



ABSTRACT

Principles of wound management, including debridement, wound bed preparation and newer technologies involving alteration of wound physiology to facilitate healing, are of utmost importance when attempting to heal a chronic diabetes-related foot ulcer. However, the rising incidence and costs of diabetes-related foot ulcer management necessitates that interventions to enhance wound healing of chronic diabetes-related foot ulcers are supported by high quality evidence of efficacy and cost effectiveness, when used in conjunction with established aspects of gold-standard multidisciplinary care. This is the 2023 International Working Group on the Diabetic Foot (IWGDF) evidence-based guideline on wound healing interventions to promote healing of foot ulcers in persons with diabetes. It serves as an update of the 2019 IWGDF guideline.

We followed the GRADE approach by devising clinical questions and important outcomes in the PICO (Patient-Intervention-Control-Outcome) format, undertaking a systematic review, developing summary of judgements tables and writing recommendations and rationale for each question. Each recommendation is based on the evidence found in the systematic review and, using the GRADE summary of judgement items including desirable and undesirable effects, certainty of evidence, patient values, resources required, cost effectiveness, equity, feasibility and acceptability, we formulated recommendations which were agreed by the authors and reviewed by independent experts and stakeholders.

From the results of the systematic review and evidence-to-decision making process we were able to make 29 separate recommendations. We made a number of conditional supportive recommendations for the use of interventions to improve healing of foot ulcers in people with diabetes. These include the use of sucrose octasulfate dressings, the use of negative pressure wound therapies for post-operative wounds, the use of placental derived products, the use of the autologous leucocyte/platelet/fibrin patch, the use of topical oxygen therapy, and the use of hyperbaric oxygen, although in all cases it was stressed that these should be used where best standard of care was not able to heal the wound alone and where resources were available for the interventions.

These wound healing recommendations should support improved outcomes for people with diabetes and ulcers of the foot, and we hope that widescale implementation will follow. However, although the certainty of much of the evidence on which to base the recommendations is improving, it remains poor overall and we encourage, not more, but better quality trials including those with a health economic analysis, into this area.