

Transforming venous leg ulcer management: opportunities for self-care solutions

KEY WORDS

- » Improving outcomes
- » Patient engagement
- » Self-care solutions
- » Service transformation
- » Venous leg ulcers

Abstract: Venous leg ulcers (VLU) have a significant impact on patients and on our healthcare systems. Exploring opportunities for people to be involved in their VLU management can potentially lead to transformation in the way care is delivered, resulting in improved outcomes and greater patient satisfaction. This paper discusses the rationale for promoting self-care in VLU management and outlines a simplified pathway approach to care using foam dressings and compression hosiery and kits.

In recent years the NHS vision has highlighted the need to engage people in their care and to promote opportunities for supported self-management, working in a way that takes individual needs and preferences into a consideration. The five year forward view (NHS, 2017a) and the NHS long term plan (NHS England, 2019) outline the need for a change in the relationship between people and the NHS. The ambition is for the NHS to become better at helping people to manage their own health — ‘staying healthy, making informed choices of treatment, managing conditions and avoiding complications’ (NHS, 2019).

National surveys tell us that over 40% of people want to be more involved in decisions about their care. Similarly, 40% of people living with long-term conditions want more support to manage their health and wellbeing on a day-to-day basis (GP survey, 2016). NHS England’s Patient and Public Participation Policy (2017b) sets out its ambition to put patients and the public at the heart of everything it does, and encourages patients to be involved in the planning and delivery of their care.

Globally, there is support for integrated people-centred health services, which means putting people and communities, not diseases, at the centre of health systems and empowering people to take charge of their own health, rather than being passive recipients of services (WHO, 2015).

This paper highlights the rationale for exploring opportunities for self-care in patients who suffer

from venous leg ulcers (VLU), and provides case study examples of the use of a simple VLU pathway that promotes this approach in clinical practice.

Evidence tells us that supporting people to be actively involved in their care and treatment can improve outcomes and experience of care, and potentially yield efficiency savings for our healthcare systems (Bell et al, 2016). When people are supported to manage their health this can lead to improvements in both clinical and humanistic outcomes (humanistic outcomes are consequences of disease e.g. wounds or treatment on patient functional status or quality of life), thereby reducing the economic impact of chronic diseases and contributing to sustainability of healthcare systems (Dineen-Griffin et al, 2019). Interventions to encourage self-care, such as the Expert Patient Programme, help patients to manage conditions such as diabetes with minimal dependence on health professionals is appropriate for some patients and highly successful (Kennedy et al, 2007; Zwerink, 2014). In the area of wound care we are seeing models of care that promote patient engagement and independence, particularly in relation to VLU management and compression therapy during the COVID-19 pandemic (Legs Matter, 2020), which can have positive benefits for patients. Self-care can be an acceptable approach from the patient’s perspective and has been shown to have quality-of-life gains that might otherwise

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Box 1. Best practice recommendations (taken from Wounds UK, 2016)

- » Self-care should be encouraged but not forced
- » Patients must be willing and able to be involved, depending on skill level, mobility and dexterity
- » Patients should be prescribed a compression system that fits both their clinical and personal needs
- » Family and carer involvement should also be taken into account
- » Flexible healthcare solutions may be required, e.g. different levels of compression
- » Patients should be provided with information and red flags for when to seek medical help

be unachievable (Kapp and Santamaria, 2020). Patients in this study reported enhanced physical and emotional wellbeing when self treating their wounds, and this approach helped them to maintain lifestyle activities.

Person-centred care supports people to develop the knowledge, skills and confidence they need to effectively manage and make informed decisions about their own health and care. From a wound care perspective, patient involvement in assessment, management and prevention tends to be limited, as this aspect of care has been largely viewed as the domain of the trained health professional (Moore, 2016). However, evidence suggests that when patients are involved in their healthcare this improves their experience and satisfaction, and yields enhanced clinical and economic benefits (Coulter et al, 2008; Bell et al, 2016).

A common source of patient dissatisfaction is not feeling properly informed about and/or

involved in, their treatment. Shared decision-making, where patients are involved as active partners with the health professional in treatment decisions, is recommended as an effective way to tackle this problem. Health professionals and patients work together as active partners to determine acceptable medical options and choose appropriate treatments. While not all patients want to play an active role in choosing a treatment – because of age-related and cultural differences – most want clinicians to inform them and take their preferences into account.

VLU recurrence is common and many patients will develop at least three or more VLUs during their lifetime, resulting in pain and reduced quality of life (Nelson and Bell-Syer, 2014). Not all patients receive the correct preventative care to reduce recurrence or have the opportunity to be involved in their care (Dowsett, 2011). Evidence (Guest et al, 2018; Gray et al, 2018; EWMA, 2016) suggests that patients with VLUs do not always receive effective, efficient and equitable care, resulting in prolonged ulceration, which impacts negatively on their quality of life. A cross-sectional survey of 3179 patients with complex wounds in the community found that 19% of people with leg ulcers either had not received the recommended assessment of ankle brachial pressure index or it was unclear whether a recording had been taken. In addition, 31% who had a VLU were not receiving compression therapy (Gray et al, 2018). There are many reasons why this may be the case, such as a reduction in workforce and resources, but to address the problem VLU care needs to be simplified by using technologies that support self-care and facilitate shared care.

The recent COVID-19 global pandemic has led to a review of the way wound care/tissue viability services provide care for patients with wounds including VLUs. In our local area, health professionals have been exploring opportunities for self-care to reduce the number of patients having to come to clinic, as many of these patients are older with underlying medical conditions, putting them at high risk of complications associated with COVID-19.

It is important when exploring opportunities for supported self-care to consider the complexity of the patient, their individual circumstances and the complexity of their leg ulcer. Patients need to

Table 1. Simple and complex venous leg ulcers

| Simple venous leg ulcers | Complex venous leg ulcers |
|-------------------------------------|---|
| APBI 0.8–1.3 | APBI outside of 0.8–1.3 |
| Wounds <100cm ² | Wound >100cm ² |
| Present for <6 months | Present for >6 months |
| Expected to heal in 12 weeks | Current or recurrent infection |
| Size reduction by 20–40% in 4 weeks | Controlled/uncontrolled cardiac failure |
| | Non-concordance |
| | Fixed ankle or foot deformity |
| | Non-healing by 20–40% at 4 weeks |

Case 1

- ▶▶ A 20-year-old female with a family history of leg ulcers. She had her first ulcer at the age 16
- ▶▶ Full leg ulcer assessment & ABPI measurement: ABPI = 1.1 both legs, ulcer size 1.2cm x 0.8cm, exudate levels low, no evidence of infection
- ▶▶ Diagnosis: Venous leg ulcer - simple

PLAN OF CARE

- ▶▶ Vascular referral for venous investigations
- ▶▶ Assessed and agreed to self-care model
- ▶▶ Biatain silicone foam dressing (Coloplast)
- ▶▶ Pain control – pain score 5 (on a visual analogue scale of 1–10)
- ▶▶ Compression hosiery
- ▶▶ Education on self-care
- ▶▶ Virtual follow-up appointments

OUTCOME

- ▶▶ Week 1: successfully self-caring, pain score reduced to 3
- ▶▶ Week 3. Wound healed. Prevention pathway of care
- ▶▶ Patient satisfaction 10 (on a scale of 1–10)

▶▶ All images were taken at the initial assessment



have the mental capacity to make the decision to self-care, and have the ability or availability of a carer to apply the recommended dressings and compression therapy devices. Best practice recommendations suggest that a comprehensive patient assessment should take into consideration the following checklist factors when considering self-care solutions (*Box 1*; Wounds UK, 2016).

Pathways of care, such as simple and complex VLU pathways (*Table 1*; Harding et al, 2015), can be useful as a guide to decide which patients may be suitable to manage their own VLU or to engage in a self-care approach based on the complexity of the ulcer. Patients with simple VLUs, without significant oedema in their legs, can successfully

be managed with silicone foam dressings and compression hosiery, hosiery kits and wraps if they are willing to engage in self-care and have the ability and dexterity to apply their compression.

When patients are suitable and willing to be involved in their care, clinicians need to ensure they provide patients with the knowledge, skills and choice of treatments available to them. Developing a therapeutic relationship with the patient and having open dialogue that explores the choices available for self-care are essential for success. Evidence suggests that it is this effective clinician-patient relationship that helps to maintain patient adherence with treatment, especially compression therapy that results in effective

healing (Stanton et al, 2016). Leg ulcer care self-care programmes have been developed in some areas that encourage patients to perform activities to minimise recurrence, such as wearing compression hosiery, leg elevation, ankle exercises and moderate exercise such as walking (Dowsett, 2012; Brown, 2013). This model can be extended to support patients with active leg ulcers to self-manage. A recent shared-care pilot study (McDonald et al, 2020) found that 50% of all new patients assessed in a community setting with wounds were eligible for a self-care pathway. Implementation of the pathway helped in reducing the amount of time district nurses spend caring for patients with wounds, freeing up time to care on other activities.

Technological advances in compression therapy and dressings allow for a wider selection of dressings, compression therapy garments and devices for patients to choose from that offer a solution to support self-care. Silicone foam dressings are easy for patients to apply and remove and prevent exudate leaking and associated maceration and discomfort (Dowsett et al, 2020). Compression hosiery kits and wraps allow the patient to apply their own compression and may be more acceptable to the patient than bandages, as they allow patient to wear their own footwear and have a greater degree of ankle mobility (Bianchi et al, 2013). Evidence suggests that patients are more likely to comply with

Case 2

- ▶ A 53-year-old male with a history of diabetes and arthritis. Recurrent ulcer on his right leg— unable to work as a result of pain and attending dressing clinic
- ▶ Full leg ulcer assessment & ABPI measurement: ABPI 0.98 and 1.0, ulcer size 2cm x 1.5cm, exudate level low, no evidence of infection
- ▶ Diagnosis: Venous leg ulcer – simple

PLAN OF CARE

- ▶ Diabetes control
- ▶ Assessed and agreed to shared/self-care model
- ▶ Pain control – pain score 7 (on a visual analogue scale of 1–10)
- ▶ Biatain silicone foam dressing (Coloplast)
- ▶ Compression hosiery kit
- ▶ Education on self-care
- ▶ Virtual follow-up appointment

OUTCOME

- ▶ Week 1: Successfully self-caring, no reported pain, returned to work
- ▶ Week 4: Wound healed, prevention pathway of care implemented
- ▶ Patient satisfaction 10 (on a scale of 1–10)

- ▶ All images were taken at the initial assessment



compression therapy that is easy to use and reduces pain and discomfort (Dowsett, 2011).

A structured treatment pathway should be used in the management of all VLUs (National Wound Care Strategy Programme (Atkin and Tickle, 2016; Wounds UK, 2016; National Wound Care Strategy Programme [NWCSP], 2020), to aid diagnosis and ensure selection of the most appropriate treatment. The lower limb recommendations for clinical care (NWCSP, 2020) seeks to reduce unwarranted variation in care and reduce patient suffering as a result of inappropriate and ineffective treatments. It is suggested that, where possible, people with leg wounds should be encouraged to self-care with support.

As part of a service development initiative in our Trust, to encourage self-care for patients with VLUs, the simple VLU pathway (Harding et al, 2015) has been introduced in the leg ulcer service and patients on this pathway have been able to self-care with the use of silicone foam dressings and compression hosiery or hosiery kits. *Case 1* and *Case 2* provide practical examples where the pathway has been used in practice. This service development has been well evaluated by patients who welcome the opportunity to be involved in their care and by clinicians who are now able to see more patients with lower limb wounds due to increased clinic appointments. Further evaluation of the impact on patients and service delivery is ongoing.

CONCLUSIONS

Supporting patients to manage their health can lead to improvements in both clinical and humanistic outcomes, reducing the economic impact of chronic diseases and contributing to sustainability of healthcare systems. Where possible, people with lower limb wounds should be encouraged to self-care with support as recommended by the NWCSP. Self-care models have the potential to benefit wound care patients by enhancing their physical and emotional wellbeing, allowing them to maintain their lifestyle activities. Not all patients will be willing or able to engage in self-care and the success of this approach relies on detailed patient, and wound assessment and active engagement

and empowerment of patients. Transforming VLU management requires us to do something different, and exploring opportunities for self-care has the potential to improve outcomes for both patients and service delivery. Further research is needed to understand the best approach from a patient perspective and the longer term gains that can potentially be achieved when we actively work with patients to share care or promote self-care in the management of lower limb wounds. WUK

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