LOWER LIMB AND COMPRESSION THERAPY PATHWAY

Version 3 September 2023

Any concerns at all, please contact your local **Sirona** wound care service

Email - sirona.wcs@nhs.net

FIRST STEP TOWARDS HEALING

Immediate care for patient with a wound on the lower limb

On first identifying a patient with **a lower limb wound** follow this immediate care pathway until a lower limb assessment has been completed. This is a **temporary pathway** to support wound healing, and should only be used for up **to 28 days**.

Consider appropriateness if patient is in:

- Acute and/or unstable heart failure
- End of Life

Contact the appropriate specialist service

Red Flag Assessment (assessed at each visit)

- **Spreading Infection/Systemic Infection**
- **Red, hot, swollen leg/Cellulitis**
- **Limb threatening ischaemia**
- **Suspected DVT**
- **Suspected skin cancer**
- **Bleeding varicose veins**
- **Confirmed Diabetic Foot Ulcer**
- **Confirmed arterial disease/PAD**

- For diabetic patients with foot wounds refer urgently to local diabetic foot MDT service within 24hrs https://remedy.bnssg.icb.nhs.uk/adults/diabetes/diabetes-foot-care/
- If patient has limb threatening ischaemia – refer urgently to vascular service - www.referapatient.org or ring Southmead Hospital switchboard and ask for vascular registrar on call
- Any other concerns discuss with GP urgently

NO Red Flags

YES - DO NOT COMPRESS Escalate immediately & treat infection.

NO red flags present

Within 24 hours of presenting with a lower limb wound commence the following

- **Wound and skin cleansing**
- **Refer to page 5 re Dressing Selection**
- **Advise and discuss with patient treatment plan and reasons for compression**
- **Apply mild compression therapy up to 20 mmHg : -**
  - **UrgoKTwo Reduced compression bandage for patients with either fragile skin, oedema, mis-shaped leg, a larger wound, high/moderate exudate level or reduced mobility.**
  - **Closely monitor for skin integrity and sign of vascular insufficiency if there is known or suspected impaired sensation**
  - **If not competent to apply UrgoKTwo Reduced then apply 1 layer of K-soft bandage and 2 x layers of K-lite bandages.**
  - **For all other patients refer to Hosiery formulary**

Within 28 days of commencing immediate care pathway:

Complete a full lower limb holistic assessment including patient medical history, limb assessment, wound assessment and ABPI.

It is imperative that this step is completed to ensure the patient receives the right level of compression to aid wound healing.

If vascular referral is required discuss with wound care service whether to continue in mild graduated compression.

Provide patient with verbal & written information about their wound and treatment plan.

FULL HOLISTIC ASSESSMENT PATHWAY

Please complete ABPI within 28 days.
Consider patients with a co-morbidity as a priority

Photograph all wounds on first assessment and every 4 weeks thereafter, complete limb assessment and commence appropriate pathway below

If ABPI <0.5	**ABPI 0.51 - 0.64** Arterial Aetiology	**ABPI 0.65 - 0.79** Mixed Aetiology	**ABPI 0.8 - 1.3** Venous Aetiology	**ABPI is more than 1.3**	If ABPI unobtainable due to Chronic Oedema, Lymphoedema or Cellulitis
Refer to Vascular	**Refer to WCS**	**Mild Graduated Compression 20mmHg**	**Strong Graduated Compression 40mmHg**	**Refer to WCS**	**Refer to WCS**

ALWAYS ASSESS BOTH LEGS
For non-ulcerated legs follow **PATHWAY D**, if venous disease present

Any concerns at all, please contact your local **Sirona** wound care service

COMPRESSION THERAPY SELECTION GUIDE

Photograph wound on assessment and then every 4 weeks.

Commence UrgoKTwo bandaging for 2 weeks -
Assess suitability for supported self-care alternative using the guide below

DOES THE PATIENT HAVE ANY OF THE FOLLOWING?

- Exudate not contained within the dressing for duration of wear time.
- Abnormal leg shape – if very misshapen contact WCS
- Chronic leg and ankle oedema not reduced by elevation – if legs/feet very oedematous contact WCS
- Skin on leg very fragile or in poor condition
- Fixed ankle joint
- Large wound size
- If ankle circumference above 32cm contact WCS

→ **Yes**
Continue in compression bandaging

NO

Discuss treatment options with patient/carer, are they able, willing and suitable for supported self-care. Consider -

Physical Ability – Has the patient/carer the mobility and dexterity to apply self-care compression?

Mental Ability – Does the patient understand signs of infection and problems?

Motivation – Are you confident the patient will keep the compression garment on?

→ **No**
Continue in compression bandaging or consider compression options applied by HCP dependant on patient choice

YES

Suitable for self-care. Select Hosiery Kits first choice unless patient has

Slightly distorted leg shape

Moderate reducible oedema

Hosiery Kit difficult to apply – consider hosiery application aid

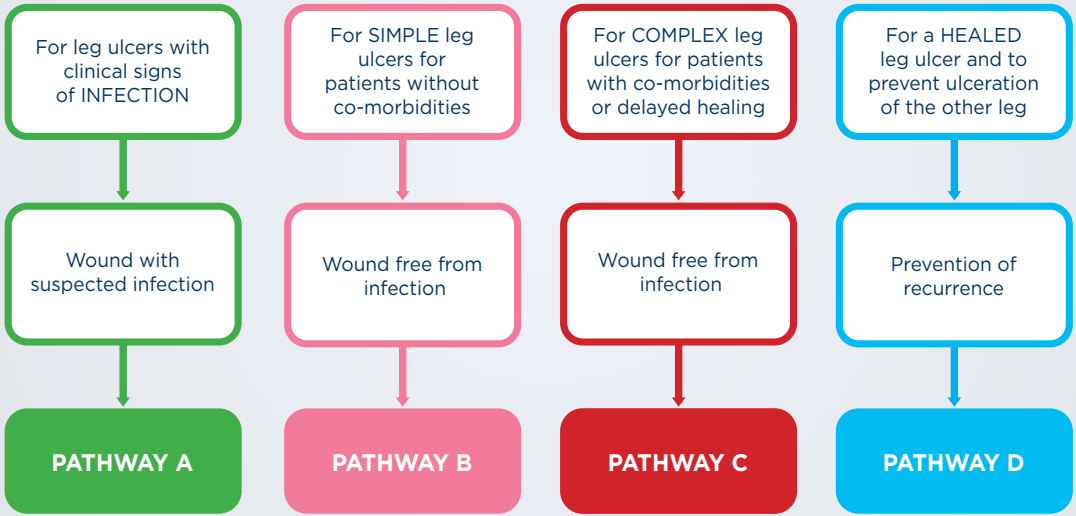
→ If unsuitable for Hosiery Kit - use compression wrap

Any concerns at all, please contact your local **Sirona** wound care service

DRESSING SELECTION PATHWAY

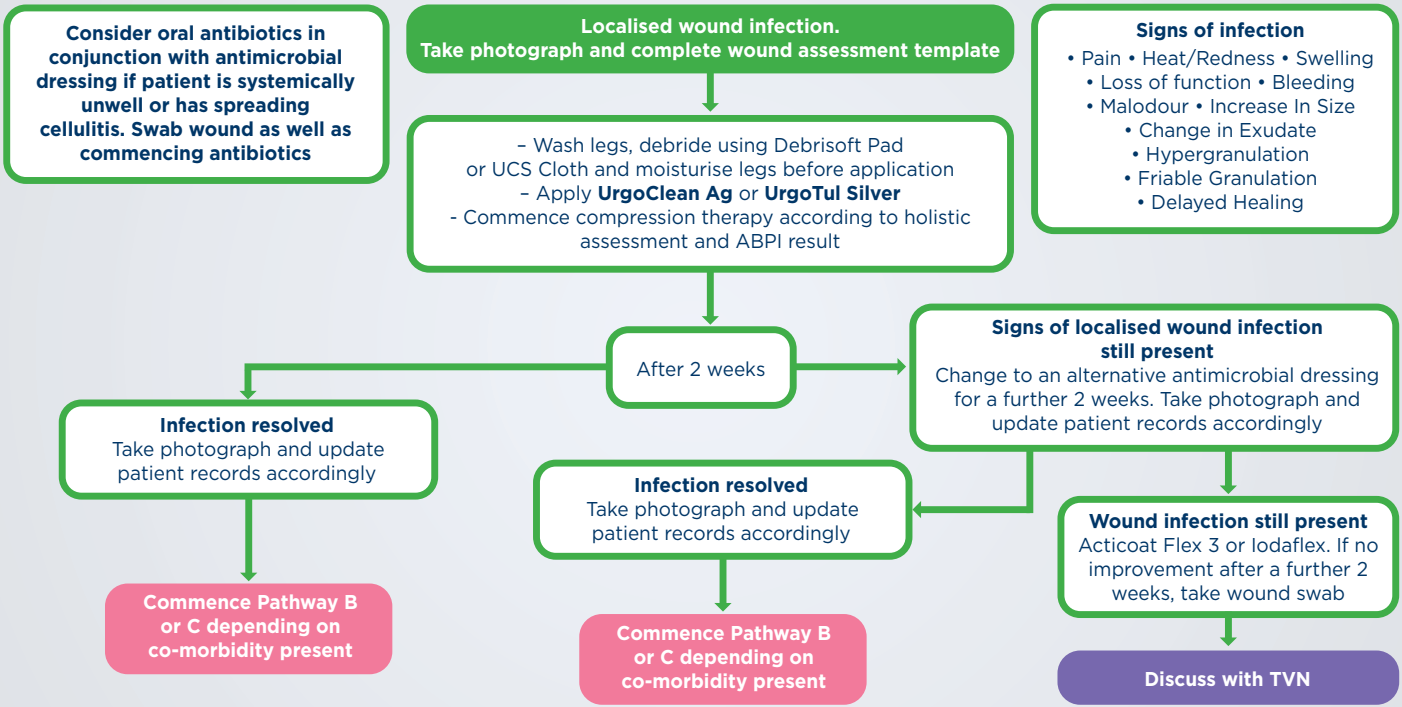
CO-MORBIDITIES

- Diabetes
- Rheumatoid Arthritis
- Immunosuppressed
- Lymphoedema
- Factor 5 Leiden (Thrombophilia)
- Moderate to Severe Renal Disease
- Heart Failure
- COPD
- PAD
- Consider malignancy or inflammatory skin conditions



Any concerns at all, please contact your local **Sirona** wound care service

PATHWAY A: FOR WOUNDS WITH SUSPECTED INFECTION



Minimum requirement is to take wound dimensions and photograph every 4 weeks

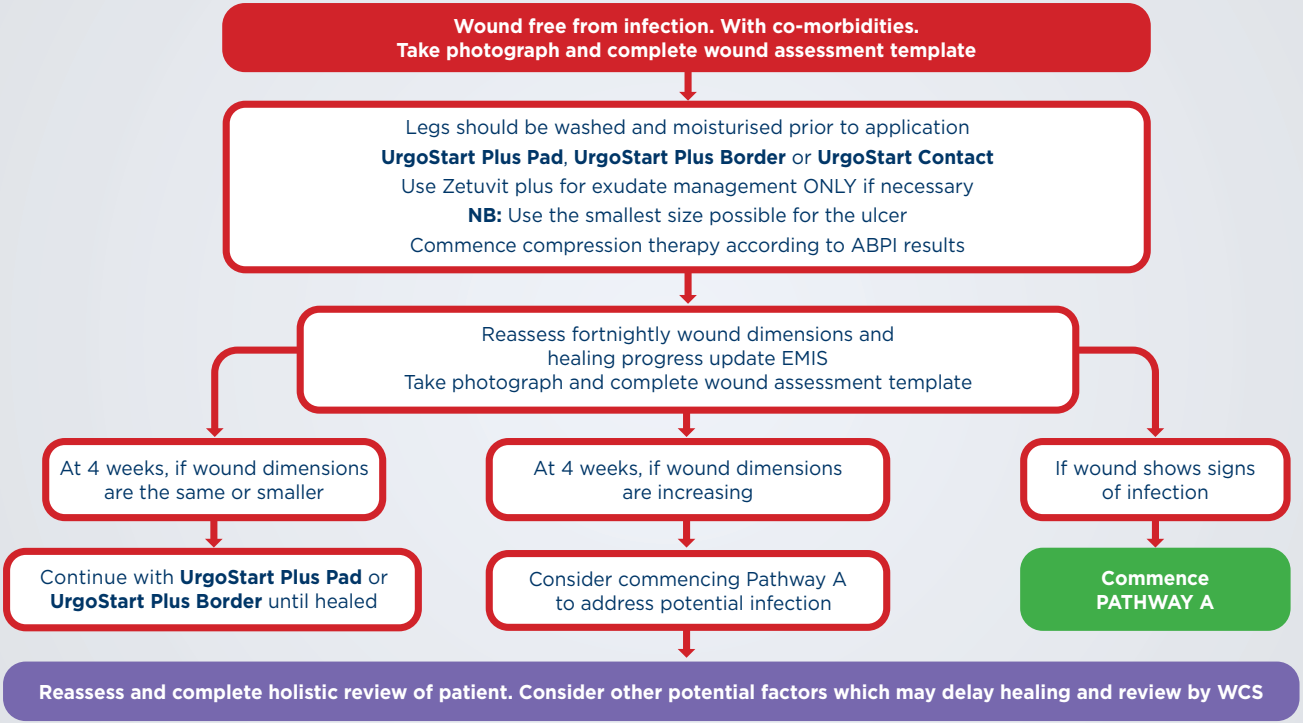
Any concerns at all, please contact your local **Sirona** wound care service

PATHWAY B: FOR SIMPLE WOUNDS

Minimum requirement is to take wound dimensions and photograph every 4 weeks

Any concerns at all, please contact your local **Sirona** wound care service

PATHWAY C: FOR COMPLEX WOUNDS WITH CO-MORBIDITY



Minimum requirement is to take wound dimensions and photograph every 4 weeks

Any concerns at all, please contact your local **Sirona** wound care service

PATHWAY D: FOR A HEALED LEG ULCER

Legs should be washed and moisturised regularly using an emollient as both a soap substitute and leave on skin treatment.

For a healed leg ulcer and to prevent ulceration of the other leg

Keep in present compression therapy
Legs should be washed and moisturised prior to application

Reassess

If skin is intact with no sign of break down and patient not already in hosiery/wraps, assess limb(s), including limb shape, for appropriate compression garment to promote self management. Refer to local formulary for compression products.
Check patients understanding regarding continued compression and skin care.
Order hosiery application aid if required.

Review the patients after 2 weeks to check they can manage chosen compression product. Ensure patient knows when and how to re-order their compression product

**Reassess if discomfort or deterioration in condition of the leg occurs.
Repeat ABPI and follow Lower Limb PATHWAY A to C.**

Educate patient regarding ongoing care of their legs e.g. patient info leaflet

Symptoms of venous disease are reversible but not curable

Compression must be worn for life

Any concerns at all, please contact your local **Sirona** wound care service

DIFFERENTIAL DIAGNOSES FOR DIFFERENT LEG ULCER TYPES

Leg ulcer	Typical location	Important factors in patient assessment	Important factors in leg assessment	Important factors in wound assessment	Further investigations	Treatment
Venous	Lower gaiter/ malleolus	• Deep vein thrombosis (DVT) • Varicose veins • Previous surgery or trauma • Obesity	• Previous ulceration • Skin staining • Inverted 'champagne bottle' shaped leg • Lipodermatosclerosis • Eczema • Oedema • Suboptimal ankle movement	• Tissue may be granulating or sloughy, usually with shallow, sloping edges	Referral to vascular team Duplex scan of venous system	• Compression • Radiofrequency ablation of superficial varicose veins
Arterial	Foot or ankle / lower shin	• History of cardiac disease, intermittent claudication, diabetes, rest pain, smoking, hypertension	• Reduced ankle brachial pressure (ABPI) • Pale, poorly perfused limb • Limb may be hairless	• Sloughy and necrotic or pale wound base • Minimal exudate from ulcer • Punched-out appearance with deep wound edges	Urgent referral to vascular team Duplex scan of arterial system CT angiogram	• Angioplasty with stenting • Bypass surgery • Antiplatelet therapy • Statin therapy
Pyoderma gangrenosum	Anywhere on body	• Inflammatory bowel disease • Rheumatoid arthritis	• Significant pain • Spreads rapidly	• May have purple halo around ulcer • Necrotic tissue may be evident	Often a diagnosis by elimination	• Referral to dermatology • Steroid therapy, topical and/or systemic
Small vessel vasculitis	Lower legs	• Recent infection • Antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (a group of conditions associated with the destruction of small blood vessels	• Painful, non-blanching palpable purpura	• Multiple purpura, which may ulcerate	Ulcer biopsy Blood tests as per specialists	• Referral to dermatology/ rheumatology • Reduced compression • Steroid therapy

Reference – Wound Care Today Nov 2019 Understanding the differential diagnosis of leg ulcers: focus on atypical ulcers By: Jane Todhunter

Any concerns at all, please contact your local **Sirona** wound care service

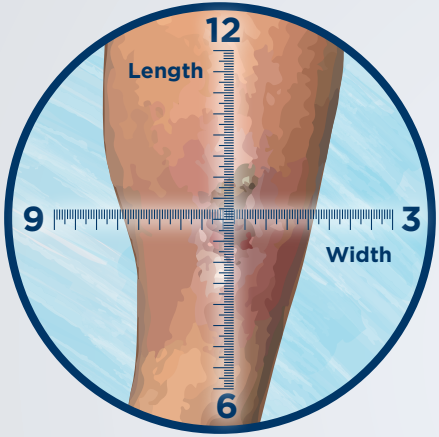
DIFFERENTIAL DIAGNOSES FOR DIFFERENT LEG ULCER TYPES

Leg ulcer	Typical location	Important factors in patient assessment	Important factors in leg assessment	Important factors in wound assessment	Further investigations	Treatment
Rheumatoid	Lower gaiter/ ankle	• Rheumatoid arthritis • Immunosuppressant medication	• Multifactorial aetiology • Foot deformity	• Tissue may be sloughy or granulating • Ulcers may be deep or shallow	Depends on underlying aetiology	• Reduced compression • Liaise with rheumatology regarding medication
Calciphylaxis	Distal: lower gaiter Proximal: inner thighs	• Renal failure on dialysis • Warfarin	• Extremely painful • Rapid spread	• Necrotic tissue • Prone to infection	Ulcer biopsy Bone metabolism bloods coagulation	• Pain relief • Debridement of necrosis • Wound care
Calcinosis cutis	Any site on legs	• Varicose veins with ulceration	• May have venous skin changes	• Sharp pieces of calcium can be felt in the ulcer		• Removal of calcium • Compression
Drug-induced ulcers	Usually lower leg	• Medication, such as nicorandil • Hydroxurea	• Oedema • Pain • Exclude vascular cause • Ulcer does not respond to wound care and compression alone	• May resemble a venous ulcer		• Reduction in dose of offending drug, or alternative medication
Basal cell carcinoma (BCC)	Sun-exposed lower leg, often front of shin	• History of sun exposure • Usually in fair complexions	• Duration: slow growth • Lack or response to standard wound treatment	• Ulcer may resemble overgranulation tissue • Rolled edges	Ulcer biopsy	• Surgical excision with wide margin plus skin graft • Compression
Squamus cell carcinoma (SCC)	Lower leg	• History of chronic venous leg ulcers • History of trauma burns to site of ulcer • Immunosupression • Actinic keratosis	• Scar tissue • Venous skin changes	• Rapid changes in appearance of ulcer • Raised edges • Uneven wound base • Sloughy • Malodorous • Friable	Ulcer biopsy	• Surgical excision • Compression • Radiation • Possible amputation

Reference – Wound Care Today Nov 2019 Understanding the differential diagnosis of leg ulcers: focus on atypical ulcers By: Jane Todhunter

Any concerns at all, please contact your local **Sirona** wound care service

MEASURING WOUNDS



Document all measurements in centimetres, as L x W x D. Remember—sometimes length is smaller than width.

When measuring length, keep in mind that:

the head is always at 12 o'clock

the feet are always at 6 o'clock

your ruler should be placed over the wound on the longest length using the clock face.

WHEN MEASURING WIDTH:

measure perpendicular to the length, using the widest width place your ruler over the widest aspect of the wound and measure from 9 o'clock to 3 o'clock.

WHEN MEASURING DEPTH:

Place a probe into the deepest part of the wound bed.

We also need to measure undermining and tunneling. Measure undermining using the face of a clock as well, and measure depth and direction. Tunneling will measure depth and direction.

TO MEASURE UNDERMINING:

Check for undermining at each "hour" of the clock.

Measure by inserting a probe into the area of undermining back to the wound edge.

TO MEASURE TUNNELLING:

Insert a probe into the tunnel. Grasp the probe at the wound edge (not the wound bed) and measure.

Document tunnelling using the clock as a reference for the location as well.

On the feet, the heels are always at 6 o'clock and the toes are always 12 o'clock.

Supported by

URGO MEDICAL
Healing people®

Any concerns at all, please contact your local **Sirona** wound care service