

TITLE: Leg Ulcer Assessment and Management Policy
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This procedural document supersedes the previous procedural document for the assessment and management of patients with leg ulcers - Leg Ulcer Assessment & Management Policy, 2017.

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Target audience	All Community nursing services including Tissue Viability & District nursing services, Leg Ulcer clinics. Registered Nurses and Nursing Associates working in CLCH's bedded units may use this policy where they have received appropriate training.

Version Control Sheet

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CONTENTS:

Section	Page
1. Introduction	8
2. Aims and objectives	9
3. Definitions (explanation) of terms used.	10
4. Duties	11
5. Leg Ulcer Policy	12
Leg ulcer assessment and management	13
Referrals & Waiting lists:	13
Assessment	13
Ankle, Brachial Pressure Index (ABPI):	14
MESI ABPI MD	17
Toe Brachial Pressure Index (TBPI)	17
Wound Photography	19
Planning:	19
Venous leg ulcers:	19
Treatment: dressings and compression therapy.	22
Dressing a venous leg ulcer:	22
Compression therapy:	23
Compression hosiery: Construction of compression hosiery	24
Circular-knit:	25
Flat-knit:	25
Advice on Selecting Compression Hosiery	27
Advice on Prescribing Hosiery	27
Advice on Fitting Compression Hosiery	28
Potential Hazards of Compression Hosiery	29
Follow up during treatment	29

Section	Page
Management of associated symptoms	31
Managing associated pain	32
Managing associated dermatitis	32
Features of venous eczema and cellulitis	32
Managing associated hyperkeratosis	33
Lifestyle advice	34
Onward Referral	35
Arterial leg ulcers	36
Arterial leg ulcers: basic management:	36
Mixed ulcer:	37
Diabetic foot ulcer:	37
Other ulcer:	38
Diagnosis unknown:	38
Chronic Oedema / Lymphoedema:	38
Lymphoedema Assessment:	39
Treatment:	39
Cellulitis:	39
Management of Cellulitis:	40
Sepsis	41
Management of Sepsis	41
Deep Vein Thrombosis (DVT)	41
Management of DVT:	42
Patient education and information provision:	42
Evaluation & Clinical Outcomes:	42
Follow-up after discharge:	42

Section		Page
	Documentation:	43
	Prescribing:	43
	Use of pharmaceutical and post marketing product evaluations	43
	Infection Prevention & Control:	44
	Disposal of Clinical Waste:	45
	Specimen Collection:	45
	Decontamination of Equipment:	46
6	Consultation	46
7	Approval and ratification process	46
8	Dissemination and implementation	47
9	Archiving	47
10	Training	47
11	Monitoring and auditing compliance with this procedural document	49
12	Review arrangements	49
13	Associated documentation	49
14	References	50
15	Appendices:	51

Appendix A: Venous Leg Ulcer clinical audit tool:	52
Appendix B: MUST Nutritional assessment	55
Appendix C: CLCH Falls risk assessment:	57
Appendix D: Pressure Ulcer risk assessments by care setting:	58
Appendix E: Wound Photography consent form	65
Appendix F: Carrying out an ABPI assessment	66
Appendix G: CLCH Wound Assessment Chart	69
Appendix H: CLCH Leg ulcer assessment form	70
Appendix I: Wound Evaluation chart	73
Appendix J: Venous Leg Ulcer Care Plan	76
Appendix K: Arterial Leg Ulcer Care Plan	77
Appendix L: Other wound type care plan	78
Appendix M: Clinic Dressing Storage Consent	79
Appendix N: Instruction for Leg Care	80
Appendix O: Leg Ulcer management and referral pathways	81
Appendix P: Leg Ulcer management competency for Nurses	82
Appendix Q: Wound Care management competency for Nurses	85
Appendix R: Wound Care management competency for NA	89
Appendix S: Leg Ulcer management competency for NA	93
Appendix T: Equalities Impact Assessment Pro Forma	97

1. Introduction

- 1.1 Leg ulcers are a debilitating and painful condition that have been estimated to affect approximately 1.5% of the population of UK and costs the NHS a minimum of £300 - 600 million annually (Healthcare Commission, 2004). 34% of people with a leg ulcer also have complex aetiologies (Moffatt et al, 2007). Patients may therefore go through cycles of relapse and remission and so will require intermittent support from professionals.
- 1.2 A venous leg ulcer occurs in the presence of venous disease and is the most common type of leg ulcer, accounting for 60–80% of cases [[SIGN, 2010](#); [Alavi, 2016](#); [PCDS, 2016](#); [Singer, 2017](#)]. It typically occurs in the gaiter area of the leg (from the ankle to mid-calf) and only 16% of all cases with a leg or foot had a Doppler Ankle Brachial Pressure Index recorded in their records (Guest et al, 2015).
- 1.3 Other causes of leg ulceration and/or delayed wound healing include arterial disease, diabetes, rheumatoid arthritis, vasculitis, sickle cell disease, malignancy, and drugs (such as nicorandil, corticosteroids, and nonsteroidal anti-inflammatory drugs).
- 1.4 The estimated prevalence in the UK is between 0.1–0.3% [[SIGN, 2010](#)], and this increases with age. The prevalence is predicted to increase dramatically because people are living longer, often with multiple comorbidities [[Franks, 2016](#)]. The estimated lifetime risk of developing a venous leg ulcer is 1% [[SIGN, 2010](#); [Lim, 2018](#)].
- 1.5 All people should be managed by a healthcare professional that is appropriately trained in the assessment and management of venous leg ulcers. Many primary care teams will have expertise in managing venous leg ulcers via appropriately trained practice nurses or district nurses. A referral to other services (secondary care) is often only necessary if there is an uncertain diagnosis, or a person does not respond to treatment in primary care, or complications develop. A co-ordinated multidisciplinary team approach is therefore vital including utilisation of the Tissue Viability nurse specialists within Central London Community Healthcare (CLCH) NHS Trust.
- 1.6 Community leg ulcer clinics may significantly improve healing and recurrence rates, and are more cost effective when they have close liaison with secondary care (NHS CRD, 1997; [SIGN, 2010](#)).
- 1.7 Leg ulcer nurse specialists in dedicated clinics can further promote and maintain standards of care and cost effectiveness (Simon et al, 2004).
- 1.8 This policy establishes a standardised and evidence-based framework for all healthcare

professionals (HCP) in CLCH adult services (Tissue Viability nursing including District nursing and nursing staff working in CLCH bedded-units) who assess and manage patients with leg ulceration including prevention of reoccurrence. It will ensure consistency, act as a governance framework to safely manage venous leg ulcers under the auspices of a nurse-led service, ensuring onward referrals to secondary care specialist when appropriate but also supports flexibility where several types of treatments might need to be tried to ensure best outcomes for patients. It will also outline appropriate and expected in-house training with aligned competencies.

- 1.9 This policy has taken account of all relevant practice guidelines and best practice at the time of writing in relation to assessing and managing leg ulcers and preventing re-occurrence as far as this is possible. It also outlines the expected additional assessments that practitioners are required to undertake which would complement the care of those with leg ulceration and takes account of patient outcomes.

2. Aims and objectives

- 2.1. This policy aims to set clear evidence-based standards and expectations for all Registered Nurse, Nurse Associate, including District/ Community and Tissue Viability nurses and bedded –unit staff in relation to:
- leg ulcer initial assessment must be undertaken by the registered nurse;
 - leg ulcer follow up is delegated appropriately to the nurse associate.
 - management and
 - prevention of reoccurrence
 - wound care product choice
 - initiating and apply compression therapy for venous leg ulcers
- 2.2. This policy should further support existing HCP clinical skills and judgement. Together with these skills, this policy should ensure consistent, skilled and high quality care provision by those that have been deemed competent.
- 2.3. This policy would also support the following draft patient outcomes expected for any Tissue Viability service by ensuring that any patient who has a wound or who is deemed to be at risk of developing a wound will:
- Receive a holistic assessment
 - Receive a preventative strategy
 - Receive evidence-based care

- Receive health promotion and wound management
- Have an enhanced quality of life.

2.4. This policy further aims to reflect the values of Central London Community Healthcare NHS Trust (CLCH) by embodying the best of the NHS for our patients and supporting people safely out of hospital.

2.5. Standardised assessment templates will greatly assist with ensuring quality and consistency in holistic assessments and management of leg ulcers and will be clearly outlined within this policy.

3. Definitions and explanation of any terms used.

Aetiology (of leg ulcers): underlying cause

ABPI: Ankle, Brachial Pressure Index: calculation of arterial blood flow by dividing ankle and arm (brachial) systolic readings, which are obtained via Doppler assessment. It is a simple method for quantifying the severity of arterial occlusion in the leg.

CLCH: Central London Community Healthcare NHS Trust

Dressing: any material used for covering and protecting a wound

Doppler assessment: investigation (ultrasound) used to calculate the ABPI using a handheld Doppler ultrasound machine and Sphygmomanometer, to assess the adequacy of arterial blood flow to the ankles via the comparison of various pedal pulses with brachial pulses.

Duplex: ultrasound scanning used to assess venous and arterial blood flow and vessel condition, identifying any arterial blockages or narrowed areas. It also enables diagnosis of venous reflux, which is the underlying condition of venous leg ulceration.

HCP: Health Care Professional refers to Registered Nurse and Nurse Associate.

Leg Ulcer: a wound below the knee on the leg which fails to heal within 2weeks (NICE, 2020). The causes of the initial wound can be many e.g. a scratch, skin tear, traumatic wound, blister, or even a surgical wound, but these then become defined as leg ulcers when they are non-healing, usually due to an underlying condition (NICE, CKS, 2012).

Venous Thrombo-embolism (VTE): DVT and pulmonary embolism together are known as venous thromboembolism

***Cautionary note re leg ulcers:** leg ulcers on the foot should be managed with caution as they can either be of venous, arterial or diabetic origin amongst others. Diabetic foot ulcers, typically

on the soles of the feet, are mainly managed by the podiatry service. These ulcers have a very different management and treatment focus so consultation with or referral to the podiatry team is usually required or may require Tissue Viability or Multidisciplinary Team for compression bandage.

4. Duties

- 4.1. CLCH Board: The Board has overall responsibility for overseeing the expected standards of care for those with leg ulcers.
- 4.2. Patient Safety & Risk Group: This group will receive reports to determine if the aims and objectives of the policy are being met.
- 4.3. Leg Ulcer Review Group: Has the responsibility for meeting at least annually to review the policy and ensuring the policy is being followed consistently across the Trust (clinical audits to confirm this) and is updated as required. The group includes the following members:
 - CLCH Divisional Directors of Nursing and Therapies
 - CLCH Tissue Viability Team Leads – all 8 CCGs
 - CLCH Leg Ulcer clinic coordinators – District nursing services
 - CLCH Practice Development Nurse Forum representation
 - CLCH Infection Prevention representation
 - CLCH Medicines Management representation
 - CLCH Academy representation
- 4.4. Tissue Viability Nurse Specialist. These staffs are employed within CLCH. Their role is:
 - to provide expert professional advice and education on the prevention and management of wounds and infection to other professionals, multi-disciplinary groups, patients and carers
 - to lead in the investigation of identified breaches of Tissue Viability
 - to advise treatment, intervention and delegating responsibility to Trust staff as appropriate
 - to give advice on complex issues relating to Tissue Viability and report findings to the relevant business divisions.
 - to report any breaches in policy compliance through incident reporting and to health & Safety team

- 4.5. All managers in the relevant clinical areas must ensure that registered Nurse and Nurse Associate receives training and is supported to achieve and maintain competence.
- 4.6. All Healthcare Professionals, who care for patients with leg ulceration, must:
- ensure they are aware of this policy and related procedures and that they understand and comply with the requirements;
 - ensure they attend training provided for the assessment and management of leg ulcers; signed competent to perform the Doppler and compression bandage
 - complete the self-assessment competency framework for Ankle Brachial assessment and compression bandaging (appendix P, S) as evidence in their knowledge and skills portfolio for registration revalidation requirements;
 - Identify and address any learning needs they might have in this area of care provision;
 - Carry out venous leg ulcer assessment, implement & review care plan at home and clinic and management clinical audits – see appendix A for audit tool with benchmarks.
 - Nursing Associate will work within all aspects of the nursing process except for the first or initial assessment and under the leadership and direction of registered nurse.
 - Apprentice nursing associates (ANAs) will undertake the role under supervision of the registered nurse
 - Healthcare assistant are not allowed to apply high compression bandage
- 4.7. Clinical Effectiveness Group should be contacted if required.

5. Procedural document on the management and prevention of re-occurrence of leg ulcers

- 5.1. This policy must be used to aid clinical judgement and decision-making and is not intended to replace professional or clinical responsibility.
- 5.2. The principles upon which this policy is based are:
- An individualised holistic assessment of the patient must be undertaken and evidence-based treatment plans commenced and review as necessary. Plans will be based on the underlying aetiology of the leg ulcer, the patient's circumstances and wishes, clearly defined goals of the treatment/therapy, the practitioner's clinical experience, available resources and knowledge of more recent research findings;
 - All patient must have a current assessment and care plan

- Review and update care plan at least weekly or as necessary
- Clinical Outcome measures that are electronically recordable;
- Working within professional scope, limits and competence, based on nurse-led services that are not directly supported by secondary care specialist services.

Referrals & Waiting lists:

- 5.3. Thorough triaging of new referral is important to ensure that referrals are of high quality, appropriate, safely managed and responded to, given that many patients are awaiting an aetiology diagnosis.
- 5.4. To manage demand, the services will make use of waiting lists to ensure client care is prioritised and managed equitably based on capacity. As patients may be awaiting an aetiology diagnosis it is important to offer them an initial appointment as soon as is possible. Waiting list times will typically be reported as Key Performance Indicators (KPIs) to the Commissioners.

Assessment

- 5.5. All leg ulcers have an underlying aetiology and a holistic assessment and accurate nursing diagnosis is essential to determine the appropriate treatment. Holistic assessments should include demographic details, physical, emotional, social and environmental factors. The physical component of the assessment should include:
- Full medical history, including current medications and associated doses, known drug allergies and sensitivities, presence of comorbidities and psychosocial related factors.
 - Full clinical history including current general condition of the patient, blood pressure, pulse, temperature, height, weight and Body Mass Index (BMI), risk factors & current symptoms (venous and arterial related), pain score, nutrition (MUST nutrition assessment if not under the direct care of another service such as DN or care facility – appendix B), and mobility.
 - Full Vascular history including deep vein thrombosis, varicose veins, phlebitis, previous leg ulcerations and treatment, intermittent claudication, ischemic heart disease, hypertension, rest pain in lower leg, previous surgical, lower limb trauma, venous surgery, diabetes, blood disorders and malignancy.

- Full examination of lower limb including oedema, brown pigmentation, purple/red staining, eczema, dermatitis, presence of lipodermatosclerosis, ankle flare, atrophe blanche, assess the mobility, degree of ankle movement, palpable pulses, tissue necrosis fore foot or toes, decreased temperature, hair loss, base of foot turns white on elevation, slow capillary refill.
- Full wound assessment using the CLCH Wound Assessment chart on System One; EMIS; RIO (appendix G, H, I);
- Ankle brachial pressure index (ABPI) this maybe Toe Pressure Index (TPI), MESI and Doppler ultrasound must have a reading of both brachial arteries and foot pulses i.e. dorsalis pedis artery, anterior tibial artery, posterior tibial artery and peroneal artery.
- Other relevant investigations if indicated e.g. a wound swab if obvious signs of clinical infection or blood tests – GP (may need to authorise).
- Falls risk assessment (CLCH falls risk assessment – appendix C);
- Pressure ulcer risk assessment (according to relevant care setting – appendix D)
- Consideration for onward referrals i.e. podiatry, dietetics, vascular specialist etc.

Ankle, Brachial Pressure Index (ABPI):

- 5.6. The ABPI is the calculation of arterial blood flow to the lower limbs via Doppler assessment. This is carried out whilst the patient is lying comfortably, ideally supine or as flat as they can tolerate, and relaxed after 20 minutes of rest. The measurement is achieved by separately dividing the highest right and left systolic ankle readings by the highest of the 2 brachial (left and right arm) systolic readings.
- 5.7. Ankle Brachial assessments must be used in conjunction with a thorough holistic assessment and must only be undertaken by a competent trained HCP. Compression therapy should only be considered when these investigations (Doppler and holistic assessment) have been carried out.
- 5.8. As a general guide (BPS, Wounds UK), patients should be re-Doppler (at 3 months, 6months and yearly).
- 5.9. The ABPI formula includes both a left and right ABPI and the highest of both arm readings should be used to calculate both the left and right ABPI.

Formula:

$$\text{Left ABPI} = \frac{\text{Highest left Ankle systolic pressure}}{\text{Highest of both Brachial systolic pressures}}$$

$$\text{Right ABPI} = \frac{\text{Highest right Ankle systolic pressure}}{\text{Highest of both Brachial systolic pressures}}$$

5.10 Interpreting the Doppler results

0.8 – 1.3	No evidence of significant arterial disease Safe to apply high compression
0.5 – 0.8	Mixed arterial disease Consider reduced compression (max 20mmHg) if limb is not distorted under strict supervision following specialist advice Refer to Vascular / Tissue Viability Team
<0.5	Severe arterial disease Do not compress Arrange urgent referral for Vascular assessment via GP
>1.3	Consider Calcification –due to diabetes Refer to Vascular Team /Tissue viability Assess foot pulses, doppler waveflow , toe pressure May require high compression i.e. 40mmHg in the absence of diabetes and/or renal failure and no signs of arterial disease
ABPI that is abnormally high	Future repeat ABPI testing would not be useful

5.11 Interpreting the Doppler Sounds

Doppler Sound	Status Vessel	Characteristics	Comments
Triphasic	Healthy	Sound has three parts; is pulsatile (bouncy in nature) and is heard at a higher frequency than that of a diseased vessel.	
Biphasic	Vessel has become less elastic. This may be part of the normal physiological process of aging or due to stenosis	Sound has two parts, it is more dampened than the tri-phasic and heard at a lower frequency	Oedema may distort a triphasic sound so that it is heard as bi-phasic. If the optimum position for the probe has not been found a pulse may appear bi-phasic because the best possible location for the artery has not been determined

Monophasic	Diseased Vessel	Sound has a simple component and is in the lower frequency. Sound descriptors include “Whoosy”, “roaring wind” or “soldiers marching”. In a very diseased vessel the sound can be similar to a vein which appears as an almost continuous “whoosh”.	Arterial sounds can be distinguished from venous as the latter modulate with the respiratory cycle by mirroring the breathing pattern
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Rotherham Doncaster and South Humber NHS Foundation Trust 2012

5.12 Limitations of ABPI and Factors to Consider

ABPI Determinations	Limitation	Rationale	Management Implications
The ABPI is a calculation of ankle pressure by determining the pressure within the major arterial vessels in the lower limb	It does not assess micro-vessel status. It therefore cannot assess micro-vessel disease in diabetes, vasculitis and rheumatoid arthritis.	Microvascular Disease occurs in diabetes, vasculitis and rheumatoid arthritis.	High compression bandaging and hosiery may cause tissue damage. Refer to medical history and presenting clinical symptoms. Doppler sounds may be helpful. Further investigation may be needed.
Elevated ABPI above 1.3		The elevated ABPI may be due to incompressibility of the artery (arteriosclerosis, atherosclerosis).	Refer to medical history and presenting clinical symptoms and discuss with more senior colleague/TV team
ABPI is inversely related to the patient’s blood pressure status.	ABPI may be calculated as low where hypotension is found.		Refer to medical history and presenting clinical symptoms. Doppler ultrasound may be helpful.
Practitioners Inexperience	Results will be affected by; deviation from the procedure, difficulties associated with carrying out the procedure and difficulties in interpreting the results.		If unsure, refer to a more senior colleague/TV team

Rotherham Doncaster and South Humber NHS Foundation Trust 2012

MESI ABPI MD (Automated ABPI)

5.13 Automated ABPI device to speed up the accurate recording of the ABPI (Wounds UK 2019). They provide a visual pulse waveform based on oscillometry and volume plethysmography. The machine will calculate ABPI automatically and will also identify peripheral arterial disease (PAD) to aid timely onward referral. The measurement can be easily repeated which gives greater certainty of results (Mullings 2018).

- The machines have 3 colour coded cuffs to indicate correct limb application and the inflation and deflation of the cuffs takes around one minute. The cuffs come in two sizes (medium and large) and there is a specific setting if patient has had an amputation.
- Practitioners using the MESI must receive training arranged through the Tissue Viability Service which will cover correct application of cuffs, use of MESI ABPI machine and interpretation of results.

5.14 Interpreting the MESI result

- The machine will calculate ABPI automatically and clinicians should interpret the waveforms.
- Automated ABPI machines must always form part of a thorough holistic assessment.

5.15 Limitations of MESI and Factors to consider

- Cuff positioning and lower leg oedema may affect results so should be checked with handheld Doppler.
- If PAD is indicated then handheld Doppler should be used to calculate ABPI.

Toe Brachial Pressure Index (TBPI)

5.16 Toe brachial pressure index (TBPI) is a noninvasive way of determining arterial perfusion in feet and toes, commonly used in patients with diabetes and peripheral arterial disease.

- Can be a useful adjunct to holistic vascular assessment, particularly when ABPI measurements may be inaccurate. It is particularly useful for patients with ABPI's greater than 1.3, as toe arteries rarely calcify, but may also be helpful for patients with large limbs, or those who cannot tolerate pressure around the ankles (Wounds-UK, 2019).

- The procedure is similar to ABPI, a small toe cuff is placed around the great toe and attaching a plethysmography probe at the pulp of great toe tip. TBPI's can then be calculated by dividing the reading by the highest brachial pressure. Toe pressures are normally lower than brachial pressures, due to the size of the arteries.

5.17 **Interpreting the Toe Pressure Index (TBPI) result**

- A TBPI of >0.5 to 0.7 is thus generally considered indicative of suitability for compression
- A TBPI of <0.5 is diagnostic of PAD.
- A TBPI of <0.2 is considered severely ischemic.
- Toe pressure can also be measured after application of compression bandaging and could be used to check sufficient blood flow is being maintained during compression therapy.

5.18 **Limitations of TBPI and Factors to consider**

- Inability to measure toe pressure due to great toe wounds or toe amputation
- It may not reveal an arterial occlusion because the sphygmomanometer cuff is placed at the base of the toe because TBPI is an indirect assessment of perfusion, it can not pinpoint the location of arterial occlusion.

5.19 Once a holistic assessment has been carried out including establishing the aetiology using the ABPI Doppler investigation to establish the underlying aetiology, then the leg ulcer(s) should fit into one of the following categories:

1. Venous Ulcer
2. Arterial Ulcer
3. Mixed Ulcer
4. Diabetic Ulcer (neuropathic, ischaemic, arterial, traumatic)
5. Other (rheumatoid, malignant, neuropathic etc.)
6. Diagnosis uncertain

Wound Photography

- 5.20 The wound must be photographed on the first assessment followed by four weekly and/or any changes. It is a must to use the CLCH ruler.
- 5.21 Photo evidence is to be used for education purpose. A written consent must be Completed before and discussed with the patient. See appendix E for wound photography consent form.

Planning:

- 5.22 The aetiology of the leg ulcer including consideration of current wound symptoms and presentation should assist with planning the right treatment for the patient. Treatment plans should be discussed with patients in all instances, including seeking consent verbally, highlighting any known or potential risks and ensuring concordance.
- 5.23 In addition to compression bandaging consumables, HCPs will refer to their local wound care formulary.
- 5.24 All wounds require cleansing. See below for wound assessment and management considerations. Using CLCH's Local Wound Product formulary will help support clinical decision-making in relation to wound care.

Venous leg ulcers:

- 5.25 After initial assessment has been completed and VLU diagnosed, VLUs should be classified as simple or complex (Harding et al, 2015).

Simple VLU	Complex VLU
<p>A 'simple' VLU is defined as having the following characteristics:</p> <ul style="list-style-type: none">■ ABPI 0.8–1.3■ Area <100cm²■ Present for less than 6 months.	<p>A 'complex' VLU is defined as having any of the following characteristics:</p> <ul style="list-style-type: none">■ ABPI outside of 0.8–1.3 range■ Area ≥100cm²■ Present for more than 6 months■ Controlled/uncontrolled cardiac failure■ Current infection and/or history of recurrent infections■ History of non-concordance with treatment■ Wound has failed to reduce in size by 20–30% at 4–6 weeks despite best practice■ Fixed ankle or reduced range of motion■ Foot deformity■ Unmanaged pain.

5.26 Managing uncomplicated venous leg ulcers involves:

- Cleaning the ulcer.
- Dressing the ulcer.
- Applying compression therapy.
- Following up and providing life-style advice

5.27 Cleaning a leg ulcer:

- The SIGN guideline recommends washing ulcerated legs normally in tap water and drying carefully. In the absence of portable tap water, boiled and cooled water or distilled water can be used to clean wounds (Fernandez and Griffiths, 2012).
- Perform moving and handling risk assessment to determine if it is safe to wash leg using bucket. A dedicated trolley might be needed for transporting the bucket from and to the sluice room. If it is not safe to use the bucket it is advisable to use alternatives i.e. wet wipes, disposable flannel
- A patient's lower leg can be soaked and washed in a bucket of tepid tap water, using a soap alternative as cleansing agent. Buckets should be a single patient use and if this is not possible the buckets must be lined with a plastic bag prior to adding water to prevent cross-contamination. Once used, the water should be disposed of in a sluice or dedicated waste water sink and the; plastic bag must be disposed of in a clinical waste bin. Waste water must never be discarded into a hand wash basin. The bucket must be cleaned by using detergent wipes starting by the outside of bucket and handle. The wipe/s used should be discarded into clinical waste. The inside of the bucket must be cleaned with a new clean detergent wipe and disposed into clinical waste. After this procedure the bucket must be air dried and stored inverted at the end of clinics.

In the home setting the bucket be as single patient use and must remain with the patient's home. Also must be cleaned after use with the purpose to prevent the build-up of micro-organisms.

- Remove slough, necrotic, fibrous, or excess granulation tissue using mechanical debridement pad.
- Irrigate the ulcer at each dressing change with warm tap water or saline, then dry using an aseptic non-touch technique (ANTT), please refer to Aseptic Non Touch Technique Policy.

5.28 Use of Bandage Scissors

- often have an angled tip with a blunt tip on the bottom blade. This helps in cutting bandages without scratching the skin.
- All bandage scissors used must be single use only and must be disposed of after use. If there are issues using single use bandage scissors then decontamination by approved sterilising department must happen.

5.29 Potassium permanganate soaks:

- These soaks can be initiated by appropriately trained nursing staff and require prescribing.
- When considering the use of potassium permanganate 0.01% soak refer to the Tissue Viability nursing service for advice and medicines management for storage.
- There has been a Patient safety Alert as follows: Risk of death or serious harm from accidental ingestion of potassium permanganate preparations. NHS/PSAW/2014/18 <http://www.england.nhs.uk/wp-content/uploads/2014/12/psa-potass-prmangant.pdf>

5.30 Debridement:

- Debridement is defined as deeply removing adherent, nonviable or devitalised tissue, infected or foreign material from the wound bed and surrounding skin. The devitalised tissue can form a physical barrier that prevents new epithelial cells moving from the wound edges to provide a new covering of epithelial tissue (European Wound Management Association [EWMA], 2013)
- If the debridement is not undertaken it is likely to affect the healing process, patient's health and wellbeing, and the cost of chronic wound management for the NHS (Wounds UK, 2013; Atkin, 2014).
- Debridement techniques include mechanical, autolytic, chemical, bio-surgical (larvae/maggots), or enzymatic methods. However, there is consensus that chemical agents such as acetic acid, hydrogen peroxide, or hypochlorite must not be used.
- Sharp debridement (at the bed side) should only be carried out by a trained healthcare professional and a topical anaesthetic (e.g. EMLA® cream) is normally used to reduce pain.

- Sharp excision debridement (with a scalpel) should only be undertaken by an appropriately trained healthcare professional (SIGN, 2010) due to the risk of damaging healthy tissue and underlying blood vessels (Briggs and Nelson, 2010).
- Used scalpel should be disposed of into an appropriate sharps bin after the debridement procedure. Refer to clinical waste policy.

Treatment: dressings and compression therapy.

- 5.31 When treating venous leg ulcers there are 2 main considerations: managing the underlying aetiology and wound care management.
- 5.32 Please see appendices for different type of compression bandages

Dressing a venous leg ulcer:

- 5.33 CLCH has worked in collaboration with the STP to develop wound care formulary that aims to guide the clinician in their choice of dressing so that an optimum wound healing environment can be achieved that is also cost-effective. This formulary was compiled by both the CLCH Tissue Viability nursing service.

The formulary aims to support dressing choice based on:

- Absorbency to manage exudate
- Managing odour
- Adhesiveness
- Antimicrobial properties
- Autolytic debridement
- Permeability
- Other

- 5.34 Clinicians should use their own professional judgement and consider individual patient circumstances.
- 5.35 Appropriately trained HCPs should read all product literature and manufacturer guidelines prior to use ensuring products are used as per guidelines.
- 5.36 Appropriately trained HCPs should also adhere to the formulary content where possible however there may be some exceptions to the rule hence clinical judgement is required.
- 5.37 Principles of wound care and products:

- Wound dressings that create and maintain a clean, moist microenvironment are optimal for wound healing;
- An aseptic non touch technique (ANTT) must be applied for all wound dressing changes;
- Compression therapy should be applied by a healthcare professional trained in venous ulcer management.
- Wound dressing: apply a low-adherent dressing and replace weekly: If the wound has a heavy exudate, more frequent dressing changes may be required.
- Alternative dressings may be considered to help with pain i.e. bio-burden, heavy exudate or slough – refer to local CLCH Wound Management Formulary.

5.38 Refer to CLCH’s Medicines Management policies in relation to ordering and storage of medications/wound care products (appendix M).

Compression therapy:

5.39 Compression therapy is now recognised as the mainstay of treatment for both the preventative and therapeutic care of venous disease, with high compression bandaging has established as the treatment of choice for venous leg ulceration (O’Meara et al, 2009).

The bandage types are classified depending on the degree of sub-bandage pressure they exert on the limb. A constant tension is needed when applying the bandaging, to create a sub-bandage pressure gradient; the highest pressure is at the ankle, and progressively reduces towards the knee and thigh. Careful attention is needed to avoid the risk of pressure ulceration over bony prominences;

Compression bandaging systems are outlined below in Table 1.

Compression Bandage Systems			
4-Layer	Ankle pressures (18-25cm)	Application	Examples
1. Sub-compression wadding	-	Spiral To protect bony prominences	K Soft Profore1
2. Crepe	-	Spiral No stretch	K Lite
3. Light compression	@ 17-20mmHg	50% overlap & 50% stretch Figure 8 application	K-Plus, Profore #3
4. Cohesive bandage	@ 20-23 mmHg	Elasticised bandage. 50% stretch & 50% overlap Spiral Use with sub-compression wadding	KoFlex Profore #4

2 Layer	@ 40mmHG	Spiral Combined components that work together to provide sustained graduated compression	Urgo KTwo 3M Coban2 Actico 2C
Long Stretch bandages	@ 35 mmHg	Elasticised bandage. 50% stretch & 50% overlap Spiral Use with sub-compression wadding	K-ThreeC
Short stretch bandages	Pressure when moving calf muscle	Inelastic bandage Use with sub-compression wadding	Actico Comprilan Rosidal K
Adjustable Compression System	@20-50mmHg	Inelastic fabric Alternating straps or 50% overlapping Velcro straps (pls follow manufacturers advice)	Easy Wrap Farrow Wrap Juxta Fit Juxta Cure Ready Wrap

Table 1: Compression Bandage Systems (BCS Leg Ulcer Guidelines, 2011).

- 5.40 The compression therapy should be applied by a healthcare professional trained in venous ulcer management. The Scottish Intercollegiate Guidelines Network (SIGN) recommends high compression multilayer compression bandaging for the treatment of venous leg ulcers. Compression therapy can be delivered through multilayer elastic or non-elastic bandaging [SIGN, 2010; Joint Formulary Committee, 2019]. There was no evidence of a difference in venous ulcer healing between two-layer compression and the four-layer bandaging. Between 30–75% of venous leg ulcers will heal after six months of compression therapy (Lim, 2018).
- 5.41 The adjustable compression system with Velcro brand fasteners is designed as an easy to use compression therapy for patients with venous and lymphatic disease. The soft and comfortable garment are especially useful for encouraging volume reduction of the limb and venous leg ulcer healing; while facilitating self- care.

Compression hosiery: Construction of compression hosiery

5.42 Hosiery can be constructed in two ways: circular-knit or flat-knit. Both types are used in the UK; in some parts of Europe and for the management of lymphoedema, flat-knit is predominantly used (Anderson and Smith, 2014; cited by UK Wounds, 2015).

5.43 Please refer to your local wound care formulary

Circular-knit:

5.44 The fabric is knitted on a cylinder with circular needles and has no seam. The fabric tends to be finer, which patients often find more cosmetically acceptable. Circular-knit is generally used to create ready-to-wear hosiery (although it can be used for made-to-measure hosiery) and is most suitable where there is no or minimal limb distortion due to oedema (Anderson and Smith, 2014, cited by UK Wounds, 2015).

Flat-knit:

5.45 The edges of a flat fabric are sewn together, creating a seam. The fabric tends to be relatively thick and stiff, which lets it lie across skin folds without cutting into the skin. Flat-knit is usually used for made-to-measure garments because it can be more readily adapted to limb shape distortion (Lymphoedema Framework, 2006, cited by UK Wounds, 2015).

5.46 There are currently **two** classification systems for compression hosiery used in the United Kingdom (Table 2 below).

- The British system: these stockings comply with British Standard 6612 and are available on FP10.
- The European system: these stockings conform to the Hohenstein Standard, many of which are now available on FP10. This system is used regularly in the management of lymphoedema.

Class	Support	Recommended Ankle Pressures	Clinical Indications
British Standard			
1	Light	14 - 17 mmHg	Superficial or early varices
2	Medium	18 - 24 mmHg	Varices of medium severity, ulcer treatment and prevention of mild oedema
3	Strong	25 - 35 mmHg	Gross varices, post thrombotic syndrome, gross oedema, ulcer treatment, prevention.
European Standard			
1	Light	18 – 21 mmHg	Mild varices, venous hypertension in pregnancy, heaviness and fatigue in leg
2	Medium	23 - 32 mmHg	Pronounced varices, moderate oedema, inflammation of superficial veins after resolution of mild ulceration
3	Strong	34 – 46 mmHg	Severe varicose veins, post thrombotic syndrome, pronounced oedema, prevention of venous ulcers
4	Heavy	Over 59 mmHg	Lymphoedema, elephantiasis

Table 2. British and European compression hosiery classification

Advice on Selecting Compression Hosiery

5.47 An increasing variety of compression hosiery is available on FP10, for further guidance see the British National Formulary (BNF).

5.48 The following principles refer to the British Classification system.

- Class 3 stockings are more effective at reducing recurrence than Class 2, however, compliance, application and removal may be a problem with Class 3.
- Class 2 or 3 hosiery is recommended as the compression level of choice but low compression is better than no compression.
- When choosing which class to use both clinical implications and the patient's ability to tolerate that class must be taken into account.
- The highest class that the patient can tolerate and remove should be used.
- Two Class 1 stockings may be worn together as the combined effect is similar to one Class 3 stocking and they may be easier to apply for those with poor manual dexterity or strength.
- Compression hosiery kits are more readily available, which split the compression between two layers, which may be easier for some patients to apply.

Advice on Prescribing Hosiery

5.49 Article and brand name:

- Compression level: Class 1, 2 or 3.
- Length - below knee or thigh length
- Quantity - single or number of pairs, it is usual to have two stockings per leg, one to wash and one to wear.
- Size required - measure ankle, calf and foot to select appropriate size from manufacturers measuring guide.
- Open or closed toe.
- Colour - ask the patient as this may improve compliance. See manufacturer's guide.
- For made to measure hosiery: measure limb according to manufacturer's instructions, fill in made to measure form, attach form to prescription sheet requesting made to measure hosiery from the named company.
- Do not use compression therapy on active phlebitis or deep vein thrombosis

Advice on Fitting Compression Hosiery

5.50 Compression hosiery is not put on like ordinary socks, stockings or tights. If the compression stocking is gathered together in the typical 'doughnut' fashion, the effect of the elastic material is multiplied and it becomes hard to apply.

5.51 To apply correctly:

- measure the person's ankle and calf circumference and apply below-knee and replace weekly or sooner if clinically indicated:
- Insert a hand down the shaft of the stocking to the heel pocket only and turn stocking inside out.
- Position stocking over foot up to heel pocket position, pulling the garment as far along the foot as possible.
- Gradually unfold/peel the stocking up the leg from the top opening. The last piece of material to be fitted should be just below the knee or thigh.
- Hosiery should be applied with care to prevent skin trauma and damage to the hosiery.
- The patient's ability to apply and remove the stockings should be assessed and application aids considered. For example, silk/nylon (Chinese/pixie) slipper, applicator frame (available from manufacturers), Actiglide applicator (available from Activa) and Ezy-AS; Steve Plus
- Patients unable to apply stockings will need assistance from a relative, friend or other carer who should be trained to apply the hosiery correctly.
- The patient/carers should be advised about how to care for the stockings and the information should be given verbally from the manufacturer's instructions as well as leaving the instructions for them to read. For example, wash in warm soapy water, let the stockings dry naturally away from direct heat and not over a radiator or near a fire, ensure nails and hands are free from snags to prevent ladders.
- Once the patient has been fitted with hosiery they should be followed up to check comfort, fit, skin condition and their ability to manage and level of compliance. It is also important to check that the hosiery is having the desired therapeutic effect.
- Patients should be advised to contact a named healthcare professional immediately if they have problems or concerns about the skin on their leg. Early intervention might prevent ulcer recurrence or deterioration.

- As a general guide (BPS, Wounds UK), patients should be re-Doppler (at 3 months, 6 months and yearly) and re-measured and replaced hosiery every 6-12 months (see manufacturer's instructions for details).
- Patients/carers should be supplied with an educational leaflet to reinforce any advice given verbally (Leg Care, appendix N)

Potential Hazards of Compression Hosiery

5.52 The following hazards can potentially occur when using compression hosiery:

- Pressure damage due to undiagnosed arterial disease. Usually seen over the tips and joints of toes, mid foot, medial and lateral malleoli, tibial crest or the anterior bend in the ankle
- Tourniquet effect caused by badly applied hosiery.
- Skin irritation or allergies.
- Compression hosiery should be used with caution when treating patients with diabetes mellitus or rheumatoid arthritis because these patients are susceptible to small vessel disease and compression could cause further occlusion and pressure damage.

5.53 In summary, the Wounds International working group (2015) recommend an ABC model for venous leg ulcer management. The model is based on regular assessment, management (including patient and care-giver education) and addressing the following areas:

1. A: Assessment & Diagnosis
2. B: Best practice wound and skin management
3. C: Compression therapy for active treatment and for prevention of reoccurrence

Follow up during treatment:

5.54 Ideally, when compression therapy is started, people should be re-assessed for skin complications within 24–48 hours. Inspect and compare the ulcer with the initial assessment to see if there is evidence of healing. Healing is suggested by reduced ulcer size, development of healthy pink granulation tissue, reduced amounts of exudate, and improved symptoms of pain and oedema.

- 5.55 If the wound has failed to reduce in size by 20%-30% at 4-6 weeks despite best practice, identify problems which may need further treatment or referral:
- Assess the person's age, mobility, diet, medication (immunosuppressive drugs), and co-morbidities (e.g. diabetes) may be influencing healing.
 - Look for granulation, or fibrous or necrotic tissue and slough;
 - Unhealthy granulation tissue is dark red in colour, and often bleeds on contact (may suggest infection);
 - Fibrous tissue (white or yellow shiny), eschar (dry, black necrotic tissue), or slough (cream coloured) indicates that the wound may require debridement;
 - Refer to GP for Vascular referral if there is delayed or no healing after weeks of compression therapy and superficial venous reflux for superficial venous surgery to prevent recurrence. (NICE CKS, 2020).
 - Advise the person that compression hosiery has been proven to reduce the rate of ulcer recurrence and that it is likely that compression hosiery will be required indefinitely.
 - Always use the CLCH wound evaluation form on electronic records (appendix I).
- 5.56 Dressings should be changed at least once a week. Reassess and record on wound evaluation form. Check for compliance with compression therapy and ask about problems (mobility, sleep, mood, and independence) and document;
- 5.57 Patients with chronic venous leg ulcer and superficial venous reflux should be considered for superficial venous surgery to prevent recurrence. Assessment of venous reflux should be undertaken using duplex ultrasound (SIGN).
- 5.58 Check for complications related to:
- The ulcer: cellulitis as well as sinus formation and fistula (both uncommon).
 - Compression bandaging: pressure damage or arterial insufficiency. Compression bandages should be removed immediately if the person experiences a change in foot colour or temperature, or increased pain. Seek further medical advice urgently if there is no improvement after removing the bandages.
 - The dressings applied: skin maceration or allergic contact dermatitis. Maceration is indicated by white soggy tissue which is usually caused by inadequate exudate management. More frequent dressing changes and more absorbent dressing are required including protecting the surrounding skin with the use of a barrier cream.

- The incidence of contact allergy increases with the duration of ulceration, and several large patch test studies have shown that the principal sensitizers are ingredients of applications, dressings, and bandages (SIGN, 2010).
- Assess adherence to education and lifestyle strategies such as elevating legs, limb exercises, regular walking, and losing weight (if needed). Education regarding ulcer disease, rationale for treatment, and lifestyle strategies should be delivered at every possible occasion, and should be appropriate to the person's stage of treatment.
- If the ulcer is not fully healed or deteriorating at 12 weeks repeat Doppler studies and check for signs of arterial insufficiency and refer onwards as appropriate (Tissue Viability nursing service or Vascular services).
- Compliance: poor compliance with compression therapy can be due to heat, discomfort, and the impractical nature of the bandaging. The healthcare professional should be aware of these issues and explain the importance of compliance.

Management of associated symptoms:

5.59 Conditions which are associated with venous leg ulcers and require consideration include oedema, pain, dermatitis and hyperkeratosis.

5.60 Managing associated oedema:

- In addition to compression bandaging (if appropriate), advise the person to elevate their legs (above hip level) for 30 minutes, three to four times a day, and consider placing pillows in a lengthwise position under their feet and legs while sleeping.
- Prolonged periods of time with legs down (e.g. sitting, standing) as opposed to elevated, all contribute to leg oedema.
- Do not simply prescribe diuretic medication for persistent or worsening oedema: check compliance with advice given regarding reducing oedema, and exclude other causes of oedema such as medication and heart failure. Check compliance with medication.
- Intermittent pneumatic compression (IPC) is a mechanical method of delivering compression to swollen limbs that can be used to treat venous leg ulcers and limb swelling due to chronic oedema or in patients with peripheral arterial disease who are not suitable for surgery or percutaneous transluminal angioplasty.

Managing associated pain:

- 5.61 Determine the duration, nature, and severity of the pain to exclude additional causes. Worsening pain may indicate poor ulcer healing, new or worsening arterial disease, diabetic neuropathy, or cellulitis and may be due to dressings themselves (sensitivity);
- 5.62 Venous disease and venous leg ulcers are frequently painful. The pain experienced may be constant or intermittent. Severe or worsening pain may indicate a complication;
- 5.63 Pain can originate from vascular structures (superficial, deep phlebitis), pitting oedema, collagen (lipodermatosclerosis), or infection;
- 5.64 Pain can also be related to dressing changes or debridement procedures;
- 5.65 Advise the person that leg elevation will help with the pain associated with oedema;
- 5.66 Prescribe simple analgesic such paracetamol as needed. Do not routinely prescribe non-steroidal anti-inflammatory drugs because they impair wound healing and may worsen leg oedema
- 5.67 Consider WHO analgesia criteria and ensure follow-up with GP as medications may require regular review and consideration for other types that may best be suited i.e. for neuropathic pain and further referral to pain clinic if needed.

Managing associated dermatitis:

- 5.68 Exclude cellulitis if there is worsening venous eczema and signs suggestive of active infection (see scenario on infected venous leg ulcer).
- 5.69 Use an emollient and a mild to moderate potency topical corticosteroid ointment. If compression bandaging is being used, consider replacing bandages more frequently than once weekly to apply topical treatment. For more information see the CKS topic on Eczema - atopic.
- 5.70 If there is no improvement with an emollient and a moderately potent topical corticosteroid, or there are concerns about allergic contact dermatitis (worsening rash with topical treatment at any stage), refer the person to Dermatology for consideration of patch testing, and advise them to avoid any allergens subsequently identified.
- 5.71 Contact dermatitis caused by bandages is well demarcated (i.e. stops where the bandage stops).
- 5.72 Common sensitizers include wool alcohols (lanolin), topical antibiotics, topical corticosteroids, cetyl stearyl alcohols, parabens, and rubber mixes.

5.73 Emollient such as urea, glycerol, propylene glycol and lactic acid is used to treat dry/rough skin conditions (e.g., eczema, psoriasis, corns, callus). Emollients are lipid-based substances that occlude the skin surface and encourage build up of water within the stratum corneum (Marks, 2001; BDNG, 2012) to soothe, smooth and hydrate the skin (BDNG, 2012; BNF, 2015)

Table1. Features of venous eczema and cellulitis

5.74 Differentiating between venous eczema and cellulitis

Features	Venous eczema	Cellulitis
History	Chronic (usually)	Rapid Onset (24–72 hours)
Appearance	Red, painful to touch, haemosiderin pigmentation	Red, warm, tender to touch
Rash margin	Diffuse (poorly demarcated)	Well demarcated
Symptoms	Itchy	Not itchy, person is systemically unwell, pyrexia
Scaling	Yes	No

Managing associated hyperkeratosis

- 5.75 Hyperkeratosis of the lower limb is a common skin condition that typically affects patients with lymphoedema and chronic venous insufficiency (ILF, 2012).
- 5.76 Hyperkeratosis of the lower limb is an abnormal thickening of the outer layer of the skin (the stratum corneum) localised to the lower leg and foot, and associated with an over-proliferation of keratin –producing cells (EWMA, 2005; ILF, 2012; AWTVNF, 2014).
- 5.77 Patients are often acutely embarrassed by the physical appearance of their skin, the flaking of the hyperkeratotic scales and unpleasant odour caused by bacterial or fungal colonisation (Brown, 2011; Jakeman, 2012; AWTVNF, 2014). These factors can cause distress and lead to anxiety, depression and social isolation (Wounds International, 2012; AWTVNF, 2014).
- 5.78 Hyperkeratotic skin may appear red and dry with brown or grey scaly patches.
- 5.79 Skin care regimen should aim to;
- cleanse (shower, buckets, wipes, normal saline) and remove any products residue
 - prepare the skin using exfoliation (by using monofilament fibre debridement pad or debridement cloth)
 - replenish the skin barrier using emollients.

Lifestyle advice:

- 5.80 Advise the person to consider the following self-care strategies, both when they have an ulcer and after the ulcer has healed:
- Examine legs daily for broken skin, blisters, swelling, or redness.
 - Keep mobile with regular walking. Elevate legs when resting.
 - Avoid trauma and wear appropriate (well-fitting) footwear.
 - Use an emollient frequently even after the ulcer has healed (avoid products that may contain sensitizing agents). Apply with downwards strokes – in the direction of hair growth;
 - Wear compression bandages or stockings as advised by HCP. If there are any difficulties, contact a healthcare professional before stopping using them.
 - Advise the person to adopt a healthy lifestyle to promote healing and prevent recurrence of ulcers:
 - Lose weight (if appropriate), eat a balanced diet. See the CKS topics on Obesity for more information.
 - Provide advice about local organizations that can provide support, such as www.legclub.org.
- 5.81 Stopping smoking: NICE recommends stopping smoking because nicotine is a vasoconstrictor and adversely affects the microcirculation, leading to impaired wound healing (McDaniel and Browning, 2014).
- For people who smoke and who are interested in using, a nicotine-containing e-cigarette the evidence suggests that e-cigarettes are substantially less harmful to health than smoking but are not risk free

Onward Referral

5.82 Onward referrals: Referral for Specialist Advice / Tissue Viability Service

- All patients referred by a Health Professional will have a completed leg ulcer referral/assessment form including Doppler Assessment.
- All venous or mixed aetiology leg ulceration if less than 30-40% healing at 4-6weeks, any deterioration from the initial assessment and commencement of compression therapy (SIGN, 2010).
- Any wounds continued to be non-healing at 12 weeks.
- Patients unable to tolerate compression bandages.
- Repeated infection.

5.83 Refer a person to GP for secondary care referral **before treatment** if there is:

- An uncertain diagnosis.
- A suspected alternative cause of ulceration:
- Arterial or mixed venous/arterial ulcer: refer people with an ankle brachial pressure index (ABPI) of less than or equal to 0.8 to a specialist vascular clinic for further assessment of arterial disease. If the ABPI is less than 0.5, refer urgently.
- Suspected malignant ulcer, rapidly deteriorating ulcer, an atypical appearance or distribution of ulcers — refer to Dermatology for possible biopsy.
- An ulcer associated with rheumatoid arthritis, or ulcers associated with systemic vasculitis.
- Suspected contact dermatitis — refer to Dermatology for patch testing

5.84 Refer a person to GP for secondary care **during treatment** if there is:

- A complication related to the ulcer or treatment:
- Pain which is uncontrolled
- A Recurrent ulcer.
- A condition which needs specialist assessment and intervention such as varicose veins or arterial insufficiency

5.85 Refer a person to secondary care **urgently** if there is:

- Cellulitis requiring intravenous antibiotics or cellulitis worsening despite treatment.
- Suspected DVT formation
- Person fall acutely unwell during treatment

5.86 Refer a person to GP for adjunct therapy:

- Consider prescribing pentoxifylline depending on local prescribing policies, to aid ulcer healing
- Pentoxifylline is an effective adjunct therapy for venous leg ulcers (off-label indication) and may be effective in the absence of compression.

Arterial leg ulcers:

5.87 Arterial ulcers are caused by insufficient blood supply to the lower limbs, with resultant tissue ischaemia and necrosis. How arterial leg ulcers are managed much depends on the ABPI reading. These patients will usually require referral for assessment and care to vascular services.

5.88 These types of ulcer are more distal on the foot or toes. Initially they have irregular edges, but this may become more clearly defined. The ulcer base may contain greyish, granulation tissue or slough. Night pain is typical, is worse when supine and is relieved by dangling the legs out of bed or sleeping in a chair. There are often features of chronic ischaemia, such as claudication, hairlessness, pale skin, absent pulses, nail dystrophy and wasting of calf muscles.

5.89 Risk factors include:

- Coronary heart disease including hypertension.
- History of stroke or transient ischaemic attack.
- Diabetes mellitus.
- Peripheral arterial disease including intermittent claudication.
- Obesity and immobility
- Smoking
- Hematological disease

Arterial leg ulcers: basic management:

5.90 Apply dressings based on need (e.g. high exudate) but no compression generally or where this indicated, under supervision by specialist/competent practitioners and modified. As a rule, onward referral required for ABPI below 0.8 prior to considering any modified compression. If the ABPI is below 0.5 – refer urgently to vascular services via GP.

Mixed ulcer:

- 5.91 Management of these depends on ABPI
- 5.92 These patient may need specialist advice; they sometimes benefit from a combination of modified compression bandaging and revascularisation procedures

Diabetic foot ulcer:

- 5.93 ABPI measurements in patients with diabetes or atherosclerosis may be falsely high and misleading. Calcification of the vessels causes rigidity and artificially high readings.
- 5.94 Toe Brachial Pressure Index (TBPI) is a more reliable indicator of peripheral arterial disease. A disadvantage of TBPI is that it may not reveal an arterial occlusion because the sphygmomanometer cuff is placed at the base of the toe. And because TBPI is an indirect assessment of perfusion, it ca not pinpoint the location of arterial occlusion.
- 5.95 Diabetic ulcer is typically on the foot over a bony prominence. Neuropathic, arterial and venous components may all contribute.
- 5.96 Refer patients to the Diabetes Team Level 3 (Community) or Level 4 (secondary care) **before treatment** with an ulcer associated with diabetes mellitus, or the person has newly diagnosed diabetes mellitus
- 5.97 A Mutli-Disciplinary Team (MDT) model of care is the gold standard of care for these patients and includes vascular consultants, podiatry care and endocrinology input

Other ulcer:

- 5.98 Refer patients to GP for onward referral to appropriate service with an ulcer associated with rheumatoid arthritis, or ulcers associated with systemic vasculitis.
- 5.99 Rheumatoid arthritis can produce a vasculitic ulcer. It is typically deep, well demarcated and punched-out on the dorsum of the foot or calf. They may also have venous disease due to poor mobility, and neuropathy, and possibly impaired healing due to use of steroids.
- 5.100 Vasculitis often causes multiple leg ulcers that are necrotic and deep. There is usually an atypical distribution with vasculitic lesions elsewhere such as nail-fold infarcts and splinter haemorrhages. Associated diseases include systemic lupus erythematosus, scleroderma, polyarteritis nodosa or Wegener's granulomatosis.
- 5.101 Microvascular disease associated with rheumatoid arthritis and vasculitis cannot be assessed by ABPI. Where there is doubt, such patients should be referred for specialist assessment.

Diagnosis unknown:

5.102 Refer patients with suspected malignant ulcer, rapidly deteriorating ulcer, an atypical appearance or distribution of ulcers to Dermatology for possible biopsy.

Chronic Oedema / Lymphoedema:

5.103 Lymphoedema is a chronic condition that causes swelling in the body's tissues. It can affect any part of the body, but usually develops in the arms or legs. Lymphoedema is caused by a problem with the lymphatic system. This is a network of vessels and glands distributed throughout the body. Its major functions are helping to fight infection and drain excess fluid from tissues.

5.104 Abnormal development of the lymphatic system, damage to it, and/or an increase in fluid in the body tissues can all lead to lymphoedema.

5.105 There are two main types of lymphoedema:

- **primary lymphoedema** – caused by faulty genes affecting the development of the lymphatic system; it can develop at any age, but usually occurs in early adulthood
- **secondary lymphoedema** – caused by damage to the lymphatic system or problems with the movement and drainage of fluid in the lymphatic system, often due to an infection, injury, cancer treatment, inflammation of the limb or a lack of limb movement

5.106 Secondary lymphoedema has been shown to affect approximately one in five women after breast cancer treatment.

5.107 Primary lymphoedema is less common than secondary lymphoedema, and is estimated to affect around one in every 6,000 people.

Lymphoedema Assessment:

5.108 It is essential that lymphoedema is correctly diagnosed and appropriately assessed

5.109 Lymphoedema staging:

Stages	Description
Stage 0	A subclinical state where swelling is not evident despite impaired lymph transport. This stage may exist for months or years before oedema becomes evident.
Stage 1	This represents early onset of the condition where there is accumulation of tissue fluid that subsides with limb elevation. The oedema may be pitting at this stage.
Stage 2	Limb elevation alone rarely reduces swelling and pitting is manifest.
Late Stage 2	There may or may not be pitting as tissue fibrosis is more evident.
Stage 3	The tissue is hard (fibrotic) and pitting is absent. Skin changes such as thickening, hyper-pigmentation, increased skin folds, fat deposits and warty overgrowths develop.

(International Society of Lymphology – Best practice for management of lymphoedema, 2006).

Treatment:

5.110 There is no cure for lymphoedema, but it is usually possible to control the main symptoms using techniques to minimise fluid build-up and stimulate the flow of fluid through the lymphatic system. These include wearing compression garments, taking good care of your skin, moving and exercising regularly, having a healthy diet and lifestyle, and using specialised massage techniques.

5.111 Refer patients to a Lymphoedema Specialist for formal diagnosis and treatment advice if not already available.

Cellulitis:

5.112 Cellulitis is an acute, spreading infection of the soft tissue, caused by a type of bacteria entering the skin, usually by way of a cut, abrasion or break in the skin. This break does not need to be visible. Staphylococcus aureus and Streptococcus pyogenes are the two main causative organisms (rainy, 2005).

5.113 The following symptoms may be present:

- Erythema may be present either as streaking or broad areas of redness (may be difficult to diagnose in darker skin)

- Often a clear demarcation line of pale skin against the red raised, swollen, tight glossy stretched appearance of the affected area
- Oedema, usually rapid spreading up the lower leg, starting from the foot but commence at the calf – see table 1 on pg 24 of this policy to ensure this is not confused with chronic venous eczema.
- Raised swollen, tight, glossy stretched appearance of the skin, sometimes with blisters
- Heat, hot or warm erythematous swelling in tissues surrounding an existing wound
- Pain/tenderness
- Flu-like symptoms before cellulitis develops and as the condition spreads to the body via the blood stream, then fevers, chills and vomiting can result.

Management of Cellulitis:

- Usually oral antibiotics, except in severe cases which may require IV antibiotic therapy.
- Treatment with analgesia if affected limb is painful
- Mark edges of erythema with a pen.
- Rest affected limb
- Measure limb circumference regularly with a tape measure and record in patient's notes
- Antimicrobial dressing is advisable if wound present
- Take swabs for C&S if pertinent (with debridement of dead tissue if necessary)
- Skin treatment – if dry, apply emollients
- If skin is wet – apply absorbent dressing
- Record temperature, pulse, RR and blood pressure if necessary
- Foot exercises – Dorsiflexion and plant flexion
- Compression treatment should be continued as long as the patient's pain levels allow this. The compression can help to prevent further lymphatic damage.

Sepsis

- 5.114 Sepsis is a clinical syndrome caused by the body's immune and coagulation systems being switched on by the presence of infection (bacteria or viruses) in the blood.
- 5.115 Symptoms of sepsis if left untreated, can lead to septicaemia (Rainy, 2005), multi-organ failure and death.
- 5.116 Assess temperature, heart rate, respiratory rate, blood pressure, level of consciousness and oxygen saturation in young people and adults with suspected sepsis.

Management of Sepsis

- 5.117 Refer all people with suspected sepsis to the acute hospital settings for emergency medical care by the most appropriate means of transport (usually 999 ambulance)

Deep Vein Thrombosis (DVT):

- 5.118 A Deep Vein Thrombosis (DVT) is a term used to describe a thrombus or blood clot formed in a deep vein, usually in the calf or thigh. The blood clots will partially or fully occlude the width of the vein and impeded venous return (NHS, 2007). DVT prevalence is 1:1000 each year (Collins, 2009).
- 5.119 DVT is a medical emergency that requires immediate trip to the emergency department.
- 5.120 The Well's DVT criteria or Homan's sign (foot dorsiflexion) is meant to aid clinical decision making. This should only be applied after a detailed history and physical assessment.
- 5.121 Symptoms may include:
- swelling, sometimes pitting oedema
 - throbbing or cramping pain in 1 leg, usually in the calf or thigh
 - localised skin warmth
 - erythema (redness), particularly at the back of the leg
 - vein distension that is hard or sore when touched
- 5.122 Diagnosis
- A D-dimer blood test measures a substance in the blood that is released when a clot breaks up and Duplex ultrasonography of the affected vein.

Management of DVT

- 5.123 Patients diagnosed with DVT will receive anticoagulation therapy and will be required to apply class 2 compression hosiery on the affected leg whilst lying in bed.
- 5.124 Compression stockings should be fitted professionally following measurement and support hosiery will need changing every 3-6 months. Refer to CLCH policies: Anticoagulation Medicines Safe Use Policy and Venous Thromboembolism VTE Reducing the risk of VTE in adults.

Patient education and information provision:

- 5.125 Exercise and lifestyle changes
- 5.126 CLCH approved leaflets should be used when providing written information.
- 5.127 All patients are entitled to and should be offered accessible and appropriate health promotion information on their condition and documented in the patient record.
- 5.128 An information leaflet should be given to the patient describing clearly and simply the rationale for treatment and self-help strategies
- 5.129 The patient should be made aware that they should contact a health care professional if they have recurrence of symptoms or have concerns.

Evaluation & Clinical Outcomes:

- 5.130 CLCH's wound evaluation charts should always be used at least weekly or if any change– see appendix I
- 5.131 CLCH Clinical Outcome is a mean by which the service audit clinical outcome

Follow-up after discharge:

- 5.132 Leg ulcers should be viewed as a chronic condition. Even when healed, skin care and hosiery use should continue.
- 5.133 The patient should be reviewed as locally agreed.
- 5.134 Services need to put in place systems to re-call patients following discharge.

Documentation:

- 5.135 Electronic clinical system used for both patient record keeping and also for service management and activity recording i.e. appointments, visits i.e. District nursing may use paper records which are kept in patient's homes.
- 5.136 CLCH Leg Ulcer assessment forms at initial assessment – see appendix H
- 5.137 CLCH Wound assessment charts must be used at initial assessment – see appendix G
- 5.138 CLCH Wound evaluation charts must be used at initial assessment, at least weekly or any change – see appendix I
- 5.139 MUST to be filled out at first assessment and 4 weekly and/or if clinically indicated – see appendix B
- 5.140 CLCH Falls risk assessment to be completed at all initial appointments, unless main care provision is by another service – see appendix C
- 5.141 Pressure ulcer risk assessment at initial assessment and 4 weekly – see appendix D
- 5.142 Photography: all wounds should be photographed at initial assessment and fortnightly or any changes. Consent for photography forms must always be completed – see appendix E. Written Consent must be completed for training and publication.
- 5.143 CLCH Leg Ulcer care plans also need to be completed according to leg ulcer aetiology – see appendices J, K and L.

Prescribing

- 5.144 Non-medical prescribers should adhere to CLCH's Medicines Policy at all times when prescribing.
- 5.145 CLCH's local Wound Care Formulary should also be utilised when considering wound type, condition and dressing choice.

Use of pharmaceutical reps and post marketing product evaluations:

- 5.146 Given that wound care products and techniques are constantly changing and advancing, the Tissue Viability team should be aware of new developments.
- 5.147 Staff should ensure they are familiar with CLCH's Policy on Working with Medical Representatives and follow this as Guidance
- 5.148 Staff should also be familiar with CLCH's Research Governance policy, especially if taking part in clinical research.

Infection Prevention & Control:

- 5.149 All staff must adhere to Standard Infection Control Precautions Policy with all patients at all times when providing direct patient care: Wherever care is delivered, staff must have available appropriate supplies of:
- Materials and facilities for hand hygiene (liquid soap, water, paper towels or alcohol hand rub, cleaning wipes);
 - Personal protective equipment (PPE);
 - Correct sharp bins NICE, (2012)
 - appropriate waste stream.
- 5.150 Staff providing care must be bare bellow the elbows at all times, refer to hand hygiene policy. Hands must be decontaminated in all of the following circumstances after the 5 moments of Hand Hygiene, immediately before donning and after removal of gloves (NICE, 2012) refer to hand hygiene policy:
- 5.151 Personal Protective Equipment (PPE) is worn by healthcare staff, in addition to their uniform, refer to Standard Infection Control Precautions Policy
- Protect susceptible patients from infection risk from the healthcare worker or to protect key sites from contamination during aseptic non touch technique;
 - Protect the healthcare worker from exposure to blood, body fluid or communicable disease.
 - PPE is a single use item. Therefore, it must be used for one procedure only and must be removed immediately after completing the procedure and disposed of into the appropriate waste stream at the point of care. Hands must be decontaminated immediately before and after using PPE.
 - The healthcare professional should carry out a risk assessment prior to selecting and putting on the appropriate PPE for each aspect of direct patient care and/or medical device/equipment decontamination procedure.
- 5.152 Refer to Standard Infection Control Precautions policy for further information.
- 5.153 Aseptic Non Touch Technique (ANTT): Aseptic Non Touch Technique (ANTT) is a developed technique to prevent microorganisms from being introduced to sterile/susceptible body sites during any invasive procedures that bypass the body's natural defences, e.g. wound care.

- 5.154 Asepsis is achieved by protecting key parts and key sites from microbiological contamination. The susceptible site should not come into contact with any non-sterile items. If contaminated during a procedure, key parts provide a direct route for the transmission of pathogens onto or into the patient. When handling sterile equipment only the part of the equipment not in contact with the susceptible site is handled.
- 5.155 Refer to Aseptic Non Touch Technique policy for further information.

Disposal of Clinical Waste

- 5.156 In clinical areas dressings heavily soiled must be disposed of into offensive clinical waste (tiger striped yellow bag) or from infected wounds must be disposed of into infectious waste (orange bag).
- 5.157 In a patient's home, where a healthcare worker generates the waste, it is deemed as belonging to them. Therefore a risk assessment must be performed to determine whether the waste is infectious or not. If the assessment identifies that the waste is not infectious it can be placed into the domestic refuse. This type of waste must be wrapped in any plastic bag (which is not orange or yellow in colour) and placed in the household waste bag which is then placed into a solid dustbin / wheelie bin with lid to avoid any pest/smell problems. If the risk assessment indicates that the wound is infected all associated contaminated dressings should be classified as infectious waste and packaged for appropriate treatment and disposal.
- 5.158 Refer to Clinical Waste policy for further information.

Specimen Collection:

- 5.159 Microbiology results are crucial for the identification of appropriate antibiotic therapy and application of infection control measures. To ensure that accurate microscopy, culture and sensitivity results are obtained, steps must be taken to avoid contamination of the specimen with the patient's or clinician's own normal flora.
- 5.160 Wound swab sample (using Levine Technique) for microbiological investigation should be sent to the laboratory as soon as a patient is considered to have an infection, and ideally prior to the use of antibiotics. However, if collected during antibiotic therapy, the specimen should ideally be taken immediately before a dose is administered and the microbiology department must be informed of the antibiotic therapy, via the request form, so that allowances can be made for the effects of antibiotics on the specimen.
- 5.161 For details please refer to Specimen Management Policy.

Decontamination of Equipment:

5.162 Buckets used for washing patient's legs should ideally be single patient use. Where this is not possible the bucket must be lined with a plastic bag for, each use dispose. Ensure that appropriate PPE is put on following risk assessment. Once used, the water should be disposed of in a sluice or dedicated waste water sink. After use, the plastic bag must be removed and disposed into clinical waste bin. The bucket must be cleaned with detergent wipes starting from the outside and handle. The wipe/s used must be disposed into clinical waste. Lastly clean the inside of the bucket with a new wipe and dispose into clinical waste. Leave the bucket to air dry and store into an inverted position.

Decontamination of re-usable medical equipment between patient use such as examination couch, dressing trolley, Doppler, examination lamp etc. as per Decontamination of Equipment Policy or manufacturer's instructions. Equipment needs to be specified on a cleaning schedule, including responsibilities and frequency of decontamination (please contact Infection Control Team if needed a template of schedule). Stored re-usable medical device and general equipment must be cleaned and evidenced by attaching a green "I am clean" label signed and dated. For details please refer to Decontamination of Equipment Policy.

6 Consultation Process

This policy has been developed through consultation with the clinical and corporate leads in CLCH through their representation on the Leg Ulcer Policy Working Group.

7. Approval and Ratification Process

The initial draft of this procedural document was approved by the leg ulcer working group on 20 March 2020.

Final approval was given by the Policy Ratification Group on 9 November 2020

8. Dissemination and Implementation

- 8.1. This document will be placed on the intranet by the QAS team. The QAS team will provide a reference number for the policy.
- 8.2. It will be therefore be available to all staff via the CLCH NHS Trust intranet. Furthermore the document will be circulated to all managers who will be required to cascade the information to members of their teams and to confirm receipt of the procedure and destruction of previous procedures/policies which this supersedes. Managers will ensure that all staff is briefed on its contents and on what it means for them.

9. Archiving

- 9.1. The QAS team will undertake the archiving arrangements.

10. Training

- 10.1. HCPs involved in the assessment and care of patients with leg ulcers should have received appropriate training and education in the following areas:
 - Pathophysiology of leg ulceration
 - Holistic Leg ulcer assessment including risk factors, patient presentation & signs/symptoms
 - Use of Doppler ultrasound to measure ABPI reading
 - Normal and abnormal wound healing
 - Compression therapy: theory, management and application
 - Compression therapy: practice: short-stretch versus multi-layer
 - Dressing selection
 - Skin care and management
 - Health education
 - Prevention of reoccurrence
 - Criteria for referral for specialist assessment
- 10.2. CLCH offers frequent leg ulcer assessment and management study days which includes a competency assessment at the end of the training. The following table outlines the minimum expected training to have been received to appropriately assess and manage leg ulcers by qualified nursing staff:

Name of course	Duration	Competency assessment	Frequency/review
CLCH Leg Ulcer assessment & Management course	2 days	Yes	Yearly attendance in Leg ulcer clinic
Alternate Provider study day – see point 10.3 below	1-2 days	Yes	To attend next available CLCH Leg Ulcer study day

- 10.3. New staff to CLCH who are competent to assess and manage leg ulcers including wound care provision should provide previously issued training/study day certificates to Team Leads as evidence and should undergo a period of direct supervision to ensure they are competent. They then require sign-off prior to commencing practice – see appendices R & S. These staff should then attend the next available relevant CLCH study days.
- 10.4. Apprentice Nursing Associate (ANA), Healthcare Assistants (HCAs) must always work under direct supervision of a registered nurse. Where wound care tasks are delegated to HCAs, ANA there must be robust processes in place to oversee their work. It is recommended that wound care competencies, relevant for them are developed, including associated training.
- 10.5. Nursing associates can undertake wound care, unsupervised, where this has been delegated by the RN. However, this must only be done following the initial assessment by the RN. The accountability for the delegated task remains with the RN.
- 10.6. Formal accredited Leg Ulcer training courses should also be sought in the form of recognised national courses and should form part of the HCP's appraisal.
- 10.7. Prescription training – non-medical prescribing course is also encouraged for those who manage and treat leg ulcers. This maybe either V150 or V300.
- 10.8. L2 Infection prevention and ANTT training is mandatory.
- 10.9. Electronic clinical record training must be undertaken by all staff.
- 10.10. For training requirements please refer to the Trust's Training and Study Leave Policy and Statutory and Mandatory Refresher Training Policy.
- 10.11. All Leg Ulcer Clinic Coordinators are required to hold an accredited leg ulcer management qualification/modular course.

11. Monitoring and Auditing Compliance with the Procedural Document

Element to be monitored	Tool	Who by	Reported to	Frequency
Nutritional assessment	Clinical audit	Team Leads, Matron, TV team, Nursing Staff, service manager	Business Division	Yearly
Falls risk assessment	Clinical audit	Team Leads, Matron, TV team, Nursing Staff, service manager	Business Division	Yearly
Pressure Ulcer Risk Assessment	Clinical audit	Team Leads, Matron, TV team, Nursing Staff, service manager	Business Division	Yearly
Wound Care charts for initial assessment on System one, EMIS	Clinical audit	Team Leads, Matron, TV team, Nursing Staff, service manager	Business Division	Yearly

11.1. In addition, audit benchmarks will be used to assess current practice against, which might involve retrospective record keeping review or through observation of practice – see appendix A for audit benchmarks.

12. Review arrangements

12.1. This policy will be reviewed at least 3 months prior to its expiration date of September 2019.

12.2. Relevant members of the working party, led by the Tissue Viability nursing service will be responsible for this process.

13. Associated documentation

Prevention and management of pressure ulcer policy

Infection Prevention and Control policy

Medicines Management policy

14. References

1. Barnet NHS Primary Care Trust – Local Guidelines for the assessment and management of patients with leg ulcers – 2005
2. Barnet Community Services. Clinical Practice Guideline: Leg Ulcer Prevention & Management. 2011
3. CLCH. Wound Management Product Formulary. 2014.
4. CLCH Wound Care Guidelines. 2010
5. Holistic Management of Venous Leg Ulceration. Wounds UK Best Practice Statement 2016
6. NHS Choices. <http://www.nhs.uk/Conditions/Lymphoedema/Pages/Treatment.aspx> accessed 2015
7. NICE Clinical Knowledge Summary: Leg Ulcer – Venous: uncomplicated. 2012.
8. NICE 2012 Healthcare-associated infections: prevention and control in primary and community care
9. Management of Hyperkeratosis Lower Limb: Consensus Recommendations 2015.
10. McDaniel and Browning, 2014: Smoking, Chronic Wound healing, and Implications for Evidence-Based Practice (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4241583/>)
11. Patient. Information website. <http://patient.info/health/venous-leg-ulcers-leaflet#nav-0> Accessed 2015
12. RCN: Improving Practice: Improving Care; Clinical Practice Guidelines. The nursing management of patients with venous leg ulcers. Recommendations. 2006.
13. SIGN. Scottish Intercollegiate Guidelines Network. 120: Management of chronic venous leg ulcers. Quick reference guide. 2010.
14. Wounds International: consensus recommendations. Recommendations from an expert working party. 2015

15. Appendices

Appendix A: Venous Leg Ulcer clinical audit tool:

Appendix B: MUST Nutritional assessment

Appendix C: CLCH Falls risk assessment:

Appendix D: Pressure Ulcer risk assessments by care setting:

Appendix E: Wound Photography consent form

Appendix F: Leg ulcer assessment form

Appendix G: Carrying out an ABPI assessment

Appendix H: CLCH Wound Assessment Chart

Appendix I: Venous Leg Ulcer Care Plan

Appendix J: Arterial Leg Ulcer Care Plan

Appendix K: Other Wound Type Care Plan

Appendix L: Leg Ulcer aetiology management and referral pathways

Appendix M: Leg Ulcer management competency

Appendix N: Wound Care management competency

Appendix O: Equalities Impact Assessment Pro Forma

Appendix A – Venous Leg Ulcer clinical audit tool:

No.	Criteria/Benchmark	Target	Exceptions	Source of Evidence
1. Referrals:				
1.1	Referrals to the service are in line with Service Level Agreement referral criteria – Borough of GP registration etc.	95%	5% margin	Patient Referral Form – see referral reasons which correlate with criteria
2. Assessments:				
2.1.	Leg Ulcer assessment should be carried out by a healthcare professional appropriately trained in leg ulcer management – CLCH 2 day Leg Ulcer assessment & management study day = minimum	100%	Nil	Staff records/ilearn/ training certificates
2.2.	Documented Doppler studies undertaken and results recorded to exclude arterial insufficiency using agreed CLCH charts	100%	Nil	Patient record; Leg Ulcer assessment form
2.3.	Documented Assessment of the ulcer (ask about pain, odour and discharge) using agreed CLCH charts.	100%	Nil	Patient record; Leg Ulcer assessment form; Wound assessment chart; Progress notes
2.4.	Documented examination of the leg (for oedema, venous eczema, and infection).	100%	Nil	Patient record; Leg Ulcer assessment form; Wound assessment chart; Progress notes
2.5.	Documented assessment of risk factors (such as immobility or obesity) and comorbidities (such as diabetes mellitus or rheumatoid arthritis) which need treatment or referral to promote ulcer healing using agreed CLCH charts.	100%	Nil	Patient record; Leg Ulcer assessment form; Progress notes
New	Photograph of wound at initial assessment, at several weeks during treatment and upon discharge	100%		Patient record on SystemOne – in uploads
2.6.	Documented evidence of a CLCH Falls risk assessment	100%	Nil	Patient record; CLCH Falls risk assessment form
2.7.	Documented evidence of a MUST assessment	100%	Nil	Patient record: CLCH MUST assessment form
2.8.	Documented evidence of a WALSALL pressure ulcer risk assessment	100%	Nil	Patient record; WALSALL risk assessment form

3. Management & Treatment of venous leg ulcers					
3.1.	Observation or Documented evidence of Cleaning and dressing the ulcer using tap water.	100%	Nil	Patient record; Leg Ulcer assessment form; Wound assessment chart; OR Observation	
3.2.	Applying compression therapy – if the ulcer is not infected. Specify type of compression and reason why used i.e. mobile pt; ABPI	100%	Nil	Patient record; Leg Ulcer assessment form; Wound assessment chart; OR Observation	
3.3.	Documented evidence of taking a wound swab and prescribing an antibiotic – if the ulcer is infected.	100%	Nil	Patient record; Leg Ulcer assessment form	
3.4.	Documented evidence of arranging follow up to re-assess & manage the ulcer at least weekly initially.	100%	Nil	Patient record; Leg Ulcer assessment form; Wound assessment chart; Progress notes	
4. Follow-up – healed Leg Ulcers: management should include:					
4.1.	Documented education and encouragement of the individual to adopt a lifestyle to prevent ulcer recurrence (e.g. keeping mobile, elevating legs when immobile, avoiding trauma, and using emollient frequently).	100%	Nil	Patient record; Progress notes	
4.2.	Documented explanation of the importance of wearing the appropriate grade and type of compression stockings, ideally for a minimum of 5 years.	100%	Nil	Patient record; Progress notes	
4.3.	Documented advice to adhere to preventative lifestyle measures.	100%	Nil	Patient record; Progress notes	
4.4.	Documented arrangements for regular follow up (every 6–12 months) to identify risk factors that may result in further skin breakdown and ulceration, such as poor skin care, worsening leg oedema, varicose veins, and leg trauma.	100%	Nil	Patient record; Leg Ulcer assessment form; Progress notes	
4.5.	Ideally, Doppler studies should be carried out every 6 months, or sooner if clinically indicated.	100%	Nil	Patient record	

5. Follow-up –non-healing LU: If the ulcer is persistent (no signs of improvement after 2-3 months of standard care), management should include:				
5.1.	Documented referral to secondary care.	100%	Nil	Patient record; Leg Ulcer assessment form; Progress notes
5.2.	Documented review of the person's compliance with compression therapy and lifestyle strategies and determining whether they have ongoing risk factors for venous leg ulceration.	100%	Nil	Patient record; Progress notes
5.3.	Evidence of an after assessment by a specialist and the exclusion of alternative causes of ulceration, aiming to optimize the person's quality of life (as healing of the ulcer may not be an achievable outcome despite optimal management) by controlling symptoms, encouraging mobility, and providing long-term psychological support (if needed).	100%	Nil	Patient record – Progress notes; i.e. copy of medical correspondence or notation by CLCH staff in records indicating this.

Name of Staff Member		Designation	
Signature		Date of Screening	

Appendix B - MUST Nutritional Assessment

Malnutrition Risk Assessment

Is the patient already on Oral Nutritional Supplements? e.g. Ensure Plus, Fortisip, Fresubin, Calogen	Yes	Refer to Dietitian & MUST screen below
	No	MUST screen below

Risk Category

1. BMI Weight: ___kg Height: ___m BMI: ___kg/m ² MUAC: _____ cm (Mid Upper Arm Circumference) MUAC less than 23.5cm = BMI less than 20kg/m ²	BMI >20 kg/m ² (Greater than)	0	Score: ___	0 Low Risk	- MUST screen annually or if there is a need		
	BMI = 18.5 – 20 kg/m ²	1			1 Medium Risk	- Provide diet education - Rescreen with MUST in 1 month - Follow Care Pathway	
	BMI <18.5 kg/m ² (Less than)	2				- Provide diet education - Refer to Dietitian - Rescreen with MUST monthly - Follow Care Pathway	
2. Weight Loss Weight 3 – 6 months ago: ___ kg MUAC 3 – 6 months ago: ___ cm Amount of weight lost in past 3-6 months: ___ kg Amount MUAC decreased in past 3-6 months: ___ cm $\frac{\text{Weight/MUAC lost}}{\text{Weight/MUAC 3-6 months ago}} \times 100 = \% \text{ MUAC lost}$	< 5 % (Less than)	0	Score: ___	2 or more High Risk	- Provide diet education - Refer to Dietitian - Rescreen with MUST monthly - Follow Care Pathway		
	5 – 10 %	1			2 (Greater than)	2 or more High Risk	- Provide diet education - Refer to Dietitian - Rescreen with MUST monthly - Follow Care Pathway
	> 10 % (Greater than)	2					- Provide diet education - Refer to Dietitian - Rescreen with MUST monthly - Follow Care Pathway
3. Acute Disease State i.e. has the patient NOT eaten in the past 5 days or are they likely to NOT eat in the next 5 days? Therefore are they acutely ill?	No – has eaten	0	Score: ___	TOTAL SCORE (Add stages 1, 2 and 3 together)			
	Yes – not eaten	2					

Name of staff member		Designation	
Signature		Date of screening	

APPENDIX B NUTRITION SUPPORT CARE PATHWAY

SCREENING Date: _____ Time: _____ Staff member: _____

SCORE _____ (as calculated on previous page) –Please also record this score on the “Summary” page

1. Low Risk (Score = 0)

- Date set for annual MUST screening and recorded in Visit Plan

Date of next screen:

- On review, if MUST decreased from score = 1 then set date for 3-monthly screen

Date of next screen:

Comments:

2 Medium Risk (Score = 1)

- Dietary advice provided to patient/carer(s)

- Food First Series leaflet(s) given

- Date set for monthly MUST screening and recorded in Visit Plan

Date of next screen:

- On review, if MUST remains score = 1 or increases from score = 0 to score = 1, then refer to Dietician

Date of referral:

Comments:

3. High Risk (Score = 2 or more)

- Dietary advice provided to patient/carer(s)

- Food First Series leaflet(s) given

- Referral made to Dietician

Date of referral:

- Date set for monthly MUST screening and recorded in Visit Plan

Date of next screen:

Comments:

NURSING ACTION

Appendix C – FALLS RISK ASSESSMENT

Guidance on how to use the CLCH Falls Screening Tool:

- ❖ *If a risk factor is identified* (i.e. a positive response to any of the questions) follow the recommended action plan to reduce the risk of falls and injuries from falls
- ❖ *The greater number of positive factors identified, the higher the risk for falling*
- ❖ Consider which referral(s) would be most appropriate given the patient's needs and local resources
- ❖ All users must indicate which actions they have taken action by initialling the under 'Yes' or 'No' under the 'Action Completed' column
- ❖ Staff are responsible for ensuring the original copy of the Falls Screening Tool is securely placed in the client's clinical records

	Falls Risk Screening Questions	YES	NO	Recommended Action Plan
1	Have you had a fall in the last 12 months?			Give Age UK Stay Steady Leaflet Consider GP referral Refer to the Specialist Falls Prevention Service for MFFRA
2	Do you have any problem with your walking and/or balance?			Give Age UK Stay Steady Leaflet Refer to the appropriate Community Rehabilitation Service If a new or recent change, consider a medical review
3	Do you have a fear of falling?			Give Age UK Stay Steady Leaflet Consider referral to Voluntary Agencies (e.g. Open Age, Age Well) Refer to the Specialist Falls Prevention Service for MFFRA
4	Do you take more than four or more medications per day?			Recommend a medication use review by a Pharmacist or GP
5	Have you had a fall with loss of consciousness or an unexplained fall which has not yet been investigated?			Refer to GP for medical review Refer to the Specialist Falls Prevention Service for MFFRA

**APPENDIX D - PRESSURE ULCER RISK ASSESSMENTS BY CARE SETTING:
WALSALL COMMUNITY PRESSURE SORE RISK CALCULATOR (All Community settings)**

NAME: _____ **D.O.B:** _____ **NHS No:** _____

RISK CATERGORIES		Score	Assessment Date / Time		
Level of Consciousness	Alert	0			
	Lethargic/confused	3			
	Semi-comatose	3			
	Comatose	3			
Mobility Ambulation	Moves without assistance	0			
	Moves with limited assistance	3			
	Moves only with assistance	8			
	Chairfast (8 hrs. plus)	8			
	Bedfast (12 hrs. plus)	8			
Skin Condition	Healthy	0			
	Rashes/Dryness	2			
	Increased turgor*/fragile	4			
	Redness	4			
Nutritional Status	Well balanced diet/stable weight	0			
	Poor appetite/weight loss	4			
	Very poor/fluids only/nil by mouth	4			
Bladder Incontinence	None	0			
	Occasional (<2/24 hrs.) or catheterised	0			
	Usually (>2/24 hrs.)	1			
	Total (no control)	4			
Bowel Incontinence	None	0			
	Occasional	4			
	Total (no control)	6			
Carer Input	No carer required	0			
	Active carers (24 hrs.)	0			
	Intermittent carer (8 hrs. plus)	2			
	Limited carer (3-8 hrs.)	2			
TOTAL RISK SCORE					
Tick if patient has pressure ulcer / sore					
Print name and sign:					

Score the patient in one area only in each risk category, which, when totalled, gives an indication of the level of risk of pressure ulcer development.

- Assess all patients on initial visit
- All patients who have or are 'At risk' of developing pressure ulcers should be reassessed formally at least monthly or when their condition changes for patients under the care of the DNS.
- **Total risk score: Below 4 = not at risk; 4 – 9 = low risk; 10 – 14 = medium risk; 15+ = high risk**
- *turgor =swelling

Appendix: Guidelines for Completion of Walsall Pressure Sore Risk Assessment

Walsall risk assessment should be performed:

- At initial assessment to form part of the holistic assessment when the patient is admitted or transferred to the community caseload. It will provide a structured approach for reassessment of risk to pressure ulcer development.
- The columns allow for regular assessment, either at intervals indicated by the patient's risk in the Core care plan or If there is a change in an individual's condition or circumstances
- If there is a change in carer or care setting
- If the risk status remains high

The Pressure Ulcer Risk Assessment Calculator assists in the identification of the main contributing factors in the development of pressure ulcers.

Score the patient in one area only in each risk category. Record the score in the appropriate column and total at the end to give "Total Risk Score" to determine the category as:

Total risk score:
Below 4 = not at risk;
4 – 9 = low risk;
10 – 14 = medium risk;
15+ = high risk/very high risk.

A score in the shaded area denotes nursing interaction is required which leads to a negotiated care package to minimise or eliminate the risk factor e.g., by implementation of programme or by improving nutritional status.

Guidance for the selection of pressure relieving equipment, see Community Equipment Selection Flowchart in line with the Nice Guidelines.

Risk factors should be addressed and where possible reduced in the plan of care.

Reassessment, care and equipment review should be planned, regular and documented

BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK
(for all bedded areas except palliative care)

RISK FACTOR	SCORE DESCRIPTION				1	2	3	4
	SENSORY PERCEPTION Ability to respond meaningfully to pressure-related discomfort	1. Completely Limited; Unresponsive (does not moan, flinch or grasp) to painful stimuli, due to diminished level of consciousness or sedation. OR Limited ability to feel pain over most of body.	2. Very Limited: Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness OR Has a sensory impairment which limits the ability to feel pain or discomfort over ½ of body.	3. Slightly Limited: Responds to verbal commands, but cannot always communicate discomfort or the need to be turned OR Has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.	4. No Impairment: Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort.			
MOISTURE Degree to which skin is exposed to moisture	1. Constantly Moist: Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	2. Very Moist: Skin is often, but not always, moist. Linen must be changed at least once a shift.	3. Occasionally Moist: Skin is occasionally moist, requiring an extra linen change approximately once a day.	4. Rarely Moist: Skin is usually dry, linen only requires changing at routine intervals.				
ACTIVITY Degree of physical activity	1. Bedfast: Confined to bed.	2. Chairfast: Ability to walk severely limited or non-existent. Cannot bear own weight and/or must be assisted into chair or wheelchair.	3. Walks Occasionally: Walks occasionally during day, but for very short distances with or without assistance. Spends majority of each shift in bed or chair.	4. Walks Frequently Walks outside room at least twice a day and inside room at least once every 2 hours during waking hours.				
MOBILITY Ability to change and control body position	1. Completely Immobile: Does not make even slight changes in body or extremity position without assistance.	2. Very Limited: Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	3. Slightly Limited: Makes frequent though slight changes in body or extremity position independently.	4. No Limitation: Makes major and frequent changes in position without assistance.				
NUTRITION Usual food intake pattern. 1NPO: Nothing by	1. Very Poor: Never eats a complete meal. Rarely eats more than 1/3rd of any food offered. Eats 2	2. Probably inadequate: Rarely eats a complete meal and generally eats only about ½	3. Adequate: Eats over half of most meals. Eats a total of 4 servings of protein (meat,	4. Excellent: Eats most of every meal. Never refuses a meal. Usually eats a total of 4				

Mouth 2IV: Intravenousl y 3TPN Total parenteral nutrition	servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement OR Is NPO1 and/or maintained on clear liquids or IVs2 for more than 5 days.	of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement OR Receives less than optimum amount of liquid diet or tube feeding.	dairy products) per day. Occasionally will refuse a meal but will usually take a supplement when offered OR Is on a tube feeding or TPN3 regimen which probably meets most of nutritional needs.	or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation .				
FRICION AND SHEAR	1. Problem: Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Specifically, contractures or agitation leads to almost constant friction.	2. Potential Problem: Moves feebly or requires minimum assistance. During a move, skin probably slides to some extent against sheets, chair, restraints or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	3. No Apparent Problem: Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair.					
To be completed upon admission, and then weekly or more frequently if condition changes.								
TOTAL SCORE KEY: Very High Risk High Risk Moderate Risk At Risk TOTAL SCORE								
					<9	10-12	13-14	15-18
EVAL.	DATE	SIGNATURE / TITLE		EVAL	DATE	SIGNATURE /TITLE		
1				3				
2				4				

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Hunter - Hill Pressure Ulcer Risk Assessment (Choose one level of risk for each factor and add together for a total score).

For Palliative care bedded settings

Patient Name:	DOB:
---------------	------

					DATE AND SCORE		
					Initial	Review	Review
Sensory Perception Ability to respond meaningfully to discomfort related to pressure	1. No impairment Communicates discomfort clearly	2. Slightly limited Responds to verbal commands but cannot always communicate discomfort or has sensory impairment in 1 or 2 extremities	3. Very limited Responds only to painful stimuli, i.e. moans or is restless or sensory impairment over half of body surface e.g. spinal cord compression	4. Severely impaired Unresponsive due to impaired consciousness or analgesia / sedation or sensory impairment over most of the body or surface.			
Moisture Degree of skin exposure to moisture / faecal matter	1. Rarely moist skin Rarely moist.	2. Occasionally moist skin Occasional moist, extra linen required once per day approximately.	3. Very moist skin Often but not always moist. Linen changed at least once per shift.	4. Constantly moist skin Constantly moist with perspiration, urine or lymphorrhea or in contact with faecal matter.			
Mobility Ability to mobilise when out of bed	1. Walks frequently Walks around bed at least once every two hours and outside room at least twice a day.	2. Walks occasionally Walks occasionally during the day for short distances but may require assistance.	3. Chairfast Ability to walk severely restricted. Must be assisted into chair or wheelchair. Spends more than 16 hours in chair or bed.	4. Completely immobile Spends all day in bed or chair – excess of 20 hours e.g. due to unconsciousness, pain, dyspnoea or fatigue.			
Activity Ability to change body and limb position when in bed or chair	1. No limitation Able to change position frequently and unaided.	2. Slightly limited Makes slight but frequent changes to body or limb position.	3. Very limited Only able to make occasional slight changes to body or limb position – usually requires assistance.	4. Immobile Unable to change body or limb position due to pain, sedation, dyspnoea, oedema, conscious levels etc.			

Skin Condition Observed condition of skin and areas exposed to pressure	1. Skin condition good Skin condition good, no evidence of oedema, discolouration etc.	2. Fragile skin Skin thin, fragile, dry, flaky or oedematous e.g. due to age, steroids, oedema, inflammation or lymphoedema.	3. Skin marks easily Skin easily marked by support surface.	4. Skin integrity broken Skin surface altered e.g. due to incontinence, dermatitis, pressure damage, wound or skin condition.			
Nutrition / Weight Food intake or weight change pattern	1. Satisfactory Food intake very good OR no significant weight change in last 6 months	2. Marginally adequate Weight appears normal. Food intake slightly restricted.	3. Probably inadequate Significantly underweight or overweight OR poor food intake.	4. Nutritional status very poor / severe cachexia Nutritional status unsatisfactory due to cachexia, obesity or minimal intake.			
Friction / Shear Presence of friction /sheer	1. No apparent friction / shear Can lift body or limb completely without sliding when moving in bed or chair.	2. Occasional friction / shear Occasionally slides down bed or chair or drags body or limb due to position and poor muscle strength or fatigue	3. Frequent sliding Frequently slides down bed or chair. Patient unable to lift limb or body without dragging e.g. due to weakness.	4. Almost constant friction /shear Continually slides down bed or chair OR severe lymphoedema, spasticity or agitation resulting in almost constant friction.			
				Total Score			

0-12 Low Risk 13-17 Medium Risk 18-21 High Risk 22+ Very High Risk

Does this agree with your clinical judgment? Yes No

Why / Why not?.....

Appendix E – Wound Photography Consent Form

Consent for
healthcare
photography

Patients Name			
Date of Birth		Age	
Local ID			
Location			

Type of photography	Print	Digital	Video
Site of photography	Specify		
Number of photos		Length of video	
Storage Location e.g: medical record /clinic			

Your healthcare professional is required to provide you with information about the reasons for, and the uses of, the proposed photography or video. It is your responsibility to raise concerns with or seek further information/ advice from your healthcare professional prior to agreeing to clinical photography or video recording. You have the right to withdraw your consent at anytime.

The images taken will be stored securely in line with current Data Protection Act guidance.

I, _____ hereby consent to clinical photographs and/ or
 First name SURNAME

video images to be made of me/ my child. I agree that the images may be used for **(tick all that applies)**:

- Clinical Treatment:** The images will form part of the information collected for you or your child's care and treatment
- Referrals:** The images may form part of referrals to other healthcare providers
- Education:** The images may be used for teaching purposes and viewed by health professionals not employed by CLCH. The images may be used for example in training sessions to help educate healthcare professionals in the management of clinical conditions. Your privacy will be protected by professional codes of conduct & confidentiality and current UK legislation
- Research:** This may involve the images being used for example in medical publications, journals, textbooks, electronic publications and on the internet. Images will be seen by healthcare professionals, scientists and medical researchers who use these publications in their professional education. The images may therefore be seen by the general public. Images will not be used with identifying information such as name.
- Other:** Specify:

Patient's signature Date.....

Confirmation of consent (to be completed by a health professional)




I have confirmed with the patient that s/he has no further questions and agrees to photography


Signature Date

Name (PRINT)

Appendix F Carrying out an ABPI assessment

ACTION	RATIONALE
1 Explain the procedure and reassure the patient	To ensure the patient understands the Doppler assessment procedure and is able to give consent (Vowden and Vowden, 2001a)
2 Ensure the patient is lying flat and is comfortable for 20 minutes prior to commencing the Doppler procedure (if the patient is unable to do this, then record the patient position)	Lying supine reduces the risk of inaccurate readings. False high ankle pressure readings can be obtained if the patient is more upright (Vowden et al., 1996)
3 Perform hand hygiene, apply non-sterile gloves and an apron	To reduce cross contamination and minimise risk of infection (Ayliffe, 2000)
4 Place the correct size of B.P. cuff for the circumference of the limb around the upper arm	To ensure the arteries are fully occluded to obtain an accurate reading (Vowden and Vowden, 2001b)
5 Record the systolic and diastolic blood pressure reading with a stethoscope	Doppler assessment only measures systolic pressure and patients may have an abnormal diastolic pressure that has not been detected.
6 Locate the brachial pulse and apply ultrasound gel.	To enable the ultrasound waves to be transmitted and audible.
7 Place the probe over the brachial pulse at a 45-60 degree angle against the direction of blood flow i.e. towards the heart and move the probe gently to obtain the best signal.	To pick up the arterial sound waves from the brachial artery (Whiston, 1996)
8 Inflate the cuff until the pulse sound disappears then deflate the cuff slowly until the pulse returns. Record this pressure.	To occlude then release the arterial blood flow, to enable a brachial systolic reading to be made (Vowden et al., 1996)
9 Repeat this procedure on the other arm.	Measuring bi-lateral brachial pressures increases the accuracy of obtaining a central systolic pressure measurement (Stubbing et al., 1997)
10 Use the highest of the Brachial readings to calculate the ABPI	This is the best non-invasive estimate of central systolic pressure (Vowden and Vowden, 2001b)
11 If the patient has a leg ulcer: remove the dressing covering the ulcer	To reduce cross contamination and minimise risk of infection (Acliffe,2000)
12 Protect the ulcerated area with a clean, non-adherent, waterproof material.	To reduce cross contamination of equipment and to minimise the risk of infection.

<p>13 Place the correct size cuff around the ankle, just above the malleolus</p>	<p>To ensure the arteries are fully occluded to obtain an accurate reading (Vowden and Vowden, 2001b)</p> 
<p>14 Examine the foot, locate the three foot pulses if possible and apply ultrasound gel. <i>Note that the dorsalis pedis may be congenitally absent in 10% of the population (Moffatt and O'Hare, 1995).</i></p>	<p>To enable the ultrasound waves to be transmitted and audible (Whiston, 1996)</p>
<p>15 Place the probe on the dorsalis pedis pulse at a 45-60 degree angle against the direction of blood flow i.e. towards the heart and move the probe gently to obtain the best signal.</p>	<p>To pick up the arterial sound waves from arteries in the lower leg (Vowden et al.,1996).</p> 
<p>16 Inflate the cuff until the pulse disappears then deflate the cuff slowly until the pulse returns. Record this pressure.</p>	<p>To allow temporary blockage of the blood flow, allowing the systolic pressure to be read on release of the cuff and return of blood flow (Whiston, 1996)</p>
<p>17 Repeat actions14-16 on the posterior tibial pulse (behind the medial malleolus). If readings of the two main pulses differ or if readings are unclear repeat actions 14-16.</p>	<p>To obtain readings from the 2 main arteries of the lower limb. N.B. The dorsalis pedis and anterior tibial pulses both measure the anterior tibial artery.</p> 
<p>18 Repeat actions14-16 on the peroneal pulse If readings of the three main pulses differ or if readings are unclear repeat actions14-16</p>	<p>To obtain readings from the 3 main arteries of the lower limb.</p>

	
<p>19 Remove protective clothing, hand hygiene, clean all equipment involved with detergent wipe and repeat the procedure on the other leg.</p>	<p>To minimise the risk of cross infection. Both limbs are assessed to screen for arterial disease and obtain an accurate diagnosis (Whiston, 1996)</p>
<p>20 Calculate the Ankle Brachial Pressure Index (ABPI) using a calculator. Divide the highest reading of ankle pulse by the highest brachial pulse. Repeat this calculation for each foot pulse.</p>	<p>To ensure accurate calculations are made. The A.B.P.I. is the highest reading obtained in each limb (Stubbing & Chesworth, 2001), however the foot must be assessed as a whole, if arterial disease has developed in one artery the disease process is progressive.</p>
<p>21 Document the readings obtained from the arm and foot pulses with the ABPI calculation in the medical and nursing notes</p>	<p>To ensure effective communication with nursing and medical staff</p>

(NOTTINGHAM UNIVERSITY HOSPITALS/NOTTINGHAM PCTs - NURSING PRACTICE GUIDELINES – 2005)

Best Practice DOPPLER ULTRASOUND ASSESSMENT

Calculate the ABPI for each leg using the formula:

ABPI = Pressure recording of the ankle

Highest brachial pressure obtained

ABPI normally 0.8 - 1.3 at rest

ABPI 0.6 – 0.8 indicates mild peripheral disease.

ABPI < 0.5 indicates severe arterial disease and may be associated with gangrene, ischaemic ulceration or rest pain. This warrants urgent referral for a vascular opinion.

ABPI > 1.3 may indicate calcified arteries – seek further advice

ABPI of > 0.8 is considered the level at which it is safe to apply compression but the Doppler reading should be taken into consideration with other signs and symptoms of arterial disease.

Appendix G - CLCH Wound Assessment Chart

Patient NHS No.....	District Nurse Team
D.O.B	Ward (in patients)
Name (full)	Named Nurse
Address (full)	G.P Name
.....	G.P. Address (full).....
Postcode	

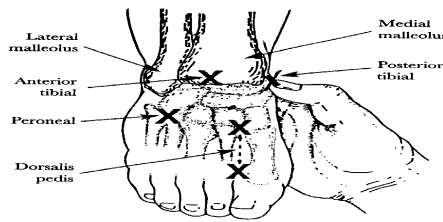
Type of Wound (Please Tick):		Start Date of Wound:		Factors Present That Delay Healing:	Yes
A. Leg Ulcer: Venous Leg ulcer: -Simple VLU -Complex VLU Arterial Leg ulcer Mixed Aetiology	<input type="checkbox"/>	G. Pressure Ulcer: Category 1 Category 2 Category 3 Category 4 Unstageable Deep Tissue Injury	<input type="checkbox"/>	Medications:	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>	Diabetes:	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>	Rheumatoid Arthritis:	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>	Peripheral Vascular Disease:	<input type="checkbox"/>
	<input type="checkbox"/>	H. Malignant / Fungating	<input type="checkbox"/>	Neuropathy:	<input type="checkbox"/>
B. Lymphoedema	<input type="checkbox"/>	I. Sinus / Fistula	<input type="checkbox"/>	Anaemia / Low Serum Albumin:	<input type="checkbox"/>
C. Laceration	<input type="checkbox"/>	J. Burn	<input type="checkbox"/>	Immobility:	<input type="checkbox"/>
D. Surgical	<input type="checkbox"/>	K. Haematoma	<input type="checkbox"/>	Incontinence Issues:	<input type="checkbox"/>
E. Traumatic	<input type="checkbox"/>	L. Other _____	<input type="checkbox"/>	Nutritional Issues:	<input type="checkbox"/>
F. Diabetic Ulcer	<input type="checkbox"/>			Infection:	<input type="checkbox"/>
Referrals Made:	Date:	Referrals Made:	Date:	Smoker:	<input type="checkbox"/>
Dermatologist	<input type="checkbox"/>	Occupational Therapist	<input type="checkbox"/>	Alcohol Issues:	<input type="checkbox"/>
Dietician	<input type="checkbox"/>	Practice Nurse	<input type="checkbox"/>	Concordance Issues:	<input type="checkbox"/>
District Nurse	<input type="checkbox"/>	Podiatrist	<input type="checkbox"/>	Unable to Tolerate Treatment:	<input type="checkbox"/>
Continence Advisor	<input type="checkbox"/>	Tissue Viability CNS	<input type="checkbox"/>	Respiratory / Circulatory Disease	<input type="checkbox"/>
Infection Control Advisor	<input type="checkbox"/>	Vascular Department	<input type="checkbox"/>	Other:	
Nurse Practitioner	<input type="checkbox"/>	Allergies:		Pressure Ulcer Risk assessment score:	
Safeguarding	<input type="checkbox"/>			Very High Risk <input type="checkbox"/>	High Risk <input type="checkbox"/>
				Moderate Risk <input type="checkbox"/>	At Risk <input type="checkbox"/>
				Not at Risk <input type="checkbox"/>	

Appendix H - CLCH Leg Ulcer Assessment Form

Previous Medical History				Yes	No	Year
Myocardial infarction						
Angina						
Ischaemic heart disease						
Cerebrovascular accident						
Intermittent claudication						
Hypertension						
Trans ischaemic attacks						
Rheumatoid arthritis						
Blood disorders						
Malignancy						
Diabetes						
Pregnancies						
Ex/Smoker						
History of leg ulceration						
Family history of leg ulcers						
Other:						
Observations		Blood sugar level:				
Height: cm	Weight: Kg	BMI:	MUST score:			
Blood Pressure: mmHg		Pulse:	Hb:			
Mobility				Yes	No	
Sleeps in bed / chair						
Walks with aid						
Fixed ankle – right leg						
Fixed ankle – left leg						
Relevant Medication						
Drug	Dose	Frequency				
Quality of life			Initial Assessment		Review date:	
Does your leg ulcer impact on your work/housework?			Y	N	Sometimes	Y N Sometimes
Does your leg ulcer impact on your social life/going out?			Y	N	Sometimes	Y N Sometimes
Does your leg ulcer cause you concern/worries?			Y	N	Sometimes	Y N Sometimes
Signed:		Print:	Job title:		Date:	

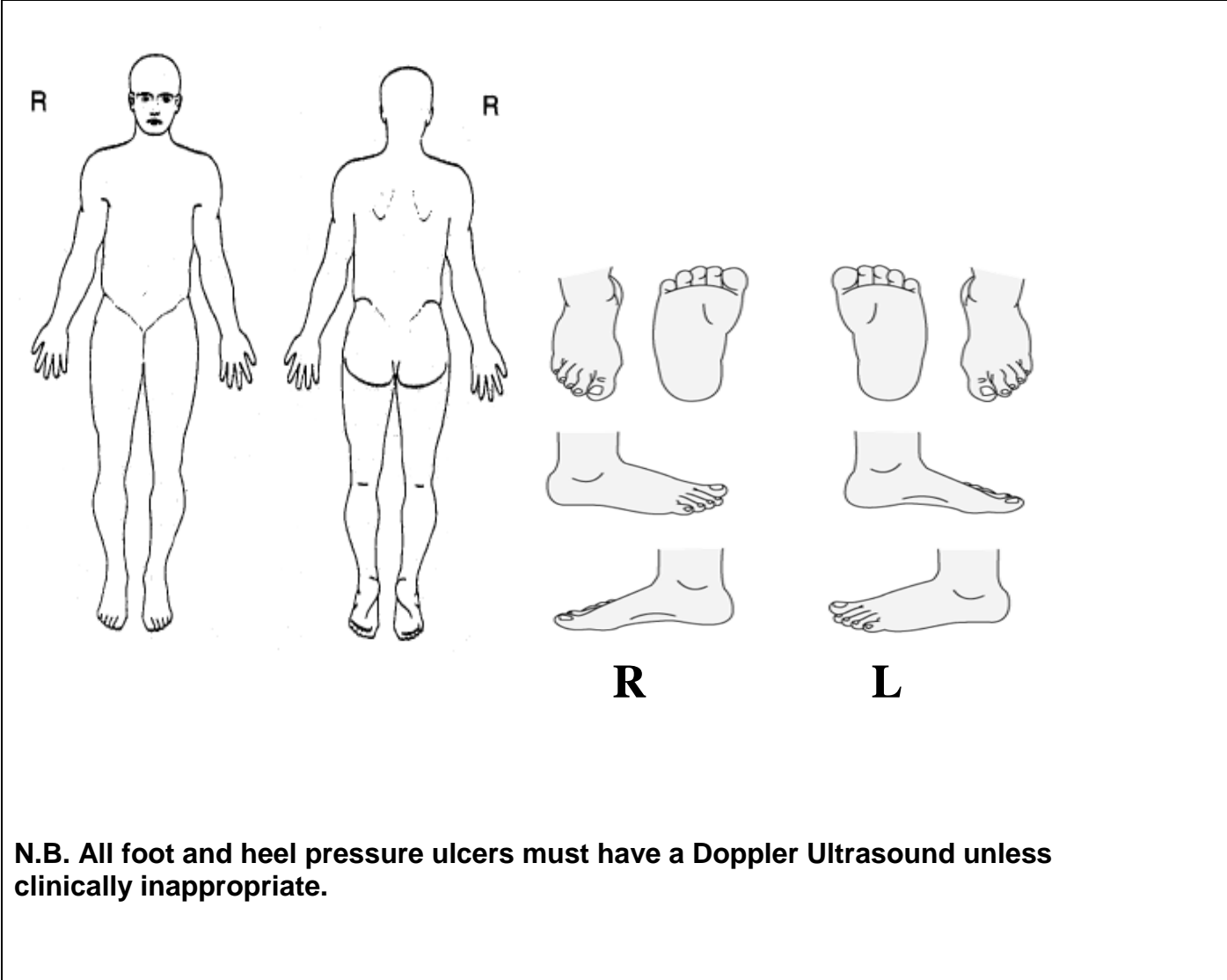
Vascular Assessment	(R) leg	(L) leg
Varicosities		
Oedema		
Varicose eczema		
Induration		
Ankle flare		
Staining		
Atrophe blanche		
Post malleolar involvement		
Deep vein thrombosis		
Phlebitis		
Sclerotherapy		
Fractures/breaks		
Muscle wasting: calf/thigh		
Pain on elevation / rest pain		
Loss of hair growth		
Atrophic shiny skin		
Vascular surgery (type)		
How did ulcer start?		
Duration of current ulcer:		
How long did previous ulcer(s) take to heal:		
Time free from ulcers:		
Number of episodes of ulceration:		
Limb Perfusion	(R) leg	(L) leg
Warm		
Cold		
Blue/White		
Black		
Colour on elevation		
Pink		
Capillary refill time < 3 Secs		
Dependant rubor		

Arterial Assessment / Reassessment

Patient's Name: _____		D.O.B: _____		NHS no: _____			
Arterial Pulses	Ankle / Brachial Resting Pressure Indices			CALCULATION: For each leg HIGHEST ANKLE PRESSURE = A.B.P.I HIGHEST BRACHIAL PRESSURE ABPI < 0.8 ask GP to refer patient to Vascular Specialist ABPI > 1.3 ask GP to refer patient to Vascular Specialist			
	Right	Left	Sound: Triphasic/Biphasic/ Monophasic				
Brachial Systolic Pressure							
Dorsalis Pedis							
Posterior Tibial							
Anterior Tibial							
Peroneal							
Resting Ankle Brachial Pressure Index (R.A.B.P.I)							
Position of Patient for Arterial Assessment (please tick box ✓)							
Flat (1 pillow) <input type="checkbox"/>		Semi-recumbent (2 pillows) <input type="checkbox"/>		Upright <input type="checkbox"/>			
Assessed Using		Doppler Ultrasound <input type="checkbox"/>		Vascular assist <input type="checkbox"/>			
Leg Circumference	Right		Left				
	Date:		Date:				
Ankle							
Calf							
If relevant for stockings	Thigh						
Hosiery Brand:	Class: 1 2 3	Size	Below/above knee	Open/closed toe			
Further investigations required and referrals requested date:							
Tissue Viability	/ /	Vascular Team	/ /	Social Services	/ /	Dermatology	/ /
Arterial Duplex	/ /	Venous Duplex	/ /	Podiatry	/ /	Cardiology	/ /
Summary:							
Information and advice given to the patient (please tick boxes):							
Compression therapy	Diet	Symptoms of Arterial insufficiency (Post application of compression)					
Maintaining a health leg	Leg elevation	Exercise/walking	Foot wear	Contact information			
Next Doppler reassessment Due:				Next Hosiery Measurement Due:			

Body Chart

Indicate the position of the wound/s. If multiple wounds, mark wound location on picture and draw a line from this position into space surrounding picture and write a no. (i.e. 1, 2 etc)



Appendix I Wound Evaluation Form

Patient Name	D.O.B.		NHS no.	
Date of Assessment				
Wound Number and site				
Category/Grade of pressure Ulcer EPUAP Class				
DEPTH OF WOUND a) Blister b) Superficial c) Deep Dermal d) Cavity e) Sinus	a) _____ b) _____ c) _____ d) _____ e) _____	a) _____ b) _____ c) _____ d) _____ e) _____	a) _____ b) _____ c) _____ d) _____ e) _____	a) _____ b) _____ c) _____ d) _____ e) _____
MEASUREMENT <i>Weekly or more often if deteriorating</i> Length Depth Width Is Wound Tracking / Undermining	L _____ D _____ W _____ Y / N	L _____ D _____ W _____ Y / N	L _____ D _____ W _____ Y / N	L _____ D _____ W _____ Y / N
Photograph (consent)	Y / N	Y / N	Y / N	Y / N
WOUND BED TISSUE TYPE <i>Mark in % of total wound</i> a) Necrotic (black/grey) b) Sloughy (yellow) c) Granulating (red) d) Epithelialising (pink) e) Infected (green/bright red) f) Hypergranulating (raised) g) Haematoma h) Bone / Tendon i) Scab j) Healed	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____
WOUND EDGE a) Defined b) Undefined c) Attached d) Unattached e) Fibrotic f) Calloused g) Macerated h) Flush i) Epibole J) Tunnelling	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____ h) _____ i) _____ j) _____
EXUDATE a) None b) Light – on primary dressing c) Moderate – on to secondary d) High – saturated secondary e) Not seen	a) _____ b) _____ c) _____ d) _____ e) _____	a) _____ b) _____ c) _____ d) _____ e) _____	a) _____ b) _____ c) _____ d) _____ e) _____	a) _____ b) _____ c) _____ d) _____ e) _____
COLOUR OF EXUDATE a) Serous (Straw) b) Haemoserous (Red/Straw) c) Purulent (Green/Brown/Yellow) d) Other	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____

MALODOROUS	Y / N	Y / N	Y / N	Y / N
Date of Assessment				
Wound Number and site				
SURROUNDING SKIN a) Fragile b) Scaly / dry c) Excoriated / Broken d) Healthy / Normal e) Erythema f) Oedematous g) Other	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____
CLINICAL INFECTION SUSPECTED	Y / N	Y / N	Y / N	Y / N
SIGNS OF INFECTION One or more of these signs may indicate possible infection a) Heat b) New Slough / Necrosis (deteriorating wound bed) c) Increasing Pain d) Increasing Exudate e) Increasing Odour f) Friable Granulation Tissue	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	Tick any relevant a) _____ b) _____ c) _____ d) _____ e) _____ f) _____
SIGNS OF SYSTEMIC INFECTION a) Fever b) Chills c) Low body temperature d) Decreased urine output e) Rapid pulse and breathing f) Nausea, vomiting, diarrhoea	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	a) _____ b) _____ c) _____ d) _____ e) _____ f) _____
MICROBIOLOGY SWAB TAKEN	Y / N	Y / N	Y / N	Y / N
STARTED ANTIBIOTICS	Y / N	Y / N	Y / N	Y / N
TREATMENT OBJECTIVES a) Debridement b) Absorption c) Hydration d) Protection e) Palliative / Conservative f) Reduce Bacterial Load g) Closure	Tick relevant box a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____	Tick relevant box a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____	Tick relevant box a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____	Tick relevant box a) _____ b) _____ c) _____ d) _____ e) _____ f) _____ g) _____
WOUND CLEANSING AGENT a) Saline b) Leg wash in bucket of tap water c) Prontosan Solution d) Other (specify)	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____
TREATMENT FOR SURROUNDING SKIN (e.g., emollients / barrier products used)				
Primary Dressing used				

Secondary Dressing(s) used				
Dressings Secured using:				
Date of Assessment				
Wound Number and site				
COMPRESSION USED a) Hosiery b) Short Stretch c) Multi-layer d) Adjustable Compression system	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____	a) _____ b) _____ c) _____ d) _____
Frequency of Dressing Renewal				
Patient's perspective McGill Pain Index: 0= No Pain; 1= Mild; 2= Moderate; 3= Severe; 4= Very Severe, 5= Intolerable				
SCORE = please circle a) Intermittent b) Continuous c) At dressing change d) Problem with assessing pain	0 1 2 3 4 5 a) _____ b) _____ c) _____ d) _____	0 1 2 3 4 5 a) _____ b) _____ c) _____ d) _____	0 1 2 3 4 5 a) _____ b) _____ c) _____ d) _____	0 1 2 3 4 5 a) _____ b) _____ c) _____ d) _____
ANALGESIA REQUIRED a) None b) Regular or ongoing c) Pre dressing only	a) _____ b) _____ c) _____	a) _____ b) _____ c) _____	a) _____ b) _____ c) _____	a) _____ b) _____ c) _____
RE-ASSESSMENT DATE				
ASSESSORS NAME Please sign & print name	Signature Print name	Signature Print name	Signature Print name	Signature Print name

Appendix J – Venous Leg Ulcer Core Care Plan

CORE CARE PLAN – Leg Ulceration – VENOUS	Patient's Name
---	-----------------------

Goal	To maintain condition and prevent deterioration of LEFT/RIGHT arterial leg ulcer To demonstrate improvement in symptoms due to arterial ulcer To maintain quality of life with an arterial leg ulcer	ABPI
-------------	--	-------------

Date	To be achieved by		To be achieved by		To be achieved by	
Intermediate Objective						
Reduce amount of slough		Y / N		Y / N		Y / N
Control / Reduce Exudate		Y / N		Y / N		Y / N
Resolve infection		Y / N		Y / N		Y / N
Reactivate healing		Y / N		Y / N		Y / N
Reduce oedema		Y / N		Y / N		Y / N
Reduce odour		Y / N		Y / N		Y / N
Increase granulation		Y / N		Y / N		Y / N
Reduce size of ulcer		Y / N		Y / N		Y / N
Increase epithelialisation		Y / N		Y / N		Y / N
Promote concordance		Y / N		Y / N		Y / N
Prevent deterioration (unlikely heal)		Y / N		Y / N		Y / N

ACTIONS *Circle the Y or N whether achieved or not on that date. Review and reselect as required in next column

Every Dressing – Wash leg in:			
Assess + record wound bed			
Remove dry skin			
Apply moisturiser			
a. Apply topical steroid			
b. To site			
c. Amount			
d. Frequency			
Apply primary dressing			
Apply secondary dressing/s			
Remind to elevate legs / exercise			
Review pain control			
Apply Bandage Regime			
A			
Clinician's signature			

ABPI 0.8 – 1.4	Multi – Layer Systems				short Stretch
Ankle Circumference	Layer 1	Layer 2	Layer 3	Layer 4	
< 18 cm	Wadding x 2	Crepe x 1	Type 3a x 1	Type 3b x 1	1 x bandage
18 – 25 cm	Wadding x 1	Crepe x 1	Type 3a x 1	Type 3b x 1	1 x bandage
> 25 cm	Wadding x 1	Crepe x 1	Long stretch x 1	Type 3b x 1	2 x bandages

Appendix K – Arterial Leg Ulcer Core Care Plan

CORE CARE PLAN – Leg Ulceration - ARTERIAL	Patient's Name
---	-----------------------

Main Aim	To demonstrate improvement to Left / Right leg ulcer by..... To maintain condition and prevent deterioration of Left / Right leg ulcer.	ABPI
-----------------	--	-------------

Date						
Intermediate Objective	To be achieved by		To be achieved by		To be achieved by	
Reduce amount of slough		Y / N		Y / N		Y / N
Control / Reduce Exudate		Y / N		Y / N		Y / N
Resolve infection		Y / N		Y / N		Y / N
Reactivate healing		Y / N		Y / N		Y / N
Reduce oedema		Y / N		Y / N		Y / N
Reduce odour		Y / N		Y / N		Y / N
Increase granulation		Y / N		Y / N		Y / N
Reduce size of ulcer		Y / N		Y / N		Y / N
Increase epithelialisation		Y / N		Y / N		Y / N
Promote concordance		Y / N		Y / N		Y / N
Prevent deterioration (unlikely heal)		Y / N		Y / N		Y / N
Pain management (see care plan)		Y / N		Y / N		Y / N

ACTIONS *Circle the Y or N whether achieved or not on that date. Review and reselect as required in next column

Every Dressing – Wash leg in:			
Assess + record wound bed			
Apply moisturiser			
Apply primary dressing			
Apply secondary dressing			
Remind to rest legs			
Remind to exercise			
Maintain warmth of leg/foot			
Advise of life-style changes			
Review pain control			
ONLY APPLY COMPRESSION THERAPY IF ABPI INDICATES IT IS SAFE			
a.			
Clinician's signature			

			Layer 1	Layer 2	Layer 3
Suggested Bandages	ABPI 0.60-0.80	Option 1 (23mmHg)	Wadding	Crepe	Type 3b
		Option 2 (17mmHg)	Wadding	Crepe	Type 3a
	ABPI < 0.60	Option 1	Wadding	Crepe	
		Option 2	Adhesive wound dressing only		

Appendix L - Other wound type care plan

CORE CARE PLAN – _____	Patient's Name
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Main Aim	To demonstrate improvement to _____ To maintain condition and prevent deterioration of _____	
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Date	To be achieved by		To be achieved by		To be achieved by	
Intermediate Objective						
Reduce amount of slough		Y / N		Y / N		Y / N
Control / Reduce Exudate		Y / N		Y / N		Y / N
Resolve infection		Y / N		Y / N		Y / N
Reactivate healing		Y / N		Y / N		Y / N
Reduce oedema		Y / N		Y / N		Y / N
Reduce odour		Y / N		Y / N		Y / N
Increase granulation		Y / N		Y / N		Y / N
Reduce size of ulcer		Y / N		Y / N		Y / N
Increase epithelialisation		Y / N		Y / N		Y / N
Promote concordance		Y / N		Y / N		Y / N
Prevent deterioration (unlikely heal)		Y / N		Y / N		Y / N
Pain management (see care plan)		Y / N		Y / N		Y / N

ACTIONS *Circle the Y or N whether achieved or not on that date. Review and reselect as required in next column

Every Dressing – Wash leg in:			
Assess + record wound bed			
Apply moisturiser			
Apply primary dressing			
Apply secondary dressing			
Remind to rest legs			
Remind to exercise			
Maintain warmth of leg/foot			
Advise of life-style changes			
Review pain control			
Clinician's Signature			

			Layer 1	Layer 2	Layer 3
Suggested Bandages	ABPI 0.60-0.80	Option 1 (23mmHg)	Wadding	Crepe	Type 3b
		Option 2 (17mmHg)	Wadding	Crepe	Type 3a
	ABPI < 0.60	Option 1	Wadding	Crepe	
		Option 2	Adhesive wound dressing only		

Appendix M – Clinic Dressing Storage Consent

PATIENT CONSENT TO WOUND CARE PRODUCT STORAGE

(Note: This form is to be signed by all Patients)

PATIENT NAME: _____ **DATE OF BIRTH:** _____

I consent to my property (relating to the prescribed dressings and other wound care products) being stored in the Tissue Viability Clinic. I understand that this property will be stored in a secure cupboard/cabinet/locker. I understand that my consent will remain in effect for the duration of my care and treatment from the Tissue Viability service. I also understand that any stored property is for the sole use of my own care and treatment.

Ownership of any stored property relating to dressings and other wound care products

By signing this consent form, the patient has agreed for their dressings and other wound care products to be stored securely within the tissue viability clinic. When the patient is discharged from the service, the patient's wound care products will be given to the patient and any unused / open products will be disposed of in accordance with the Trust's Medicines Management policy.

Patient has acknowledged that by signing below, patient consents to the storage of wound care product for the duration of the treatment.

Patient signature

Date

Nurse Name and Signature

Date

Appendix N – Instruction for Leg Care

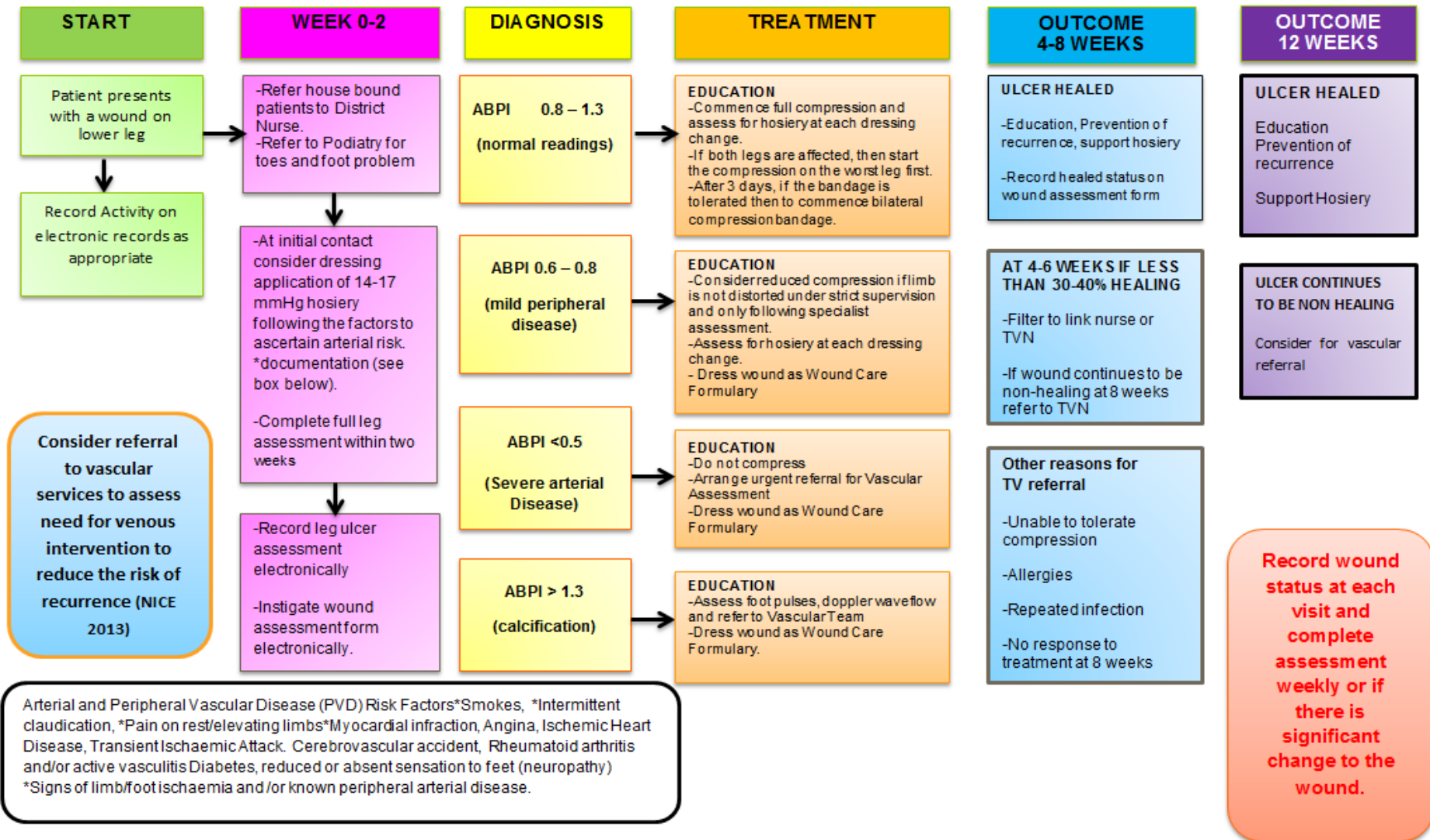
Instructions for care of your legs once the Wound has Completely healed

- Apply one stocking to each leg first thing in the morning taking care not to drag it over your old wound site
- Take care not to overstretch the stocking making sure the top of it sits 2 fingers below the crease at the back of your knee
- Remove stockings each evening and wash legs using a non-scented soap
- Pat legs dry (please DO NOT rub legs as this can irritate the hair follicles, leading to inflammation)
- Apply a small amount of cream using downward strokes
- Please note that the cream can stain any clothing or bedding so you may need to take precautions to avoid this
- Renew your stockings every 6 months or sooner if they ladder/rip

Appendix O - Leg Ulcer Management and referral Pathway

Leg Ulcer Management Pathway

ABPI = Ankle Brachial Pressure Index
TVN = Tissue Viability Nurse



Appendix P - Leg Ulcer Management Competency for Nurses

Tissue Viability: Leg Ulcer Management

Standard: Understands the research on processes and determinants of leg ulcer healing and tissue breakdown. Takes this into account with the overall patient assessment, to plan appropriate nursing interventions and/or select appropriate treatment to prevent tissue breakdown and promote healing with maximum participation of the patient

KSF: HWB2, 4, 5, 7

Service Goal: patients receive timely, effective, evidence-based leg ulcer care taking into account their experience and lifestyle

Criteria

- Undertakes a comprehensive assessment of tissue viability, risk and damage using appropriate tools and instruments
- Leg ulcer care is planned and implemented based on best evidence, following national / local guidelines, taking into account the patient's physical, social, and psychological needs
- Tissue viability and leg ulcer care is reviewed, modified and documented in a timely and accurate manner

Learning Resources / Practice support

- RCN (2006) Nursing management of patients with venous leg ulcers: recommendations, London, RCN
- CLCH Wound Care Guidelines
- Tissue Viability Team

Nurse Initial Comments /

PLAN OF STEPS TO BE TAKEN TOWARD THIS COMPETENCE

Preceptor Initial Comments

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Nurse Final Comments

--

Preceptor Final Comments

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Competency performance scale / level of achievement	Grade
Cannot perform this activity in the clinical environment	0
Can perform this activity but not without constant supervision and some assistance	1
Can perform this activity satisfactorily but requires some supervision and / or assistance	2
Can perform this activity satisfactorily without supervision and / or assistance	3

SA = SELF ASSESSMENT

PA = PRECEPTOR ASSESSMENT

INDICATOR	INITIAL	MIDWAY		FINAL	
	DATE	DATE		DATE	
	SELF ASSESSMENT	SA	PA	SA	PA
<ul style="list-style-type: none"> • Has attended the theoretical training sessions and passed the theory and practical assessment 	Nurse sign		Manager /Preceptor sign		
1. Understands aetiology and risk factors of leg ulcers					

2. Identifies patients with leg ulcer risk factors					
3. Undertakes holistic assessment including clinical and vascular history, examination of the limb					
4. Undertakes accurate Doppler assessments after initial assessment for competency, and follows national and local guidelines					
5. Collaborates with experienced colleagues in the development of a leg ulcer management plan based on holistic assessment					
6. Makes timely referral for specialist advice and escalates as appropriate					
7. Carries out necessary treatment in line with the care plan; documents and escalates any concerns promptly					
8. Undertakes 'short stretch' bandaging after initial assessment for competency, following wound care guidelines					
9. Records fully and accurately in the patient records all information relevant to leg ulcer care					
10. Understands and applies principles of secondary prevention of leg ulcers including use of compression hosiery					
11. Ensures the regular re-assessment of patients according to CLCH guidelines					

Nurse Name	Preceptor Name
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The above named has demonstrated competence in the above

Assessor's Signature.....Date

I have been assessed as competent in the above and am willing to assume responsibility for this procedure abiding by CLCH policy

Nurse's Signature.....Date

Appendix Q – Wound Care Management Competency for Nurses

Nurse	Preceptor / Assessor
Tissue Viability: Wound Care Standard: Understands the processes and determinants of wound healing and tissue breakdown. Takes this into account with the overall patient assessment, to plan evidence based nursing interventions to prevent tissue breakdown and promote healing with maximum participation of the patient KSF: HWB2, 4, 5, 7	
Service Goal: wound care is based on sound evidence, safe procedure and takes into account the patient's experience	
Criteria	
<ul style="list-style-type: none">• Assesses wounds using appropriate tools and plans interventions based on full assessment and local guidelines• Follows correct procedure when caring for wounds in order to minimise risks and maximise healing• Anticipates, assesses and plans for risks to tissue viability• Wound care dressings and resources are promptly and effectively organised for the patient• Complies with CLCH Wound Management Product Formulary• Wound care is reviewed, modified and documented in a timely and accurate manner	
Learning Resources / Practice support	
<ul style="list-style-type: none">○ CLCH Wound Care Guidelines○ CLCH Wound Management Product Formulary○ Infection prevention policies○ Tissue Viability Team○ Foot Clinic and Podiatry Services	
Nurse Initial Comments / PLAN OF STEPS TO BE TAKEN TOWARD THIS COMPETENCE	

Preceptor Initial Comments

Nurse Final Comments

Preceptor Final Comments

Competency performance scale / level of achievement

Grade

Cannot perform this activity in the clinical environment

0

Can perform this activity but not without constant supervision and some assistance

1

Can perform this activity satisfactorily but requires some supervision and / or assistance

2

Can perform this activity satisfactorily without supervision and / or assistance

3

SA = SELF ASSESSMENT

PA = PRECEPTOR ASSESSMENT

INDICATOR	INITIAL	MIDWAY		FINAL	
	DATE	DATE		DATE	
	SELF ASSESSMENT	SA	PA	SA	PA
<ul style="list-style-type: none"> Has attended the theoretical training session 	Nurse sign		Manager /Preceptor sign		
1. Completes a comprehensive assessment of the patient including medical history, pain level, allergies.					
2. Able to undertake a wound assessment using the wound evaluation chart, body map, photography and measurement					
3. Identifies kind of wound and its aetiology					
4. Identifies factors which may delay healing					
5. Understands the importance of the nutritional needs of patient with a wound, appropriately assesses (MUST) and makes referrals					
6. Understands the theory of moist wound healing principles					
7. Collaborates with expert colleagues in the planning of wound care interventions. As necessary seeks specialist advice and support from the tissue viability service					
8. Understands and follows appropriate wound cleaning methods					
9. Identifies and responds appropriately to wound infection in collaboration with expert colleagues and in accordance with CLCH policy					
10. Shows awareness of risk factors, complications and treatment of the high risk foot. Refers to local guidelines					
11. Follows wound treatment procedures based on type of wound and wound exudate levels as per CLCH wound care guidelines and product formulary					
12. Understands principles for selecting an appropriate wound dressing and can provide a rationale for the selection of dressings (using local product formulary)					
13. Re-assesses the patient and the wound at each visit, adjusts treatment accordingly					
14. Completes wound evaluation chart weekly and at any wound or treatment change.					

15. Uploads wound photographs on RIO/SystemOne					
16. Has read and follows guidelines for clean technique and disposal of infected waste					
The above named has demonstrated competence in the above Assessor Signature.....Date					
I have been assessed as competent in the above and am willing to assume responsibility for this procedure abiding by CLCH policy Nurse Signature.....Date					

Appendix R – Wound Care Management Competency for Nurse Associate

NA	Preceptor / Assessor
<p>Tissue Viability: Wound Care</p> <p>Standard: Understands the processes and determinants of wound healing and tissue breakdown. Takes this into account with the overall patient assessment, to implement evidence based planned nursing interventions to prevent tissue breakdown and promote healing with maximum participation of the patient</p>	
<p>Service Goal: wound care is based on sound evidence, safe procedure and takes into account the patient's experience</p>	
<p>Criteria</p>	
<ul style="list-style-type: none"> • Demonstrate knowledge and understanding of using appropriate tools and planned interventions following a full assessment completed by a trained nurse using local guidelines • Follows correct procedure when caring for wounds in order to minimise risks and maximise healing • Anticipates, and reports back to team when risks to tissue viability are identified • Wound care dressings and resources are promptly and effectively organised for the patient • Complies with CLCH Wound Management Product Formulary • Wound care is reviewed, modified and documented in a timely and accurate manner and any concerns or changes reported to a trained nurse 	
<p>Learning Resources / Practice support</p>	
<ul style="list-style-type: none"> ○ CLCH Wound Care Guidelines ○ CLCH Wound Management Product Formulary ○ IPC07 CLCH Clinical Waste Policy ○ IPC01 Infection Prevention and Control Policy ○ Tissue Viability Team ○ Foot Clinic and Podiatry Services 	

**Nurse Associate's initial comments /
PLAN OF STEPS TO BE TAKEN TOWARD THIS COMPETENCE**

Preceptor Initial Comments

Nurse Associates Final Comments

Preceptor Final Comments

Competency performance scale / level of achievement	Grade
Cannot perform this activity in the clinical environment	0
Can perform this activity but not without constant supervision and some assistance	1
Can perform this activity satisfactorily but requires some supervision and / or assistance	2
Can perform this activity satisfactorily without supervision and / or assistance	3

SA = SELF ASSESSMENT

PA = PRECEPTOR ASSESSMENT

INDICATOR	INITIAL	MIDWAY		FINAL	
	DATE	DATE		DATE	
	SELF ASSESSMENT	SA	PA	SA	PA
<ul style="list-style-type: none"> Has attended the theoretical training 	NA sign		Manager /Preceptor sign		
1. Ensure that a comprehensive assessment of the patient including medical history, pain level, allergies is completed by a trained nurse and in place.					
2. Able to use wound evaluation chart, body map, photography and measurement					
3. Identifies kind of wound and its aetiology					
4. Identifies factors which may delay healing					
5. Understands the importance of the nutritional needs of patient with a wound, appropriately assesses (MUST) and makes referrals					
6. Understands the theory of moist wound healing principles					
7. Collaborates with registered nurses and expert colleagues in the planning of wound care interventions.					
8. Understands and follows appropriate wound cleanings methods					
9. Identifies and responds appropriately to wound infection in collaboration with expert colleagues and in accordance with CLCH policy					
10. Shows awareness of risk factors, complications and treatment of the high risk foot. Refers to local guidelines					
11. Follows wound treatment procedures based on type of wound and wound exudate levels as per CLCH wound care guidelines and product formulary					
12. Shows awareness of principles for selecting an appropriate wound dressing and can provide a rationale for the selection of dressings (using formulary)					
13. Re-assesses the patient and the wound at each visit, adjusts treatment accordingly					

14. Completes wound evaluation chart weekly and at any wound or treatment change.					
15. Uploads wound photographs on S1					
16. Has read and follows guidelines for clean technique and disposal of infected waste					

The above named has demonstrated competence in the above
Assessor Signature.....Date

I have been assessed as competent in the above and am willing to assume responsibility for this procedure abiding by CLCH policy
NA Signature.....Date

Appendix S – Leg Ulcer Management Competency for Nurse Associate

Tissue Viability: Supporting Leg Ulcer Management

Standard: Understands the research on processes and determinants of leg ulcer healing and tissue breakdown. Takes this into account with the overall patient assessment, planned nursing interventions and appropriate treatment to prevent tissue breakdown in order to promote healing with maximum participation of the patient

Service Goal: patients receive timely, effective, evidence-based leg ulcer care taking into account their experience and lifestyle

Criteria

- Understands comprehensive assessments of tissue viability, risk and damage undertaken by trained nurse
- Provides leg ulcer care as planned, based on best evidence, following national / local guidelines, taking into account the patient's physical, social, and psychological needs
- Liaise with the trained nurse to ensure that tissue viability and leg ulcer care is reviewed, modified and documented in a timely and accurate manner

Learning Resources / Practice support

- RCN (2006) Nursing management of patients with venous leg ulcers: recommendations, London, RCN
- CLCH Wound Care Guidelines
- Tissue Viability Team

Nurse Associate's Initial Comments / PLAN OF STEPS TO BE TAKEN TOWARD THIS COMPETENCE

Preceptor Initial Comments**Nurse Associate's Final Comments****Preceptor Final Comments**

Competency performance scale / level of achievement	Grade
Cannot perform this activity in the clinical environment	0
Can perform this activity but not without constant supervision and some assistance	1
Can perform this activity satisfactorily but requires some supervision and / or assistance	2
Can perform this activity satisfactorily without supervision and / or assistance	3

SA = SELF ASSESSMENT

PA = PRECEPTOR ASSESSMENT

INDICATOR	INITIAL	MIDWAY		FINAL		
	DATE	DATE		DATE		
	SELF ASSESSMENT	SA	PA	SA	PA	
<ul style="list-style-type: none"> Has attended the theoretical training sessions and passed the theory and practical assessment 	NA sign		Manager /Preceptor sign			
1. Understands aetiology and risk factors of leg ulcers						
2. Identifies patients with leg ulcer risk factors						
3. Ensures that a holistic assessment, including clinical and vascular history, pain level and examination of the limb is completed by a trained nurse and in place.						
4 Understands the importance of ABPI Doppler assessments and follows national and local guidelines						
5. Collaborates with experienced colleagues in the development of a leg ulcer management plan based on holistic assessment						
7 In conjunction with the trained nurse makes timely referral for specialist advice and escalates as appropriate						
8 Carries out necessary treatment in line with the care plan; documents and escalates any concerns promptly						
9 Records fully and accurately in the patient records all information relevant to leg ulcer care						
10 Understands and applies principles of secondary prevention of leg ulcers including use of compression hosiery						

11 Ensures the regular re-assessment of patients according to CLCH guidelines					
Assistant Practitioner Name		Preceptor Name			
The above named has demonstrated competence in the above Assessor's Signature.....Date					
I have been assessed as competent in the above and am willing to assume responsibility for this procedure abiding by CLCH policy NA Signature.....Date					

Appendix T - EQUALITIES IMPACT ASSESSMENT PRO FORMA

This **MUST** be completed for policies and strategies

NAME OF POLICY OR STRATEGY

Equality Analysis for Policies – Screening form

CLCH as a public authority has a legal requirement to analyse the impact of the policy on the protected characteristics of staff and patients. This helps us to check if there is a negative impact, how we can reduce that impact.

Does the policy affect groups of people based upon their protected characteristic? Think about the delivery of the procedural document and how it will be applied.

1. Protected characteristic	Positive impact	Neutral Impact	Negative Impact	Reason for impact and action required.
People of different ages (e.g. Children, young or older people).		x		This policy is for adults only
People of different religions / beliefs		x		Nobody is favoured over another person
People with disabilities (physical, sensory or learning).		x		Nobody is favoured over another person
People from different ethnic groups		x		Interpreters will be booked as required
Men or women		x		Nobody is favoured over another person
Transgendered people		x		Nobody is favoured over another person
People who are gay, lesbian, and bi-sexual		x		Nobody is favoured over another person
Refugees and asylum seekers		x		Nobody is favoured over another person

2	<p>Please describe engagement and consultation process and the key feedback. E.g. with teams, unions.</p> <p>Large working party involved in developing this policy.</p>
3.	<p>If there are negative impacts upon people's protected characteristics. Does the policy in its current form need a full Equality Analysis Assessment to be completed?</p> <p>No.</p>
4.	<p>Have you signed this off with the Equality and Diversity team?</p> <p>N/A</p>

Signed for team / working group: Name Date

Signed by Equality and Diversity team: Name Date