

## Part 2 - Leg Ulcer Series: Interim Care: Progressing towards self-care

#### **DR. LEANNE ATKIN**

Lecturer Practitioner, University of Huddersfield, Vascular Nurse Consultant, Mid Yorks NHS Trust







# LIVE Q&A

SEND IN YOUR QUESTIONS BY COMMENTING ON THE VIDEO





### LEARNING OBJECTIVES



To understand recommendations and best practice implementation for treatment of venous leg ulcers (VLUs) that are not yet suitable for selfcare compression solutions



Have the knowledge to be able to implement practical solutions to progress these patients' wounds to a point where self-care may become appropriate



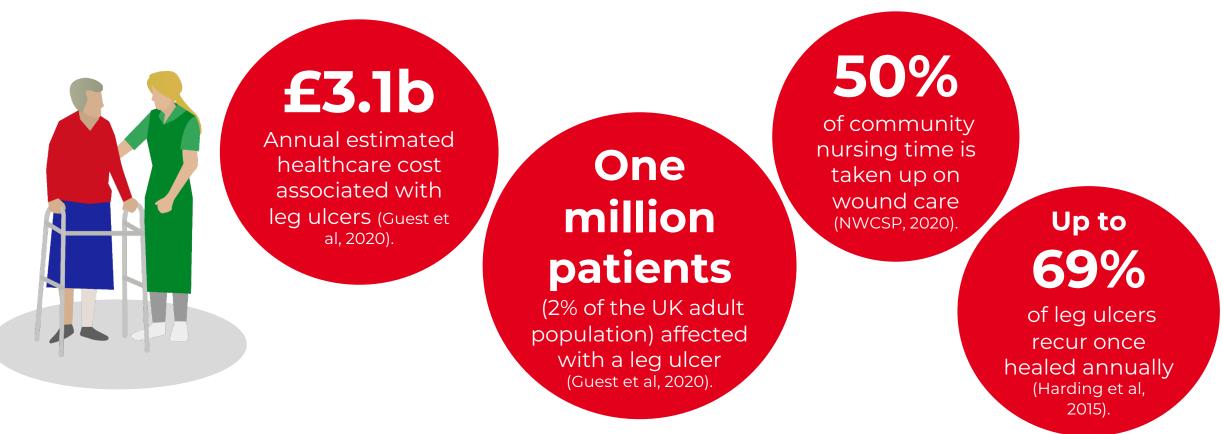


## WELCOME & RECAP





#### THE BURDEN OF LEG ULCERS





Change is a MUST to reduce the burden of wounds for the NHS and sufferers.



## NATIONAL WOUND CARE STRATEGY PROGRAMME (NWCSP)

National Wound Care Strategy Programme Declinere. Dery Patient. Dery Time



for Clinical Care

The unwarranted variation in UK wound care services offers major opportunities to improve healing rates and thus reduce patient suffering, spend on inappropriate and ineffective treatments and the amount of clinical time spent on wound care (NWCSP, 2020).

Evidence-based recommendations for lower limb care address three areas to support best practice implementation (NWCSP, 2020):

- Immediate and necessary care
- Diagnosis and treatment
- Ongoing maintenance.



National Wound Care Strategy Programme Excellence. Every Patient. Every Time.



#### RECAP

Part 1 in this leg ulcer series focused on:

#### • IMMEDIATE AND NECESSARY CARE

- The importance of and how to recognise red flags
- Immediate use of <20mmHg compression do not delay
- Timelines for assessment and referral do not delay
- End-to-end management: prevention is key, ongoing support is required post healing.

Catch up on Leg Ulcers: Immediate care to prevention of recurrence: https://www.facebook.com/events/1082630069127600/





## BEST PRACTICE TREATMENT FOR VLU





### TREATMENT OF A VENOUS LEG ULCER

#### NWCSP (2020) recommendations for managing wounds on the leg:

#### **Diagnosis and treatment**

- 1 Assess and identify contributing causes for non-healing
- 2. Diagnose cause of non-healing and formulate treatment plan
- Leg wounds with an adequate arterial supply and no aetiology other than venous insufficiency
- Refer for venous surgical/endovenous interventions.
- Strong compression therapy.

#### Leg wounds with signs of arterial disease

- Refer for vascular surgical/endovenous interventions and advice on compression.
- Pending vascular opinion, if no symptoms of arterial insufficiency, continue with mild graduated compression.

#### Leg wounds of other or uncertain aetiology

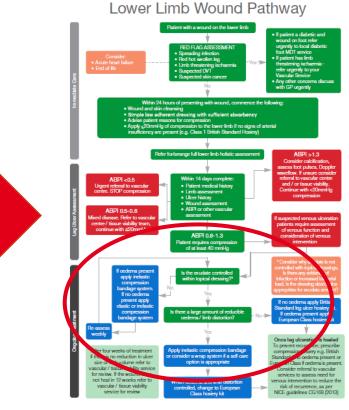
- Refer for dermatology opinion (or other specialist depending on symptoms and service arrangements).
- Pending specialist opinion if no symptoms of arterial insufficiency, continue with mild graduated compression.

Refer for expert diagnosis and advice

Lymphoedema

about lymphoedema.

## Journal of Community Narsing



#### Watch out for the Leg Ulcer Series.

## Part 3: Embracing supported self-care

Tuesday October 11, 2022



#### (Atkin and Tickle, 2016)

## FULL THERAPEUTIC COMPRESSION IS REQUIRED TO HEAL A VLU

Once assessment confirms there is adequate arterial supply, **STRONG** compression (at least 40mmHg) and an appropriate wound care regimen is required (Wounds UK, 2016).

This is vital.

MYTH

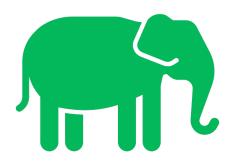
Reduced compression is therapeutic for VLUs. TRUTH

While some compression is better than none, clinicians should always aim to use full compression systems when the vascular assessment deems it appropriate to do so, in order to prevent delays in healing through use of sub-therapeutic compression.





#### THE ELEPHANT IN THE ROOM!



Based on data (Guest et al, 2020), an estimated 85% of those with a LU suitable for compression have an ulcer that is venous in origin, yet 26% of all compression bandages sold are reduced systems <sup>(GPrX)</sup>.

Positively promote the use of FULL compression to your patients — education, appropriate language. Address pain — effective compression reduces inflammation and therefore can relieve pain. Use analgesia if necessary. Remove the fear for clinicians of doing harm allowing chronicity does more harm. Choose a system you are confident cannot be overstretched.





## SELF-CARE COMPRESSION SOLUTIONS ARE RECOMMENDED FIRST LINE

- Exudate controlled
- Minimal oedema and/or limb distortion.
- \* May be applied by the patient or a carer.

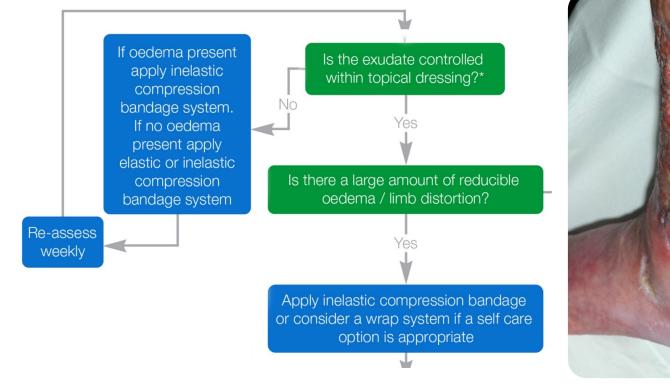
More on this in part three of the Leg Ulcer Series: Embracing supported self-care.







#### WHEN SELF-CARE SOLUTIONS ARE NOT YET SUITABLE







High exudate volume and/or large amount of reducible oedema/limb distortion.



## SETTING THE SCENE ON EXUDATE AND OEDEMA





### WHAT IS EXUDATE?

A fluid that, when the skin is intact, would usually bathe the cells within the dermis, providing nutrients (Davies, 2012).

When there is an injury to the skin, exudate is exacerbated as part of the inflammatory response, and in moderation is an essential component of the healing process (Dowsett, 2011; World Union of Wound Healing Societies [WUWHS], 2019).







## **ROLE OF EXUDATE**

- Exudate plays an essential role in the normal healing process by maintaining a moist wound bed
- This is achieved by:
  - Supplying the essential nutrients to allow cells to metabolise
  - Helping tissue repairing cells to migrate where needed
  - Allow dead or damaged tissue to separate from good tissue (autolysis)
- In normal wound healing, the volume of exudate will decrease as healing occurs (Flanagan, 2013; Kerr, 2014).

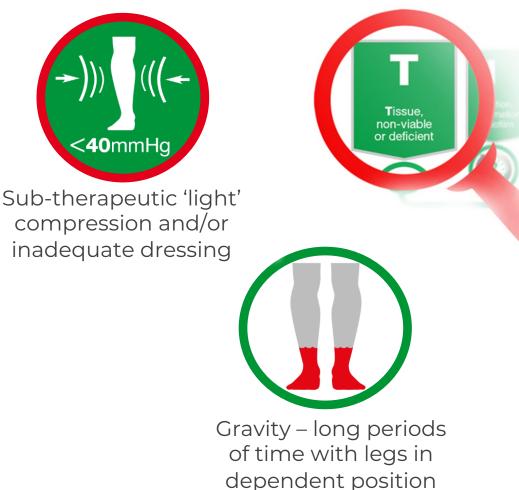
Sometimes misconceived as **BAD** 





### WHY LEG ULCERS ARE OFTEN HIGHLY EXUDING

- Venous insufficiency
- Lymphatic insufficiency
- Limb dependency
- Inactive calf muscle pump
- Engorgement of capillary bed
- Size/surface area of wound
- Ineffective levels of compression
- Infection or biofilm.





## EXUDATE AND CHRONIC LEG ULCERS

#### **Exudate can be detrimental**, because it:

- Encourages bacterial growth
- Causes higher levels of inflammatory factors
- Interferes with the normal healing process
- Can be corrosive to surrounding skin
- Has a significant impact on patient quality of life (Wounds UK, 2013).







## **Delayed healing**

#### DRESSING SELECTION – ABSORB THE EXCESS

#### A dressing used to manage exudate should:

- Optimise wound bed moisture level
- Absorb and retain exudate
- Protect the surrounding skin
- Conform well to the limb
- Be cost-effective
- Not adhere to the wound/surrounding skin
- Prevent strikethrough
- Be safe and effective to use under compression (WUWHS, 2019).





#### WHAT IS CHRONIC OEDEMA?

The term chronic oedema acts as an umbrella description of abnormal swelling of tissues which lasts for more than three months, regardless of whether it is lymphatic or venous in origin (Humphreys et al, 2017).

#### It is a symptom rather than a diagnosis.







### OEDEMA CASCADE

- Initially soft and pitting
- Chronic skin changes
- Fibrosis in skin
- Eczema
- Hyperkeratosis
- Lipodermatosclerosis
- Risk of skin breakdown/ ulceration.







#### EFFECT OF UNCONTROLLED EXUDATE AND OEDEMA





Impact to **healing** 

#### Impact to the **patient**

Impact to the **clinician** 



Impact to the wider **NHS** 





## ESCALATING IMPROVEMENT





#### DEBRIDEMENT

- Removes debris from wounds
- Removes physical barriers to healing
- Reduces bioburden
- Removes nutrients that bacteria feed on
- Creates an acute response.

Therefore, reduces exudate volume and promotes cascade through healing process (Wounds UK, 2013).



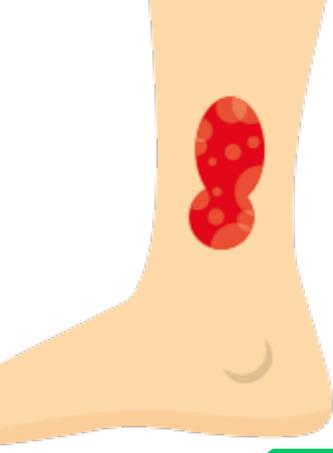




## SELECTING A DEBRIDEMENT METHOD

The Best Practice Statement (Wounds UK, 2016) Holistic Management of Venous Leg Ulcers states:

- Mechanical debridement should be used in the first instance for thorough cleansing
- A high percentage of VLUs will have biofilm which needs to be disrupted with mechanical debridement before antimicrobial control
- Wounds treated with frequent debridement, result in significantly shorter healing time (Wilcox et al, 2013).







### DEBRIDEMENT

- Clean it like you mean it!
- Use appropriate cleansing solutions
- The goal is to eliminate all unwanted materials and 'wake-up' the wound
- Debridement that does not achieve pinpoint bleeding may not physically remove the biofilm
- Autolytic debridement alone is insufficient
- Don't forget emollients post cleansing/debridement.

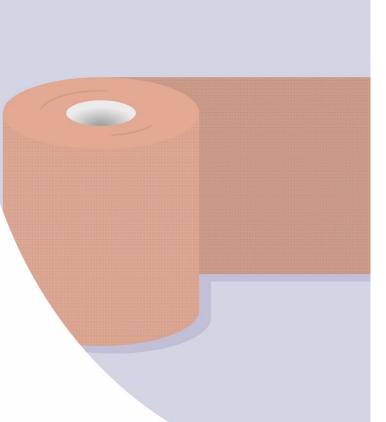




### REDUCE EXUDATE/OEDEMA AND PROGRESS HEALING

#### **COMPRESSION IS FUNDAMENTAL:**

- It improves venous return
- Opposes leakage of fluid from capillaries into tissues, improving lymphatic return
- Treats the underlying cause
- Reduces limb congestion
- Reduces inflammatory effects
- Allows the wound to move out of an inflammatory state (Wounds International, 2013; Harding et al, 2015).







### **COMPRESSION OPTIONS**

#### Appropriate systems for the clinical scenario:

Scenario	Hosiery Kits	Wraps	Bandages
Normal leg shape	1	✓	<b>√</b>
Low-to-moderate exudate	<b>√</b>	✓	<b>√</b>
Self-caring	<b>√</b>	~	×
Distortion due to oedema	×	•	$\checkmark$
High exudate	×	$\times$	
Deep skin folds	×	×	







#### EFFECT OF ELASTICITY ON THE WAY COMPRESSION IS DELIVERED

	Inelastic		Elastic		
Inelastic Bandages	Working		Elastic Bandages	Working	

Provide stiff support and prevent outward expansion Allow a degree of limb expansion

Working and resting pressures provide a massage effect, reduction in venous hypertension and stimulates lymphatic uptake

Exert a more constant pressure with little change in pressure on movement

Recommended for limbs with or without oedema

Recommended for non-oedematous legs

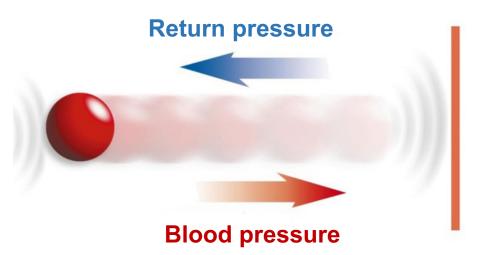




### WORKING AND RESTING PRESSURE

**'Working pressure'** — on movement, the calf muscle contracts, expands and rebounds against the bandage creating intermittent high pressure peaks which pushes the blood upwards.

**'Resting pressure'** — when the limb is resting, the pressure exerted by the bandage is lower.







#### INELASTIC BANDAGES AND IMMOBILE PATIENTS

#### MYTH

Inelastic bandages are not suitable for immobile patients.



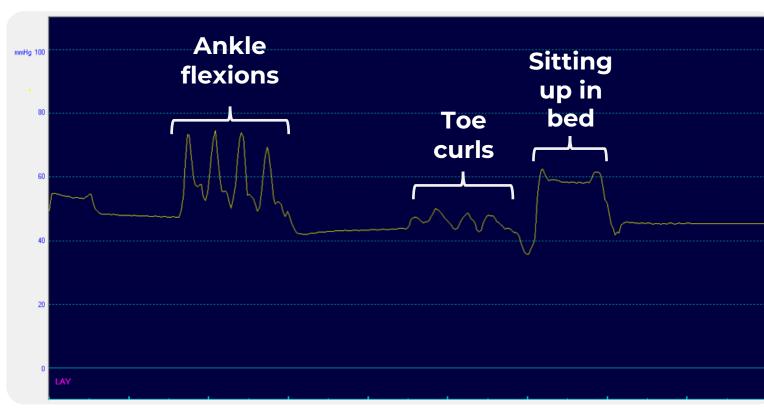
#### TRUTH

Inelastic bandages can be used on both mobile and immobile patients, as fluctuations in pressure can be achieved even with small or passive movements to facilitate venous return. Inelastic bandages provide pressure peaks even during small ankle flexions, making them suitable for immobile as well as mobile patients (Charles et al, 2009; Wounds UK, 2016).





#### INELASTIC BANDAGES: EFFECTIVE FOR IMMOBILE PATIENTS



Fluctuations in pressure can be achieved even with small or passive movements (Franks et al, 2004).

PicoPress measurement recorded while applied to a healthy volunteer.



#### ACTICO

#### Therapeutic working and resting pressures:

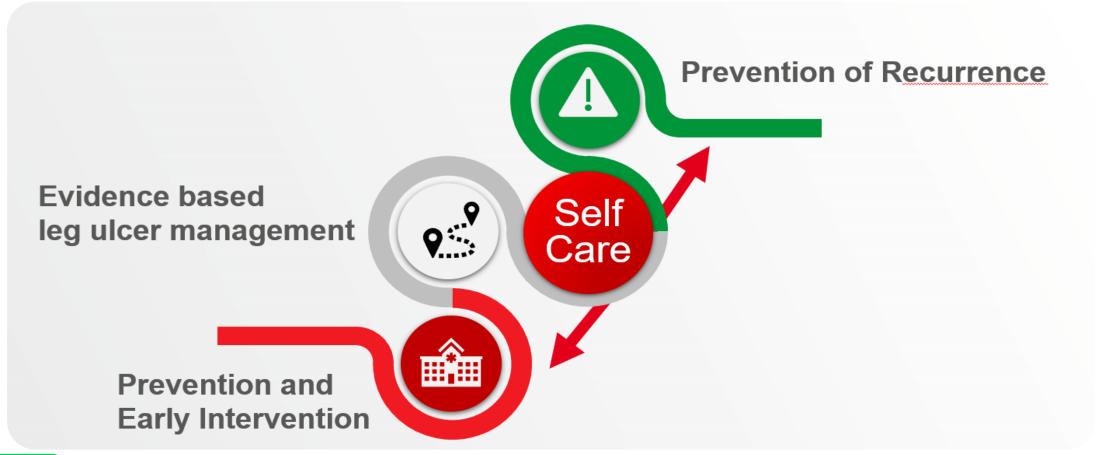
- Mimics the operation of healthy valves
- Effective treatment of venous leg ulcers and oedema (Franks et al, 2004)
- Greater comfort at rest (Clements, 2007)
- Adaptable: for a wide range of lower limb conditions
- **Applied at full stretch:** reduces fear of over-compression for peace of mind for consistently safe, accurate and easy application (Knowles et al, 2013).







### MOVING THROUGH THE PATHWAY







## SETTING PATIENTS' EXPECTATIONS



It should be an expectation that the wound progresses



Inform the patient that the first sign of improvement is reduction of limb and exudate volume — wound reduction comes second



Once exudate volume subsides and oedema reduces, choice of compression should be re-evaluated and self-care garments considered



This pathway should be outlined from the outset, so there is expectation, understanding and acceptance of the need to change.





### CLUB SQUEEZE IN



## Club SQUEEZE IN

• 'Squeeze In' aims to empower people to manage their leg health to support improved outcomes and release nursing time back to care.

• To support your patients with leg ulcers from first aid to prevention of recurrence sign up to squeeze in today: <u>www.squeezein.life</u>

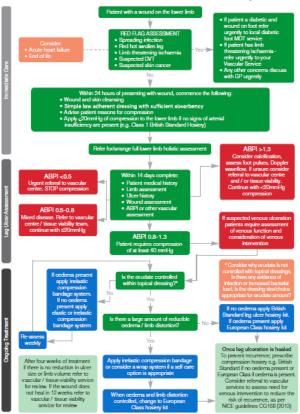




### IN SUMMARY

- Follow an evidenced-based pathway
- Consider self-care first, but if exudate and oedema prevent this:
  - Debride and remove the reason
  - Absorb the excess fluid protect the skin
  - Compress to progress reduce congestion and inflammation
- Full therapeutic compression is required
- Engage with the patient to ensure progression through the pathway.

#### Lower Limb Wound Pathway









### **KEY TAKE AWAY QUESTIONS**



- Are you healing patients with venous leg ulcers or simply managing the symptoms?
- Are all your patients who are suitable in full strong compression?
- Do your patients truly understand the reasons for compression – and that their compression journey is going to be a lifelong one?







#### DOWNLOAD YOUR CERTIFICATE

Thank you for joining us, we hope to see you during our next live event!

To receive your certificate of attendance for please fill in the form below.



Name *			
First name		Surname	
	Þ		D
Email *			
Enter Email		Confirm Email	
	Ð		Ð
Phone number			
	Ð		
City & Post Code *			
City		ZIP / Postal Code	
	D.		D

## DOWNLOAD YOUR CERTIFICATE

www.jcn-live.co.uk/certificate





### REFERENCES

Atkin L, Tickle J (2016) A new pathway for lower limb ulceration. Wounds UK 12(2): 40-43

Charles H, Hofmann D, Anderson I, Williams AF (2009) Short stretch bandages can assist wound healing and reduce oedema in immobile patients. *J Wound Care* **18(1):** 39

Cho S, Atwood JE (2002) Peripheral edema. Am J Med 113(7): 580–586

Clements A (2007) Lymphoedema, a case study using the available resources – bandages, hosiery, nurse skills and patient/carer. Poster presentation, Wounds UK, Harrogate.

Davies P (2012) Exudate assessment and management. Br J Community Nurs 17(Suppl9): S18–S24

Dowsett, (2011) Moisture in wound healing: exudate management. Br J Community Nurs 16(Suppl6): S6–S12

Flanagan M (2013) *Principles of wound management*. In: Flanagan M (ed) Wound Healing and Skin Integrity: Principles and Practice. Wiley-Blackwell, Chichester

Franks PJ, Moody M, Moffatt CJ, et al (2004) Randomised trial of cohesive short stretch (Actico®) versus four-layer bandaging in the management of venous ulceration. *Wound Repair Regen* 12(2): 157-162

Guest JF, Fuller GW, Vowden P (2020) Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: update from 2012/2013. *BMJ Open* **10(12):** e045253. Available online: <u>https://bmjopen.bmj.com/content/10/12/e045253</u>

Harding K, Dowsett C, Fias L, et al (2015) Simplifying venous leg ulcer management. Consensus recommendations. Wounds International, London. Available online: <u>https://www.woundsinternational.com/resources/details/simplifying-venous-leg-ulcer-management-consensus-</u> recommendations





### REFERENCES

Humphreys J, Thomas M, Morgan K (2017) Managing chronic oedema in community settings. Wounds UK 13(3): 22-35

Kerr A (2014) How best to record and describe wound exudate. Wounds UK 10(2): 50-57

Knowles A, Charles H, Collarte A, Coulborn A, Hampton S (2013) Evaluation of a new two component inelastic compression bandage kit. *J Community Nurs* **27(3):** 10-13

National Wound Care Strategy Programme (NWCSP) (2020) *Lower limb recommendations for clinical care*. Available online: <u>https://www.nationalwoundcarestrategy.net/lower-limb/</u>

Wilcox JR, Carter MJ, Covington S (2013) Frequency of debridement and time to heal: a retrospective cohort study of 312,744 wounds. *JAMA Dermatol* **149(9):** 1050-8

Wounds International (2013) *Principles of compression in venous disease: a practitioner's guide to treatment and prevention of venous leg ulcers.* Wounds International, London. Available online: <u>www.woundsinternational.com</u>

Wounds UK (2013) Effective debridement in a changing NHS: a UK consensus. Wounds UK, London

Wounds UK (2016) Best Practice Statement. Holistic management of venous leg ulceration. Wounds UK, London.

Wounds UK (2019) Best Practice Statement. Addressing complexities in the management of venous leg ulcers. Wounds UK, London

WUWHS (2019) Consensus Document. Wound Exudate, effective assessment and management. Wounds International, London

Vowden P, Kerr A, Mosti G (2020) Position document. *Demystifying mild, moderate and high compression systems – when and how to introduce "lighter" compression*. Wounds International, London



