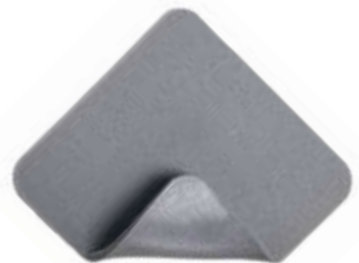


A less painful way to target bacteria

 Mepilex® Ag



*SafetaC*  
TECHNOLOGY



MÖLNLYCKE  
HEALTH CARE

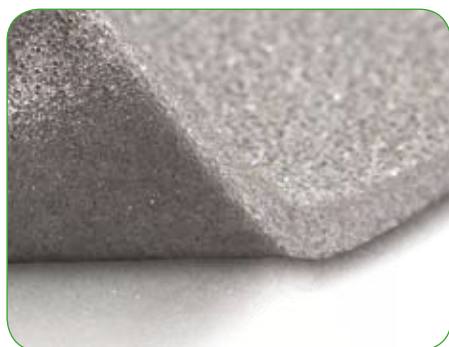


## Mepilex<sup>®</sup> Ag – less painful dressing changes and effective, absorbing antibacterial action in one

Mepilex Ag combines the unique features of Safetac<sup>®</sup> technology with the bacteria reducing power of silver. Mepilex Ag goes to work quickly, inactivating wound pathogens within 30 minutes and for up to 7 days<sup>1</sup>. At dressing removal, Mepilex Ag does not stick to the wound or strip surrounding skin, minimising patient pain and wound trauma.

# Expect more from Mepilex® Ag

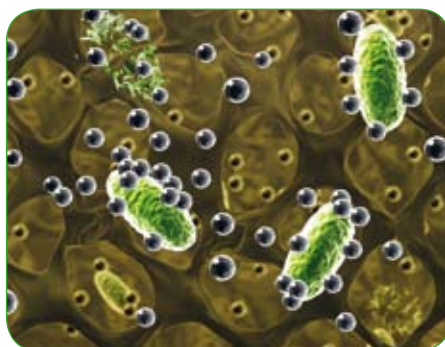
New Mepilex Ag is a novel antibacterial dressing since it combines Safetac technology with silver. By combining the best of both worlds, Mepilex Ag is effective and gentle. A less painful way to target bacteria and protect the skin.



## Minimising trauma and pain

Mepilex Ag causes less pain by:

- not adhering to the moist wound bed
- eliminating skin stripping
- sealing the wound margins to prevent maceration



## Reducing bacterial burden

Mepilex Ag in action:

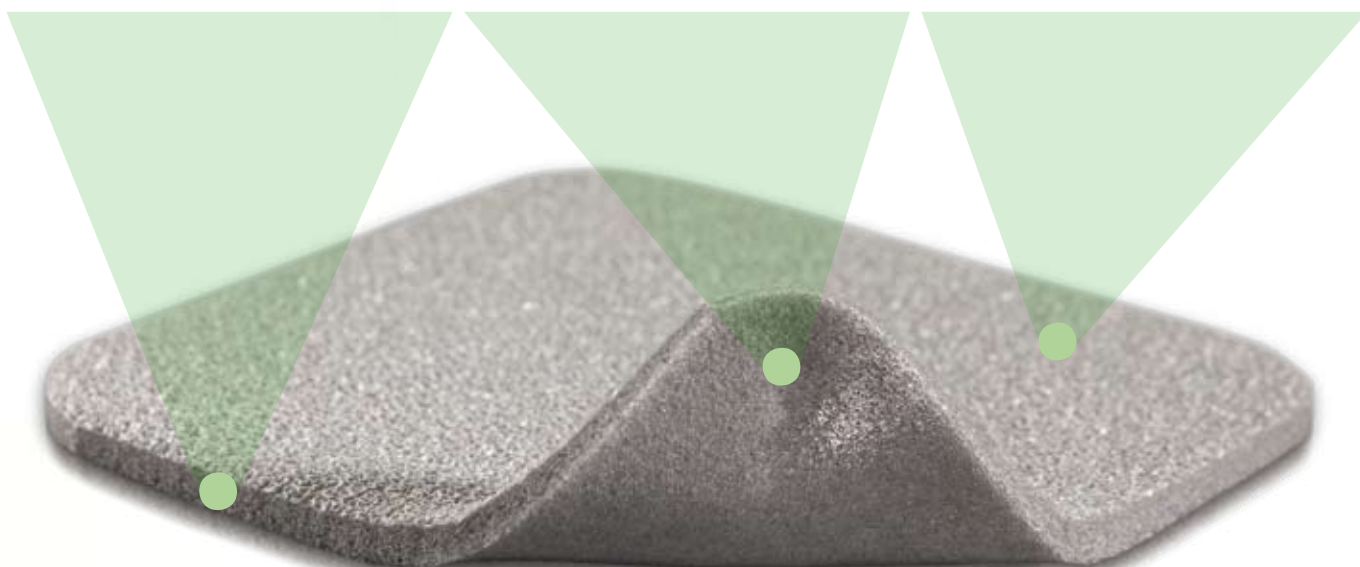
- inactivates wound pathogens within 30 minutes<sup>1</sup>
- inactivates wound pathogens up to 7 days<sup>1</sup>
- inactivates a broad range of pathogens, including MRSA<sup>1</sup>



## Exudate management and other benefits

Mepilex Ag features many more important benefits:

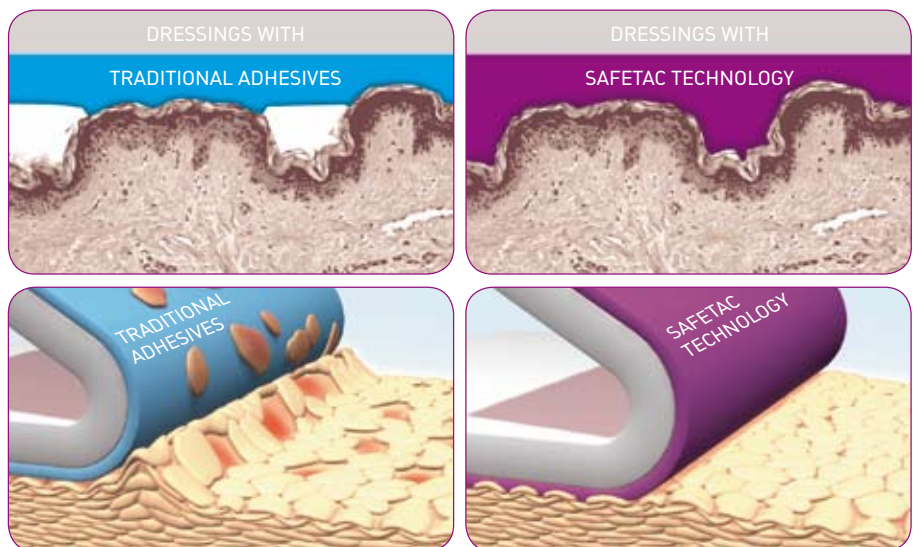
- excellent conformability for better patient comfort and dressing fit
- good exudate management properties
- can be cut to suit various wound sizes and difficult-to-dress areas



# Mepilex® Ag with Safetac® technology

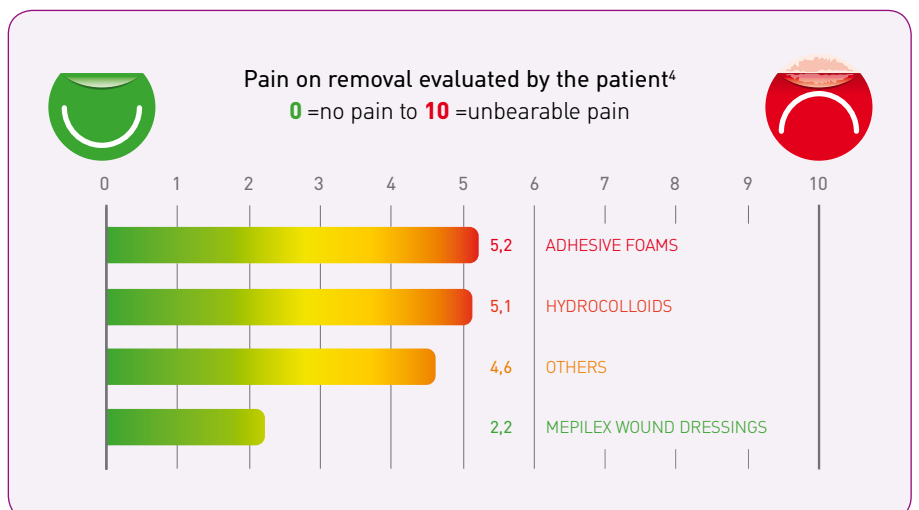
Mepilex Ag features Safetac, a patented adhesive technology that is less painful for the patient at removal and less traumatic to the wound. Safetac technology causes less pain because it:

- tacks gently to dry surfaces, like skin, but not to moist surfaces, such as open wounds<sup>2</sup>
- moulds to the skin's pores, covering more skin surface and spreading peel forces on removal to prevent skin stripping<sup>3</sup>



## 9 out of 10 patients prefer dressings with Safetac<sup>4</sup>

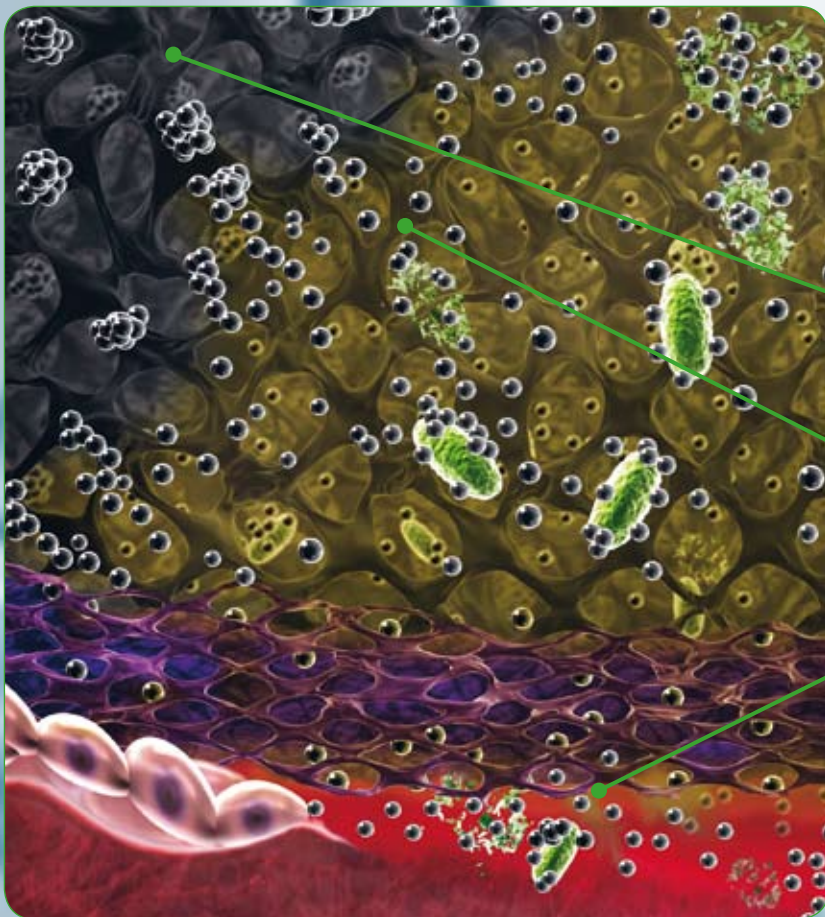
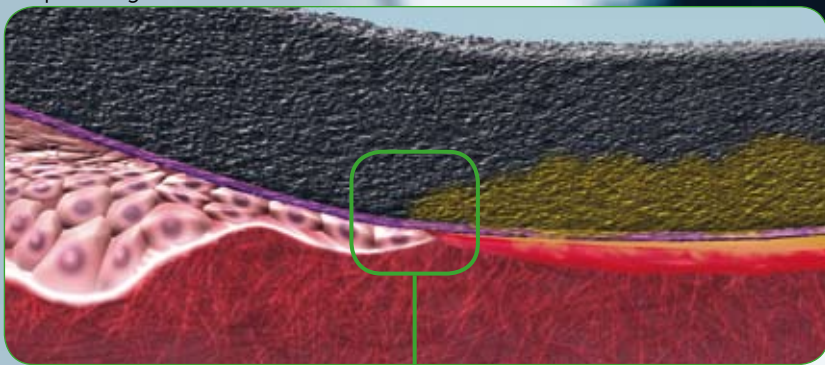
In a peer-reviewed study of 3034 patients from 20 countries with a variety of wound types, the results showed an overwhelming, statistically significant preference for dressings with Safetac technology.



n = 3034 p = 0,01

# How Mepilex<sup>®</sup> Ag works

Mepilex Ag



In dry condition the silver particles are inactive.

When fluid is absorbed into the dressing it comes in contact with the silver sulphate and silver ions are released into the fluid.

Silver ions in the fluid will strive to equilibrium. Due to this the silver ions will also be released to the wound, resulting in antimicrobial effect where it's needed the most.

# Mepilex® Ag in action:

**Broad spectrum effect**  
Mepilex Ag acts as a barrier against microbial contamination and inactivates a wide range pathogens, including MRSA.<sup>1</sup>

*Chronic wounds are commonly colonised by a quantity of microbial species, with S. aureus and P. aeruginosa as the most frequently isolated.*<sup>5</sup>

*Antimicrobial therapy for mixed infections may require antimicrobial agents that are effective against all bacterial components of the infection, and it is recommended to use silver dressings that are effective against both Gram-positive and Gram-negative bacteria.*<sup>6</sup>

## Rapid effect

Due to the high solubility of the silver in Mepilex Ag, the dressing starts inactivating bacteria already within 30 minutes.<sup>1</sup>

*A rapid effect is clinically important, since bacteria can adapt physically to an antimicrobial agent, which in turn may result in resistance to the agent.*<sup>6</sup>

## Sustained effect

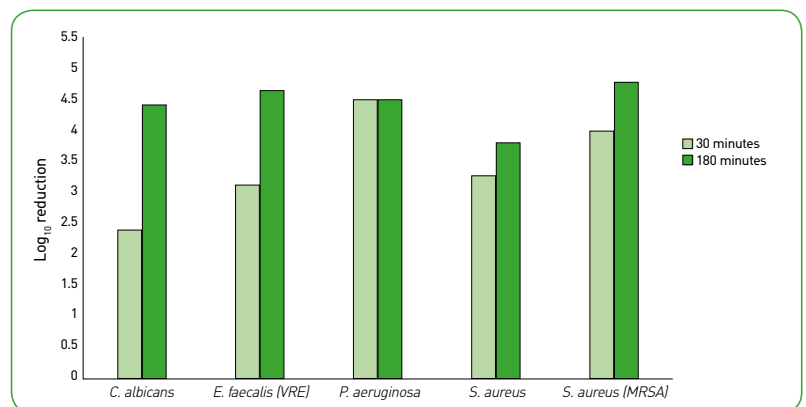
In addition to the rapid effect, Mepilex Ag also maintains a sustained antimicrobial effect for 7 days.<sup>1</sup>

*To minimize the risk of that bacteria can develop resistance to silver, it is important that the antimicrobial effect is maintained at a high level over time of usage.*

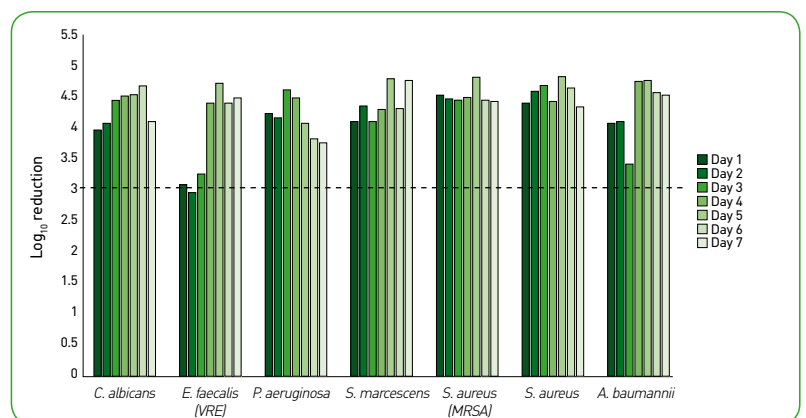
*Also, sustained effect makes it possible to avoid too frequent dressing changes, which can disturb the wound healing process.*

Test organisms	
<i>Acinetobacter baumannii</i>	ATCC 19606
<i>Aeromonas hydrophilia</i>	ATCC 7966
<i>Bacillus cereus</i>	ATCC 14579
<i>Enterobacter cloacae</i>	ATCC 13047
<i>Enterococcus faecalis</i>	ATCC 19433
<i>Enterococcus faecium</i>	ATCC 19434
<i>Enterococcus faecalis VRE</i>	CCUG 34289
<i>Enterococcus faecium VRE</i>	CCUG 36804
<i>Klebsiella pneumonia</i>	ATCC 13883
<i>Proteus vulgaris</i>	ATCC 29905
<i>Pseudomonas aeruginosa</i>	ATCC 15442
<i>Pseudomonas aeruginosa multiresistant</i>	CCUG 37385
<i>Salmonella enterica</i>	ATCC 25928
<i>Serratia marcescens</i>	ATCC 13880
<i>Staphylococcus aureus</i>	ATCC 6538
<i>Staphylococcus aureus MRSA</i>	ATCC 43300
<i>Staphylococcus aureus MRSA</i>	CCUG 35571
<i>Candida albicans</i>	ATCC 2091

*Antimicrobial effect of Mepilex Ag against a broad range of microorganisms, including antibiotic-resistant strains and yeast; determined by ASTM E2149-01 method.*

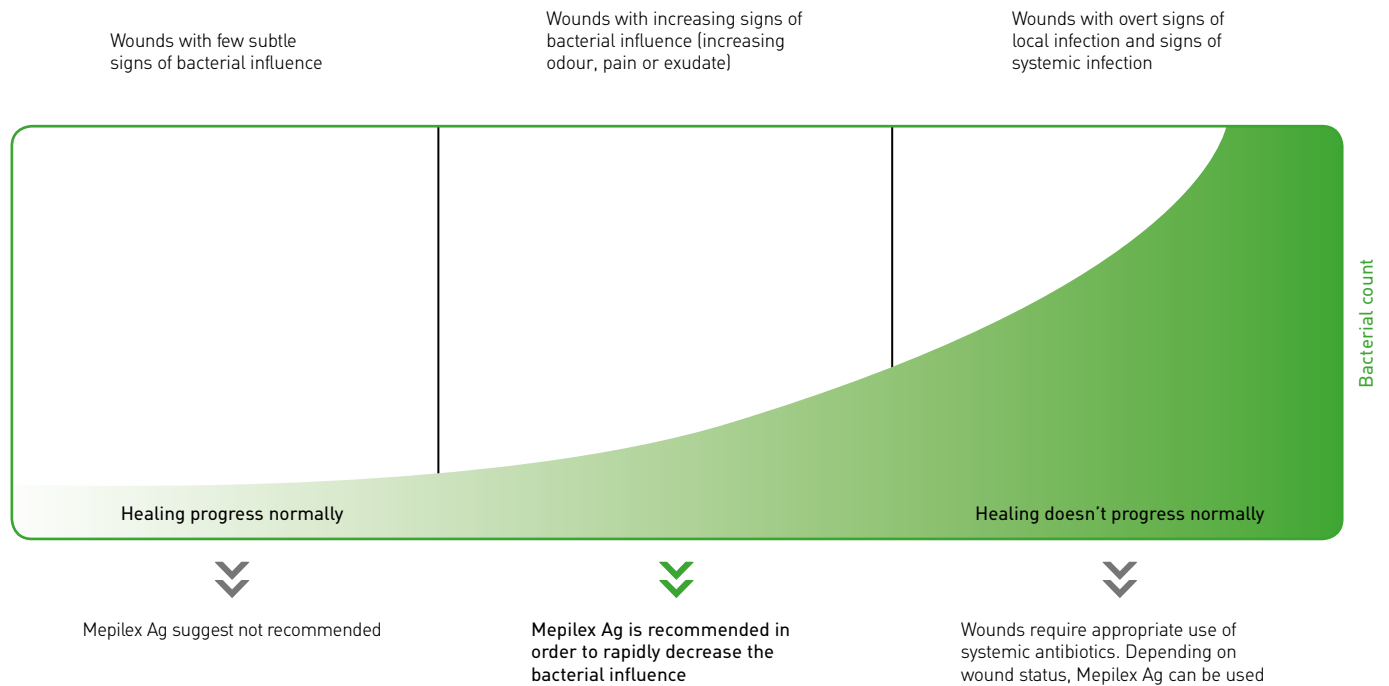


*Rapid antimicrobial effect, shown as log reductions, against five wound pathogens determined using ASTM E2149-01 method.*



*Sustained antimicrobial effect, shown as log reductions every 24 hours, against seven wound pathogens, determined by ASTM E2149-01 method. In order to simulate a real situation, Mepilex Ag was re-challenged every day with new bacteria. The line indicates a 3 log reduction, which is considered as a bactericidal effect.*

# When to use Mepilex® Ag



## Every part of the body deserves a less painful dressing change



Axilla



Back



Foot



Deep partial thickness burns



Sacral pressure ulcer,



Foot ulcer

**Introduction** – This series of case studies evaluates the tolerability, performance and safety of Mepilex Ag in the treatment of chronic venous leg ulcers and diabetic foot ulcers. After treatment with Mepilex Ag all patients experienced significant wound healing, with the presence of healthy granulation tissue and epithelialising

## Case Study 1 – Management of a venous ulcer

By Vindra Swanscott, CHRN-Certified Hyperbaric Registered Nurse

**Introduction** – D.M is 91 years of age with a thirty year history of chronic venous leg ulcers. She had experienced some improvement on occasions with compression bandaging, but still her ulcer kept reoccurring. I felt after caring for D.M this was due to non-compliance.

D.M began researching into other forms of treatment and obtained information on the web regarding Hyperbaric Oxygen. She was subsequently referred to the London Hyperbaric Medicine Unit in April 2008 was invited for a comprehensive assessment on the 8.4.08 with both the medical team and nursing staff.

**Initial Assessment 08/04/08** - Ulcer measurement: Area: 5.7 cm x 4.2 cm  
Depth: 0.5cm

The wound bed was sloughy and malodorous with a high level of exudate. The surrounding skin appeared dry and flakey.

A wound swab was taken due to clinical signs observed and the patients level of pain recorded. It was scored on a visual analogue scale as 6.

The dressing selected at this initial assessment was a non-bordered foam as the primary dressing under her two layer compression bandage.

**2nd visit 17/04/08** - On examination the wound remained sloughy and malodorous with evidence of maceration at the peri-wound.

The patients pain score was 8 on visual analogue scale but she was reluctant to change from her prescribed analgesia- Paracetamol, the pain was worse mainly because she was not tolerating the compression very well, but she understood that it was needed to improve the condition of her ulceration.

The swab results had identified Staphylococcus Aureus and Streptococcus B. The patient commenced on the appropriate antibiotics. The dressing regime was changed to an anti-microbial dressing- Mepilex® Ag 10 x 10 following the swab results. DM remained in two layer compression and commented on the new dressing regime which felt less bulky.

**5th visit 12/05/08** - The wound now showed signs of granulation tissue and now measured 3.7 cm x 3.1cm and exudate was minimal. The condition of the peri -wound skin had improved greatly. When asked DM did not report any pain. The dressing regime was now changed to Mepilex as DM no longer required an anti-microbial dressing.

**7th visit 20/05/08** - Wound bed continued to show significant improvement Dressing was changed to Mepilex® Border and the patient was measured for compression hosiery.

**8th visit 03/06/08** - Mepilex® Border 5cm x 5cm continued to be selected to provide protection in the final stages of healing and protecting the new epithelising tissue.



Wound on initial assessment (08.04.08)



Wound on eighth assessment (03.06.08)

tissue evident. There were no clinical signs of acute infection and offensive odours were effectively controlled. Mepilex Ag successfully maintained a balanced moist wound environment and wound exudate was effectively absorbed.

## Case Study 2 – The Examination of Antimicrobial Soft Silicone Foam Dressing with Regards to Partial Thickness Burns

by Dr. Herbert Meites MD, Dr. Mason Jett MD, Dr. Stephen Gauthier MD, Kenna Wilson RN MSN, Paul Silverstein Burn Center Oklahoma City, OK

**Introduction** – Examination of the burn wound has been an integral aspect of treatment, since this allows for wound progression to be monitored. This is hindered by treatments that either leaves a residue, or becomes adherent which prevents inspection of the wound.

Mepilex® Ag, manufactured by Mölnlycke Health Care, utilizes soft silicone (Safetac® Technology) to provide a dressing that may reduce amount of adherence to the burn wound. The Safetac® Technology is designed to allow the dressing to float over open moist tissue, while remaining attached to intact tissue.

**Method** – The Mepilex® Ag will be placed on partial thickness injuries less than 72 hours post burn. The patient will also be asked daily to demonstrate and perform a range of motion exercises. The Mepilex Ag, will be removed at day 6 to 7 for wound evaluation and to determine if tearing of the new epithelium occurs. Digital images will be obtained for visual documentation.

**Results** – A total of 18 patients were evaluated with a mean TBSA of 7.28 with a range from 1% to 18%. Of the 18 patients, 11 had involvement of at least one joint and all patients demonstrated the ability to perform range of motion exercises throughout the course of treatment. One patient had burns that required grafting.

**Conclusion** – The Mepilex® Ag provided antimicrobial protection that left the burn injury with a clean appearance. The Safetac® Technology prevented the Mepilex® Ag from adhering to the wound, thereby, giving the clinician the opportunity to either examine the wound or leave it intact for up to seven days at their discretion. Since the injuries were able to be examined, the physician felt that the Mepilex® Ag did not delay the decision to graft burns requiring surgical intervention.



Case Study 1 - Initial



Case Study 1 - Day 9 Prior to removal



Case Study 1 -Day 15



Case Study 2- Initial



Case Study 2 -Day 6 Range of Motion

## Case Study 3 – A case study to show the use of Mepilex® Ag on a diabetic patient with a neuropathic diabetic foot ulcer

By Kaye McIntyre, Highly Specialist Podiatrist, Acute Podiatry Team Leader, NHS Lanarkshire.

**Introduction** – Diabetic foot problems are a common complication of diabetes, related to impaired circulation/ neuropathy or both. Optimal diabetic control together with best practice wound care is essential to prevent deterioration of the wound.

### Case study of a patient with diabetes

**with an apical ulcer** – Mr A was a 61 year old with relatively well controlled non insulin dependant diabetic of four years. He presented to his GP with a hot swollen cellulitic digit on his left foot. On examination he was found to have developed an ulcer. It was 2cm in width but superficial in depth (Texas classification A1).



First Visit

Mr A was immediately admitted to his local hospital for intravenous antibiotic treatment to settle down the cellulitis. The ulcer was dressed with an anti-microbial dressing during his stay in hospital.

After three days he was discharged as the cellulitis had settled and the wound appeared superficial with a clean and healthy base. Mr A was given a course of oral antibiotics and was to be reviewed in the foot clinic two days later.

In the clinic Mepilex Ag was applied to the ulcer as a prophylactic measure and to act as an adjunct to the oral antibiotics course. This also ensured adequate anti-microbial cover when the oral course was completed.

When the wound was reviewed in the clinic 14 days later there was a significant improvement in the wound. The peri-wound was healthy with no signs of maceration and the wound had reduced by approximately 3mm length and width. The treatment regime remained the same with Mepilex Ag applied for the next two weeks changing the dressing weekly.

Mepilex® Ag provided an appropriate dressing for this patient the Safetac® soft silicone technology allowed easy application. The dressing was flexible fitting to the contours of the digit and therefore was extremely comfortable for the patient. It managed the exudate well, protecting the peri-wound area and optimised the healing environment.



Final

## Case Study 4 – Management of a large haematoma with a new silver impregnated foam dressing

By Jeanette Timmins, Tissue Viability Nurse, Lothian University Hospitals Division, Edinburgh.

**Introduction** – Mrs J is a 71 year old obese lady who was admitted to hospital with several medical health issues. These included chronic obstructive airways disease, heart failure and bilateral oedema. All of these contributed to her lack of mobility. Mrs J had also developed anaemia and a deep venous thrombosis in her left leg. On admission, anticoagulant therapy was commenced. As a result of this therapy, the patient developed thrombocytopenia. The main effect of this reduced platelet count is an increased risk of bleeding. This resulted in the formation of a large haematoma on Mrs J's left calf from an unknown trauma.



First Visit

**AIM** – To reduce bleeding, exudate levels and bacteria from a large medicine induced haematoma.

**Method** – Initial treatment was to commence topical negative pressure therapy (TNP) to evacuate the haematoma. After three days, a clean bed was evident but the wound was still exuding large amounts.

Following the wound swab results, it was decided to change the treatment regime.

Primarily, the dressing selected consisted of a silver impregnated alginate which was applied to reduce the bacterial load, in conjunction with a secondary foam, for four weeks. Due to the excess exudate, the dressing was requiring twice daily changing. Also, Mrs J was experiencing pain on removal and the wound was bleeding at dressing change.

Due to this management problem, the dressing selection was changed to new anti-microbial soft silicone foam dressing: Mepilex® Ag. This is a unique antimicrobial foam dressing that combines silver with Safetac® technology.

**Result** – Within twenty-four hours, the bleeding had stopped and the exudate levels had decreased greatly. Due to fluid handling capabilities, the dressing now only required renewal every third day.

**Conclusion** – The initial silver dressing had no effect on exudate levels or the excessive bleeding. Mepilex® Ag dressing had relieved the management problems within twenty-four hours. It also proved to be very cost-effective as no secondary dressing was necessary; and the dressing only required changing every third day. This resulted in less nursing time and had a positive impact on the patient.



10th January 2008

## Mepilex® Ag ASSORTMENT

Art. no	Size cm	Pieces per inner	PIP Code	NHS Code
287110	10 x 10	5	331-4986	ELA339
287210	10 x 20	5	331-5009	ELA340
287310	15 x 15	5	331-5025	ELA341
287410	20 x 20	5	331-5033	ELA342

Sterile packed



### References:

1. Taherinejad and Hamberg. Antimicrobial effect of a silver-containing foam dressing on a broad range of common wound pathogens. Poster publication. World Union Congress, Toronto, Canada 2008.
2. White R. Evidence for atraumatic soft silicone wound dressing use. *Wounds UK* 2005; 1 (3): 104-109.
3. Dykes PJ et al. Effects of adhesives on the stratum corneum of the skin. *Journal of Wound Care* 2001; 10: 7-10
4. White R., A Multinational survey of the assessment of pain when removing dressings. *Wounds UK* 2008; Vol 4, No 1
5. Bowler, P.G., Duerden, B.I. & Armstrong, D.G. Wound microbiology and associated approaches to wound management. *Clinical and Microbiological reviews* 14, 244-269 (2001).
6. Chopra, I. The increasing use of silver-based products as antimicrobial agents: a useful development or a cause of concern? *Journal of Antimicrobial Chemotherapy* 59, 587-590 (2007).



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