACUTEX absorbs wound secretion (exudate) from the wound bed. The VACUTEX dressing can be placed onto the wound in the shape of strips, staples or alternatingly placed layers in the case of deep (crater) wounds or undermined wounds in order to remove secretion from the wound bed. VACUTEX removes the exudate from the wound by accelerated capillary effect.



**2. DRAIN**

The absorbed secretion is distributed into the medium layer of VACUTEX by lateral absorption under which the wound contact layer is not adhesive and remains almost dry. In this way, the secretion does not lead to a maceration of the wound margins if the wound dressing is moist.



**3. ABSORB AND REMOVE**

If the medium absorptive layer is saturated, excess secretion is transported into the third layer, from where it can be absorbed by a secondary wound dressing.



Abb. 3



Abb. 4

The WD can resorb a 30-fold of its own weight and always requires a secondary dressing. A detailed product description and various case studies can be found on the manufacturer's homepage [www.protexhealthcare.co.uk](http://www.protexhealthcare.co.uk) or on the homepage of the German distributor <http://msm-medical.de/vacutex.html>.

**Why do we use this WD?**

Since 2010, we have been working with this WD. In addition to diabetic foot syndrome, patients with postsurgical wound healing disorders and venous and arterial ulcerations, we also treat patients with decubitus with these dressings. From our point of view, one advantage of this procedure is the quick removal of exudate from the wound bed, particularly in patients with wounds discharging fluids to a large extent. As the wound dressings can be placed onto each other and adjusted in size, the use for patients with a sacral decubitus is advisable (Fig. 5 and 6).



Abb. 5

## PRACTICE

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Vacutex –  
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debridement  
procedure



Abb. 6

Furthermore it seems that the wound dressing can create a minor vacuum by the suction effect. By that, granulation tissue becomes visible faster, comparable to an NPWT. Additional laboratory findings would show whether our assumption is correct.

Hereinafter, we will describe our experience with the use of Vacutex™ due to decubitus with the help of a case study.

### Case study:

In December 2010, the 87 year-old patient was hospitalised in our clinic due to a purulent infection of her hip-TEP. At that time, she had been suffering from sacral decubitus of 4<sup>th</sup> degree. We performed multiple debridements, including the placement and/or the change of an NPWT (Negative Pressure Wound Therapy). With every change of the NPWT during surgery, the decubitus was also cleaned.



Abb. 1a

This figure shows the initial findings of the patient dated 27 December 2010. After the wound had been cleaned, it was treated with an alginate and covered by suction compression. As we were not satisfied with the debridement of the wound bed, we decided on 03. 01.2011 to use Vacutex™. The wound dressing was cut in size and placed onto the wound.



Abb. 2a

At first, daily changes of dressings were performed which were then changed to a change of dressing every two days in extension.

Report dated 10.01.2011 upon discharge. Prior to the use of WD and regular debridements, the wound smear showed an abundance of *E. coli*, of the *Proteus vulgaris* group and a moderate number of *Klebsiella oxytoca* and *Bacteroides fragiles*. Upon discharge, germs could not be found anymore. In addition to that, the amount of exudate significantly decreased which is why the WD was then performed every two days in extension only.

During treatment with Vacutex™, the patient reported dragging pains in the wound region occurring from time to time. Those might be caused by the „suction effect“.



Abb. 3a

### Summary

With its capillary effect, the wound dressing offers an interesting approach for the quick removal of wound exudate from the wound bed and into the secondary dressing. For this reason, it is also suitable for patients with undermined wound cavities and pockets discharging fluids to a large extent.

The suction effect comparable to an NPWT assumed by us should be examined further in laboratory examinations.

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## The new 3 in 1 solution for difficult to heal wounds

Vacutex is an easy to use, multilayer wound dressing with strong capillary action for use on wounds which are moderately or heavily exuding or difficult to heal, such as diabetic foot ulcers, venous leg ulcers, pressure ulcers...

### **The Vacutex 3 in 1 solution:**

Absorbing - spreading - transferring

**Designed for patients, tailored by nurses.**

1. Rapid capillary action vertically draws exudate out of the wound bed, avoiding maceration.
2. Vacutex pulls the moisture from the wound bed and spreads it laterally in the central layer.
3. The exudate is then transferred to the outer layer, away from the wound.



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