Treatment of a Recalcitrant Chronic Venous Leg Ulcer Using COMPREFLEX Adjustable Compression Device: Case Study

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Compression is key to healing leg ulcers (SIGN 2010). The impact of venous leg ulceration is vast and can have potential to lead to serious consequences for health budgets into the future. Some traditional methods of managing venous leg ulcers have led to non-concordance and poor acceptance by patients (Bradley et al 2017, Stanton et al 2016).

Over recent years the use of Adjustable Compression Devices (ACD’s) has become more acceptable and shows an opportunity to improve cost effective treatment which is accepted and tolerated by patients (Williams 2016).

The following case study highlights the improvement in treatment outcomes with the use of the COMPREFLEX system.

Case Study

Mrs X is a 77-year-old lady who has suffered from multiple episodes of lower leg ulceration for the past 9 years. She was initially referred by her practice nurse to a dedicated vascular-led leg ulcer service in 2007 for an ulcer to her right lower leg which subsequently healed following a period in multilayer compression bandages.

Unfortunately, in September 2015, she developed an ulcer to her right medial malleolus which had started spontaneously whilst on holiday in Weymouth. She self-referred to the leg ulcer service and was seen in the vascular laboratory where she was given a one-stop vascular assessment including a colour-venous duplex ultrasound scan and hand-held doppler assessment. Studies showed that the underlying aetiology of her ulcer was venous and she was again commenced in multilayer compression bandages.

Despite attending the leg ulcer clinic weekly and being treated in multilayer compression, this ulcer was reluctant to improve. Indeed, the ulcer area began to increase in size with high levels of exudate and recurrent wound infections. Mrs X became extremely despondent about the lack of healing and alternative systems of compression (Figure 1) were tried to see if this might improve her response. A biopsy of her ulcer was taken which showed no evidence of underlying malignancy and pinch skin grafting was performed as an attempt to accelerate healing. However, despite initial progress, this proved unsuccessful.

In October 2016, Mrs X agreed to trial a new compression device called COMPREFLEX as she had failed to respond to all other treatments. COMPREFLEX is an Adjustable Compression Device (ACD) using velcro straps which offers a highly adjustable compression system allowing wearers to go about their normal way of life without any restrictions to their mobility.
Mrs X continued to attend the clinic weekly allowing photographs and wound measurements to be taken by the leg ulcer nurse specialists. Progress was clear and rapid with her leg ulcer being completely healed within **6 weeks**. Needless to say, she was thrilled and, despite being advised that she could now wear a compression stocking, she wished to continue with her COMPREFLEX as she found this comfortable and easy to apply and remove.

### Cost analysis

**Cost per Week - Treatment, Travel, Nursing** (mid band 6)

- 2 Layer Compression: £19
- 4 Layer Compression: £16
- Hosiery Kit: £10
- Compreflex: £7

**Cost of Treatment for Venous Leg Ulcer**

<table>
<thead>
<tr>
<th>Cost (£)</th>
<th>Alternative Compression Systems (55 weeks)</th>
<th>Compreflex (6 weeks)</th>
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<tbody>
<tr>
<td>£943.99</td>
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### References:


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