A study into the prevention of ulcer recurrence and the effectiveness of the Activa 40mmHg hosiery kit.

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Introduction
Although change should only be instigated because of evidence, costing and quality are also a big consideration. Failing to be cost aware could cost a typical Health Board £350,000 to £1.08 million per year (Moffatt (2006). There are also unquantifiable costs to the patient in the form of reduced quality of life with social isolation having a negative effect on venous leg ulcer patients (Brown 2003).

Background
The purpose of conducting this study was to enable evidence to be produced to help facilitate change, to consider whether quality was being delivered and to enhance patient care. It was evident from the findings of this study that there was an inequality of care for patients in rural areas as specialist care was centralised. There was evidence that guidelines as determined by the Scottish InterCollegiate Guidelines Network (1998) (SIGN) were not being adhered to, and this prompted the study. Large amounts of time, money and effort were being put into healing leg ulcers, but it was identified that no effort or follow-up was being directed towards keeping healed leg ulcer patients ulcer free. It has been stated that long-term treatment of venous hypertension is most effective by the use of compression stockings (Bradley 2003).

The study looks at the effective use of a two layer compression hosiery kit (Activa®), patient concordance and the subsequent change in practice.

Method
Ten patients who were currently receiving treatment or had received treatment in the last five years for venous leg ulceration and who were currently wearing traditional hosiery were interviewed. There were four women and six men aged 49 – 82 years, with six patients being ulcer free, and five actively receiving treatment for up to two years. Two patients had frequent relapses leading to treatment on a mean average of 3 times yearly. Prevalence themes were noted an recorded.

Following initial contact all ten patients were reassessed including Doppler ultrasound and those wearing hosiery were re measured. The hosiery kits were demonstrated at this time, and patients were given the chance to try wearing the stockings. In offering the choice of the hosiery kit, the decision by the patients was evidence-based in the form of a literature review. The patients were monitored weekly for concordance and tolerance, and given the choice to change treatment.

The results were calculated using the t-test for matched samples to establish whether the difference between means of data are sufficiently different to be statistically significant at the 95% confidence level i.e. there is a significant difference between the means at 99% probability or less that indicates that the Activa Hosiery Kit actively reduces venous leg ulcer recurrence. A failing of this data is that there was no placebo group.

Discussion
The four patients who opted for the hosiery kits have had good results, with one lady remaining ulcer free from September 2006 till present, having had five recurrences in the past four years.

Case study 1
A 62 year lady in the study had been in and out of bandages for 10 years to treat and prevent recurrence of venous ulceration. Following healing, when Class 2 compression was applied, the skin would simply breakdown within a month. She could not tolerate or apply Class 3 compression hosiery due to arthritis in her hands. With the kit she can apply her own stockings using an ActiGlide® application aid. She has remained healed to the present day since commencing her hosiery kit regime, which she calls her ‘Magic stockings’.

The second lady who tried the kit due to difficulty in complying with a 4 layer bandage regime for 2 years for ulcer treatment has seen healing take place with the hosiery kit with no recurrence.

A man who had had recurrent cellulitis reported improved results in skin condition after wearing the hosiery, and another reported healing seven days after a four month non healing wound.

Conclusion
The results and the patients’ responses have led to a Patient leaflet being devised giving advice following SIGN guidelines No.26 (1998). The nurses have concluded that compression hosiery kits are new and may be worn for prevention and for active treatment. More investigation needs to be done on their effectiveness, but on initial findings in this instance, they are effective, tolerated and liked by patients who have tried them and anecdotal reports have suggested an improvement to the quality of life of those using them.

References
Bradley L (2003) Practical issues in the proscribing of compression stockings NIMR 31-4