



# Leg Ulcer Management Policy

This procedural document supersedes: PAT/T 12 v.5 - Leg Ulcer Management Policy.



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**Amendment Form**

<b>Version</b>	<b>Date Issued</b>	<b>Brief Summary of Changes</b>	<b>Author</b>
Version 6	25 May 2015	<ul style="list-style-type: none"> <li>• New Trust style format</li> <li>• Added Equality Impact Assessment</li> <li>• Added standard monitoring table</li> </ul>	Sue Johnson
Version 5	January 2012	<ul style="list-style-type: none"> <li>• Title changed to Leg Ulcer Management Policy.</li> <li>• Amalgamation of PAT/T 12 v.4 - Venous Leg Ulcer Management Policy and PAT/T 13 v.2 - Bandaging Policy</li> <li>• Addition of Doppler Competency – Appendix 2.</li> </ul>	Sue Johnson
Version 4	October 2008	Addition of NPSA warning re use of paraffin based emollients	Sue Johnson

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## 1. POLICY STATEMENT

This policy has been developed to enable nursing staff to manage leg ulceration and select appropriate dressings and compression systems according to best recognised practice.

Leg ulceration is a common chronic recurring condition and a major cause of morbidity and suffering. Most people with leg ulcers are managed by GPs and Community Nurses, but a significant number are managed in hospital settings.

In addition, all members of the healthcare team can be involved in wound care in a variety of settings, with patients often moving between professionals and environments. This policy will help ensure best practice and minimise the potential for inconsistency of care locally.

## 2. INTRODUCTION

- 2.1 This document should be used in conjunction with the most recent edition of the Royal Marsden NHS Trust Manual of Clinical Procedures and Wound Management Policies (PAT/T 7).
- 2.2 It is intended for nurses working within Doncaster and Bassetlaw Hospitals NHS Foundation Trust and recognises that nurses fulfil an essential role in leg ulcer management.
- 2.3 All nurses within Doncaster and Bassetlaw Hospitals NHS Foundation Trust recognise the importance of consistent individualised care and the need to include the latest evidence based techniques, wound management products and bandages that are clinically effective (NMC 2015).

## 3. PURPOSE

- 3.1 To set out the framework for the management of venous leg ulcers based on the evidence of current best practice.
- 3.2 To ensure a holistic and standardised approach to leg ulcer assessment and management.
- 3.3 To provide a standardised approach to bandaging within the framework of holistic care.
- 3.4 To prevent or reduce recurrence of leg ulcers.
- 3.5 To ensure no act or omission on the nurses part leads to inappropriate management of a wound (NMC 2015).

## 4. KEY PRINCIPLES

- 4.1 To ensure a comprehensive assessment of health needs, in relation to leg ulceration, is undertaken.
- 4.2 To ensure that continuity of care takes place where different nurses may be called upon to meet the needs of the patient.
- 4.3 To set out the framework for the selection of an appropriate bandaging system and competent application
- 4.4 To ensure that a standardised approach to leg ulceration takes place.
- 4.5 To ensure that leg ulceration products are used cost-effectively thereby minimising waste and inappropriate usage.
- 4.6 To prevent bandage trauma.

## 5. DEFINITIONS

- 5.1 Leg ulcers are defined as a loss of skin below the knee on the leg or foot which takes more than 6 weeks to heal (Browse et al 1988).
- 5.2 A bandage is a strip of material, such as a gauze, used to protect, immobilise, compress or support a wound or injured body part.

## 6. ROLES, DUTIES AND RESPONSIBILITIES

- 6.1 Assessment and clinical investigations should be undertaken by a health care professional trained in leg ulcer management. A full clinical history and physical examination should be conducted for a patient presenting with either their first or recurrent leg ulcer and should be ongoing thereafter.
- 6.2 The information should be recorded in a structured format using the Wound Care/ Leg Ulcer Integrated Pathway of Care form (WPR 23380).
- 6.3 The person conducting the assessment should record any unusual appearance and if present refer the patient for specialist medical assessment.
- 6.4 Full assessment including ABPI(Ankle-Brachial Pressure Indices) should also be measured when:
  - An ulcer is deteriorating
  - An ulcer is not fully healed by 12 weeks (RCN 2006)
  - Patients present with a recurrence of the ulcer
  - Prior to recommending compression hosiery
  - Prior to recommencing compression therapy
  - There is a sudden increase in ulcer size

- There is a sudden increase in pain

N.B. If there is a change in foot colour and/or temperature or there are symptoms suspicious of claudication, a vascular referral should be made.

- 6.5 The Trust Leg Ulcer Flowchart for the Integrated Pathway of Care outlines the referral process (see Appendix 1). Doppler measurement of ABPI should be recorded on first presentation in order to exclude arterial disease. Staff undertaking this measurement must have completed a course in leg ulcer assessment and / or completed the Doppler Competency (Appendix 2).

**NB All patients admitted with a leg ulcer should have a swab of their ulcer sent to microbiology to exclude MRSA – see PAT/IC 6 – MRSA Screening and Management of Patients with MRSA.**

- 6.6 Routine bacteriological swabbing is unnecessary unless there is evidence of clinical infection i.e.
- Inflammation / redness / cellulites
  - Increased pain
  - Purulent exudates
  - Rapid deterioration of the ulcer
  - Pyrexia
  - Odour
- 6.7 Specialist referral may be appropriate for:
- Treatment of underlying medical problems
  - Ulcers of non-venous aetiology
  - Suspected malignancy
  - Diagnostic uncertainty
  - Reduced Ankle Brachial Pressure Index (ABPI) i.e. less than 0.8
  - Increased ABPI i.e. more than 1.2
  - Rapid deterioration of the ulcer
  - Newly diagnosed diabetes mellitus
  - Signs of contact dermatitis
  - Cellulitis
  - Healed ulcers with a view to venous surgery, usually after three or more recurrences.
  - Ulcers which, having received adequate treatment, are showing no signs of healing after 12 weeks
  - After the third episode of recurrent ulceration
  - Ischaemic foot
  - Infected foot
  - Pain management

- 6.8 The first line treatment for uncomplicated venous leg ulcers (ABPI > 0.8) should be graduated multilayer compression systems or short stretch systems, with adequate padding, capable of sustaining graduated compression for at least a week. There are

alternative bandage systems and support stocking systems available. Advice should be taken from the Trust's Wound Care / Tissue Viability Nurse Specialists.

- 6.9 All patients should have their ankle circumference measured to ensure the correct sized multi-layer bandage system is used.
- 6.10 The compression system must be applied by a competent trained practitioner.
- 6.11 Recurrence rates vary from 26% - 69% and it has been shown that the use of graduated compression hosiery results in a reduction in recurrence rates.
- 6.12 Other strategies for the prevention of recurrence include the following, dependent on the needs of the patient:
- 6.12.1 Clinical
- Venous investigation and surgery
  - Lifetime compression therapy
  - Regular follow up to monitor skin condition for recurrence
  - Regular follow up to monitor ABPI
  - Annual assessment including ABPI may not be necessary if the patient is well and asymptomatic. If there is previous leg ulceration or there is non-healing ulceration it may be necessary to make a referral.
- 6.12.2 Patient Education
- The importance of wearing hosiery should be discussed with the patient.
  - Skin care
  - Discourage self-treatment with over the counter preparations
  - Avoidance of accidental trauma to legs
  - Early self-referral at first sign of skin breakdown
  - Encourage exercise
  - Leaflets should be available
- 6.13 Patients diagnosed with mixed aetiology or arterial leg ulcers must be referred to the Wound care team for management advice.
- 6.14 No COMPRESSION should be applied to patients with arterial leg ulceration or an ABPI < 0.5.
- 6.15 Cleansing of the ulcer should be kept simple. Irrigation of the ulcer with warmed tap water or saline is usually sufficient. Dressing technique should be clean and aimed at preventing cross-infection – strict asepsis is unnecessary.
- 6.16 Dressings should be selected after an assessment of wound symptoms and in accordance with the Trust Wound Management Policy. The treatment of necrosis and

infection should be in accordance with the Trust's Wound Management Policy PAT/T 7. Reasons for use of a product should be discussed and be acceptable to the patient.

- 6.17 Health professionals should be aware that patients can become sensitised to elements of their treatment at any time. They should also be aware of common allergens in wound care products and minimise their use.
- 6.18 All patients should be warned about the flammable nature of paraffin based emollients and advised to stay away from naked flames. The emollients themselves should be stored in a cool dry place.

## 6.19 Bandage Selection

- 6.19.1 Determine the purpose of the bandage. Is it for:
- ❖ Retention of dressing taking into account the location and size of the wound
  - ❖ Limb support following soft tissue injury
  - ❖ Joint support following a strain
  - ❖ Compression therapy
- 6.19.2 Determine the length of time the bandage is required to stay in place.
- 6.19.3 Determine the width of the bandage:
- |                     |                 |
|---------------------|-----------------|
| ❖ 2.5cm bandage     | Digits          |
| ❖ 5.0cm bandage     | Hands           |
| ❖ 5 – 7.5cm bandage | Head/ ears/eyes |
| ❖ 7.5 –10cm bandage | Arms            |
| ❖ 10cm bandage      | Lower legs      |
| ❖ 10 – 15cm bandage | Thigh/trunk     |
- 6.19.4 If the bandage is to be applied to a limb assess the general condition of the limb including:
- ❖ Oedema of the limb
  - ❖ General skin condition
  - ❖ Arterial circulation to the limb.
- 6.19.5 Ensure the bandage bulk is compatible with maximum comfort, mobility and protection.
- 6.19.6 Use Orthopaedic wool e.g. Sofban to protect bony prominences

## 6.20 Bandage Classification

- 6.20.1 According to the structure and performance of the bandage it is allocated a classification. All bandages are classified into 3 main groups.
- 6.20.2 **Class 1: Lightweight conforming bandages**

These have a simple dressing retention function and usually contain lightweight elastomeric threads which impart a high degree of elasticity but little power to the bandage, e.g. K Band (Parema).

These bandages are used to keep the dressing close to the wound without inhibiting movement or restricting blood flow.

#### 6.20.3 **Class 2: Light support bandages**

Products in this group are also called short or minimal stretch bandages and include crepe, cotton stretch and cotton crepe. Light support or minimal stretch bandages have limited extensibility and elasticity and tend to 'lock out' at relatively low levels of extension. It is this feature that enables them to be applied firmly over a joint to give support without generating significant levels of pressure, e.g. K Lite (Parema);

These bandages are used to provide support for mild sprains and joint support.

#### 6.20.4 **Class 3: Compression bandages**

Compression implies the deliberate application of pressure and is most commonly employed to control oedema and reduce swelling in the treatment of venous disorders of the lower limb. These bandages are further subdivided into 4 groups.

**NB Compression bandages should only be applied following a full vascular assessment of the affected limb**

##### a) **Class 3a: Light compression bandages**

Able to provide and maintain low levels of compression up to 20mm/hg on an ankle of average dimensions. Suitable for the management of superficial or early varices and varicosities formed during pregnancy, e.g. K Plus (Parema) Elset.

##### b) **Class 3b: Moderate compression bandages**

Able to provide and maintain moderate levels of compression up to 30 mm/hg on ankles of average dimensions. Suitable for the treatment of varicosities formed during pregnancy, varices of medium severity, prevention and treatment of lower limb ulcerations and the control of mild oedema, e.g. Veinopress (Steriseal).

##### c) **Class 3c: High compression bandages**

Able to provide and maintain high levels of compression up to 40mm/hg on an ankle of average dimensions. Suitable for the management of gross varices, post thrombotic venous insufficiency, management of venous leg ulcers and gross oedema, e.g. Tensopress (Smith and Nephew).

**NB Bandages with elastic properties should be applied over padding to protect bony prominences to protect areas at risk of pressure damage e.g. malleoli, dorsum of foot and shin.**

**d) Class 3d: Extra High compression bandages**

Able to provide and maintain very high levels of compression up to 50mm/hg on an ankle of average dimensions. Suitable for the management of lymphoedema, gross lower limb oedema, e.g. Blue line bandages.

**NB Very limited usage for this bandage nowadays. Extreme caution required when applying this bandage.**

All pressures referred to above are based on the assumption that the bandage has been applied in the form of a spiral with a 50% overlap between turns; effectively producing a double layer of bandage at any one point on the limb.

**NB when using K Plus in a four layer bandage system it is applied in a figure of eight.**

6.20.5 Short Stretch Bandages are compression bandages exerting a high working pressure and low resting pressure. This is a two piece bandage system used in the treatment of venous ulcers and lymphoedema. The non-elastic components in the bandage rely on the patient having an active calf muscle pump. The bandages provide resistance to muscle expansion that leads to a counter pressure being produced beneath the bandage.

6.20.6 Impregnated bandages are used to treat certain conditions:

- a) Zinc impregnated bandages  
General purpose treatment for leg ulcers, venous stasis and varicose eczema, e.g. Viscopaste (S+N)
- b) Ichthammol impregnated bandages  
General purpose treatment for phlebitic areas and sensitive skin surrounding leg ulcers, e.g. Ichthopaste

## 6.21 Bandage Application

All bandages are applied at 50% stretch and 50% overlap in a simple spiral unless stated otherwise by the manufacturers.

### Short Stretch Bandages:

- a) Begin bandaging at the base of the toes using one or two turns to secure the bandage.
- b) Complete a figure of eight at the ankle to ensure that the heel is covered.
- c) Continue the bandaging up the leg using a simple spiral at full 100% stretch with a 50% overlap ensuring that the bandage is held close to the limb at all times.
- d) Tape to secure.

- e) Ensure layers have bonded, if a cohesive bandage is used, to prevent bandages from slipping.

#### **Long Stretch Bandages:**

- a) Apply around the foot, starting at the base of the toes with one or two anchor turns using slight tension.
- b) Make two turns around the ankle to enclose the heel – one above the ankle, one below the ankle with no extension just tension.
- c) Continue up the leg by applying in a simple spiral with 50% overlap. To ensure even layers of bandage use the tension guides.
- d) Stop bandaging just below the knee, tibial crest, and cut off any excess bandage.
- e) Secure with tape.
- f) Tensopress overlap the yellow line.
- g) Surepress overlap the base of the rectangular extension indicators. Ankles measuring 18 – 26cms the small rectangular extension indicators become square. Ankles <26cms the large rectangular extension indicators become square.
- h) Setopress overlap the green rectangular indicators for moderate compression and the brown rectangular indicators for high compression. Ankle 18 – 26cms the green rectangles become square and ankles <26cms the brown rectangles become squares.

### **6.22 Bandage Evaluation**

All bandages should be evaluated immediately following application by addressing the following questions:

- a) Are the fingers/toes warm and a normal colour
- b) Is there any altered sensation in the fingers or toes i.e. tingling or numbness
- c) Can the patient move all digits normally
- d) Are there any potential sources of constriction.
- e) Is the bandage of an even tension throughout its' whole length
- f) Did the bandage stay in situ
- g) Were there any signs of pressure damage or abrasions on removal of the bandage
- h) Was the bandage effective.

## **7. EDUCATION AND TRAINING**

- 7.1 Training will be given to staff on wards and departments where compression bandaging is likely to be used in line with the training needs analysis. All educational sessions delivered through the Trust's Education and Training Manual promote evidence based practice and the principles of clinical effectiveness and clinical governance.
- 7.2 All staff will have access to study days/workshops relating to wound management. A multidisciplinary approach will be taken and the education programme updated on a regular basis based on best practice.

## 8. MONITORING COMPLIANCE AND EFFECTIVENESS

What is being Monitored	Who will carry out the Monitoring	How often	How Reviewed/ Where Reported to
The procedural document will be reviewed in the following circumstances:	Lead for Tissue Viability and Wound Care and Nurse practitioners	Every 3 years routinely unless: <ul style="list-style-type: none"> <li>• When new national or international guidance is published</li> <li>• When newly published evidence demonstrates the need for change to current practice.</li> <li>• Action required from Root Cause Analysis Serious Incident Investigation Report.</li> </ul>	The policy will be reviewed and ratified by the Policy Approval and Compliance Group.
Training needs for management of lower limb problems and bandaging	Ward and Department Managers Training and Education Department.	Annually	Staffs Professional Development Appraisal. Attendance will be captured via OLM system.
All interventions will be documented in the appropriate IPOC in case of an adverse event	Ward and Department managers Tissue Viability and Wound Care practitioners	At every patient contact	All adverse events will be entered on Datix. Actions from the investigations will be included in the training.

## 9. AUDIT

- 9.1 Prospective audit of the Wound care IPOC will be monitored by the Wound Care Team to ensure effectiveness of the Venous Leg Ulcer Management Policy and will be included in the annual report which is submitted to PSRG.

## 10. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment for All Policy (CORP/EMP 4).

The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. (See Appendix 3)

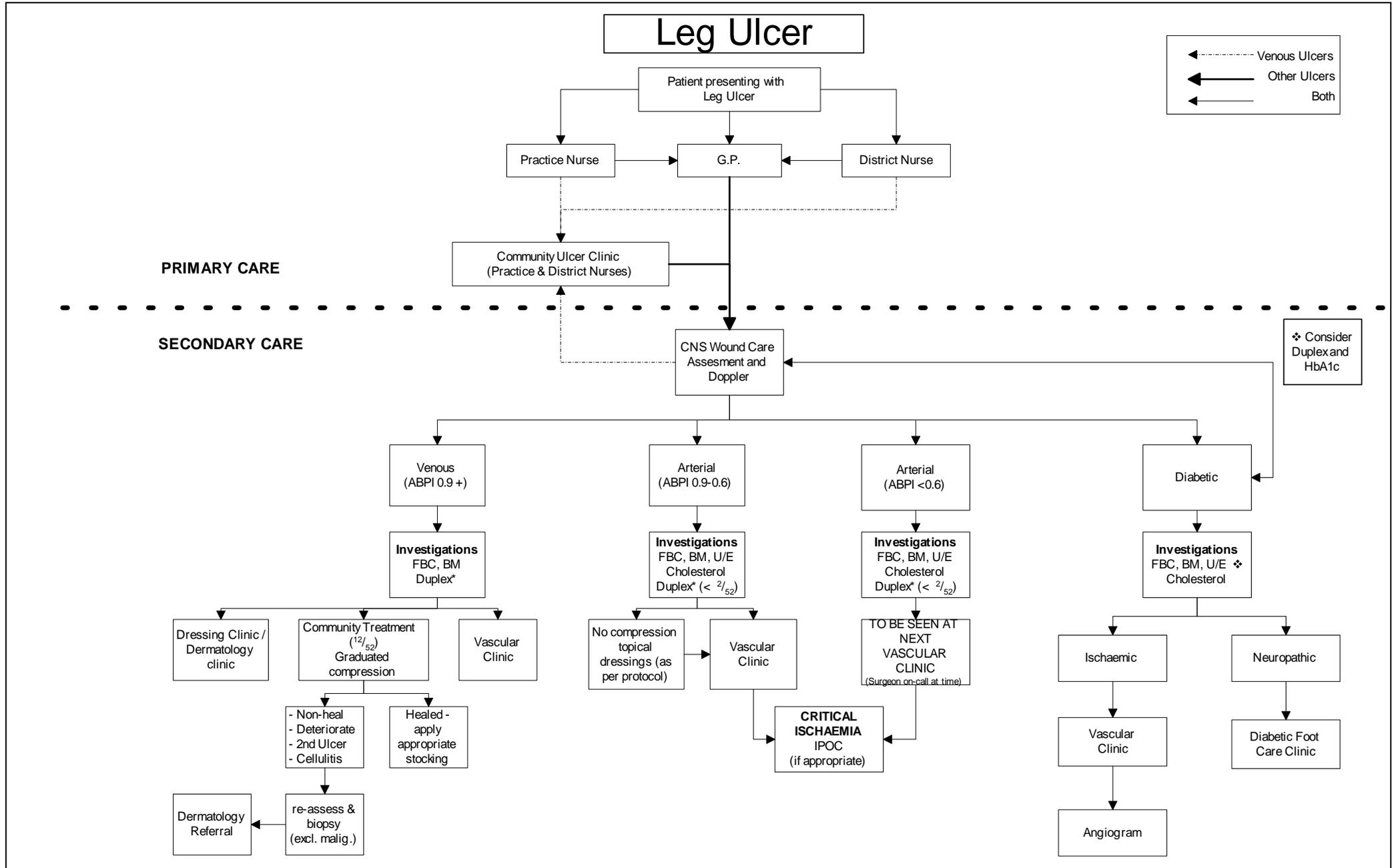
## 11. ASSOCIATED DOCUMENTATION

11.1 This policy should be used in conjunction with:

- PAT/T 7 - Wound Management Policy
- PAT/T 32 - Aseptic Non Touch Technique Policy
- PAT/IC 5 - Hand Hygiene
- PAT/IC 19 - Standard Infection Prevention and Control Precautions Policy
- PAT/IC 24 - Cleaning and disinfection of ward based equipment
- PAT/PA 19 - Mental Capacity Act 2005 Policy and Guidance, including Deprivation of Liberty Safeguards (DoLS)
- PAT/IC 6 - MRSA Screening and Management of Patients with MRSA

## 12. REFERENCES AND BIBLIOGRAPHY

1. Browse NL, Burns KG, Lea Thomas M (1988) Disease of the veins: pathology, diagnosis and treatment
2. RCN (2006); The Nursing Management of Patients with Venous Leg Ulcers. *Clinical Practice Guidelines*
3. NHS Centre for Reviews and Dissemination, University of York (1997): Compression Therapy for Venous Leg Ulcers. *Effective Healthcare Bulletin* Volume 3 no 4.
4. NMC (2015) *Code of Professional Practice* London NMC.
5. Moffat C J, Dornan M C (1995) Recurrence of leg ulcers within a community service. *J Wound Care*; 4:2, 57-61



## APPENDIX 2

## DOPPLER ULTRASOUND KNOWLEDGE AND SKILLS

Performance Criteria		Intended Answer/Outcome	
1 Technical Skill		Appropriate selection of equipment	
1.1	Select Doppler	1.1	Select mini or multi dopplex 11
1.2	Select appropriate probe	1.2	Select 8MHz probe to detect peripheral vessels which lie close to the body surface in a normal size limb and 5 MHz probe in obese/ oedematous legs
1.3	Select appropriate BP cuff	1.3	Select appropriate BP cuff, it is recommended that the cuff is 40% of the limb circumference at the mid point of the limb.
1.4	Select appropriate ultrasound gel	1.4	Select transmission ultrasound gel that is specifically designed to transmit sound and will not cause corrosion of the probe.
1.5	Observe Infection Control Procedures	1.5	Wash hands pre/post and during procedure if they become soiled. Safe disposal of clinical waste. To minimise risk of cross infection ensure the probe is cleaned with alcohol impregnated swab prior to use.
2 Patient preparation		Patient prepared for procedure	
2.1	Describe procedure to patient	2.1	Explain procedure to patient. Reassure patient.
2.2	Describe importance of room temperature	2.2	Ensure the room is at an ambient temperature.
2.3	Describe patient preparation for procedure	2.3	Remove any tight clothing from both arms and legs. Offer blanket or sheet for privacy and dignity. Position patient supine. Rest the patient for 15-20 minutes. Remove any dressings from current ulcers and cover with a clear film.
2.4	Describe variances	2.4	If patient cannot lie supine then elevate legs to level of heart.
3 Procedure		Ankle and Brachial Pressures Recorded Correctly	
3.1	Record Brachial systolic pressure	3.1	Support the arm on a pillow to ensure patient comfort. Place appropriate BP cuff around upper arm just above elbow. Place the cuff upside down to prevent the tubing being soiled by the gel. Locate Brachial pulse and applies gel. Angle Doppler probe at 45 <sup>0</sup> into the direction of the blood flow. Adjust probe to pick up best signal. Inflate cuff until signal disappears. Deflate the cuff slowly until the signal reappears. Record the reading on the sphygmomanometer

			<p>giving the brachial systolic blood pressure.                  Repeat procedure on the opposite arm.                  Use highest value to record Ankle.                  Brachial Pressure Index (ABPI).                  Remove any excess gel.                  Replace clothing.</p>
3.2	Record Ankle systolic pressure	3.2	<p>Expose leg for procedure.                  Locate dorsalis pedis, posterior tibial, anterior tibial and peroneal pulses and record in leg ulcer integrated pathway of care.                  Apply appropriate sized BP cuff to ankle just above malleolus.                  Place the cuff upside down to prevent the tubing being soiled by the gel.                  Locate Posterior Tibial pulse.                  Apply ultrasound gel.                  Angle probe at 45<sup>0</sup> into the direction of the blood flow and adjust probe to pick up the best signal.                  Inflate cuff until signal disappears.                  Deflate the cuff slowly until the signal reappears.                  Record the reading on the sphygmomanometer giving the brachial systolic blood pressure.                  Repeat procedure with the dorsalis pedis pulse, anterior tibial pulse or peroneal pulse.                  Uses highest of these two readings to give the ankle systolic blood pressure to calculate the ABPI.                  Remove any excess gel.                  Assist to replace clothing.                  Replace wound dressing.                  Repeat procedure on opposite leg.</p>
3.3	Calculate ABPI	3.3	<p>Use ABPI formula (below) to calculate ABPI.                  Highest ankle systolic pressure.                  Highest brachial systolic pressure                  = ABPI                  Repeat for each leg.</p>
3.4	Describes significance of ABPI	3.4	<p>Normal ABPI ratio is equal to or greater than 1.0 but not greater than 1.3.                  ABPI &gt;1.0-1.3 apply compression.                  ABPI = 0.8-1.0 mild peripheral vascular disease apply compression therapy with caution.                  ABPI = 0.5-0.8 significant arterial disease do not compress refer to specialist nurse.                  ABPI &lt;0.5 severe arterial disease do not compress refer urgently to vascular surgeon.                  ABPI &gt; 1.3 measure toe pressures or refer to specialist nurse.</p>

4 Factors affecting ABPI		Understands intrinsic and extrinsic factors that affect the ABPI	
4.1	Intrinsic factors	4.1	<p>Diabetes                  Renal disease                  Rheumatoid disease                  Atherosclerosis                  Arteriosclerosis                  Cardiac arrhythmias</p>
4.2	Extrinsic factors	4.2	Inadequate preparation i.e. room temperature.

			<p>Patient and clinician anxious.                  Incorrect positioning of patient.                  Inappropriate gel.                  Incorrect size BP cuff.                  Inappropriate Doppler probe.                  Incorrect position of Doppler probe over the blood vessel.                  Excessive pressure on vessel during procedure.                  Releasing pressure from BP cuff too quickly.                  Prolonged inflation/re-inflation of BP cuff.                  Mid procedure/repeated re-inflations of BP cuff.                  Moving Doppler probe during procedure.                  Inexperience of the procedure.</p>
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<b>5 Contraindications</b>	<b>Understands when not to perform ABPI</b>
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5.1	Contra-indications	5.1	<p>Deep Vein Thrombosis.                  Cellulitis.                  Severe ischaemia.</p>
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## References

European Leg Ulcer Advisory Board (2002) The use of compression therapy in the treatment of venous leg ulcers: a recommended management pathway. *European Wound Management Association Journal*; 2:1,9-13.

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Stubbing, N. et al (1996) Protocol for accurate assessment of ABPI in patients with leg ulcers. *Journal of Wound Care*; 6:9,417-418.

Vowden, K., Vowden, P. (1996) Hand-held Doppler assessment for peripheral arterial disease. *Journal of Wound Care*; 5:3, 125-128.

### *RCN Guidelines*

Clinical Practice Guidelines - The Management of Patients with Venous Leg Ulcers. 1998

## DOPPLER ULTRASOUND COMPETENCIES

Name		Grade		Ward	
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Performance Criteria Stage 1 Technical skills	Achieved /Not achieved	Assessor's Signature
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The user will be able to perform Doppler assessment

<b>1. Initial Set Up</b>		
• Attaches probe to hand held Doppler		
• Selects the correct size BP cuff		
• Selects the appropriate ultrasound gel		
<b>2. Product Features</b>		
• Describes the Doppler and its' function		
• Identifies the size of the probe		
• Demonstrates how to change the batteries		
• Demonstrates how to change the volume		
• Demonstrates how to attach the headphones		
• Explains the procedure for cleaning the Doppler probe		
<b>3. Clinical indications for not undertaking Doppler assessment</b>		
• Deep Vein Thrombosis – risk of emboli		
• Cellulites – painful procedure		
• Severe ischaemia – risk of further tissue damage		
<b>Stage 2 Clinical Issues</b>		
<b>1. Patient preparation</b>		
• Information given regarding pending procedure in order to gain informed consent		
• Room temperature is comfortable		
• Patient rested in appropriate position		
• Privacy and dignity maintained throughout procedure		
• Hands washed pre and post procedure and when ever hands became soiled		
• Doppler probe cleaned with alcohol impregnated wipe prior to use		
• Clinical waste disposed of correctly		
<b>2. Procedure</b>		
• Patient positioned correctly i.e. supine/ legs elevated to level of heart		
• Patient has rested for a minimum of 15 minutes		
• Procedure has been explained to patient		
• The room temperature is comfortable		
• Tight and/or restrictive clothing has been removed		
• Blanket or sheet has been provided to ensure privacy and dignity		
• Wound dressings have been removed and wound		

covered with clear semi-permeable film dressing/cling film		
<ul style="list-style-type: none"> <li>• Patients' arm is supported by a pillow</li> </ul>		
<ul style="list-style-type: none"> <li>• Appropriate sized BP cuff is positioned correctly</li> </ul>		
<ul style="list-style-type: none"> <li>• Brachial pulse is located and ultrasound gel applied</li> </ul>		
<ul style="list-style-type: none"> <li>• The Doppler probe is angled correctly at 45<sup>0</sup> towards the direction of the blood flow</li> </ul>		
<ul style="list-style-type: none"> <li>• The BP cuff is inflated and deflated correctly</li> </ul>		
<ul style="list-style-type: none"> <li>• The brachial systolic blood pressure is recorded and documented</li> </ul>		
<ul style="list-style-type: none"> <li>• The procedure is repeated on the opposite arm</li> </ul>		
<ul style="list-style-type: none"> <li>• The highest of the two readings is used to calculate the ABPI</li> </ul>		
<ul style="list-style-type: none"> <li>• The first leg is exposed for the procedure</li> </ul>		
<ul style="list-style-type: none"> <li>• The dorsalis pedis pulse is located and gel applied</li> </ul>		
<ul style="list-style-type: none"> <li>• If dorsalis pedis pulse is absent then the anterior tibial pulse is located and gel applied</li> </ul>		
<ul style="list-style-type: none"> <li>• Appropriate sized BP cuff is positioned correctly</li> </ul>		
<ul style="list-style-type: none"> <li>• The Doppler probe is angled correctly at 45<sup>0</sup> towards the direction of the blood flow</li> </ul>		
<ul style="list-style-type: none"> <li>• The BP cuff is inflated and deflated correctly</li> </ul>		
<ul style="list-style-type: none"> <li>• The procedure is repeated using the posterior tibial pulse</li> </ul>		
<ul style="list-style-type: none"> <li>• The dorsalis pedis/anterior tibial and the posterior tibial systolic blood pressures are recorded and documented</li> </ul>		
<ul style="list-style-type: none"> <li>• The highest of these two readings is used to calculate the ABPI</li> </ul>		
<ul style="list-style-type: none"> <li>• The procedure is repeated with the opposite leg</li> </ul>		
<ul style="list-style-type: none"> <li>• Following completion of the procedure any excess ultrasound gel is removed, assistance given with redressing and the wound dressing replaced</li> </ul>		
<b>3. Calculating the ABPI</b>		
<ul style="list-style-type: none"> <li>• The highest brachial systolic blood pressure is selected</li> </ul>		
<ul style="list-style-type: none"> <li>• The highest ankle systolic blood pressure is selected</li> </ul>		
<ul style="list-style-type: none"> <li>• The ABPI calculation is correct</li> </ul>		
<b>Stage 3 Management</b>		
<ul style="list-style-type: none"> <li>• Understands the significance of the ABPI in the management of leg ulceration</li> </ul>		
<ul style="list-style-type: none"> <li>• Understands the significance of the ABPI as part of the IPOC for leg ulcer management</li> </ul>		
<ul style="list-style-type: none"> <li>• Understands the significance of the ABPI readings</li> </ul>		
<ul style="list-style-type: none"> <li>• Understands when and how to obtain specialist advice if an abnormal ABPI is recorded</li> </ul>		

**DOPPLER**

Assessors comments:
I have assessed the participant as competent. I have explained that they are responsible for maintaining their ongoing competence. If at any time in the future they feel that they are no longer competent to perform this procedure they have been advised to refrain from using the equipment unsupervised until further training has been completed.
I am unable to assess the participant is competent today. I have advised the following action to be taken:
Participants comments:
I understand that should lack of exposure to using the equipment prevent me from maintaining my competence I must refrain from using the equipment unsupervised until further training has been completed.

Signature of participant	Signature of assessor	Date

## APPENDIX 3 – EQUALITY IMPACT ASSESSMENT - PART 1 INITIAL SCREENING

Service/Function/Policy/Project/Strategy	Care Group/Executive Directorate and Department	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
PAT/T 12 v.6 - Leg Ulcer Management Policy	Special Services CG Wound Care	Sue Johnson	Existing	27/08/2015
<b>1) Who is responsible for this policy?</b> Special Services CG Wound Care				
<b>2) Describe the purpose of the service / function / policy / project/ strategy?</b> Policy for the effective use of bandaging systems in the treatment of patients with leg ulceration				
<b>3) Are there any associated objectives?</b> No				
<b>4) What factors contribute or detract from achieving intended outcomes?</b> Appropriate management of bandaging and dressings and identification of adverse events				
<b>5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief?</b> No				
<ul style="list-style-type: none"> <li>• If yes, please describe current or planned activities to address the impact [e.g. Monitoring, consultation]</li> </ul>				
<b>6) Is there any scope for new measures which would promote equality?</b> No				
<b>7) Are any of the following groups adversely affected by the policy?</b>				
<b>Protected Characteristics</b>	<b>Affected?</b>	<b>Impact</b>		
a) Age	No			
b) Disability	No			
c) Gender	No			
d) Gender Reassignment	No			
e) Marriage/Civil Partnership	No			
f) Maternity/Pregnancy	No			
g) Race	No			
h) Religion/Belief	No			
i) Sexual Orientation	No			
<b>8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box</b>				
<b>Outcome 1</b> ✓	<b>Outcome 2</b>	<b>Outcome 3</b>	<b>Outcome 4</b>	
<i>*If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a Detailed Equality Analysis form in Appendix 4</i>				
<b>Date for next review:</b> September 2018				
<b>Checked by:</b> Sue Johnson			<b>Date:</b> 27/08/2015	