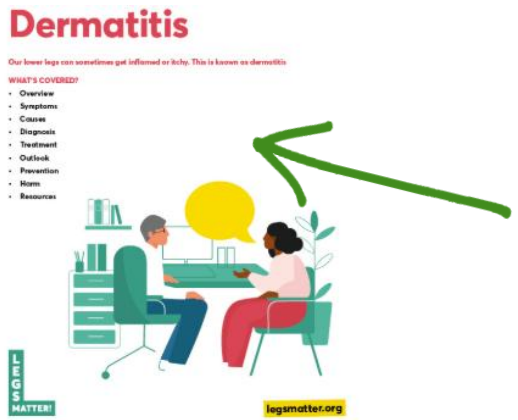
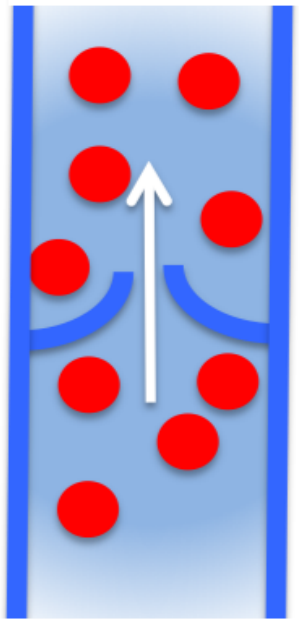

LET'S LOOK AT OUR PATHWAYS

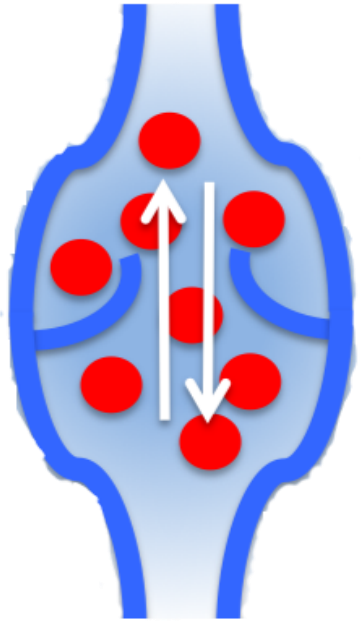
QUESTION: WHAT IS THIS SKIN CONDITION?



Patient information leaflet from Legs Matter



Healthy Valves with correct blood flow



Damaged Valves with incorrect blood flow

WHAT IS VARICOSE ECZEMA?

- Also known as venous, gravitational or stasis eczema.
- Affects 70% of people over 70 years old (National Eczema Society)
- An inflammatory condition associated with venous insufficiency affecting one or both legs
- Caused by damaged valves in veins allowing backflow of blood causing increased pressure and fluid leaking into tissue which results in an inflammatory response.
- If left untreated, the skin can break down to form ulcers.

TYPES OF VARICOSE ECZEMA & HOW TO ASSESS

- Can affect the skin in patches or be circumferential around the leg
- Likely to be accompanied by other venous symptoms
- Oedema may also be present
- Visual assessment of the skin
- Patient history
- Look for signs of venous disease
- Lower limb assessment and doppler

ACUTE

Inflamed, wet, weepy and itchy areas. Sometimes vesicles can break down into superficial lesions

CHRONIC

Dry, scaly, itchy patches

VARICOSE ECZEMA TREATMENT

The most important factor to address is the underlying cause, chronic venous insufficiency. By applying strong 40mmHg compression therapy! Ichthopaste on its own will not treat varicose eczema, it will just come back!

ALSO REMEMBER...

- Good skin care - No soap! Use emollient as a soap substitute
- Remove hyperkeratosis so topical treatment can get to the inflamed eczema underneath
- Apply a urea-based leave-on emollient
- Elevation at rest and sleep in bed
- Mobilise – stimulate calf/foot muscle

Further information available from the National Eczema Society: (www.eczema.org)

ICHTHOPASTE BANDAGES

Benefits

- Contains Zinc Oxide which soothes irritation, reduces wound debris, improves healing rate and promotes epithelization
- Contains Ichthammol which has anti-itch, anti-fungal and anti-bacterial properties. Also improves blood flow to the skin.

Cautions

- Patch testing is recommended for sensitive skin only.
- Consider patient beliefs as contains gelatine - Vegan, Muslim
- Increases absorption - emollient/steroid (do not use steroid ointment at the same time!)

PASTE BANDAGE APPLICATION

- Apply as primary dressing under compression/retention bandage.
- Due to Ichthopaste & Viscopaste not having elastic fibers, application needs to allow for swelling.
- Patch method = cut strips and apply to affected areas.
- Pleat method = fold bandage back on itself to create a pleat as you wrap around the limb.

NEW VARICOSE ECZEMA PATHWAY

BOB Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System

Varicose Eczema Pathway

For use by community nurses and practice nurses within BOB ICS

ASSESSMENT CONFIRMS VARICOSE ECZEMA

History, signs of venous disease, doppler & lower limb assessment, allergies previous treatments & referrals

If leg ulcer also present refer to vascular for duplex scans and possible sclerotherapy

CHRONIC VARICOSE ECZEMA

Dry, scaly itchy patches on the lower leg

ACUTE VARICOSE ECZEMA

Inflamed, wet and itchy areas on the lower leg. Sometimes vesicles that break down into superficial lesions

SKIN CARE

- No soap – use emollient* as soap substitute – refer to wound/BOB emollient formulary. *Fire Risk with Paraffin-Based Emollients
- Hyperkeratosis – this will aggravate the eczema and needs removing & preventing form building up. Use clean flannel and emollient ointment (refer to Wound Formulary/BOB Emollient Guidance) and gentle circular motions.
- Use urea-based emollient as leave on emollient (refer to Wound Formulary/BOB Emollient Guidance).

COMPRESSION

Apply full compression – or as much as assessment supports.

If possible, facilitate self care with a hosiery kit or wraps to enable daily skin care.

4 WEEKS PASTE BANDAGES (e.g., Ichthopaste or Viscopaste)

Apply directly to the skin after cleansing and drying and NOT in conjunction with topical steroids.

MUST be applied using either a pleating or patch method to allow for any leg swelling. Patch method better for treating smaller areas, pleating method better for whole limb coverage.

Treat the paste bandage as the primary dressing applying absorbent pads and compression over the top. STOP AFTER 4 WEEKS.

NOT RESOLVED

RESOLVED

4 WEEK COURSE TOPICAL STEROIDS – in discussion with GP

It's important as much hyperkeratosis as possible has been removed, without causing trauma, so the steroid can get to the inflamed eczema beneath.

Ideally apply emollient 1st and leave to soak in for 30 mins (or as long as possible). For severe eczema apply the steroid 1st

Week 1 & 2 – POTENT STEROID OINTMEMT (e.g., Dermovate - Clobetasol propionate 0.05%) – Apply to all affected areas 3 x per week using appropriate fingertip units*. Prescribe 1 x 30g tube for duration of episode.

Week 3 & 4 – MODERATE STEROID OINTMENT (e.g., Betnovate - Betamethasone 0.1%) - Apply to all affected areas 3 x per week using appropriate fingertip units*. Prescribe 1 x 30g tube for duration of episode.

THEN STOP.

Either smear the steroid ointment over clean gloved hands and smear over the affected area OR for wet eczema, smear onto Atrauman and apply.

*4 fingertip units (FTU) for an entire leg and foot below the knee, or 1/2 FTU for an area the size of an adult hand.

RESOLVED

ONGOING MANAGEMENT

- Patient to sleep in bed not chair
- Mix exercise with rest and elevation
- Patient needs life long compression
- Skin care & emollients
- When and who to contact
- Annual re-assessment/hosiery
- Provide leaflet
- Manage any flare up promptly

NOT RESOLVED

ONWARD REFERRAL

- Discuss dermatology referral with GP.
- Consider referral to Tissue Viability for interim support and review treatment plan/select appropriate dressing using TIMES and wound care formulary.

Varicose eczema pathway/V3/02.10.24 BOB TVN agreed. Authors: Tissue Viability OHFT, BHT, BHFT

BOB Buckinghamshire, Oxfordshire and Berkshire West Integrated Care System

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Dry, scaly itchy patches on the lower leg

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Inflamed, wet and itchy areas on the lower leg. Sometimes vesicles that break down into superficial lesions

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- Use urea-based emollient as leave on emollient (refer to Wound Formulary/BOB Emollient Guidance).

COMPRESSION

Apply full compression – or as much as assessment supports.

If possible, facilitate self care with a hosiery kit or wraps to enable daily skin care.

4 WEEKS PASTE BANDAGES (e.g., Ichthopaste or Viscopaste)

Apply directly to the skin after cleansing and drying and NOT in conjunction with topical steroids.

MUST be applied using either a pleating or patch method to allow for any leg swelling. Patch method better for treating smaller areas, pleating method better for whole limb coverage.

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NOT RESOLVED

4 WEEK COURSE TOPICAL STEROIDS – in discussion with GP

It's important as much hyperkeratosis as possible has been removed, without causing trauma, so the steroid can get to the inflamed eczema beneath.

Ideally apply emollient 1st and leave to soak in for 30 mins (or as long as possible). For severe eczema apply the steroid 1st

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RESOLVED

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- Discuss dermatology referral with GP.
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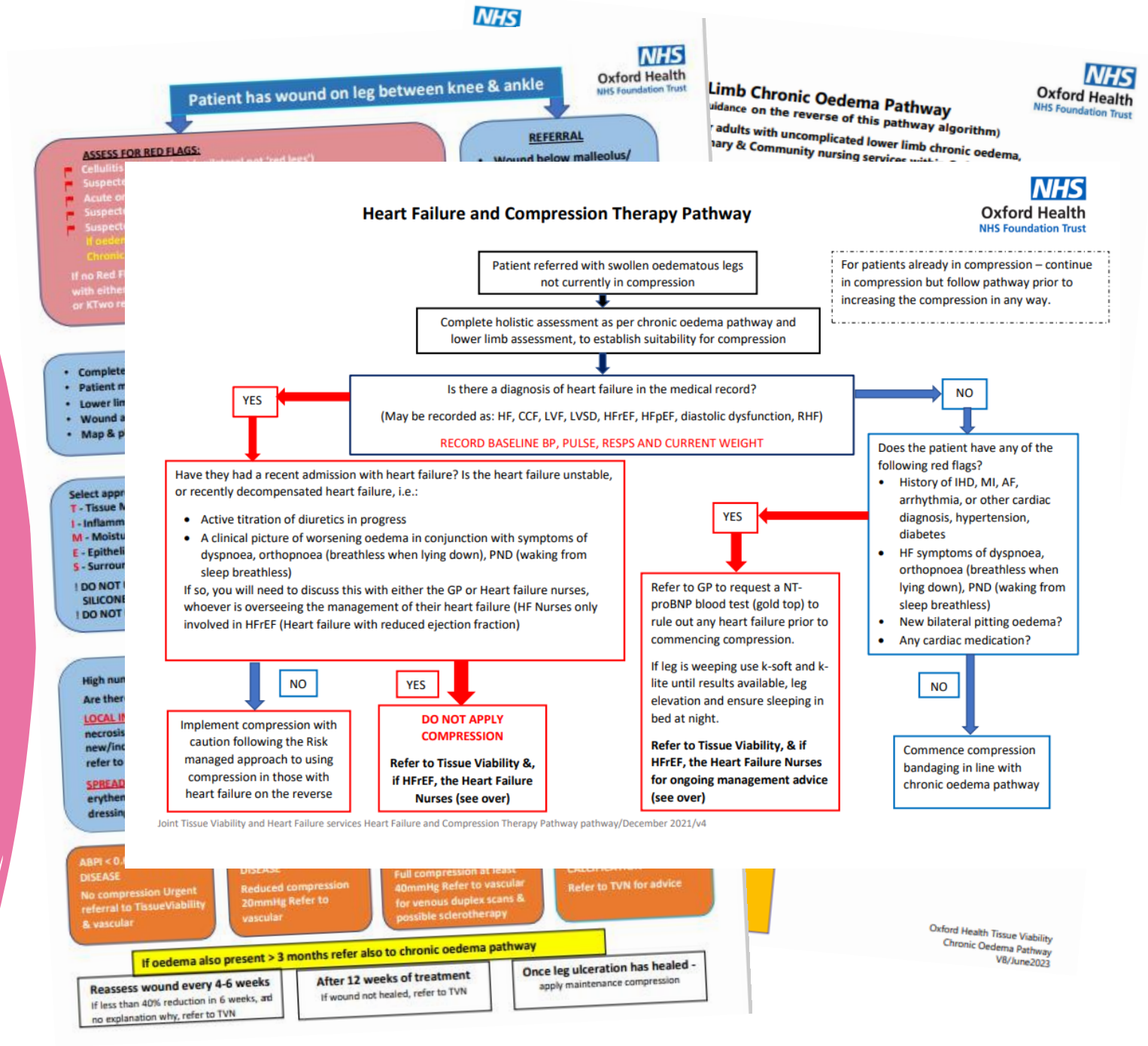
QUESTION: HOW MUCH STEROID OINTMENT SHOULD BE APPLIED?

HOW MUCH STEROID OINTMENT SHOULD YOU APPLY?

Apply steroid ointment to all affected areas using 4 fingertip units (FTU) for a leg and foot below the knee or ½ FTU for an area the size of an adult hand.

WHAT PRATHWAYS FOR LEGS DID WE HAVE PREVIOUSLY?



HAVING SO MANY PATHWAYS CAN BE CONFUSING...

Is it safe to use compression if heart failure is suspected?

What if I have a patient with a wound, chronic oedema and a heart failure diagnosis?

How can I use more than one pathway at once?

Scan me to see the pathway!

Lower Limb Care Pathway

NHS Oxford Health NHS Foundation Trust

For people with lower limb oedema / lymphoedema, lymphorrhoea or ulceration including those with known or suspected heart failure

Initial Presentation

Are there any red flags present for THE APPLIATION OF COMPRESSION THERAPY?

- Acute infection of leg or foot (refer to local wound infection guidance)
- Symptoms of sepsis
- Acute or chronic limb threatening ischaemia
- Suspected acute deep thrombosis (DVT)
- Suspected skin cancer
- Bleeding varicose veins

If any red flags present follow **Guidance 1** overleaf and ESCALATE AS DETAILED.

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Are there any red flags present for ACUTE DECOMPENSATED HEART FAILURE?

(worsening of any of the below symptoms in the last 7 days)

- Increasing breathlessness (either at rest or on exertion)
- Presence of truncal oedema
- Increased reports of waking up due to breathlessness (PND)
- Rapid increase in weight
- Inability to lay flat due to breathlessness (orthopnoea)

If patient is already in established compression (i.e. not actively decongesting oedema from limbs) and has an acute episode of deteriorating heart failure – **DO NOT REMOVE COMPRESSION**

If any red flags present, do not apply compression and follow **Guidance 2** overleaf

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Immediate and Necessary Compression

- Apply 20mmHg compression therapy to both legs
- Arrange for holistic lower limb assessment, including assessment of vascular status (e.g. ankle brachial pressure index (ABPI)
- Depending on limb shape, apply hosiery liners, reduced compression bandage or wrap system, see **Guidance 3** overleaf

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In addition to compression:

- Offer appropriate nutritional and lifestyle advice.
- Provide verbal and written advice about care.
- Discuss and incorporate opportunities for supported self-management
- Skin care - consider appropriate emollient therapy (refer to Wound Care Formulary)
- If needed, treat skin conditions e.g. varicose eczema pathway

if ulceration/lymphorrhoea present, at every dressing change:

- Select appropriate dressing using TIMES wound assessment and formulary (see **Guidance 4** overleaf)
- Refer to local wound infection guidance to identify signs of infection
- Refer to exudate management pathway
- Wound(s) to the foot to be referred to Podiatry

2 Weeks

- Complete holistic lower limb assessment within 14 days.
- A holistic vascular assessment includes ABPI, pedal pulse sounds/waveforms and identification of any venous, arterial and/or oedema signs.
- If an ABPI assessment for those with lymphoedema is unobtainable, in the absence of significant cardiovascular risk factors and clinical signs or symptoms of PAD, it may still be possible to apply compression therapy provided the vascular status has been thoroughly assessed. If unsure, consider referral to Tissue Viability.
- Implement appropriate treatment based on outcome of assessment and diagnosis.
- **NB** - Wraps are not to be used for patients with open wounds as there is no current evidence to support this

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- If chronic oedema present, has there been two or more episodes of cellulitis in the past year?
- If **yes**, refer to GP for prophylactic antibiotic therapy (BLS & ISN Guidelines overleaf).

Diagnosis

An ABPI should never be taken in isolation and if there is a significant clinical suspicion of peripheral arterial disease, consider a referral to Vascular.

For patients with chronic limb threatening ischaemia ABPI <0.6 →

- **Urgent referral to Vascular**
- **STOP COMPRESSION**
- **Complete doppler every 3 months.**

For patients with suspected venous disease and peripheral arterial disease (mixed aetiology) ABPI 0.6 to 0.8 →

- Referral to Vascular (for patients with active ulceration).
- Continue with ≤ 20mmHg
- Complete doppler every 3 months

For patients with suspected venous disease but peripheral arterial disease may also be present ABPI 0.81 - 0.99

and

For patients with suspected venous disease with adequate arterial supply ABPI 1.0 - 1.4 →

- Routine referral to vascular for venous duplex scans and possible sclerotherapy (for patients with active ulceration).
- Complete further red flag assessment for acute decompensated heart failure, see **Guidance 2**
- If evidence of acute cellulitis, bilateral or soft pitting oedema, follow staged approach to compression therapy, see **Guidance 5** overleaf
- If none of the above are present, apply 40mmHg compression therapy to the affected limb(s)
- For ABPI 0.81 - 0.99 - complete doppler every 6 months
- For ABPI 1.0 - 1.4 - complete doppler every 12 months

For patients with suspected medial wall calcification (unable to occlude pulses) or ABPI >1.4 →

- Referral to Tissue Viability.
- Continue with ≤ 20mmHg
- Care must be taken in interpreting ABPI results in people with diabetes, rheumatoid arthritis, systemic vasculitis, atherosclerotic disease and advanced CKD as these could be misleadingly high
- For values above 1.5, the vessels are likely not able to be occluded
- Complete doppler every 3 months

Treatment

Compression

Regular limb shape/mild oedema

- Apply leg ulcer hosiery kit if ulcer present.
- If ulceration is extensive and/or very wet consider compression bandaging.
- If no ulceration present, but compression is required to manage underlying disease, refer to compression hosiery formulary.
- Educate patient on their condition and ongoing treatment.

Moderate-severe oedema and/or distorted limb shape

- Assess full leg including toes, knees and thighs. Patient may require toe caps, stump bandaging and/or thigh high compression.
- Consider referral to Tissue Viability if oedema is severe and/or present to thighs.
- Apply short stretch compression bandage to decongest limb.
- Measure the limb before each application of compression bandaging.
- Consider a compression wrap system for patients who are able to self-care or decongestion of oedema
- **NB** - Wraps are not to be used for patients with open wounds.
- Educate patient on their condition and ongoing treatment.

For maintenance garments refer to compression hosiery formulary

Review

At 4-weekly intervals (or more frequently, if concerned), monitor healing by:

Patients with wound(s):

- Complete ulcer assessment.
- Record digital image(s) and comparing with previous images.
- Review effectiveness of treatment plan and escalate if deteriorating or no progress towards healing.
- If <40% wound area reduction at 4 weeks, refer to Tissue Viability

Patients with oedema:

- Measure reduction in limb swelling.
- If limb is no longer reducing in size, measure for maintenance garment(s).
- If oedema management is unsuccessful, refer to Tissue Viability.

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At 12 weeks:

- If wound remains unhealed, refer to Tissue Viability
- Complete comprehensive reassessment

Guidance 1 - Red flags for application of compression

If any red flags are present, immediately escalate to the relevant clinical specialist and/or service. Consider first-line mild graduated compression (20mmHg) in line with clinical assessment EXCEPT FOR THOSE PATIENTS WITH ACUTE OR SUSPECTED CHRONIC LIMB THREATENING ISCHAEMIA.

- Acute infection of leg or foot - treat infection, refer to local wound infection guidance
- Symptoms of sepsis - immediately escalate via 999
- Acute or chronic limb threatening ischaemia - refer urgently to Vascular via GP
- Suspected acute deep thrombosis (DVT) - urgent escalation to GP
- Suspected skin cancer - take photographs and urgent escalation to GP
- Bleeding varicose veins - urgent referral to Vascular via GP

Prior to referral, consider if patient is in the last few days of life and review RESPECT form.

Guidance 2 - Red flags for acute decompensated heart failure

DO NOT APPLY COMPRESSION

- Escalate to GP/Heart Failure Team
- Consideration: If no previous diagnosis of heart failure, but it is suspected (red flags present), refer to GP to request a NT pro BNP blood test (gold top) to rule out heart failure
- If leg is weeping use wadding and retention bandage
- Ensure regular leg elevation and sleeping in bed at night.
- Refer to Tissue Viability & GP/Heart Failure Team for ongoing management advice.
- Complete 2-week holistic vascular assessment but liaise with Tissue Viability and GP/Heart Failure Team prior to implementing compression.

Guidance 3 - 20mmHg compression options

- Jobst Ulcer Care hosiery liners
- Reduced compression bandage system - apply sub-bandage wadding and then measure ankle circumference:

Ankle circumference < 25cm:

- Apply K-Two Reduced (18-25cm)

Ankle circumference >25cm:

- Apply single layer Clinistretch (if oedema present or patient very active)
- Apply K-Two Reduced (25-32cm) (if no/mild oedema present or patient less active)

Guidance 4 - Wound management

- Do not use adhesive dressings on legs except for Kliniderm Foam Silicone Border and RespoSorb Silicone Border
- Dry necrosis with no autolysis must remain in situ to feet or lower legs if the patient has impiared arterial supply, unless advised by the Vascular team.
- Debridement can be complex. If you are unsure, contact Tissue Viability.
- Offer appropriate nutritional and lifestyle advice.
- Provide verbal and written advice about care.
- Discuss and incorporate opportunities for supported self-management

Guidance 5 - Staged approach to compression therapy starting with 20mmHg:

For single leg:

- Continue with 20mmHg below knee for 14 days.
- Reassess red flags for acute decompensated heart failure.
- If no red flags and assessment supports the use of strong 40mmHg compression, apply 40mmHg below knee.
- Reassess red flags for acute decompensated heart failure after 7 days.
- Once below knee compression successfully implemented, apply thigh high compression if required starting with mild 20mmHg and increasing to strong 40mmHg where assessment supports this, following the same staged approach.
- Implement an ongoing heart failure red flag assessment care plan for patient and reassess red flags for acute decompensated heart failure when compression is increased in either strength or length.

For bilateral legs:

- Continue with 20mmHg below knee on both legs for 14 days.
- Reassess red flags for acute decompensated heart failure.
- If no red flags, apply 40mmHg below knee to one leg and 20mmHg below knee to the other leg.
- Reassess red flags for acute decompensated heart failure after 7 days.
- If no red flags and assessment supports the use of strong compression, apply 40mmHg to both legs, below knee.
- Once below knee compression successfully implemented, apply thigh high compression if required starting with mild 20mmHg and increasing to strong 40mmHg where assessment supports this, following the same staged approach.
- Implement an ongoing heart failure red flag assessment care plan for patient and reassess red flags for acute decompensated heart failure when compression is increased in either strength or length.

National Wound Care Strategy Programme: Lower Limb Recommendations

Best Practice Statement: The use of compression therapy for peripheral oedema: considerations in people with heart failure

BLS/LSN: Guidelines on the Management of Cellulitis in Lymphoedema

Oxford Health Wound Care Formulary

References: National Wound Care Strategy Programme: (2023) Recommendations for Leg Ulcers. British Lymphology Society and Lymphoedema Support Network (2025) Guidelines on the Management of Cellulitis in Lymphoedema. South Central Antimicrobial Network (SCAN Guidelines). How to cite this document: Wounds UK (2023) Best Practice Statement: The use of compression therapy for peripheral oedema: considerations in people with heart failure. Wounds UK, London. Available to download from: www.wounds-uk.com.

EVIDENCE-BASED PATHWAY

- National Wound Care Strategy Programme (NWCSP) Lower Limb Recommendations (2023)
- Wounds UK Best Practice Statement - The use of therapy for peripheral oedema: Considerations in heart failure (2023)
- BLS & LSN Guidelines on the management of cellulitis in lymphoedema (2025)
- NICE – How should I assess a person with suspected peripheral arterial disease? (2025)

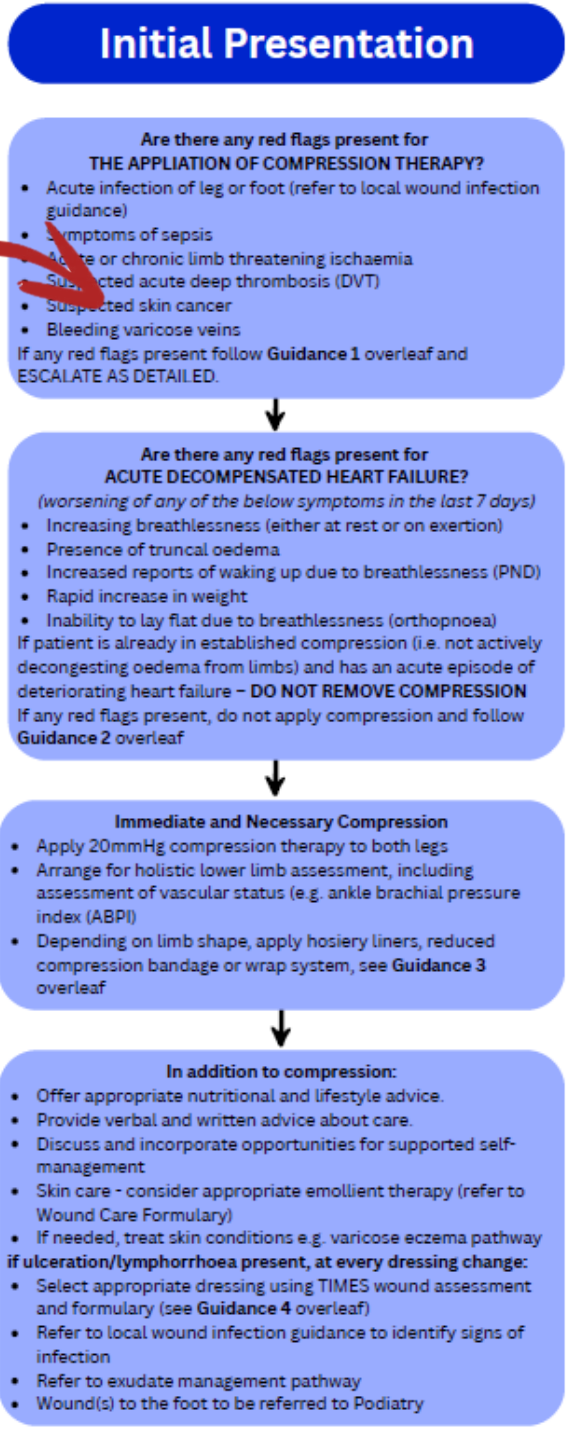
SUMMARY OF LOWER LIMB CARE PATHWAY

- Initial presentation
  - 2x red flag assessments
  - Immediate and necessary care
- 2 weeks
  - Holistic vascular assessment
  - ABPI, LLA, PMH
- Diagnosis
  - Aetiology
- Treatment
  - Compression therapy
  - Onward referrals
  - Future dopplers
- Compression
  - For regular shaped limbs/mild oedema
  - For moderate to substantial oedema
- Reviews
  - 4 weeks
  - 12 weeks
- Guidance
  - Further useful information

SECTION 1: INITIAL PRESENTATION
RED FLAGS FOR THE APPLICATION OF COMPRESSION THERAPY

Prompt escalation of the following red flags ensures that the underlying pathology is identified and treated first, safeguarding patient safety before compression is considered:

- Acute infection of the leg or foot
- Symptoms of sepsis
- Acute or chronic limb-threatening ischaemia
- Suspected acute deep vein thrombosis (DVT)
- Suspected skin cancer
- Bleeding varicose veins



- If any red flags are present, immediately escalate to the relevant clinical specialist and/or service.
- First-line mild graduated compression (20mmHg) may be appropriate in line with clinical assessment (see details below) EXCEPT FOR THOSE PATIENTS WITH ACUTE OR SUSPECTED CHRONIC LIMB THREATENING ISCHAEMIA

ESCALATING RED FLAGS

Acute infection of the leg or foot – treat infection, refer to local wound infection guidance (AMBL2 tool)

Symptoms of sepsis – immediately escalate via 999

Acute or chronic limb threatening ischaemia – refer urgently to Vascular via GP

Suspected acute deep vein thrombosis (DVT) – urgent escalation to GP

Suspected skin cancer – take photographs and urgent escalation to GP

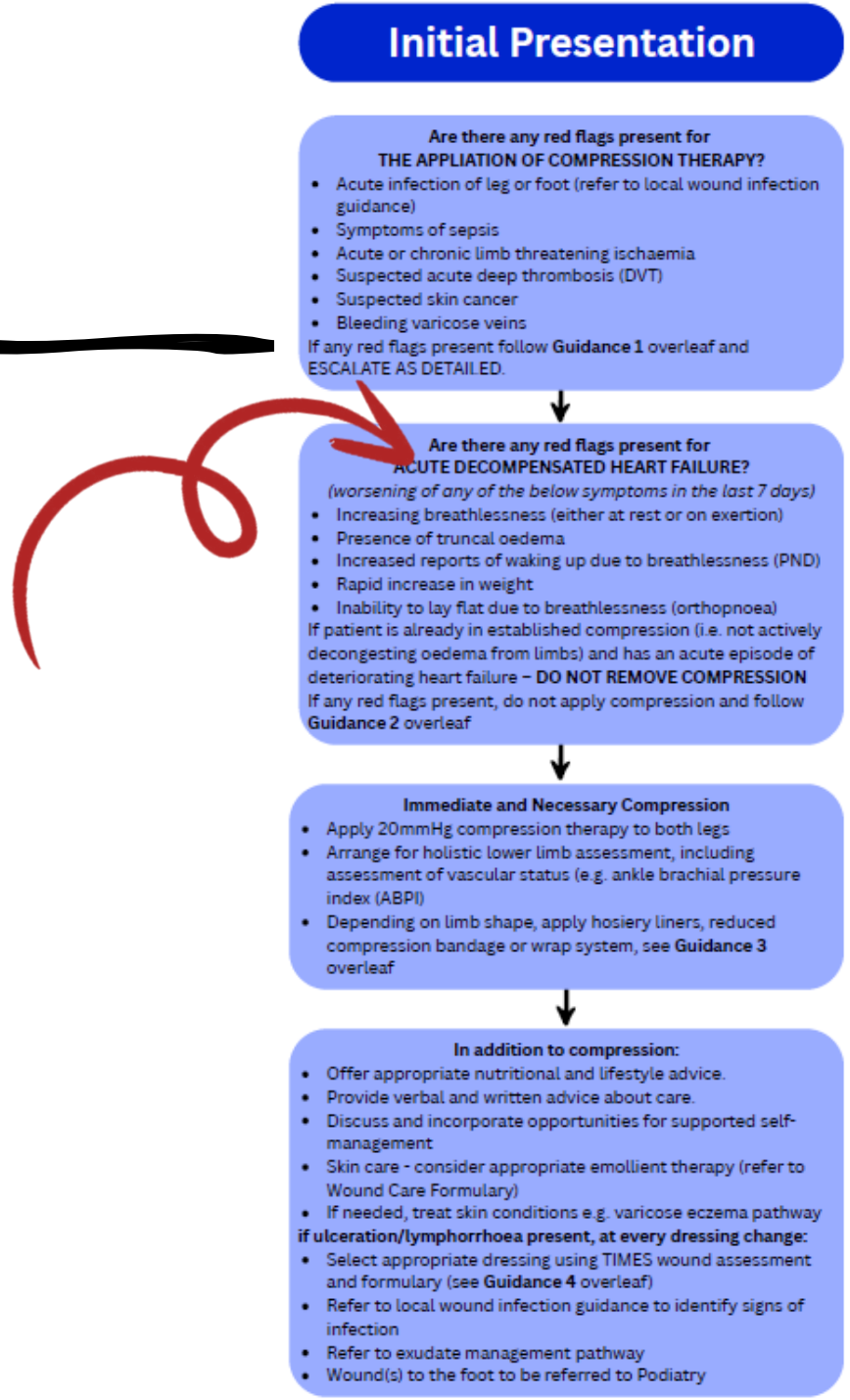
Bleeding varicose veins – urgent referral to Vascular via GP

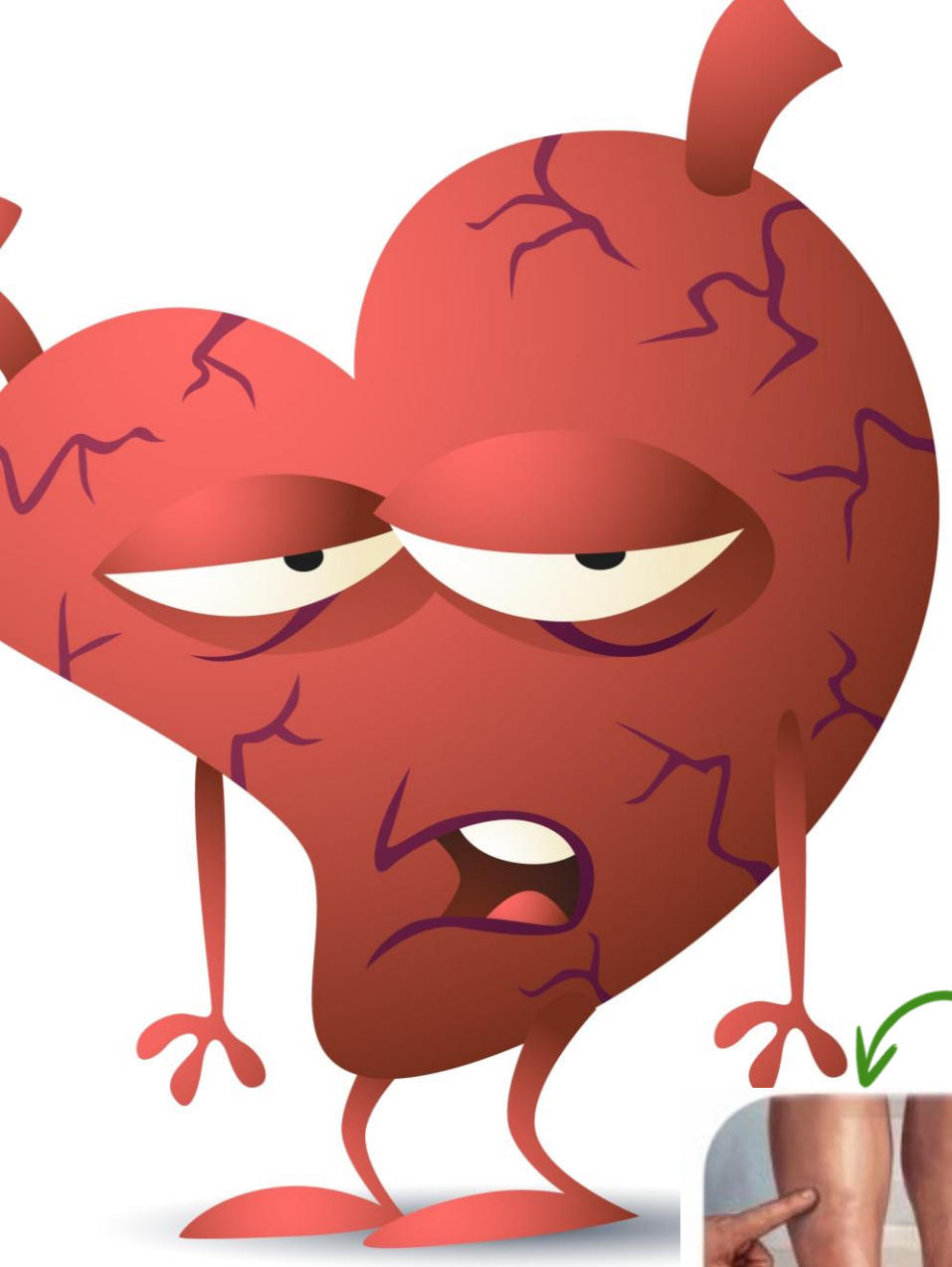
APPLICATION OF COMPRESSION THERAPY

Red flag	Can compression be applied?	Rationale
Acute infection of the leg or foot	Maybe	Localised infection – yes, in combination with topical antimicrobials Cellulitis, spreading/systemic infection – no, risks worsening pain and inflammation, increased tissue damage and potentially facilitate the spread of infection
Symptoms of sepsis	No	The priority is escalating sepsis as a medical emergency!
Acute or chronic limb-threatening ischaemia	No	Significant reduction of blood supply, at risk of limb loss
Suspected acute deep vein thrombosis	No	Not until the patient has been treated with anticoagulation therapy
Suspected skin cancer	Maybe	Does the patient have venous or oedema symptoms? E.g. varicose eczema, lymphoedema. Will compression help address the underlying CVI and lymphoedema?
Bleeding varicose veins	Yes	Reduces venous hypertension, supports the vein wall and promotes haemostasis, thereby controlling active bleeding and reducing the risk of further rupture.

SECTION 1: INITIAL PRESENTATION
RED FLAGS FOR ACUTE DECOMPENSATED HEART FAILURE

- To identify patients with acute decompensated heart failure who are not suitable for compression therapy.
- Supporting safe implementation of compression safely for patients that have stable known or suspected heart failure.





WHAT IS HEART FAILURE?

- When the heart is unable to pump blood around the body well enough to meet the needs of the body.
- Usually because the heart has become too weak or too stiff.
- There are many causes for this including heart disease and high blood pressure.
- It does not mean the heart has stopped working, but that it is not working as well as it should be and may need some support.
- As the heart cannot pump blood as well as it should, it can cause fluid to build up in the lower legs (oedema) as well as further symptoms.
- Heart failure is a long-term condition.
- Treatment aims to control the symptoms and varies depending on cause.

TYPES OF HEART FAILURE & SYMPTOMS

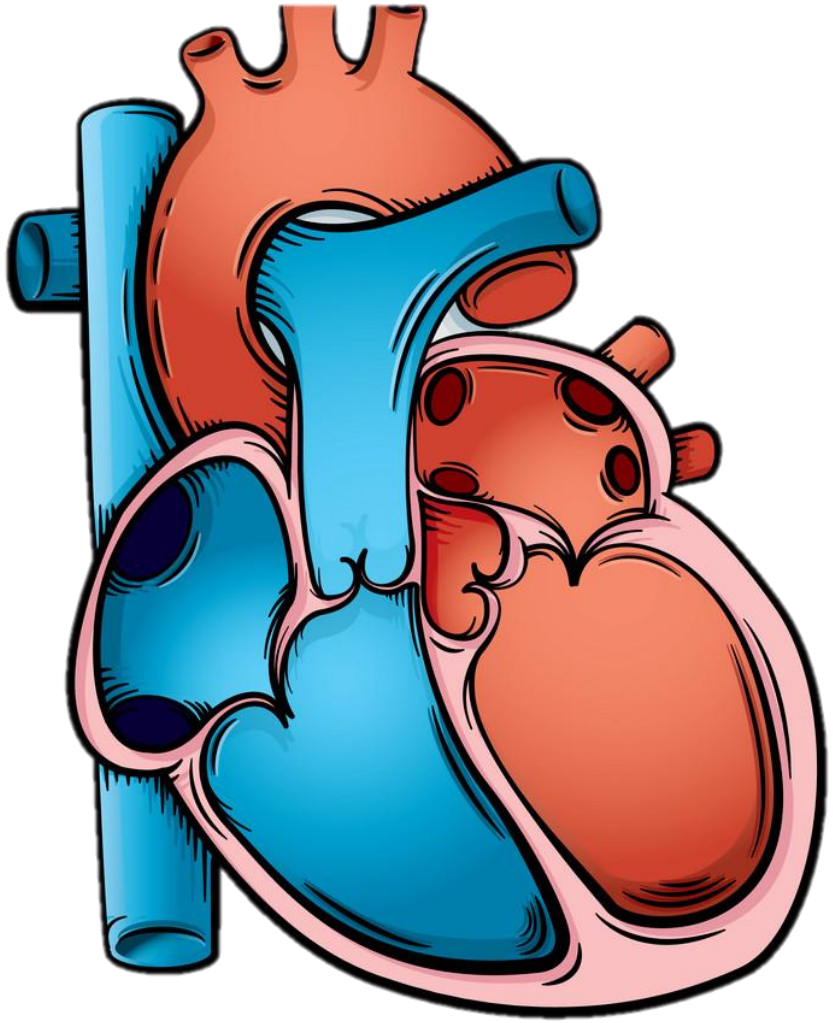
Left-sided:

- Usually caused by hypertension, coronary artery and valvular disease
- Divided into two sub-types

1. Systolic heart failure: heart failure with reduced ejection fracture
2. Diastolic heart failure: heart failure with preserved ventricular function

Symptoms:

- Pulmonary congestion (cough, crackles, pink-tinged sputum, tachypnoea)
- Tachycardia
- Shortness of breath (orthopnoea & PND)
- Fatigue
- Pulmonary oedema
- Cyanosis



Right-sided:

- Can be caused by left ventricular failure, MI or pulmonary hypertension
- Right ventricle cannot empty completely
- May be associated to pulmonary problems (COPD)

Symptoms:

- Peripheral oedema
- Jugular vein distention
- Ascites
- Enlarged liver and spleen
- Weight gain
- Increase peripheral venous pressure
- Bloating / abdominal pain

Biventricular heart failure affects both sides. Individuals may experience symptoms from both types, such as shortness of breath and oedema.

WHAT ARE THE DIFFERENT TYPES OF HEART FAILURE?

Compensated heart failure

- Despite underlying disease, the heart literally 'compensates' for damage to the cardiac muscle to the extent that the patient may be partially or wholly unaware of the problem
- Shortness of breath, tiredness and oedema are stable, minimal or absent

Decompensated heart failure

- As the disease progresses, it becomes difficult for patients to retain their previous lifestyle
- Structural/functional change to the heart causes it to lose its ability to eject blood
- Deterioration of relatively stable heart failure & worsening of symptoms that require medical intervention

Chronic heart failure

- Symptoms are relatively stable and well-managed
- May incur flare-ups of acute episodes
- Treatment aims – to delay disease progression and reduce frequency of flare-ups

Acute heart failure

- Symptoms of heart failure arise suddenly and are initially so severe that the patient requires hospitalisation

(King et al, 2012; Hajouli and Ludhwani, 2022; Wounds UK. 2023; NICOR, 2019)

SO WHAT DOES THE PHRASE 'DETERIORATION OF ACUTE DECOMPENSATED HEART FAILURE' ACTUALLY MEAN?

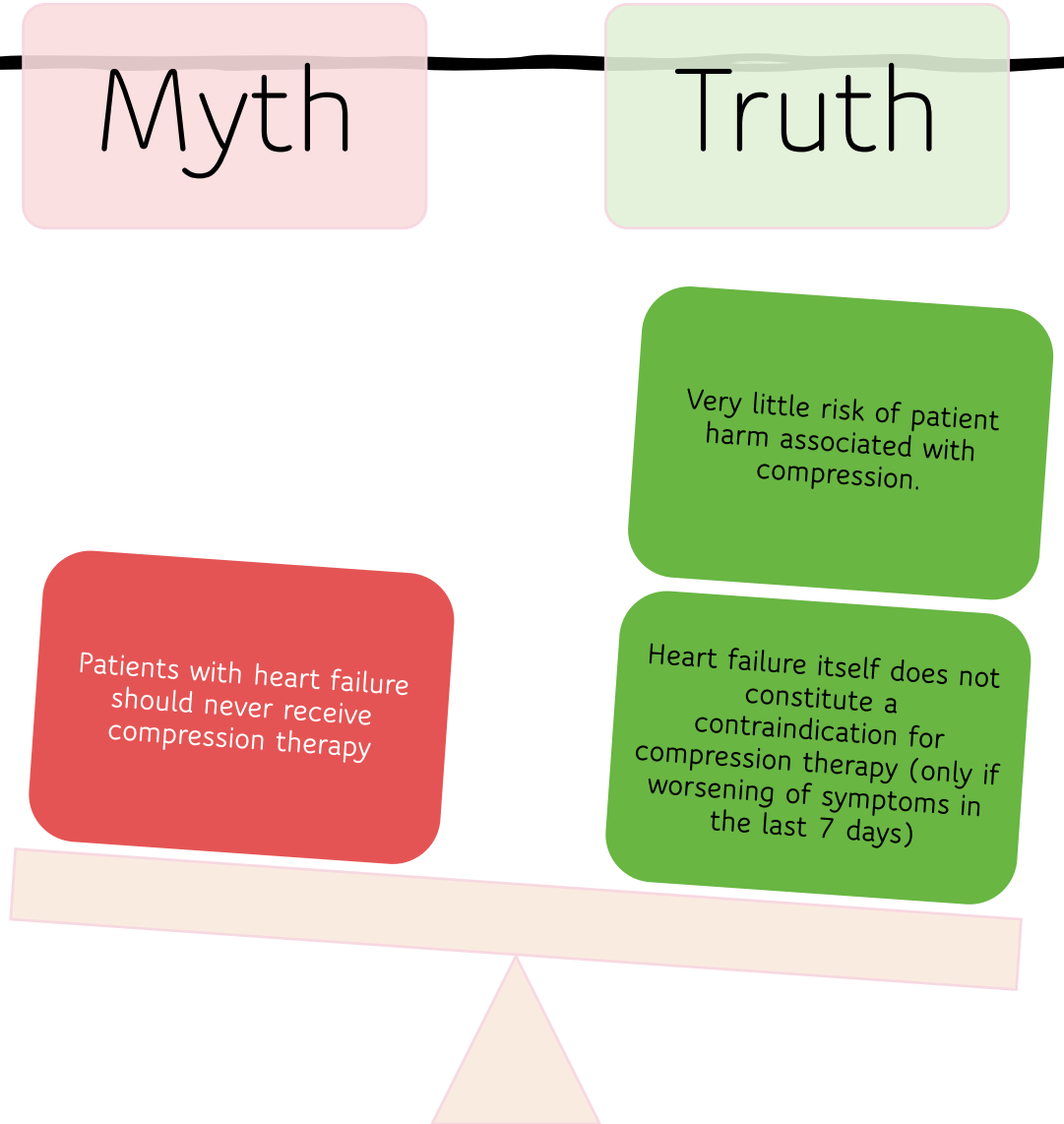
Worsening of symptoms within the last 7 days

Deterioration of relatively stable heart failure, it becomes difficult for patients to retain their previous lifestyle

Deterioration of acute decompensated heart failure

Symptoms of heart failure that arise suddenly and are initially severe

MYTHS AND TRUTHS OF COMPRESSION THERAPY IN PATIENTS WITH HEART FAILURE



Wounds UK Best Practice Statement - The use of therapy for peripheral oedema: Considerations in heart failure (2023)

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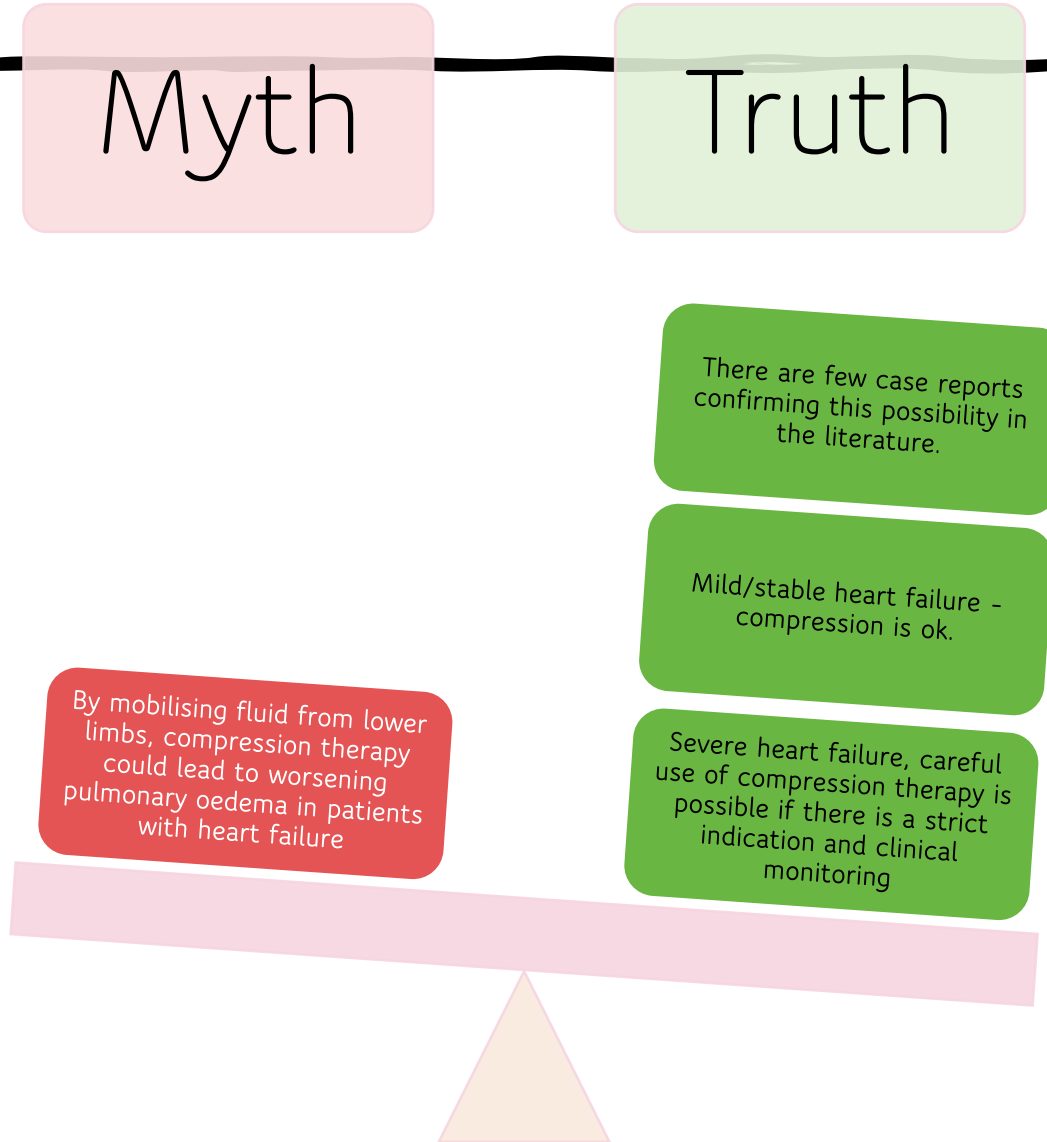

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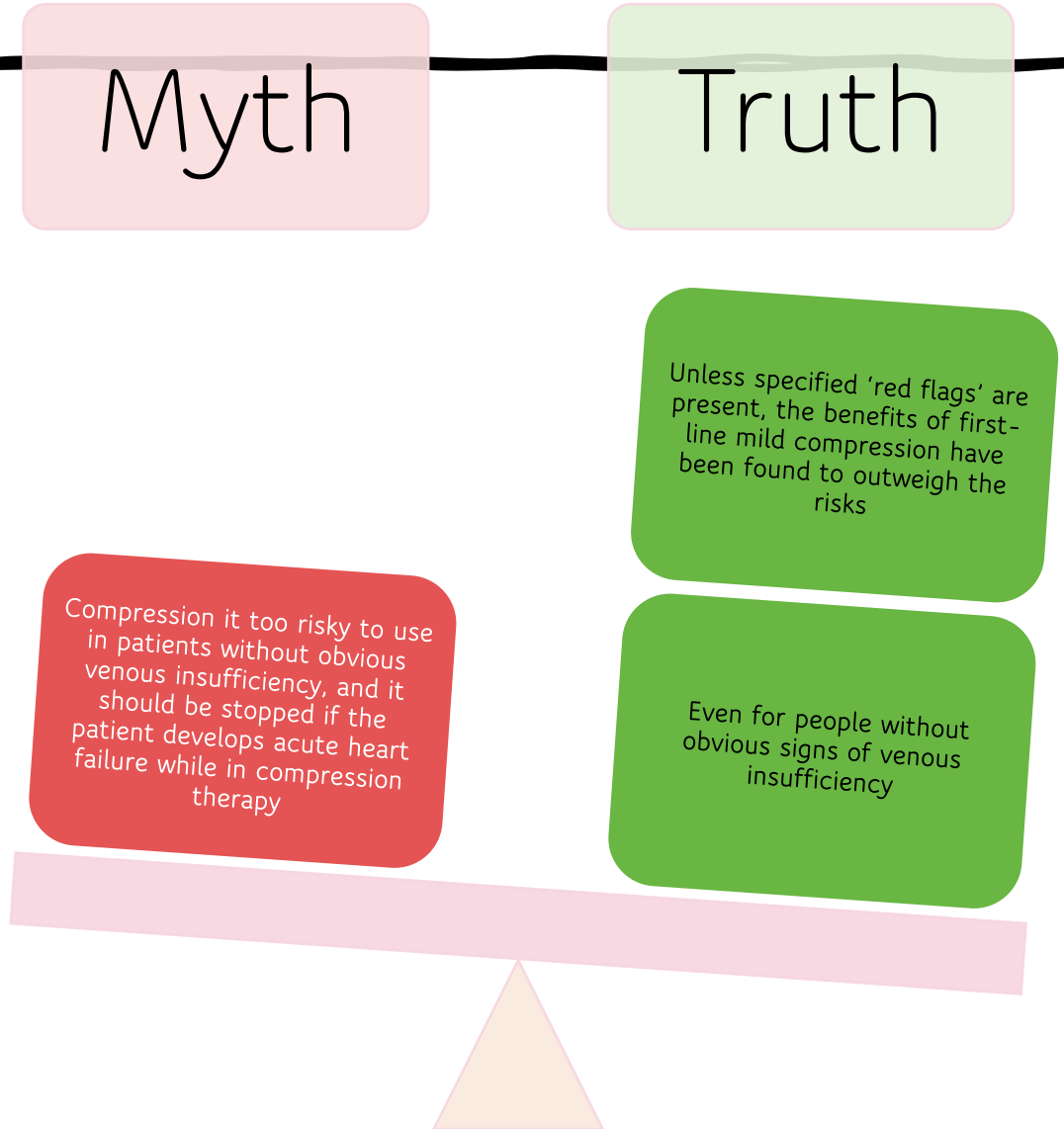

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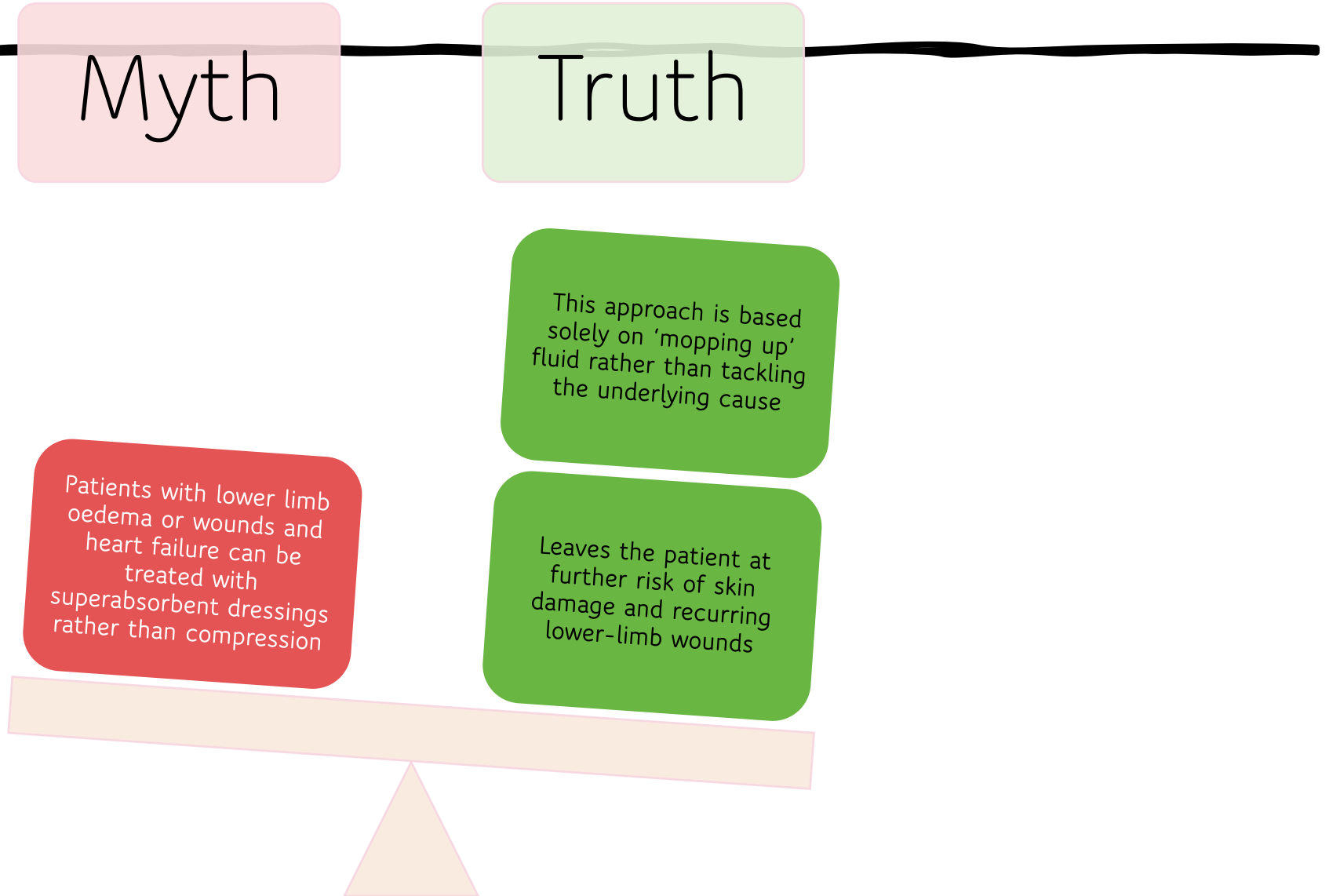

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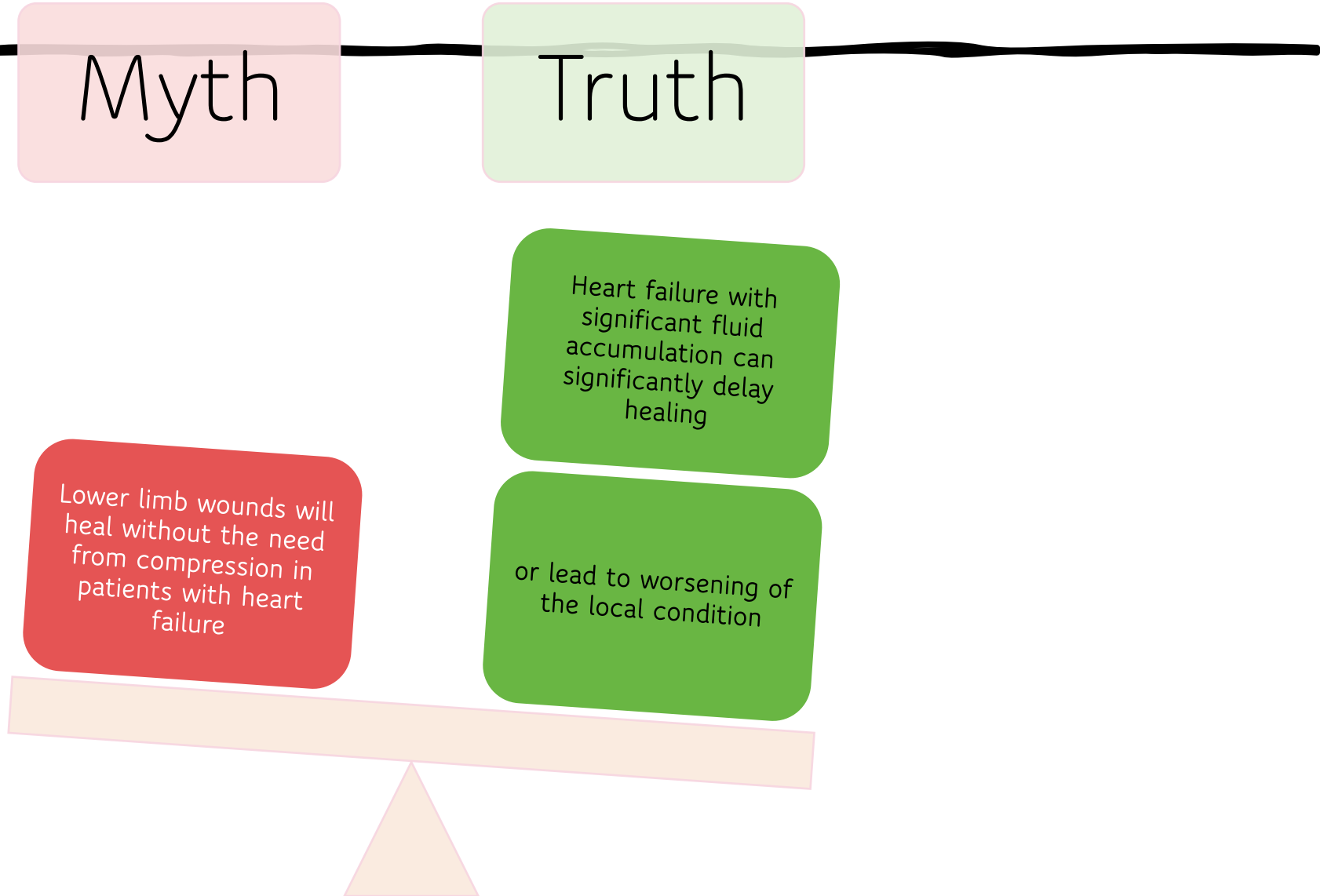


Wounds UK Best Practice Statement - The use of therapy for peripheral oedema: Considerations in heart failure (2023)

CONSEQUENCES OF INADEQUATE TREATMENT OF OEDEMA SECONDARY TO HEART FAILURE

- Uncontrolled oedema and an inadequate level of intervention increases the risk of blistering, leaking, skin fibrosis and infection; therefore, accurate assessment and timely intervention is essential.
- In conjunction with medical treatment, compression therapy plays a key role in managing lower limb oedema, both in patients with and without heart failure.
- Compression therapy is the gold standard treatment for chronic lower limb oedema

(NWCSP, 2021)

COMMON BARRIERS TO THE USE OF COMPRESSION THERAPY IN PATIENTS WITH HEART FAILURE

- A common concern of clinicians is that applying strong compression to the legs of patients with either chronic or acute heart failure will lead to a worsening of symptoms, as they worry that compression overloads and pushes fluid back up towards the heart.
- The physiology of using compression therapy (improved cardiac output) supports its use and research demonstrates little to no worsening of symptoms with the use of compression therapy in patients with heart failure
- At more severe stages of heart failure invasive testing has shown that haemodynamic changes caused by compression are compensated for after a few minutes and usually only have a minor clinical impact.
- This means that compression therapy can be considered for these patients, but they should be closely monitored by the clinician for any increase or worsening of symptoms

(Shapiro, 2020;Wounds UK, 2023; Hirsch et al, 2018).

WHAT ARE THE RED FLAGS FOR ACUTE DECOMPENSATED HEART FAILURE?

Increasing breathlessness (either at rest or on exertion)

Presence of truncal oedema

Increased reports of waking up due to breathlessness (PND)

Rapid increase in weight

Inability to lay flat due to breathlessness (orthopnoea)

INCREASING BREATHLESSNESS/DYSPNOEA (EITHER AT REST OR ON EXERTION)

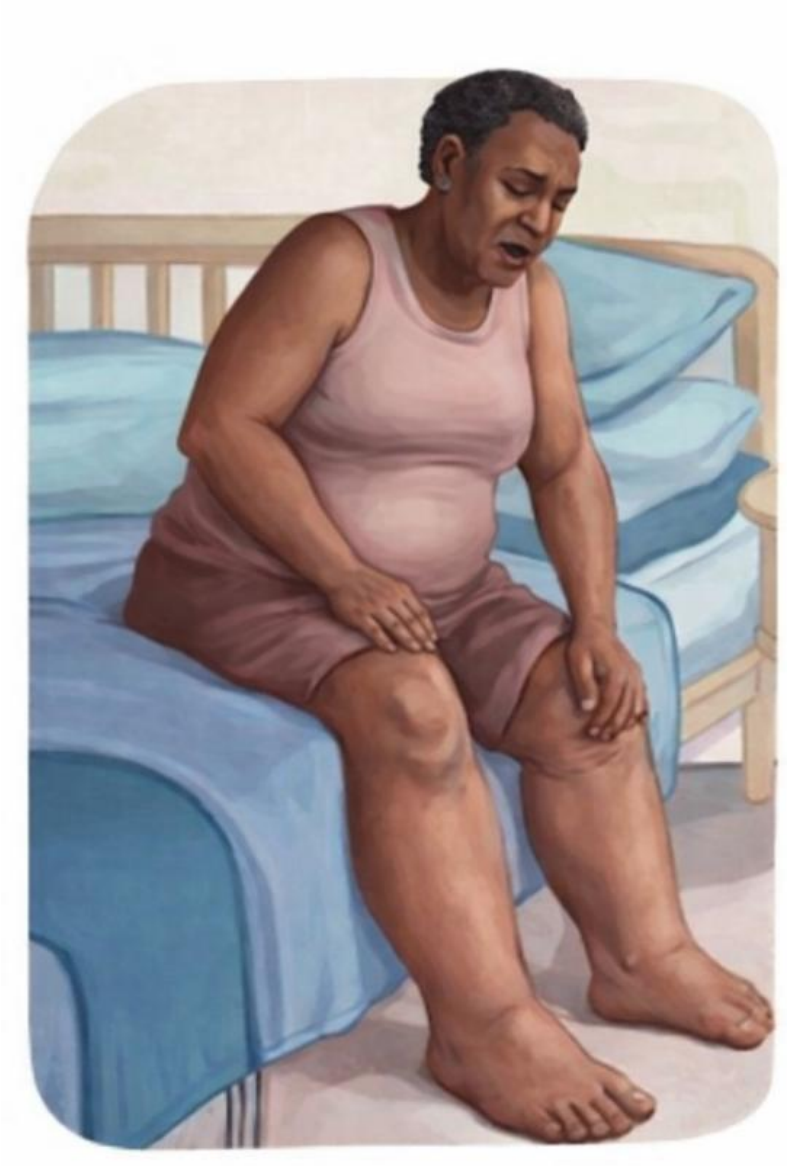
- Worsening in the last 7 days.
- Heart failure causes too much fluid to back up into the lungs, which is called pulmonary oedema.
- This excessive fluid collects in the air sacs of the lungs (alveoli), causing breathlessness, even with minimal activity or at rest.

PRESENCE OF TRUNCAL OEDEMA

- Heart failure (especially right-sided) causes truncal oedema (fluid swelling of the abdomen, lower back, flank, arms, chest, breasts, armpits and genitals) because the heart can't pump blood effectively, which sets off a chain reaction of fluid retention and congestion.
- The heats can't move blood forward efficiently, causing venous hypertension.
- The increase pressure forces fluid out of the blood vessels into surrounding tissues.
- When there is poor cardiac output, the kidneys think the body has "low blood volume" and therefore retains sodium and water, expanding the blood volume and worsening fluid leaked into tissues.
- More commonly seen in bedbound patients as gravity pulse excess fluid into dependent trunk areas.

INCREASED REPORTS OF WAKING UP DUE TO BREATHLESSNESS - PAROXYSMAL NOCTURNAL DYSPNOEA (PND)

- This causes sudden shortness of breath or gasping during sleeping and feeling the urgent need to sit up.
- Occurs after only one to two hours of sleep.
- Shortness of breath feeling normally lasts for 30 minutes or longer.
- This sensation is due to a buildup of fluid in the lungs, caused by heart failure



RAPID INCREASE IN WEIGHT

- A gain of more than 2kg (4lbs 6oz) within a few days.
- Whereas an increase that is caused by body fat will usually happen more gradually over time.
- If there's less blood flowing through the kidneys because the blood isn't being pumped effectively by the heart due to HF, it can cause extra fluid to build up in the body as the kidneys can't remove the salt and water so effectively, causing weight gain.
- Frequent weighing recommended and record weights on a chart.

INABILITY TO LAY FLAT DUE TO BREATHLESSNESS (ORTHOPNOEA)

- Also caused by buildup of fluid in the lungs.
- The heart struggles to pump blood effectively, leading to a buildup of fluid in the circulatory system.
- This accumulation of fluid, particularly in the lungs, results in breathlessness so the patient is unable to lie flat as they feel as if they can't breathe.
- How many pillows is the patient using?

IF A PATIENT PRESENTS WITH DETERIORATION OF RED FLAGS FOR ADHF WITHIN THE LAST 7 DAYS:

Guidance 2 - Red flags for acute decompensated heart failure

DO NOT APPLY COMPRESSION

- Escalate to GP/Heart Failure Team
- Consideration: If no previous diagnosis of heart failure, but it is suspected (red flags present), refer to GP to request a NT pro BNP blood test (gold top) to rule out heart failure
- If leg is weeping use wadding and retention bandage
- Ensure regular leg elevation and sleeping in bed at night.
- Refer to Tissue Viability & GP/Heart Failure Team for ongoing management advice.
- Complete 2-week holistic vascular assessment but liaise with Tissue Viability and GP/Heart Failure Team prior to implementing compression.

WHAT IF MY PATIENT HAS CHRONIC BASELINE BREATHLESSNESS?

- When assessing for ADHF in a patient with COPD or chronic baseline breathlessness (e.g. secondary to elevated BMI, asthma), it is essential to focus on change from baseline over the last 7 days, rather than the presence of breathlessness alone.
- Chronic baseline breathlessness is typically long-standing, exertional and relatively stable from day to day, whereas ADHF deterioration presents as a recent, progressive worsening of breathlessness, particularly at rest, when lying flat (orthopnoea), or with new episodes of waking up overnight due to breathlessness/Paroxysmal Nocturnal Dyspnoea (PND).
- Key differences include new truncal oedema, weight gain, reduced exercise tolerance compared with usual and increased need to sleep upright, which are not features of stable chronic baseline breathlessness.
- Careful history-taking identifies new symptoms to help avoid misattributing heart failure deterioration to chronic baseline breathlessness.

SCENARIO 1

- Mrs A presents to you with a leg ulcer which has been present for 3 weeks.
- You asses her leg and she has no oedema present.
- She reports that she has a PMH of heart failure, she uses 3 pillows to prop herself up at night due to breathlessness and becomes breathless when she walks from the living room to the kitchen to make herself a cup of tea.

Is it safe to apply compression therapy?

Patients with acute decompensated heart failure and worsening symptoms with no oedema can be treated with compression therapy as there is no fluid to decongest so the heart will not be affected/overloaded

SCENARIO 2

- Mr. M has been on your caseload for 4 months. When he first presented to you, he had substantial bilateral lower limb oedema.
- You and your team have consistently applied compression therapy and Mr. M's oedema has now fully decongested.
- You re-apply the compression therapy.
- Once you have finished applying this, Mr. M reports he has become very breathless when resting in the last 5 days and has gained 4kg in weight also. You suspect he is having an episode of ADHF.

Should you remove the compression?

Before

After

There may be temptation to attribute the deterioration of heart failure symptoms to the compression and remove the bandaging.

However, this is not recommended as it will increase the lower limb oedema, putting the legs at risk of blistering, leaking and ulceration.

It is advised that the compression be maintained and that that the patient is referred to the appropriate heart failure specialist.

DO NOT REMOVE COMPRESSION!

QUESTION: MY PATIENT HAS PMH AF, CAN I APPLY COMPRESSION?

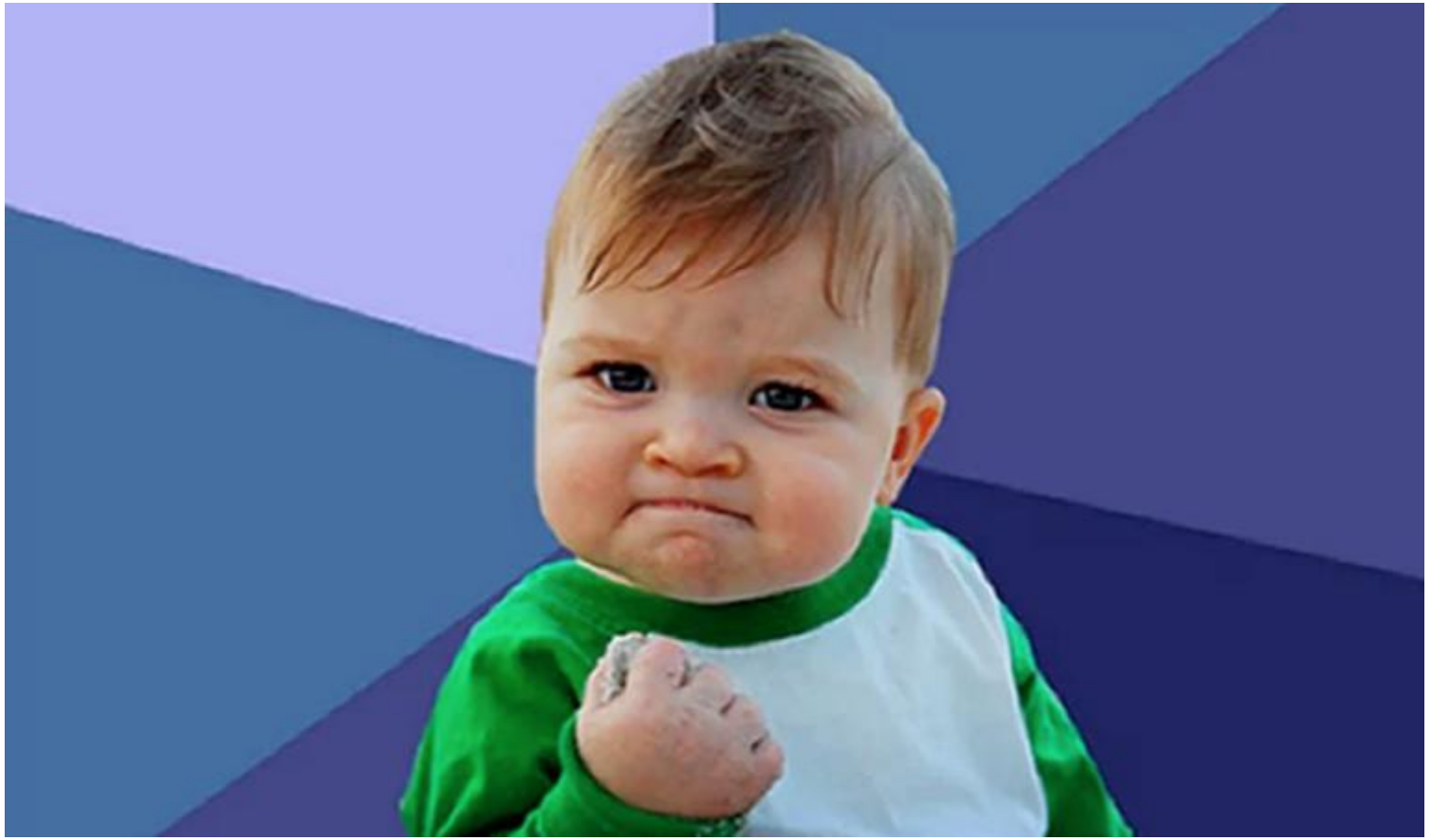
YES, IF THE PATIENT HASN'T HAD DETERIORATION OF RED FLAGS FOR ADHF IN THE LAST 7 DAYS!

QUESTION: MY PATIENT HAS COPD AND ASTHMA AND IS NORMALLY BREATHLESS, CAN I APPLY COMPRESSION?

YES, IF THE PATIENT HASN'T HAD DETERIORATION OF RED FLAGS FOR ADHF IN THE LAST 7 DAYS!

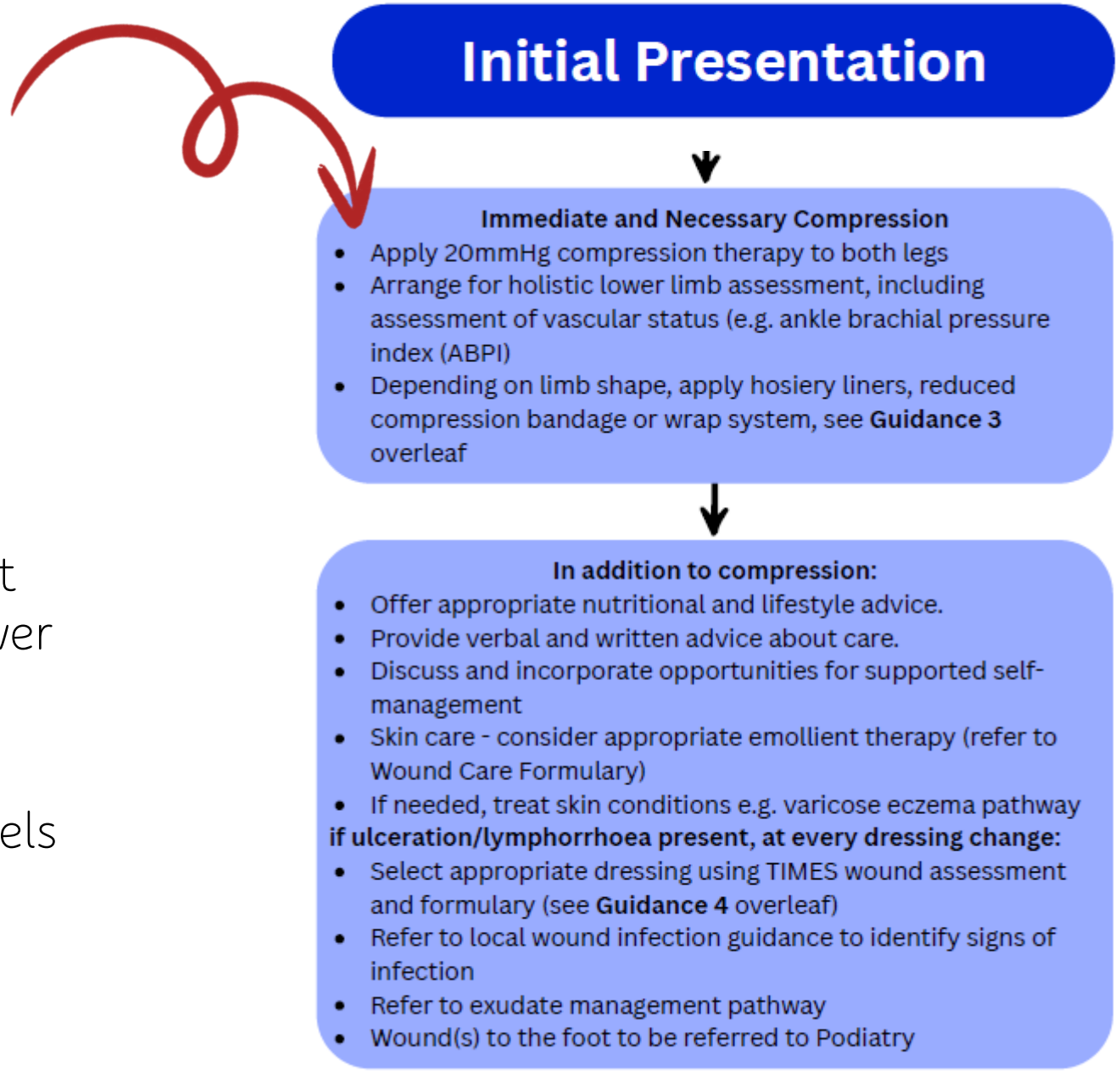
QUESTION: MY PATIENT REPORTS THEY HAVE HAD BREATHLESS UPON EXERTION OVER THE LAST 6 MONTHS, CAN I APPLY COMPRESSION?

YES, IF THE PATIENT HASN'T HAD DETERIORATION OF RED FLAGS FOR ADHF IN THE LAST 7 DAYS!



IMMEDIATE AND NECESSARY COMPRESSION

- Apply 20mmHg compression therapy to BOTH legs below knee.
- Arrange for holistic lower limb assessment (ABPI, pedal pulse sounds/waveforms, lower limb assessment form and PMH) to be completed within 14 days
- Depending on limb shape and exudate levels (if wound present), apply mild 20mmHg compression



First line option

Second line option

Third line option

Guidance 3 - 20mmHg compression options

- Jobst Ulcer Care hosiery liners
- Reduced compression bandage system - apply sub-bandage wadding and then measure ankle circumference:

Ankle circumference < 25cm:

- Apply K-Two Reduced (18-25cm)

Ankle circumference >25cm:

- Apply single layer Clinistretch (if oedema present or patient very active)
- Apply K-Two Reduced (25-32cm) (if no/mild oedema present or patient less active)

Jobst Ulcer Care Kit - 20mmHg closed toe white liner only - suitable for mild oedema and low to moderate levels of exudate

Compression bandaging - K-Two Reduced or single layer Clinistretch (if ankle circumference >25cm - suitable for moderate to substantial oedema and high levels of exudate

Wrap garments - Please seek TV advice before commencing as Juzo ACS and Jobst Farrow 4000 wraps provide strong 40mmHg compression!

SAFETY NET PATIENTS!

Please contact your nurse or doctor as soon as possible if:

- You get numbness or tingling in your feet or toes
- You get new/different or unusual pain in your legs, feet or toes
- Your toes become swollen, or look pale or blue/purple

* Compression safety netting patient document available on the TV website

WHAT IF MY PATIENT HAS A WOUND?

Guidance 4 - Wound management

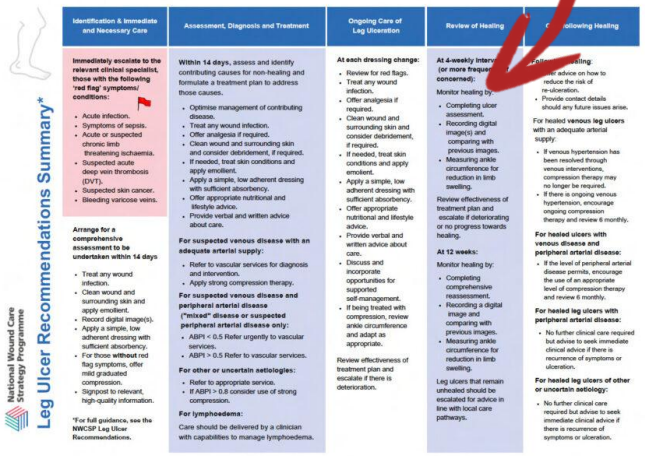
- Do not use adhesive dressings on legs except for Kliniderm Foam Silicone Border and RespoSorb Silicone Border
- Dry necrosis with no autolysis must remain in situ to feet or lower legs if the patient has impiared arterial supply, unless advised by the Vascular team.
- Debridement can be complex. If you are unsure, contact Tissue Viability.
- Offer appropriate nutritional and lifestyle advice.
- Provide verbal and written advice about care.
- Discuss and incorporate opportunities for supported self-management

Cosmopor Transparent
(Formerly Hydrofilm Plus)

Softpore

WITHIN 14 DAYS...

National guidance as per NWCSP Lower Limb Recommendations



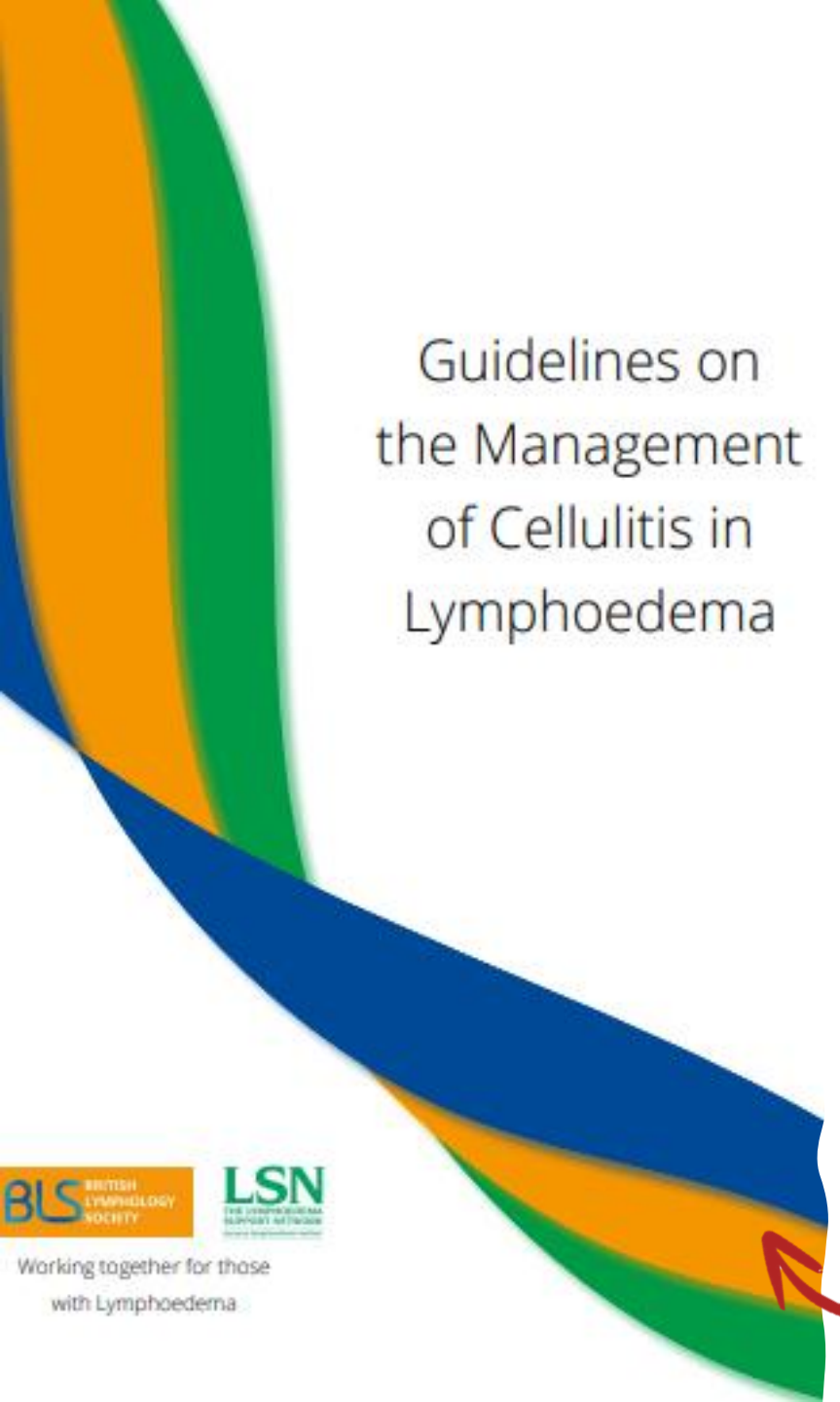
2 Weeks

- Complete holistic lower limb assessment within 14 days.
- A holistic vascular assessment includes ABPI, pedal pulse sounds/waveforms and identification of any venous, arterial and/or oedema signs.
- If an ABPI assessment for those with lymphoedema is unobtainable, in the absence of significant cardiovascular risk factors and clinical signs or symptoms of PAD, it may still be possible to apply compression therapy provided the vascular status has been thoroughly assessed. If unsure, consider referral to Tissue Viability.
- Implement appropriate treatment based on outcome of assessment and diagnosis.
- **NB** - Wraps are not to be used for patients with open wounds as there is no current evidence to support this

- If chronic oedema present, has there been two or more episodes of cellulitis in the past year?
- If **yes**, refer to GP for prophylactic antibiotic therapy (BLS & LSN Guidelines overleaf).

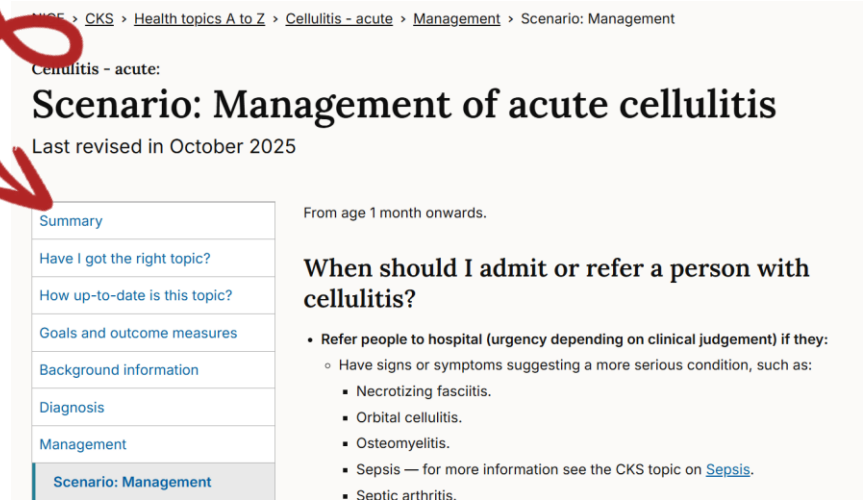
IF CHRONIC OEDEMA PRESENT, HAS THERE BEEN >2 EPISODES OF CELLULITIS IN THE LAST 12 MONTHS

- If yes, refer to GP for prophylactic antibiotic therapy.
- As per BLS and LSN (2022) and NICE guidance (2025)
- First-line: Penicillin 250mg BD



British Lymphology Society Guidelines on the Management of Cellulitis in Lymphoedema (2022)

NICE Guidance: Management of acute cellulitis (2025)


NICE › CKS › Health topics A to Z › Cellulitis - acute › Management › Scenario: Management

Cellulitis - acute:

Scenario: Management of acute cellulitis

Last revised in October 2025

Summary
Have I got the right topic?
How up-to-date is this topic?
Goals and outcome measures
Background information
Diagnosis
Management
Scenario: Management

From age 1 month onwards.

When should I admit or refer a person with cellulitis?

- **Refer people to hospital (urgency depending on clinical judgement) if they:**
  - Have signs or symptoms suggesting a more serious condition, such as:
    - Necrotizing fasciitis.
    - Orbital cellulitis.
    - Osteomyelitis.
    - Sepsis — for more information see the CKS topic on Sepsis.
    - Septic arthritis.

DIAGNOSIS AND TREATMENT

(results from two-week holistic vascular assessment)

Diagnosis	Treatment
An ABPI should never be taken in isolation and if there is a significant clinical suspicion of peripheral arterial disease, consider a referral to Vascular.	
For patients with chronic limb threatening ischaemia ABPI <0.6	• Urgent referral to Vascular • STOP COMPRESSION • Complete doppler every 3 months.
For patients with suspected venous disease and peripheral arterial disease (mixed aetiology) ABPI 0.6 to 0.8	• Referral to Vascular (for patients with active ulceration). • Continue with ≤ 20mmHg • Complete doppler every 3 months
For patients with suspected venous disease but peripheral arterial disease may also be present ABPI 0.81 - 0.99 and For patients with suspected venous disease with adequate arterial supply ABPI 1.0 - 1.4	• Routine referral to vascular for venous duplex scans and possible sclerotherapy (for patients with active ulceration). • Complete further red flag assessment for acute decompensated heart failure, see **Guidance 2** • If evidence of acute cellulitis, bilateral or soft pitting oedema, follow staged approach to compression therapy, see **Guidance 5** overleaf • If none of the above are present, apply 40mmHg compression therapy to the affected limb(s) • For ABPI 0.81 - 0.99 - complete doppler every 6 months • For ABPI 1.0 - 1.4 - complete doppler every 12 months
For patients with suspected medial wall calcification (unable to occlude pulses) or ABPI >1.4	• Referral to Tissue Viability. • Continue with ≤ 20mmHg • Care must be taken in interpreting ABPI results in people with diabetes, rheumatoid arthritis, systemic vasculitis, atherosclerotic disease and advanced CKD as these could be misleadingly high • For values above 1.5, the vessels are likely not able to be occluded • Complete doppler every 3 months

MANAGEMENT OF VENOUS DISEASE

- Aim – to increase venous return and maintain an effective healing environment
- Strong 40mmHg compression therapy can be implemented to the affected limb(s) (in the absence of red flags)
- Debridement is safe due to adequate arterial supply

For patients with suspected venous disease but peripheral arterial disease may also be present
ABPI 0.81 - 0.99

and

For patients with suspected venous disease with adequate arterial supply
ABPI 1.0 - 1.4

→

- Routine referral to vascular for venous duplex scans and possible sclerotherapy (for patients with active ulceration).
- Complete further red flag assessment for acute decompensated heart failure, see **Guidance 2**
- If evidence of acute cellulitis, bilateral or soft pitting oedema, follow staged approach to compression therapy, see **Guidance 5** overleaf
- If none of the above are present, apply 40mmHg compression therapy to the affected limb(s)
- For ABPI 0.81 - 0.99 - complete doppler every 6 months
- For ABPI 1.0 - 1.4 - complete doppler every 12 months

MANAGEMENT OF CHRONIC LIMB-THREATENING ISCHAEMIA / SEVERE ARTERIAL DISEASE

For patients with chronic limb threatening ischaemia ABPI <0.6

- Urgent referral to Vascular
- STOP COMPRESSION
- Complete doppler every 3 months.

- Aim – to enhance arterial blood flow and maintain an effective healing environment.
- Do NOT use debridement dressings or bowl wash wounds where there is SEVERE arterial disease present (e.g. honey when there is dry intact necrosis, rest pain, intermittent claudication and limb threatening ischaemia).
- Debridement dressings and bowl washing can be used when there is mild arterial disease – debridement can be complex so contact TV for further support if required.
- When there is necrosis/eschar and severe arterial disease, the aim is to keep the necrosis clean and dry
- Apply barrier products to protect peri-wound skin
- Many severe arterial wounds are prone to infection and so Cutimed Sorbact Contact is a suitable antimicrobial contact layer when debridement is contraindicated

MANAGEMENT OF ARTERIOVENOUS LEG ULCERS / MIXED DISEASE

For patients with suspected venous disease and peripheral arterial disease (mixed aetiology) ABPI 0.6 to 0.8 →

- Referral to Vascular (for patients with active ulceration).
- Continue with ≤ 20mmHg
- Complete doppler every 3 months

- **Aim**: As per venous ulcers, to increase venous return and maintain an effective healing environment
- In the presence of ulceration, Vascular will determine the arterial element and what interventions are required (during duplex scans)
- Mild 20mmHg compression can be implemented to the affected limb(s) (in the absence of red flags)
- Debridement can be complex – liaise with Tissue Viability if unsure

MANAGEMENT OF SUSPECTED MEDIAL WALL CALCIFICATION

- Apply mild 20mmHg compression
- Liaise with Tissue Viability – we will assess if stepping up to 40mmHg is safe
- Debridement is safe in these individuals

For patients with suspected medial wall calcification (unable to occlude pulses) or ABPI >1.4 →

- Referral to Tissue Viability.
- Continue with ≤ 20mmHg
- Care must be taken in interpreting ABPI results in people with diabetes, rheumatoid arthritis, systemic vasculitis, atherosclerotic disease and advanced CKD as these could be misleadingly high
- For values above 1.5, the vessels are likely not able to be occluded
- Complete doppler every 3 months

WHEN IS A WOUND PALLIATIVE? WHEN IS IT APPROPRIATE TO HAVE A PALLIATIVE CARE PLAN IN PLACE?

WHAT IF THE PATIE
FAILURE, ACUTE CEL
SOFT PITTING OEDEM

Guidance 5 - Staged approach to compression therapy starting with 20mmHg:

For single leg:

- Continue with 20mmHg below knee for 14 days.
- Reassess red flags for acute decompensated heart failure.
- If no red flags and assessment supports the use of strong 40mmHg compression, apply 40mmHg below knee.
- Reassess red flags for acute decompensated heart failure after 7 days.
- Once below knee compression successfully implemented, apply thigh high compression if required starting with mild 20mmHg and increasing to strong 40mmHg where assessment supports this, following the same staged approach.
- Implement an ongoing heart failure red flag assessment care plan for patient and reassess red flags for acute decompensated heart failure when compression is increased in either strength or length.

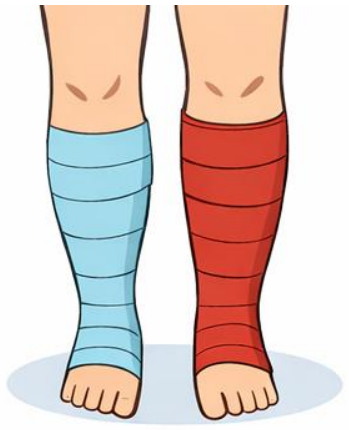
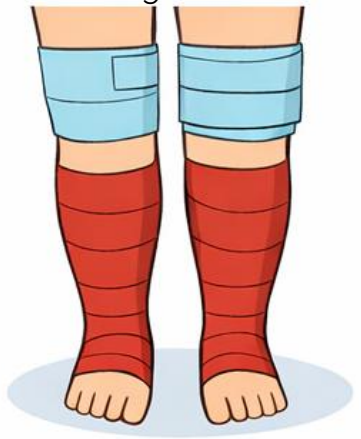
For bilateral legs:

- Continue with 20mmHg below knee on both legs for 14 days.
- Reassess red flags for acute decompensated heart failure.
- If no red flags, apply 40mmHg below knee to one leg and 20mmHg below knee to the other leg.
- Reassess red flags for acute decompensated heart failure after 7 days.
- If no red flags and assessment supports the use of strong compression, apply 40mmHg to both legs, below knee.
- Once below knee compression successfully implemented, apply thigh high compression if required starting with mild 20mmHg and increasing to strong 40mmHg where assessment supports this, following the same staged approach.
- Implement an ongoing heart failure red flag assessment care plan for patient and reassess red flags for acute decompensated heart failure when compression is increased in either strength or length.

ONGOING ASSESSMENT

- Regular monitoring of ADHF is required whilst oedema is actively being decongested.
- When compression is increased in strength (e.g. 20mmHg to 40mmHg) or length (e.g. below knee to thigh-high)

IMPLEMENTING A STAGED APPROACH TO COMPRESSION THERAPY

Initial presentation	Day 14	Day 21	Day 28	Day 35	Day 42
					
20mmHg compression bandaging to both lower legs	20mmHg below knee to one leg, 40mmHg below knee to the other leg	40mmHg below knee to both legs	40mmHg below knee to both legs plus 20mmHg wrap garments to both knees and thigh (one layer of Velcro straps only)	40mmHg below knee to both legs plus 20mmHg wrap garment (one layer of Velcro straps) to one knee and thigh and 40mmHg wrap garment (two layers of Velcro straps) to other knee and thigh	40mmHg thigh high to both legs

* Implement an ongoing heart failure red flag assessment care plan for patient and reassess red flags for acute decompensated heart failure

REVIEW

Review

At 4-weekly intervals (or more frequently, if concerned), monitor healing by:

Patients with wound(s):

- Complete ulcer assessment.
- Record digital image(s) and comparing with previous images.
- Review effectiveness of treatment plan and escalate if deteriorating or no progress towards healing.
- If <40% wound area reduction at 4 weeks, refer to Tissue Viability

Patients with oedema:

- Measure reduction in limb swelling.
- If limb is no longer reducing in size, measure for maintenance garment(s).
- If oedema management is unsuccessful, refer to Tissue Viability.

At 12 weeks:

- If wound remains unhealed, refer to Tissue Viability
- Complete comprehensive reassessment

PALLIATIVE MANAGEMENT

Ask what matters to the patient the most and create a palliative care plan focusing on symptom management

Manage pain, malodour, skin care, exudate and infection

Continue to implement elements of pathways in a palliative manner to prevent sepsis and to reduce the chance of infection.

Reassess following intervention to evaluate effectiveness and consider healing potential

Be honest. If wound healing is unlikely due to palliative status, let the patient know.

Refer to tissue viability for advice and support

SUMMARY OF TODAY

- **Describe** the key anatomy and physiology of the vascular and lymphatic systems relevant to leg ulceration and oedema.
- **Recognise and explain** the main risk factors and underlying causes contributing to leg ulcers and oedema.
- **Perform** a comprehensive, holistic assessment of a patient presenting with lower-limb wounds and/or oedema
- **Identify and address** factors that contribute to delayed healing and poor clinical outcomes.
- **Discuss** how patient experiences, beliefs and clinician attitudes influence engagement, concordance and overall care quality.
- **Carry out** a structured holistic vascular assessment, including interpretation of findings, to determine ulcer aetiology.
- **Apply** local clinical pathways and best-practice guidelines to ensure timely, evidence-based management.

THANK YOU FOR LISTENING!

ANY QUESTIONS?

BEFORE YOU LEAVE...

1. Please scan this QR code to give us feedback (the good, the bad and the ugly!) The questions are multiple choice!

2. Please put your chair and table away.

3. Ensure all rubbish is put in the bins.

4. Please wash up any mugs and cutlery you used.

5. Please take any biscuits left!