

# Effective Management of a Pressure Ulcer using an Enzyme Alginogel

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## Introduction

Pressure ulcers are injuries of the skin and underlying tissue caused when cells are deprived of a blood supply as a consequence of direct uninterrupted pressure. They are categorised from 1 to 4 according to their depth, using a validation tool such as the National Pressure Ulcer Advisory Panel (NPUAP) with 4 being the most severe. There is also an unstageable category, describing an ulcer bed obscured by devitalised tissue and a deep tissue injury category which relates to pressure damage under intact skin, that gives rise to an appearance of 'bruising'. (NPUAP 2014)

The cost of treating pressure ulcers varies from £1,214 (category 1) to £14,108 (category 4); the cost increases with severity as healing times are often prolonged and the prevalence of complications also increases. (Dealey et al 2012)

Age alone is not a risk factor, however, it is the problems generally associated with old age that increases the risk of pressure ulceration, which includes; reduced mobility, incontinence, smoking, dry skin, co-morbidities and terminal illness. (Public Health England 2015).

## The Patient

This case study involves a 91 year of female who developed a large sacral pressure ulcer. The

patient's medical history included type 2 diabetes, microcytic anaemia, hypothyroidism and bilateral lymphoedema; she had previously undergone surgery for a cervical laminectomy resulting in right sided hemiparesis. Subsequently the patient was housebound and was cared for by her daughter; the patient slept in a chair, declining to rest in a bed.

Following a hospital admission she was discharged home with a urinary catheter in situ but suffered with faecal incontinence; at this point the patient was bedbound and had carers who were supporting with a repositioning program. Consequently, in November 2018 a sacral pressure ulcer developed as a result of immobility.

At the point of the initial assessment the pressure ulcer measured 11cm x 8cm x 2cm with undermining areas ranging from 2.5cm - 5cm; the ulcer bed presented with 95% granulation tissue and 5% slough.

## Method

The treatment aim was to minimise the risk of infection, promote autolytic debridement and support the growth of granulation tissue; all within a favourable time scale.

Previously the wound management dressings had included silver hydrofibre which was later changed

to an alternative inadine based primary dressing, both regimens had been supported with a secondary superabsorbent that was secured with adhesive film; this plan continued for approximately 7 months.

In the eighth month of the wound management program, the Tissue Viability Specialist implemented Flaminal Forte as the primary dressing; at this point the ulcer had divided into two areas spanning across the buttock and sacrum. Flaminal Forte is an enzyme alginogel; an antimicrobial agent which has the ability to debride, by means of creating a moist environment, whilst simultaneously managing exudate levels to optimise wound healing.

## Result

At the commencement of the treatment using Flaminal Forte primary dressing, the following wound dimensions were recorded; the buttock pressure ulcer, 4cm x 1.5cm x 2cm with 80% granulation tissue and 20% slough and the sacral pressure ulcer measured 4cm x 3cm with 90% granulation tissue and 10% slough at the ulcer bed. A secondary absorbent dressing was applied.

Within 13 weeks of the introduction of Flaminal Forte, both pressure ulcers had completely healed.

## Discussion

Pressure ulcers remain a significant problem in both primary and secondary care and result in not only a high cost to the patient, from both a physical and psychosocial perspective but also to the health care systems from an economical position. Pressure ulcers result in a decreased quality of life as well as increased morbidity and mortality incidence. (Mervis & Phillips 2019).

## Conclusion

The Tissue Viability Specialist Nurse concluded that the pressure ulcer remained infection free for the duration of the Flaminal Forte employment and the rate of wound healing exceeded all expectations.

Pressure ulcer treatment plans should always include an aim to reduce the risk of infection and with the anatomical location of some pressure ulcers increasing this risk, i.e. sacral/buttock areas; as wound contamination secondary to faecal and urinary incontinence is highly probable.

In this case, as a result of an uninterrupted wound healing continuum that went without any added complications, such as that of infection; potential antibiotic therapy and further hospital admissions were avoided. The Tissue Viability visits were also subsequently reduced.

This case study highlights the significance of appropriate wound management coupled with the effectiveness of Flaminal Forte as an antimicrobial dressing that supports the wound healing journey by means of infection prevention.



24th December 2018



3rd January 2019



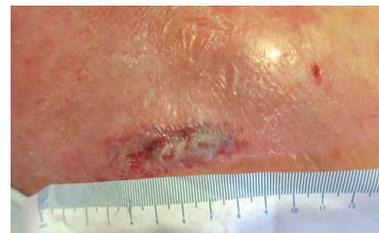
10th January 2019



14th March 2019



31st January 2019



8th June 2019



23rd August 2019



20th November 2019

## References

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