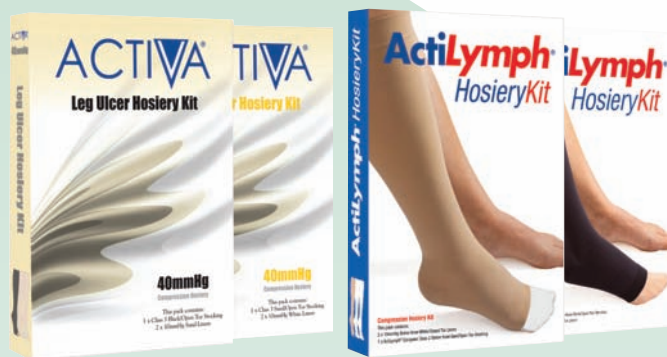


Challenge your practice: venous leg ulcers



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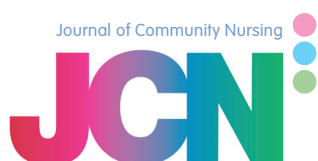
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ADV116 V1.3

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ISSN 0263 4465

Journal of Community Nursing is indexed with
CINAHL and
British Nursing Index (BNI)

t: +44(0) 1451 870310
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Printed in England by
Blackmore Ltd, Shaftesbury

Challenge your practice in venous leg ulcer management



There is a great wealth of information to guide clinical practice in areas such as pressure ulceration (National Institute for Health and Care Excellence [NICE], 2014a), however, the same can't be said for leg ulcer management. The most recent national guidance in the UK was published by the Scottish Intercollegiate Guidelines Network (SIGN) in 2010. However, if clinicians follow this guidance are they in danger of missing out on innovations in products and practice that have emerged since then?

Management of hyperkeratosis that often accompanies venous leg ulcers is steeped in tradition with dry plaques often being removed with forceps (Crook et al, 2013). In the NHS today, one could question if this is an effective use of resources. The NICE Medical Technology Guidance has recognised that new innovations that support improved wound care practice should be evaluated and integrated into clinical care as soon as possible. In this vein, NICE recommended that Debrisoft[®], a monofilament debridement pad, should be routinely used in debridement and the removal of hyperkeratosis, wound assessment and wound bed preparation, owing to its rapid action and cost benefits (NICE, 2014b). These two developments, which are already having an impact on community practice, are the subject of this supplement.

Following the work of Moffatt et al (1992), compression therapy became a life-changing development for patients and nurses alike and this traditional therapy is still considered to be the 'gold standard' for healing venous leg ulcers because of its effects on healing rates. However, the bulk of four-layer component bandaging, its weight and heat often have a negative effect on patient concordance with therapy. Consequently, clinicians and patients will welcome the results of the recently published VenUS IV randomised controlled trial (RCT), which demonstrated that two-layer component hosiery systems (e.g. leg ulcer hosiery kits) are as effective as four-layer component bandaging systems for the healing of venous leg ulcers, and are more cost-effective, have lower recurrence rates and improve self-management (Ashby et al, 2014).

As clinicians delivering wound care it is our responsibility to advance both our individual practice and, collectively, the care delivered to patients with venous leg ulcers. We must make evidence-based decisions using a variety of sources of appropriate information. Evidence-based practice can bring demonstrable clinical benefits and drive down the costs of wound care for the benefit of patients, clinicians and healthcare organisations alike — a goal we will achieve if we continue to challenge practice.

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IN BRIEF

- Wound debridement is essential for accurate wound assessment, wound bed preparation and care of the periwound skin in patients with venous leg ulceration.
- Traditional debridement methods can be time-consuming and costly, with practice based on routine and familiarity rather than evidence.
- NICE recommend that Debrisoft® results in quicker debridement with fewer nurse visits compared with other available options.

KEY WORDS:

- Wound debridement
- Venous leg ulcers
- Debrisoft®
- NICE guidelines
- Cost-effectiveness

Are you debriding based on today's evidence?

Simon Barrett

Wound bed preparation and care of the periwound skin are essential components of venous leg ulcer management, with debridement being integral to achieving effective wound management (Strohal et al, 2013; Wounds UK, 2013). The community nurse plays an important role in delivering wound care, from wound assessment and debridement of non-viable tissue, to referral to other clinicians if indicated. Traditionally, the choices of debridement available to practitioners working in the community setting have been limited. Clinicians have generally relied on speeding up the natural process of autolytic debridement through the use of wound dressings. However, this technique involves patients having extended periods with non-viable tissue in their wound, which ultimately delays healing and puts them at increased risk of developing a wound infection (Young, 2012).

'Autolytic debridement is often selected by clinicians due to their familiarity with the technique, or because they do not have the knowledge of other debridement options, rather than because it is in the best interests of the patient'

In the current healthcare climate, clinicians are expected to deliver evidence-based practice, that is practice supported by evidence of its cost- and clinical-efficacy. This article highlights the need for practitioners to be aware of advances in debridement (Strohal et al, 2013), and to carry out evidence-based practice that optimises outcomes for patients, clinicians and trusts alike, rather than relying on routine or ritualistic practice.

DEBRIDEMENT IN THE COMMUNITY

Debridement is the removal of non-viable tissue from the wound bed to encourage wound healing and, as said, is an essential part of wound care (Strohal et al, 2013). Devitalised tissue acts as a focus for infection, providing a breeding ground for bacteria and a physical barrier to healing. Its presence prolongs the

inflammatory response, delaying wound healing. Devitalised tissue also conceals the wound bed and makes accurate wound assessment difficult (Stephen-Haynes and Callaghan, 2012).

It is also widely accepted that periwound skin cleansing, which includes the removal of skin debris, is an essential component of good wound care (Vowden and Vowden, 2011).

Devitalised tissue may present as yellow, grey, purple, black, or brown tissue. It may be dry necrosis, wet necrosis, wet slough, superficial wet slough, dry slough, haematoma, or hyperkeratosis of periwound skin (Gray et al, 2011).

Autolytic, mechanical and larval debridement methods are used in the community setting as they do not require additional skills, are available on prescription, and can be used safely (Wounds UK, 2013). Of these, autolytic debridement has traditionally been used, rather than mechanical and larval techniques. This has resulted in debridement becoming ritualistic in some cases, with the nurse choosing this debridement method due to familiarity with the technique, or because they do not have the

DEBRISOFT... FACTS

- ▶ Debrisoft® is a monofilament fibre debridement pad designed to mechanically remove slough and devitalised tissue from the wound bed and surrounding skin.
- ▶ It is a single-use, soft, polyester fibre pad that is moistened with tap water, sterile water or saline and gently wiped across the wound or skin, where more than 18 million flexible monofilament fibres remove and retain exudate (Wiegand et al, 2013), dead cells and wound debris.
- ▶ Debrisoft can be used to prepare the wound bed for assessment, for healing and to improve the condition of the periwound skin (Callaghan and Stephen-Haynes, 2012; Dowsett et al, 2013).
- ▶ Debrisoft is safe to use for the removal of devitalised tissue from the wound bed and its gentle action leaves healthy granulation tissue intact, including small islands of epithelial tissue (Haemmerle et al, 2011).

knowledge of other debridement options, rather than because it is in the best interests of the patient (Gray et al, 2011; Fumarola, 2012).

In the current climate where evidence-based practice and cost- and clinical-effectiveness are expected, it is important that clinicians question whether their chosen method of debridement will result in the removal of non-viable tissue in the most efficient and timely manner, or if their practice is ritualistic and limited to their past experience, skill-set and availability (Young, 2011; 2012).

Of course, autolytic debridement might suit some clients' needs following an open discussion and exploration of potential methods, but practitioners should revisit their skill-set and knowledge to ensure that they are able to offer patients the most appropriate debridement method for their individual needs (Young, 2012; Wounds UK, 2013).

NICE GUIDELINES ON DEBRISOFT®

The National Institute for Health and Care Excellence (NICE, 2014) has recently recommended the use of Debrisoft® (Activa Healthcare), a monofilament debridement pad, in the community for the management of acute and chronic wounds in adults and children. When compared with existing alternatives for wound debridement, such as autolytic debridement using dressings, or wound irrigation with saline or cleansing with gauze, NICE found that Debrisoft offers patient benefits and savings to the NHS.

Using Debrisoft, debridement can take an average of 2–4 minutes, with a range of 2–12 minutes (Strohal et al, 2013), compared with the days or even weeks taken using dressings to promote autolytic debridement. This makes it a time-efficient method of debriding many wounds encountered in the community nurse's daily caseload, including leg ulcers and the build up of dead skin cells, or hyperkeratosis that frequently

surrounds venous leg ulceration. No specialist training is required, giving any clinician the ability to perform quick and easy skin cleansing and wound debridement. The use of Debrisoft causes the patient little or no pain (Bahr et al, 2011; Flinton, 2011; Haemmerle et al, 2011; Denyer, 2013). It can also be used by patients (Whitaker, 2012) and healthcare assistants (Whiteside and McIntyre, 2013) to utilise resources more effectively, and to promote patient self-care (Stephen-Haynes and Callaghan, 2012).

'When compared with existing alternatives for wound debridement... NICE found that Debrisoft offers patient benefits and savings to the NHS'

The NICE evaluation considered evidence from clinical experts on the clinical- and cost-efficacy of Debrisoft, and from 15 multiple-patient case-series reports (five peer-reviewed papers and 10 posters), it found that Debrisoft:

- ▶ Is more effective at debridement than the common practice of using hydrogel or other autolytic dressings and irrigating wounds with saline or gentle cleansing with gauze
- ▶ Gives quicker debridement, allowing earlier visibility of the wound bed and therefore better management of the wound
- ▶ May reduce pain associated with debridement
- ▶ Enables faster treatment (on average, two to four minutes per wound) resulting in less frequent and fewer overall care visits
- ▶ Reduces risk of trauma to healthy tissue and reduces bleeding
- ▶ Reduces overall number of wound dressings used
- ▶ Contributes to overall cost-savings compared with current practices.

The conclusion of the NICE guidance committee was that by using Debrisoft on appropriate wounds, these wounds would be 'fully debrided more quickly, with

fewer nurse visits needed compared with other debridement methods. In addition, the Debrisoft pad is convenient and easy to use, and is well tolerated by patients'.

COST-SAVINGS TO THE NHS

Debrisoft has been shown to reduce specialist nurse, general nurse and equipment costs by assisting in accurate categorisation of pressure ulcers (Swan and Orig, 2013), and reduce costs and time when compared to larval therapy (Hawkins, 2012). It has also been found to potentially prevent hospital admission and shorten inpatient stays related to wounds (Callaghan and Stephen-Haynes, 2012; Hawkins, 2012; Wilson, 2012; Girip and McLoughlin, 2013) and break the cycle of chronic ulceration by

moving the patient to healing more rapidly (Flinton, 2011). In addition, it reduces the number of subsequent wound care visits required by patients (Callaghan and Stephen-Haynes, 2012).

The NICE guidance cost calculator estimated that using Debrisoft within the community can save the NHS up to £484 per patient for complete debridement of a wound, compared to current standard practice. NICE estimate that using Debrisoft could save the NHS as much as £15 million annually (NICE, 2014).

DEBRIDEMENT IN THE MANAGEMENT OF THE LOWER LIMB

Debrisoft is indicated for debridement of the lower limb, including leg ulcers, management of varicose eczema as a result of venous disease, and management of dry skin and hyperkeratosis which occurs as a result of lymphovenous disease (Whitaker, 2012; Pidcock and Jones, 2013).

Adopting an holistic approach to assessment and the subsequent care planning is well documented for managing chronic conditions, particularly for the management of venous and lymphatic disorders (Lymphoedema Framework 2006; Jones, 2014). Thorough skin care is an essential component of lower limb care. While compression therapy is vital, it should not be used in isolation and should be considered as a component of care.

Management of hyperkeratosis

Dry skin is common and can be uncomfortable, itching and stinging. In patients undergoing weekly bandaging in particular, skin can be itchy. Normally skin cells are shed during washing, movement and dressing. In patients wearing compression bandaging for up to a week, this process is affected and dry skin can build up. Hyperkeratosis is the over-proliferation of the keratin layer of skin and usually manifests as discoloured scales on the skin's

surface (Pidcock and Jones, 2013). In between the scales, cracks appear and the mortar which binds the skin cells in normal conditions breaks down, allowing foreign bodies to enter and thus putting the patient at risk of infections such as cellulitis (Whitaker, 2012).

'Adopting an holistic approach to assessment and the subsequent care planning is well documented for managing chronic conditions, particularly for the management of venous and lymphatic disorders'

Whitaker (2012) highlighted that failing to manage hyperkeratosis while applying compression can lead to further skin deterioration, including maceration. Conversely, the removal of hyperkeratosis and softening of the tissues prepares the limb for effective compression (Flinton, 2011; *Case report*), and

improves the efficacy of topical treatments such as creams and emollients.

Removal of hyperkeratotic scales must be safe and atraumatic (Whitaker, 2012). It is recommended that plaques are not removed with sharp implements, as this may lead to bleeding, pain and infection. However, this is frequently done in practice, as is manually removing scales using a gloved finger or forceps. This approach is time-consuming; scales must first be softened with emollients and complete removal is unlikely to be achieved in one episode of care, but may require several treatments (Crook et al, 2014).

A survey of members of the All Wales Tissue Viability Nurse Forum was undertaken to establish current practice in Wales for the management of hyperkeratosis as part of leg ulcer management (Young, 2011; Crook et al, 2013). The survey found that hyperkeratosis management accounted for large proportions of their caseload, with treatment sessions lasting between 10 and 30 minutes. The longer treatment times were due to the



Expert commentary

Rosie Callaghan, Tissue Viability Nurse Specialist,
Worcester Health and Care Trust

Debrisoft® has multiple benefits in our practice in the community. It is very quick to use and most patients love the rapid result and the often instant improvement in their skin and/ or wound.

The ease of use often leads to patients becoming involved in their self-care. This is an advantage for those with painful wounds, or patients who fear having their wound touched, particularly children. Often these patients will happily debride their wounds and skin themselves using Debrisoft under nurse supervision, and will continue to self-care, or realising that it doesn't hurt,

allow treatment to be carried out by the clinician.

Healthcare assistants frequently use Debrisoft as part of routine skin care; it is simple to use and yields immediate improvement of skin condition, preparing it for the use of emollients, cream or compression.

For trained staff, Debrisoft is often used to debride static wounds, as it seems to reduce wound bioburden and puts the wound back on a healing trajectory.

We have been honest in our approach to using Debrisoft. There are no secrets; it looks simple and it is!

slow process of individually picking off hyperkeratotic scales. The survey concluded that there was no standard approach to the management of hyperkeratosis across Wales. This led to the development of the first National Guidance document (Crook et al, 2014).

The document highlights the NICE recommendations for the effectiveness and short procedure time of using Debrisoft to remove hyperkeratosis, recommending its use as part of best practice.

BENEFITS IN THE COMMUNITY

Safe and rapid debridement in the community setting can have many advantages. A three-week evaluation of Debrisoft by a group of tissue viability link nurses found that not only did Debrisoft achieve 'timely, optimal, pain-free removal of non-viable tissue', it also helped wound assessment and thereby treatment objectives by making the wound bed more visible, which previously might have taken weeks to achieve (Stephen-Haynes and Callaghan, 2012). Furthermore, Callaghan and Stephen-Haynes (2012) reported that debriding with Debrisoft resulted in a definite reduction in subsequent visits required to perform an aspect of wound care in 11 out of 12 patients.

Girip and McLoughlin (2013) stated that safe, rapid and effective debridement had been limited in the community for many years and would normally have required a specialist nurse referral and a hospital admission. In a case study, debridement of the wound and skin was successfully completed in one session with Debrisoft, enabling the patient to remain in her own home to continue with skin care and compression therapy. They state that Debrisoft is an ideal debridement method for district nurses, enabling them to perform safe and rapid debridement at the bedside.

An evaluation of the role of Debrisoft within the selection of wound dressings available in the 'first dressing box' was carried out in a rural area of North West Wales by

Case report

An 81-year-old patient presented with a history of venous leg ulceration and varicose eczema (*Figure 1*). Over a three-year period the patient suffered from wound deterioration, infection, severe hyperkeratosis and varicose eczema, resulting in a cycle of visits to various medical specialists. Despite the support of the tissue viability nurse, a full holistic leg ulcer assessment, compression therapy and appropriate treatment, the wound continued to deteriorate, improve and then deteriorate again (*Figure 2*).

The costs associated with the management of this particular wound and skin condition were considerable. This included 3–4 episodes of nurse time per week over the three-year period, antibiotics on a regular basis, hospitalisation, wound dressings and bandages and various creams such as steroids and emollients. Debrisoft®, a monofilament debridement pad, was used to remove slough from the wound and hyperkeratosis from the periwound area, to promote healing.

Debrisoft was used at each clinic visit on five occasions over a two-week period. Debridement time varied between 2 and 10 minutes and a positive outcome was noticed immediately on all five occasions. Pain scores using a visual analogue scale (VAS) were 0 during treatment and 0 after treatment on all five occasions (where 0=no pain).

The wounds and varicose eczema healed following the two weeks of treatment (*Figure 3*), with compression hosiery being used to maintain healing. The debridement pad was used twice to prevent the build-up of hyperkeratosis.



Figure 1.

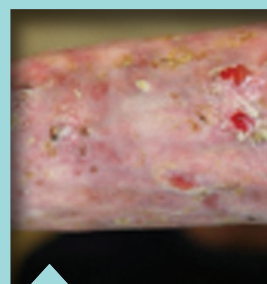


Figure 2.



Figure 3.

two tissue viability nurses. Data from 16 evaluations was analysed and found that the active debridement system was a useful addition to the first dressing initiative. Debrisoft improved visualisation, which aided accurate assessment of the wound bed, and led to reduced debridement time and quicker progression on to the next stage of wound healing (Lloyd-Jones and Parry-Ellis, 2012).

CONCLUSIONS

In the current community nursing climate of increasing caseloads,

declining workforce, lack of training and budget cuts, the use of Debrisoft can play an important part in assisting the practitioner to instantly remove soft, non-viable tissue from the wound bed. Other debridement methods may take longer to perform the same task and thus put the patient at increased risk of wound infection and delayed healing.

Debrisoft can also be used to prepare the limb for compression therapy by quickly removing skin debris such as dry flakes and hyperkeratosis, which frequently

accompany venous leg ulceration. The evidence presented by community practitioners of how Debrisoft can improve practice, and the recommendations of NICE — the independent body responsible for driving improvement in health care — that the use of Debrisoft can save both time and money, is too pertinent to ignore in the current NHS. **JCN**

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Key points

- ▶ Debridement of the wound bed and periwound skin are key components of venous leg ulcer management.
- ▶ Traditional approaches to these tasks have been long and not necessarily time and cost-effective.
- ▶ Debrisoft®, a monofilament debridement pad, has been recommended by NICE as being quicker than traditional debridement methods for assessing venous leg ulcers, preparing the wound bed for healing and for the removal of hyperkeratosis.
- ▶ To deliver evidence-based care, clinicians must challenge their approach to these components of leg ulcer management in light of robust evidence that using Debrisoft will save both time and money.

IN BRIEF

- Compression therapy is recognised as a vital component of healing and maintaining healing in patients with venous leg ulceration.
- A number of products exist for the delivery of compression.
- Compression therapy choice is known to influence patient concordance with compression products.
- Nurses should be aware of the different options available, the evidence base to support their use, and work with the patient to find a product that maximises concordance.

KEY WORDS:

- Compression therapy
- Venous leg ulcers
- Randomised, controlled trial (RCT)
- Evidence-based practice
- Concordance

Unravelling practice: compression therapy for venous leg ulcers

Joy Tickle

The benefits of using compression therapy for healing leg ulcers is well documented (World Union of Wound Healing Societies [WUWHS], 2008; O'Meara et al, 2012). Traditional guidelines have promoted a two-step approach to compression therapy; intensive treatment using a bandaging system to promote healing and gain control of symptoms such as excess exudate and swelling, then hosiery as maintenance treatment for patients once the ulcer has healed (Lymphoedema Framework, 2006; Royal College of Nursing [RCN], 2006; Scottish Intercollegiate Guidelines Network [SIGN], 2010).

Since its introduction in the late 1970s, four-layer bandaging has been considered the gold standard for the healing of venous leg ulcers. However, many patients find four-layer bandaging systems uncomfortable, or even painful, and their bulk can also create problems with footwear and reduced mobility. As a consequence, concordance and healing rates can be negatively

affected (Puffet et al, 2006; Adderley and Thompson, 2007; O'Meara et al, 2012; Moffatt, 2014). Furthermore, the application of four-layer bandaging requires training, skill and ongoing competency on the part of the clinician, since inappropriate selection and/or application of compression can have a negative impact on both quality of life and morbidity (WUWHS, 2008; Williams, 2014).

'... two-component leg ulcer hosiery kits allow hosiery to be used as first-line treatment for suitable patients and overcome some of the drawbacks associated with four-layer compression bandaging'

In recent years, there have been considerable advances in product options available to deliver compression for healing venous leg ulcers. For example, two-component leg ulcer hosiery kits that allow hosiery to be used as first-line treatment for suitable patients and overcome some of the drawbacks associated with four-layer compression bandaging (Ashby et al, 2014), especially for those with chronic swelling (Williams, 2014).

This article will discuss the findings of the recently published VenUS IV trial (Ashby et al, 2014), which showed that compression hosiery kits are a cost- and clinically effective alternative to four-layer compression bandaging for healing venous leg ulcers and preventing recurrence. It will also, where possible, explain how this evidence should be incorporated into everyday practice to improve outcomes for patients.

EVIDENCE-BASED PRACTICE

The NHS is undergoing great change in response to current healthcare reforms, placing increased demands on care delivery (Tinkler et al, 2014). This, in combination with an increasing range of compression products with which to treat patients, means that clinicians are challenged to look at their daily practice and make changes that not only lead to better care for patients with venous leg ulcers, but also improve clinical-effectiveness and result in cost-savings (Gray, 2013; Knowles, 2014; Williams, 2014).

Decision-making can be guided by implementing evidence-based practice, with the best research evidence (see *Understanding RCTs*)

▶ Understanding RCTs

- ▶ A randomised controlled trial (RCT) is a scientifically rigorous study in which participants are assigned randomly to one or more interventions.
- ▶ RCTs are thought to provide the most reliable evidence, as the processes used during the trial minimise the risk of other factors influencing results.
- ▶ Therefore, the findings from an RCT are likely to be closer to the true effect than findings from other research methods (Akobeng, 2005).

being combined with clinical expertise and patient values to achieve the best possible patient management (Sackett et al, 1996). Without evidence to guide practice, a 'this is how we do it here' mentality can lead to poor and outdated care (White, 2013).

WHAT INFLUENCES COMPRESSION CHOICE?

Nursing care is steeped in tradition and ritual. Practice is often influenced by personal experience and the opinion of colleagues, as well as tried and tested treatment approaches that have had good results in the past (Flanagan, 2005). Traditional knowledge and practice successfully passes down through generations of practitioners, but at its worst this can perpetuate poor or outdated practice (Flanagan, 2005). Williams (2014) indicated that for some, selection of compression is rooted in tradition and dogma. For example, a clinician may continually use a particular compression bandage due to habit, rather than matching a product to the clinical needs of the individual.

When used appropriately, compression therapy can greatly improve a patient's quality of life, but all too often poor knowledge and skills are a common reason why patients complain about this

treatment (Moffatt, 2014). It is obvious, therefore, that practitioners can have an impact on patient concordance with compression therapy. By understanding the key principles of compression therapy, products available and their properties, practitioners can best meet their patients' needs (Gray, 2013).

'Poor professional knowledge and skills are a common reason why patients complain about compression therapy... the patient's access to effective compression should not be restricted by the experience or knowledge of the practitioner'

WHAT IS THE CASE FOR CHANGE?

The WUWHS first highlighted in their international consensus document that two-component compression hosiery can be used as first-line treatment (e.g. leg ulcer hosiery kits), 'particularly for patients with small, uncomplicated ulcers who wish to self-care, who require daily skin care, or who find bandages too hot and bulky' (WUWHS, 2008).

Following this, the findings of the VenUS IV randomised controlled trial (RCT) (Ashby et al, 2014) highlighted the benefits of using leg ulcer hosiery kits at the forefront of lower limb care.

The VenUS IV study was a multicentre, two-group RCT that recruited patients with venous leg ulcers from 34 centres in England and Northern Ireland, including community and tissue viability teams/services, GP practices, community and outpatient leg-ulcer clinics, and wound clinics. The trial compared the clinical- and cost-effectiveness of two-layer compression hosiery with four-layer bandaging for healing of venous leg ulcers. The efficacy of leg ulcer hosiery kits in preventing ulcer recurrence was also evaluated.

Patients were randomly allocated to leg ulcer hosiery kits or four-layer compression bandaging, and received care as usual until:

- ▶ Their ulcer healed
- ▶ They could not continue with the allocated treatment
- ▶ They switched, or were lost to follow-up or died.

Healing was defined as complete epithelial cover with no scab, with those who healed being followed up for 12 months. In total, data from 454 patients was analysed (bandaging, n=224; stockings, n=230).

Healing rates

Results showed that a similar number of patients in the bandaging and hosiery kit groups healed (bandaging, n=70%; hosiery, n=71%) in a similar amount of time (bandaging, n=98 days; hosiery, n=99 days). Of those who experienced ulcer recurrence, more were in the bandaging (23%) than hosiery group (14%).

Cost-effectiveness

Average costs were about £300 per participant per year lower for the group managed with leg ulcer hosiery kits. This was mainly because these patients required fewer nursing consultations, and this group also reported slightly higher average quality-adjusted life year scores (highlighting improvement in the quality and quantity of life lived). Overall, the trial showed that hosiery had a 95% probability of being the most cost-effective treatment.

ADVANTAGES OF USING LEG ULCER HOSEY KITS

In terms of organisational benefits, using leg ulcer hosiery kits presents the NHS with better value for money, while also being as clinically-effective as four-layer compression bandaging. In addition, fewer consultations are required, as patients can also be involved in their care (Beldon, 2013; Ashby et al, 2014); a factor which is known to improve concordance with compression therapy (McNichol, 2014).

➤ PRACTICE POINT

Carry out four-stage holistic assessment to evaluate (Jones, 2014):

1. Patient health status, comorbidities and possible underlying conditions causing ulceration and/or oedema
2. The presence of oedema (to identify the correct compression system)
3. The wound status (e.g. size, exudate volume)
4. Patient lifestyle factors (e.g. self-caring, mobility level).

A system that provides less bulk, allowing use of regular footwear is also favourable and well-accepted by patients (Stephen-Haynes and Sykes 2013; Ashby et al, 2014). Not only does this offer benefits in terms of body image, but also facilitates the wearer's ability to work and exercise while wearing compression — exercise being an essential component of venous leg ulcer management. A recent study highlighted the drawbacks of wearing bulky bandages and bandage shoes while exercising, as several participants were afraid of falling due to bandages and found that bandage shoes restricted exercise (O'Brien et al, 2014).

APPLYING THE EVIDENCE TO PRACTICE

To best meet the needs of the individual, compression should marry the latest evidence with patient preference and the findings of full holistic assessment (Moffatt, 2014). As previously said, in reality, ritualistic practice in relation to selection of compression therapy may be preventing many individuals with venous leg ulcers from receiving optimal treatment.

To overcome inappropriate choices, Jones (2014) suggests that a four-step approach to assessment (*Practice point; Figure 1*) will result in successful selection of compression for the management of venous leg ulcers. This approach reinforces the importance of assessing the shape of the limb, which may be altered due to the presence of oedema, as part of holistic assessment to underpin compression choice. However, if clinicians are unaware of the latest evidence-based care options, they may be unable to meet patients' needs adequately.

With the emergence of new compression products and recent robust evidence to support the use of leg ulcer hosiery kits (WUWHS, 2008; Ashby et al, 2014) in the healing of venous leg ulcers, is opting for the traditional choice doing a disservice to some patients? Every now and again, clinicians should pause and ask themselves

why they are doing an activity and what evidence underpins it (White, 2013).

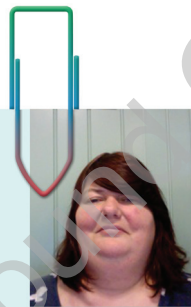
Best practice in compression therapy is not about the ability to apply a bandage, but

'With the emergence of new compression products and robust evidence to support their use, is opting for the traditional choice doing a disservice to some patients?'

involves choosing a system that considers the patient's individual requirements, goals of therapy and stage of treatment (WUWHS, 2008).

Of course, some individuals will still require bandaging (for example, due to high volumes of exudate, lymphorrhoea or limb distortion due to oedema). Explaining to the

patient that compression bandaging is a relatively short-term treatment that will be followed by the use of hosiery can help patients to concord with treatment (Gray, 2013).



Expert commentary

Rosie Callaghan, Tissue Viability Nurse Specialist,
Worcester Health and Care Trust

We have found that leg ulcer hosiery kits have brought real benefits to some of our patients. They are great for delivering consistent care to suitable patients in settings where there may be a high turnover of agency staff delivering care.

For people with mental health issues, they are accepted more readily than compression bandaging, which is frequently tampered with due to its bulk. The compression hosiery kit seems to be more acceptable, due to its similarity to socks.

For patients who wish to shower daily, they are able to remove and reapply their compression therapy, enhancing their independence and self-care.

For these patients, bandaging is often removed, as the wish to shower is greater than their desire to concord with therapy.

For working patients the kits are ideal, as they can be worn with the relevant footwear. In our rural location, we have several farmers with venous leg ulcers, who, before this option, would simply remove their bandaging and work without it; their livelihoods depended on them working and they could not wear wellies with four-layer bandaging.

There is no one size fits all for patients with venous leg ulcers. As nurses, it is our responsibility to think about what we are doing and work with the patient to find a solution.

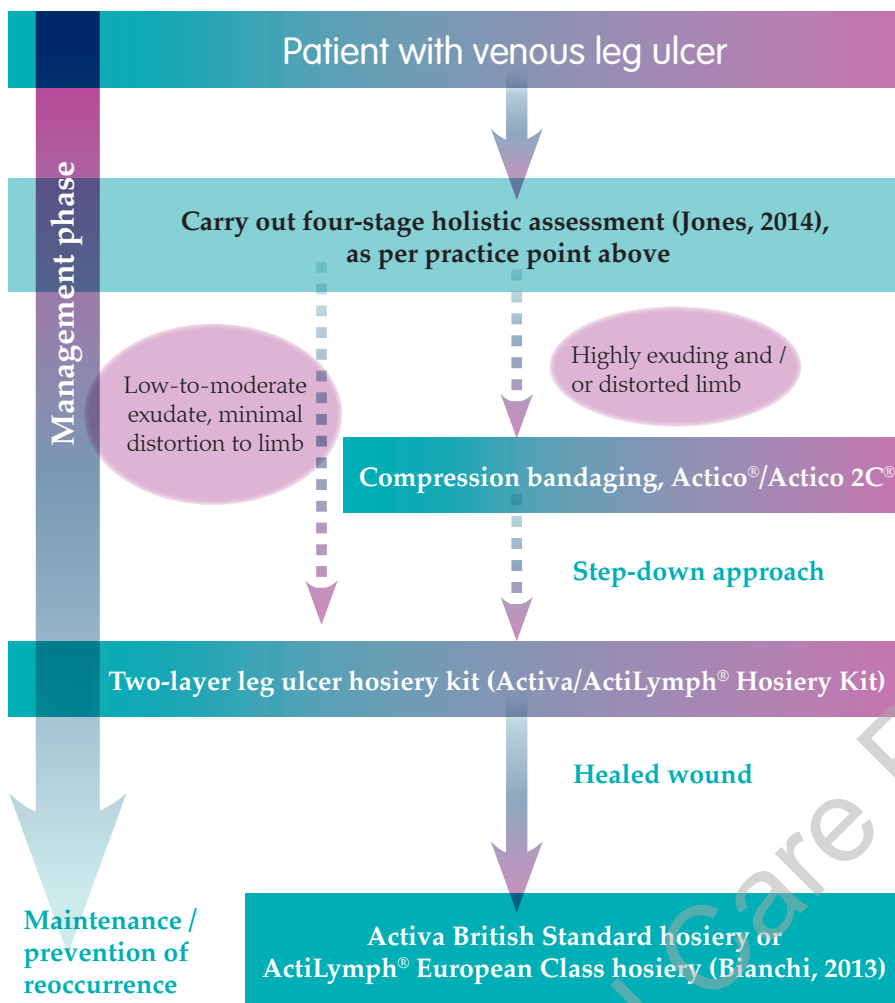


Figure 1. Four-step approach to assessment.

For these patients, ongoing assessment and treatment review is an essential component of care. Where appropriate, and when wound and limb conditions permit, the patient can be 'stepped-down' into a leg ulcer hosiery kit, bringing about cost-savings and benefits for patients in their ability to self-care, without compromising healing (Ashby et al, 2014).

When selecting wound dressings, clinicians regularly change the dressing to meet the changing needs of the wound; for example, switching from a superabsorbent dressing to a dressing with less absorption capacity once exudate volume is reduced. Product choice along with clinical evidence now enables a similar approach to compression selection (Figure 1).

The case report outlined in this article (Beston, 2012) illustrates how a step-down approach to

'Where appropriate, and when wound and limb conditions permit, the patient can be 'stepped-down' into a leg ulcer hosiery kit...'

compression selection improved quality of life for a patient with a chronic leg wound.

CONCLUSION

If used appropriately, compression therapy can dramatically improve an individual's quality of life (Moffatt, 2014). Clinicians have a responsibility not only to the patient, but also to the organisation to make the right choices regarding product selection. The VenUS IV trial has highlighted the benefits of using leg ulcer hosiery kits to achieve comparable healing rates and times to four-layer compression bandaging, with the added

benefits of reduced recurrence and costs, along with improvements in quality of life. It is the responsibility of clinicians to apply such robust findings to practice. If, initially, the use of compression hosiery to facilitate healing due to clinical need is inappropriate, a step-down approach will help to strike the balance between clinical-effectiveness, cost-effectiveness and quality of life. **JCN**

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Key points

- ▶ Compression therapy is a vital component of healing venous leg ulcers.
- ▶ Four-layer bandaging has been considered the gold standard of treatment to obtain healing, however, its bulk can result in poor concordance.
- ▶ The VenUS IV randomised, controlled trial highlighted that two-layer hosiery kits are as effective at healing as four-layer bandaging, can reduce recurrence, achieve cost-savings of £302.40 per patient episode, and aid patient self-care.
- ▶ Enabling patients to self-care can increase concordance with treatment.
- ▶ For patients who require initial treatment with bandaging, a step-down approach can be taken, using leg ulcer hosiery kits as soon as wound and limb conditions permit.

Case report

A 68-year-old female presented to her practice nurse with a haematoma following a fall. She had a past medical history of hypertension, osteoarthritis and myocardial infarction.

Following initial assessment, it was identified that the primary goal of treatment was debridement (Figure 2). A sheet hydrogel, along with compression bandaging was used to achieve this objective. At the end of the fifth week, the healing process slowed and signs of localised wound infection were apparent. A topical antimicrobial dressing was then used for a period of two weeks to manage the signs of infection with good effect.

The wound continued to improve (Figure 3) and healing was achieved within a period of five months. A step-down approach to an Activa Leg Ulcer hosiery kit was adopted to allow the patient to continue with compression therapy, without the bulk of bandaging to facilitate quality of life improvements (Figure 4).



Figure 2.



Figure 3.



Figure 4.

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Using evidence-based practice to improve patient care



There is growing demand for health care in the UK, driven by the continuing upward trend in life expectancy, rising prevalence of chronic disease and higher patient expectations. Such demand places an increasing burden on resources and budgets; more has to be delivered with less, while maintaining quality of care and ensuring patient safety. All of these factors have led to evidence-based practice, defined by Sackett et al (1996) as 'the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients'.

Although evidence-based practice is increasingly demanded in healthcare settings, there is a recognised gap between the research evidence available and its implementation in clinical practice. Although theory and practice are linked, they can often be viewed as separate entities and this can mean positive research findings are not put into practice. This can happen for a number of reasons. Clinicians may be overwhelmed by information, or may lack the skills and confidence to evaluate the evidence so do not bother to do so (Flanagan, 2005). In some cases, evidence may be reviewed but may not be applied to clinical decision-making.

Frequently this means that despite the evidence, elements of nursing care remain based on tradition, with routine and rituals driving care, rather than clinical judgement (Zeitze and McCutcheon, 2005). For this reason, healthcare professionals should be encouraged to consider the implementation of latest research and best practice in all aspects of wound care, including the management of venous leg ulceration. This supplement has highlighted two important developments that should influence care delivery in this area.

On pp. 4–8, Barrett describes the findings of the National Institute for Health and Care Excellence [NICE] Medical Technology Guidance (NICE, 2014), which recommends the use of Debrisoft®, a monofilament debridement pad, for safe, easy, rapid and effective debridement of wounds, including venous leg ulcers and hyperkeratosis.

On pp. 9–13, Tickle presents the results of the VenUS IV randomised controlled trial which evaluated the efficacy of two-layer compression hosiery kits versus four-layer bandaging for healing and prevention of recurrence in patients with venous leg ulceration (Ashby et al, 2014). Results showed similar healing rates in a comparable timeframe for both therapies, with the two-layer hosiery kit demonstrating lower recurrence rates and improved cost-effectiveness.

Traditionally, there has been too much emphasis on the cleansing of wounds and not enough on the surrounding skin. However, the NICE guidance means that ritualistic practice, for example, the use of tweezers for the time-consuming removal of hyperkeratosis, should be challenged. Debrisoft could not be easier and quicker to use. It is a simple product that does not require a high degree of skill and can be used by patients as part of their skin care routine. Similarly, the application of compression hosiery offers significant advantages over compression bandaging as a first-line treatment in suitable patients, including the consistent application of compression, ease of application and removal, improved comfort, and increased ability for patients to self-care. In both cases, these new products do not require specialist input and with that comes the benefit of freeing up nurse time to be spent elsewhere. These factors contribute to the evidence of both products' cost-effectiveness in practice.

As healthcare professionals, we need to continually 'challenge our practice'. We should always ask if the leg ulcer care we provide is evidence-based or outdated, and ultimately reflect upon whether we are failing to put evidence into practice and examine the reasons for this. All healthcare professionals have a responsibility to advance their practice and ensure that they make evidence-based decisions that truly benefit patients, clinicians and healthcare organisations.

Jackie Stephen-Haynes, Professor and Consultant Nurse in Tissue Viability, Birmingham City University and Worcestershire Health and Care Trust

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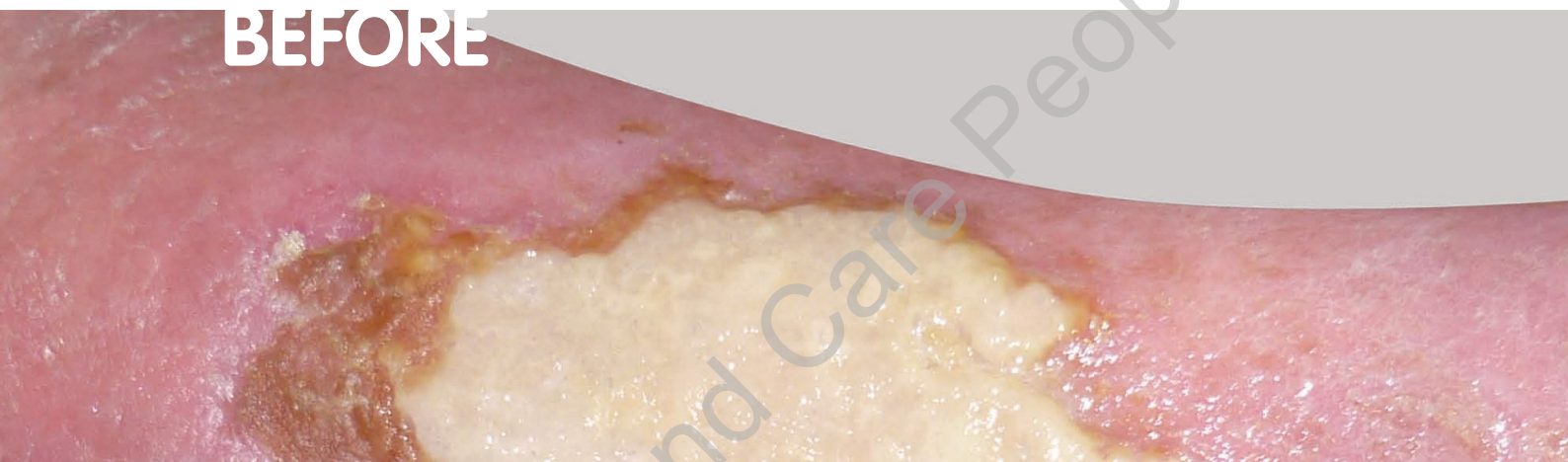
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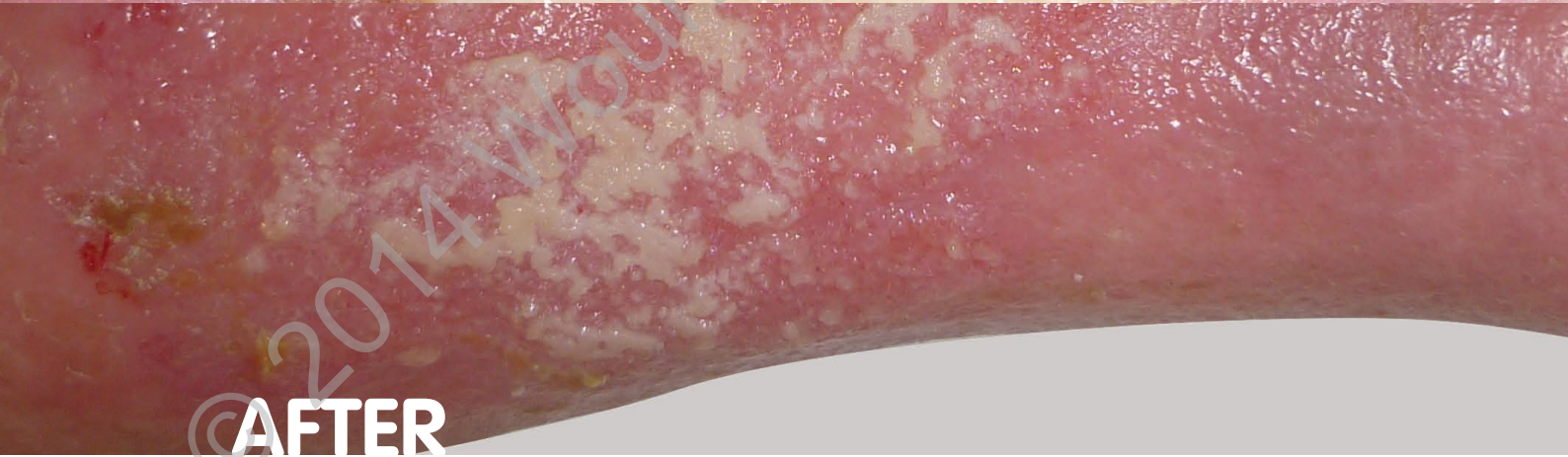
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