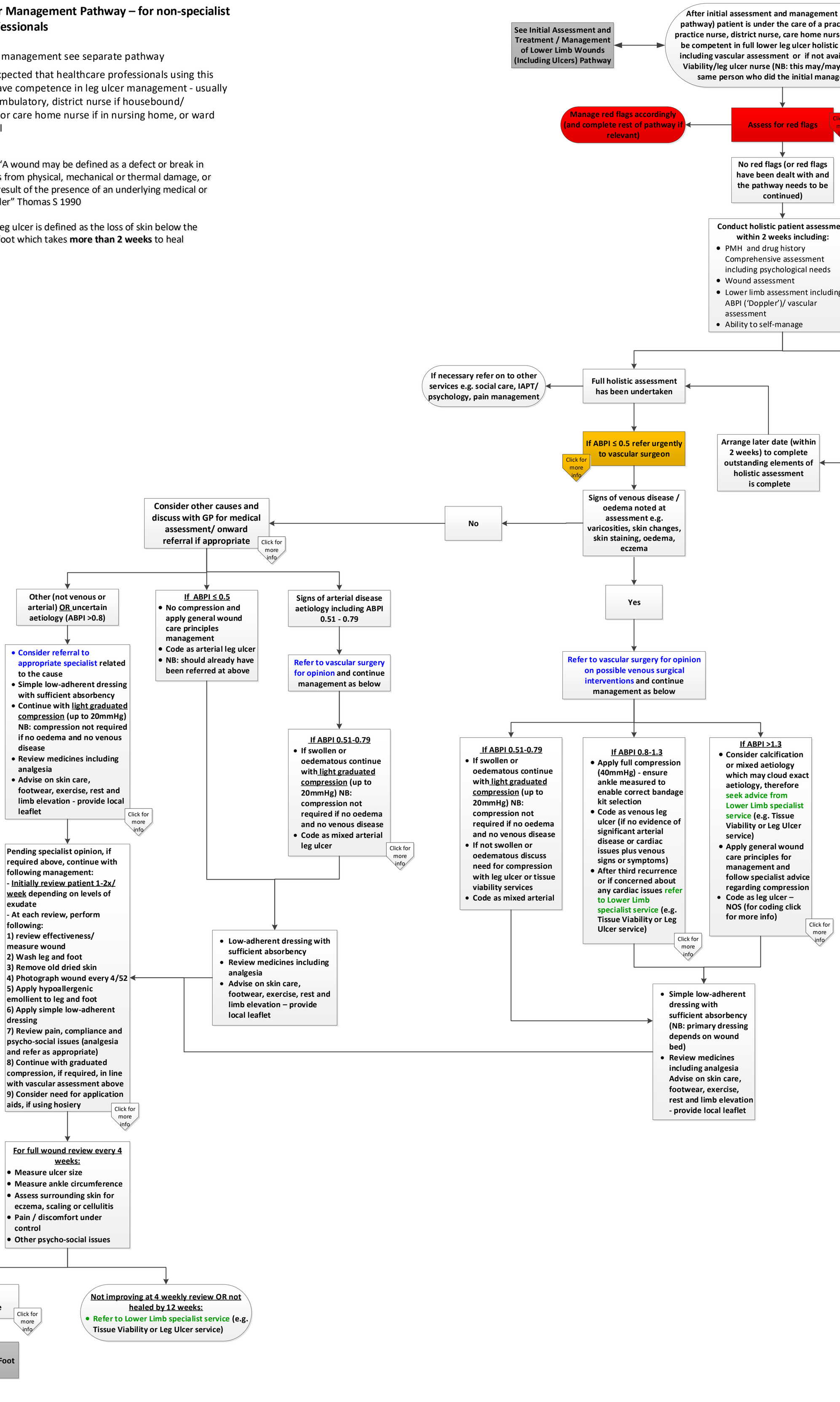
Lower Leg Ulcer Management Pathway – for non-specialist healthcare professionals

NB: For foot ulcer management see separate pathway

NB: It would be expected that healthcare professionals using this pathway would have competence in leg ulcer management - usually practice nurse if ambulatory, district nurse if housebound/ residential home, or care home nurse if in nursing home, or ward nurse if in hospital

Wound definition: "A wound may be defined as a defect or break in the skin that results from physical, mechanical or thermal damage, or that develops as a result of the presence of an underlying medical or physiological disorder" Thomas S 1990

Ulcer definition: A leg ulcer is defined as the loss of skin below the knee on the leg or foot which takes **more than 2 weeks** to heal



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Assess for red flags

In a diabetic- immediate referral to appropriate specialist

- Presence of active foot ulceration
- Spreading infection
- Gangrene
- Unexplained red hot swollen foot with or without pain

Other reasons for immediate referral to appropriate specialist

- Spreading infection of leg or foot
- Red hot swollen leg or foot
- Acute limb ischaemia - should be suspected when there is an onset of leg pain over minutes, hours, or days associated with a loss of pulses and palbr.
  - Diagnosis of acute limb ischaemia takes into account the time frame and presence of the typical clinical features of: pain, pulselessness, pallor, power loss, loss of sensation, and cold limb.
  - If acute limb ischaemia is suspected, immediate admission to a vascular surgery unit should be arranged.
- Critical limb ischaemia – should be suspected when circulation is so severely impaired that there is an imminent risk of limb loss.
  If the person has critical limb ischaemia, interventions should include:
  - Urgent referral to a vascular team (phone registrar to advise)
- Suspected DVT
- Sepsis/cellulitis

For 2 week wait (2WW) referral

- Suspected skin cancer

Discuss with relevant specialist/manage as appropriate

- Acute cardiac failure
- Last few weeks of life

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Conduct holistic patient assessment within 2 weeks

Assessment should be undertaken within 2 weeks of referral
Including:

- Past medical and medication history (hx) allergies and sensitivities
- Comprehensive assessment including psychological needs
- Wound assessment, including all fields in National minimum data set – record using electronic templates if possible
- Lower limb assessment including ABPI ('Doppler') or other vascular assessment
- Assess ability to self-manage (patient activation)

1. Past Medical History and medication history

- Ischaemic Heart Disease
- Smoker/Alcohol intake
- Hypertension
- TIA
- CVA
- Diabetes (history of DFU (diabetic foot ulcer)/ Charcot Foot *(red hot swollen foot/no wound/deformed)*
- Hx of PVD/vascular /previous amputation
- Hx of lower limb cellulitis
- Hx of major surgery *(i.e. bypass surgery/angioplasty), trauma or burns*
- Lupus/rheumatoid arthritis/vasculitis hx
- Hx of bowel disease/ cancers in abdomen or lower limb
- Family hx of ulcers
- Cardiac drugs/diuretics drugs/ antiplatelets/anticoagulants/ diabetic medication etc.
- Please list patients current medication

2. Comprehensive Assessment including psychological needs

- Pain – continuous, intermittent, at specific times (i.e. vascular rest pain), at rest, at dressing change
- Height, weight, BMI - Is the patient obese BMI >30 or underweight BMI <18?
- Nutritional status, including MUST score
- Mobility including use of aids and Timed Up and Go if able (consider falls risk)
- Check if patient sleeps in bed or chair or suffers from sleep apnoea
- Frailty – Rockwood assessment (record in template)
- In last year of life? If so consider the GSF phase (red = last days, amber = declining phase, green = last year). Consider if Advance Care Plan or any advanced directives
- Psychosocial assessment including quality of life, safeguarding issues and compliance
  - Quality of life using the EQ-5D
  - Anxiety and depression using GAD2 and PHQ2
  - Loneliness assessment using UCLA scale
- Check and review patient-held plan e.g. MyPlan
- Blood tests – FBC, U&E, CBG (Capillary Blood Glucose) – if elevated request fasting blood glucose or HBA1C (if known diabetic)

3. Wound assessment, including all fields in National minimum data set – record using electronic templates if possible

- Link to National Minimum Data Set

4. Lower limb assessment (each leg) including ABPI ('Doppler') or other vascular assessment

History relating to wound and lower limb

- How many episodes of previous ulcers?
- Duration of previous ulcers?
- Duration of present ulcers?
- History/Development of present ulcer?
- History of DVT?
- Phlebitis? *(i.e. localised inflammation of veins, painful, no wound)*
- Injury/Fracture/Previous skin graft
- Vein surgery/Sclerotherapy?
- Altered sensation *(cold extremities? Capillary refill?)*
- Intermittent claudication *(cramping pain in the leg)*/rest pain *(continuous burning pain)*

Examination of lower limb

- Arterial signs e.g. peripheral refill
- ABPI or Toe pressures by hand held Doppler or automated ABPI device *(if applicable)*
- 2-3 pulses to be identified (please document which ones) *(for hand held Doppler only)*
- If unable to occlude on ABPI state if arterial soundwaves are Monophasic/Biphasic/Triphasic *(for hand held Doppler only)*
- Blood pressure reading on both arms
- Ankle circumference, Calf circumference
- Oedema - Foot only, Toe to knee, Whole leg *(Stemma sign positive? Inability to pitch skin fold on the base of toes/ enhanced skin folds/ Buerger's test for arterial insufficiency)*
- Induration *(increase in the fibrous elements in the tissue)*/limb size shape
- Lipodermatosclerosis *(i.e. Tissue fibrosis of the skin/woody)*
- Papillomas, birth marks, abnormal physiology
- Varicosities
- Ankle flare
- Staining
- Ankle movement & range
- Eczema/skin irritations/ hyperkeratosis
- Cellulitis

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Consider other causes and discuss with GP for medical assessment/ onward referral if appropriate

- Arterial
- Malignancy (2 week rule)
- Dermatology
- Cardiac related oedema
- Diabetes
- Autoimmune disease
- Pressure ulcer
- Diabetic foot ulcer
- Rheumatoid
- Acute kidney injury or chronic kidney disease
- Obesity

Apply general wound care principles for management in short-term

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On-going management using compression therapy for leg ulceration due to venous disease

Signpost to formulary products: **(Link?)**

Compression therapy system chosen will be dependent on patient factors as per table:

Scenario	Hosiery Kits (40mmHg+ or equivalent)	Adjustable Wraps (40mmHg+ or equivalent)	Bandages (40mmHg+ or equivalent)
Normal leg shape	✓	✓	✓
Low to moderate exudate	✓	✓	✓
Self-caring patient	✓	✓	X
Carer involvement	✓	✓	X
Distortion due to oedema	X	✓	✓
High exudate	X	X	✓
Deep skin folds	X	X	✓
Obesity	X	✓	✓

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Light graduated compression

Different compression options may be suitable for different patients, depending on clinical challenges present:

- Oedema
- Exudate
- Limb shape
- Pain management
- Post-thrombotic changes
- Height of the individual
- Obesity
- Psychosocial or lifestyle issues

See table below

Scenario	Hosiery (up to 20mmHg)	Bandages (up to 20mmHg)
Normal leg shape	✓	✓
Low to moderate exudate	✓	✓
Self-caring patient	✓	X
Carer involvement	✓	X
Distortion due to oedema	X	✓
High exudate	X	✓
Deep skin folds	X	✓
Obesity	X	✓

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If vascular assessment >1.3

- On occasion some tall people may present with an elevated ABPI >1.3 which is normal to be coded as venous leg ulcer.
- Where there is arterial and venous disease code as mixed
- If aetiology unclear code as leg ulcer NOS

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Signs that ulcer is improving

- Reduction in ulcer size
- Reduction in ankle circumference
- Surrounding skin intact with no eczema, scaling or cellulitis
- Pain / discomfort under control

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If ABPI ≤ 0.5 or signs of significant arterial disease refer urgently to vascular surgeon

NB: Red flags as described above should have already been referred. In addition patients with an ABPI ≤ 0.5 or signs of significant arterial disease should be referred urgently (e.g. Rest pain, Intermittent claudication, Peripheral capillary refill time >3 seconds)

Management

- Refer urgently to vascular surgery
- No compression and apply general wound care principles management
- Code as arterial leg ulcer

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Infection Management