## CASE SERIES SUPPLEMENT

# Alprep<sup>®</sup> Pad for wound bed preparation





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## FOREWORD

Wound bed preparation is a systematic approach that includes cleansing and debridement of not only the wound bed but also the wound edge and periwound skin to evaluate and remove wound-related barriers to healing (Schultz et al, 2003). Debridement involves the removal of slough, biofilm, necrosis, haematomas, eschar, debris and devitalised tissue that accumulates on the surface of chronic wounds (Malone and Swanson, 2017). Regular sessions of cleansing and debridement are clinically proven to improve healing outcomes and speed up wound healing (Wilcox et al, 2013).

In clinical practice, wound care is often seen as a specialist area whereby generalist clinicians are typically responsible for wound assessment and providing ongoing care. However, this can lead to the common misconception that only wound care specialists with enhanced training and skills can perform debridement and fear is often a significant barrier for non-specialist nurses and other healthcare workers. Although debridement can be an intimidating step in wound care, selecting an appropriate method among the various methods available may depend on wound bed assessment, specific expertise and local guidelines (Price and Young, 2013; Ousey and Schofield, 2021).

Alprep Pad (Coloplast Limited) is a 2-in-1 cleansing and debridement tool that offers a solution for wound care. It can be used by all involved in administering wound care, including non-specialists, patients with wounds and informal carers, to facilitate wound preparation and management in a simple and controlled manner.

This case study series focuses on the use of Alprep Pad for wound preparation in six patients with a range of wounds, including a leg wound from an insect bite to a very large, deep ulcer in a patient with lymphoedema. The case reports demonstrate the ability of Alprep Pad to loosen, remove and absorb non-viable tissue, biofilm, slough and exudate, thereby improving healing outcomes. Both clinicians and patients reported positive experiences with Alprep Pad, including reductions in exudate levels, wound size and pain associated with wound cleansing, as well as improved quality of life.

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## INTRODUCTION

Wound care is a major health concern that has a significant impact on many aspects of patient's lives, including their health and well-being (Sen, 2021). According to the Burden of Wounds study from 2017-2018 in the UK, there were an estimated 3.8 million patients with a wound managed by the NHS. The annual NHS cost of managing those wounds was £8.3 billion, of which £2.7 billion and £5.6 billion were associated with managing healed and unhealed wounds, respectively. Of all wounds, 16% had no diagnosis and 9% of leg ulcers lacked clarity as to whether the ulcer was venous, arterial or mixed (Guest et al, 2020; Wounds UK, 2021).

Effective debridement is critical for wound healing and involves the removal of slough, necrosis, haematomas, eschar, debris and devitalised tissue that accumulates on the surface of chronic wounds (Malone and Swanson, 2017). Prior to selecting a debridement technique, a structured holistic wound assessment should be completed and documented.

When assessing, diagnosing, implementing and evaluating the patient, their wound and care interventions, it is paramount that clinicians get it right first time. Therefore, several tools to support and simplify wound assessment and management have been developed, such as 'The Coloplast 3-Step Approach' and 'The Triangle of Wound Assessment'.

#### The Coloplast 3-Step Approach

The Coloplast 3-Step Approach has been developed as a prompt to help clinicians manage wounds more effectively [Figure 1]. This simplified 3-step approach is applicable to all wound aetiologies.

- **Step 1: Assess** Complete holistic assessment, including wound assessment and identifying the patient's management goals, expectations and concerns. Tools such as 'The Triangle of Wound Assessment' can be used to conduct a holistic assessment
- **Step 2: Prepare** Prepare the wound by removing the barriers to healing, by cleansing and debriding the wound bed using Alprep Pad or following local protocol
- **Step 3: Treat** Treat the wound in accordance with underlying aetiology and the specific wound treatment objectives identified at the assessment stage.

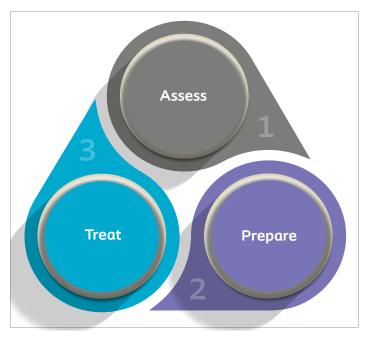


Figure 1. The Coloplast 3-Step Approach

#### **The Triangle of Wound Assessment**

The Triangle of Wound Assessment [Figure 2], is an evidence-based holistic framework used to assess and manage all areas of the wound, including the wound bed, wound edge and the periwound skin, while also taking the patient and their social context into account. The tool is used to ensure that a systematic approach to wound assessment and effective treatment interventions will improve patient outcomes and ensure more appropriate use of healthcare resources (World Union of Wound Healing Societies [WUWHS], 2016; Dowsett and von Hallern, 2017).

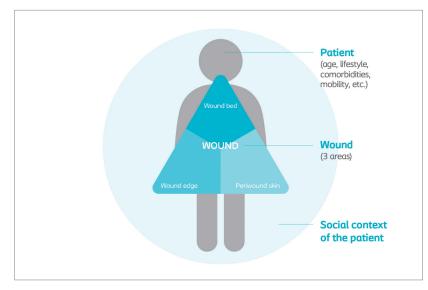


Figure 2. The Triangle of Wound Assessment (WUWHS, 2016) considers the patient, their wound and their social context

#### Patient preparation:

Optimal wound healing is unable to occur until wound-related barriers to healing have been addressed and removed from the wound. A holistic patient assessment should take into account the patient's medical history, the cause, duration and status of the wound and any underlying conditions that may impede healing, such as diabetes, cardiovascular disease and venous/arterial disease. Patient lifestyle, environment of care, nutritional status, mobility, hygiene and skin care, psychosocial factors, concurrent use of medications or therapies and the ability of the patient to be involved in care should also be addressed (Dowsett et al, 2015).

It is critical to remove and treat any identified patient- and wound-related barriers to healing and to use this assessment to develop appropriate wound management plans (Wounds UK, 2018) that align with the patient's expectations and treatment goals.

#### Wound preparation:

The Triangle of Wound Assessment tool extends the concept of wound bed preparation and identifies that a wound can be divided into three main, interconnected, but generally distinct zones that need to be closely monitored (Dowsett et al, 2015; Barrett et al, 2022; Figures 3A, 3B and 3C).

- Wound bed: The wound bed is the most intensely monitored zone (Barrett et al, 2022). Monitor the wound bed tissue type e.g. necrotic, devitalised, slough, granulation and/or epithelisation tissue and level of exudate and for signs of infection
- **Wound edge:** Monitor the wound edge for signs of maceration, dehydration, undermining and/or thickened/rolled edges to gain a better understanding of how the wound is progressing

Periwound skin: The periwound skin is the skin within 4cm of the wound edge (Ferretti et al, 2003), as well as any skin under the dressing. Monitor the periwound skin for signs of maceration, excoriation, dry skin, hyperkeratosis, callus and/or eczema.

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#### Patient wound management plan and goals

Following an accurate wound assessment, an appropriate management plan focused on the three wound areas can be established. Patients should be involved in the process of setting treatment goals to ensure that their concerns, priorities and expectations are identified and addressed (Dowsett et al, 2015).

Management goals may include managing wound exudate, removing non-viable tissue from the wound bed and protecting granulation/epithelial tissue on the wound bed and edge or removing the barriers to healing and creating an optimal healing environment (Barrett et al, 2022). If no signs of improvement are seen after 2–4 weeks, the clinician should review the treatment plan and if necessary refer the patient to an appropriate specialist (Dowsett et al, 2015).

#### **Cleansing and debriding**

Cleaning and debridement are important steps in wound preparation for creating an optimal healing environment (Barrett et al, 2022).

Figure 3. Wound zones A) schematic diagram; B) venous leg ulcer (Barrett et al, 2022); C) wound assessment includes determining the type of tissue in the wound bed, looking for signs of maceration and excoriation on the wound edge and periwound skin, respectively (adapted from Dowsett et al, 2015)

#### Cleansing

Cleansing is the active removal of loose surface contaminants, debris, excess exudate, bacteria and residues of previous dressings from the wound surface and surrounding skin (Rodeheaver and Ratliff, 2018; Weir and Swanson, 2019). The degree of cleansing required can be determined by the condition of the wound. Some wounds only require moderate and gentle cleansing to avoid disrupting healthy granulation and reepithelialisation tissue. Chronic or hard-to-heal wounds with devitalised tissue or suspected biofilm, on the other hand, may require vigorous therapeutic cleansing to dislodge loose devitalised tissue, bacteria or debris from the wound (EPUAP, NPIAP, PPPIA, 2019).

#### Debridement

Debridement is recognised as a critical component of wound bed preparation and shouldn't be considered optional or something to be done 'if there is time'. Debridement is the process of removing adherent non-viable or devitalised tissue, such as slough and necrosis, eschar, infected tissue, biofilm, haematoma and debris from a wound (Wolcott et al, 2009; Wounds UK, 2013; Barrett et al, 2022).

Table 1: Description of 5 types of debridement (adapted from Barrett et al, 2022)	
Type of debridement	Method
Surgical/sharp	Involves the use of a scalpel, forceps, curette, or scissors to remove devitalised tissue. Surgical/sharp debridement may necessitate local or general anaesthesia depending on the extent of tissue removal, as well as advanced skill, competencies, capabilities, and expertise. If necessary, refer the patient to a specialist
Autolytic	Selective and slow debridement that occurs naturally with its own defence mechanisms and can be aided by using moisture retention dressings that use the body's own enzymes in the exudate to separate necrotic tissue from the wound bed
Mechanical	<ul> <li>The most common type of active debridement, which is easily accessible, often low cost, and can be used by healthcare workers, patients, and carers with minimal training. Devitalised tissue is physically removed by friction using the following methods:</li> <li>Wet-to-dry dressings</li> <li>Monofilament fibre Pads</li> <li>Low-frequency ultrasound</li> <li>Hydrosurgery</li> <li>Gauze swabs</li> <li>Wipes</li> <li>Debridement Pads e.g. Alprep Pad</li> </ul>
Enzymatic/ chemical/surfactant	<ul> <li>Application of enzymatic agents or chemicals to the wound surface, including:</li> <li>Enzymatic debrider such as collagenase</li> <li>Wound cleaners and gels with high or low concentrations of surfactant</li> </ul>
Biosurgical/ larval therapy	Sterile fly larvae/maggots that produce a mixture of proteolytic enzymes are applied to the wound bed to digest the devitalised and dead tissue.

Several techniques are used to debride wounds: surgical/sharp, autolytic, mechanic, enzymatic chemical/ surfactant and biosurgical/larval therapy, as shown in **Table 1** (adapted from Barrett et al, 2022). The appropriate selection of the debridement technique is determined by wound bed assessment, local policy and the clinician's capability level (Price and Young, 2013; Ousey and Schofield, 2021).

Debridement can be a one-time procedure or an ongoing component of the treatment plan. Despite being an essential component of wound care, the optimal frequency of debridement has yet to be determined.

Wilcox et al (2013) investigated the association between the frequency of wound preparation by cleansing and debridement and healing outcomes in a retrospective cohort study of nearly 155,000 patients. The study found that the medium time to heal for diabetic foot ulcers that were debrided weekly or more was 21 days, compared to 64 and 76 days, when there were 1-to-2 weeks or more than 2 weeks between debridement sessions, respectively. The same trend was seen in traumatic wounds, the median time to heal for weekly or higher frequency debridement was 14 days compared to 42 and 49 days for 1-to-2 weeks or 2-weeks or more intervals between debridements respectively. Overall, weekly or more frequent debridement sessions were shown clinically to improve healing outcomes and speed up healing in diabetic foot ulcers and traumatic wounds (Wilcox et al, 2013).

Using a debridement tool that empowers all clinicians to perform wound preparation in a simple and controlled manner, without the need for specialised and enhanced training, could help to facilitate wound preparation at every dressing change and aid in continuity of care (Moore and Baxter, 2021).

#### Introducing Alprep<sup>®</sup> Pad

Alprep<sup>®</sup> Pad (Coloplast Limited) is a two-in-one cleansing and debridement tool designed to prepare the wound bed, wound edge and periwound skin for optimal healing by gently loosening and absorbing debris from the surface of the wound. Alprep Pad is indicated for single-use mechanical debridement and is appropriate for a wide range of wounds, including those that are not infected, infected or that have suspected biofilm (Barrett et al, 2022). It is designed to be used as part of a holistic approach to wound care. **Figure 4** illustrates how it fits into the 'Assess, Prepare, Treat' wound preparation pathway.

### ASSESS Complete holistic assessment, including wound assessment Red flags to be identified as part of assessment process Refer to appropriate specialist (e.g. has history of arterial insufficiency)

#### **PREPARE** Wound cleansing and debridement to take place using Alprep Pad

- 1. Preparation with Alprep Pad does not require an extended competency and can be undertaken by any capable person treating wounds.
- 2. Moisten Alprep Pad with irrigation solution (squeeze excess out), gently wipe the surface working in a circular motion starting at the centre of the wound working outwards to avoid contamination.
- 3. Alprep Pad should also be used on the wound edge, periwound skin and further surrounding skin if deemed necessary (e.g. hyperkeratotic skin).
- 4. The dark grey side of Alprep Pad should be used to loosen any devitalised tissue and/or to disrupt suspected biofilm before absorbing with the light grey side.

#### **TREAT** wound depending on objectives identified at assessment stage

## **Reassess** Reassessment is critical as the clinical detail gained from the baseline wound assessment may change, for instance as the tissue types may reduce (e.g. % of slough in the wound bed), the wound will likely appear bigger or change shape once it has been prepared. As part of reassessment, determine if further second-line debridement or preparation is required (e.g. sharp debridement) and refer on as appropriate.

**Figure 4.** How Alprep Pad can be part of a wound preparation pathway *N.B. This pathway is designed for guidance only and should not replace clinical judgement. Always refer to local practice and guidelines where they exist.* 

Alprep Pad has two sides that are distinguished by two colours: dark grey and light grey [Figure 5].

- **Dark grey foam:** Used to loosen and remove non-viable tissue, biofilms, slough, microorganisms and skin scales, including hyperkeratotic scales from the wound bed, wound edge and peri-wound skin
- Light grey side: The 'slits' in the light grey softer foam are designed to increase the surface area of the Pad for capturing, absorbing and removing loosened slough, non-viable tissue, debris, biofilms, devitalised tissue and exudate.

Prior to use, the Pad should be moistened with an irrigation solution of choice (Barrett et al, 2022). When using the pad, it may be necessary to use the light grey side first to absorb exudate from the wound, followed by the dark grey side to loosen devitalised tissue, but either side can be used first. The pad's ergonomic grip also makes it easy to use and gives the user greater control, while its distinctive triangular shape makes it easy to handle.

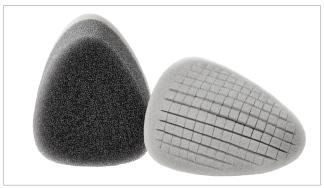


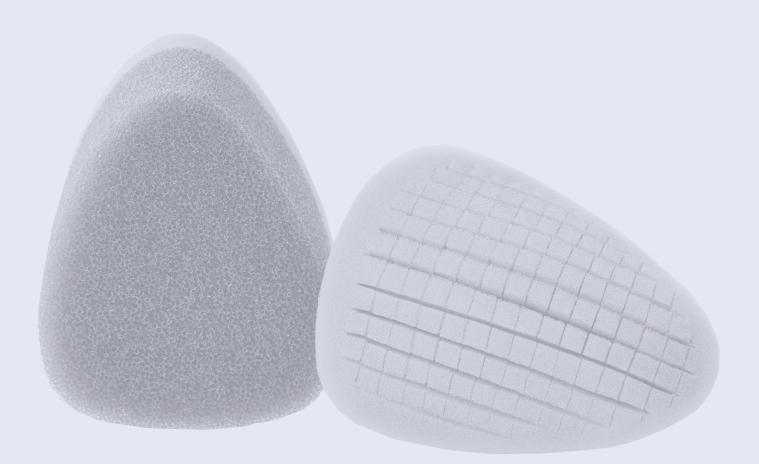
Figure 5. Alprep Pad

Using the Alprep Pad as part of a holistic approach supports all elements of 'Assess, Prepare, Treat' and supports healthcare workers to optimise wound healing in a fast and effective manner (Moore and Baxter, 2021). See **Table 2** for the potential role of Alprep Pad in supporting wound preparation (Moore and Baxter, 2021; Barrett et al, 2022)

Table 2. Potential role of Alprep Pad in supporting wound preparation (Moore and Baxter, 2021; Barrett et al, 2022)	
Areas	How Alprep Pad may promote optimal healing*
Wound bed	<ul> <li>Improves the tissue composition</li> <li>Absorbs exudate</li> <li>Reduces infection risk and bioburden</li> <li>Prepares the wound bed to absorb topical antimicrobial agents</li> </ul>
Wound edge	<ul><li>Removes macerated skin</li><li>Removes dehydrated skin</li></ul>
Periwound skin	<ul> <li>Removes macerated skin</li> <li>Removes senescent, dry skin, including eczema</li> <li>Removes hyperkeratosis</li> <li>Prepares the skin to apply topical emollients</li> <li>Prepares the skin to assist the dressing to stay in place</li> </ul>
Surrounding skin	<ul> <li>Reduces risk of recolonisation and supports good infection prevention from the surrounding skin to wound bed</li> <li>Removes senescent, dry skin and hyperkeratosis</li> <li>Prepares the skin for the application of topical emollients.</li> </ul>
*Based on case series and	satisfaction survey (Moore and Baxter, 2021)

# ALPREP PAD IN CLINICAL PRACTICE: CASE SERIES

This case series includes six real-world examples of wound preparation with Alprep Pad in patients with wounds ranging from a mixed aetiology leg ulcer to a lower leg wound caused by an insect bite. By removing physical barriers to healing and preparing the wound bed for dressing application with Alprep Pad, optimal healing environments are created. Clinicians used Alprep Pad on wounds in accordance with manufacturer's instructions.



#### **Case 1 – Chronic (non-healing) mixed aetiology leg ulcer of 10 years duration** *Author: Mary Barrett, Nursing Associate Trainee, Lane End Medical Practice*

#### **Patient presentation**

- A 90-year-old male with a history of cellulitis presented with a leg ulcer [Figure 6A]
- The patient had an ankle brachial pressure index of 0.7 (indicating arterial disease) and the patient was not suitable for full compression
- The patient's leg ulcer was affecting his quality of life as well as his ability to travel abroad.

#### **Wound history**

- The mixed aetiology leg ulcer measured 8cm (length) x 3.5cm (width) and had been present for 10 years
- The wound bed was composed of sloughy tissue, high levels of exudate and evidence of infection
- Maceration and thickened/rolled edges around the wound edge were recorded
- Periwound skin was slightly macerated with excoriation, dry skin and hyperkeratosis.

#### **Management goals**

- Managing exudate and removing non-viable tissue around the wound bed, wound edge and periwound skin
- Protecting the skin, as well as granulation and epithelial tissue around the wound bed and wound edge.

#### **Treatment regimen**

- Alprep Pad was introduced as part of a new treatment protocol to physically loosen and remove bacterial colonisation (biofilm) from the patient's wound, as well as non-viable tissue from the wound edge and periwound skin
- The ulcer was dressed with Biatain<sup>™</sup> Ag Non-Adhesive (Coloplast Limited) as a primary dressing, to reduce bacterial load and treat suspected biofilm that was preventing the wound from healing
- By the third day of treatment [Figure 6B], the patient was able to tolerate light compression of 10 mmHg, which he had previously been unable to tolerate due to pain and high exudate levels
- By 50 days of treatment, the patient's chronic leg ulcer had healed [Figure 6C].

- To encourage and prepare the patient's chronic leg ulcer for healing, biofilm, as well as any other physical barriers that were keeping the wound in a prolonged inflammatory state had to be removed
- Following three wound debridement sessions over a 7-week period, the patient's leg ulcer of ten years had healed in just 50 days
- As part of the patient's treatment plan going forward, the use of Biatain<sup>™</sup> Silicone (Coloplast Limited) and compression hosiery was introduced.



**Figure 6A.** Day 1 of treatment with Alprep Pad and Biatain Ag Non-Adhesive. Chronic mixed aetiology leg ulcer with high levels of slough, maceration and exudate



**Figure 6B.** Day 3 of treatment with Alprep Pad and Biatain Ag Non-Adhesive



Figure 6C. Day 50 of treatment with Alprep Pad

#### **Case 2 - Left hallux amputation**

Author: Jen Letchford, Tissue Viability Nurse Advisor, Coloplast Ltd

#### **Patient presentation**

A 55-year-old male with type 2 diabetes, arterial insufficiency and depression as a result of his wound, presented with a wound following left hallux (big toe) amputation.

#### **Wound history**

- The wound measured 18cm (length) x 7cm (width) [Figure 7A]
- The wound bed composed of friable granulation tissue, high levels of exudate and evidence of infection
- Excoriation, thickened rolled edges and maceration of the periwound skin were recorded.

#### **Management goals**

- Removing non-viable tissue from the wound bed
- Managing bacterial bioburden in the wound bed
- Managing exudate and protecting granulation/epithelial tissue throughout the wound bed, edge and periwound skin
- Protecting the skin from further damage.

#### **Treatment regimen**

- To prepare the wound for healing, debridement with Alprep Pad was introduced by physically breaking up and removing bioburden and nonviable tissue from the wound bed and the periwound skin
- The ulcer was dressed with Biatain<sup>™</sup> Ag Non-Adhesive as a primary dressing, to reduce bacterial load and treat suspected biofilm that was preventing the wound from healing
- By week 9 of treatment, there was an increase in granulation tissue and the wound was healing well [Figure 7B]
- In 14 weeks, the patient's wound had significantly decreased in size to 4cm (length) x 1cm (width) and the top of the wound where the amputated toe was, had healed [Figure 7C]
- Exudate levels to the remaining open area were low and there are no signs of localised infection.

- Wound bed preparation was managed using the Alprep Pad and the bacterial load/biofilm was treated using Biatain Ag foam
- As part of the patient's treatment plan going forward, the use of Biatain Silicone was introduced as the wound no longer required an antimicrobial to manage bacterial load.



**Figure 7A.** Day 1 of treatment with Alprep Pad and Biatain Ag foam. Infected wound following left hallux amputation



Figure 7B. Week 9 of treatment



Figure 7C. Week 14 of treatment

#### **Case 3 – Chronic (non-healing) ischial pressure ulcer** Author: Jen Letchford, Tissue Viability Nurse Advisor, Coloplast Ltd

#### **Patient presentation**

- A 39-year-old male with spina bifida, uses crutches for mobilisation, presented with an ischial pressure ulcer [Figure 8A]
- He is very independent, with a busy work and social life.

#### **Wound history**

- The ischial pressure ulcer had been present for 15 years
- The wound bed composed of sloughy tissue, biofilm and low levels of exudate
- The periwound skin was excoriated, and the wound edges were macerated with undermining and rolled/thickened edges.

#### **Management goals**

- Managing exudate and removing non-viable tissue throughout the wound bed, edge and periwound skin
- Reducing bacterial bioburden from the wound bed
- Protecting the skin from further damage.

#### **Treatment regimen**

- Following cleansing, Alprep Pad was introduced to debride and remove devitalised tissue from the wound bed and wound edge in order to prepare the wound for dressing application
- Biatain Alginate Ag foam filler was used to fill the depth of the wound, which was greater than 2cm with undermining
- Once the wound depth decreased, the use of Biatain Alginate Ag foam filler was discontinued
- The patient stepped down to Biatain Silicone once the infection and bacterial load was under control
- By that point, the wound was less than 2cm in depth with no undermining or tunnelling.

- The ischial pressure ulcer of 15 years duration was managed with Alprep Pads to cleanse and debride the wound
- Biatain Alginate Ag was used to fill in the wound and treat the bacterial burden in the wound bed and when an alginate dressing was no longer needed this was stepped down to Biatain Silicone Ag
- After 16 days [Figure 8B] the wound showed a marked improvement with less pain and maceration, as well as better exudate control
- The patient is much happier and finds the wound far less painful than he did previously. He also is experiencing less leakage and maceration and better control of exudate, in turn improving his quality of life.



**Figure 8A.** Day 1 of treatment with Alprep Pad and Biatain Ag foam. Pressure ulcer of 15 years duration



**Figure 8B.** Day 16 of treatment with Alprep Pad and Biatain Silicone

#### **Case 4 - Chronic and recurrent bilateral painful venous leg ulcers** *Author: Penny Rubio, Clinical Lead Tissue Viability, Oxford Health*

#### **Patient presentation**

- A 70-year-old male with a history of multiple deep vein thrombosis and obesity presented with bilateral infected venous leg ulcers on his left inner malleolus and right calf [Figures 9A and 10A]
- The patient had a previous hospital admission with infected leg ulcers and as a result of a fall and subsequent limited mobility.

#### Wound history

- The patient's extensive bilateral venous leg ulcers were recurrent, painful to debride and would bleed when dressings were removed
- The wound bed was composed of over-granulating dark red tissue, 70% slough and 30% thick slough with high levels of purulent malodorous exudate
- The wound had previously been treated with standard dressings and compression hosiery with limited success.

#### **Management goals**

Loosening and removing non-viable tissue and biofilm around the wound bed, wound edge and periwound.

#### **Treatment regimen**

- Alprep Pad was used to cleanse and debride the patient's wounds
- The patient could only tolerate 30 seconds of cleansing with the Alprep Pad on the left wound, but this removed 80% of the slough [Figure 9B]
- 100% of the slough was removed from the patient's right calf wound, but this caused some bleeding [Figure 10B; note, it is not uncommon for friable wound beds to bleed after cleansing and debridement].

- In just one debridement session, Alprep Pad was found to be a quick and easy-to-use cleansing and debridement tool
- 80% of slough was removed from the patient's left leg wound and 100% of slough was removed from the right calf wound.



Figure 9A. Left inner malleolus ulcer pre-treatment



**Figure 9B.** Left inner malleolus post-debridement with Alprep Pad



Figure 10A. Right calf ulcer pre-treatment



Figure 10B. Right calf ulcer post-debridement with Alprep Pad

#### **Case 5 – Lower leg wound following an insect bite** Author: Jen Letchford, Tissue Viability Nurse Advisor, Coloplast Ltd

#### **Patient presentation**

 A 33-year-old female with no comorbidities or significant medical history sustained an insect bite, resulting in a large lower leg wound [Figure 11A].

#### Wound history

- The patient's wound spanned the full circumference of the lower leg and was malodorous and sloughy with high levels of exudate
- Infection was suspected
- Wound edge and periwound skin were macerated and dehydrated with thickened/rolled edges
- Following a vascular assessment, low level of compression was applied.

#### **Management goals**

- Controlling bacterial burden around the wound bed
- Managing exudate throughout the wound bed, wound edge and periwound
- Loosening and removing non-viable tissue around the wound bed, wound edge and periwound
- Protecting granulation/epithelial tissue around wound edge
- Protecting the periwound skin from further damage.

#### **Treatment regimen**

- Alprep Pad was introduced as part of a new treatment protocol to cleanse and debride slough, devitalised tissue, suspected biofilm and hyperkeratotic skin from the wound bed, edges and periwound skin
- The suspected biofilm and infection identified during wound assessment was treated with Biatain Ag
- Following a vascular assessment, it was determined that the patient was also suitable for low-level compression
- By day 14, the use of Alprep Pad and Biatain Ag helped to support an optimal wound healing environment by debriding the sloughy wound and treating the infection [Figure 11B].

#### **Overview**

The wound had completely healed after 28 days, and the patient was able to self-care with compression stockings [Figure 11C].



**Figure 11A.** Day 1 of wound prior to the use of Alprep Pad to cleanse and debride the patient's wound



**Figure 11B.** Wound following 14 days of Alprep Pad to cleanse and debride the wound and Biatain Ag to treat suspected biofilm and infection



Figure 11C. Day 28 of treatment

#### Case 6 - Leg ulceration and lymphoedema

Author: Joanne Chisnall, Assistant Practitioner, St Helens and Knowsley Teaching Hospitals NHS Trust

#### **Patient presentation**

- A 66-year-old female patient with lymphovenous disease and raised BMI secondary to lymphoedema, presented with significant ulceration and lymphoedema
- The patient was worried about the odour of her wound and required daily house visits from two nurses for an hour.

#### **Wound history**

- The wound measured 11cm (length) x 14cm (width) x 7cm (depth) and had been present for 4 years
- The wound bed was composed of 90% slough and 10% epithelialising tissue
- Exudate levels were high and green/yellow in appearance
- The wound had previously been treated with absorbent dressings and inelastic compression bandages with limited success
- To treat infection, the patient was prescribed oral antibiotics on a 7-day course.

#### **Management goals**

- Loosening and removing slough and biofilm around the wound bed, wound edge and periwound
- Managing exudate, odour and infection around the wound

#### **Treatment regimen**

- Alprep Pad was introduced as part of a new treatment protocol to cleanse and debride the patient's ulcer [Figure 12A]
- By 5 weeks of treatment, the wound was improving and the percentage of sloughy tissue was decreasing [Figure 12B]
- By nearly 4 months, the wound composed of 20% slough and 80% granulation tissue and had reduced in size to 6.8cm (length) x 7.8cm (width) [Figure 12C].

- The wound had completely healed after nearly 4 months, and the patient's initial worry over odour is resolved
- Previously, the patient had two nurses visiting daily for an hour. However, following the use of Alprep Pad to cleanse and debride the wound, the visits were reduced to two nurses visiting twice a week. Therefore, the patient is able to attend family and social events that she had previously been unable to attend.



**Figure 12A.** Day 1 prior to the use of Alprep Pad to cleanse and debride the patient's wound



Figure 12B. 5 weeks of treatment with Alprep Pad



**Figure 12C.** Nearly 4 months of treatment with Alprep Pad

## CONCLUSION

The cases described above support the idea that this novel debridement tool, developed in collaboration with practitioners, through the mechanism of mechanical debridement, can physically loosen, absorb and capture non-viable tissue, slough and biofilm from the wound bed, wound edge and periwound skin. The 2-in-1 pad was found to be an easy and quick-to-use cleansing and debridement tool. It is accessible to the entire wound care team, including practitioners who may not have extended competencies, to help optimise wound healing conditions for their patients.

The use of the Alprep Pad in conjunction with Coloplast 3-step approach and the Triangle of Wound Assessment allows for a structured approach to wound management in which the wound bed, edge and periwound skin are all recognised as important features that must be examined, assessed, managed and monitored. By incorporating the use of Alprep pad, clear management goals and treatment plans can be established for the patient, thus simplifying the delivery of wound preparation. As shown in the six cases, additional treatments such as antimicrobials and compression therapy may also be indicated.

By removing barriers to healing, it is also possible to prevent complications, such as wound deterioration, wound recurrence and infection and enhance patient quality of life and odour management (Wilcox et al, 2013).

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