A New Approach to Managing Wound Exudate During Challenging Times

Content adapted from the webinar presented
By Dr. Alison J. Garten, DPM, CPED
on June 4th, 2020

Table of Contents:

Introduction

Managing wounds with moderate to high amounts of exudate can be challenging, even under the best of circumstances. The COVID-19 pandemic has made caring for patients with such wounds all the more difficult, as these patients tend to have comorbidities that make them susceptible to developing serious complications from the novel coronavirus. For this reason, both clinicians and patients are interested in reducing the number of times that patients need to visit their wound care provider.

This is where Zetuvit Plus Non-Border Superabsorbent Dressing from HARTMANN comes into play. Zetuvit Plus is a four-layer dressing designed to effectively absorb large amounts of exudate. Unlike standard dressings, it is highly absorbent and can lessen periwound maceration. Highly rated by patients and clinicians alike, Zetuvit Plus is an ideal dressing to consider using during this social distancing era.

Effects of the COVID-19 Pandemic on Patients With Exuding Wounds

There is evidence that people with certain underlying health conditions are likelier to have a severe illness if they contract COVID-19 than people without such conditions.[1] These underlying health conditions include diabetes, chronic kidney disease, and cardiovascular disease, among others. Many patients with exuding wounds experience one or more of these conditions, which make them susceptible to developing severe to life-threatening complications if they contract the disease.

In general, patients with moderate- to high-exuding wounds regularly have their wounds examined and dressings changed at clinicians' offices. But because contracting COVID-19 may be especially harmful to these patients, wound care clinicians are trying to reduce patients' visits to the office, where they may be inadvertently exposed to the virus. Clinicians are in the challenging position of trying to maintain patient care without being able to provide as much in-person treatment. In addition, while social distancing reduces the risk of spreading COVID-19, it means that patients' family members are less likely to be available to help them with dressing changes and other wound care needs.

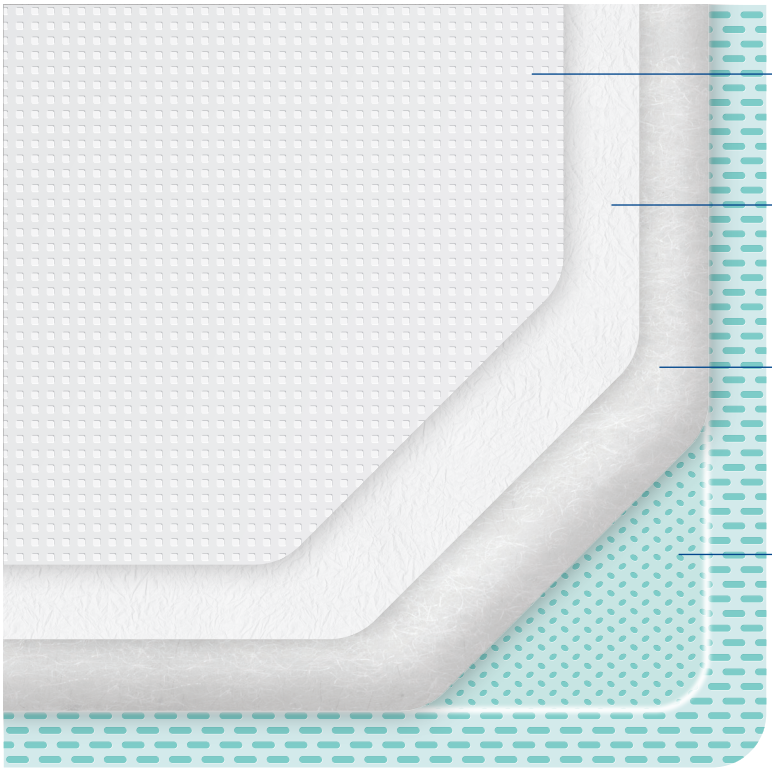
Wounds with large amounts of exudate are concerning for a number of reasons. One, they are more prone to infection. Two, if maceration occurs around the wound, then the wound is more likely to increase in size. Both wound infection and enlargement slow down the wound healing process and can lead to other negative outcomes. Patients with diabetes who have foot wounds and patients with venous wounds are particularly at risk for hospitalization.

There is concern among wound care clinicians that moderate- to high-exuding wounds will worsen during the COVID-19 pandemic because patients are receiving less wound care from clinicians, as well as from family members who are social distancing from them. Worsening wounds increase the chance that a patient will visit an urgent care clinic or an emergency department or be hospitalized. If the virus is actively spreading in the patient's community, medical offices can unfortunately be sites where patients are exposed to the virus.

There are factors beyond the current pandemic that must also be taken into account, such as patient self-image. Managing exudate reduces wound malodor, which is of great psychological relief to patients. Many patients with exuding, malodorous wounds are hesitant to be in public or go to work because they are worried that their wound will saturate their dressing and that other people will be able to smell it. To flourish in society, these patients require dressings that will absorb exudate and thereby manage odor.

Managing Exuding Wounds With Zetuvit Plus During the COVID-19 Pandemic

It is imperative, then, that patients have access to a dressing like Zetuvit Plus that effectively manages exudate and that does not need to be changed frequently.



1. **Soft wound contact layer**
Ensures fast transfer of exudate into the dressing and prevents adherence to the wound.

2. **Diffusion layer**
Offers quick and uniform distribution of exudate into the superabsorbent core for optimized fluid handling

3. **Superabsorbent core**
Absorbs and traps fluid securely, even under compression. Unique combination of loose cellulose and superabsorbent polymer (SAP) produces padding effect for added comfort

4. **Green, water repellent outer layer**
Soft edges; protects clothing and bedding and is permeable to air.

What Is Zetuvit Plus?

Made of superabsorbent polymer (SAP), Zetuvit Plus was developed to provide better long-lasting fluid handling than foams, alginates, gauze, or other standard dressings. Zetuvit Plus has four layers, each of which serves a unique purpose:

The Soft Wound Contact Layer: The first layer, which is in direct contact with the wound, allows for the fast transfer of exudate into the dressing, minimizing the risk of periwound maceration.[2] This layer also prevents adherence of the dressing to the wound.

The Diffusion Layer: The second layer provides quick and uniform distribution of exudate into the third layer.[2]

The Superabsorbent Core: Made of cellulose and SAP, the third layer is perhaps the most important of the four. It is the superabsorbent core of the dressing that securely absorbs and traps exudate, even under compression.[3,4] This layer also produces a padding effect for extra comfort.[3,4]

The Water-Repellent Outer Layer: The fourth and final layer is the outer layer that repels water and protects clothing and bedding.[2] It has soft edges and is easy to identify by its green color.

The Zetuvit Plus technology promotes wound healing by allowing excessive exudate to pass quickly into a superabsorbent core. The exudate forms a gel inside the dressing which helps control odor. The high-absorption capacity of the superabsorbent core coupled with the permeable outer layer helps reduce the frequency of dressing changes.

Zetuvit Plus can be left in place for up to three days. Fast and high absorption capacity even under compression is advantageous during the pandemic, as it reduces the patient's interactions with clinicians or home health workers, which, in turn, reduces the likelihood that they will be exposed to COVID-19. Fewer dressing changes also lower the chance that the wound will become infected while exposed to the outside environment. Zetuvit Plus should be changed when the dressing has become saturated. If periwound maceration is present, then the dressing was left on for too long and the time between dressing changes should be reduced.

Which Wounds Benefit From Zetuvit Plus?

Zetuvit Plus can be applied to a variety of wounds (including infected wounds) that have moderate to high amounts of drainage, such as venous stasis ulcerations, diabetic wounds, pressure injuries, and burns. Zetuvit Plus is particularly suited for diabetic foot wounds and venous stasis ulcerations, the latter of which typically have a large amount of drainage.

A 2016 study from Germany revealed that clinicians used Zetuvit Plus most often for venous statis ulcerations, followed by pressure injuries, then diabetic foot wounds, postoperative wounds (especially ones with dehiscence), and arterial leg ulcers. The study also showed that clinicians use Zetuvit Plus for almost every wound type.[6] That said, dry wounds or wounds with low amounts of drainage do not greatly benefit from Zetuvit Plus.

Although Zetuvit Plus can remain applied for several days, it can also be used in situations that call for daily dressing changes, such as when using an enzymatic debriding agent. In the past, the only dressing reimbursable for daily use was gauze, which is unequipped to handle wounds with large amounts of exudate.

Zetuvit Plus in Practice

The following case studies show how Zetuvit Plus can be used successfully in two different scenarios. In early April 2020, a 60-year-old male patient came to a wound clinic with a severe dorsal foot wound that extended into the intermetatarsal spaces and that had maceration. After a few weeks of traditional treatment, the clinician noticed that there was little improvement. On April 22, the clinician applied Zetuvit Plus to the wound, which was held in place by a gauze wrap and compression. This protocol was used for two weeks. By May 6, the wound had less exudate, had decreased in size, and was no longer present between the toes. As the photographs demonstrate, Zetuvit Plus made a positive impact for this patient.

Photos courtesy of Dr. Alison Garten

On April 29, 2020, an 83-year-old female patient arrived at the clinic with an anterior lower leg wound that she incurred from an accident. The wound *appeared* superficial, approximately 1.5cm by 1.5cm. But after a clinician performed debridement, it was discovered that the wound was not superficial and was actually 0.6 cm deep. The patient reported that the wound gave her discomfort, and she experienced pain when the wound was palpated. She had no documented history of venous stasis, but, as the photograph demonstrates, there were hemosiderin deposits in and staining of her lower legs. The clinician performed all the initial tests, including an ankle-brachial index test and a physical exam. In an attempt to minimize her exposure to the hospital, the clinician opted against giving her an X-ray. Ultimately, it was determined that venous insufficiency played a role in the non-healing of the wound. A collagen dressing was applied because of the depth of the wound, and then, to manage exudate, Zetuvit Plus was also applied and changed daily. Compression wraps were applied over everything. After three weeks of the collagen, Zetuvit Plus, and compression protocol, the wound size decreased by 25%, and its depth was barely 0.1cm. The patient reported no more pain.

Using Zetuvit Plus

Zetuvit Plus is an easy product to use. It is as easy as opening the packaging, placing the soft wound contact layer atop the wound, and then applying a compression wrap, medical tape, gauze wrap, or another secondary dressing to keep it in place; it can also be used with topical agents.

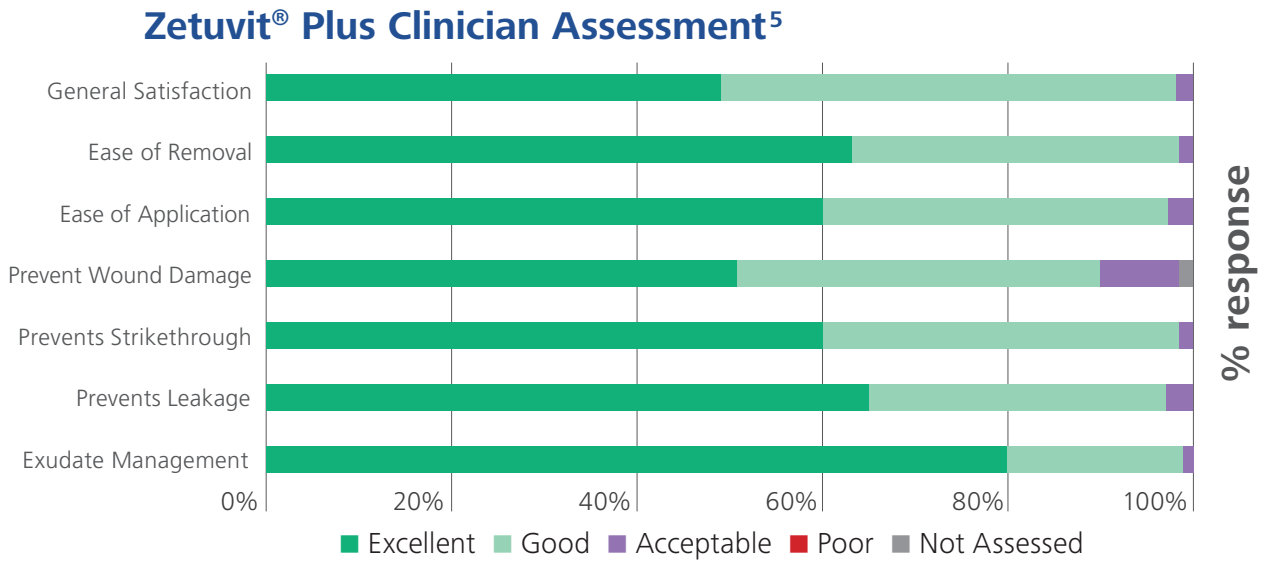
When using Zetuvit Plus on a patient for the first time, if the clinician and patient feel that it is safe to visit the office (say, if community spread of COVID-19 has gone down), the patient may want to visit one or two days after the dressing is first applied. That way, the clinician can assess both the wound and the dressing itself to see how the patient is responding. If the dressing is not saturated at day one or two, then the dressing can likely stay on for the full three days without a problem. Clinical judgment should be used here, as each patient is different.

Zetuvit Plus comes in five different sizes. It is best to choose a dressing large enough so that there is 1cm of dressing around the wound; this helps manage periwound maceration. Note that Zetuvit Plus should not be cut, as the four layers work together as a system. Dressing sizes include a 4″x4″, 4″x8″, 6″x8″, 8″x10″, and as large as 8″x16″.

Results of the Zetuvit Plus Observational Study

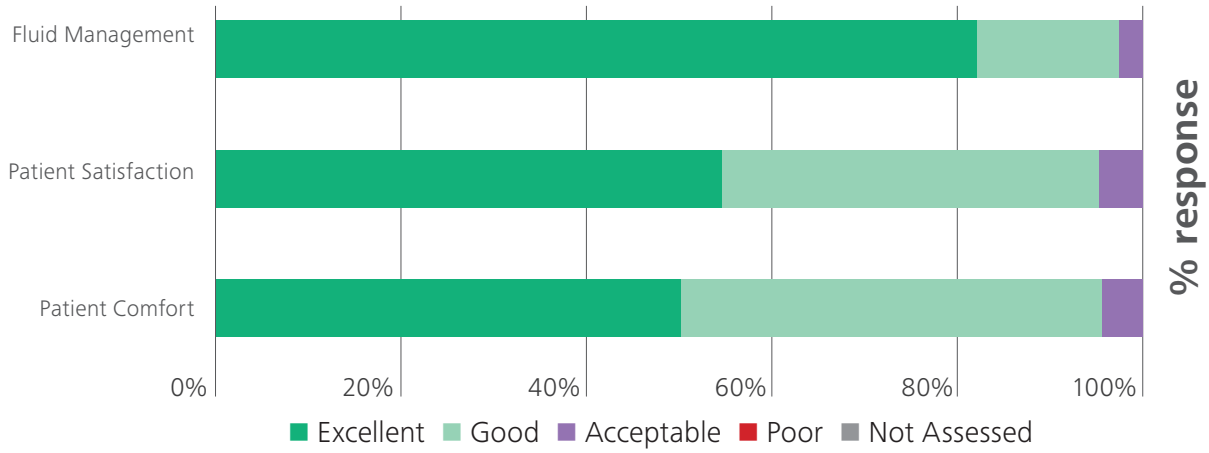
An observational study published in the *Journal of Wound Care* in February 2018[3] recorded clinicians' and patients' sentiments regarding the ability of Zetuvit Plus to manage wounds with high exudate and periwound maceration. It was an open, non-comparative, and multicenter study that followed 50 patients with wounds of varying etiologies. The patients had four or more dressing changes over the course of two weeks.

Virtually every clinician surveyed reported that Zetuvit Plus provided Excellent to Good exudate management, leakage prevention, strikethrough prevention, and wound damage prevention. The clinicians also rated Zetuvit Plus as Excellent or Good in terms of ease of application and removal. On the whole, most clinicians were very satisfied with Zetuvit Plus, and no clinicians rated the dressing poorly. All clinicians involved in the study stated that they would continue to use Zetuvit Plus instead of the dressing(s) used previously.



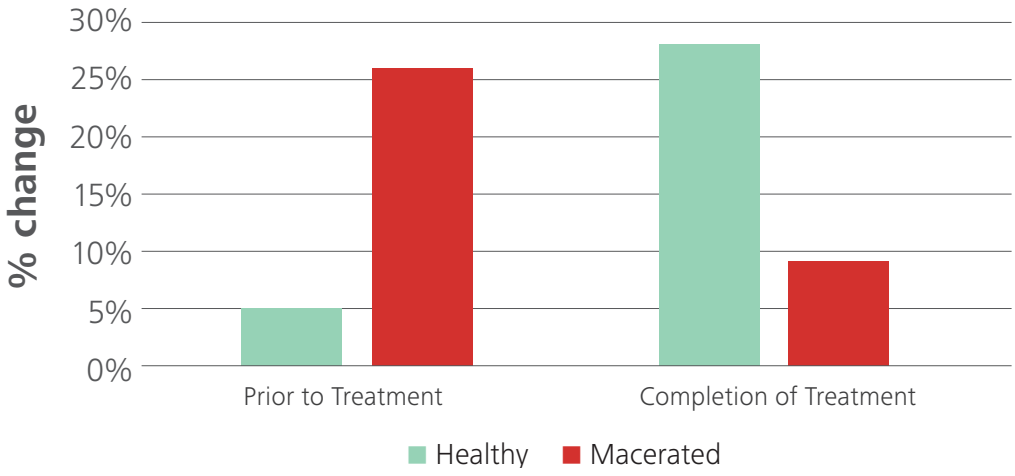
After the two-week study period concluded, patients were asked to reflect on their experience with Zetuvit Plus. Approximately 98% of them rated Zetuvit Plus' ability to manage fluid as Excellent or Good, and 96% of them were satisfied with the dressing and found it comfortable to wear.

Zetuvit® Plus Patient Assessment[5]



The clinical outcomes of the study demonstrate that Zetuvit Plus improves the periwound area and reduces the number of dressing changes needed. At the beginning of the study, only 5% of patients had healthy periwound skin; by the end, 28% did. Similarly, at the beginning, 26% of patients had periwound maceration; by the end, only 9% did. Before the study, the majority of the patients required dressing changes about once a day. At the end of the study period, the frequency was much reduced—from six changes per week to just 2.7 changes. A reduction in dressing changes saves time and money, for both the patient and the clinician.

Changes in Periwound Skin Condition[5]



Conclusion

With Zetuvit Plus, high-quality wound care does not have to be sacrificed during this pandemic. The dressing has a clinically proven ability to absorb large amounts of exudate while improving periwound maceration. Because Zetuvit Plus can stay on for multiple days, and given its ease of use, family members can apply and remove the dressing, thus allowing patients to make fewer trips to their wound care provider. Both of these options help lower their chance of being exposed to COVID-19.

Both clinicians and patients report high levels of satisfaction with Zetuvit Plus. Patients appreciate it because it reduces dressing changes, absorbs malodor, is comfortable to wear, and leads to wound healing. Clinicians appreciate it because it lowers the risk that that the wound will worsen or become infected, and can be changed daily or left on for a longer period of time.

Although it is too soon to tell, it is possible that the pandemic will fundamentally shift clinicians' approach to the care of exuding wounds. With SAP dressings like Zetuvit Plus available, patients may not need to visit wound care centers as often, thereby freeing time for clinicians to focus on other aspects of their job and giving patients more freedom.

To find out more about how Zetuvit Plus can support your patients with moderate-to high-exuding wounds, visit us at https://www.hartmann.info/en-dx/products/wound-management or contact one of our representatives.

References

1. Centers for Disease Control and Prevention. People who are at higher risk for severe illness. May 14, 2020. Updated June 25, 2020. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html.

2. Data on file with HARTMANN (specification number P.6.1203).

3. Barrett S, Callaghan R, Chadwick P, et al. An observational study of a superabsorbent polymer dressing evaluated by clinicians and patients. *Journal of Wound Care*. 2018; 27(2): 91-100. https://pubmed.ncbi.nlm.nih.gov/29424643/.

4. Kammerlander G, Chelbi S, Dvorak A, et al. Superabsorber in der Wundbehandlung unter Lupe. *Medical Special*. 2013;3:23-26. https://www.curea-medical.de/fileadmin/Dateien/Bilder/Publikationen/Publikationen_neu/medical_special_3-2013_S23-26.pdf.

5. HARTMANN USA. XLIT 2862 Rev. 1 March 2020.

6. Market test in Germany 2016 with n= 158.

XLIT 2918 Rev.1 (0720)