Compression Bandaging Formulary 2017

The items listed in this document are those that are not currently covered by the East Region Formulary.

A separate document covering simple dressings and accessories for NHS Fife is also available.

For all other items please see the main Wound Care chapter of the East Region Formulary.

Developed by the NHS Fife Wound and Skin Care Forum (WSCF) Group

Approved: October 2017

Review: October 2020

Contents

Disclaimer

Detailed discussion on the aetiology and pathophysiology of Chronic Venous Insufficiency is out with the scope of this Guideline. Clinicians are directed to best practice literature to guide them on the needs of the patient and the organisation prior to choosing, prescribing and applying compression bandaging.

Guideline users should also be mindful that, as with any clinical guideline, recommendations may not be appropriate for use in all circumstances. Clearly, a limitation of any guideline is that it simplifies clinical decision making processes and recommendations.

Decisions to adopt any particular recommendations must be made by the practitioner in the light of available resources, local services, policies and protocols. The particular patient's circumstances and wishes, available personnel and equipment, clinical experience of the practitioner and knowledge of more recent research findings, must all be considered and decisions must be clearly documented in the patient's notes.

Acknowledgements

The NHS Fife Wound and Skin Care Forum would like to acknowledge the contribution of both Fife Health and Social Care Partnership and NHS Fife Acute Services Division staff in the development of these Guidelines. The WSCF also thank Greater Glasgow Health Board for allowing us to use some of the information contained within their Guidelines.

Foreword

This formulary has been developed by the NHS Fife Wound and Skin Care Forum (WSCF). Input was also sought from experienced Community and Practice Nurses involved with the care of patients with chronic leg ulcers. As with the introduction of the Wound Formulary, compression bandaging systems will be advocated, which aim to meet the needs of the majority of patients with Chronic Venous Insufficiency (CVI).

It is anticipated that the utilisation of this Guideline will lead to the following advantages:

- Facilitation of best practice
- Standardisation of use of products
- Cost Effectiveness
- Reduction of Waste

It is understood that there are occasions when products which are not on formulary are required. If this is the case then an 'Exception Form' should be completed (available on the ADTC website: http://www.fifeadtc.scot.nhs.uk/formulary/woundcare-formulary/woundcare-catheter-product-request-and-exception-form.aspx) and sent to the Prescribing Support Nurse Team

Fife-UHB.Fifeprescribingsupportnurse@nhs.net

Introduction

Chronic venous insufficiency (CVI) is a progressive circulatory disease causing stasis, venous hypertension, oedema and ulceration in the lower limbs. Graduated or sustained compression therapy is the recommended therapeutic intervention in the treatment and prevention of CVI.

Over 80 % of lower leg ulcers are caused by venous insufficiency (Vishwanath, 2014). To achieve the most effective outcome, it is recommended that following an holistic assessment, including ankle brachial pressure index (ABPI), patients are placed into the highest level of therapeutic compression that can be safely and comfortably tolerated (Table1)

Accountability and Responsibility / Scope of Practice

Compression bandages should only be applied by those clinicians competent to do so. For this reason, clinicians must ensure that they are up to date with evidence based, best practice and that this is demonstrated in KSF profiles. Staff developing this skill should have this identified within their individual PDP as agreed by their line manager.

Patient-Centred Involvement in Management Plan

Following a comprehensive, holistic assessment, clinicians involved in the management of CVI and leg ulcers should consider the following important factors in the determination of effective treatment pathways (Table2)

Table 2: Factors to consider in managing patients with compression bandages (adapted from SIGN 120)

ASSESSMENT	**Inform the patient:**
	A full leg ulcer assessment will be carried out, including investigation of ABPI, to confirm whether treatment with compression is appropriate. Sign 120 recommends ABPI assessment if an ulcer fails to heal 4 weeks after presentation, with conventional treatment. Routine swabbing of leg ulcers is not recommended The patient will be asked if there are any known allergies, prior to product selection and application.
TREATMENT	**To optimise concordance, inform the patient of the following:**
	Compression treatment with bandages or hosiery is the single most important treatment for a leg ulcer. Bandages only require weekly changes unless conditions dictate otherwise. If condition fails to progress, specialist referral (i.e. vascular or dermatology) may be indicated. Ongoing and regular holistic reassessment is required. Recent recommendations suggest 6 monthly intervals, *Wounds UK (2016)*
DIRECT PATIENT INVOLVEMENT	**Discuss with the patient the importance of:**
	Exercise - Regular ankle /calf exercises Elevation of legs at rest Exploring sleeping pattern and encourage bed rest at night Skin care – maintaining skin hydration using simple emollients e.g. QV cream

All holistic assessments and ongoing management of leg ulceration should be recorded within a recognised Leg Ulcer Assessment Tool (Appendix 1)

General Bandaging Considerations

Once an assessment is carried out to determine if compression bandaging is indicated, consideration of general factors relating to bandaging should be taken to help inform best practice for choice and application. (Table 3).

Table 3 General Information for Management of CVI and Leg Ulcers

- Any bandaging of the lower limbs should start at the base of the toes, and extend to 2cm below the popliteal space, with either a spiral or a figure of eight application as per the manufacturer's instructions. This is to aid in the effective redistribution and reduction of oedema, and minimise the risk of potential bandage trauma (i.e. a "tourniquet effect".)
- Mixed aetiology ulcers (e.g. in patients with diabetes, Peripheral Vascular Disease, Rheumatoid Arthritis) may require specialist investigation and referral to explore the most appropriate bandage choice.
- Light support bandages (e.g. Clinifast) can be used to contain primary dressings, absorb exudate and support the leg where compression is contraindicated.

Table 4 Categories of Bandages

Category 1: Short Stretch Inelastic Systems: Can be used for the management of leg ulcers and chronic oedema. Available as single components or as kits. e.g. Comprilan

Category 2: Multi –layer Elastic / Inelastic Bandage Kits:

- **2.1 Two Layer kits:** Achieve the same levels of compression as four layer; may lead to greater concordance for patients and should therefore be the preferred choice. e.g. Coban 2, Urgo K2
- **2.2 Four-layer Elastic Kits:** Have been historically used to provide full compression and may be more convenient for certain situations. e.g Robinson Ultra Four, Profore 4 layer
- **2.3 Single-layer High Compression Bandage:** Used with specialist advice only, if multi layer combinations will not provide optimum treatment outcomes. For use with a padding layer, e.g. Softban.

Category 3: Two-layer Reduced Elastic / Inelastic Bandage Kits: Used for patients with mixed aetiology. e.g Coban Lite, Urgo K2 Lite

GUIDELINE FOR CHOICE OF COMPRESSION ACCORDING TO RESULTS OF ABPI

***ABPI between 0.6 and 0.8 – REDUCED COMPRESSION**

2 Layer system (Coban Light, KTwo Light)
Or
3 Layer system (Profore Lite)

ABPI between 0.8 and 1.3 – FULL COMPRESSION

2 Layer system (Coban, KTwo)
Or
4 Layer system (Robinsons Ultra 4)

Compression bandaging is not suitable for patients with arterial ulcers and/or arterial disease. Caution should be used when applying reduced compression on patients with an *ABPI less than 0.8, and further advice sought from Vascular Nurse Specialist or Tissue Viability (Community)
ABPI less than 0.6, urgent vascular referral recommended

Patients with the following features should be referred to the appropriate specialist at an early stage.

- Suspicion of malignancy
- Peripheral arterial disease (ABPI<0.8)
- Rheumatoid/Vasculitis
- Suspected contact dermatitis or dermatitis resistant to topical steroids
- Diabetes
- Atypical distribution of ulcers
- Non healing ulcers
- Severe pain

Please see Leg Ulcer Referral Pathway for further guidance (Appendix 3)

Two Layer Kit Latex Free
Full Compression

1st choice - ***Coban 2®***
2nd choice -***Urgo KTwo®***

Description
Coban 2® is a two-layer compression system, for venous leg ulcers, that delivers sustained, therapeutic compression. Comprises a latex-free foam padding layer and a latex-free, cohesive, compression bandage. Once applied, the two layers bond to form a single-layer bandage. Can be worn for up to seven days.

UrgoKTwo is a two-layer bandage system combining elastic and inelastic components that work together to provide sustained graduated compression for up to seven days. The first layer, KTech, is the inelastic component providing compression, absorbency and massage effect. KPress, the second layer, is an elastic, cohesive bandage that keeps the system in place and delivers additional compression to achieve therapeutic pressures and maintain resting pressures. UrgoKTwo donates an average pressure of 40mmHg at the ankle.

Indications
For the treatment of venous leg ulcers, venous oedema and lymphoedema.

Contra-indications
Arterial disease (ABPI <0.8). Diabetic microangiopathy, ischaemic phlebitis and septic thrombosis. Allergy to any of the components. Ulceration caused by infection. The systems are designed to be used as a kit and should not be used with other wadding or bandages.

	Ankle Circumference	***Drug Tariff Price – Sept2017 (Each)***
Coban 2 (3M)	One size	**£8.24**
UrgoKTwo Latex Free (Urgo)	18-25cm (10cm) 25-32cm (10cm)	**£8.75** **£9.56**

Two Layer Kit Latex Free
Reduced Compression

1st choice -***Coban 2 Lite®***
2nd choice - ***UrgoKTwo Reduced®***

Description

Coban 2 Lite is a two-layer compression system, for venous leg ulcers, designed to achieve sustained, therapeutic compression with reduced sub-bandage resting pressures. Comprises a latex-free foam padding layer and a latex-free, cohesive, compression bandage. Once applied, the two layers bond to form a single-layer bandage. Can be worn for up to seven days.

UrgoKTwo Reduced is a two-layer bandage system combining elastic and inelastic components that work together to provide sustained graduated compression for up to seven days. The first layer, KTech Reduced, is the inelastic component providing compression, absorbency and massage effect. KPress, the second layer, is an elastic, cohesive bandage that keeps the system in place and delivers additional compression to achieve therapeutic pressures and maintain resting pressures. UrgoKTwo Reduced donates an average pressure of 20mmHg at the ankle.

Indications

For the management of mixed aetiology leg ulcers, lymphoedema and venous leg ulcers where patients cannot tolerate full compression or where full compression is otherwise inappropriate.

Contra-indications

Must not be applied to patients with an ABPI <0.6. The systems are designed to be used as a kit and should not be used with other wadding or bandages.

	Ankle Circumference		***Drug Tariff Price – Sept 2017 (Each)***
Coban 2 Lite (3M)	One size		**£8.24**
UrgoKTwo Reduced Latex Free (Urgo)	18-25cm	(10cm)	**£8.75**

Mutli Layer Kit Latex Free
Full Compression

1st choice - ***Ultra Four®***
2nd choice - ***Profore®***-

Description

Ultra Four is a latex-free multilayer compression bandage system. Components: Ultra Soft wadding; Ultra Lite; Ultra Plus; Ultra Fast.

Profore is a latex-free multilayer compression bandaging system. Profore #1 Latex-free (10cmx3.5cm); Profore #2 Latex-free (10cmx4.5m); Profore #3 Latex-free (10cmx8.7m); Profore #4 Latex-free (10cmx2.5m); Profore + Latex-free (10cmx3m)

Indications

For the management of venous leg ulcers and associated conditions.

Contra-indications Four layer bandage systems are not suitable for patients with arterial ulcers and arterial disease. Do not use on patients with an ABPI of <0.8. Do not use on diabetic patients with advanced small vessel disease. For details of precautions please contact supplier.

	Ankle Circumference	***Drug Tariff Price – Sept 2017 (Each)***
Ultra Four (Robinson)	Up to 18cm	**£6.41**
	18-25cm	**£5.67**
Profore Latex Free (Smith and Nephew)	18-25cm	**£10.30**

Multi Layer Kit Latex Free
Reduced Compression

1st choice - ***Ultra Four RC®***-
2nd choice - ***Profore Lite®***-

Description

Ultra Four RC is a latex-free multilayer compression bandage system. Components: Ultra Soft wadding; Ultra Lite; Ultra Fast.

Profore Lite is a latex-free multilayer compression bandaging system. Profore #1 Latex-free (10cmx3.5cm); Profore #2 Latex-free (10cmx4.5m); Profore #4 Latex-free (10cmx2.5m).

Indications

For the management of mixed aetiology leg ulcers, lymphoedema and venous leg ulcers where patients cannot tolerate full compression or where full compression is otherwise inappropriate.

Contra-indications

Must not be applied to patients with an ABPI <0.6.

	Ankle Circumference	*Drug Tariff Price – Sept 2017 (Each)*
Ultra Four RC (Robinson)	18-25cm	**£4.14**
Profore Lite Latex Free (Smith and Nephew)	18+cm	**£6.05**

Short Stretch Compression

Comprilan®(Non Cohesive, Latex Free)

Actico®(Cohesive, Contains Latex)

Orthopaedic Wadding layer should be ordered separately (See page 11)

Do not confuse with Actico 2C – Multi layer bandaging kit.

Description

Inelastic short stretch compression bandage

Indications

Varicosis, chronic venous insufficiency, venous leg ulcers, thrombophlebitis, deep venous thrombosis, after venous surgery, primary and secondary lymphoedema.

Contra-indications

Advanced peripheral arterial occlusive disease, decompensated cardiac insufficiency, septic phlebitis; phlegmasia coerulea dolens (painful “blue” oedema, caused by an uncommon, severe form of deep venous thrombosis).

N.B LAYER OF ORTHOPAEDIC WADDING MUST BE APPLIED UNDER SHORT STRETCH BANDAGE (See p11)

	Size	*Drug Tariff Price – Sept 2017 (Each)*
Actico (Activa)	10cm x 6m	£3.41
Comprilan (Paul Hartman)	10cm x 5m	£3.44

Orthopaedic Wadding

1st choice: ***Softban Natural/Synthetic- ADC only***
2nd choice: ***Lantor- ADC only***
1st choice: ***UltraSoft- Prescribing only***
2nd choice: ***K-Soft- Prescribing only***

Description

Softban Natural - soft, natural viscose, protective orthopaedic padding.
Softban Eco- synthetic, protective orthopaedic padding.

Indications

Used to reduce the effects of compression bandages or orthopaedic casting materials on the skin. May also be use to reshape the leg around the calf and ankle, to ensure correct pressure are achieved when applying multilayer compression and to protect the bony prominences.

	Size (2.75m lengths) (Pack Size)	*Drug Tariff Price - Sept 2017 (Each)*
Natural		
Softban Natural (BSN)	10cm(12)	**ADC only**
	15cm(12)	
Synthetic		
Softban Eco (BSN)	7.5cm(12)	**ADC only**
	10cm(12)	
	15cm(12)	
For Prescribing only		
Ultra Soft (Robinsons)	10cm x 3.5m	£0.39

Self Management Compression Systems

With an increase in chronic leg ulceration anticipated in the coming years, related to an ageing population, the use of self management compression systems will increase. These systems should be considered when patients are keen to be more involved with their leg ulcer care, and are able to manage the application of the system. They will be particularly appropriate for younger patients and can improve the quality of life of the patient, with less involvement of nursing staff, particularly if the patient is working.

Self management compression options also help in the management of skin problems associated with venous hypertension, e.g. varicose eczema and hyperkeratosis, by allowing for daily access to cleanse the skin and subsequent application of emollients or topical steroid therapy. *All Wales Tissue Viability Nurses Forum (2014).*

When considering use of these systems, please contact the vascular nurse specialist for further advice and support.

The following systems are available on GP10:-

Juxtacures, Medi UK - www.mediuk.co.uk

Farrow Wrap – BSN Medical – www.bsnmedical.co.uk

ReadyWrap - Activa Healthcare – www.lohmann-rauscher.co.uk

Short video guidance on how to measure and apply the compression systems, are available on the company websites.

Compression Hosiery

Conservative treatment of venous disease is aimed at improving the condition by means of compression and exercise therapy. Compression hosiery presses the distended veins together so that the venous valves can close again, thus preventing the blood from flowing in the wrong direction – namely away from the heart. The necessary compression can be provided by using compression stockings or tights, which prevent new varicose veins from forming, and keep existing venous disease under control. Untreated venous disease will continue to progress and may become chronic. This is why it is important that patients are advised that they should wear compression stockings to prevent further deterioration, or recurrence of venous leg ulcers.

Indications for use:

14-17mmHg – Class 1 GP10 – Provides light compression and should be used for superficial or early varicose veins and swollen ankles (e.g. during pregnancy)

18-24mmHg - Class 2 GP10 – Provides medium compression and should be used in medium severity varicose veins and mild oedema. Can be used for the treatment of, and to prevent the recurrence of venous leg ulcers.

25-35mmHg – Class 3 GP10 – Provides strong compression and should be used for severe varicose veins and gross oedema. Used for chronic venous insufficiency, and in the treatment and prevention of venous leg ulcers.

(Please note above are British Standard Classifications of compression hosiery as used in the Scottish Drug Tariff. European Classifications can be found within the 2015 Wounds UK Best Practice Statement on Compression Hoisery).

Contraindications

- Significant arterial disease
- Current acute inflammatory episode
- Acute deep vein thrombosis
- Patient with diabetes or rheumatoid arthritis, unless after specialist referral and under supervision, due to risk of micro vascular disease
- Congestive heart failure, as compression could lead to cardiac overload

- Sensory disorders of the limb i.e. peripheral neuropathy
- Known sensitivity to the fabric

Please refer to the Wounds UK Best Practice Statement Compression Hosiery (2015) for further information.

Made to measure versus standard hosiery

Where possible, every effort should be made to use standard size hosiery, as there can be a significant cost difference associated with made to measure stockings. In cases where the leg is an unusual shape, or the patient has gross lymphoedema, made to measure stockings may be used. Legs should be measured and hosiery prescribed according to each manufacturer's own measuring guide, as sizes vary according to manufacturer. Every effort must be made to reduce oedema before hosiery is measured. (Best Practice Statement Compression hosiery, 2015)

Leg Ulcer Hosiery Kits

There are patients who have difficulty applying their stockings, or are unable to tolerate compression bandaging, and this should be considered as part of their overall assessment. As long as exudate levels are low, concordance may often be improved with the use of leg ulcer hosiery kits. These kits consist of a "liner" stocking, which makes it easier to apply the compression stocking on top. Each kit contains one stocking and two liner stockings. There are companies who also make a leg ulcer kit with a zip in the compression stocking. Please refer to the BNF section on compression hosiery for further information.

Accessories

A variety of accessories are available for patients, to help them with managing their hosiery. Please refer to the BNF section on compression garments and accessories.

N.B In normal circumstances two pairs of stockings should last 6 months, therefore patients should be prescribed no more than four pairs per year.

Table 4: Recommended reading to complement this formulary, and to support patient centred care: (this is for guidance only and not an exhaustive list)

1	All Wales Tissue Viability Nurses Forum (2014) *All Wales guidance for the management of hyperkeratosis of the lower limb.* Wounds UK, London
2	Moffat CJ, Edwards L, Collier M, et al (2008) *A randomized controlled 8 week crossover clinical evaluation of the 3M Coban 2 layer Compression System versus Profore to evaluate the product performance in patients with venous leg ulcers,* International Wound journal, Vol 5, Issue 2, May, pages 267-279
3	SIGN 120 (2010) Management of chronic venous leg ulcers
4	Vishwanath V, (2014) *Quality of Life: Venous Leg Ulcers*. Indian Dermatol Online J. July-Sep; 5(3):397-399
5	Weller C, Evans S (2012) *Venous leg ulcer management in general practice: Practice nurses and evidence based guidelines,* Australian Family Physician, Vol. 41, No.5, May, 331-333, 335-337
6	Wounds UK best Practice Statement (2015) *Compression hosiery (2nd edn)* London: Wounds UK. Available to download from www.wounds-uk.com
7	Wounds UK *Best Practice Statement* (2016): *Holistic Management of Venous Leg Ulceration*. London: Wounds UK. Available to download from: www.wounds-uk.com
8	Young T, et al, *Cleanse and compress – unique combinations to treat venous leg ulceration. The clinician and patient perspective,* Journal of Community Nursing Supplement, (2017), Vol 31, No. 3

APPENDIX 1 Leg Ulcer Assessment Form

LEG ULCER ASSESSMENT SHEET

Fife

Addressograph label.

Assessment made by: _____

Date of assessment: _____

Height: _____

Weight: _____

Presenting complaint: _____

PREDISPOSING MEDICAL CONDITIONS

Venous

	L	R
Varicose Veins		
V.V Surgery		
Sclerotherapy		
Thrombophlebitis		
D.V.T		
Leg Fracture		
Leg Infection		
Pregnancy	Yes	No

Arterial

Bypass Surgery	
Ischaemic H.D	
Hypertension	
T.I.A.	
C.V.A	
Diabetes	
Rheumatoid Arthritis	
Claudication	

Other.....

MEDICATION

_____

_____

_____

_____

_____

_____

Known Allergies

_____

_____

PRESENTING

LEG

Venous

	L	R
Eczema		
Itch		
Pigmentation		
Oedema		
Ankle Flare		
Induration		
Atrophie Blanche		

Arterial

	L	R
Loss of Hair		
Atrophic, shiny skin		
Skin, cold/white/blue		
Poor capillary filling		
Nocturnal rest pain		
Calf/Thigh muscle wasting		

ULCER

Venous

	L	R
Wound shallow		
Flat margins		
Sited lateral/medial/malleolus		

Arterial

	L	R
Wound deep		
Punched out regular shape		
Sited foot/lateral aspect of leg		

PERPETUATING

	Yes	No
Obese		
Smoker		
Poor nutrition		
Anaemia		
Poor mobility		
Poor Ankle Movement		
Psycho/social factors		
Previous Leg Ulcers		
IV Drug Use		

INVESTIGATIONS

Urinalysis _____

B.P. _____

H.B.C./Hb _____

Blood Glucose _____

	L	R
Ankle circumference		
Calf circumference		

Date to Redoppler: _____

Previous Leg Ulcer treatments

Duration of Ulcer (Days/Weeks/Months/Years)

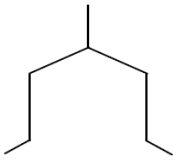
ANKLE BRACHIAL PRESSURE INDEX (ABPI)

RIGHT	LEFT
Brachial_____	Brachial_____
Dorsalis Pedis*_____	Dorsalis Pedis*_____
Posterior Tibial*_____	Posterior Tibial*_____
Peroneal**_____	Peroneal**_____
Right ABPI	Left ABPI

*Use the highest Doppler readings from the foot pulses divided by the higher of the two brachial arm readings
**Use peroneal pulse Doppler pressures if foot pulses not detectable

Summary

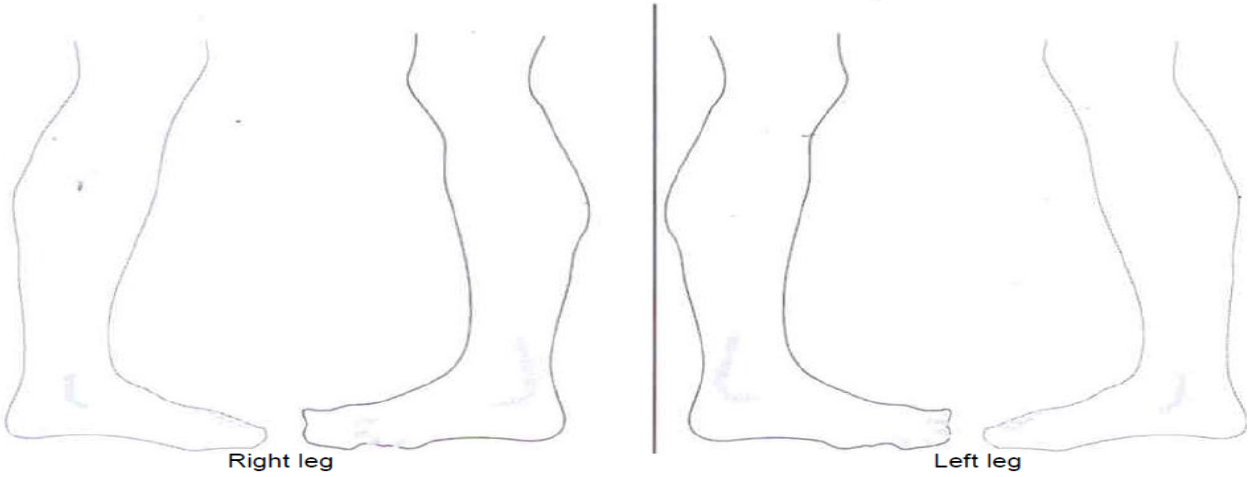
Venous/Arterial/Mixed Aetiology/Diabetic



LEG ULCER ASSESSMENT SHEET PAGE 2

Fife

POSITION OF ULCER AND SIZE OF WOUND



FOLLOW UP PLAN

PLAN **PHOTOGRAPHS TAKEN YES/ NO**

- Conservative Management ☐
- Compression Bandaging ☐ Type _____
- Duplex Scan ☐
- Angiography ☐
- MRA ☐
- Refer to vascular consultant ☐
- Bloods ☐

DRESSINGS

_____
_____
_____
_____

QUALITY OF LIFE ISSUES

PAIN / ODOUR/ SOCIAL ISOLATION / BATHING ISSUES / CONCORDANCE

COMMENTS

_____
_____

REVIEW Weeks _____
Months _____

- Pending investigations ☐
- No follow up required ☐
- Care to continue in primary care ☐

- Letter to GP ☐
- Letter to referring practitioner ☐

Signed: _____ Date: _____

Position _____ Time _____

LEG ULCER ASSESSMENT SHEET I

Compresssion bandage patient info