Skin grafting and tissue replacement effective for diabetic foot ulcers

Clinical Question
How effective are skin grafting and tissue replacement for treating foot ulcers in people with diabetes?

Bottom Line
Skin grafts and tissue replacements, used in conjunction with standard care, increased the healing rate of foot ulcers and led to slightly fewer amputations in people with diabetes compared with standard care. Evidence of long-term effectiveness was lacking and cost-effectiveness was uncertain. There was not enough evidence to be able to recommend a specific type of skin graft or tissue replacement. No differences were found for “ulcer recurrence” and “incidence of infection”. There were no differences in the occurrence of adverse events between the intervention and the control group.

Caveat
For the outcome “incidence of complete closure of the ulcer” quality of evidence was low and for “total incidence of lower limb amputations” quality of evidence was very low. The potential benefits of skin graft and tissue replacements should be weighed against the high costs of these products.

Context
Foot ulceration is a major problem in people with diabetes and is the leading cause of hospitalisation and limb amputations. Skin grafts and tissue replacement can be used to reconstruct skin defects for people with diabetic foot ulcers in addition to providing them with standard care. Skin substitutes can consist of bioengineered or artificial skin, autografts (taken from the patient), allografts (taken from another person) or xenografts (taken from animals).

Cochrane Systematic Review
Santema PB et al. Skin grafting and tissue replacement for treating foot ulcers in people with diabetes. Cochrane Reviews, 2016, Issue 2. Art. No.: CD011255.DOI: 10.1002/14651858. CD011255.pub2. This review contains 17 studies involving 1,655 participants.