

Maxxcare Pro Heel Boot - An alternative option for pressure relief to the heel for patients from a Community Podiatry caseload.



Vanessa Goulding, Highly Specialist Podiatrist & Scott Cawley, Professional Lead of the 'At Risk' Foot, Cardiff and Vale University Health Board



Introduction

The primary aim of this evaluation was to evaluate the performance and effectiveness of the **Maxxcare Evolution Pro Heel Boot** (distributed by Invacare), on patients from a Community Podiatry caseload who were deemed 'at risk' of developing a heel pressure ulcer or those who had an existing heel pressure ulcer.

Method

All patients included were Podiatry patients from Cardiff and Vale University Health Board either receiving care within their own homes or at a local community clinic. The patients recruited into this case series were deemed to be 'at risk' of developing heel pressure damage due to their reduced mobility, poor peripheral circulation and co-morbidities or already had existing heel pressure ulceration. The patients were considered suitable for the use of the Maxxcare Pro **Evolution** Heel boots as part of their routine care in which their heels required **off-loading**. The evaluation had Research and Development approval and patients were asked to provide written consent prior to being included. Patients were asked to wear the boots for 28 days. Four assessments were undertaken during the evaluation period, day 0, 7, 14 and 28.

On day 0 a record was made of the patients medical history, mobility and ability to reposition themselves. An assessment made of the condition of the skin, any damage to the heels was reported and categorised in accordance with the NPUAP/EPUAP guidelines. If a wound was present the length and width of the wound was recorded and the Maxxcare Pro Heel boots applied.

At the follow-up assessments at day 7, 14 and 28 skin assessments and photographs were recorded as well as patient feedback on the comfort, ease of application and removal of the boots. Clinicians were also asked their opinion on the effectiveness of the boots when used to off-load pressure and how well they thought the patient tolerated wearing the Maxxcare Pro **Evolution** heel boot.

At the end of the evaluation the patients were given the opportunity to continue wearing the boots.

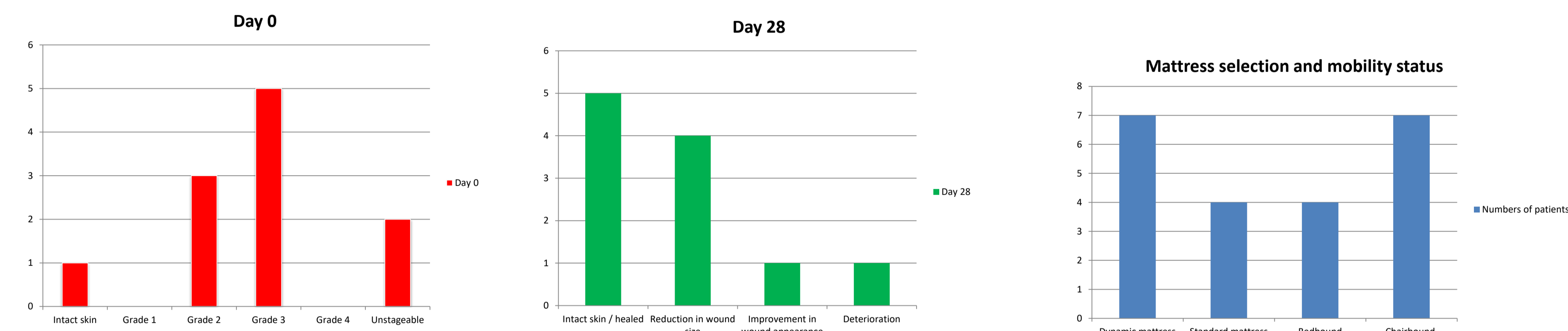
Maxxcare Pro Evolution Heel boots are designed to offload and redistribute pressure away from the heel using four removable air-filled cells which protect the ankle joint whilst maintaining the foot in a comfortable position. The boots also have a non-slip base allowing minimal mobilising such as bed to chair transfers.

Maxxcare Pro **Evolution** Heel Boot offloading right heel

Before use of Maxxcare Pro **Evolution** Heel Boot

Results

Twelve patients were recruited to the evaluation. Eleven patients completed the evaluation, one patient was withdrawn as the heel boots were lost during a period of respite from home. At day 0 64% (7/11) of the patients had the most severe pressure damage grade 3 or unstageable. At day 28 45.5% (5/11) of patients had intact, healed skin, 36% 4/11) of patients saw a reduction in the size of the heel wound. One patient saw an improvement in the wound appearance with more granulation tissue evident. One patient saw a deterioration with a new area of damage to his skin. On investigation the original wound had healed however a new area of Deep Tissue Injury became apparent at the day 28 review. Concerns with compliance of using the heel boot was reported with this patient. Initially the boot was applied overly tight to the foot and on subsequent assessments another product, namely an ankle-foot orthosis had been applied to the foot by the patient's carer so the cause of the new pressure damage could not be identified.



Feedback from all patients was favourable with the patients reporting that the boots stayed in position and were comfortable. All of the patients required assistance with the application and removal of the boots from relatives, carers or District Nurses. Feedback from the Podiatry team and District Nursing staff was positive. **They** found the application and removal of the boots very easy and felt the boots held the feet in a good offloading position.

Discussion and Conclusion

Offloading heels when a patient is chair or bed bound can be challenging, particularly finding a product that will stay in position whilst maintaining a reduction in pressure, friction and shear. The preliminary findings from this case series evaluation suggest that the Maxxcare Pro **Evolution** Heel boots were effective at off-loading patients' heels on different surfaces whilst in bed and when chair bound. It was reported that ten patients wore the heel boots all of the time either whilst in bed or when seated, although this could not be confirmed as the patients were not supervised by a healthcare professional at all times. It is likely compliance played a part in the development of new pressure damage in one patient. The Maxxcare Pro Heel foot protector appears to provide an effective alternative option to off-loading for patients who are 'at risk' of pressure damage or have existing heel pressure damage.

