Managing venous leg ulceration: variance and variety

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British Journal of Community Nursing

DOI:
10.12968/bjcn.2024.29.Sup6.S24

Published: 01/06/2024

Peer reviewed version

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Declarations of interest none. Funding None.

Managing Venous Leg Ulceration. Variance and Variety.

Key Points:

Community nurses provide the majority of venous leg ulcer care.

Frameworks and guidance documents have been developed to assist with venous leg ulcer care.

Evidence based care for patients with venous leg ulcers is important and while frameworks seek to assist these frameworks also have differences in care required for venous leg ulcers which can conflict.

Key Concepts:

Frameworks of care have been developed to enhance and standardise care for those with venous leg ulcers (VLU). This article seeks to outline and discuss some variations and differing information provided within the body of evidence related to care of VLU's. An important aspect of this work is to recognise that community nurses are faced with an array of frameworks and guidance documents on which to base their care. This article seeks to discuss the differences in advice and to highlight the myriad of nuanced advice surrounding care and management. This work is based on the findings of an ongoing study related to a PhD thesis.

Background

Nationally and internationally venous leg ulcers (VLU) and their care are a burden to the health services and to the caring community (Guest 2015). Salim et al. (2021) found that almost 2% of budgets for healthcare services in western societies are used caring for leg ulcers, which is a considerable portion of cost burden to health services. Guest et al. (2018) found that the cost of managing a VLU was 4 estimated to be £76000 per VLU but that the cost of managing an unhealed VLU was 4.5 times greater. Reflecting a sizeable portion of healthcare costs channelled into care of VLU's.

Perry et al. (2022) found that the burden of caring for those with VLU's falls largely to the community nurse and community nursing services. The rising incidence in older adults in the UK whose median age of death is now 86.7% and in Wales 84.6 (Office for National Statistics 2024). Longer life expectancy means older adults are the prime users of community nursing services in terms of care for VLU's (Green et al. 2018). Mayrovitz et al. (2023) found age is a comorbid factor for the development of vascular disease and Bernatchez et al. (2022) states most care for patients with VLU's in the UK occurs in the community and is carried out by community and district nurses. Consequently, frameworks to guide care in community settings are required to support nurses to guide care and to improve patient outcomes.

Ingleby (2023) found guidance has been produced over time to support care of VLU's in the form of guidelines and frameworks. Despite VLU care guidance, research such as Guest et al. (2018) have found care related to VLU's suboptimal. Guest et al. (2018) discovered that VLU's were poorly documented, wounds left unassessed and there was inconsistent use of dressings. Additionally, while these findings are indisputable, it is important to recognise that community nurses are faced with navigating a considerable evidence base to provide evidence-based care for those with a VLU. The sheer number of frameworks available needs to be acknowledged as do differences in frameworks. This may account for some of the findings in care of those by those caring for patients with VLU's.

Frameworks for care and differences in leg ulcer definition

Ingleby (2023) found there are many guidance and framework documents community nurses can use to support their care of those with a VLU. In Table 1 a selection of guidance documents available to community nurses to guide care can be found. The differences between definitions of a venous leg ulcer over time and across frameworks are presented. Highlighting the differences and changes of leg ulcer definition from framework to framework and over time. While Table 1 does not present all guidance, it does reflect a cross section of guidance that can be used by community nurses to

support VLU care. It includes its early forms of guidance on definition of a VLU to National Wound Care Strategy Programme Leg ulcer recommendations (2023).

Guidance	Definition
Royal College of Nursing 1998 Clinical Practice Guidelines for the Management of Patients with Venous Leg Ulcers: recommendations for assessment, Compression Training/Education and Quality Assurance.	'A loss of skin below the knee on the leg or foot which take more than six weeks to heal'
Scottish Intercollegiate Guidelines Network (SIGN 2010) Management of chronic venous leg ulcers. A national clinical guideline	'An open lesion between the knee and the ankle joint that remains unhealed for at least four weeks and occurs in the presence of venous disease.'
National Institute for Health and Care Excellence Guideline on Leg Ulcer- Venous (2013)	"A leg ulcer is defined as the loss of skin below the knee on the leg or foot which takes more than 2 weeks to heal."
Harding et al. (2015) Challenging passivity in venous leg ulcer care – The ABC model of management. (2015)	"Gaiter region of the leg; most commonly around the medial malleolus"
Wounds UK (2015) BEST PRACTICE STATEMENT HOLISTIC MANAGEMENT OF VENOUS LEG ULCERATION	A VLU is defi ned as an open lesion between the knee and the ankle joint that occurs in the presence of venous disease and takes more than two weeks to heal (NICE, 2013).
Franks et al. (2016) Management of Patients with Venous Leg Ulcers. Challenges and Current Best Practice	"It is generally held that VLUs are a defect in the dermis located on the lower leg"
Kelechi et al. (2020) Guideline for Management of Wounds in Patients with Lower-Extremity Venous Disease (LEVD): An Executive Summary	"Venous leg ulcers are open skin lesions, generally appearing around the gaiter area (between the ankle and the calf muscle) of the lower leg near the malleoli, in areas affected by venous insufficiency."
National Wound Care Strategy Programme's (NWSCP) (2020a) Lower limb recommendations	"An open lesion between the knee and ankle joint that remains unhealed for at least 2 to 4 weeks."
National Wound Care Strategy Programme. Leg ulcer recommendations. (2023)	"Leg ulcers are ulcers on the lower leg (originating on or above the malleolus and below the knee) that have not healed within 2 weeks"

Table 1

Gerrish and Cooke (2013) stated that the availability of evidence to nurses used to inform diagnosis, depends on the organisation for whom they work and the resources that are provided by them. This can limit availability of evidence to community nurses on which to base their diagnosis and care. Pereira et al. (2018) found evidence-based practice as a concept has been widely documented, institutions have been slower in adopting this approach. This may result in variations in diagnosis depending on the guidance available to the community nurse and institutional resources for evidence-based practice. A community nurse using a definition of a VLU from Franks et al. (2016) would be correct diagnosis, while another nurse may use a different definition and may have a different source of evidence locally available to them. Additionally, Table 1 demonstrates the varied frameworks available to community nurses that can be used to diagnose a wound on a lower limb is a VLU. Given the range and variety of definitions from guidance discrepancies will exist in definition used by those managing VLU's until a national or international agreed definition is reached.

Variety of Frameworks available

The existence of multiple frameworks and guidance to guide care are excellent resources and a summary of those examined are in Table 1. These national and international frameworks while seeking to clarify, they do contain variations in care and directions for care. Di et al. (2016) found that organisations such as Cochrane contain differences in their recommendations to others. Examining one of the foremost organisations for the UK, the National Institute for Health, and Care Excellence (NICE) is one such organisation where incongruence occurs, as well as National Wound Care Strategy Programme (2020).

NICE can be seen as a leading source of governance information and up to date policies that nurses may use to inform care. Additionally NICE provides quality standards and guidance in the management of conditions. NICE (2024) has 33 evidence sources that support the developed guidance. Review of the sources supporting NICE guidance indicates the Scottish Intercollegiate Guidelines Network (SIGN 2010) guidance document on the management of chronic VLU's. National Wound Care Strategy Programme (2020a) also directs the reader to SIGN (2010) in its directions on how to care for a VLU. SIGN (2010) guidance is no longer available to those using this resource, having been removed by SIGN for updating in 2024/25. Incongruencies in guidance such as this may not be apparent to those using the guidance however, it is not unreasonable to expect that a major source of clinical information would use current evidence to support guidance for care of those with a VLU.

Gray et al. (2019) found that community nurses may utilise findings of guidance if related especially to their organisation, and additionally that care is given on what the nurses feel they know. Consequently, if a nurse is conversant with one framework and another familiar with another natural

variances will occur in care provided even in the same area. Weller et at. (2020) found that some community nurses were unaware of specific guidance and that accessing guidance was challenging and so would utilise other sources. If frameworks are to be used to direct care and increasing outcomes, guidance needs to be readily accessible to inform and guide care.

Variances of aspects of care in frameworks.

If community nurses are to care for patients uniformly, care should be standardised to increase outcome. Bruwer et al. (2023) found that variances in guidance for care exist and that elements of them are essential however the variations do not allow for the best care to be given to patients. Table 2 indicates some of the variations in the guidance on wound biopsy, Ankle Brachial Pressure Index (ABPI) at diagnosis, wound measurement and rechecking the ABPI during management.

Framework	Biopsy	ABPI at Diagnosis	Measurement of wound	ABPI ongoing in management
National Institute for Health and Care Excellence (2013)	Directs nurses to refer patient to a vascular specialist or dermatologist (depending on clinical judgement)	"Arrange a Doppler assessment of both legs to determine the API."	"Assess the size of the wound at first presentation and regularly thereafter."	"There is no consensus among guidelines on frequency of repeat ABPI. In practice, the frequency will be guided by local availability and resources."
Harding et al. (2015) Challenging passivity in venous leg ulcer care – The ABC model of management	"Wound biopsy for delayed wound healing or unusual appearance"	"Evaluation of the peripheral arterial circulation of the lower limbs, including ABPI, is an essential step in the decision-making process involved in the use of compression therapy."	No requirement to measure the VLU.	No advice given
Wounds UK (2015) BEST PRACTICE STATEMENT: HOLISTIC MANAGEMENT OF VENOUS LEG ULCERATION	Biopsy "unusual appearance" in accordance with Harding et al. (2015)	ABPI is not intended to diagnose venous disease. Measuring ABPI provides an assessment of the patient's peripheral arterial system.	"Local guidance should be followed in assessing and recording wounds for size."	"ABPI assessment should be completed at 3-, 6- or 12-month intervals, depending on initial and ongoing assessment outcomes, cardiovascular risk profile, patient needs, or

				according to local guidelines."
Franks et al. (2016) Management of Patients with Venous Leg Ulcers. Challenges and Current Best Practice	"Biopsy of the wound is recommended for atypical ulcers or those that are not responding to therapy."	"All patients must have an ankle brachial. pressure index (ABPI) completed as part of the assessment process and before commencement of compression therapy.	"…wound measurement is advocated…"	"There is no consensus on the frequency of repeat ABPI measurement".
Kelechi et al. (2020) Guideline for Management of Wounds in Patients with Lower-Extremity Venous Disease (LEVD): An Executive Summary	"Biopsy or Levine quantitative swab technique when clinical symptoms of infection are present, or if biofilm is suspected due to wound deterioration or lack of healing."	"Screen patients for arterial disease with a Doppler measurement of the ABI by suitably trained staff prior to the use of compression."	"Measure the percentage change in ulcer area to assess healing."	"Recheck the ABI periodically (every 3 months) for patients with nonhealing, lower-extremity ulcers."
National Wound Care Strategy Programme's (NWSCP) (2020a) Lower limb recommendations	No specific advice provided.	"Vascular assessment of arterial supply should be undertaken by using Doppler to measure the ankle brachial pressure index (ABPI) or other evidence-informed methods. A venous duplex scan is considered a gold standard form of assessment for patients with lower leg wounds so should also be part of assessment, where possible."	"Wound assessment documented using wound minimum data set."	No re-check ABPI requirement.
National Wound Care Strategy Programme. Leg ulcer recommendations. (2023)	No specific advice provided.	"Peripheral vascular assessment (ABPI and/or TPI using manual APBI measurement devices."	"Record image(s) of wound using digital imaging"	No guidance provided.

Table 2

It can be seen from Table 2 that variations in recommendations on the selected components of VLU care differ. Community nurses using frameworks to guide and manage care would be implementing

correct care based upon Harding et.al. (2015) in not measuring a VLU. Still, Guest et al. (2018) found that the size of leg wounds was inconsistently recorded in patient records when examining VLU management in the UK. Yet, community nurses managing VLU's may not have been using a framework that advised wound measurement and therefore, care would be classed as evidence based and correct according to the Code: Professional Standards of Practice and Behaviour for Nurses, Midwives, and Nursing Associates, hereafter referred to as the Code (Nursing & Midwifery Council [NMC], 2018).

Additionally, by comparing frameworks it is demonstrated that there is a lack of homogenous consensus on similar care elements nationally and internationally. Guidance provided is nonspecific, such as National Wound Care Strategy Programme Leg ulcer recommendations (2023) which guides users to use digital imaging. This provides no specific information of when and how often wounds should be imaged, nor is it clear that this is in association with measuring the wound. It is left to the reader to interpret the meaning and therefore, disparities in care may arise through no fault of the nurse using the guidance.

UK wide consensus is required to enable standardised agreed care pathways that those managing VLU's can utilise. Arguably doing this may alleviate some of the discrepancies in management that are seen and surfaced in the existing evidence base. If this occurred, then it would be possible to scrutinise care delivery and elements of care for patients with VLU's. Additionally, frameworks often the use of the term national within the UK is centred on England such as NWCSP (2023) and forgo the rest of the UK nations. A commonality of all the guidance is that education of the nurse to manage a VLU is paramount.

Education and management of VLU's

Guest et. al (2018), Davies et al. (2018) and Atkin and Clothier (2023) agreed there is a lack of assessment to inform, diagnose and manage VLU's. Using the frameworks from Table 1 it has not been possible to identify any recommendations for what this education should consist of. Neither do the recommendations outline duration of education or what it should contain. Table 3 provides each of the included guidance documents about education for those managing VLU's. While education is a common theme, the term education remains woolly and unrefined. This lack of definition leaves the realm of education to inform those managing leg ulcers with no direction on length or content of course and with no direction as to who should provide the education.

Document	Statement on Education

Harding et al. (2015) Challenging passivity in venous leg ulcer care – The ABC model of management	"… appropriate training in leg ulcer management"
Franks et al. (2016) Management of Patients with Venous Leg Ulcers. Challenges and Current Best Practice	"…requires improved education and improved training in wound care to lead to better wound care outcomes for patients". "post-basic education and training is recommended…community care staff have sufficient education"
Kelechi et al. (2020) Guideline for Management of Wounds in Patients with Lower-Extremity Venous Disease (LEVD): An Executive Summary	"Develop dissemination and implementation tools tailored to key stakeholders: education/training"
National Wound Care Strategy Programme's (NWSCP) (2020a) Lower limb recommendations	"Appropriate education for that workforce"
National Institute for Health and Care Excellence (2023) Overview of management of a person with a venous leg ulcer	"Compression therapy should be applied by a healthcare professional trained in venous ulcer management (such as a district nurse or tissue viability nurse)."
National Wound Care Strategy Programme: (2023) *Recommendations for Leg Ulcers*	"Appropriate education for that workforce"

Table 3

Searching for education on VLU management returned 370,000 results using one search engine alone. Among them Higher Education Institution (HEI) advertise courses of varying length from standalone modules to whole master's programmes. Aside from HEI's there are a range of online courses provision from NHS England Wound Care Education for the Health and Care Workforce, courses provided by wound care companies and YouTube content. Given that there is no agreed definition of what education for the management of VLU's is or should contain it could be considered that any of these would qualify as education.

The National Wound Care Strategy Programme (NWCSP 2023) advised their recommendations are a framework for the development of local appropriate education for those caring for those with VLU's. This opens the education realm to locally held study days within Health Boards and Trusts across the UK. Again, while all the provision for education is ill defined and UK nations consensus unresolved, it may not be possible to reach the goals set by the All-Party Parliamentary Group on Vascular and Venous Disease (2023) and other publications calling for a reduction in the burden of VLU's to the economy, patient, and nursing services.

Conclusion

Variances in definitions of VLU's and in aspects of diagnosis, assessment, and management, coupled with vague recommendations for education needs to be recognised as an issue for those using frameworks on which to base care. Community nurses are required to navigate all of this to provide daily care for patients in pressured services. These variations contribute to variations in care and that there is a lack of national and international consensus and direction. Ill-defined terms such a local appropriate education leave education open to interpretation. While education remains undefined

so will levels of knowledge available to those caring for patients with a VLU also leaving nurses able to access education from a range of sources. Working towards a consensus approach and nationally agreed framework in the future may reduce the burden to community nurses by having a standardised and pathway for care without variations. In turn realising reduced cost and improving the care for patients with VLU's.

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