

The importance of an evidence based holistic approach to care for a complex patient with lymphoedema

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Introduction

Research identifies the link between obesity and Lymphoedema, stating that when a person's BMI is above 50 this can progress to obesity induced lymphoedema due to inadequate lymphatic function and increase of hydrostatic pressure in the veins of the lower leg¹.

The National Institute for Health and Care Excellence (NICE) identify lymphoedema as a common finding in obesity. 57% of the community nursing caseload in the UK are reported as having chronic oedema, the majority of which are also obese, with 40% having chronic leg ulcers². This has an overwhelming impact on community nursing caseloads and local resources as well as an increased risk to the patient with acuity and longevity of wounds.

This case study demonstrates that by taking a holistic approach, wound healing can be achieved in complex patients with lymphoedema in a timely manner. Utilising evidence-based treatments will support positive outcomes and prevent complications whilst positively empowering the patient to make the necessary changes to improve their health.

Method

The patient included in this case study is a 49-year-old gentleman, living alone in a flat adjacent to a supported living complex, who was unable to work due to co-morbidities. He had a carer who visited him 4 times a day, 7 days a week. The patient was diagnosed with Lymphoedema secondary to venous insufficiency; he had poor mobility and was obese with an estimated BMI of 77. The patient was aware that his weight had a negative impact on his health and healing of his wounds.

The patient had experienced ongoing complications with recurrent leg ulcers since 2019 and had received treatment by practice and community nurses before being referred to the Lymphoedema specialist service in 2023 (*Image 1 and 2*). The patient had poor mobility and calf pump muscle activity, having a direct impact on venous return. Suboptimal compression bandaging and wraps were used along with multiple dressings to treat the wound without any improvement.

A full multi-disciplinary review was undertaken to develop a plan of care that would consider a more holistic approach. He was referred to a dietician to support weight management and was encouraged to increase his physical activity from being sedentary to walking up to 2000 steps a day. The specialist nurse also reviewed the local wound treatment and compression. In line with current best practice evidence **UrgoStart Plus Pad** was applied to the wounds which has been proven to support excellent healing outcomes of patients with venous leg ulcers by reducing Matrix Metalloproteinases (MMP) levels in the wound facilitating early wound closure. **UrgoClean Ag** was periodically used for episodes of localised infection. The poly-absorbent fibres in both dressings absorb exudate, whilst trapping and binding the slough facilitating autolytic debridement. High compression bandaging was also implemented as per local protocol.



Image 1

Lateral on presentation to lymphoedema service



Image 2

Anterior aspect on presentation to lymphoedema specialist



Image 3

Anterior aspect healing at week 12

Results

At the start of the treatment the wounds measured 14cm x 6 cm and 6cm x 6.5cm. Complete healing of the ulceration to the anterior aspect of the leg was achieved in 12 weeks (*Image 3*) and significant reduction to the ulceration on the lateral aspect was achieved with the new bandage and dressing regime. The increase in the patient's mobility supported venous return but more importantly improved his quality of life, enabling him to attend weekly social gatherings with his carer. *Image 4* depicts the reduction in wound size to both ulcerations.

Image 4	DATE	SITE	MEASUREMENT
	October 2023	Lateral Ulcer	14cm / 6cm
	October 2023	Anterior Ulcer	6cm / 6.5cm
	December 2023	Lateral Ulcer	2.5cm / 1.5cm
	December 2023	Anterior Ulcer	Healed

Discussion

Due to the patient's high BMI, venous hypertension and poor mobility, his wounds were static with ongoing complications. He had repeated localised infections with symptoms of increased malodour and high exudate levels which had a negative impact on his emotional health causing social isolation. The introduction of an evidence-based regime to treat his wounds and lymphoedema managed these unpleasant symptoms and enabled the patient to take responsibility for improving his own health and lifestyle and reduced the burden on local health care resources.

Conclusion

This case study outlines the complexity of managing patients with leg ulceration who have multi comorbidities including lymphoedema and obesity. However, taking a holistic approach to consider all factors which can delay wound healing and implementing evidence-based practice, complete wound healing can be achieved in the most complex cases including elevated levels of MMP's and increased bacterial bioburden. Evidence-based practice supports consistency in care delivery to help manage both clinician and patient expectations and improves clinical outcomes.

References:

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