Venous Leg Ulcer Management Flow Chart

Assessment

Take a comprehensive assessment of:

- the person and their history
- leg ulcer area and characteristics
- the healing environment

Investigations:

- screen all people with a leg ulcer for arterial disease, including Ankle Brachial Pressure Index (ABPI)*
- reassess the ABPI every 3-12 months according to the person's condition

**Compression therapy may be contraindicated if ABPI is <0.9 or >1.3*

Assessment should be undertaken by a health professional with training and expertise in leg ulcer management

Wound Bed Management

- Cleanse the leg and ulcer gently with a neutral, non-irritating solution, e.g. warm tap water or saline
- Remove necrotic or devitalised tissue (e.g. autolytic debridement)*

**Mechanical or sharp debridement should only be done by appropriately trained practitioners*

Select a dressing that will:

- maintain a moist wound-healing environment
- manage wound exudate
- be low-adherent
- protect the peri-ulcer skin

Management

- Refer for vascular assessment for venous intervention
- Multilayered compression therapy should be applied where there are no contraindications*

**Contraindications include low or high ABPI, mixed ulcer aetiology, heart disease, peripheral neuropathy.*

Compression therapy should only be applied by a trained health professional

- Apply moisturiser to the lower limb
- Apply padding over bony prominences
- Apply compression from toe-to- knee
- Apply compression system as per manufacturers' guidelines

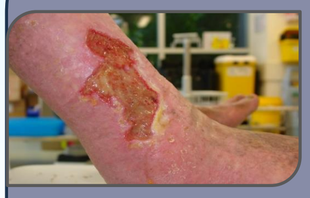
- Remove bandaging if there is:
  - slippage of bandage
  - decreased sensation of lower limb
  - toes go blue or purple, or leg swells above or below the bandage
  - increased pain, or pins and needle
  - shortness of breath or difficulty breathing
- Monitor progress by regularly assessing the ulcer and measuring wound area

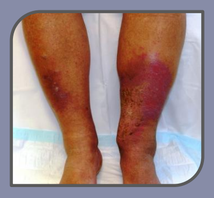
Prevention

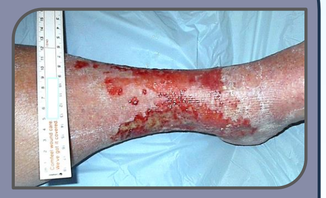
- Use of compression garments for life reduces leg ulcer recurrence (Class 3 if tolerated, or highest level tolerated)
- Consider practicality and application methods when choosing the type

  A trained practitioner should fit compression stockings
- Replace compression stockings every six months
- Provide education to people and carers on compression stocking application and removal techniques
- Refer to vascular surgeon
- Monitor regularly, at three, six or 12 months, depending on individual need and risk of recurrence
- Encourage daily skin care
- Elevate the affected limb above heart level daily if the person's health allows
- Encourage ankle and calf muscle exercises
- Repeat Doppler ABPI every 3-12 months according to the person's condition

Characteristics of a venous leg ulcer







Venous leg ulcers typically:

- occur on the lower third of the leg
- have pain usually relieved by elevation of the legs
- are shallow and have irregular, sloping wound margins
- produce moderate to heavy exudate

Surrounding skin often has:

- haemosiderin staining
- atrophie blanche
- hyperkeratosis (dry, flaky skin)
- venous stasis eczema
- inverted champagne bottle leg appearance

When to Refer

- Uncertainty in diagnosis
- Complex ulcers (e.g., multiple aetiology)
- ABPI <0.9 or >1.3
- Signs of spreading or systemic infection
- Deterioration of ulcer
- Failure to reduce in size by 20-30% in 4-6 weeks, or to improve after 3 months, or recurring ulceration
- Uncontrolled pain

References:
Wounds Canada. Best practice recommendations for the prevention and management of venous leg ulcers. 2019. https://www.woundscanada.ca/health-care-professional/
Haesler E, Carville K. Australian Standards for Wound Prevention and Management. 2023. AHRA, Wounds Australia, WAHTN. https://woundsaustralia.org/ocd.aspx
Wounds UK. Addressing complexities in the management of venous leg ulcers. 2019. https://wounds-uk.com/
Kelechi TJ et al.. 2019 Guideline for Management of Wounds in Patients With Lower-Extremity Venous Disease. J Wound Ostomy Cont Nurs 2020;47:97-110
Lizarondo L. Evidence Summary. Venous Leg Ulcer: Debridement. JBI EBP Database. 2021;JBI-ES-3812-2.

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