

## Clinical Guideline for: Soft Cast Heel Cup Devices

### SUMMARY

This guideline outlines the manufacture and use of soft cast heel cups in the treatment of heel ulcers. It is for use by podiatrists and trained nurse specialists/practitioners.

### KEY POINTS

e.g. The essential elements of this guideline are:

- Aim of treatment
- Selecting the appropriate patient for a heel cup
- Assessment of the patient
- Review period
- Manufacture of heel cup
- Advice to patient, including instruction sheet for dressing changes

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## **1. INTRODUCTION**

**1.1** This guideline has been produced to outline the minimum standards of professional conduct expected of practitioners with relevance to assessment, manufacture and education associated with use of soft cast devices. Only Podiatrists or staff which have been trained and are competent to apply soft cast devices can manufacture and supply soft cast devices

## **2.**

### **2.1 Soft Cup Heels - AIM OF TREATMENT**

Soft cast heel cups aim to reduce pressure to the heel, for example, in the treatment of heel ulcers and pressure damage. The devices are designed to remove point pressure, which can cause a delay in healing, by offloading the affected area.

The device is designed to be comfortable, lightweight and easy to manufacture in a clinical setting. As it is a removable device regular dressing changes can be maintained.

### **2.2 APPROPRIATE USE OF SOFT CAST**

Trained staff are professionally accountable for their own actions, therefore opinions may vary slightly as to the suitability of an individual for a soft cast device. If there are any doubts regarding the patient's suitability for a soft cast device the Senior Podiatrist should be contacted prior to application for a second opinion.

**2.2.1** Soft cast heel cups are used to offload acute foot pathologies on the calcaneum only.

**2.2.2** Soft cast devices are suitable for feet that show signs of neuropathy and/or peripheral arterial disease, but with close monitoring.

**2.2.3** Heel cups can be used in conjunction with other offloading devices such as air walker, post op sandal.

**2.2.4** Patients may be ineligible for a soft cast device due to the following:-

- Critical limb ischemia
- Non-compliant patients
- Patient with conditions that may affect their stability in the device
- Patients in compression bandaging
- Patients with severe oedema
- Heavily exuding heel ulcers
- Heavy incontinence that may affect dressings

**2.2.5** Only staff that have been trained can manufacture or adapt soft cast heel cups. However, carers and health care professionals are able to reapply the heel cup if they have been given the appropriate instructions (Appendix 1).

### **2.3 ASSESSMENT OF THE PATIENT FOR CASTING**

**2.3.1** Vascular and neurological status must be checked by assessing foot pulses and sensation with a 10g monofilament or Ipswich touch test. This should be recorded in the notes, along with the underlying cause of the ulcer.

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**2.3.2** All treatment options for the ulcer should be discussed with the patient, carer or guardian including the risks and benefits of each treatment. Patients must be made aware that to date this is not an evidenced based practice and empirical treatment only. This allows the patient to make an informed choice. This should be recorded in the patient notes.

**2.3.3** It is essential that appropriate verbal and written advice (information sheet, appendix 1) on the use of the soft cast device is given. The patient and any clinicians or carers that may be changing the dressing should be given the information sheet (appendix 1) explaining how to reapply the heel cast. This will include what to do if there are any concerns with the soft cast. If used in a ward situation clear advice and guidance should be given to ward staff and information conveyed on discharge to those who will be taking over the dressing regime.

## **2.4 REVIEW APPOINTMENTS**

**2.4.1** Patients should be seen by a health care professional within 7 days of a heel cast being manufactured to check the cast is functioning correctly and that there have been no adverse effects from using the cast. If there is any concern the heel cast should be removed and standard dressing regime continued.

## **2.5 DRESSING SELECTION AND SOFT CAST HEEL CUP TECHNIQUE**

**2.5.1** The heel cast should be manufactured following the standard operating procedure (Appendix 2). This is linked to the method used in the randomised trial 'evaluation of the effectiveness and cost-effectiveness of lightweight fibreglass heel cups in the management of ulcers of the heel in diabetes' Jeffcoate W, Game F, Turtle-Savage V (2017)

**2.5.2** Where appropriate, debridement of the wound should be carried out by a qualified podiatrist/clinician, prior to manufacture of a heel cast.

**2.5.3** The ulcer should be dressed with the most appropriate primary dressings for the current ulcer conditions, but keeping them as low profile as possible.

**2.5.4** The heel cast should be manufactured over the primary dressings. In cases where the primary dressing is smaller than the size of the cast, a secondary dressing should be used between the cast and the foot to reduce the risk rubbing e.g. K soft bandage or tubifast.

**2.5.5** Once manufactured the cast should be held in place with an appropriate secondary dressing. E.g. adhesive tape and tubifast.

**2.5.6** Footwear must be assessed to see if it is suitable to accommodate the heel cast. If it is not suitable, a temporary sandal should be supplied by the clinician or orthotics team.

## **3. MONITORING COMPLIANCE WITH THIS GUIDELINE**

3.1 In order to monitor compliance with this guideline, standards will be monitored as follows:

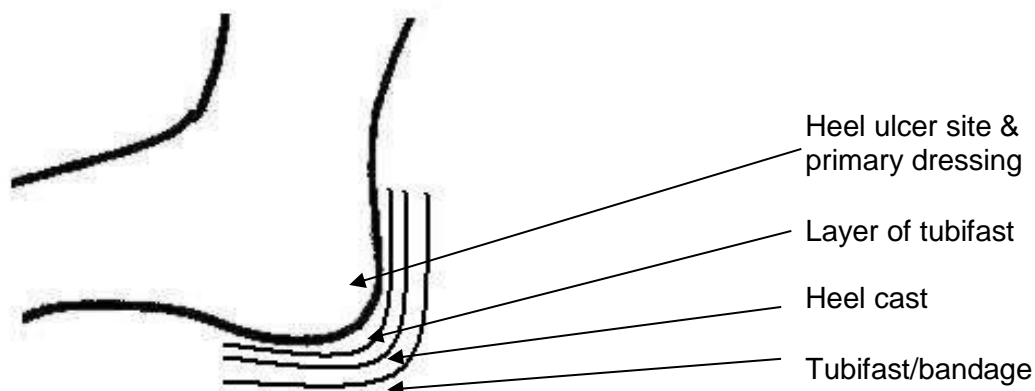
Number	Minimum requirements	Evidenced by
1)	Safely manufacture a cast	PDR and peer review
2)	Be able to apply a cast and give appropriate written and verbal advice	PDR and peer review

## APPENDIX 1

Patient Name:

Date:

### Instructions for dressing changes where there is a soft cast heel cup in situ



The primary dressing for the heel lesion is.....

- 1) Remove the cast and put to one side, dispose of the other dressings. **Only dispose of the cast if heavily soiled or broken .**
- 2) Prepare wound site and redress using the dressing listed above, if still appropriate (use as low profile dressing as possible)'.
- 3) Apply tubifast/thin layer of K soft over the primary dressing (and under cast) to prevent cast from rubbing
- 4) Reapply the cast, checking that it is the correct way up, secure with tape and then bandage or tubifast.

**Remember:** If you notice any change to the foot remove the cast as soon as possible e.g.

- Rub marks from the cast
- Swelling
- Redness
- Increase in pain
- Increase in the amount of fluid coming from the ulcer

If you become unwell and experience hot or cold sweats or flu like symptoms please seek medical attention as soon as possible.

**If advice needed please contact .....**




## APPENDIX 2 : How to manufacture a soft cast device




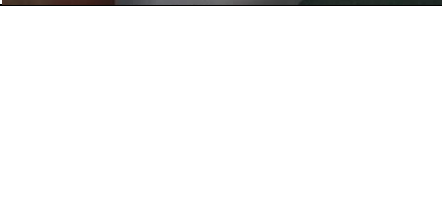

### Materials required for application:

- 1 roll of 7.5cm Soft Cast Casting Tape. .A coloured cast is preferable for ease of application
- 2 lengths of stockinette or blue line tubifast
- 1 roll of undercast padding e.g. K soft
- 1 roll of elasticated bandage e.g. K bandage
- Disposable scissors
- Padding scissors
- Marker pen

### Casting preparation:

After wound preparation, an appropriate primary dressing should be applied, keeping it as low profile as possible.

<p><b>1.</b> Apply 1 layer of 5cm stockinette or tubifast blue to the foot extending from the malleoli distally to the styloid process. Lay a 'sausage' of undercast padding on the dorsum of the foot for protection during removal. Apply a second layer of 5cm stockinette/tubifast blue.</p>	
<p><b>2.</b> Apply the soft cast tape from ankle to midfoot, ensuring <b>minimal</b> overlap</p>	
<p><b>3.</b> Apply a slab of soft cast tape large enough to cover the lesion by folding a length of soft cast in to 4 layers</p>	

<p><b>4.</b> Immediately apply a damp (squeeze water out) bandage e.g. k bandage with slight tension to hydrate and assist in good lamination of the cast. This also ensures the cast is moulded to the contours of the limb. After a few minutes and the cast has set, remove the k-bandage.</p>	
<p><b>5.</b> Cut the cast along the dorsum of the ankle (where the padding is in situ) and remove from the patient. Remove the under cast padding. The bottom layer of blue line can be left in place if appropriate</p>	
<p><b>6.</b> Mark the cast under the malleoli and radiating proximal on the Achilles tendon. Continue the line along the anterior edge of the heel. Trim along the cut lines. Ensure edging of soft cast is only 1 layer thick</p>	
<p><b>7.</b> Write on the inside of the cast 'right' or 'left', date of manufacture and initials of clinician, also mark with arrows for the directions of toes and head.</p>	
<p><b>8.</b> Ensure layer of tubifast/k soft covers the area where the cast will be to prevent rubbing. Secure the cast in position by use of adhesive tape and/or bandage/tubifast. Provide a temporary sandal if necessary.</p>	
<p><b>9.</b> Issue patient with a heel cup advice leaflet and ensure anyone due to be redressing the heel is aware of the information regarding reapplication.</p>	