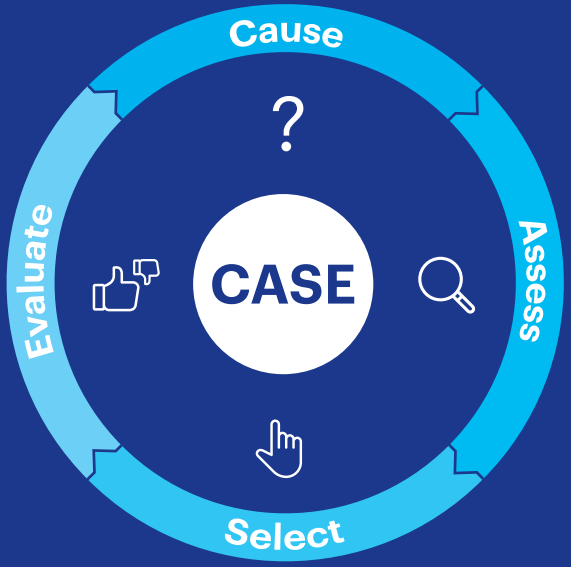
CASE

For Looking After Legs



For better care and wound healing outcomes

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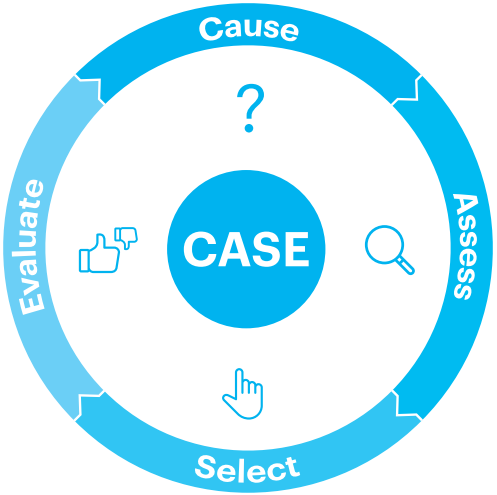
Introduction

An aging population brings with it an increase in co-morbidities which can have a direct impact on how wounds heal. The increasing prevalence of wounds is a significant and growing issue that leads to excessive costs to both the NHS and the patient.

The Burden of Wounds Study[1] highlighted that there is potential for better patient management that would lead to improved clinical outcomes. It was highlighted that 19% of leg ulcers were classed as unspecified due to lack of documented assessment.

Venous leg ulcers are the most common type of leg ulcer with an associated cost of treatment ranging from £3,000 per patient per year where a leg ulcer healed, to £13,500 per patient per year where a leg ulcer did not heal[1].

This guide aims to support you through the important steps that will improve the assessment of venous leg ulceration by taking a holistic approach for better healing outcomes via the acronym - **CASE**.



Introduction to

Cause of wound

- Accurate holistic patient assessment is essential to identify the underlying cause to effectively treat the wound
- Determining wound causality and factors likely to delay healing will help improve treatment outcomes for your patient
- Intrinsic and extrinsic factors can be altered to encourage healing, consider:
  - **Medical and surgical history:** co-morbidities such as vascular disease, arterial disease, diabetes and heart disease can all impair wound healing
  - **Nutrition and hydration:** a patient without a good, balanced diet will struggle to heal in a timely manner; establish if dehydration could be an issue
  - **Medication:** certain medication will impair wound progression e.g. non-steroidal anti-inflammatories, immuno-suppressants, etc
  - **Pain assessment:** understanding your patient's pain level, ensuring appropriate analgesia is prescribed, will not only improve quality of life and concordance, but will also prevent low grade hypoxia which slows down production of granulation tissue and suppresses the patient's immune response
  - **Activities of daily living (ADL):** a full ADL assessment should be performed to establish an appropriate treatment plan, that compliments the patient's lifestyle e.g. capacity for self-care, mobility issues etc to prevent non-concordance
  - **Age related changes:** e.g. thin, dry skin (vulnerability to damage)
  - **Psychosocial history:** quality of life issues, signs of depression, smoking, alcohol, etc

Wounds do not exist in isolation and should not be treated as such

(Wounds International 2012)[2]

Cause

CASE

Assess the lower limb

- **How many wounds are there?**
  - Assess and document each wound separately
- **When and how did the wound occur?**
  - Date and duration
- **Where is the wound?**
  - Document the position of the wound/s
- **Assess exudate?**
  - Colour
  - Consistency
  - Amount
- **What type of assessment is required?**
  - Full vascular assessment including the following:
    - Vascular history
    - Signs of arterial insufficiency
    - Limb temperature
    - Erythema, pallor, and / or cynosis
    - Signs of vascular insufficiency (oedema, ankle flare, hyperpigmentation, lipodermatosis, atrophy blanche, and varicose eczema)
    - Limb size and shape
    - Doppler / Ankle Brachial pressure index (ABPI) test to exclude arterial disease
  - If diabetic assess the patient for:
    - Signs of neuropathy (lower limb)
    - Ulceration (of the foot)
    - Glycaemic control
- **What is the condition of the wound bed?**
  - Necrosis
  - Slough
  - Granulation
  - Epithelialisation
  - Exposed structures e.g. tendon or bone
- **Wound measurements**
  - Document wound dimensions (length, breadth, depth)
- **Condition of the wound edges**
  - Advancing
  - Non-advancing

- **What is the condition of the peri-wound skin?**
  - Healthy
  - Friable
  - Hyperkeratosis
  - Macerated
  - Excoriated
  - Eczema
  - Dry
- **Are there signs of infection?**
  - Pain
  - Redness (erythema)
  - Swelling
  - Heat
  - Odour
  - Increased exudate
  - Friable granulation tissue
- **Pain level?**
  - Use visual analogue scale to assess patient's pain level
  - Record score
  - Consider other underlying conditions e.g. arthritis
  - Ensure appropriate analgesia is prescribed, monitored and reviewed regularly

Select

- Compression should be the first line treatment to optimise healing potential[3]
- Document your wound healing aims and objectives, with a clear period for review

1. Skin care

Patients should have their lower limb washed and moisturised using a suitable emollient once per week as a minimum to help maintain and improve the integrity of the skin

2. Suitable dressing regime

If there is	Observations	Treatment objectives
Tissue non-viable	Slough or necrotic tissue present	Remove the non-viable tissue by debridement to aid wound progression NB: Diabetic foot wounds must be referred to podiatrist prior to any debridement
Inflammation or infection	High level of bacteria could cause: pain, redness, swelling, heat, odour, pus, increased exudate, friable granulation tissue	Reduce bacterial load to manage infection or inflammation Consider: - Antimicrobials - Protease inhibition - Antibiotics
Moisture imbalance	Heavy exudate - risk of maceration / excoriation Dry wound Friable skin Consider underlying cause of exudate and identify if compression therapy might be necessary	Aim for a balanced and optimal moist wound healing environment Choose a dressing to either absorb the excess exudate, or add moisture to dry wounds
Advancing / non-advancing edges	Advancing, epithelialisation visible or non-advancing e.g. undermining, rolled edges	Is your wound showing signs of epithelialisation? If yes, continue with treatment If no – re-assess starting with **C** of CASE

Dressing / treatment options	Suggested BSN medical dressings	Desired clinical outcome
Options include: autolytic, sharp surgical, enzymatic, mechanical or biological • Hydrogel • Debridement pad • Larval therapy • Moisture donating dressings	**Cutimed® Gel** - clear, amorphous hydrogel which can be used to help debride necrotic and sloughy tissue **Cutimed® Sorbact® Gel** - supports infection management and autolytic debridement in one dressing **Cutimed® HydroControl®** - unique moisture balancing dressing that either absorbs excess exudate or donates moisture	Viable wound base
Local infection – consider topical antimicrobial / bacterial binding dressings e.g. Sorbact® technology, silver, honey, PHMB, iodine Systemic infection: consider topical antimicrobial and antibiotics For high risk patients that require prophylactic treatment consider using an anti-microbial	**Cutimed® Sorbact®** - a range of dressings that display hydrophobic properties irreversibly binding bacteria in a moist wound environment. Suitable for the management and prevention of wound infection	Bacterial balance, reduced inflammation and wound progression
High exudate - NPWT, super-absorbers, hydrofibres, alginates or foams Low exudate – hydrocolliods, hydrogels, films, moisture balancing dressing If maceration / excoriation present consider barrier preparation to protect vulnerable skin NB: If patient has leg ulceration, compression should be part of the treatment, where the ABPI permits	**Cutimed® Siltec®** - foam dressings range offering effective and intelligent exudate management **Cutimed® Sorbion®** - range of super-absorbent dressings that retain high volumes of exudate, even under compression **Cutimed® HydroControl®** - unique moisture balancing dressing that either absorbs excess exudate or donates moisture	Optimal moist wound healing environment
Barrier preparations (e.g. barrier creams, ointments or films) Wound contact layers to help prevent pain and trauma	**Cutimed® PROTECT** - spray, foam applicator or cream which provides a long-lasting protective barrier against incontinence, exudate, water loss from the skin and damage to peri-wound margins **Cuticell® Contact** - a silicone wound contact layer to help prevent pain and trauma	Advancing edge of wound, healthy peri-wound skin and signs of progression to wound closure

3. Appropriate compression therapy

Compression guide for the treatment of venous leg ulceration (VLU)

	2-layer hosiery kit	Wrap compression systems	Compression bandages
Suggested JOBST® solution	**JOBST® UlcerCARE™**	**JOBST® FarrowWrap® range**	**JOBST® Compri2 / JOBST® Comprifore**
Normal leg shape	✓	✓	✓
Low to moderate exudate	✓	✓	✓
High exudate*	✗	✓	✓
Carer involvement	✓	✓	✗
Limb distortion due to oedema	✗	✓	✓
Self-caring patient	✓	✓	✗
Deep skin-folds	✗	✓	✓

*Case series has been developed to demonstrate super absorbent dressings were effectively used with JOBST® FarrowWrap® Strong variants[4]

JOBST® FarrowWrap® Lite (20-30mmHg) can be considered for patient with mixed ateology leg ulceration requiring reduced compression

JOBST® FarrowWrap® 4000 is indicated for the treatment of VLU where minimal limb shape distortion is present

Adapted from best practice statement:
Holistic management of venous leg ulceration (2016)[3]

4. Long-term prevention

A treatment care plan should be put in place to prevent recurrence once a leg ulcer has healed.

Educate the patient on the risk of ulcer recurrence to optimise their condition. Compression should be a long-term option for those patients most at risk.[3]

RAL compression garments have been shown to reduce the rate of venous leg ulcer recurrence from 18-20% to 5.8%[5]

Guide for the prevention of venous leg ulcer recurrence using RAL compression hosiery

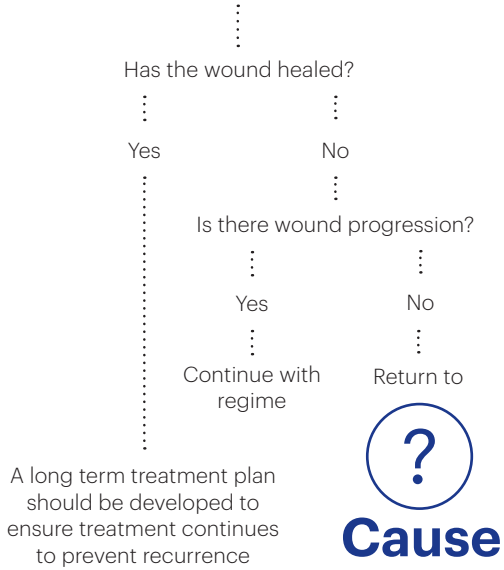
	Circular-knit hosiery	Wrap compression systems	Custom-fit, flat-knit hosiery
Suggested JOBST® solution	**JOBST® ready-to-wear range**	**JOBST® FarrowWrap® range**	**JOBST® Elvarex® range**
Normal leg shape	✓	✓	✓
Limb distortion	✗	✓	✓
Mild to moderate swelling	✓	✓	✓
Patients ability to apply compression	Good	Poor*	Good

*Cost effective treatment solutions should be considered, however if a patient is unable to tolorate or apply compression hosiery, or is non-concordant, a wrap compression system can be utilised to provide a continuation of care

Evaluation and education

- Wound healing and patient status are a continually moving platform and so the treatment regime must be dynamic
- Evaluate the outcomes of your documented treatment plan
- Modify plan of care based on new observations; If wound progression is not observed in the timeframe outlined in your objectives, go back to '**C**' of CASE, document date for re-assessment
- Leg ulceration has a high recurrence rate of around 18-20% in a 12 month period
- A long term treatment plan should be developed to ensure preventative treatment continues following healing to prevent recurrence, e.g. compression garments and care of the lower limb to include skin care, exercise and regular review of compression garments every 6 months
- Provide information and education for your patients on their treatment plan to create a partnership approach that will aid compliance and improve clinical outcomes

Evaluation of care



If you would like further education on wound care and / or compression therapy, ask your BSN medical Account Manager about the BSN Educational Academies. The training is modular-based so can be tailored to your needs and schedule. CPD certificates are provided.

Further information can be found online at **www.bsnmedical.co.uk/education**
contact your local BSN medical Account Manager or call our Concierge Service on **01482 670177**

References:

1 Guest et al (2015) Health economic burden that wounds impose on the National Health Service in the UK, British Medical Journal
2 International consensus (2012) Optimising wellbeing in people living with a wound. an expert working group revue wounds international
3 Best Practice Statement (2016) Holistic Management of Venous Leg Ulceration, Wounds UK
4 Todd. M.,Lay-Flurrie. K., Drake.J (2016) Managing ulceration and lymphorrhea in chronic oedema, British Journal of Community Nursing
5 Dowsett (2011) Treatment and prevention of recurrence of venous leg ulcers using RAL hosiery, Wounds UK, Vol, No1

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