

UNDERSTANDING CHRONIC OEDEMA

RISK FACTORS

Venous causes:

- Hypertension
- History of deep vein thrombosis/post-thrombotic syndrome
- Phlebitis
- Trauma (e.g. damage to veins)
- Varicose veins
- Chronic venous insufficiency

Primary and secondary lymphatic causes:

- Congenital abnormalities
- Trauma (e.g. surgery)
- Changes caused by chronic venous insufficiency
- Cancer/cancer treatment

Other causes:

- Cardiac disease
- Renal disease
- Obesity
- Immobility/limb dependency
- Lipoedema

HOW CHRONIC OEDEMA PROGRESSES

- **Early stages:** oedema usually presents as 'pitting' (indenting after pressure) that reduces overnight or with elevation
- **Without appropriate treatment:** tissues become hard as waste products accumulate due to lymphatic system's inability to drain excess fluid; oedema does not reduce with elevation or rest
- **Long-term:** affected tissues become hard, fibrosed and non-pitting; oedema does not reduce with elevation or rest; pronounced limb-shape changes develop and skin folds become evident; risk of cellulitis increases

WHY SKIN IS AT RISK OF BREAKING DOWN

- Decreased bloodflow results in skin changes due to lack of nutrients to the skin
- Patient health status can result in inability/lack of motivation to carry out basic skin care (e.g. keeping skin clean, dry and well-hydrated)
- Due to lack of mobility, an increase in oedema, combined with fragile, taut skin, results in a risk of trauma from external devices (e.g. beds, chairs), which in turn increases the risk of cellulitis

KEY PRINCIPLES FOR MANAGING CHRONIC OEDEMA WITH VENOUS LEG ULCERATION

- ✓ Undertake a complete, holistic assessment of the patient and limb
- ✓ Perform an ABPI (or consider TBPI or pulse oximetry) to determine any underlying causes of the condition and venous leg ulcer status
- ✓ Treat or refer the patient for specialist diagnosis (e.g. duplex ultrasound, if ABPI not available) or care for underlying medical condition(s)
- ✓ Initiate appropriate skin care to prevent skin breakdown
- ✓ Assess limb shape and level of oedema
- ✓ Seek to reduce oedema and reshape the limb with appropriate compression therapy (e.g. bandaging, circular-knit or flat-knit, ready-to-wear or custom-fit), depending on the level of oedema and limb-shape distortion
- ✓ Select appropriate compression and ensure the dressing is suitable for managing exudate volume (including use under compression) and the ulcer (see Pathway for Choosing Appropriate Compression and Wound Dressings)
- ✓ Keep in mind there may be more than one appropriate compression choice, so it is important to become familiar with the range of options
- ✓ Frequent reapplication of leg ulcer dressings and compression may be needed to monitor the skin and leg ulcer, and for appropriate absorption of exudate and reshaping of the limb
- ✓ To ensure patient concordance and optimise treatment outcomes, correct application of compression therapy is required. Compression bandaging should be applied only by trained practitioners
- ✓ A chronic oedema management plan must also include exercise and movement to enhance lymphatic and venous flows, plus long-term maintenance using compression hosiery to prevent further complications

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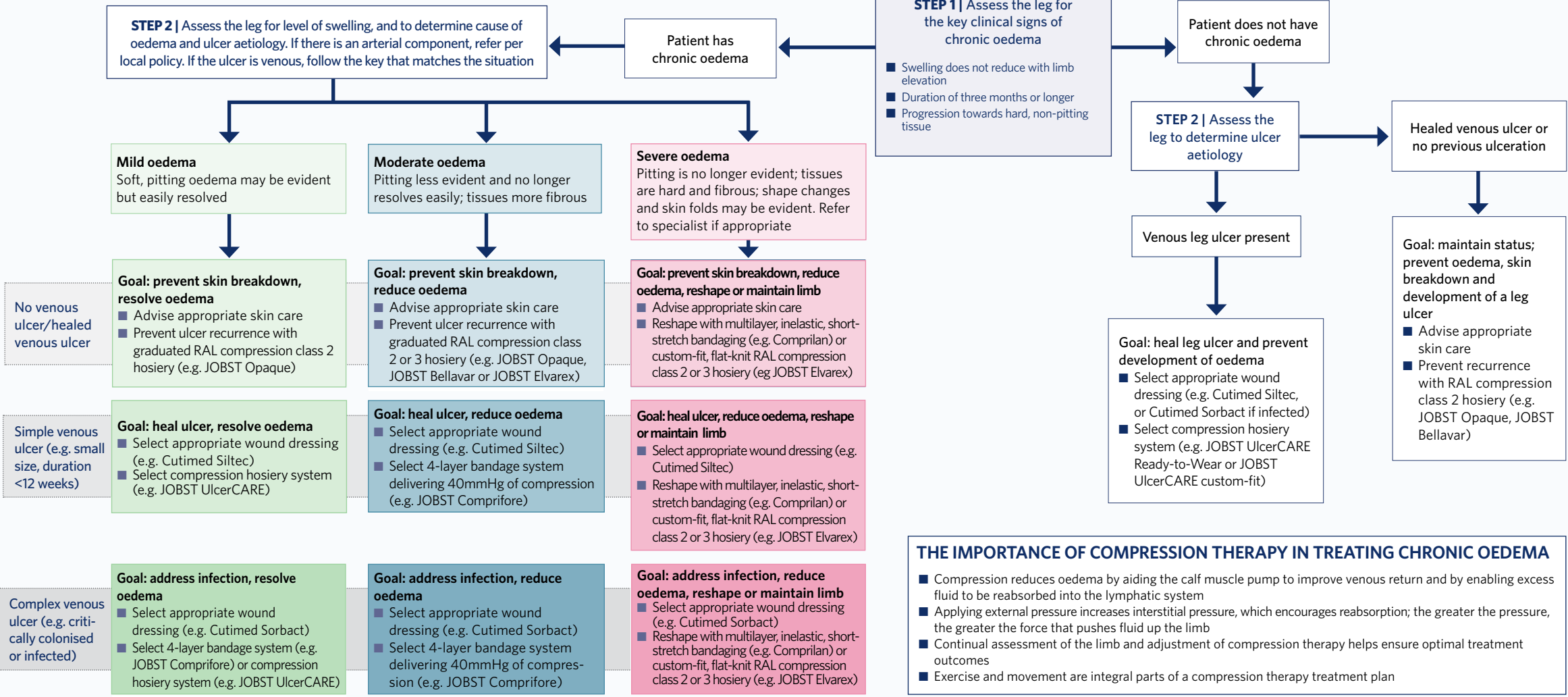
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MANAGING CHRONIC OEDEMA WITH A VENOUS LEG ULCER



PATHWAY FOR CHOOSING APPROPRIATE COMPRESSION AND WOUND DRESSINGS



STEP 2 | Assess the leg for level of swelling, and to determine cause of oedema and ulcer aetiology. If there is an arterial component, refer per local policy. If the ulcer is venous, follow the key that matches the situation

Patient has chronic oedema

STEP 1 | Assess the leg for the key clinical signs of chronic oedema

- Swelling does not reduce with limb elevation
- Duration of three months or longer
- Progression towards hard, non-pitting tissue

Patient does not have chronic oedema

STEP 2 | Assess the leg to determine ulcer aetiology

Healed venous ulcer or no previous ulceration

Venous leg ulcer present

Goal: maintain status; prevent oedema, skin breakdown and development of a leg ulcer

- Advise appropriate skin care
- Prevent recurrence with RAL compression class 2 hosiery (e.g. JOBST Opaque, JOBST Bellavar)

Goal: heal leg ulcer and prevent development of oedema

- Select appropriate wound dressing (e.g. Cutimed Siltec, or Cutimed Sorbact if infected)
- Select compression hosiery system (e.g. JOBST UlcerCARE Ready-to-Wear or JOBST UlcerCARE custom-fit)

Mild oedema
Soft, pitting oedema may be evident but easily resolved

Moderate oedema
Pitting less evident and no longer resolves easily; tissues more fibrous

Severe oedema
Pitting is no longer evident; tissues are hard and fibrous; shape changes and skin folds may be evident. Refer to specialist if appropriate

Goal: prevent skin breakdown, resolve oedema

- Advise appropriate skin care
- Prevent ulcer recurrence with graduated RAL compression class 2 hosiery (e.g. JOBST Opaque)

Goal: prevent skin breakdown, reduce oedema

- Advise appropriate skin care
- Prevent ulcer recurrence with graduated RAL compression class 2 or 3 hosiery (e.g. JOBST Opaque, JOBST Bellavar or JOBST Elvarex)

Goal: prevent skin breakdown, reduce oedema, reshape or maintain limb

- Advise appropriate skin care
- Reshape with multilayer, inelastic, short-stretch bandaging (e.g. Comprilan) or custom-fit, flat-knit RAL compression class 2 or 3 hosiery (eg JOBST Elvarex)

No venous ulcer/healed venous ulcer

Simple venous ulcer (e.g. small size, duration <12 weeks)

Goal: heal ulcer, resolve oedema

- Select appropriate wound dressing (e.g. Cutimed Siltec)
- Select compression hosiery system (e.g. JOBST UlcerCARE)

Goal: heal ulcer, reduce oedema

- Select appropriate wound dressing (e.g. Cutimed Siltec)
- Select 4-layer bandage system delivering 40mmHg of compression (e.g. JOBST Comprifore)

Goal: heal ulcer, reduce oedema, reshape or maintain limb

- Select appropriate wound dressing (e.g. Cutimed Siltec)
- Reshape with multilayer, inelastic, short-stretch bandaging (e.g. Comprilan) or custom-fit, flat-knit RAL compression class 2 or 3 hosiery (e.g. JOBST Elvarex)

Complex venous ulcer (e.g. critically colonised or infected)

Goal: address infection, resolve oedema

- Select appropriate wound dressing (e.g. Cutimed Sorbact)
- Select 4-layer bandage system (e.g. JOBST Comprifore) or compression hosiery system (e.g. JOBST UlcerCARE)

Goal: address infection, reduce oedema

- Select appropriate wound dressing (e.g. Cutimed Sorbact)
- Select 4-layer bandage system delivering 40mmHg of compression (e.g. JOBST Comprifore)

Goal: address infection, reduce oedema, reshape or maintain limb

- Select appropriate wound dressing (e.g. Cutimed Sorbact)
- Reshape with multilayer, inelastic, short-stretch bandaging (e.g. Comprilan) or custom-fit, flat-knit RAL compression class 2 or 3 hosiery (e.g. JOBST Elvarex)

THE IMPORTANCE OF COMPRESSION THERAPY IN TREATING CHRONIC OEDEMA

- Compression reduces oedema by aiding the calf muscle pump to improve venous return and by enabling excess fluid to be reabsorbed into the lymphatic system
- Applying external pressure increases interstitial pressure, which encourages reabsorption; the greater the pressure, the greater the force that pushes fluid up the limb
- Continual assessment of the limb and adjustment of compression therapy helps ensure optimal treatment outcomes
- Exercise and movement are integral parts of a compression therapy treatment plan