**UNDERSTANDING THE MODE OF ACTION**

**IODOSORB**

- IODOSORB supports good wound bed preparation within the T.I.M.E.® continuum by its dual action antimicrobial and absorptive desloughing properties. 15, 23
- IODOSORB combines high absorptive properties 13, 14 with a sustained antimicrobial iodine (0.9%) release. 33, 34 Cadexomer iodine beads absorb exudate, debris and bacteria and as the beads swell, iodine is released, providing antimicrobial activity for up to 72 hours. 35
- The beads dehydrate and physically address the mature biofilm matrix (in vitro) and the bacteria are subsequently killed by the iodine. 36
- IODOSORB reduces microbial load 42, 15, biolimf, MMPs 36, odema, odour 42 and pain. 37, 38, 39

**PICO therapy**

- PICO is a single-use NPWT device that helps promote wound healing in low to moderate exuding wounds.
- The PICO dressing with AIRLOCK® technology is a four-layer dressing that enables negative pressure is delivered to the wound bed and exudate is removed through absorption and evaporation. 21

**NPWT mode of actions**

- Helps to reduce oedema 34, 35, 36
- Helps improve perfusion 16, 37, stimulating blood flow
- Stimulates new granulation tissue formation 28, 29, 30
- Supports macro-deformation facilitating wound contraction 13, 30

**Benefits of NPWT**

- Encourages an optimal healing environment 24, 25
- Reduction in wound area or ‘wound contraction’ 19
- Heals chronic wounds 6 times faster 10
- The portable PICO system can be used in hospital and community settings, offering simplicity of use, affordability, reduced readmission and decreased hospital length of stay. 20

*Based on 5 of 9 wounds responding; wound mean duration prior to study 44 weeks; study size n=9.*

**References**

7. Schulte G, Yang Q. Poster presented at 6th Congress of WUWHS, 25-29 Sept 2016; Florence, Italy
8. Oakes J et al. Poster presented at 28th Anniversary, SAWC 2016, Atlanta, GA, USA

**Wound healed (2 months and 1 week after start of treatment) before application of IODOSORB and before use of sNPWT with PICO therapy**

**Wound healed (4 months and 1 week after start of treatment)**

**Quik Guide**

**IODOSORB®**

for wound bed preparation before using PICO® system in hard-to-heal wounds

**Patient A, 72 years old**

Before treatment

After application of IODOSORB and before the use of sNPWT with PICO therapy

**Patient B, 70 years old**

During application of IODOSORB (up to 6 dressing changes)

**CASE STUDY IMAGES**

Before treatment

Wound healed (2 months and 1 week after start of treatment)
Objectives
The clinician evaluated the use of IODOSORB (cadexomer iodine) to lower bacterial burden and biofilm in various infected chronic wounds before using the PICO single-use negative pressure wound therapy (sNPWT) system.

Method
Case studies consisting of five patients aged 58 to 72 years with chronic wounds were conducted in 2016 in Catania, Italy. Three patients had diabetic foot lesions and two had vascular injuries. Biopsies were taken for all lesions and tested positive for bacterial infection of various species. The wound was surgically debrided and then IODOSORB powder was applied to manage bioburden. sNPWT with PICO was then applied for five weeks to assist with wound healing. Thereafter, a gelling fibre dressing and hydrocellular polyurethane foam was applied until the lesion had healed.

Conclusion
The clinician of the case studies concluded that the treatment of infected chronic wounds with IODOSORB reduced the time to manage the infection and, followed by sNPWT with PICO, increased the speed of wound healing.

Steps taken by the clinician
Chronic wound with signs of infection/biofilm
- Debride
- Apply IODOSORB to kill biofilm and an appropriate secondary dressing
- Removal of bioburden
- PICO sNPWT therapy used to accelerate granulation
- After-care (e.g. appropriate dressing) until wound has healed

Rationale for management
Biofilms are dynamic, heterogeneous bacterial communities that are difficult to eradicate. They are difficult to diagnose and treat and have been linked to delayed healing in chronic wounds. Biopsies could be taken on the wound to identify bacterial species. The clinical signs of biofilm include low level inflammation, slow-healing wound, slough and moderate or no improvement with multiple rounds of oral antibiotics and recurrent infection. Most chronic non-healing wounds have biofilm present.

Sharp debridement of the wound helps remove necrotic, devitalised tissue and planktonic or sessile microorganisms, reducing the biofilm burden. Debridement is one of the most important treatment strategies against biofilm, but it does not remove all biofilm. Therefore an effective antimicrobial should be used after debridement.

The use of an effective anti-biofilm treatment, such as IODOSORB, can help promote autolytic debridement and effective wound bed preparation. The action of IODOSORB against biofilm has been proven across multiple challenging models (including independent research), showing a increased efficacy compared to silver-based antimicrobials.

PICO therapy was selected to ‘kick-start’ the healing process of the slow-healing wounds. The benefits of NPWT include rapid wound contraction, removal of sloughy material, appearance of granulation tissue and overall reduction in wound volume. It reduces the number of dressing changes, due to its ability to manage exudate.