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DEMYSTIFYING THE MANAGEMENT OF LEG ULCERATION WITH LOWER LIMB SWELLING

**TUESDAY
21 SEPTEMBER
7.30-8.30**

FACEBOOK PREMIERE

JCN  **essity**

**LEANNE
ATKIN**



**REBECCA
ELWELL**



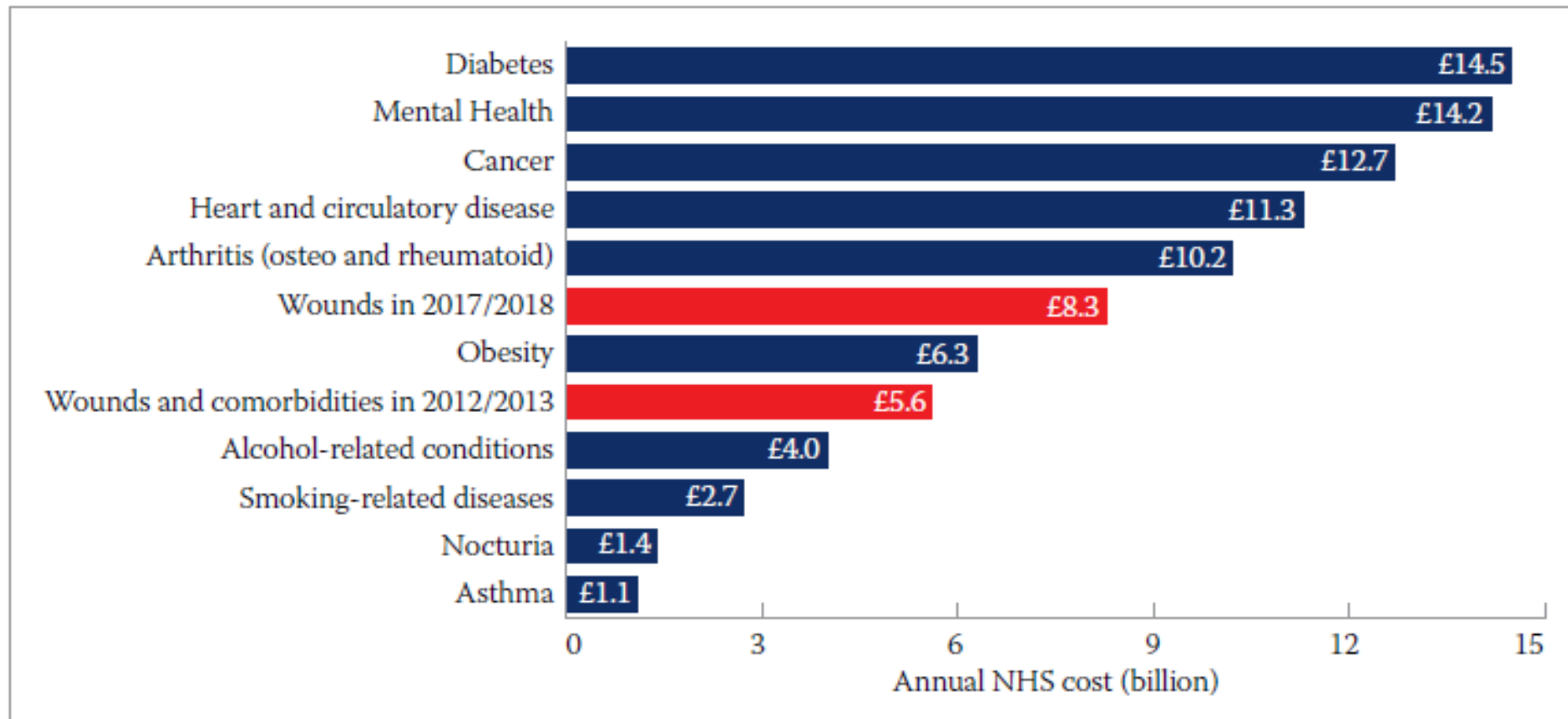
DEMYSTIFYING THE MANAGEMENT OF LEG ULCERATION WITH LOWER LIMB SWELLING

DR LEANNE ATKIN PHD, MHSC, RGN &
REBECCA ELWELL MSC

LEARNING OBJECTIVES

- Appreciate the national picture relating to wounds –the Burden of Wounds study and the National Wound Care Strategy Programme (NWCSP)
- Understand what causes oedema and leg ulceration
- Recognise the presentation of lymphovenous legs
- Appreciate the importance of compression therapy.

BURDEN OF ILLNESS LEAGUE TABLE AT 2017/18 PRICES



BURDEN OF WOUNDS IN THE UK

In 2012/13: 2.2 million wounds managed by the NHS:

- 18.6 million practice nurse visits/10.9 million community nurse visits
- Estimated cost of £5.3 billion (Guest et al, 2015)

By 2017/2018: 3.8 million wounds managed by the NHS:

- Estimated costs 8.3 billion each year
- Amount of chronic wounds raised from 43% to 49% (Guest et al, 2020).

Open Access Research

BMJ Open Health economic burden that wounds impose on the National Health Service in the UK

Julian F Guest,^{1,2} Nadia Ayoub,¹ Tracey McIlwraith,¹ Ijeoma Uchehgbu,¹ Alyson Gerrish,¹ Diana Weidlich,¹ Kathryn Vowden,³ Peter Vowden³

ABSTRACT
Objective: To estimate the prevalence of wounds managed by the UK's National Health Service (NHS) in 2012/2013 and the annual levels of healthcare resource use attributable to their management and corresponding costs.
Methods: This was a retrospective cohort analysis of the records of patients in the Health Improvement Network (HIN) Database. Records of 1000 adult patients who had a wound in 2012/2013 (cases) were randomly selected and matched with 1000 patients with no history of a wound (controls). Patients' characteristics, wound-related health outcomes and all healthcare resource use were quantified and the total NHS cost of patient management was estimated at 2013/2014 prices.
Results: Patients' mean age was 69.0 years and 45% were male. 76% of patients presented with a new wound in the study year and 61% of wounds healed during the study year. Nutritional deficiency (OR 0.53; p<0.001) and diabetes (OR 0.62; p<0.001) were independent risk factors for non-healing. There were an estimated 2.2 million wounds managed by the NHS in 2012/2013. Annual levels of resource use attributable to managing these wounds and associated comorbidities included 18.6 million practice nurse visits, 10.9 million community nurse visits, 7.7 million GP visits and 3.4 million hospital outpatient visits. The annual NHS cost of managing these wounds and associated comorbidities was £5.3 billion. This was reduced to between £5.1 and £4.5 billion after adjusting for comorbidities.
Conclusions: Real world evidence highlights wound management is predominantly a nurse-led discipline. Approximately 30% of wounds lacked a differential diagnosis, indicative of practical difficulties experienced by non-specialist clinicians. Wounds impose a substantial health economic burden on the UK's NHS, comparable to that of managing obesity (£5.0 billion). Clinical and economic benefits could accrue from improved systems of care and an increased awareness of the impact that wounds impose on patients and the NHS.

Strengths and limitations of this study

- This study estimated the health outcomes, resource implications and associated costs attributable to managing wounds in 2012/2013 using real world evidence obtained from the Health Improvement Network (HIN) database (a nationally representative database of clinical practice among >11 million patients registered with general practitioners in the UK).
- The estimates were derived following a systematic analysis of patients' characteristics, wound-related health outcomes and all community-based and secondary care resource use contained in the patients' electronic records.
- Computerised information in the HIN database is collected by general practitioners (GPs) for clinical care purposes and not for research. Additionally, prescriptions issued by GPs and practice nurses are recorded in the database, but it does not specify whether the prescriptions were dispensed or patient compliance with the product.
- The analysis does not consider the potential impact of those wounds that remained unhealed beyond the study period. Nor does it consider the potential impact of managing patients with wounds being cared for in nursing homes. The HIN database may have under-recorded use of some healthcare resources outside the GP's surgery. However, the impact of this was addressed in sensitivity analyses.

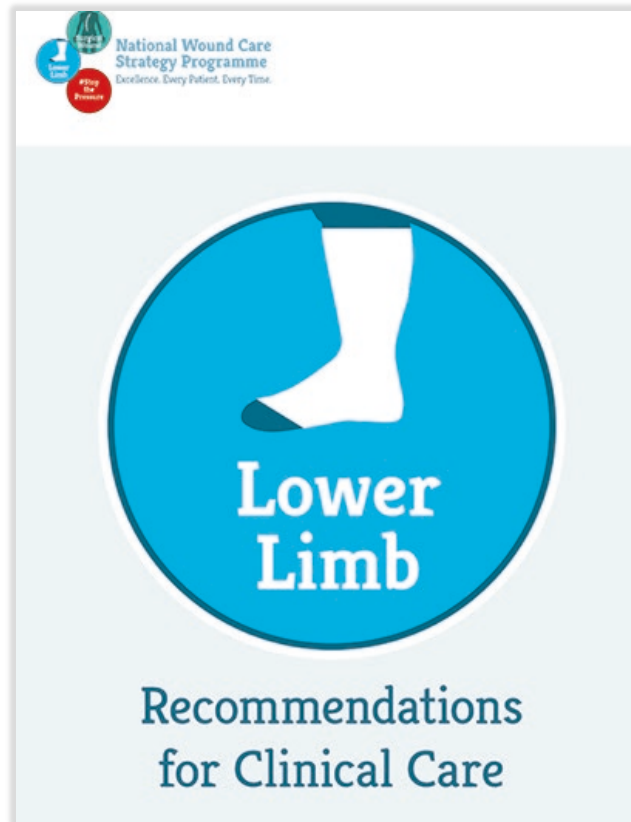
INTRODUCTION
Patients requiring wound care can be found in the community, secondary care and in long-term care institutions and range from infants to the elderly. The patient population with wounds is managed across the spectrum of different healthcare disciplines that includes general practice, specialist physicians, surgeons, nurses and allied healthcare practitioners, such as podiatrists.¹⁻³ Wound care should be viewed as a specialised segment of healthcare that requires clinicians with specialist training to diagnose and manage appropriately.^{4,5} However, the evidence suggests this is not the case.¹⁻³ Moreover, it has been suggested that better wound care, such as effective diagnosis and treatment and effective prevention of wound

Footnote:
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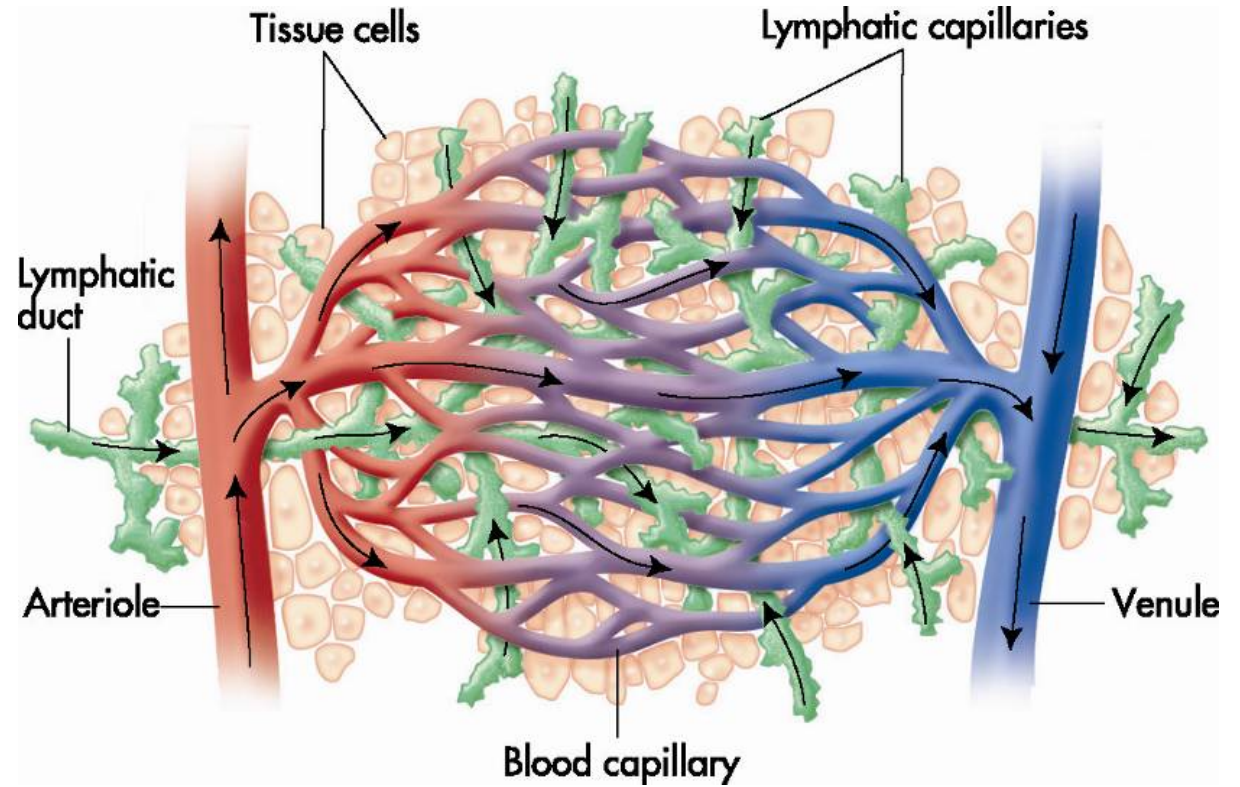
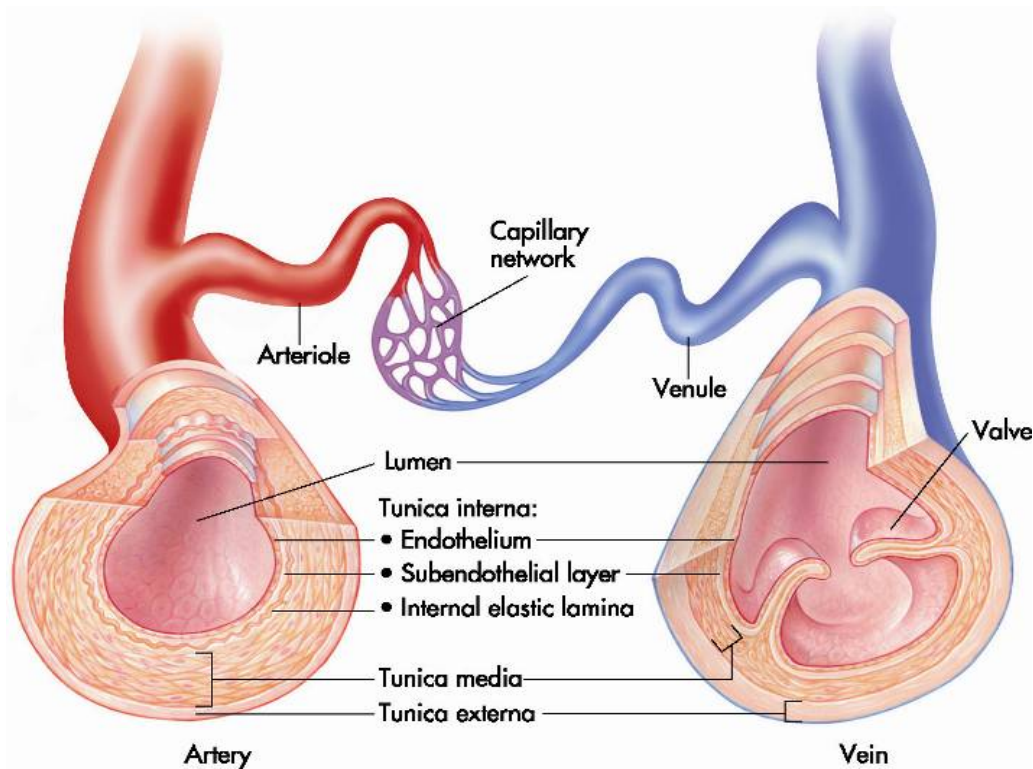
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VALUE OF THE NWCSP LOWER LIMB RECOMMENDATIONS



ARTERIO/VENOUS/LYMPH RELATIONSHIP



OEDEMA OF LOWER LIMB IS DISTRESSING

Patients report:

- Heaviness
- Aching
- Tenderness
- Skin discolouration
- Skin changes
- Stiff joints
- Weight gain
- Issues with footwear/clothing
- Weeping of skin
- Fear of skin damage
- Risk of ulceration
- Risk of infection.



OEDEMA CASCADE

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



MANAGING LEG ULCERATION WITH LOWER LIMB SWELLING WITH COMPRESSION THERAPY

- High level evidence
- Potent anti-inflammatory therapy
- Breaks the cycle of oedema/inflammation
- Wide variety of options
- Many aids to help application
- Proven to improve patient symptoms and quality of life (Reich-Schupke et al; 2009; Demczyszak et al, 2017).



HOW COMPRESSION WORKS

Compression is a key component for the treatment of venous leg ulceration with oedema.



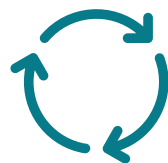
Increases the local tissue pressure



Prevents the loss of capillary fluid



Reduces oedema, allowing oxygen and nutrients to reach the wound



Supports the calf muscle pump action and therefore venous return



Prevents or reduces the fluid leakage which occurs with venous insufficiency

EVOLUTION OF COMPRESSION THERAPIES

70s

80s

90s

00s

10s

20s

Improved outcomes

TRADITIONAL

- Crepe Bandages

COMPRESSION BANDAGES

- Charing Cross
- Ulna boot
- Non elastic bandages
- Elastic bandages
- Multi layer systems

COMPRESSION SYSTEMS

- 4 layer kits
- 2 Layer kits
- Short stretch bandages
- Compression hosiery kits
- Leg wraps

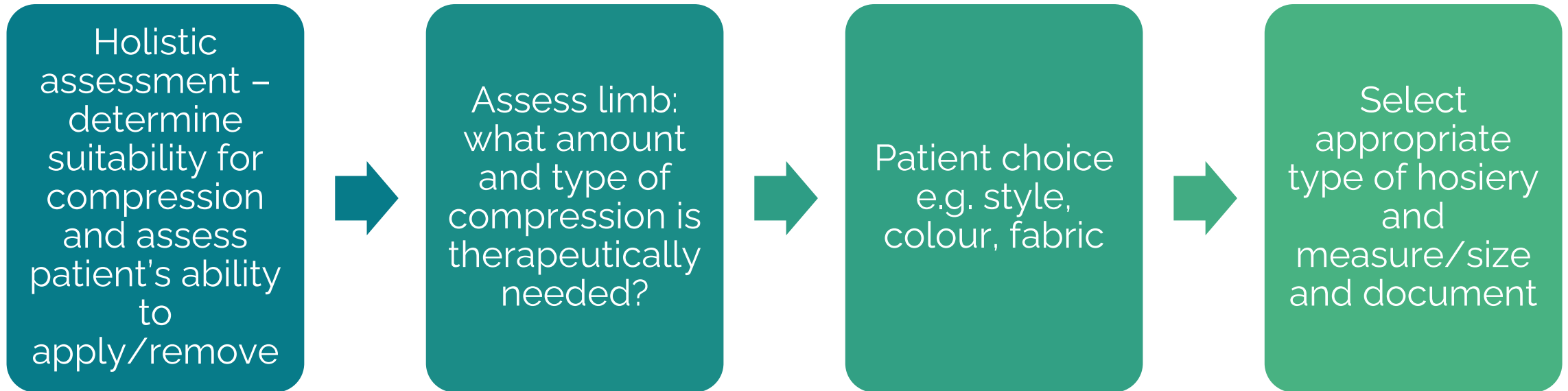
FUTURE?

Improved patient choice

COMPRESSION OPTIONS



COMPRESSION HOSIERY SELECTION



COMPRESSION HOSIERY CHOICES

- Manufacturer/Brand
- Class (British/German/French)
- Size
- Style (below knee, thigh length, tights)
- Knit (Flat knit/circular knit)
- Closed or open toe: if there is any swelling on the dorsum of the foot/toe then closed toe should be encouraged
- Zip/placement of zip
- Colour
- Amount
- Application aids.



CLASSIFICATIONS: NOT ALL THE SAME!

	Compression standards		
Compression class	British standard 40 (BS 661210) 3-month guarantee (Partsch, 2003)	French Standard (AFNOR NF 30.102A) (Levick, 2003)	German Standard (RAL GZ 387/1) 6-month guarantee (Földi and Földi, 1983)
Class 1 mild compression	14–17mmHg	10–15mmHg	18–21mmHg
Class 2 moderate compression	18–24mmHg	15–20mmHg	23–32mmHg
Class 3 strong compression	25–35mmHg	20–36mmHg	34–46mmHg
Class 4 extra strong compression	Not available	>36mmHg	>49mmHg

PATIENTS WITH OEDEMA

- Need RAL strength stockings
- Due to higher stiffness Index
- Stiffness index refers to the resistance or stretch of hosiery when a limb tries to expand within it. A stiff garment expands minimally and so fights the oedema
- Conversely a stretchy garment with low stiffness would expand readily with the build-up of oedema therefore is less therapeutic and increases risk of patient non-adherence.

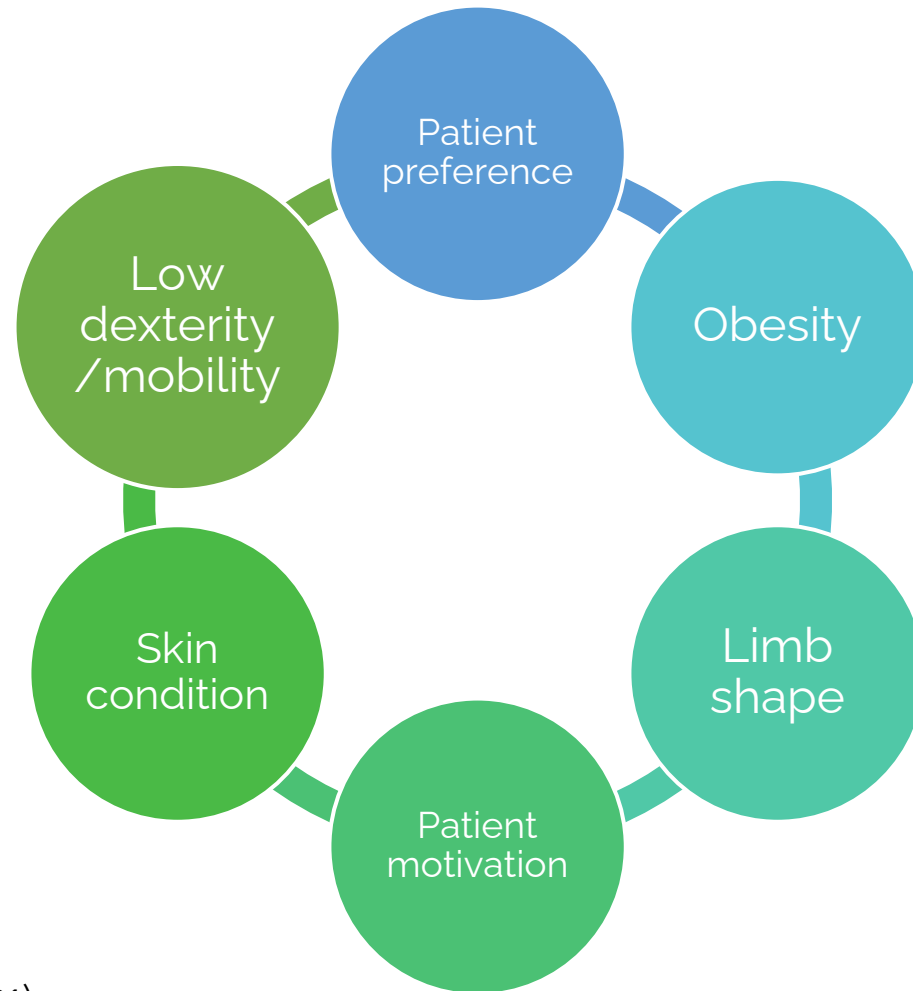


BENEFITS OF GETTING COMPRESSION RIGHT THE FIRST TIME

- Gain the trust of your patient
- Empower your patient
- Encourage supported self-care
- Help reduce the re-occurrence of rebound oedema and leg ulceration
- Increased comfort of wearing compression garments
- Increased concordance
- Help reduce long term costs.



FACTORS THAT IMPACT ON WEARING COMPRESSION



THE CHALLENGE

**Prevention better
than cure!**



**Stop the
deterioration**

WELCOME BECKY



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