

USE OF A WRAP COMPRESSION SYSTEM IN LEG ULCER MANAGEMENT

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Background/Introduction:

Treatment of a 64 year-old gentleman with a history of bilateral lymphovenous oedema, leg ulceration of several months, obesity and cellulitis of the lower limbs.

The patient had his toe-brachial pressure index evaluated which indicated that he was suitable for compression¹. Previously treated by community nurses and a leg ulcer clinic, however, due to severe pain caused by the ulcers the patient was unable to tolerate short-stretch compression bandaging and elected to discontinue treatment².

The patient was re-referred by his GP to the lymphoedema clinic for assessment and specialist treatment, with the aim to heal leg ulcers and improve skin condition as skin was severely macerated. A treatment plan was proposed using a wrap compression system³. A wrap compression system differs from short-stretch bandaging due to the ease of application. The wrap can be applied by non-healthcare professionals, unlike short-stretch bandaging. A wrap compression system can also be easily adjusted or reapplied by the patient or carer as required, which allows for appropriate skin care.

Method:

The patient attended weekly appointments at the lymphoedema clinic to soak and cleanse his legs, initially using potassium permanganate then changing to plain water with added emollient. Emollient creams were applied to intact skin and barrier cream to edges of leg ulcers to protect surrounding tissues. An antimicrobial honey dressing was used prophylactically to reduce the risk of recurrent cellulitis, super absorbent dressings were used to absorb exudate (secured with yellow line) and a wrap compression system was used to apply graduated compression. Daily dressing changes and skin care were carried out by the patient's carer within the patient's home.

Results:

- Exudate levels significantly reduced after one week due to appropriate compression
- The carer was able to remove the wrap compression system to change saturated dressings and carry out appropriate skin care, preventing maceration
- After one week, the dressing changes were reduced from three times a day to once a day, allowing for skin care regimen
- The carer was able to independently reapply and readjust the wrap compression system as required
- Patient experienced significant reduction in pain levels
- Right leg healed in 5 weeks, the patient's condition was maintained using the wrap compression system, along with a daily skin care regimen as hosiery was considered inappropriate at the time due to fragile skin, but to be considered when healing becomes more robust
- Left leg had only superficial wounds after 5 weeks with no exudate
- The patient tolerated the wrap compression system better than the previous short-stretch compression bandaging, as skin care could be managed and the appropriate level of compression could be easily achieved
- Patient had greater control and involvement in his care, which was psychologically very important for him

Discussion:

The easy removal and reapplication of the wrap compression system allows patients/carers to carry out good skin care with the ability to change dressings between clinic visits, as required, preventing maceration. The involvement of patients/carers in the treatment plan helps to promote independence and self-management, reducing clinic visits, which may reduce NHS costs.

Clinical Significance:

The use of a wrap compression system was a good alternative to compression bandaging for this patient with leg ulceration who was unable to tolerate compression bandaging, particularly due to pain, as the wrap compression system could easily be reapplied and adjusted by the patient or carer. It also gave the patient some control over his condition and helped to improve skin care which was important due to the patient's history of cellulitis.

References:

- (1) Moffat C, Oldroyd M, Greenhalgh R, Franks P (1994) – Palpating Ankle Pulses is Insufficient in Detecting Arterial Insufficiency in Patients with Leg Ulceration *Phlebology* 9: 170 – 172.
- (2) Moffat C 2001 :leg ulcer In Murray S ed *Vascular Disease, Nursing and Management*, Whurr, London 200-37
- (3) JOBST® FarrowWrap® by BSN medical

