



Overview: Leg Ulcer Management

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Lower leg ulceration is common, affecting 3-5% of the population over the age of 65 years. Leg ulcers cause considerable physical and psychological distress and inconvenience for those affected. To encourage healing it is important to assess for underlying vascular problems, prepare the wound for optimal healing, treat any contributory co-morbidities and, if relevant, take precautions to prevent recurrence.

Principles of management

Enlisting help. An interdisciplinary approach is invaluable in the early stages, as part of the systematic assessment of the patient to help identify the wound aetiology and factors that may inhibit healing. Both venous and arterial ulcers can have systemic and local factors that impede wound healing – specialist review is particularly beneficial when there is suspected arterial disease or major co-morbidities such as diabetes.

Wound cleansing. Cleansing of leg ulcers should be kept simple; cleansing with warm tap water is usually sufficient with a clean dressing technique aimed at preventing cross infection. Strict asepsis is unnecessary unless the patient or their environment are compromised in ways that constitute an increased risk of infection. No specific dressing has been shown to encourage ulcer

healing; therefore the choice of dressing will be dependent on the outcome of assessment and agreed goal of care.

Wound bed preparation is the process of removing local barriers to facilitate wound healing in chronic wounds such as leg ulcers. The TIME principle provides a systematic approach to assist clinicians (See table 1).

Measuring response. While expert focus on healing the leg ulcer is important, psychological support and symptom management for the client should not be overlooked. As well, changes in symptoms and serial measurements of the surface area of the wound will evaluate healing and the effectiveness of any implemented care.

Compression therapy

Patients with leg ulcers due to arterial insufficiency are not suitable for high

compression therapy due to the risk of further ischaemia.

People with venous ulcers usually have an Ankle/Brachial Pressure Index (ABPI) 0.8 – 1.2 and compression therapy remains the mainstay of treatment for these patients (see Table 2). Reduced levels of compression may be used with patients with leg ulcers of mixed aetiology following specialist vascular review. Ankle brachial pressure readings that do not correlate with the clinical findings warrant further investigation to confirm diagnosis.





Common complications

Stasis dermatitis/eczema, which results from venous insufficiency, can be distressing. Management options include regular debridement of scales, zinc paste bandages, compression therapy, avoidance of known contact sensitivities and topical corticosteroids. Referral to a dermatologist may be helpful for patients with persistent problems not responding to treatment.

Adjunct therapies

Drugs that alter the blood supply to the wound can prevent complications in patients at risk,

Table 1 – Wound Bed Preparation

Clinical Observations	Underlying Pathophysiology	Goal of Care	Dressing options / methods to achieve goal of care	Wound healing outcome
Tissue - Non viable or deficient 	Defective cellular matrix and debris impair new tissue growth	Remove non-viable tissue – DEBRIDE <ul style="list-style-type: none"> Autolytic Sharp surgical Conservative sharp wound Enzymatic Mechanical Biological 	<ul style="list-style-type: none"> Hydrogels Interactive wet dressings Wound Honey Cadexomer iodine Hypertonic saline Irrigation 	Viable wound base
Infection or inflammation 	High bacterial counts or prolonged inflammation: <ul style="list-style-type: none"> Increases cytokines, Increases protease activity Decreases growth factor activity 	Restore bacterial balance	Antimicrobial dressings: <ul style="list-style-type: none"> Silver Cadexomer iodine Wound honey Povidine iodine (Inadine) Chlorhexidine impregnated tulle gras (Bactigras) 	Reduced inflammation and restoration of bacterial balance
Moisture imbalance 	Desiccation or excessive moisture impairs epithelial cell migration. Excessive moisture causes maceration of the surrounding wound.	Restore optimal moisture balance – <ul style="list-style-type: none"> Add moisture to dry wounds Absorb exudate 	Add Moisture: <ul style="list-style-type: none"> Hydrogels Hydrocolloids Absorb exudate: <ul style="list-style-type: none"> Foams Alginates Capillary wicking Multilayered dressings Hydrofibre Hydrocolloid pastes and powders Negative pressure therapy 	Restore optimal moist wound environment
Edges - undermined or non-advancing 	Non-migrating epidermal margin. Non-responsive wound cells and malfunction in protease activity	Assess cause and consider corrective therapy: <ul style="list-style-type: none"> Debridement Skin grafting Biological agents Adjuvant therapies 	<ul style="list-style-type: none"> Continue dressing regime Consider Compression for venous leg ulcers 	Epidermal advancement

promote healing or adversely affect wound healing. In particular, pentoxifylline (Trental), although indicated for the treatment of patients with intermittent claudication, appears to be a cost effective adjunct to compression therapy in venous ulcers and has demonstrated positive outcomes for arterial ulcers. Evidence suggests a possible benefit of ultrasound therapy in the healing of venous leg ulcers but more research is required.

Prevention

Healing leg ulcers can be a long costly process. General education on diet, maintaining a

healthy weight range, exercise, hygiene, avoiding trauma and smoking cessation will benefit all leg ulcer patients.

A number of nutrients play an important role in wound healing and generally these can be obtained by eating a healthy diet from a variety of food sources. Dietary supplementation with the amino acid L-arginine has been shown to enhance protein metabolism, which helps to increase the tensile strength of the wound. Zinc plays a key role in protein and collagen synthesis and when levels are low this can

adversely affect wound healing. However, zinc supplementation in individuals without a zinc deficiency has not been shown to be of benefit.

Preventive measures take on special importance for venous leg ulcers where recurrence rates can be as high as 20% and for which continued compression therapy may be wise. Compression stockings are a suitable alternative to bandages, once ulcers are healed.

For further information on wound management see the WoundsWest Education Program at www.health.wa.gov.au/woundswest

Table 2 – Graduated Compression bandaging guidelines

Ankle/Brachial Pressure Index				
<0.5	0.5 - 0.7	0.7 - 0.8	0.8 - 1.2	>1.2
Trial bandage according to patient's tolerance				
No compression	Tubular stretch bandage may be used during day and removed at night when leg is elevated	Elastocrepe bandages or Light elasticated bandages	Non- elastic bandages (stiff, short stretch) e.g. Comprilan or Elastic bandages (long stretch) e.g. Surepress or 4 layer system e.g. Profore or 2 layer system e.g. Coban	Possible arterial calcification. Use lower level of compression with extreme caution. Preferably following specialist vascular review

Project update: Increasing the capacity of general practice in WA to undertake partner notification for Chlamydia

In response to increasing numbers of Chlamydia positive diagnoses in Western Australia, the Australasian Society for HIV Medicine (ASHM) and the West Australian Department of Health are working together with W.A. general practice on a project to encourage partner notification at the point of diagnosis.

The project aims to try and reduce rates of Chlamydia by increasing the likelihood that sexual partners of people who have Chlamydia are also treated. In collaboration with GP, nursing and health care organisations, the Australasian Society for HIV Medicine (ASHM) has developed a brief educational intervention for general practitioners and their clinic staff to better equip them to discuss partner notification with patients at the point of diagnosis. Aware of time constraints and high work loads in general practice, ASHM also developed two Chlamydia fact sheets for general practice and patients/partners to be used as additional support. Other print and non-print resources are in the early stages of development.

A survey conducted by the Combined Universities Centre for Rural Health (CUCRH) amongst GPs who have recently notified a case of Chlamydia indicates not only the interest of GPs in Chlamydia but also the need for clear guidelines regarding doctors' responsibility regarding partner notification for Chlamydia.

Based on survey findings, ASHM finalized the course materials and piloted the Chlamydia partner notification training resources on December 2 in Perth. A total of 15 GPs and 13 practice nurses attended the pilot and provided feedback on the content of the training package and resources. Pre- and post-presentation questionnaire responses from GPs

and practice nurses demonstrated the relevance and usefulness of this intervention. Participants in the pilot demonstrated a significant increase in their level of confidence about discussing partner notification with their patients, with 90% of participants gaining increased awareness about the importance of partner notification and how to assist with this process.

ASHM is currently planning the roll out of four training sessions on Chlamydia Partner Notification. The first session is being organised in partnership with the West Australian Practice Nurse Association (WAPNA) and will be held on February 10. Other training sessions are currently being organised in collaboration with the Rockingham Kwinana Division and the WA AMA. For further information about this course and other courses or to register, please visit www.ashm.org.au/courses/.

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