Adjustable Compression Wraps:
A cost-effective and clinically supported alternative to bandaging for lower limb management

Ashleigh Hardwick - CTAC Staff Nurse - Linkwood Medical

Introduction

Lower limb wounds (LLW) account for 28% of all types of wounds, with venous leg ulcers (VLU) making up 15% of this total (Guest et al., 2020). According to Guest et al. (2020), the National Health Service (NHS) in England managed over 1 million patients with LLWs during the 2017-2018 period. In clinical practice, many patients struggle with non-healing leg ulcers, often due to venous insufficiency and chronic leg oedema. Compression therapy, a lifelong treatment, can be challenging for patients to accept and maintain. This poster will illustrate how the selection of an adjustable compression wrap (ACW) was utilised to facilitate shared care with patients, helping them regain some independence that may have been diminished during their leg ulcer treatment.

Method

Compression bandaging, while effective, presents challenges in terms of application complexity and time consumption for both patients and healthcare providers. Achieving optimal pressure distribution requires specialised skill and training, and improper application may lead to complications. Additionally, frequent clinic visits for reapplication can be burdensome, particularly for patients with mobility limitations or demanding schedules.

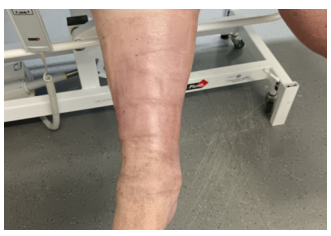
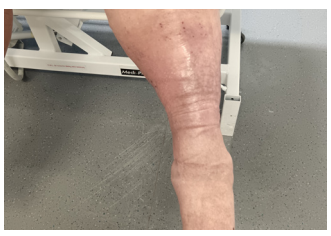
To address these challenges, adjustable compression wraps such as ReadyWrap® were introduced into the clinic as a viable alternative. ReadyWrap® delivers strong compression on average (40-60mmHg), supporting effective management of venous and lymphatic conditions. Its user-friendly design enables patients to self-apply and adjust compression as needed, promoting greater independence and potentially reducing the need for frequent clinical interventions.

ReadyWrap® is available in various configurations including foot, calf, knee, and thigh options allowing for a tailored approach to patient care. Its adaptability and ability to accommodate fluctuations in limb volume make it particularly beneficial for individuals who experience difficulty with traditional compression bandaging or hosiery.

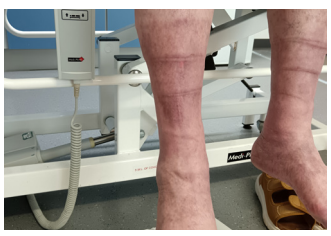

Patient A - Before the use of ReadyWrap®


Patient B - Before the use of ReadyWrap®


Patient C - Before the use of ReadyWrap®

Patient A - Following the use of ReadyWrap®




Patient B - Following the use of ReadyWrap®


Patient C - Following the use of ReadyWrap®

Results

The adoption of ReadyWrap® demonstrated significant clinical, operational, and economic benefits. Among patients who adhered well to the treatment plan, complete wound healing was achieved within two months, with continued compliance playing a key role in long-term maintenance and recurrence prevention. The transition from 2 layer bandaging kits* to ReadyWrap® has streamlined the management of complex cases, reducing application time and enabling healthcare providers to treat more patients efficiently. This shift has also resulted in substantial cost savings, with an annual reduction of £1,517.12 per patient compared to 2 layer bandaging kits* excluding further savings from reduced nursing hours. These efficiencies have facilitated more strategic resource allocation within the local healthcare system.

Beyond economic value, ReadyWrap® has supported continuous professional development within the district nursing teams, ensuring clinicians remain current with advancements in wound care and compression therapy. Its implementation has also fostered improved collaboration among nursing staff, promoting a unified and knowledge-sharing work environment that ultimately enhances patient care. Additionally, ReadyWrap® has contributed to a reduction in clinical waste, aligning with broader sustainability objectives and reinforcing an environmentally responsible approach to healthcare delivery.

Discussion

Initially, numerous patients with lower limb disease require compression bandaging to manage their condition effectively. This treatment often necessitates frequent nursing input, typically two to three times per week. This intensive schedule can be particularly problematic for younger, employed patients who struggle to balance these frequent appointments with their work commitments. When lower limb oedema and exudate levels have reduced, adjustable compression wraps can be introduced as a more independent, self-empowering garment. These devices enable patients to apply and adjust compression themselves, improving independence and reducing the need for frequent clinical visits.

Conclusion

Adjusting to compression therapy as a long-term solution can be difficult for many individuals to embrace. As a nurse, I aim to assist and support patients during this transition, helping them adapt to their new lifestyle as seamlessly as possible. I have built a professional relationship grounded in trust and nurtured through consistent care, support, education, and positive clinical results. As a healthcare professional, guiding patients through their treatment journey is paramount. Nurses play a vital role in facilitating a smooth transition to the patient's "new normal" while ensuring adherence to essential compression therapy. This support is crucial for optimal recovery and long-term well-being, empowering patients to adapt to lifestyle changes with confidence and resilience. The introduction of ready-to-wear compression wraps has revolutionised our approach, enabling a shift towards shared care and promoting patient independence. The ReadyWrap® system not only reduces direct material costs but also potentially decreases the frequency of clinical visits. Furthermore, ReadyWrap® garments offer additional benefits such as easier application, improved patient self-management, and potential reductions in associated healthcare costs such as dressing changes and treatment of complications.

References:

Guest, J. F., Fuller, G. W., Vowden, P. (2020) Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: update from 2012/2013. BMJ Open. 22;10(12):e045253. Available at: doi: 10.1136/bmjopen-2020-045253. PMID: 33371051; PMCID: PMC7757484.

Presented at Wound Care Today, Telford International Centre, March 2024

*UrgoK2® (UrgoK2® is a registered trade mark of Urgo Ltd)

Poster production supported by L&R Medical UK