Animal health newsletter
January 2024

2-minute read: Wound bed preparation

When it comes to wound healing the aim is to create and maintain the optimal environment for healing to take place. Wound bed preparation (WBP) enhances the effectiveness of therapeutic measures. [1,2]

WBP should form the foundation of any wound management plan. Sub-optimal WBP can lead into prolonged and poor wound healing outcomes.

TIMES and CASE frameworks can help maximise to identify barriers to the healing process

Cause – holistic wound assessment should include looking at causes and factors that lead to delays in wound healing.

Assess – The five components that underpin Wound Bed Preparation are T.I.M.E.S. tissue type, infection, moisture, the edge of the wound bed and surrounding skin.

Select – TIMES can also be utilised to aid in treatment selection. By appropriately assessing all the factors related to TIMES we can create the ideal environment for wound healing based on what can be seen in the wound bed and surrounding area.

Evaluate – Wound healing is a dynamic process, meaning that your assessment and management needs to be constantly evaluated. If current treatment plan is not working, consider a reassessment of TIMES and modify the care plan as needed.

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Tips for performing WBP:

Tissue – If dead or devitalised tissue has been identified through the wound assessment then consider debridement within your management plan. Cutimed® Debriclean is a mechanical debridement pad.

Infection – Removing biofilm is part of the wound bed preparation process. This is an essential step to facilitate healing. Debridement, using Cutimed® Debriclean, can help remove bacteria and biofilm.

The wound infection continuum[3] provides a framework which looks at the impact microbes have on a wound and wound healing.

Bacteria and fungi binding wound dressings, based on Sorbact® Technology, prevent and treat wound infections and facilitate the wound healing process.

Moisture – Effective exudate management can promote healing, improve quality of life and enhance healthcare effectiveness.

Edge – Where wound edges are rolled management of the wound is going to be complex and may need early specialist referral.

Surrounding skin – Surrounding skin may be compromised by the current wound management plan. Cutimed® Protect can help.

1. Atkins L, Bucko Z, Conde Montero E et al (2019) Implementing TIMERS: The race against hard-to-heal wounds. Journal of Wound Care 28(Suppl 3) S1-S49

2. Falanga V. Classifications for wound bed preparation and stimulation of chronic wounds. Wound Repair Regen. 2000; 8(5): 347-52.

3. International Wound Infection Institute (IWII) Wound Infection in Clinical Practice. Wounds International. 2022.

Product focus:
Cutimed® Sorbact®

Safely remove bacteria -

Sorbact® Technology dressings effectively prevent and manage wound infection[1]. Bacteria (naturally) bind and anchor to the unique DACC™-coated surface.[2,3,6] Irreversible binding of bacteria starts immediately after application,[2,3,4] reducing bioburden and supporting wound healing.[5,6] Sorbact® Technology dressings have no known contraindications and low risk of allergies.[7]

Cutimed® Sorbact® Dressing Pad

Sorbact® Technology wound contact layer combined with an absorbent core.

Cutimed® Sorbact® Swab

Sorbact® Technology wound contact layer dressing which allows passage of exudate into a secondary dressing. Can be used on both superficial and deep wounds.

Cutimed® Sorbact® Ribbon

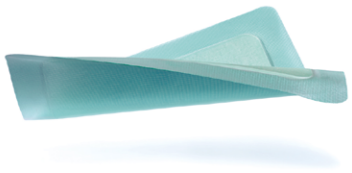
Sorbact® Technology wound contact layer dressing for use in cavity wounds. Allows passage of exudate into a secondary dressing. Can be placed in skin folds to treat fungal infections.

Cutimed® Sorbact® Gel

Sorbact® Technology wound contact layer dressing which donates moisture, enables a moist wound environment and facilitates autolytic debridement.

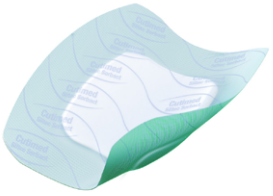
Cutimed® Sorbact® Hydroactive

Bacteria binding Sorbact® Technology wound contact layer with an absorbent hydropolymer gel dressing.



Cutimed® Siltec® Sorbact®

Bacteria binding Sorbact® Technology wound contact layer combined with an absorbent polyurethane foam that contains superabsorbent stripes.



1 Kammerlander G et al. An investigation of Cutimed Sorbact as an antimicrobial alternative in wound management. Wounds UK. 2008;4:10-18

2 Husmark J et al. Antimicrobial effects of bacterial binding to a dialkylcarbamoyl chloride-coated wound dressing: an in vitro study. J Wound Care. 2022;31:560-570.

3 Ljungh A et al. Using the principle of hydrophobic interaction to bind and remove wound bacteria. J Wound Care. 2006;15(4):175-180.

4 Abigo Medical AB. In vitro kinetic study of bacteria and endotoxin binding. 2020.

5 Ciliberti M et al. The Effect of a Bacteria- and Fungibinding Mesh Dressing on the Bacterial Load of Pressure Ulcers Treated With Negative Pressure Wound Therapy: A Pilot Study. Wounds. 2016;28(11):408-420

6 Mosti G et al. Comparative study of two antimicrobial dressings in infected leg ulcers: a pilot study. J Wound Care. 2015;24(3):121-127.

7 Abigo Medical AB. Data on file.

Cutimed® Sorbact® Focus

CUTIMED® SORBACT® SAFELY REDUCES THE BIOBURDEN IN WOUNDS

Wound healing is a biological process involving a series of precisely programmed phases. Elevated microbe levels will impair the process, resulting in an increased risk of wound infection and delayed wound healing.

- Antimicrobial resistance is a growing global concern, it is reported in human healthcare that at 30% of antibiotics prescribed during outpatient settings are unnecessary[1], as veterinary professionals we are not immune to the effects of antimicrobial resistance. The reduction in unnecessary use of antibiotics in wound care starts with having appropriate infection prevention, infection management and hygiene protocols in place.

- Reduction of bioburden is an important step in the wound management process, when considering localised management of bioburden in the wound bed Sorbact® Technology offers a safe and highly effective method, by binding bacteria with a purely physical mode of action. Sorbact® Technology is free from any known side-effects and removes bacteria without releasing possibly harmful endotoxins[8].*,***

- Acute traumatic wounds and bite wounds commonly seen in veterinary practice have the potential to be heavily contaminated with various microbes, Cutimed® Sorbact® is not only highly effective against common wound bacteria including MRSA[3] and VRE, but also targets fungi. Unlike certain antimicrobial substances that kill bacteria, development of bacterial resistance to the Cutimed® Sorbact® mode of action is not expected, and it can be used for a prolonged period of time[2]. *, **

- When managing microbes within the wound bed the killing of bacteria can lead to the release of endotoxins from dead cells and cell debris is the left in the wound, which may contribute to delays in wound healing. So, unlike bactericidal dressings that actively kill bacteria, Cutimed® Sorbact® removes it, irreversibly binding it to its surface to reduce bioburden and supporting wound healing[2].

- As veterinary professionals implementing holistic wound care can come with different challenges, so having a dressing that is versatile and effective in a variety of wound stages can help when it comes to decided what dressing to select and when. Cutimed® Sorbact® can be used to safely reduce bioburden in the short term, and in the long-term treatment of already infected wounds.

1 Ronner AC, Curtin J, Karami N, Ronner U. Adhesion of meticillin-resistant Staphylococcus aureus to DACC-coated dressings. J Wound Care. 2014 Oct; 23(10):484, 486-8.

2 Budi Susilo Y and Husmark J. DACC coated wound dressing and endotoxin: Investigation on binding ability and effect on endotoxin release from gram-negative bacteria. EWMA 2019. 2019; EP167.

* Cutimed ® Sorbact ® is suitable for a prolonged duration of treatment – however, dressing changes should consider clinical conditions and be performed by day 7 at the latest.

** Antimicrobial dressings with silver or PHMB for example might release active agents into the wound.

Spotlight on:
Educational support

We have dedicated online resources to help you learn more about Essity products and how they can help in your practice. From case studies to product ranges and catalogues, visit:
Veterinary Literature (essity.co.uk)

For upcoming courses, webinars and educational support please contact:
animalhealthcare@essity.com

Case study report - Cutimed® Sorbact®: Managing a Wound with Bacterial Bioburden that is Resistant to Antibiotics

Author: Sarah Carney, RVN DipAvn Medical, Helen Baxter, BVMS MRCVS Cert AVP, CVS Petmedics

Introduction

A two year old, female, neutered, domestic short-hair cat presented with two severely contaminated wounds after a suspected road traffic accident. Both wounds were clipped, lavaged with saline and debrided. A large laceration to the right thigh (Image 1) and a cranial laceration overlying the right stifle (Image 2) can be seen post initial wound treatment.

Methods

Under general anaesthetic (GA), a wet-to-dry dressing was applied and left in place for 24 hours, secured with nylon stay sutures over both wounds.

After 24 hours further debridement and lavaged with sterile saline was performed under GA. The thigh wound was surgically closed and dressed with Cutimed® Sorbact® gel. The stifle wound was dressed with a Cutimed® Siltec® foam dressing for protection and absorb any exudate (Images 3 and 4).

After seven days the thigh wound showed signs of a partial wound breakdown. A bacterial swab was taken for culture and sensitivity. This showed that the antibiotics prescribed were ineffective as the bacteria was resistant. Further debridement under general anaesthetic undertaken. This wound was then dressed with Cutimed® Sorbact® gel to help manage the bacterial bioburden and Cutimed® Siltec® foam dressing to provide a moist wound environment.

Results:

At day twelve both wounds were reassessed (Images 5 and 6) a healthy granulation bed could be seen on both wounds and a repeat dressing combination of Cutimed® Sorbact® gel and Cutimed® Siltec® foam dressing was used every three to five days depending on client availability to present the patient. (Image 7).

At week four there was good wound contraction at both sites, surgical closure was performed at this point with minimal tension required (Images 8 and 9).

A supportive dressing was applied after surgery using Cutimed® Sorbact® gel as the primary dressing and Cutimed® Siltec® to help reduce movement. This dressing was replaced twice using the same regime over a period of 10-14 days, wound healing was achieved by day 37 (Images 10 and 11).

Case study report - Cutimed® Sorbact®: Managing a Wound with Bacterial Bioburden that is Resistant to Antibiotics

Conclusion

Our overall experience with these dressing materials exceeded our expectations when compared to previously used materials. The dressings were easy to apply and remove. They were comfortable for the patient when in situ. A combination of excellent owner and patient compliance along with the new dressing technology ensured an end result of a healthy tissue bed, allowing closure of the wounds to the satisfaction of all involved with the care of this patient.


Image 1

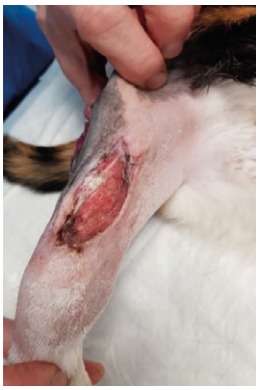


Image 2


Image 3


Image 4


Image 5


Image 6


Image 7


Image 8


Image 9

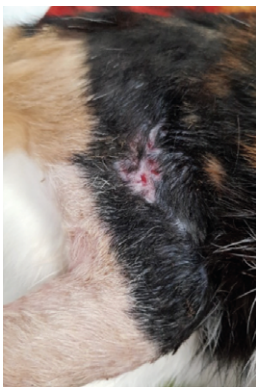


Image 10


Image 11

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