

of systemic antimicrobials is not beneficial for VLUs.⁴¹⁸ In terms of topical preparations, there is no evidence to support the efficacy of topical antibiotics. Therefore, the practice of taking routine bacteriological swabs from leg ulcers is not recommended. The pooled estimate from 11 RCTs showed that more VLUs healed when treated with topical cadexomer iodine (an antiseptic) compared with the standard care at four to 12 weeks (RR 2.17, 95% CI 1.30 – 3.60). Systematic reviews have also suggested that silver dressings (with recognised antimicrobial effects) may increase the probability of VLU healing (RR 2.43, 95% CI 1.58 – 3.74),⁴¹⁹ although further studies evaluating time to complete wound healing (rather than healing rate) are needed.⁴²⁰

6.1.4. Mobilisation and physical therapy. The aim of mobilisation and physical therapy in patients with VLUs is to decrease venous hypertension and oedema (see subsection 3.1). This can be achieved through activation of the calf muscle pump by specific exercises of the ankle or by biomechanical stimulation of the calf muscle pump. Although beneficial in principle, studies demonstrating improved VLU healing or reduction of recurrence rate with exercise or specific physical therapy are scarce.

6.1.5. Comorbidities. Patients with VLUs are often elderly and co-existent comorbidities are common.⁴²¹ Ankle stiffness (resulting in calf muscle pump failure) and obesity are common causes of venous hypertension (see subsections 3.1 and 8.2.1, respectively). Optimisation of systemic medical issues should be considered to promote wound healing. The presence of lower extremity atherosclerotic disease is particularly relevant, so a basic assessment of arterial status (continuous wave Doppler, to measure ankle pressure and ABI) should be performed. An ABI > 0.8 may be considered as normal and allows commencement of full compression therapy.⁴²² In patients with diabetes and incompressible arteries, evaluation using arterial DUS or toe pressure may be required to exclude arterial disease. Modified compression may be beneficial in patients with mixed arterial and venous ulceration (see subsection 6.3.3).

Recommendation 67		Unchanged
For patients with active venous leg ulceration without infection, the use of local or systemic antibiotics to improve ulcer healing is not recommended.		
Class	Level	References ToE
III	B	O'Meara et al. (2014) ⁴¹⁸

Recommendation 68		New
For patients with active leg ulceration, objective arterial assessment is recommended.		
Class	Level	References
I	C	Consensus

6.2. Wound care

Chronic wound care should be delivered by appropriately trained specialist nurses or wound care professionals, working as part of a multidisciplinary team. Evaluation of a VLU should include location (gaiter area, malleolar area), ulcer size (depth), amount and type of exudate (mild to severe), appearance of the ulcer bed (irregular in shape), condition of the wound edge (attached, rolled), signs of clinical infection, and changes to the surrounding skin.⁴²³ Wound bed preparation aims to convert the biology of a chronic wound to that of an acute healing wound.

6.2.1. Debridement. Wound debridement describes the removal of necrotic tissue, debris, or foreign bodies from a wound.⁴²⁴ It should be preceded by wound cleansing, defined as the “removal of surface contaminants, bacteria and remnants of previous dressings from the wound surface and its surrounding skin”.⁴²⁵ Methods for wound debridement include:

- surgical/sharp debridement
- mechanical debridement (washing solutions, whirlpool therapy, wet to dry dressings, ultrasound assisted debridement and lavage)
- enzymatic debridement (topical application of enzymes breaks down the tissue attaching necrotic tissue to the wound bed)
- autolytic debridement (application of dressings facilitates development of the body's own enzymes to rid a wound of necrotic tissue)
- biosurgical debridement (sterile larvae).

A Cochrane review identified 10 RCTs involving 715 participants with VLUs and several debridement strategies were studied.⁴²⁶ The authors concluded that there was limited evidence that active debridement of a VLU has a significant impact on healing. However, this conclusion was based on low quality (and quantity) evidence, so larger trials are required.

6.2.2. Dressings and topical agents. A large number of types of wound dressings are in current use for VLUs. A recent Cochrane review and network meta-analysis included 59 RCTs (5 156 participants) and concluded that more research is needed to evaluate whether VLU healing is improved by any particular dressings or topical agents.⁴¹⁹ Similarly, another Cochrane review including 12 studies of protease modulating matrix treatment concluded that the quality of evidence was too low to demonstrate whether ulcer healing or adverse events are influenced by this local treatment.⁴²⁷ Despite this, specific dressings are likely to be useful in management of specific wound characteristics (such as excessive exudate). There is a lack of reliable evidence supporting the use of hyperbaric oxygen therapy to improve VLU healing.⁴²⁸