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An Update to a Novel Approach
in Managing Wound Exudate:

The Zetuvit[®] Plus Family of Superabsorbent Polymer Dressings

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Dr. Alison J. Garten, DPM, CPED
Wound Care Panel Physician
Tenet Healthcare System – PMC
Rock Hill, South Carolina

An Update to a Novel Approach in Managing Wound Exudate: The Zetuvit[®] Plus Family of Superabsorbent Polymer Dressings

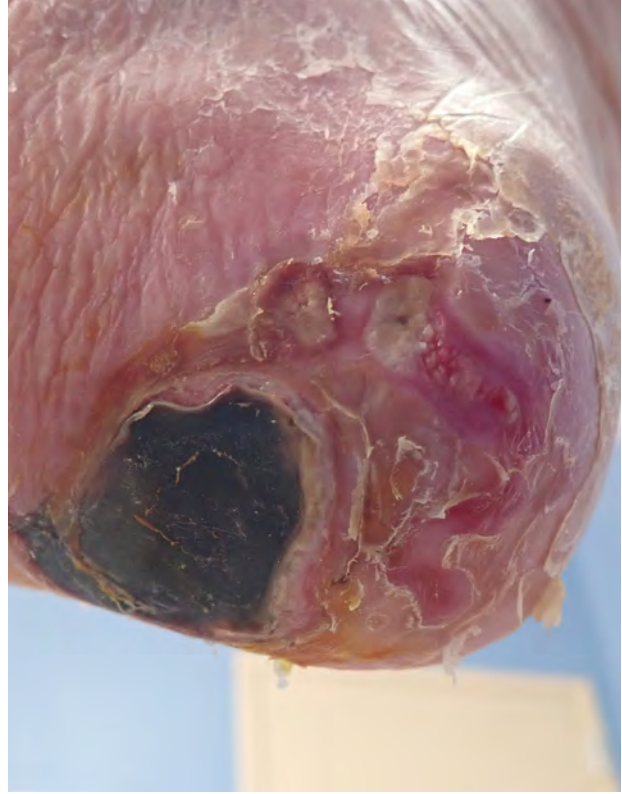
Introduction

Wound Care During a Pandemic

The COVID-19 pandemic has had a profound impact on wound care. Many wound care specialists and clinicians have tried to minimize wound care visits to reduce the likelihood of exposure while at the same time attempting to maximize care. Unfortunately, the patients who make up the wound care population are extremely vulnerable because of their multiple comorbidities. Diabetes, high blood pressure, renal disease, and cardiovascular disease are prominent in the wound care population.

Many patients have even been too scared to go to wound care centers throughout the crisis because of exposure risk. At the same time, these patients have had less family support for dressing changes. This combination of factors has presented great difficulties for both clinicians and patients.

Consider one example of a classic wound patient seen during the pandemic. This individual presented with a left heel wound (see images at top of next page). The patient has diabetes with neuropathy, peripheral arterial disease, and coronary artery disease. He already has a right below-the-knee amputation. The left heel wound developed after hospitalization for an unrelated medical problem. Unfortunately, this is a common presentation of patients seen in wound care or other clinical treatment facilities. Aggressive treatment is required in these patients because they can quickly spiral downward with complications; however, it is difficult to achieve the level of care needed without also exposing patients to the virus.



Introduction to the Zetuvit® Plus Family

Zetuvit® Plus is a superabsorbent polymer (SAP) dressing that is available with and without silicone and in a silicone-bordered version. It is a versatile dressing that is used to manage exudate effectively. Zetuvit® Plus has been available in Europe successfully for over a decade and was introduced to the US market in March 2020. This dressing can enhance your wound care tool box now and in the future.



Major concerns with highly exudative wounds include:

- An increased risk of infection
- Worsening or increase in the size of the wound from periwound maceration
- Longer healing times
- Increased hospitalizations
- Increased risk of amputation and limb loss

Patients who have comorbidities such as diabetes, coronary artery disease, venous insufficiency and renal disease are at higher risk.

Wound Complications During the COVID-19 Crisis and Zetuvit® Plus

Throughout the pandemic, wound patients have had fewer clinical visits and/or home health visits despite the increased risks of wound-related complications stemming from deferred wound care. The patient was either too scared to come in due to risk of exposure or the clinician was trying to minimize risk by reducing the number of visits needed. Because of these clinical challenges, the pandemic has presented an opportunity to assess treatment methods for complex wounds.

Zetuvit® Plus is a dressing that can manage wound exudate more effectively. It can be used for many types of wounds, including venous wounds, diabetic wounds and pressure injuries. These dressings can manage high levels of exudate with fewer dressing changes; in some instances, they can remain on a wound for up to a week.¹ Decreasing the number of required dressing changes lowers the number of clinical visits required, which, conversely, reduces instances of exposure.



Another tremendous advantage in reducing the number of dressing changes is that it also lowers the risk of infection because the wound is not as frequently exposed to the outside environment. A care philosophy that minimizes visits while maximizing wound care benefits clinicians and patients alike and can improve patient adherence.

Zetuvit® Plus products contain a unique combination of loose cellulose and superabsorbent polymer (SAP) particles that absorb and trap high levels of fluid, even under compression. Added benefits of a high fluid-retention capacity include MMP retention needed to stimulate granulation; binding of bacteria, which helps control odor; and minimizing the risk of exudate strikethrough and leakage.

Historically, SAP dressings have been used in adult incontinence products and feminine hygiene products. Commercial production of SAPs began in Japan in 1978 for use in feminine napkins. In 1980, European countries further developed the polymer for use in baby diapers. Recently, the use of SAP has expanded into wound care. The ability of these dressings to absorb excess moisture and remove it from the wound bed reduces the risk of periwound maceration and facilitates healing. SAP dressings outperform silicone foam and other absorptive dressings commonly used in exudate management.

Dr. Garten's Case Study #1 Using Zetuvit® Plus: The patient was a 77-year-old non-smoking man reporting bilateral lower extremity wounds who was referred by his dermatologist (Images 1A, 1B, next page). The patient's workup found that he had controlled diabetes, and his arterial supply was normal. However, the wound characteristics indicated underlying venous insufficiency. Treatment strategies included debridement, an iodine component to manage bioburden, Zetuvit® Plus to manage exudate and increase patient comfort, and a compression sleeve to manage edema and venous insufficiency (Image 1C). Initially, daily dressing changes were performed (Images 1D, 1E). After approximately six weeks, the wound was more granular, dressing changes were reduced to twice a week, and a collagen dressing replaced the iodine product (Images 1F, 1G). At 10 weeks, treatment changed to Zetuvit® Plus Silicone, which works better in wounds with moderate exudate and under compression. Zetuvit® Plus dressings are also easy to apply (Images 1H, 1I, 1J). The patient had fully healed by 12 weeks with no periwound maceration (Image 1K). Optimal wound bed conditions enabled full closure. Although his treatment strategy included multiple care modalities, Zetuvit® Plus was one factor in creating and maintaining optimal conditions within the wound bed.

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Case Study #1





The Importance of Exudate Management

Controlling exudate is crucial because:

- It minimizes periwound maceration and the fragility of the skin, which prevents the wound from worsening or increasing in size.
- Decreasing drainage decreases bioburden capacity, thereby preventing tissue injury caused by elevated components involved with tissue damage, such as MMPs. It also minimizes the risk of infection.
- It decreases malodor and reduces the psychological stress that often accompanies these wounds. Unfortunately, wound odor can have a profoundly negative impact on patients, even preventing patients from appearing in public or going to work.

Effective assessment and management of exudate are key to ensuring timely wound healing without complications.² In addition, advanced treatment options, such as Zetuvit® Plus dressings, can allow clinicians to control the wound bed better and feel confident in the efficacy of other wound treatment strategies.



The Endless Exudate Cycle

Improperly managed exudate can contribute to an endless exudate cycle that starts with a wound. Pressure, non-adherence to treatment, and comorbidities lead to increased exudate. More exudate can cause periwound skin damage or maceration, leading to an increase in the size of the wound. Increased size can contribute to more leakage and malodor from the dressing and raise the risk of infection.

From a pressure standpoint, patient weight contributes to pressure on a heel wound when ambulation occurs without a boot, knee scooter, surgical shoe, or crutches. Patient education on the importance of eliminating pressure on the wound is crucial in optimizing wound outcomes. Pressure directly increases the amount of wound exudate present and contributes to the development of complications.

Wounds That Benefit from Zetuvit® Plus

Many different wound types with moderate or heavy drainage can benefit from the use of Zetuvit® Plus dressings. These injuries include chronic wounds, such as diabetic foot ulcers, venous wounds, pressure injuries, and acute wounds, such as traumatic wounds and surgical or dehisced wounds. Aggressive offloading is also important, especially for diabetic plantar foot wounds. Understanding the underlying etiology of these wounds is essential to selecting a comprehensive treatment plan that will lead to wound closure.

Zetuvit® Plus dressings are versatile, which can simplify selecting the right dressing for each wound. In Dr. Garten's professional opinion, Zetuvit® Plus and Zetuvit® Plus Silicone can work well for any of the following wounds:

- Wounds requiring a daily dressing change
- Wounds that require enzymatic debridement
- Wounds with moderate to heavy drainage
- Surgical wounds because Zetuvit® can minimize postoperative bleeding
- Diabetic wounds
- Venous wounds
- Wounds that are treated with skin substitutes
- Wounds that require compression therapy and benefit from less frequent dressing changes
- Pressure injuries
- Dehisced surgical site wounds
- Traumatic wounds

In Dr. Garten's clinical practice, Zetuvit® Plus and Zetuvit® Plus Silicone consistently outperform other dressing alternatives, such as gauze, ABD pads, silicone foam and other superabsorptive options. They lift moisture away faster, hold more exudate and retain exudate against gravity. In addition, Zetuvit® Plus products are approximately 1.6 times more absorbent than silicone foam dressings, and this can make a tremendous difference in highly exudative wounds.³



Zetuvit® Plus



Zetuvit® Plus Silicone Border

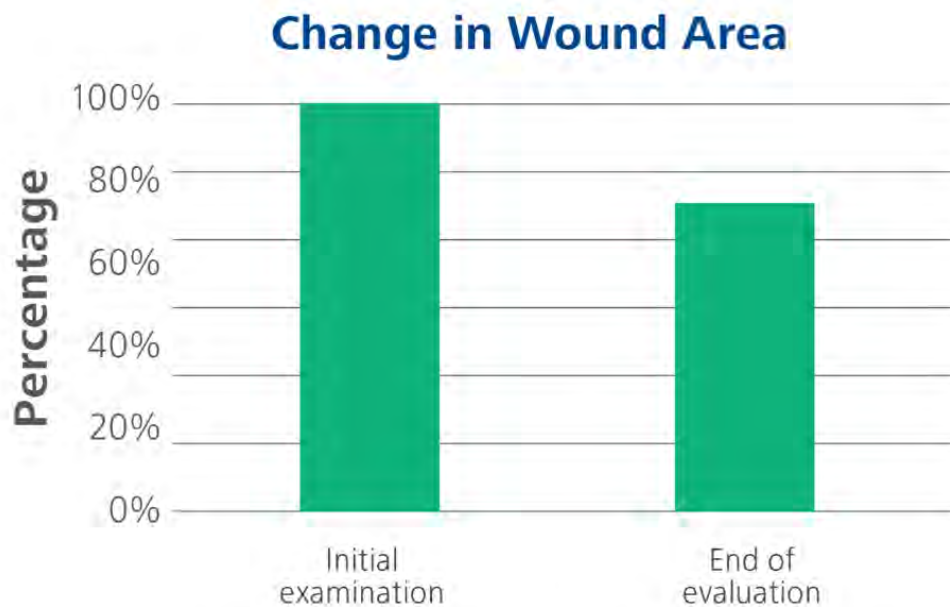


Zetuvit® Plus Silicone

The Advantages of Zetuvit® Plus

There are many advantages to using Zetuvit® Plus dressings for both patients and clinicians, including:

- High patient satisfaction because of comfort, odor control, and absorptive abilities
- The ability to be left on up to seven days¹ or to be used when daily dressing changes are required
- Cost-effectiveness
- A decrease in the number of dressing changes and clinic visits needed
- Fewer unplanned visits
- Increased clinician confidence and satisfaction
- Reduced risk of infection



**Wound area for all patients decreased by 18%
at end of 14 days⁴**

Zetuvit® Plus products are also clinically effective. One study that included 52 patients across multiple medical facilities demonstrated that the wound area for patients treated with Zetuvit® Plus Silicone Border products decreased by an average of 18% at the end of 14 days. This study also found that out of the 10 participating clinicians, 8 would continue using Zetuvit® Plus dressings after the study. The majority of participating patients also reported being satisfied with the dressing performance because it minimized pain and enhanced comfort.⁴

Dr. Garten's Case Study #2 Using Zetuvit® Plus: The patient is a 94-year-old man with a history of hypertension, coronary artery disease, peripheral arterial disease and venous insufficiency, who presented with a left lateral leg wound that had been present for approximately six months. Initial treatment included enzymatic debridement, Sorbalgon® calcium alginate dressing, and Zetuvit® Plus (Images 2A, 2B, facing page). He had undergone left lower leg revascularization within the previous two weeks, and the wound had granulation tissue (Images 2C, 2D, 2E). After six weeks, weekly treatments of skin substitutes were applied to the wound (Images 2F, 2G). At eight weeks, Zetuvit® Plus Silicone dressings were selected with ongoing skin substitutes. At 10 weeks, the wound is almost fully healed (Image 2H).

Case Study #2



Securing Zetuvit® Plus is easy, and it can be done in the following steps (also see images below):

1. Select the primary dressing agent (if using one), such as the enzymatic debriding agent, skin substitute, collagen, platelet-derived growth factors, calcium alginate, or other topical agents.
2. Choose the appropriate size of Zetuvit® Plus. Generally speaking, this is about 1 to 2 centimeters larger than the wound itself.
3. Secure Zetuvit® Plus by using medical adhesive strips, medical tape, or compression wraps. Zetuvit® Plus Silicone does not need additional fixation when using compression wraps.

When selecting the right Zetuvit® dressings, you must consider the wound characteristics. Zetuvit® Plus works well with wounds that have heavy exudate and may be used with or without compression. Zetuvit® Plus Silicone works well for wounds with moderate to heavy exudate and can be used under compression wraps. Zetuvit® Plus Silicone Border can be used when no compression is needed, when peripheral arterial disease is present, or when the clinician is concerned about skin tears. In addition, these dressings have soft and comfortable padding to help improve a patient's quality of life.⁵



Conclusion

Managing wounds while minimizing exposure risks became essential during the COVID-19 crisis. As clinicians evaluated wound care modalities, Zetuvit® Plus products were identified as a strategy that could reduce the number of dressing changes needed and lower the number of clinic visits. Zetuvit® Plus products increase both clinician and patient satisfaction by providing an array of clinical benefits. These products are clinically effective, cost-effective, and versatile. Zetuvit® Plus is an SAP dressing that can meet many exudate management goals for patients now and in the future to help them achieve better wound care outcomes.

References

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