Venous Leg Ulcer Flow Chart

Assessment

- History
  - Medical
  - Medications
  - Wound
  - Psychosocial / activities of daily living

Characteristics of the wound (see table below)

Diagnostic investigations:
- All patients with a leg ulcer should be screened for arterial disease, including an Ankle Brachial Pressure Index (ABPI)*
- Reassess the ABPI every 3 months or if clinically indicated
- * Compression therapy is contraindicated if the ABPI is <0.8 or >1.2
- * Assessment should only be undertaken by a trained health practitioner

Wound Bed Management

- Irrigate with warm water or normal saline. Pat dry
- Clean the wound gently (avoid mechanical trauma)
- Remove necrotic or devitalised tissue (e.g. autolytic debridement)*
- EMLA® cream can reduce pain associated with debridement
- Mechanical or sharp debridement should only be done by a trained practitioner
- Select a dressing that will:
  - maintain a moist wound bed
  - manage wound exudate
  - protect the surrounding skin

Management

- Multilayered high compression therapy should be applied following diagnosis of an uncomplicated venous leg ulcer
- Compression therapy should only be applied by a trained practitioner
- Check ankle circumference measures more than 18cm
- Apply moisturiser to the lower limb
- Apply padding over bony prominences
- 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 in the foot or calf muscle that is unrelieved by leg elevation for 30 minutes above heart level
  - increased shortness of breath or difficulty breathing

Prevention

- Use of compression stockings for life reduces leg ulcer recurrence (Class 3 (40mm Hg) if tolerated, or highest level tolerated)
- A trained practitioner should fit compression stockings

- Replace compression stockings every 6 months
- Provide education to clients and carers on compression stocking application and removal techniques
- Refer to vascular surgeon if appropriate
- Monitor regularly, every 3 months
- Apply moisturiser twice daily
- Elevate the affected limb above heart level daily
- Encourage ankle and calf muscle exercises
- Repeat Doppler ABPI every 3 months, or whenever changing the type of compression therapy

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 above heart level
- Are shallow and have irregular, sloping wound margins
- Produce moderate to heavy exudate

The surrounding skin often has:
- Haemosiderin (brown) staining
- Hyperkeratosis (dry, flaky skin)
- Venous stasis eczema
- Inverted champagne bottle leg appearance

When to Refer

Uncertainty in diagnosis
- Complex ulcers (multiple aetiology)
- ABPI <0.8 or >1.2
- No reduction in wound size within 4 weeks after starting compression
- Deterioration of ulcer
- Signs of infection
- Failure to improve after 3 months

Monitor Progress: Trace wound before starting compression therapy, then every 2–4 weeks, or when rapid changes occur

References:
- AWMA, Australian and New Zealand Clinical Practice Guidelines for Prevention and Management of Venous Leg Ulcers, 2011, AWMA: Barton, ACT
- RCN, The management of patients with venous leg ulcers, 2006, RCN: London
- RNAO, Assessment and Management of Venous Leg Ulcers, 2004, RNAO: Toronto

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