

# Venous leg ulcers

An algorithm for assessment

# Holistic assessment and management

## Assessment of patients and lower limb

### 1 Medical history

- Physical, physiological and psychosocial health

### 2 Lower limb assessment

#### Signs of venous disease e.g.:

- Edema
- Eczema
- Lipodermatosclerosis
- Altered shape – inverted 'champagne bottle'
- Varicose veins
- Ankle flare (distended veins in foot arch or ankle region)
- Hemosiderin pigmentation
- Atrophie blanche
- Other skin changes
- Evidence of healed ulcers

### 3 Vascular status and oxygenation levels

▶ **ABPI assessment with a Doppler.** Referral to vascular specialist when ABPI:  $<0,8$  or  $>1,4$  or absolute systolic ankle pressure  $<60$ mmHg. When ABPI  $\leq 0,5$  urgent referral to vascular surgeon. A patient with an ulcer should be referred to vascular centre for consideration of venous interventions.

- Toe-brachial index (TBI) when ABPI:  $<0,8$  or  $>1,4$
- Consider oxygen assessment e.g. with transcutaneous oximetry (TcPO<sub>2</sub>)

### 4 Wound and periwound



#### Infection:

Local signs of infection can be: increased exudate, non-healing, malodor, friable or discolored granulation tissue, redness, pain, heat and swelling.



#### Wound bed, status/color:

- Yellow slough
- Red granulation tissue, pink epithelialization



#### Exudate

- Amount (none, low, moderate, high)
- Consistency/color

#### • Wound location

#### • Wound size (area/depth)

#### • Wound edge (raised edge, undermining)

#### • Surrounding skin (maceration/excoriation, erythema, edema)

#### • Pain (location, frequency, cause, type, intensity and duration)

#### • Odor (presence and nature)

### 5 Classification

Classification of Chronic venous insufficiency (CVI) with CEAP clinical classification. And Classification of the VLU as Simple or Complex.

## Goals of treatment, education and concordance with the patient

## Management of VLU<sup>3,4</sup>

A VLU has a negative impact on all aspects of the patients daily living and need to be considered in the treatment plan. VLU may cause depression, anxiety and social isolation, but also leaking exudate, pain, odor, restricted mobility and sleep disturbance may be particularly challenging and distressing for these patients.

A Multidisciplinary team (MDT) can be a resource for planning and treat a patient with VLU, for example:

- Recommend the best compression therapy for the individual
- Nutritional advice
- Infection control and treatment
- Full vascular assessment and treatment
- Assessment and treatment of different skin problems

#### Remember:<sup>2-4</sup>

- Assess and manage pain (local and systemic) before dressing changes.
- Be aware of mixed etiology that includes venous disease. For example if other factors are present, e.g arterial disease, diabetes or rheumatoid arthritis (vasculitic ulcer).
- Wound biopsy may be indicated in patients who have delayed healing and a wound suspected of being malignant.
- Education and training of the patient, caregiver and family is essential in enhancing concordance.
- Reassess if wound area reduction is less than 20–30% after 4–6 weeks of optimal compression treatment.

# nt of patients with venous leg ulcers

## ► Infection

Requirement for antimicrobial

No requirement for antimicrobial

## ► Wound bed

Red or Yellow



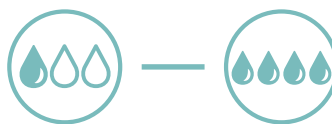
Red or Yellow



Appropriate debridement in combination with cleansing

Topical oxygen therapy if area reduction  $\leq 40\%$  after 4 weeks standard therapy<sup>1</sup>

## ► Exudate level



Use a dressing with good absorption and retention capacity, adapted to the amount and viscosity of the wound exudate.

Use an appropriate moisturizer

## ► ABPI assessment and compression therapy

Use an appropriate compression therapy (CT)<sup>2</sup>, when needed use a tubular bandage as an inner layer.

Doppler ABPI	0.51–0.79 Moderate PAD	0.8–0.90 Mild PAD	0.91–1.4 Borderline PAD between 0.91–0.99. Normal 1–1.4
CT in mmHg	15–30 mmHg*	15–40 mmHg*	15–50 mmHg

\* Use modified CT with caution. Absolute systolic ankle pressure should be  $>60\text{mmHg}^2$



- Optimal wound management with provision of local treatment need to be supported with appropriate management of systemic disease, compression therapy and debridement. Remember that surgical debridement is contraindicated in some circumstances, for example if ischemia is present or pyoderma gangrenosum<sup>3</sup>
- Monitor at each dressing change and reassess regularly. Be sure that the dressing is compatible with the compression therapy
- If you need to cut the dressing, consider using non-bordered products
- The choice of dressings must be based on local protocols and clinical judgement

## Proven choice for a better outcome

Safetac<sup>®</sup> is the original less-pain contact layer with silicone adhesion. We designed it to mould softly to skin without sticking to the moist wound<sup>6</sup> – so you can remove it easily without damaging the skin<sup>7</sup>. That means less pain for your patients<sup>9</sup>.

Safetac also protects new tissue and intact skin – so wounds remain undisturbed to support faster natural healing<sup>9-12</sup>. And it seals the wound margins to protect skin from damaging leaks and maceration<sup>13,14</sup>. This combination of less pain<sup>8</sup> and less skin damage<sup>7,10-13,15</sup> – to support faster healing<sup>9-12</sup> – can also reduce the cost of treatment<sup>10,11,15</sup>.

You can trust Mölnlycke<sup>®</sup> dressings with Safetac, for better patient and economic outcomes.

**Safetac**  
TECHNOLOGY



Skin stripping occurs with traditional adhesive<sup>7</sup>



No skin stripping occurs with Safetac technology<sup>7</sup>

**References:** 1. Strohal R., Gerber V., Kröger K., et al. Expert consensus on practical aspects of wound therapy with hemoglobin spray. *Wound management* 2016; 5: 276–284. 2. Björk, R., Ehmann S. S.T.R.I.D.E. Professional guide to compression garment selection for the lower extremity. *Journal of Wound Care* 2019; 28(6 suppl 1):1–44. Consensus recommendations. *Wounds International* 2015. 3. Franks, P., Barker, J., Collier, M. et al. Management of patients with venous leg ulcer: challenges and current best practice. *J Wound Care*, 25; 6, Suppl, 1–67, 2016. 4. Harding, K., Dowsett, C., Fias, L. et al. Simplifying venous leg ulcer management. 5. Teagle, A. and Hargest, R. Management of pyoderma gangrenosum. *Journal of the Royal Society of Medicine* 2014; 107(6):228–236. 6. White R. Evidence for atraumatic soft silicone wound dressing use. *Wounds UK* 2005; 1(3): 104–109. 7. Waring, M., Biefeldt, S., Matzold, K.P., Butcher, M. An evaluation of the skin stripping of wound dressing adhesives. *J Wound Care* 2011; 20(4):12–22. 8. White, R. A multinational survey of the assessment of pain when removing dressings. *Wounds UK* 2008; 4: 14–22. 9. David, F., Wutze, J.-L., Breton, N., et al. A randomised, controlled, non-inferiority trial comparing the performance of a soft silicone-coated wound contact layer (Mepitel One) with a lipidocolloid wound contact layer (UrgoFull) in the treatment of acute wounds. *Int Wound J* 2017 doi:10.1111/iwj.12853. 10. Gotschall, C.S., Morrison, M.J., Eichelberger, M.R. Prospective, randomized study of the efficacy of Mepitel on children with partial-thickness scalds. *J Burn Care Rehabil* 1998; 19:279–83. 11. Silverstein, P., Heimbach, D., Meltes, H., et al. An open, parallel, randomized, comparative, multicenter study to evaluate the cost effectiveness, performance, tolerance, and safety of a silver-containing soft silicone foam dressing (intervention) vs silver sulfadiazine cream. *J Burn Care Res* 2011; 32:617–26. 12. Gee Kee, E.L., Kimble, R.M., Cuttle, L., Khan, A., Stockton, K.A. Randomized controlled trial of three burns dressings for partial thickness burns in children. *Burns* 2015; 41:946–55. 13. Meaume, S., Van De Looverbosch, D., Heyman, H., Romanelli, M., Ciangherotti, A., Charpin, S. A study to compare a new self-adherent soft silicone dressing with a self-adherent polymer dressing in stage II pressure ulcers. *Ostomy Wound Manage* 2003; 49 (9): 44–51. 14. Wiberg, A.-B., Feili, F., Daun, E.-K. Preventing maceration with a soft silicone dressing: *in vitro* evaluation. Poster presentation at the 3rd Congress of the World Union of Wound Healing Societies, Toronto, Canada, 2008. 15. Bredow J, Hoffmann K, Hellmich M, Eysel P, Zarghooni K. Randomized clinical trial to evaluate performance of flexible self-adherent absorbent dressing coated with silicone layer after hip, knee or spinal surgery in comparison to standard wound dressing. Poster presentation at the 5th Congress of the World Union of Wound Healing Societies, Florence, Italy, 2016.

**Please note:** This is a Guide only and cannot replace clinical judgement. Each clinician is responsible for comprehensive evaluation and a plan of care appropriate for individual patient needs.