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he use of compression hosiery in the management of lipoedema of the lower limbs is well-documented, but there is very little evidence to support the use of upper-limb garments. The *Journal of Wound Care* (JWC) lipoedema supplement based on the European consensus (2020) recognises the need to offer all patients diagnosed with lipoedema the opportunity to try compression hosiery, but the Lipoedema UK's big survey (Fetzer and Fetzer, 2016) revealed that only 55% of respondents wore compression 'most days' or 'every day', for which the main barriers cited were discomfort and application difficulty. A further 50% of patients found compression garments unhelpful, primarily due to poor fit.

#### **ABSTRACT**

Compression hosiery is commonly used for the management of lymphoedema as well as lipoedema, but it is more commonly indicated for the lower limbs than for the upper limbs. The effects of compression hosiery on upper-limb lipoedema are poorly understood and researched. It is known that compression hosiery works in conjunction with activity or movement when standing or walking, which produces anti-inflammatory and oxygenating effects in the tissues. This effect is naturally difficult to realise in the upper limbs. Lymphoedema practitioners who treat those with lipoedema should bear in mind that compression treatment might not produce the same effects in upper-limb lipoedema as it does in lower-limb lipoedema. In these times of an overstretched health service, pragmatic resource use is essential.

#### **KEY WORDS**

- Lipoedema Compression garments Inflammation
- Resource use
   Evidence-based practice

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#### Literature

At present, no data exist on the effects of compression in lipoedema. The JWC lipoedema supplement, which is based on the European consensus (2020), concludes that there is no oedema or fluid component in lipoedema. What is recognised, however, is the anti-inflammatory effects of compression therapy on the subcutaneous tissues. Compression therapy has been proven to reduce the burden of matrix metalloproteinases and cytokines, thereby producing a strong anti-inflammatory action (Legs Matter and Centre of Interdisciplinary Research on Compression, 2019). Thus, patients with lipoedema who wear lower-limb compression hosiery may experience an improvement in inflammation and pain.

Compression hosiery works in harmony with the effects of active movement both when standing or walking, which facilitates both an anti-inflammatory and oxygenating effect on the tissues. The JWC lipoedema supplement (2020) also states that the wearing of lower-limb compression hosiery can lead to an improvement in the subcutaneous microcirculation, but since all studies relate to the lower limbs, it is concluded that the wearing of compression sleeves for arm lipoedema might be less meaningful.

The best-practice statement for lipoedema (Wounds UK, 2017) has only one reference to upper-limb compression, which relates to compression bandaging, and it states that compression can be applied to the legs or arms but that it is generally not used for lipoedema.

## **Discussion**

There is an urgent need for clarity regarding the efficacy of compression therapy for patients with lipoedema. It must be clear that compression will not reverse the adipose tissue enlargement seen in lipoedema (Fetzer and Fetzer, 2016), nor does it prevent an increase in fat if the patient gains weight (JWC lipoedema supplement,

2020). The best-practice statement for lipoedema (Wounds UK, 2017) suggests that compression therapy selection for patients with lipoedema needs to take account of the availability of garments on prescription and cost. Approximately £15.48 million pounds is spent annually in England and Wales on prescribed compression garments for lymphoedema (this includes lipoedema; since there are no specialist lipoedema clinics, patients with lipoedema are largely managed by lymphoedema services). The lack of specialist expertise in prescribing these garments leads to significant mistakes and consequential waste. A reduction of just 20% in this prescribing would save the NHS over £3 million pounds per annum (Prescqipp, 2017).

### Conclusion

The NHS has a finite amount of resources, and those who assist patients with lipoedema to manage their condition have a responsibility to employ any resources wisely and on the basis of evidence-based care. Until the publication of the JWC lipoedema supplement based on European consensus (2020), there has been a lack of standardised care, but it is hoped that this document can be used to support decision-making.

At present, there is inadequate evidence to support the provision of upper-limb compression garments for patients with lipoedema. If patients feel that they would benefit from trying upper-limb compression garments, they should be directed to try self-funded sports skins or compression clothing. BJCN

Conflict of interest: none

## **KEY POINTS**

- Lipoedema is an adipose tissue disorder that presents as the buildup of adipose tissue in the legs, hips and arms of women
- This condition is often considered to be related to lymphoedema, although recent research shows that, unlike the latter, lipoedema lacks a fluid component
- Compression therapy has been shown to be useful for patients with lower-limb lipoedema, but evidence to support its use for lipoedema of the upper limbs is lacking
- The resources used to procure compression therapy for patients with lipoedema should be used judiciously

# **CPD REFLECTIVE QUESTIONS**

- How is compression therapy useful for patients with lipoedema?
- What steps would you take to ensure appropriate use of NHS resources in the case of lipoedema?
- What barriers do patients cite for non-concordance with wearing compression garments?

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