

Supplement: Prescribing and Dispensing Compression Hosiery and Lymphoedema Garments

Summary



- Venous leg ulcers are one of the most prevalent chronic wound types in the UK. They have a severe negative impact upon patients' mobility and quality of life, and they are costly to treat. Recent data from UK venous leg ulcer studies indicates the annual cost of treating one venous leg ulcer episode to be approximately £1300 with treatment costs rising as ulcers increase in size and duration.¹
- It is estimated that for every £1 spent on correct lymphoedema management and reducing the risk of cellulitis, saves the NHS £100.
- Compression hosiery is used for the management of venous and lymphatic disorders. Compression hosiery helps to minimise swelling and aid the flow of blood and lymph.
- Compression hosiery should be ordered exactly as prescribed as individual garment modifications can clinically impact on effectiveness and safety.
- **Inappropriately prescribed or ill-fitting hosiery will cause harm.**
- Compression hosiery is not the same as anti-embolism stockings and each have a specific clinical role.
- Before hosiery is prescribed, the circulation should be assessed – this *may* include the calculation of an Ankle Brachial Pressure Index (ABPI) using a handheld Doppler. More specific tests may be carried out by vascular specialists if required. Dopplers should be repeated every 6 months or earlier *if clinically indicated*.⁴
- **Two sets of hosiery should be prescribed every 6 months** (check individual manufacturer guidelines), or if physically torn or laddered. In addition, **patients should be re-measured if their swelling has altered, or if significant weight is gained or lost.**
- **Patients should be reviewed every 6 months** to re-assess the condition for which the hosiery is prescribed and
 - Ensure that the person is still wearing the hosiery successfully and is replacing regularly.
 - Repeat leg measurements to ensure that hosiery is still correct size.
- If ulceration or recurrence of ulceration occurs, patients must be converted back into compression bandaging. Thus compression therapy is a continuous treatment and management strategy and not just when healed. Presentation to a GP or treatment room when an ulcer is small (i.e. as early as possible) will allow for timely management and application of compression bandaging.

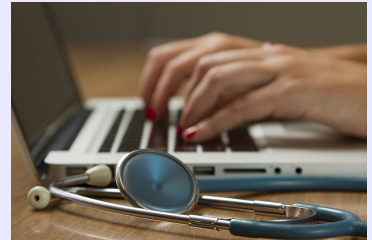
Note: this document is guidance only and should not replace clinical judgement

Background

- Compression hosiery is used to provide compression and support in conditions related to venous insufficiency and oedema.
- Compression hosiery provides graduated pressure from the distal to proximal portion of the limb and increases venous blood flow by improving the action of the muscle pump.

What assessment should be carried out before prescribing compression hosiery?

- Exclude arterial insufficiency.
- Before hosiery is prescribed the **circulation should be assessed** – this *may* include the calculation of an ankle brachial pressure index (ABPI) using a handheld Doppler. More specific tests may be carried out by vascular specialists if required.
- **Check condition of skin** – fragile skin may be damaged while trying to put on or take off compression hosiery. A wrapping device may be more appropriate in this instance. Numerous velcro compression wraps are prescribable and should be recommended by specialist practitioners only.
- Ideally, venous ulcers should be healed before using compression hosiery.²



Selecting the hosiery

- Compression hosiery varies in degree of **compression** (class), **length** (below knee or thigh length), **colour** and whether they enclose the whole foot or stop just before the toes (closed or open toe). There are also many other made-to-measure adaptations that may be required.
- **Three classes are available**, with differing levels of compression at the ankle and differing indications for use (see table 1 below). **European Standard** hosiery and garments are also available (table 2) – these are also available in three classes of compression but the level of compression for each class of garment is higher than the equivalent **British Standard** class. Their use depends on the patient's clinical condition therefore it is important to be aware of this and the impact of providing the wrong pressure category to a patient.



Class	1	2	3
Compression at ankle (British Standard)	14-17mmHg (light)	18-24mmHg (medium)	25-35mmHg (high)
Indication ⁵	<ul style="list-style-type: none"> • Superficial or early varices • Varicosis during pregnancy 	<ul style="list-style-type: none"> • Varices of medium severity • Ulcer treatment and prevention of recurrence • Mild oedema • Varicosis during pregnancy 	<ul style="list-style-type: none"> • Gross varices • Post-thrombotic venous insufficiency • Gross oedema • Ulcer treatment and prevention of recurrence
Examples	Activa Healthcare, Scholl		

Class	1	2	3
Compression at ankle (European Standard)	18-21mmHg	23-32mmHg	34-46mmHg
Examples / further information	ActiLymph®; Haddenham®; Juzo®; Mediven® http://www.hscbusiness.hscni.net/pdf/DT_PART_3e_1607.pdf		

Some people may not tolerate their prescribed class for various reasons, e.g. difficulty in application of the stronger category, thus a combination of lower classes may be an alternative option along with the use of a light compression liner (10mmHg British standard).

Hosiery can be worn below the knee or above the knee. Graduated compression tights are also available and can be used for various clinical conditions.

It is vital that patients are measured by a suitably trained individual/practitioner according to the manufacturer for the brand chosen and a copy of measurements, or the exact ordering specifications kept as a record with a copy accompanying the prescription to the pharmacy.

Different colours, styles and individual adaptations can be obtained to aid ease of use, fit and cosmetic appearance and hence promote every day long term use and compliance. **Effectiveness is reliant upon concordance** therefore this is an extremely important point.

Open toe hosiery may be useful if patients:

- Have painful toes due to arthritic deformities, ulceration or infection.
- Have problems accessing nail care
- Individual preference

Made to measure is available if none of the standard sizes fits or limb volume indicates. This can be obtained with a prescription accompanied by a specific measurement sheet. If measuring and fitting occurs ensure a holistic assessment of the patient has already been undertaken. Measurement requirements vary depending on the manufacturer and advice should be sought to ensure correct methods are used.



Applying and removing compression hosiery can be difficult; the nurse or therapist may therefore also prescribe an aid to support this e.g. Actiglide® or Easy-Slide®. It is important that the correct aid is ordered to suit individual need e.g. arthritic fingers, obesity etc.

For a list of prescribable items see NI Drug Tariff <http://www.hscbusiness.hscni.net/services/2034.htm>

How often should hosiery be replaced?

- **Compression hosiery should be replaced on average every 6 months.**
- The hosiery should be **replaced earlier if any defects or damage become apparent** or, if on stretching, it does not return to its original shape.
- Provide at least two stockings (or two pairs if used on both legs), so that one can be worn while the other is being washed and dried.
- **Ideally, each time a stocking is replaced, the leg should be re-measured.** The life of hosiery can be prolonged by following manufacturers care instructions. Hosiery should be hand-washed at about 40°C (a comfortable hand temperature) and dried away from direct heat.



How frequently should a person be reviewed?

- **Review every 6 months to:**
 - Reassess the condition for which hosiery is being prescribed.
 - Ensure that the person is continuing to wear the hosiery successfully and is replacing them regularly.
 - Repeat leg measurements to ensure that the hosiery is still the correct size.
- Doppler studies should be repeated as clinically indicated.⁴ Follow local policies, if available.



How to encourage compliance with hosiery

Ensure that the person understands the reasons for wearing compression. A new **patient advice leaflet** is available and can be downloaded at: [Add link to Hosiery PIL \(primary care intranet\)](#)



- **Ensure that the person has been shown how to put on and take off the hosiery.** The best time to put hosiery on is first thing in the morning, before any swelling develops. It should be removed at night before bed.
- **Check that the person is happy with the colour.** Men often prefer black or other colours rather than flesh-coloured.
- **Recommend application of an emollient** while the hosiery is off, to reduce skin dryness and irritation.
- **Ensure that the hosiery is a correct fit** — if standard sizes are not suitable, the person may need made-to-measure.
- If the person is having difficulty tolerating the level of compression, try a lighter compression.
- If the person is having difficulty using thigh-length hosiery, consider switching to below-knee.
- If the person is having difficulty putting the hosiery on, an application aid may be helpful (see earlier). Consider referral for personal care support if difficulty remains.

Key messages for community pharmacists

- **Compression hosiery should be ordered exactly as prescribed as individual garment modifications can clinically impact on effectiveness.**
- **Made to measure** is considerably more expensive than off the shelf garments and are required for specific reasons i.e. fit, size and style. It can be essential to ensure an effective and safe garment. An off the shelf garment can cause more damage if it is not perfectly suited to a limb. Pharmacists or practitioners involved in measuring and fitting must be suitably trained.
- **Claims to BSO for measured and fitted should only be made if measuring and fitting of these garments in the pharmacy occurs.**
- Measure legs individually, and preferably in the morning
- If in doubt regarding class, length, style, size or brand check with prescriber before ordering.
- Pharmacies should double check the correct item has been ordered prior to patient opening the packaging.
- Please ensure that all patients prescribed compression hosiery also receive the patient information leaflet (PIL) accompanying this document, and encourage patients to follow this advice
- Ask each patient, particularly arthritic or obese patients, if they have difficulty applying or removing their garments and report any issues to the prescriber to ensure that a donning and doffing aid is also prescribed if required.



Other indications for compression hosiery

(1) Pregnancy

Based on NICE guidance *Varicose veins: diagnosis and management (2013)*, consideration should be given to prescription of at least Class I compression hosiery (British standard) for symptom relief of leg swelling associated with varicose veins during pregnancy. Assessment of the patient with regards to suitability for hosiery based on her co-morbidities is essential, with re-measuring of the lower limb at intervals to ensure correct sizing of hosiery throughout the pregnancy.



(2) Prevention of post thrombotic syndrome

Addendum to NICE guidance *Venous thromboembolic diseases in adults: diagnosis, management and thrombophilia testing (Aug 2015)* states that compression should only be used for symptom management and post thrombotic syndrome:³

‘Do not offer elastic graduated compression stockings to prevent post-thrombotic syndrome or VTE recurrence after a proximal DVT. This recommendation does not cover the use of elastic stockings for the management of leg symptoms after DVT.’

<https://www.nice.org.uk/guidance/CG144/chapter/Recommendations>

(3) Anti-embolism stockings

Anti-embolism stockings (white in colour with an open toe) are prescribed and applied in hospital; **they are only intended for use while an in-patient**. They are used as mechanical thrombo-prophylaxis to enhance blood flow. When a patient is mobile again, they are not usually required. They are not available on Drug Tariff, i.e. cannot be prescribed in primary care. A patient may need reassessed post discharge from hospital if symptoms change or persist and compression hosiery can be considered.

So what are lymphoedema garments?

The use of compression garments has an essential role to play in the management of lymphoedema. Whilst compression hosiery is sometimes used, garment design also includes provision for both upper and lower limb, head, trunk and genitalia.

- Individual assessment by a specialist is essential; therefore **these garments should only be prescribed following specialist advice**.
- As with all compression, ill-fitting garments have the potential to cause harm hence once again made to measure may be required. To ensure the correct item is prescribed and ordered, the full details of the garment should be provided by the specialist initiating the request.
- There is a separate category in NI Drug Tariff listing compression garments which are prescribable for lymphoedema http://www.hscbusiness.hscni.net/pdf/DT_PART_3e_1607.pdf
- Whilst still being called Class 1, 2 and 3, the leg garments are of higher compression than those previously available for vascular conditions.
- **Product codes** are available for some of the manufacturers to aid supply. These should be annotated on the prescription if available.
- Garments are made in both **British standard** and **European standard** pressures; these pressures are different so it is important to be aware of this and the impact of providing the wrong pressure category.
- **Made to measure** is considerably more expensive than off-the-shelf garments and are required for specific reasons, i.e. fit, size and style. It can be essential to ensure an effective and safe garment. An off-the-shelf garment can cause more damage if it is not perfectly suited to a limb.

Key messages for prescribers / pharmacies:



How do I know what garments and accessories can be prescribed in N Ireland?

Refer to NI Drug Tariff at <http://www.hscbusiness.hscni.net/services/2034.htm>

- When prescribing, **care should be taken to select correct item from Drug Dictionary** on clinical system
- Pharmacies should **double check the correct item has been ordered** prior to patient opening the packaging; the pharmacist should also examine the garment once the patient has removed it from the packing as packing errors may occur
- Use of manufacturer's **product code** (where available) should be clearly written on the prescription
- **Patients are more likely to comply with treatment if they understand the benefits.**
- Patient advice leaflet available at <http://www.lnni.org/files/Garment%20Management.pdf>

Useful links



- Lymphoedema Network for N Ireland <http://www.lnni.org/>

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References

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