### WoundEvidence

# Single paper review Schultz et al. (2017)<sup>1</sup>



78% of chronic non-healing wounds contain a biofilm.<sup>2</sup> Recommendations to assist clinicians realise a paradigm shift in treatment of wound biofilms using a multifaceted step down approach to chronic wound treatment

10 key recommendations and 61 statements from a global expert panel comprising clinicians and academic specialists, covering basic understanding, diagnosis and treatment guidance to tackle biofilms in wounds and reduce the impact on delayed healing



#### **Evidence**

- Evidence review and expert opinion
- Delphi based consensus scoring used to minimise bias and provide quantifiable responses
- Aim: Bridging the gap between scientific understanding and clinical practice addressing core issues in wound biofilm understanding, diagnosis and treatment variables



#### Understanding wound biofilms

- 78% chronic wounds contain a biofilm
- · Increasing evidence that biofilm can delay wound healing
- Biofilm is tolerant to immune response and antimicrobials
- · Ineffective biofilm treatment leads to decreased quality of life and increased burden on healthcare resources



#### Wound biofilm diagnosis

- Heterogeneous distribution across the wound surface and in deeper tissues
- · Biofilm is present on the surface of the wound as well as in deeper tissues not just slough
- Clinical indicators are helpful in the diagnose of biofilm's presence. These include antimicrobial treatment failure, increased exudate production, recurrent infection and low level chronic inflammation



#### Wound biofilm treatment

- Effective biofilm treatment is challenging due to antimicrobial tolerance and immune evasion
- · Clinicians must treat biofilm infection differently to normal infections
- Key criteria to determine the most effective anti-biofilm treatments in vitro presented
- · Multifaceted step down approach using debridement and antimicrobials is effective against biofilms

## S.M.A.\* COMMENTS:

First consensus in wound biofilms to bring together both scientific and clinical expertise and recommendations in a peer reviewed and highly respected journal (Wound Repair Regeneration)

Authors:	Gregory Schultz, Thomas Bjarnsholt, Garth A. James, David J. Leaper, Andrew J. McBain, Matthew Malone, Paul Stoodley, Terry Swanson, Masahiro Tachi, Randall D. Wolcott, for the Global Wound Biofilm Expert Panel
Title:	Consensus guidelines for the identification and treatment of biofilms in chronic non-healing wounds
Aim of the study:	To provide clarity on wound biofilms through evidence and opinion based recommendations and guidance on diagnosis and treatment
Study Type:	Evidence based Delphi consensus
Wound Type:	Chronic non-healing wounds
Speciality/Indication:	N/A
Products:	None covered (generic) linked to IODOSORB
Number of patients	N/A
Reference:	Schultz, G. et al. Consensus guidelines for the identification and treatment of biofilms in chronic non-healing wounds. Wound Repair Regen. Submitted, (2017)
Details:	Peer reviewed journal   PubMed listed   Impact factor 2.628

<sup>1.</sup> Schultz, G. et al. Consensus guidelines for the identification and treatment of biofilms in chronic non-healing wounds. Wound Repair Regen. Submitted, (2017); 2. Malone, M. et al. The prevalence of biofilms in chronic wounds: a systematic review and meta-analysis of published data. J. Wound Care 26, 20–25 (2017).

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