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

Table 12: Clinical evidence for topical antiseptics in complete wound healing[¥]	
Preparation	**Evidence from reviews and randomised and/or controlled trials**
Alginogel	*Low/critically low certainty evidence* • No difference in complete healing rate for burns versus silver sulfadiazine dressing.[1]
Cadexomer iodine	*Low/critically low certainty evidence* • Higher complete healing rates for pressure injuries,[2] venous leg ulcers[3] and in chronic wounds[4] versus standard care. • Higher complete healing at 12 weeks with 0.9% cadexomer iodine in both gel and powder forms versus standard care.[5]
DACC	*Low/critically low certainty evidence* • Higher complete health rates at 75 days for pilonidal sinus vs. alginate dressing.[6]
Honey	*Moderate certainty evidence* • Higher rates of complete healing for surgical wounds vs. EUSOL.[7] *Low/critically low certainty evidence* • Higher complete healing rates for superficial burns vs silver sulfadiazine.[8] • Higher complete healing rates for burns vs. topical antibiotics.[9] and vs. silver sulfadiazine.[10] • Higher complete healing rates for VLUs vs. alternative dressings.[3] • Higher complete healing ates for minor wounds vs. standard care.[10]
OCT	*Low/critically low certainty evidence* • Similar complete healing rates for chronic leg ulcers with OCT versus Ringer's solution.[11] • Complete healing was significant for partial thickness burns with OCT gel, with similar rates to herbal gel.[12]
PHMB	*Low/critically low certainty evidence* • Higher rates of chronic wound healing with a PHMB dressing versus a silver dressing.[13, 14]
Povidone iodine	*Moderate certainty evidence* • Inferior complete healing rates for pressure injuries versus protease modulating dressing.[2] *Low/critically low certainty evidence* • Conflicting findings for complete healing versus non-antimicrobial dressings with no difference shown for chronic ulcers[15] or donor-sites,[16] but faster healing shown for diabetic foot ulcers (DFUs).[16] • Reduction in time to complete healing in burns.[9]
SOS	*Moderate certainty evidence* Improved healing for chronic wounds with no difference in healing outcomes for SOS versus tetrachlorodecaoxide.[17] *Low/critically low certainty evidence* • Higher rates of chronic wound healing for SOS versus povidone iodine.[18-20] • Faster complete healing of burns for sodium hypochlorite vs silver sulfadiazine.[9]

Table 12: Clinical evidence for topical antiseptics in complete wound healing[¥]	
Preparation	**Evidence from reviews and randomised and/or controlled trials**
Silver	*Moderate certainty evidence* • Higher rates of healing for venous leg ulcers (VLUs)[21] and for burns[9] with silver dressings versus non-antimicrobial dressings. *Low/critically low certainty evidence* • No difference in healing rates for burns between nanocrystalline silver dressing versus any other silver-impregnated dressings.[22] • Higher rates of healing for chronic wounds[23] and for VLUs[21] with silver dressings versus antimicrobial dressings. • Higher rates of healing for pressure injuries with silver sulfadiazine versus povidone iodine.[2] • Higher rates of healing for DFUs with nanocrystalline silver dressing vs. honey or nonactive dressing.[24] • Lower or similar rates of healing for burns with silver sulfadiazine versus a range of other comparators.[25, 26]

¥ reported as complete wound closure within 8-12 weeks

Table 13: Clinical evidence for topical antiseptics in preventing/reducing microbial burden[∞]	
Preparation	**Evidence from reviews and randomised and/or controlled trials**
Alginogel	*Low/critically low certainty evidence* • No difference in colonisation rates for burns versus silver sulfadiazine dressing.[1]
DACC	*Low/critically low certainty evidence* • Significant greater reduction in bacterial load for VLUs vs. non-binding silver dressing.[27]
Honey	*Low/critically low certainty evidence* • Faster bacterial clearance in DFUs vs. iodine dressing.[28] • Reduction in microbial burden for VLUs vs. alternative dressings.[3]
PHMB	*Low/critically low certainty evidence* • Fewer surgical site infections (laparoscopic surgery) with PHMB dressing versus basic contact dressing.[29] • Reduction in microbial burden in chronic wounds with PHMB gel versus standard care.[30] • Reduction in polymicrobial counts and MRSA for chronic wounds with PHMB dressings[31] and PHMB irrigation.[32] • Reduction in polymicrobial counts for burns with PHMB gel versus silver sulfadiazine.[33] • Greater reduction in chronic wound critical bacterial load over 28 days with a PHMB dressing versus a silver dressing.[13, 14] • Reduction in polymicrobial counts for acute wounds with PHMB versus Ringer's solution.[34]
Povidone iodine	*Low/critically low certainty evidence* • No difference in infection rates in traumatic wounds irrigated with povidone iodine versus normal saline.[35]
SOS	*Low/critically low certainty evidence* • Reduction in bacterial counts in chronic wounds with HOCl-based cleanser, with superior performance versus saline.[36] • Reduction in microbial burden in chronic wounds for a range of hypochlorite and hypochlorous solutions, equivalent performance compared with other antimicrobial solutions.[32]
Silver	*Low/critically low certainty evidence* • Lower rates of infection in DFUs with 1.2% ionic silver versus calcium alginate dressing.[37] • Superior reduction in bacterial load in burns for nanocrystalline silver versus silver sulfadiazine or silver nitrate.[38] • Superior reduction in bacterial load in chronic wounds for silver dressings versus antimicrobial products.[23]

∞ reported as laboratory confirmed of absence of/reduction in critical levels of microorganisms

Table 14: Clinical evidence for topical antiseptics in reducing wound biofilm€	
Preparation	**Evidence from reviews and randomised and/or controlled trials**
PHMB	*Low/critically low certainty evidence* • Limited impact on biofilm in VLUs for PHMB-surfactant versus saline cleanse.[39]
Cadexomer iodine	*Low/critically low certainty evidence* • Significant reduction in biofilm at 2-6 weeks observed in DFUs.[40]

€ reported as laboratory confirmed of absence of/reduction in wound biofilm

Table 15: Clinical evidence for topical antiseptics in reducing signs/symptoms of local wound infection	
Preparation	**Evidence from reviews and randomised and/or controlled trials**
Cadexomer iodine	*Low/critically low certainty evidence* • Reduction in pus and debris and reduction in pain in chronic wounds at 6-8 weeks vs. standard care.[4]
DACC	*Low/critically low certainty evidence* • Lower rate of signs/symptoms of local wound infection in surgical sites vs. non-antimicrobial dressings.[41-45]
Honey	*Low/critically low certainty evidence* • Reduction in wound inflammation observed in burns treated with honey.[9]
OCT	*Low/critically low certainty evidence* • Superior management of pain in burns for OCT gel vs. a silver sulfadiazine cream.[46] • Superior management of pain in VLUs vs. Ringer's solution.[47, 48]
PHMB	*Low/critically low certainty evidence* • Inconclusive findings on VLU pain reduction for PHMB vs. saline cleansing.[49, 50] • Reduction in pain in chronic wounds with PHMB gel vs. standard care.[30] • Reduction in wound pain for PHMB dressings.[31]
SOS	*Low/critically low certainty evidence* • Reduction in peri-wound cellulitis superior for SOS versus povidone iodine.[18, 19, 37]
Silver	*Moderate certainty evidence* • Improved exudate, odour and pain management in chronic wounds for silver-releasing dressing versus comparators.[51]

Table 16: Clinical evidence for topical antiseptics in improving tissue type	
Preparation	**Evidence from reviews and randomised and/or controlled trials**
PHMB	*Low/critically low certainty evidence* • Improvement in tissue type for chronic wounds with PHMB gel versus standard care.[30] • Mixed findings on efficacy for PHMB dressings in achieving improvements in tissue type indicative of healing.[31] • Improved BWAT score for VLUs with PHMB solution versus saline.[52]
SOS	*Low/critically low certainty evidence* • Improved BWAT score in chronic wounds treated with SOS, with no difference compared with ionic silver solution.[53] • Similar rate of skin graft take at 14 days for SOS (HOCl) versus 5% Sulfamylon solution.[54]
Silver	*Low/critically low certainty evidence* • Improved BWAT score over time in chronic wounds treated with ionic silver solution, with no difference compared with SOS.[53] • Faster improvement in wound tissue type in DFUs with silver ion dressing versus routine care.[37]

Table 12-16 References

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