Chronic venous insufficiency affects the productivity and wellbeing of millions of people worldwide and is the most common cause of leg ulcers (Hampton, 2003). Up to 1% of adults suffer from leg ulceration at some time, and the majority of these leg ulcers are venous in origin, caused by high pressure in the veins resulting from blockage or weakness of the valves in the veins of the leg (Nelson et al, 2000). Prevention and treatment of venous ulcers is aimed at reducing the pressure, either by removing or repairing the veins, or by reducing the pressure within the veins using an external appliance such as multilayer, short-stretch bandaging or compression hosiery (Nelson et al, 2000; Hawkins, 2001). This promotes venous return through graduated compression of the tissues and capillaries (Hawkins, 2001).

Compression bandaging has long been recognized as the optimum approach for managing venous ulcers. The correct use of compression therapy can lead to faster healing rates (NHS Centre for Reviews and Dissemination, 1997), and reduced nursing time (Jones and Nelson, 2001). However, there is a variety of reasons why some people may not be concordant with bandaging treatment. Bandages cannot be self-applied, so cause reliance on others (Hampton, 2003). Bandages can also be bulky, causing difficulty with the fitting of shoes (Hawkins, 2001; Johnson, 2002), and so affecting mobility. For these patients, an alternative and clinically effective solution is essential if the wound is to heal. An alternative treatment approach to bandaging is the use of below-knee graduated compression hosiery (Nelson et al, 2000; Hawkins, 2001). This promotes venous return through graduated compression of the tissues and capillaries (Hawkins, 2001).

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Acti-Glide is a simple system that has been specifically designed to make application of compression hosiery an effortless process. Acti-Glide can be used for open and closed toe hosiery and is extremely useful for people with limited mobility or hand movement.
The Acti-Glide is slipped over the foot and then the hosiery is pulled over the slippery surface of the device (Figure 1). Once the hosiery is sited correctly, the Acti-Glide is gently pulled up and out of the stocking.

The simplicity of the system removes one of the barriers to regular use of compression hosiery, and so will help improve concordance with treatment.

The Acti-Glide is used on healed skin or, if there is an open wound it is sealed within an occlusive dressing. The fabric is such that it can be, and is, cleaned after each patient. This practice is even safer than using a single Doppler cuff for all patients within the clinic or domiciliary environment.

A national audit in the use of Acti-Glide

An audit was led and collated by the author, to investigate the value of Acti-Glide to patients and nurses who use compression hosiery.

Thirty-six nurses across the UK, who were involved in day-to-day care of patients with leg ulcers in clinics and private homes, were approached and asked to complete a questionnaire related to the use and application of Acti-Glide. They were provided with an Acti-Glide and were invited to use it in their practice over the course of 3 weeks.

These 36 nurses were caring for a total of 1164 patients, 833 (72%) of whom had venous ulceration. Of these, 710 (85%) were provided with compression therapy; 426 (60%) of these patients were using compression hosiery. Of these patients:

- 37% applied their own stockings
- 38% had help from carers
- 25% had help from professionals to apply their stockings.

Of the 839 patients with venous disease, 153 (18%) either did not have compression therapy prescribed, or had to use specialist garments. Both nurses and patients believed that 169 (20%) could apply compression stockings if they had assistance from a product such as Acti-Glide.

The nurses were asked to comment on the use of Acti-Glide. Responses were overwhelmingly positive. Box 1 reports some of their comments.

**Step 1.**
Fold the Acti-Glide stocking applicator double and thread the pin through the holes.

**Step 2.**
Put the pin securely in the pocket at the end. The Acti-Glide is now ready for use.

**Step 3.**
Slide the Acti-Glide over your toes, with the pin side under the sole of the foot, until the Acti-Glide stops at the instep. Do not try and pull too far.

**Step 4.**
Pull on the stocking over the Acti-Glide

**Step 5.**
Place the heel in position and spread the stocking evenly over the foot.

**Step 6.**
Pull the pin at the back of the leg out of the Acti-Glide

**Step 7.**
Take hold of the flap at the front of the Acti-Glide

**Step 8.**
Pull the Acti-Glide out of the stocking.

**Step 9.**
Position the stocking on the leg.

**Step 10.**
Spread the stocking evenly over the leg.

*Figure 1. Applying compression hosiery using the Acti-Glide.*
Box 1. Comments on the use and application of ActiGlide

- ‘Acti-Glide is an excellent invention, although from the survey we do not have many venous ulcers on our caseload. In the past we have and we always advise our patients to purchase an Acti-Glide when they go into compression hosiery.’
- ‘Patients feel stockings go on easier causing them less pain and trauma.’
- ‘Acti-Glide allows elderly patients to be independent when applying their compression hosiery. Also it frees district nursing time if carers can use the Acti-Glide to apply hosiery.’
- ‘Patients/nurses able to fit stockings with greater ease. Patients less anxious about going into compression hosiery.’
- ‘I can now get my stockings on and do not have to wait for the nurse to come.’
- ‘Most elderly patients find it confusing and prefer the ‘pixie’ boot!’
- ‘Found it hard to use. Very thin and starts slipping.’
- ‘Acti-Glide is very useful in that it aids the patient to apply hosiery on a daily basis and to be compliant.’
- ‘No longer visit clinic except for reviews.’
- ‘Very useful. I would not be able to use the hosiery without it,’
- ‘The ActiGlide is a very useful device and makes application of compression hosiery much easier for both patients and carers. However most of our patients are elderly and on low incomes, and are reluctant to pay for the Acti-Glide themselves. £15 seems like a huge amount of money to them, for something that they need from the health service.’
- ‘Much easier to apply hosiery with Acti-Glide, especially when applying for the first time. Our patients, especially elderly ones do have some degree of difficulty applying hosiery and would undoubtably find it easier with an Acti-Glide however many choose to struggle due to cost implications.’
- ‘Easy to use. Match it to the right person and they will use it. Gives more choice. Glides and cleans easily. Undoes easily. Less bulky.’
- ‘Patients happy to use – helps compliance.’
- ‘Useful for demonstrating and allowing patients to practice. If on FP10 would use much more.’
- ‘Patients say it is easy to remove after application of hosiery.’
- ‘Fairly easy to use. Cost effective. Of all applicators, Acti-Glide is the most popular.’
- ‘Makes whole process of application so much easier – less physical effort required.’
- ‘Good for prevention of breakdown. Patients’ carers have recommended it.’
- ‘Patients and carers like Acti-Glide.’
- ‘Patients can not afford it but may try out if on FP10. Enables patient/carer to apply garment. Less of a struggle for the poor nurse especially with Class III.’

Benefits of Acti-Glide

- Acti-Glide comes in flat packaging for travel purposes which is easier to manage than frames
- There have never been any identified sensitivities to the material from which Acti-Glide is made
- For larger feet and legs, the last two eyelets can be omitted to make a wider aperture
- The guide wire is easy to use even for patients with limited dexterity
- Acti-Glide makes hosiery application easy, so preventing undue pressure on the carer’s back
- The simple application of the hosiery ensures that the garment is applied evenly without stretching the fabric and this allows the stocking to pulled to its full length.

Availability of Acti-Glide

Limited availability restricts its use to those patients who can afford the cost.

ActiGlide is not yet available on the Drug Tariff, but can be obtained through NHS Logistics, or purchased by the patient through retail pharmacies or the Leg Care Company. Further information is available from the manufacturer, Avtiva Healthcare.

Conclusion

The results of the audit show that use of Acti-Glide can increase patient concordance, reduce nursing costs and promote quality of life for the patient with – or at risk of developing – a venous ulcer, who uses compression hosiery, but is unable to do so independently. Access to such a product would decrease the number of nurse visits or nurse involvement and has the potential to empower the patient by increasing independence.

**KEY POINTS**

- Leg ulcers are found in up to 1% of the population at some point.
- Treatment and prevention can be costly in nursing time.
- Patient independence should be promoted wherever possible.
- Application of compression hosiery can be difficult due to the tightness of the stocking.
- The use of Acti-Glide simplifies the application of hosiery, reduces cost and promotes patient independence.