Venous Leg Ulcer Treatment in a New Lower Limb Clinic: A Case Series Utilising a Chitosan Gelling Fibre Dressing*

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Background

Venous leg ulcers (VLUs) are a prevalent hard-to-heal wound type in the UK, posing significant challenges in management due to prolonged healing times, high recurrence rates and associated pain.

In November 2023 to meet the needs of our local population, a **new lower limb clinic** opened at Tessa Jowell Health Centre, Southwark, following consultation with patients, primary care, community services and the Guy's and St Thomas' Tissue Viability team. Following its success a further clinic was opened at the Artesian Health Centre as part of the new service.

This case series examines the benefits of a **chitosan gelling fibre dressing** on seven suitable patients who presented at our clinic.

Methods

A **seven-patient evaluation** was conducted at our lower limb clinics to assess the efficacy of a chitosan dressing in managing **static venous leg ulcers**. Patients were assessed at baseline, followed by weekly assessments over a 4-week period, or until the dressing was no longer required. Outcome measures included wound size (length × width cm) measured by wound ruler, wound bed tissue type percentage and peri-wound skin condition.

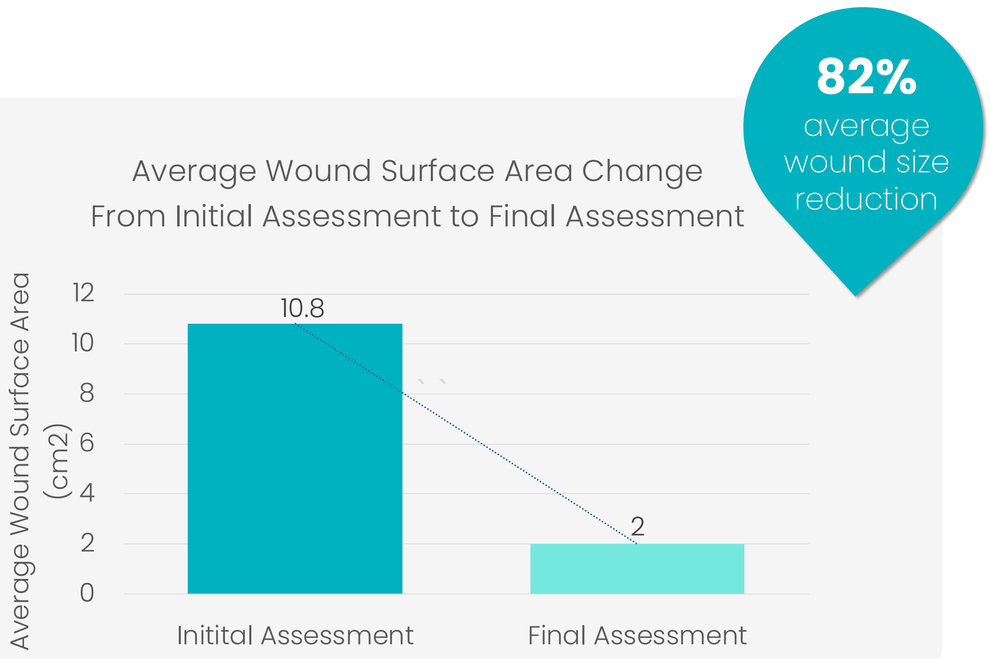
Case Series Results

At **initial assessment**, the status of all wounds was recorded as 'static' with an **average wound duration of 34 weeks**.

Over the evaluation period, the following outcomes were recorded:

- **Wound Size Reduction:** Mean **wound size decreased by 82%** (Fig 1) with notable reductions observed as early as day 7.
- **Autolytic Debridement:** Mean percentage of sloughy tissue decreased from **43% to 9%.**
- **Healthy Tissue Formation:** **Granulation tissue increased to an average of 63%,** indicating substantial progression toward healing. **Epithelial tissue increased from 0% to 29%.**
- **Peri-Wound Skin Improvement:** Healthy peri wound skin conditions were maintained in all patients.
- **Ease of Use:** Clinicians reported easy application and atraumatic removal of the dressing, with no adverse events.

Fig 1



82% average wound size reduction

Case Study: Grace

Who is Grace?

Grace, a busy **63-year-old head chef** and inner-city restaurant owner who spent most of her days on her feet, had been living with bilateral venous leg ulcers for over 10 years.

The wound and its impact

When Grace presented to the clinic, she had a **complex hard to heal venous ulcer** on her right lateral lower leg, **present for three years**.

Despite twice-weekly conservative bandaging, multiple courses of antibiotics, and various antimicrobial dressings (honey, silver, enzyme alginogel), progress had been minimal.

The wound **measured 8.5 x 3.5 cm** with 20% slough, 80% granulation, moderate haemopurulent exudate, and high bioburden. Pain was rated at 6/10, significantly impacting her ability to work and affecting her quality of life. **Grace felt hopeless about recovery.**

Treatment and Results

A chitosan gelling fibre dressing was commenced as a primary dressing to debride slough, reduce bioburden, manage exudate, and support healing. Nutritional support was also initiated as well as compression therapy.

Within 2 weeks a notable improvement in wound bed condition was observed. Grace's **pain had reduced from 6 to 3.**

Within 4 weeks, wound size had **reduced by 97% and was 100% granulating.** Grace was no longer in pain.

Grace has since **returned to work** and described feeling "overwhelmed with happiness" at the outcome.

Scan the QR code or click here to find out more

Conclusions

The use of a chitosan dressing in this case series demonstrated promising results in managing static VLUs. The dressing was easy to use for primary care clinicians who lacked experience in wound care. Significant improvements in wound size and granulation tissue were observed. Alongside clinical improvements, the psychosocial benefit for our patients should also be noted, some of whom were able to return to work, improving their quality of life.

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Ref: Wounds UK (2022) Best Practice Statement: Holistic management of venous leg ulceration (second edition). Wounds UK, London.

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