Improved Patient Outcomes for Patients with Leg Ulcers in Primary Care

NHS
The Dudley Group
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Introduction

National Health Service (NHS) RightCare introduced the fictional patient 'Betty' more than 7 years ago, to highlight the differences between a suboptimal and the optimal treatment pathway for a patient with a leg ulcer[1]. Often within general practice only simple wound care is part of a practice nurses patient provision, with more complicated wounds, such as leg ulcers, being referred onto an ambulatory clinic or leg ulcer service (LUS), depending on local provision.

More recently the National Wound Care Strategy published recommendations for the treatment of lower limb ulcers focusing on immediate and necessary care[2].

As a result of these recommendations the leg ulcer service lead within Dudley updated their existing evidence-based leg ulcer pathway to include initiation of immediate evidence-based care for leg ulcer patients by practice nurses.

Method:

The Trust's existing leg ulcer pathway, which was followed by the leg ulcer service and some district nurse bases, was restructured to allow for immediate and necessary care of up to 20mmHg of compression for all clinicians delivering wound care across the trust. This signified that in the absence of the red flags:

- **i.** acute infection (e.g., increasing unilateral erythema, swelling, pain, pus, heat)
- **ii.** symptoms of sepsis
- **iii.** acute or suspected chronic limb threatening ischaemia
- **iv.** suspected acute deep vein thrombosis (DVT)
- **v.** suspected skin cancer
- **vi.** bleeding varicose veins

Practice nurses would now be able to apply **Altiform** compression hosiery or **Altipress** liners ≤20mmHg for all patients with signs of chronic venous insufficiency, with or without an active leg ulcer (*Figure 1*).

Following implementation, although the practice nurses continued to refer all leg ulcer patients to the local leg ulcer service, patients were now able to receive appropriate timely treatment from their initial appointment whilst on the waiting list for the full vascular assessment.

Results

As this was new to the Trust, few practice nurses were sufficiently confident to implement this immediate and necessary care, resulting in all leg ulcer patient data being collected from a single GP practice and totalling 50 patients. Data included the referral date to the leg ulcer service and whether the leg ulcer pathway had been followed (applying compression hosiery and **UrgoStart Plus Border**[3] as initial local treatment).

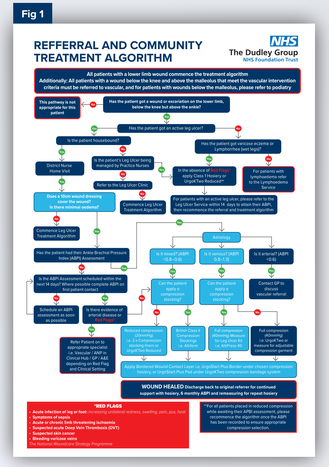
The leg ulcer service (LUS) provided the date that the service completed the full vascular assessment during the patient's first appointment and the presentation of the wound for each patient.

Prior to implementation of the updated leg ulcer pathway, the waiting times for a patient from practice nurse referral to their first LUS appointment in 2023 was a mean waiting time of 85 days (median waiting time of 65 days) versus a mean waiting time of 44 days (median waiting time of 21 days) in 2024.

For the 50 patients:

- 38 patients met the criteria and were commenced on the pathway
- 3 were prescribed hosiery following vascular intervention
- 9 patients were not suitable (for various reasons, including non-concordance).

Fig 1



From the 38 patients who were initiated by the practice nurses, 20 (53%) healed without intervention from the LUS or other specialists (*Figure 2*).

From the remaining patients who needed additional specialist input, 14 patients healed very quickly (varying between 1-8 weeks) within the LUS and 4 remain under their care (*Figure 3*).

For the residual 12 patients, 5 were considered non-concordant, 5 have been referred and remain in the care of other specialist services, 1 is hospitalised and 1 deceased (*Figure 4*).

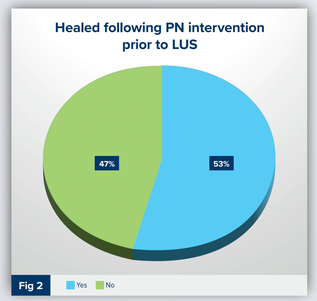


Fig 2

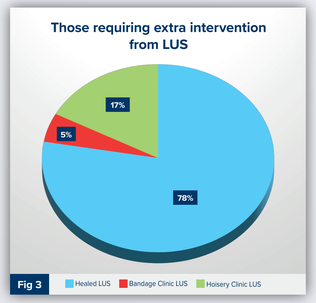


Fig 3

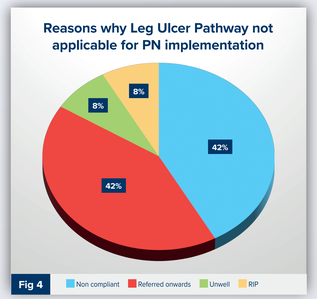


Fig 4

Discussion

Collection of data from the primary care setting is a manual and slow process, therefore current data only captures the leg ulcer patients that the practice nurses have referred to the LUS. It is not currently possible to determine the more specific time-to-healing for those patients that had healed before their first LUS appointment, as even their waiting list time for this does not provide an indication of the precise wound healing date. Some patients still attended their LUS appointment for the full vascular assessment including an Ankle Brachial Pressure Index (ABPI), whether or not their wound had healed, allowing maintenance compression hosiery to be continued.

Case study 1:

An 88 year old, female patient with a past medical history of AF, HF, CKD3, Type 2 Diabetes and Hypertension, sustained a traumatic wound to her left malleolus in the garden. The patient presented to her General Practitioner (GP) the next day and the wound measured 2cm x 2cm. A practice nurse appointment was arranged within 5 days where advice was sought from the Trust's heart failure team to ensure that the patient was suitable for class 1 compression hosiery due to her heart failure diagnosis. On receipt of confirmation the PN's commenced treatment as defined within the Trust's Leg Ulcer Pathway (*Figure 1*). On day 37 post injury **UrgoStart Plus Border** was applied and measurements taken for class 1 compression hosiery. **Altiform** was applied on day 48 and the lady's wound achieved full healing at day 78 from injury. The LUS referral was retracted and the patient discharged from PN care but remains in **Altiform** compression hosiery for maintenance treatment. **Treatment initiation to healed ulcer 41 days.**

Case Study 2:

An 82 female was a past medical history of asthma and spinal stenosis sustained a traumatic wound to her left medial area of leg by a brick falling on it. Although this occurred in June, the lady was trying to treat this wound at home for a 6-week period prior to arranging a GP appointment. The appointment at day 42 post injury, was with both her GP and the PN and the wound measured 3cm x 2cm. The leg ulcer pathway was commenced, **UrgoStart Plus Border** treatment initiated and limb measurements taken. **Altiform** compression hosiery was applied at day 53 and full healing was achieved at 67 days from injury. **Treatment initiation to healed ulcer 25 days.**

Both these case studies have demonstrated that with immediate and necessary evidenced-based care, a venous leg ulcer can achieve full healing within a timely manner, even with patients with multiple co-morbidities.

Conclusion

Within one GP practice 50% of patients healed following the immediate and necessary care pathway, including initiation of compression hosiery and **UrgoStart Plus Border**, in advance of attending a specialist leg ulcer service. The revised leg ulcer pathway has led to improved patient outcomes and has the potential to positively impact the overall leg ulcer patient caseload as well as reduce the financial burden of wound care for the NHS.

References:

1 NHS RightCare scenario: The variation between sub-optimal and optimal pathways (Jan 20217)
2 National Wound Care Strategy Programme: (2024) Recommendations for Leg Ulcers. Reviewed: July 2024.
3 https://www.nice.org.uk/guidance/mtg42

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