This is a **Sample** version of the

**Leg and Foot Ulcer Questionnaire (LFUQ)**

The **full version** of Leg and Foot Ulcer Questionnaire (LFUQ) comes without ‘sample’ watermark.

**The full complete version includes** –

- LFUQ Overview information
- LFUQ Scoring/ Administration instructions
- LFUQ Complete questionnaire/ Assessment (29 sets of question criteria)
- LFUQ Clinical Validity

**Buy full version here** - [Buy now](#) for $8.00

Once you have paid for your item you will receive a direct link to download your full complete e-book instantly. You will also receive an email with a link to download your e-book. Each purchased product you order is available to download for 24 hours from time of purchase. Should you have any problems or enquiries please contact - info@agedcaretests.com
Randomized clinical trial of four-layer and short-stretch compression bandages for venous leg ulcers (VenUS I)

E. A. Nelson, C. P. Iglesias, N. Cullum and D. J. Torgerson on behalf of the VenUS I collaborators

Correspondence to: Professor N. Cullum, Department of Health Sciences, Seebohm Rowntree Building (Area 4), University of York, Heslington, York YO10 5DD, UK (e-mail: nac2@york.ac.uk)

Background: A randomized clinical trial was undertaken to determine the relative effectiveness of four-layer and short-stretch bandaging for venous ulceration.

Methods: A total of 387 adults with a venous ulcer, who were receiving leg ulcer treatment either in primary care or as a hospital outpatient, were recruited to this parallel-group open study and randomized to either four-layer or short-stretch bandages. Follow-up continued until the patient’s reference leg was ulcer free or for a minimum of 12 months. The primary endpoint was time to complete healing of all ulcers on the reference leg. Secondary outcomes included proportion of ulcers healed, health-related quality of life, withdrawals and adverse events. Analysis was by intention to treat.

Results: Unadjusted analysis identified no statistically significant difference in median time to healing: 92 days for four-layer and 126 days for short-stretch bandages. However, when prognostic factors were included in a Cox proportional hazards regression model, ulcers treated with the short-stretch bandage had a lower probability of healing than those treated with the four-layer bandage: hazard ratio 0.72 (95 per cent confidence interval 0.57 to 0.91). More adverse events and withdrawals were reported with the short-stretch bandage.

Conclusion: Venous leg ulcers treated using a four-layer bandage healed more quickly than those treated with a short-stretch bandage.


Paper accepted 18 May 2004

Published online in Wiley InterScience (www.bjs.co.uk). DOI: 10.1002/bjs.4754

Introduction

Leg ulceration affects 15–18 per 1000 adults in developed countries, and is associated with pain and lower quality of life.1,2 The majority of leg ulcers are secondary to venous insufficiency (venous ulcers). It has been estimated that the management of venous ulcers in the UK costs £100–300 million every year, nursing time accounting for most of this cost.3,4

Systematic reviews have found that compression therapy heals more ulcers than dressings alone, and that high-level compression systems are more effective than low- or moderate-compression systems.5 However, it has not been possible to determine from previous research which high-compression regimen—four-layer bandaging, compression hosiery, Unna’s boot or short-stretch bandaging—is the most clinically or cost effective. Four-layer bandaging is probably the most widely used method in the UK, whereas short-stretch bandaging is the system of choice in much of continental Europe. Thus four-layer and short-stretch bandages were chosen for comparison. Short-stretch bandage is washable and reusable (unlike four-layer bandages), comparatively simple to apply, and its effects are thought to be less reliant on the skill of the bandager.6 Furthermore, it is inelastic, a feature that may reduce the likelihood of damage to the skin and underlying tissue occasionally induced by inappropriately applied elastic high compression. To determine the relative effectiveness and cost-effectiveness of four-layer and short-stretch bandaging systems, a pragmatic randomized clinical trial was undertaken.

Patients and methods

Patients were eligible for the trial if they had been diagnosed clinically with a venous leg ulcer at least
1 cm in diameter. Exclusion criteria were: age less than 18 years, significant arterial disease (ankle : brachial pressure index (ABPI) less than 0.8), diabetes mellitus, previous unsuccessful use of a trial bandage, patient unable or unwilling to have high compression, and patient unable or unwilling to provide written, informed consent.

Between April 1999 and December 2000, patients with venous leg ulcers treated in the community (leg ulcer services, district nursing or general practice) or as an outpatient (vascular surgery) were recruited from nine UK centres. After obtaining written informed consent, participants were allocated to either four-layer bandages (4LB group) or short-stretch bandages (SSB group) using a concealed, remote telephone randomization service. Randomization was stratified by clinical centre, previous ulceration (yes or no), ulcer area (less than or greater than 10 cm²), and ulcer duration (more or less than 6 months)⁹. The randomization code was developed using computer-generated permuted blocks (randomly sized 4 or 6). Both patients and nurses were aware of the allocated treatment after assignment.

**Bandaging**

Four-layer bandages consisted of one layer of orthopaedic wool padding, covered by three retention/compression bandages, all applied with 50 per cent overlap (Table 1). The original four-layer bandage system and two proprietary kits, Profore® (Smith and Nephew Healthcare, Hull, UK) and System 4® (SSL International, Knutsford, UK), both 10 cm wide, were randomly allocated in this pragmatic trial as a previous study that compared these systems found no significant difference in effectiveness⁸. Standard modifications were used for participants with large (circumference greater than 25 cm) or small (circumference less than 18 cm) ankles (Table 1)⁸. Bandages were used once and discarded.

**Table 1** Four-layer bandage system and method of application

<table>
<thead>
<tr>
<th>Layer</th>
<th>Type of bandage (ankle circumference 18–25 cm)</th>
<th>Method of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Padding (e.g. Velband®, Johnson &amp; Johnson)</td>
<td>Spiral</td>
</tr>
<tr>
<td>2</td>
<td>Retention (e.g. Crepe® BPI)</td>
<td>Spiral</td>
</tr>
<tr>
<td>3</td>
<td>Class 3A compression (e.g. Elset®, SSL International)</td>
<td>Figure of eight</td>
</tr>
<tr>
<td>4</td>
<td>Cohesive compression (e.g. Coban®, 3M)</td>
<td>Spiral</td>
</tr>
</tbody>
</table>

Two layers of padding (layer 1) were used for participants with an ankle circumference of less than 18 cm. The third bandage layer was replaced with a high-compression (class 3C) bandage for participants with an ankle circumference greater than 25 cm.

Short-stretch bandaging comprised one layer of orthopaedic wool padding covered with one or two compression bandages, either Comprilan® (Beiersdorf UK, Milton Keynes, UK) or Rosidal K® (Vernon-Carus, Preston, UK) 100 per cent cotton short-stretch bandages. The standard techniques of spiral, figure of eight or modified Putter were used¹⁰. The different techniques are thought to deliver similar sub-bandage pressures. The bandages were, whenever possible, washed by the patient and reused.

In both groups the ulcers were cleanse using tap water or saline, and covered with a simple, low-adherent dressing, such as N-A Dressing® (Johnson & Johnson Medical, Ascot, UK). Dressings and bandages were renewed by the regular nursing staff, any changes to dressings and the frequency of renewal were decided by the patient’s usual nurse. As this was a pragmatic trial, the schedule of patient visits was not dictated by trial protocol, except to say that patients should be seen at least once a week.

**Data collection**

Nurses completed a dressing log at each leg ulcer dressing visit, which recorded whether or not an ulcer was healed, the date of the visit, all materials used, and reasons for any changes in treatment. Health-related quality of life was assessed by means of Short Form SF-12¹¹, EuroQol-5D¹², and Hyland leg and foot ulcer questionnaire¹³. Economic data were also recorded and are reported elsewhere¹⁴. Follow-up of all participants continued from randomization until December 2001 (12–21 months).

The primary endpoint was time to healing of all ulcers on the reference leg, defined as the leg with the largest eligible ulcer. Secondary outcomes included the proportion of ulcers healed at 12 and 24 weeks, withdrawals and adverse events. A healed ulcer was defined as complete epithelial cover in the absence of a scab. At healing, a nurse took a Polaroid¹⁵ photograph of the ulcer and sent this to the trial office where an investigator blinded to bandage allocation confirmed ulcer healing. Standard methods of photography were used throughout the study centres to reduce error¹⁵.

**Sample size calculation and statistical analysis**

Because previous studies had not reported time to event data, the required sample size was estimated using data for the proportion of patients healed at 12 weeks. This was viewed as a conservative approach in the light of a planned survival analysis. The sample size calculation was based on an estimate from previous trials of 50 per cent of ulcers healing by 12 weeks with the four-layer bandage, and an
The Leg and Foot Ulcer Questionnaire Scoring Instructions

This information accompanies the attached scoring sheets.

The Nurses Section
This section is descriptive and elicits information which may be relevant to patient management.

Part One
This section of the questionnaire is also descriptive and elicits general patient information.

Part Two
The four questions relating to: Pain, Sleep Disturbance, Time spent trying to heal the ulcer, and Time spent thinking about the ulcer, should be scored individually. For

Part Three
This section of the questionnaire includes 29 Quality of Life statements relating to Functional Limitations, Dysphoric Mood and Treatment. Six of these statements are

This is the end of the SAMPLE version of LFUQ scoring instructions. Please go to page 1 to purchase complete version.
Part One

Would you please provide the following information before going on to the rest of the questionnaire:

- **Age**
- **Male**
- **Female**

Have you ever stayed in hospital because of your ulcer?

- **Yes**
- **No**

Would you say that you are largely housebound these days?

If yes, is this because of your leg ulcer?

Just at the moment, would you say your ulcer is staying the same, getting better or getting worse?

Please put a cross on the line where it applies to you.

- Getting
- Staying
- Getting
- Worse
- the Same
- Better

---

**Leg & Foot Ulcer Questionnaire**

- Leg & foot ulcers affect people in many different ways
- They can interfere with various aspects of life
- The purpose of this questionnaire is to find out *in what ways your life is affected by your leg or foot ulcer*
Part Two

The following questions ask you about your leg ulcer now. Now means within the last two weeks.

Please tick the answer which best applies to you.

At most, how painful is your ulcer?

- Don't notice it
- Uncomfortable rather than painful
- Hurts a little
- Painful
- Very painful
- Excrutiatingly painful
- As much pain as I could imagine
**Part Three**

Below is a list of statements which describe how people sometimes feel when they have leg ulcers. Please decide whether the statement applies to you by showing whether you feel that way.

<table>
<thead>
<tr>
<th>Statement</th>
<th>NEVER</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am afraid of having children on my knee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I can shop in crowded places</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I am frightened of shopping trolleys or bags bumping into me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Getting on or off a bus is difficult because of my ulcer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I walk easily despite my ulcer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please tick the answer which best applies to you.

Please make sure you answer all questions.

---

**SAMPLE**
Leg & Foot Ulcer Questionnaire
Nurses Section

• Please provide the following information for this patient:

How often do you visit this patient for their leg ulcer? __________________________

For how long has the patient had the ulcer? __________________________

Just at the moment, would you say this patient's ulcer is staying the same, getting better or getting worse? Please put a cross on the line to indicate your view.

Getting Worse  Staying the Same  Getting Better

Measure the distance (cm) from the left (getting worse)

Please use your clinical judgement to indicate on the following scale, the current state of this patient's ulcer:

This is the end of the SAMPLE version of LFUQ questionnaire. Please go to page 1 to purchase complete version.