CONSENSUS MODEL FOR LEG ULCER MANAGEMENT

A
Assessment and diagnosis

- Assessment of the patient: establish aetiology with ABPI measurements and evaluate the patient’s suitability for compression therapy
- Assessment of the wound using TiME framework: Tissue management, Inflammation and Infection control, Moisture balance, Epithelial (Edge) advancement

B
Best practice wound and skin management

- Cleansing and skin preparation
- Debridement if necessary
- Periwound and surrounding skin management
- Wound dressing choice: exudate level management, application under compression

C
Compression therapy for active treatment and wound prevention

- Compression therapy is the cornerstone of VLU management and improves healing and prevents recurrences

REFERENCES

Reg A
Assessment and diagnosis

- Experience of the healthcare practitioner applying compression
- Wound status; pain level
- Patient mobility and dexterity
- Access to care
- Local availability of CT resources

SELECTION OF CT
Some factors affecting use of CT

- Choice of a system which best suits the patient’s specific needs
- Aim for a pressure level of 40mmHg at the ankle and 30mmHg at the calf
- Define the degree of elasticity (short, long) and compression (low, mild, strong)

INDICATIONS
- VLU with ABPI 0.8 or above
- Acute vein thrombosis
- Superficial thrombophlebitis
- Varicose veins

CONTRAINDICATIONS
- Severe arteriopathy obliterans (AO)
- Uncompensated congestive heart failure

OVERLYING BANDAGES: USE TO INCREASE THE FINAL PRESSURE LEVEL AS REQUIRED

- Use protective and filling material (foam, dressings, cotton, tubular jersey)
- Start rolling at the base of the toes
- Apply the bandage upwards, overlapping 50%
- End the application 5 cm below the knee fold
- Recommend wearing larger-sized shoes

REGULAR ASSESSMENT AND PATIENT/CAREGIVER EDUCATION

- Use compression bandages for active treatment and wound prevention
- Compression therapy is the cornerstone of VLU management and improves healing and prevents recurrences
- Compression therapy (CT) remains underutilised, despite guidelines stating that compression is key to healing active ulceration
- The aim of CT is to reduce oedema and assist venous return from the lower limb by application of external pressure

BANDAGES
- Choose a system which best suits the patient’s specific needs
- Aim for a pressure level of 40mmHg at the ankle and 30mmHg at the calf
- Define the degree of elasticity (short, long) and compression (low, mild, strong)

HINTS AND TIPS
- Use protective and filling material (foam, dressings, cotton, tubular jersey)
- Start rolling at the base of the toes
- Apply the bandage upwards, overlapping 50%
- End the application 5 cm below the knee fold
- Recommend wearing larger-sized shoes

Quick Guide
MANAGEMENT OF LEG ULCERS IN PRACTICE

References

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### OPTIMISING LEG ULCER WOUND MANAGEMENT

#### DESCRIPTION
- **VENOUS LEG ULCER**
  - 40–85% of vascular leg ulcers
- **ARTERIAL LEG ULCER**
  - Arterial: 5–30%
- **MIXED AETIOLOGY LEG ULCER**
  - Mixed: 10–20%
- **INFECTED LEG ULCER**
  - Arterial, mixed or venous origin

#### Aetiology
- **VENOUS LEG ULCER**
  - Chronic venous insufficiency (CVI)
  - Deep venous thrombosis (DVT)
  - Secondary venous hypertension – secondary to CVI or DVT
- **ARTERIAL LEG ULCER**
  - Arteriosclerosis (chronic arterial obstruction)
  - Arterial thrombosis/embolism
  - Hypertension (Martorell’s ulcer)
- **MIXED AETIOLOGY LEG ULCER**
  - Mixed aetiology, with predominance of venous or arterial origin.

#### Location
- **VENOUS LEG ULCER**
  - Medial side of the lower leg, often internal malleolus
- **ARTERIAL LEG ULCER**
  - Between the ankle and the foot
- **MIXED AETIOLOGY LEG ULCER**
  - Lower leg

#### Main characteristics
- **VENOUS LEG ULCER**
  - High exudate levels
  - Irregular sloping margins
  - Usually shallow
  - Fibrous, granulating base
  - Single, multiple or even circular
  - May be painful
  - Oedema, redness
  - Presence of dermatological periwound signs: ochre dermatitis, white atrophy, hypopigmented plaques
  - Lipodermatosclerosis
  - Normal peripheral pulses
- **ARTERIAL LEG ULCER**
  - Punched out, sharply demarcated edges
  - Painful
  - Small and deep
  - Necrotic wound base
  - Dry to low exudate levels
  - Pale skin, cramps, hair loss, skin and nail atrophy
  - Decreased or absent peripheral pulses
- **MIXED AETIOLOGY LEG ULCER**
  - Mixture of signs and symptoms

#### LOCAL TREATMENT GOALS
- Exudate management: maintain optimal moist environment
- Protect periwound skin
- Decrease tissue oedema
- Wound bed preparation: promote granulation (do not use autolytic debridement in ischaemic limbs/digits)
- Pain management

#### LOCAL TREATMENT
- **Wound bed preparation**
- **Dressing**
  - According to the level of exudate:
    - SS: Alginate dressing (e.g. Askina® Sorb)
    - SS: Absorbent/low-adherent moist dressing (e.g. Askina® DresSil)
  - Depend on ABPI measurement
- **Compression therapy**
  - Compression bandages (e.g. Askina® Forte/2-Layer System)
- **Antibacterial dressing**
  - (e.g. Askina® Calgitrol® Ag/Paste)

#### Exudate management:
- Maintain optimal moist environment
- Consider necessity of debridement: promote healthy granulation
- Reduction of bacterial load

### VENOUS LEG ULCER
- '**40–85% of vascular leg ulcers**
- **Aetiology**
  - Chronic venous insufficiency (CVI)
  - Deep venous thrombosis (DVT)
  - Secondary venous hypertension – secondary to CVI or DVT
- **Location**
  - Medial side of the lower leg, often internal malleolus
- **Main characteristics**
  - High exudate levels
  - Irregular sloping margins
  - Usually shallow
  - Fibrous, granulating base
  - Single, multiple or even circular
  - May be painful
  - Oedema, redness
  - Presence of dermatological periwound signs: ochre dermatitis, white atrophy, hypopigmented plaques
  - Lipodermatosclerosis
  - Normal peripheral pulses
- **Use wound cleansing solution (e.g. Prontosan® Wound Irrigation Solution or Prontosan® Wound Gel X)**
- **Dressing**
  - SS: Alginate dressing (e.g. Askina® Sorb)
  - SS: Absorbent/low-adherent moist dressing (e.g. Askina® DresSil)
  - Absorbent/low-adherent moist dressing (e.g. Askina® Foam/DresSil)

### ARTERIAL LEG ULCER
- '**Arterial: 5–30%**
- **Aetiology**
  - Arteriosclerosis (chronic arterial obstruction)
  - Arterial thrombosis/embolism
  - Hypertension (Martorell’s ulcer)
- **Location**
  - Between the ankle and the foot
- **Main characteristics**
  - Punched out, sharply demarcated edges
  - Painful
  - Small and deep
  - Necrotic wound base
  - Dry to low exudate levels
  - Pale skin, cramps, hair loss, skin and nail atrophy
  - Decreased or absent peripheral pulses
- **Use wound cleansing solution (e.g. Prontosan® Wound Irrigation Solution or Prontosan® Wound Gel X)**
- **Dressing**
  - SS: Alginate dressing (e.g. Askina® Sorb)
  - SS: Absorbent/low-adherent moist dressing (e.g. Askina® Foam/DresSil)
  - Not to be used

### MIXED AETIOLOGY LEG ULCER
- '**Mixed: 10–20%**
- **Aetiology**
  - Mixed aetiology, with predominance of venous or arterial origin.
- **Location**
  - Lower leg
- **Main characteristics**
  - Mixture of signs and symptoms
- **Use wound cleansing solution (e.g. Prontosan® Wound Irrigation Solution or Prontosan® Wound Gel X)**
- **Dressing**
  - SS: Alginate dressing (e.g. Askina® Sorb)
  - SS: Absorbent/low-adherent moist dressing (e.g. Askina® Foam/DresSil)

### INFECTED LEG ULCER
- **Arterial, mixed or venous origin**
- **Location**
  - Depending on the origin
- **Main characteristics**
  - Clinical signs of infection:
    - Cellulitis
    - Delayed healing
    - Increase in local skin temperature
    - Increased pain
    - Wound bed extension within inflamed margins
- **Use wound cleansing solution (e.g. Prontosan® Wound Irrigation Solution or Prontosan® Wound Gel X)**
- **Dressing**
  - SS: Alginate dressing (e.g. Askina® Sorb)
  - SS: Absorbent/low-adherent moist dressing (e.g. Askina® Foam/DresSil)
  - According to the level of exudate:
    - SS: Alginate dressing (e.g. Askina® Sorb)
    - SS: Absorbent/low-adherent moist dressing (e.g. Askina® Foam/DresSil)
  - Antibacterial dressing: (e.g. Askina® Calgitrol® Ag/Paste)