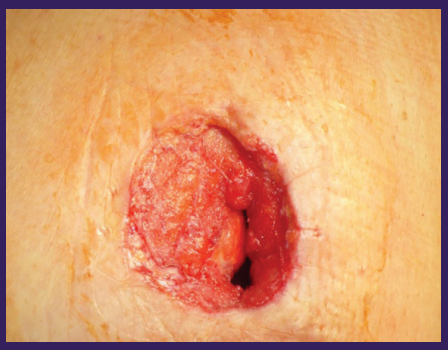
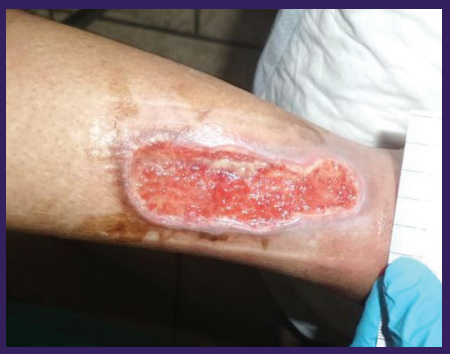
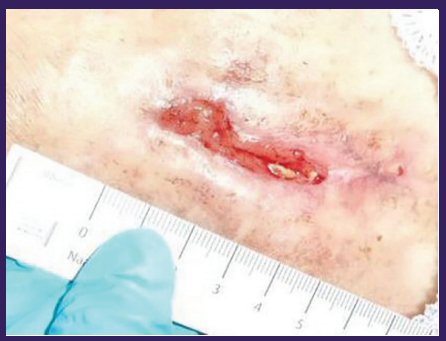
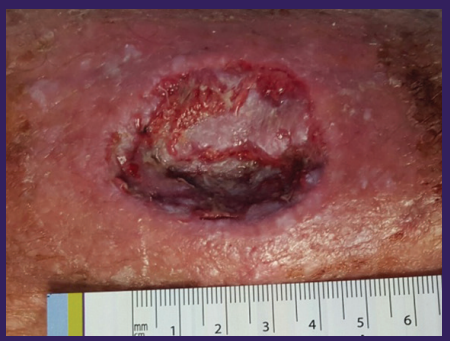
INTERNATIONAL
CASE STUDIES

Case studies evaluation:
BIOSORB™ Gelling Fibre Dressing in moderate to highly exuding wounds

CASE STUDIES SERIES 2017

Wounds INTERNATIONAL

PUBLISHED BY:
Wounds International
1.01 Cargo Works
1–2 Hatfields
London SE1 9PG, UK
Tel: + 44 (0)20 7627 1510
Fax: +44 (0)20 7627 1570
www.woundsinternational.com

The document has been developed by Wounds International and supported by an unrestricted educational grant from Systagenix, an Acelity Company.

For further information visit:
www.systagenix.com

The views expressed are those of the authors and do not necessarily reflect those of Systagenix.

In these cases, BIOSORB™ Gelling Fibre Dressing was used with other wound care products. As with any case studies, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

How to cite this document:
Wounds International case studies evaluation. BIOSORB™ Gelling Fibre Dressing in moderate to highly exuding wounds. London: Wounds International, 2017 (Suppl). Available to download from: www.woundsinternational.com

Case studies evaluation: Using BIOSORB™ Gelling Fibre Dressing in practice

INTRODUCTION

Exudate production supports the wound healing process and promotes a moist wound environment, facilitating diffusion of growth and immune factors, migration of cells, promotion of cell proliferation, provision of nutrients for cell metabolism and autolysis of necrotic or damaged tissue[1]. Exudate contains various materials that are vital to the wound healing process, including electrolytes, nutrients (e.g. glucose), proteins (e.g. cytokines), inflammatory mediators, growth factors, leucocytes, macrophages, neutrophils, platelets and microorganisms[2,3].

The amount of exudate a wound produces will usually decrease as it approaches healing[4]. However, exudate can vary in colour, consistency, odour and amount, with such variations often indicating a disruption to the normal wound healing process[5]. Indeed, excessive exudate production may negatively impact healing outcomes[4]. In particular, chronic wounds often produce high levels of exudate as a result of prolonged inflammatory response[6].

If these high levels of exudate are not managed appropriately, problems such as leakage in the periwound area can occur, increasing risk of maceration and excoriation to the surrounding skin, as well as pain, infection and skin breakdown or increase in wound size[6]. Moreover, patients with excessive exudate may also experience psychological effects, such as social isolation or feelings of low self-esteem, perhaps due to malodour[7]. For these reasons, effective management of exudate is critical to encourage a positive healing trajectory[6]. Within the fast-moving world of healthcare, it is important to think ahead and choose therapies that create an optimal healing environment, especially where exudate levels are excessive, providing cost-effectiveness (for example, structural integrity and long wear time, with minimal dressing changes), as well as efficacy.

Many different dressings are available for exudate management, ranging from the simple to the advanced. The most appropriate dressings for exudate management will have excellent fluid handling capabilities, retaining fluid within the dressing, and will also promote an appropriate healing environment, will be comfortable and easy to apply/remove, and will minimise pain and maceration[4] . For example, gelling fibre dressings keep the wound moist while absorbing excess exudate to limit damage to the surrounding skin and subsequent wound enlargement, working by forming a soft, cohesive gel when in contact with exudate and locking the exudate within this gel.

INTRODUCING BIOSORB GELLING FIBRE DRESSING

BIOSORB™ Gelling Fibre Dressing (Systagenix) is a soft, conformable, non-woven dressing made from sodium carboxymethyl cellulose and strengthening cellulose fibres, designed for effective exudate management at every stage of use: on application, during wear and at removal. BIOSORB Dressing's innovative design makes it unique in a number of ways:

- It conforms closely to the wound, limiting the space available for bacterial growth (as shown *in vitro*), with minimal shrinkage when wet, supporting appropriate coverage of the wound[6]
- It holds its shape from application through to removal, due to its structural integrity
- It is designed for intact removal, minimising risk of fibre shed and pain for the patient.

Contributors:
Alita Jaspar,
MSc in Wound Healing & Tissue Repair, RN Expertise Centrum Wondzorg, The Netherlands

Jorge Fernandes,
Charge Nurse, Bradford Teaching Hospitals NHS Foundation Trust, Bradford, UK

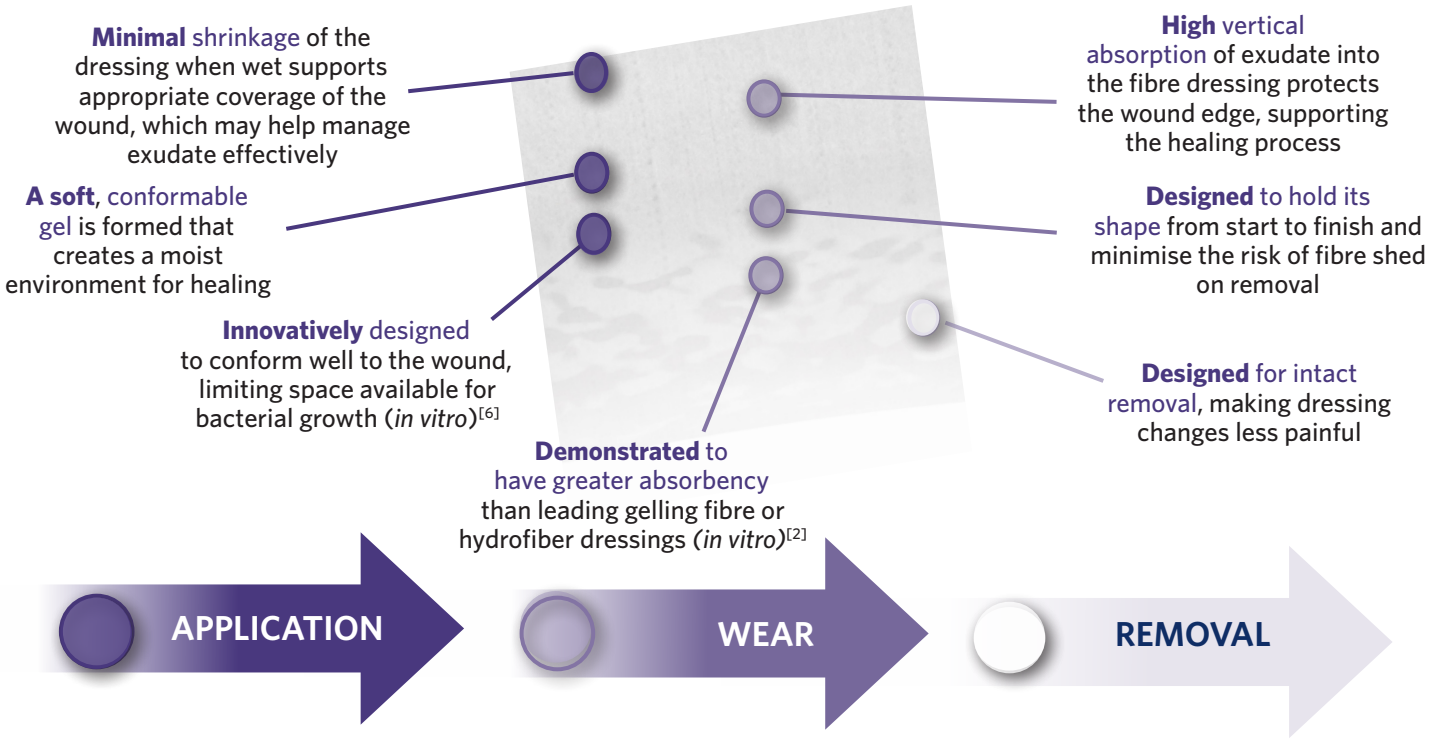
Liezl Naude,
Independent Wound Management Consultant, Eloquent Health and Wellness, Pretoria, South Africa

Matthew Pilcher,
Vascular Specialist Nurse Practitioner, Bradford Teaching Hospitals NHS Foundation Trust, Bradford, UK

Astrid Probst,
Nurse in Wound Management, Kreiskliniken Reutlingen GmbH, Reutlingen, Germany

A soft, conformable gel is formed when BIOSORB Dressing comes into contact with exudate, which creates a moist environment for wound healing. *In vitro* evidence has shown that BIOSORB Dressing has greater absorbency than leading gelling fibre or hydrofiber dressings[2]. High vertical absorption of exudate into the BIOSORB Dressing protects the wound edge, supporting the healing process. BIOSORB Dressing is designed for management of moderate to heavily exuding acute and chronic wounds, including:

- Lower leg ulcers, pressure ulcers (category II to IV), diabetic foot ulcers
- Surgical wounds: e.g. post-operative wounds, wounds left to heal by secondary intent, donor sites
- Partial thickness burns
- Traumatic wounds: e.g. abrasions, lacerations
- Oncology wounds.



REFERENCES

1. Thomas S. Assessment and management of wound exudate. *J Wound Care* 1997; 6(7): 327–30
2. Cutting KF. *Exudate: Composition and Functions.* 2004. In White, R J. ed. Trends in Wound Care Volume III Quay Books, London
3. White RJ, Cutting K. *Modern Exudate Management: A Review Of Wound Treatments*. 2006. Available at: http://www.worldwidewounds.com/2006/september/White/Modern-Exudate-Mgt.html (accessed 31.03.17)
4. M Romanelli, K Vowden, D Weir. Exudate Management *Made Easy.* Available at: http://www.woundsinternational.com (accessed 15.03.17)
5. Adderly UJ. Managing wound exudate and promoting healing. *Br J Community Nurs* 2010; 15(3): S15–6, 18, 20
6. Waite A, Delury C, Regan S. *An In Vitro Evaluation of the Physical Properties of a New Gelling Fibre Dressing.* Poster presented at EWMA, 2016, Bremen, Germany
7 Barrett S. Cost-effectiveness management of wound exudate. *Wound Essentials* 2015; 10(1): 66–73

CASE STUDIES: BIOSORB DRESSING IN PRACTICE

This International Case Studies Evaluation presents six case studies from South Africa, The Netherlands, Germany and the United Kingdom, which illustrate use of BIOSORB Dressing in a range of aetiologies, including ulcerations, traumatic wounds and post-surgical wounds. All of the wounds discussed in these case studies presented with moderate to heavy exudate production and the patients were experiencing problems related to these high exudate levels, including pain, malodour and feelings of social isolation.

Reviews took place on a weekly basis unless stated otherwise, at which point clinicians and patients were able to provide feedback on wound progression and various aspects of BIOSORB Dressing's performance, including wound size, condition of the wound bed, patient comfort, exudate management and pain management. Photographs were taken weekly in the majority of cases to document wound progression. Any relevant additional advice or treatments were reported, such as compression therapy.

Assessment of BIOSORB Dressing's exudate management abilities was particularly important for this study. At each review, clinicians provided information regarding the type and amount of exudate present and the ability of BIOSORB Dressing to handle this exudate. Feedback was also provided on conformability to the wound bed, whether the dressing caused the patient pain when removed and whether it stayed intact on removal. In addition, overall pain measurements were provided each week on a VAS scale between 1 and 10.

Overall, the clinicians and patients involved in this study were highly satisfied with use of BIOSORB Dressing. Across these case reports, BIOSORB Dressing was reported to be very good at managing excessive exudate, providing consistently high levels of absorbency and so protecting surrounding skin from harmful exudate. All of the patients in the study reported high levels of comfort, with BIOSORB Dressing reported to be highly conformable to the wound and easily applied and removed in all cases. Moreover, there were documented reports of decreased VAS pain scores across the case studies.

One clinician summarised their experience as follows: “BIOSORB Dressing was excellent at managing thick exudate and assisted with debridement. The wound completely healed within 2 weeks of application. For the patient, this was a much better result than expected compared with his previous experiences”.

CASE 1: ABSCESS TO RIGHT BREAST DUE TO MASTITIS PUEPARALIS

Author: Astrid Probst, Nurse in Wound Management,
Kreiskliniken Reutlingen GmbH, Reutlingen, Germany

INTRODUCTION

This 31-year-old female patient had an abscess to the right breast due to mastitis pueperalis. This was a non-healing traumatic surgical wound that had been present for 6 days. Negative pressure wound therapy (NPWT) had been provided for 4 days prior to treatment with BIOSORB Dressing.

At baseline, the wound measured 2cm (length) x 0.6cm (depth) x 3.5cm (width), and comprised 95% granulation and 5% slough (Figure 1). The wound bed was clean and the surrounding skin appeared healthy. Serous exudate levels were moderate. The patient measured her pain at 2 out of 10 on a VAS scale.

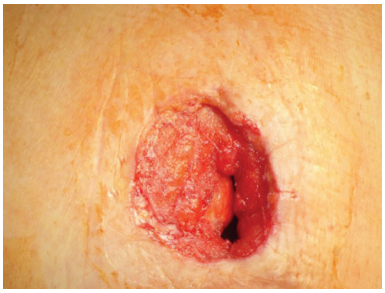


Figure 1: Baseline

BIOSORB Dressing was selected for exudate management, with the intention of closing the wound. The wound was prepared using mechanical debridement with gauze and saline. A 5cm x 5cm BIOSORB Dressing was applied with a 15cm x 15cm TIELLE ESSENTIAL™ Silicone Border Adhesive Foam Dressing (Systagenix). The patient was advised to continue daily activities such as showering, with dressing changes planned twice a week, unless there were any problems.

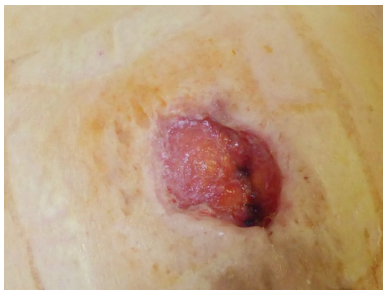


Figure 2: Review 1

Review 1: The wound was reviewed after 5 days, after one planned interim dressing change. The wound was now 5% epithelialising and 95% granulating, with no necrotic tissue or signs of infection (Figure 2). The patient had no pain (0 out of 10 on a VAS scale). The wound bed was clean, with no malodour, and the surrounding skin appeared healthy. Exudate levels remained moderate.

BIOSORB Dressing had provided excellent comfort and the clinician reported it had been very good at handling exudate, with good comfortability to the would bed. The dressing was intact on removal, which did not cause the patient any pain.

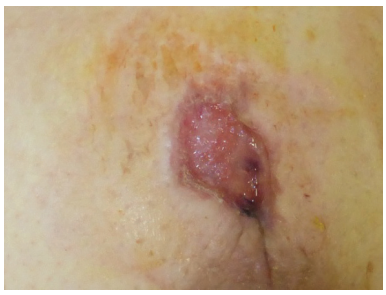


Figure 3: Review 2

The clinician was satisfied and the patient highly satisfied with treatment. BIOSORB Dressing was continued due to improvement in the wound. This was prepared using mechanical debridement, and BIOSORB Dressing and TIELLE ESSENTIAL Silicone Border Dressing were reapplied as described before.

Review 2: After another 6 days, with one interim dressing change, the wound had reduced in size to 1.7cm (length) x 2.5cm (width), with no depth (Figure 3). The wound bed was clean, comprising 5% epithelialisation and 95% granulation tissue. The surrounding skin was healthy and the patient reported no pain. Exudate levels were moderate.

BIOSORB Dressing had provided excellent comfort during wear and stayed intact on removal. The clinician reported excellent ability to handle exudate and conform to the wound bed. Both the clinician and patient were now highly satisfied and BIOSORB Dressing was continued due to the improvement of the wound. BIOSORB Dressing and TIELLE ESSENTIAL Silicone Border Dressing were reapplied, with excellent ease of application.

Review 3: After another 5 days, the wound measured 1.2cm x 2.2cm, with 15% epithelialisation and 85% granulation (Figure 4). Exudate levels were moderate. The patient had no pain. The wound bed was clean and the surrounding skin was healthy.

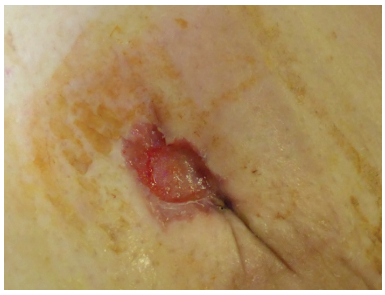


Figure 4: Review 3

BIOSORB Dressing had been comfortable to wear and stayed intact on removal. The clinician reported it was excellent at handling exudate and conforming to the wound bed. Both the clinician and patient were highly satisfied with treatment, which was continued due to wound improvement. The wound was prepared using mechanical debridement with saline, and BIOSORB Dressing and TIELLE ESSENTIAL Silicone Border Dressing were reapplied as before.

Review 4: Six days later the wound had further decreased in size to 0.6cm x 1.8cm (Figure 5). The wound bed was clean, comprising 15% epithelial tissue and 85% granulation, and the surrounding skin was healthy. Exudate levels remained moderate.

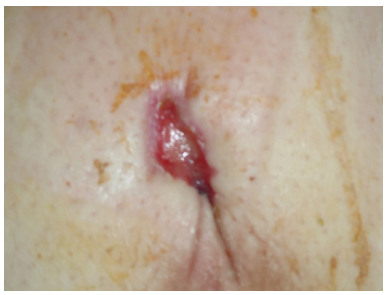


Figure 5: Review 4

Again, BIOSORB Dressing had provided excellent comfort during wear and stayed intact on removal, which caused the patient no pain. It remained excellent at handling exudate and conforming to the wound bed, and the clinician and patient were both still highly satisfied. The patient reported she could now spend time outside.

BIOSORB Dressing was continued in an attempt to close the wound, which was prepared with mechanical debridement. A smaller TIELLE ESSENTIAL Silicone Border Dressing was used, with the same size of BIOSORB Dressing as before. The next dressing change was planned for a week later.

FINAL COMMENTS

The clinician reported that wound did not completely heal during the study period, but reduced in size. At the end of the study, the patient was stable and had no pain. BIOSORB Dressing was continued after the study and the wound continued to reduce in size until complete healing.

CASE 2: CONTUSION AND BRUISING TO LEFT CRURIS ANTERIOR

Author: Alita Jaspar, MSc in Wound Healing & Tissue Repair,
RN Expertise Centrum Wondzorg, The Netherlands

INTRODUCTION

This is a 73-year-old female patient with a contusion and bruising to the left cruris anterior, which occurred after an accident and was complicated by an erysipelas infection. The patient had a history of hepatitis B. The wound had been present for 3 weeks prior to the start of the study and had previously been treated with a foam dressing, changed three times per week. Sharp debridement had been conducted to remove necrotic tissue and the wound had been cleansed with polyhexamethylene biguanide (PHMB) at all previous dressing changes.

At baseline, the wound measured 8.4cm (length) x 0.8cm (depth) x 3.3cm (width). It comprised 80% granulation and 20% slough, with an irregular wound bed but mainly healthy granulation tissue (Figure 1). Haemopurulent exudate levels were moderate, the surrounding skin was inflamed and clinicians were concerned about possible infection. The wound was painful, measuring 6 out of 10 on a VAS scale. The patient's pain was being managed with simple analgesics.

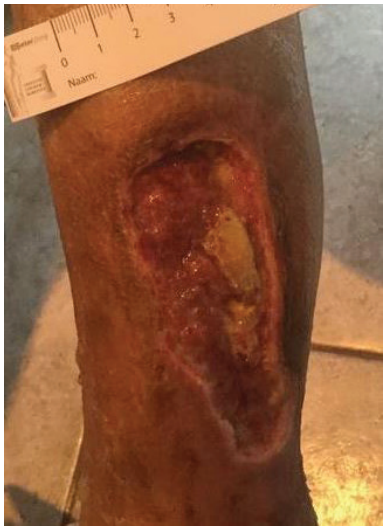


Figure 1: Baseline

BIOSORB Dressing was chosen for exudate management and stimulation of granulation tissue, with the intention of complete wound healing. The wound was cleansed with sterile gauze and PHMB. A 10cm x 10cm BIOSORB Dressing was cut to size and applied alongside TIELLE ESSENTIAL Silicone Border Dressing, with excellent ease of application. The patient was instructed not to change the dressings herself and to keep them dry whilst showering.

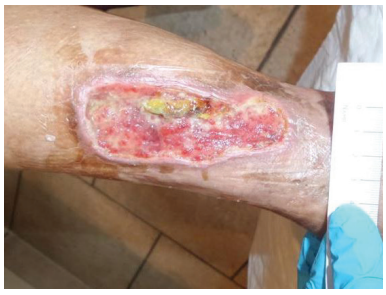


Figure 2: Review 1

Review 1: Four days later, after one planned interim dressing change, the wound measured 8.3cm x 0.5cm x 2.9cm (Figure 2). The wound bed was cleaner, with less slough present (10%, with 90% granulation tissue), but the surrounding skin was still inflamed. The patient reported pain at 5 out of 10 on a VAS scale. There were no signs of infection.

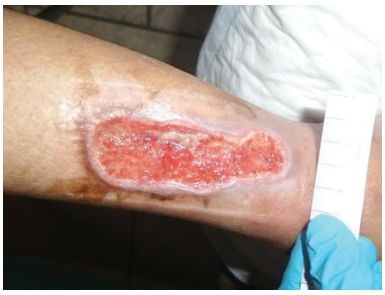


Figure 3: Review 2

Exudate levels were moderate, but BIOSORB Dressing had handled this exudate very well, with no leakage. The dressing was intact on removal. The dressing had conformed well to the wound bed and had been comfortable to wear. The clinician and patient were both satisfied with treatment and the decision was taken to continue BIOSORB Dressing due to wound progression. The wound was prepared and the dressings reapplied as before.

Review 2: The wound was reviewed 10 days later, after two interim changes. The wound bed was covered with healthy granulation tissue (100%). The wound measured 8.4cm (length) x 2.3cm (width), with no depth (Figure 3).

There were no signs of infection and the patient rated her pain at 4 out of 10 on VAS scale. On removal, the BIOSORB Dressing was saturated with serous exudate but was intact and very easy to remove, causing the patient no pain. It had been comfortable to wear, conforming well to the wound bed. The clinician and patient remained satisfied, with reduced dressing changes required, which positively impacted the patient's quality of life. BIOSORB Dressing was continued to promote further wound progression. The wound was prepared and the dressings were reapplied as before.

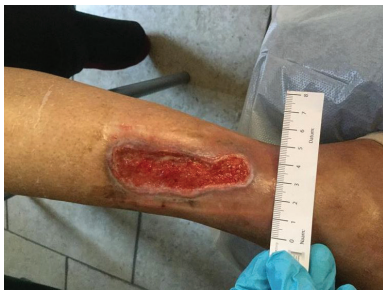


Figure 4: Review 3

Review 3: One week later, after one interim dressing change, the patient no longer had any pain. The wound measured 7cm x 1.6cm, with no depth, and comprised 100% healthy granulation tissue. The surrounding skin was healthy (Figure 4).

Serous exudate levels remained moderate and BIOSORB Dressing continued to handle this exudate very well. The dressing had conformed well to the wound bed, had been comfortable to wear and was intact on removal. The clinician and patient both reported satisfaction with treatment and BIOSORB Dressing was continued due to wound progression. The wound was prepared and the dressings reapplied as above.

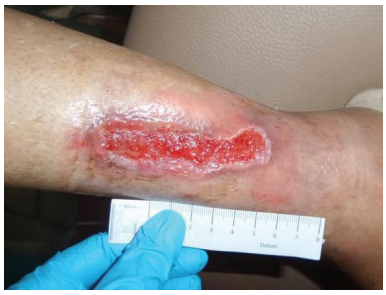


Figure 5: Review 4

Review 4: Ten days later, after two interim dressing changes, the wound was reviewed for a fourth time. The wound measured 7.8cm x 1.5cm, with no depth, and the patient had no pain. The wound was 100% granulating (Figure 5). Serous exudate levels remained moderate, but BIOSORB Dressing had handled this very well and remained intact on removal. There was some irritation at the wound edges and evidence of hypergranulation. BIOSORB Dressing was discontinued. Silver nitrate was used to manage the hypergranulation tissue and a silver dressing was chosen to continue treatment, due to concerns regarding infection risk.

FINAL COMMENTS

The clinician reported progression in wound healing during application of BIOSORB Dressing, with wound size reduction at every dressing change and pain eventually reducing to 0 out of 10 on a VAS scale. BIOSORB Dressing absorbed large quantities of exudate without losing its strength, and was easy to apply and intact on removal. After removal, no residual particles were present. The dressing provided a high degree of comfort, with reduced requirement for dressing changes. BIOSORB Dressing was discontinued at Review 4, as the condition of the wound indicated the need for a different dressing.

CASE 3: DEHISCENCE TO A STERNUM WOUND FOLLOWING CARDIAC SURGERY

Author: Alita Jaspar, MSc in Wound Healing & Tissue Repair,
RN Expertise Centrum Wondzorg, The Netherlands

INTRODUCTION

This is a 66-year-old female patient with heart and vascular disease, who presented with dehiscence to a sternum wound after cardiac surgery. The wound had been present for 1 month prior to commencement of BIOSORB Dressing. The patient had previously been treated with topical NPWT, with twice-weekly dressing changes. The wound had been cleansed with saline at each change.

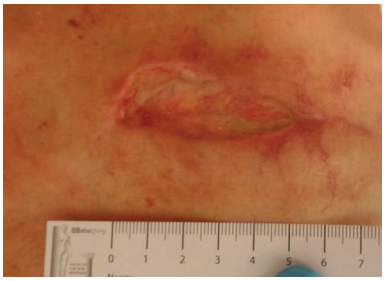


Figure 1: Baseline

At baseline, the wound measured 4.9cm (length) x 1.0cm (depth) x 2.0cm (width) (Figure 1). The wound bed comprised mixed granulation tissue that was pale in colour (50%) and slough (50%). The surrounding skin was dry and flaky, with moderate levels of haemopurulent exudate present. The wound was painful, measuring 6 out of 10 on a VAS scale.

BIOSORB Dressing was selected for exudate management and stimulation of granulation tissue, with the aim of full wound healing. The wound was cleansed with PHMB, a 10cm x 10cm BIOSORB Dressing was cut to fit the wound and TIELLE ESSENTIAL Silicone Border Dressing was used as secondary dressing. Ease of application was excellent for both dressings. The patient was advised not to change the dressings herself and to keep them dry whilst showering.

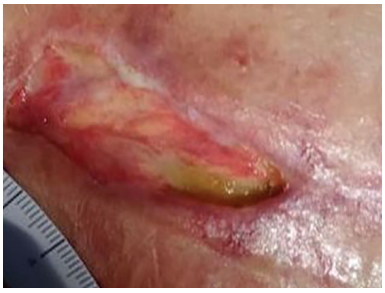


Figure 2: Review 1

Review 1: A week later, after one planned interim dressing change, the wound had reduced in size to 4.2cm x 0.9cm x 2.0cm (Figure 2). The wound bed was cleaner and there was more granulation tissue (55%, with 45% slough). The patient rated her pain at 5 out of 10 on a VAS scale. There were no signs of infection.

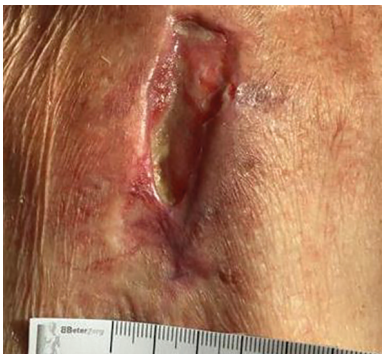


Figure 3: Review 2

Serosanguinous exudate levels were moderate. BIOSORB Dressing had handled this exudate well and had conformed well to the wound bed. The dressing had been comfortable to wear and stayed intact on removal. Both the clinician and patient were satisfied with BIOSORB Dressing, which was continued due to the healing progression. The wound was cleansed and the dressings reapplied as before.

Review 2: Six days later, the wound measured 4.6cm x 0.8cm x 2.0cm, comprising 70% granulation tissue and 30% slough. The surrounding skin was healthy (Figure 3). The patient measured her pain at 4 out of 10 on a VAS scale. Serosanguinous exudate levels remained moderate, but the dressing had been comfortable to wear and conformed well to the wound bed.

The dressing was easy to remove and intact despite high exudate levels. The clinician and patient were both satisfied, with dressing changes reduced from thrice- to twice-weekly. The decision was taken to continue BIOSORB Dressing, which was reapplied along with TIELLE ESSENTIAL Silicone Border Dressing.

Review 3: The wound was reviewed again a week later after one dressing change. The wound edges were contracting and its size had reduced to 4.0cm x 0.4cm x 2.0cm, with 100% healthy granulation tissue (Figure 4). Pain had reduced to 2 out of 10 on a VAS scale.

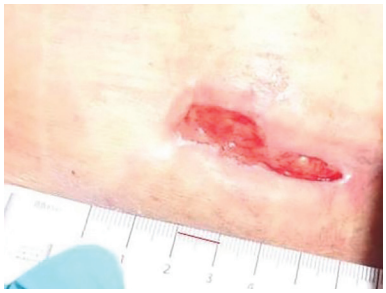


Figure 4: Review 3

Serosanguinous exudate levels were moderate. The dressing had handled this well and conformed well to the wound bed, had provided comfort during wear and stayed intact on removal. The clinician and patient were satisfied with treatment and the decision was taken to continue using BIOSORB Dressing due to wound healing progression. The wound was cleansed with PHMB and both dressings were reapplied as before.

Review 4: After another week and one interim dressing change, the patient no longer had any pain and wound size had reduced to 3.7cm x 0.4cm x 1.9cm (Figure 5). There was very slight evidence of hypergranulation and silver nitrate was applied to manage this.

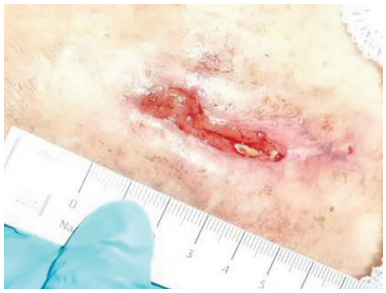


Figure 5: Review 4

Serosanguinous exudate levels were moderate, with BIOSORB Dressing handling this well. The patient continued to find it comfortable to wear. The dressing had conformed well to the wound bed and was easy to remove. Both the patient and clinician were satisfied with treatment, so BIOSORB Dressing was continued as before.

FINAL COMMENTS

According to the clinician, obvious progression in wound size was seen during the study period, with the wound reducing in size at every dressing change. BIOSORB Dressing was able to absorb exudate, remove slough and cleanse the wound bed. At final review, there was evidence of hypergranulation, which was carefully monitored and managed with silver nitrate while treatment with BIOSORB Dressing was continued. The clinician stated that BIOSORB Dressing did not lose its strength, and was easy to apply and remove, without causing damage or leaving residual particles in the wound bed. BIOSORB Dressing provided a high degree of comfort, and the patient had low levels of pain and required minimal dressing changes.

CASE 4: ULCER TO MEDIAL ASPECT OF RIGHT LEG, POSSIBLY DUE TO TOPHI GOUT

Author: Liezl Naude, Independent Wound Management Consultant, Eloquent Health and Wellness, Pretoria, South Africa

INTRODUCTION

This is a 56-year-old male patient with history of hypertension, gout and chronic ulceration of both legs, who had been treated with non-steroidal anti-inflammatories and a corticosteroid. He was treated for an ulcer to the medial aspect of the right leg, possibly due to tophi gout (deposits of uric acid crystals), which had been present for more than a year prior to the study. The wound had previously been treated with an antimicrobial foam dressing.

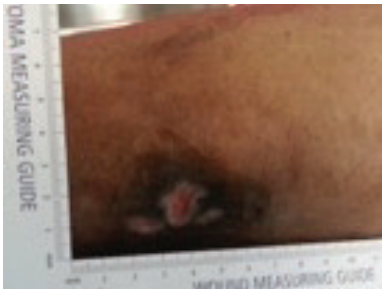


Figure 1: Review 1

At baseline, the wound measured 3cm (length) x 0.2cm (depth) x 1.5cm (width), with 30% epithelial tissue, 45% granulation and 25% slough. Some small white gout crystals were apparent. There were moderate levels of purulent exudate, which made it difficult for the patient to socialise, and the surrounding skin was healthy. The patient rated his pain at 3 out of 10 on a VAS scale.

BIOSORB Dressing was selected for its absorption properties, for autolytic debridement and to promote healing. The wound was soaked with an antiseptic wound irrigation solution for 15 minutes prior to application. A 5cm x 5cm BIOSORB Dressing was cut to size and applied along with TIELLE ESSENTIAL Silicone Border Dressing. Compression bandaging was applied following ABPI assessment (with a normal value of 1.1).

Review 1: Four days later, the wound had reduced in size to 2.8cm (length) x 1.2cm (width), with no depth. The patient had no pain and the wound bed comprised advancing epithelialisation (45%), granulation tissue (50%) and very little slough (5%) (Figure 1).

Serosanguinous exudate levels were low-to-moderate. BIOSORB Dressing had been excellent in terms of comfort during wear and ability to conform to the wound bed. It was also excellent at absorbing exudate under compression and was very easily removed.

The clinician and patient were both highly satisfied with treatment. The patient commented that he was now able to wear stockings and shower. The decision was taken to continue using BIOSORB Dressing for absorption of tophi crystals at the wound site. The wound was prepared and the dressings reapplied as before.

Review 2: When the wound began to reepithelialise, it divided into three small wounds. At the second review 3 days later, the satellite areas of the wound had reepithelialised, leaving the centre area of the wound site remaining.

This central area measured 0.8cm x 1cm, with no depth, and comprised healthy granulation tissue (35%) and epithelial tissue (65%) (Figure 2). The surrounding skin was healthy. Serosanguinous exudate levels were low. The patient had no pain.

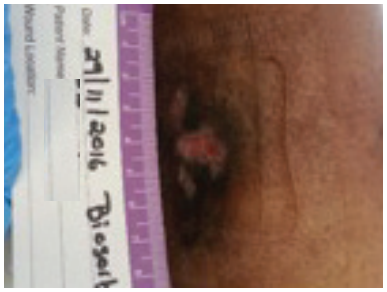


Figure 2: Review 2

BIOSORB Dressing had been comfortable to wear and conformed well to the wound bed. It was excellent at handling exudate and absorbing exudate under compression. The dressing was intact on removal. The clinician and patient remained highly satisfied with treatment, with the patient able to perform all daily living activities with ease. BIOSORB Dressing was discontinued as the wound had low exudate levels and was in proliferation.

FINAL COMMENTS

According to the clinician, the wound showed increased granulation and epithelialisation, and decreased exudate levels during the study. BIOSORB Dressing was excellent at managing thick exudate and assisted with debridement. The wound completely healed within 2 weeks of application. For the patient, this was a much better result than expected compared with his previous experiences. The product also performed well in combination with compression therapy.

CASE 5: NON-HEALING TRAUMATIC WOUND TO THE ANTERIOR SHIN OF RIGHT LOWER LEG

Author: Liezl Naude, Independent Wound Management Consultant, Eloquent Health and Wellness, Pretoria, South Africa

INTRODUCTION

This is a 71-year-old male patient with a non-healing traumatic wound to the anterior shin of the right lower leg, which led to haematoma formation and sepsis. He had received a heart valve replacement 14 years earlier, takes warfarin and has a pacemaker *in situ.* At baseline, the wound had been present for around 2 weeks, since a skin grafting operation. It had previously been treated with a hydrocolloid, which was changed every 2 to 3 days.

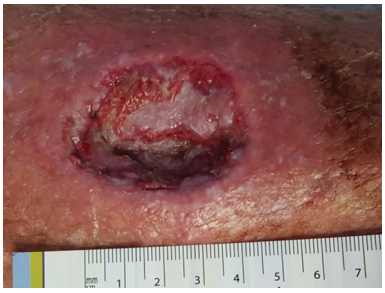


Figure 1: Baseline

At baseline, the wound measured 5cm (length) x 0.7cm (depth) x 4cm (width) (Figure 1). It comprised 50% epithelialisation, 30% granulation and 20% slough. The skin graft had partially taken, with an area of slough and fragile granulation tissue, and the surrounding skin was macerated and inflamed. Haemopurulent exudate levels were heavy, with malodour and leakage both concerns. The patient rated their pain at 3 out of 10 on a VAS scale.

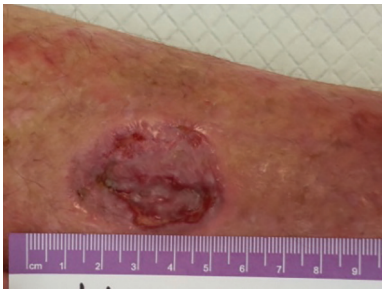


Figure 2: Review 2

BIOSORB Dressing was chosen to absorb exudate, prevent further skin breakdown and promote healing. The wound was cleansed according to local protocol with hydrogen super-oxidised water. A 5cm x 5cm dressing was folded into two layers, and applied along with TIELLE ESSENTIAL Silicone Border Dressing and compression stockings. The patient was advised to elevate their leg and keep the dressing in place until the next visit.

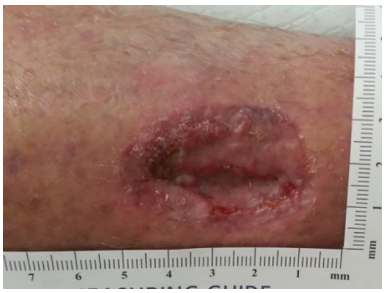


Figure 3: Review 4

Review 1: After 5 days, the wound measured 4.8cm x 0.5cm x 3cm, comprising 60% epithelialisation, 30% granulation and 10% slough. There was increased healthy granulation tissue, with new areas of epithelialisation and minimal slough. There had been a substantial improvement to the surrounding skin, with no inflammation. The patient had no pain. Haemopurulent exudate levels were now moderate. The dressing was excellent at handling this exudate, including under compression, conformed well to the wound bed and could be easily removed.

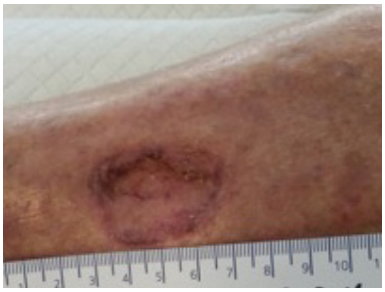


Figure 4: Post-study

The clinician and patient were both highly satisfied and BIOSORB Dressing was continued in order to control moisture and assist with autolytic debridement. The wound was cleansed as per local protocol for 10 minutes and BIOSORB Dressing was placed in strips into the wound cavity. TIELLE ESSENTIAL Silicone Border Dressing was also reapplied along with compression stockings and the patient was advised to continue elevating their leg.

Review 2: One week later, the wound had reduced in size to 3.6cm x 0.3cm x 2.7cm. The wound comprised 70% epithelial tissue, 20% granulation and 10% slough, with moderate levels of serosanguinous exudate, and there were no signs of infection (Figure 2).

The dressing had conformed well to the wound bed and was easy to remove. Patient comfort and the ability to handle exudate, including under compression, were both excellent. The clinician and patient were highly satisfied with treatment. The patient reported they could conduct activities of daily living without pain. BIOSORB Dressing was reapplied as before to fit the wound cavity. TIELLE ESSENTIAL Silicone Border Dressing and compression stocking were also reapplied.

Review 3: Four days later, the wound was 80% reepithelialised, with only small areas of granulation tissue (15%) and slough (5%), and measured 3.5cm x 0.2cm x 1.3cm. The surrounding skin was healthy. Serosanguinous exudate levels were moderate, but the dressing had handled this well, even under compression.

The dressing had conformed well to the wound bed and remained intact on removal. The clinician and patient were highly satisfied with treatment. The patient reported that he was no longer aware of the wound. BIOSORB Dressing was continued at the patient's request, with the same secondary dressing. Compression stockings were also reapplied.

Review 4: At the final review 4 days later, the wound was entering the maturation phase, measuring 0.2cm x 0.1cm x 0.3cm. The wound was 95% epithelialised, with 5% granulation (Figure 3). The patient had no pain. The surrounding skin was healthy with no signs of contraction. Serous exudate levels were low.

The dressing continued to handle exudate well under compression and conform well to the wound bed. It stayed intact on removal, which caused the patient no pain, and had been comfortable to wear. Again, the clinician and patient were highly satisfied, with the wound now almost completely healed and the patient reporting no pain. BIOSORB Dressing was discontinued as there was very little exudate present, while TIELLE ESSENTIAL Silicone Border Dressing was continued. A follow-up was arranged for 2 weeks later.

FINAL COMMENTS

The clinician commented that wound progress during the study period was significant, especially with regards to exudate levels, reported decrease in pain on a VAS scale and epithelialisation (Figure 4). BIOSORB Dressing was essential to manage this exudate and prevent further tissue breakdown. The clinician was impressed with the ability of BIOSORB Dressing to conform to the wound bed and keep its form.

CASE 6: VENOUS LEG ULCER TO THE LATERAL ASPECT OF RIGHT LOWER LEG

Authors: Matthew Pilcher, Vascular Specialist Nurse Practitioner, Bradford Teaching Hospitals NHS Foundation Trust, Bradford, UK ; Jorge Fernandes, Charge Nurse, Bradford Teaching Hospitals NHS Foundation Trust, Bradford, UK

INTRODUCTION

This patient is a 70-year-old male with a complicated medical history, including type 2 diabetes, hypertension, prostate cancer and chronic renal disease. He was treated for a venous leg ulcer to the lateral aspect of the right lower leg, which had occurred when he was struck by a pushchair in a supermarket more than 3 months earlier. The wound had previously been treated with a hydro-desloughing dressing.

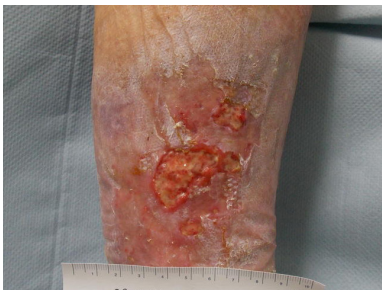


Figure 1: Baseline

At baseline, the wound measured 2.5cm (length) x 2.0cm (width), with no depth (Figure 1). The wound was superficial and wet, with no maceration, comprising 30% granulation and 70% slough. The surrounding skin was healthy. The patient had constant wound pain measured at 10 out of 10 on a VAS scale, which was not fully relieved with analgesia and caused problems with sleep. Serous exudate levels were moderate, with strikethrough present. The patient felt socially isolated and was concerned with malodour.

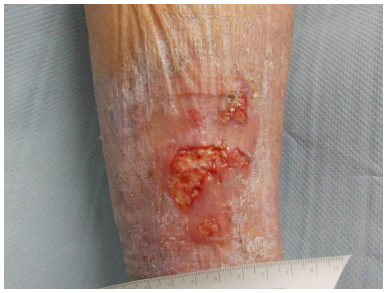


Figure 2: Review 1

BIOSORB Dressing was chosen for exudate management, debridement and to manage wound pain secondary to healing. The wound was washed with tap water and an emollient, and a barrier cream was applied to its edges. A 5cm x 5cm BIOSORB Dressing was applied with excellent ease of application, along with TIELLE ESSENTIAL Silicone Border. The patient was given light 3-layer compression therapy and was advised to elevate their limb.

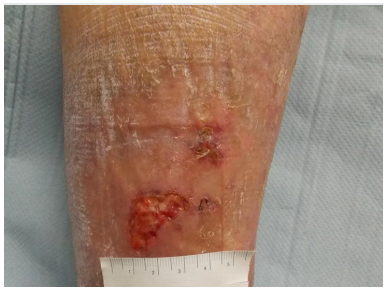


Figure 3: Review 2

Review 1: Three days later, the wound size remained the same, but the patient's pain had significantly reduced to 2 out of 10 on a VAS scale. The wound bed now comprised 50% granulation tissue with 50% slough, and was visibly cleaner and healthier (Figure 2). There was minimal white maceration present, which was managed with an antiseptic cream.

Serous exudate levels remained moderate, but the dressing had performed well at handling this exudate. The dressing was intact and easy to remove, causing the patient no pain. The patient found the dressing comfortable, including under compression, and it had conformed well to the wound bed. Both the clinician and patient were satisfied, particularly due to the reduction in pain. Both dressings were reapplied as before, along with light 3-layer compression therapy, and advice was given to elevate the limb.

Review 2: One week later, after one planned interim dressing change, the wound had reduced in size to 2cm x 2cm. The wound bed comprised 70% granulation and 30% slough (Figure 3). The patient's pain was well controlled at 2 out of 10 on a VAS scale.

Serous exudate levels remained moderate. The dressing absorbed this exudate very well, conformed well to the wound bed and remained intact on removal. The dressing had been comfortable to wear. The clinician was highly satisfied and the patient was satisfied with treatment, so both dressings were reapplied alongside light 3-layer compression therapy and limb elevation.

Review 3: Another week later, after one interim change, the wound measured 2.cm x 1.5cm, with 90% granulation and 10% epithelial tissue. Again, the patient measured their pain at 2 out of 10 on a VAS scale and the wound bed appeared healthier (Figure 4).

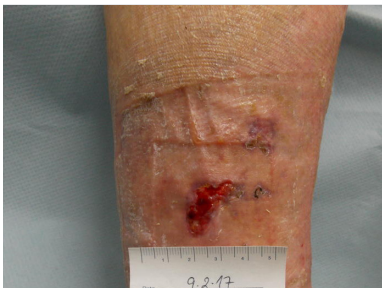


Figure 4: Review 3

Serous exudate levels remained moderate. The dressing had been comfortable to wear and remained intact on removal. BIOSORB Dressing was very good at absorbing exudate and conforming to the wound bed. The clinician and patient were both highly satisfied, with the patient commenting that he had no malodour and felt less social isolation. The dressing was reapplied, now with a superabsorbent secondary dressing (due to evidence of white maceration) and 3-layer compression therapy.

Review 4: One week later, after one additional dressing change, the patient no longer had any pain. The wound measured 2.cm x 0.5cm, with 50% epithelialisation and 50% granulation tissue.

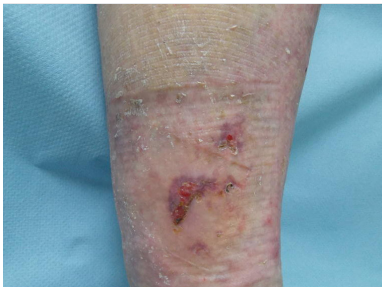


Figure 5: Post-study

BIOSORB Dressing was discontinued as there was very little exudate present, and the ulcer was clean and free from slough. There was slight maceration to the surrounding tissue. On removal, the dressing was intact and had been comfortable to wear, conforming well to the wound bed. The patient reported that his quality of life was improved due to almost complete healing of his wound.

FINAL COMMENTS

The clinician reported that after the final review, the ulcer was smaller in size with signs of epithelial tissue growth (Figure 5). BIOSORB Dressing had controlled the wound exudate well and showed promising debridement. The dressing was easy to apply and comfortable to wear. It conformed well to the wound bed and did not cause the patient any pain. The reduction and resolution of the patient's pain was rapid and significant.

A Wounds International publication

www.woundsinternational.com