

Biofilm Based Wound Care (BBWC) NON HEALING WOUND



1. Cleanse and physically debride the wound and periwound area using UCS

2. Apply an antimicrobial dressing
Repeat 3 x weekly

Re-evaluate wound progress at least every 2 weeks

Wound improvement

Standard wound care treatment

Reduced wound improvement
Reassess patient holistically
Consider barriers to healing

Continue BBWC for another 2 weeks

Review 4 weeks

Wound improvement.
Standard wound care treatment

Lack of wound progress.
Continue BBWC plan & Refer to TVN

Wound improvement includes:

- Wound size reduction
- Wound bed improvement
- Reduced malodour
- Reduced levels of exudate
- Reduced pain

If signs of wound infection, follow local policy guidance.

Biofilm Based Wound Care Myth Busters

What is a biofilm?

Biofilm is a build-up of bacteria clinging to a surface, which can prove difficult to remove. If left unchecked, biofilm can encourage deterioration of the surface they are attached to (often the wound bed/wound edge) (Percival, et al, 2019; IWII, 2016).

Do I still need to cleanse the wound if it looks clean?

Biofilms consist of microscopic bacteria/microbes which are not visible to the naked eye. Commencing a regime such as cleansing and regular debridement, disrupts a biofilm. (IWII, 2016; Murphy, et al, 2020). Only a clean wound can go onto heal.

Why is water not as effective as a surfactant in wound cleansing?

Water or saline is not effective at removing a biofilm (Percival, et al 2019; IWII,2016).

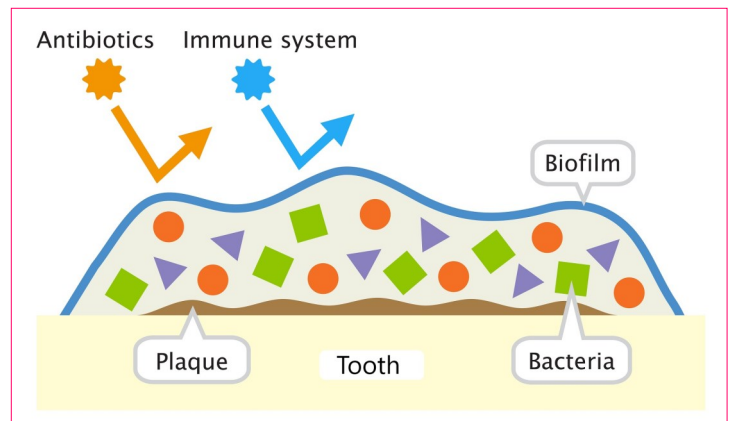
Surfactants are surface- acting agents and stir up activity on the surface being cleansed. The UCS cloth has unique loop technology to capture and disrupt the biofilm within the wound bed, rather than redistributing the bacteria to another part of wound bed. (Gillies, 2016; Edmunds 2018).



What is wound physical debridement?

Biofilm in wounds act like dental plaque – they can cause problems if left unattended and are a major cause in delayed wound healing. Dental plaque is a well-known form of biofilm, which requires removal by use of regular debridement (brushing with toothbrush) with a cleaning agent (toothpaste). The toothpaste leaves a film that delays reformation of the bacteria.

Use an “Biofilm based wound care” strategy to reduce wound biofilms and improve healing (Murphy, et al, 2020). Utilise UCS (unique cleaning system), to effectively polish away the wound biofilm.



How often should I be redressing the wound if it has a biofilm?

Biofilms will reform within 24 hours (Wolcott et al, 2010), so repeated debridement (maintenance) is needed until the wound goes onto heal.

References:

- Edmunds B (2018) Wound debridement in the community. J Community Nurs 32(4): S10–S15
- Gillies A (2016) Effective debridement can be achieved in a busy clinic environment. J General Practice Nurs 2(2): 54–5
- International Wound Infection Institute (IWII) Wound infection in clinical practice. Wounds International 2016
- Murphy C, Atkin L, Swanson T, Tachi M, Tan YK, Vega de Ceniga M, Weir D, Wolcott R. International consensus document. Defying hard-to-heal wounds with an early antibiofilm intervention strategy: wound hygiene. J Wound Care 2020; 29(Suppl 3b):S1–28.
- Percival SL, Mayer D, Kirsner RS, et al (2019) Surfactants and their role in biofilm management and cellular behaviour. Int Wound J 16: 753–60
- Wolcott RD, Rhoads DD, Bennett ME, Wolcott BM, Gogokhia L, Costerton JW, Dowd SE (2010) Chronic wounds and the medical biofilm paradigm. J Wound Care 19(2): 45–6, 48–50, 52–3