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## INTRODUCTION

730,000 adults (1.5% of the adult population of the UK) have a leg ulcer in one year.<sup>(1)</sup> As a major vascular surgical hub, our department is passionate in exploring new innovations in wound management. According to NICE (2016), dressings should provide the optimal environment for wound healing.<sup>(2)</sup> As a team we were given an opportunity to assess the clinical impact of a new innovative Bioactive Microfibre Gelling (BMG) dressing (MaxioCel®) to promote faster wound healing, improve patient experience, and shorten length of hospital stay for our patients.

## METHOD

Upon gaining patient and trust consent we conducted a seven patient case study evaluation over 4 weeks to assess dressing characteristics, performance, and clinical impact.

## RESULTS

1 A distinct dressing encompassing many features of multiple dressings which was also easy to apply and remove and very well accepted by both clinician's and patients.

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2 Kick starts healing process – visible improvement in debridement in just a few dressing changes alongside a reduction in wound area and depth.

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3 Exudate – dressing managed wound exudate levels resulting in an improvement in peri wound skin.

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4 Haemostat – aided control of minor bleeding.

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5 Patient comfort – patients reported less pain perception during treatment.

6

6 Economical – department able to save time and resources as dressing changes were reduced and patients were discharged earlier than expected into community care.

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7 100% clinicians stated they were happy to continue to use the dressing and recommend to other HCP's. Dressing performance recorded as good / very good across all assessed parameters.

## CONCLUSION

BMG dressing (MaxioCel) demonstrated positive outcomes in this small patient evaluation. Further publication is planned from a health economic perspective due to the potential savings versus the market leading product of 35%, earlier discharge and saved bed days.

# CASE STUDY

## 40 year old female

**Past medical history:** Left Superficial Femoral Artery (SFA) angioplasty in Oct 2021 which re-occluded. Peripheral Vascular Disease, Infective endocarditis (Nov 2021), smoker.

### Arterial ulcer at the dorsum of the left foot

- Ulcer started Feb 2021 secondary to trauma (son's pram fell onto patient's foot). Ulcer improved, until a dog jumped on the left foot and the ulcer worsened.
- Low to medium level of serous exudate.
- Patient's perception of wound pain level 8 (VAS)

### Previous medical interventions

Multiple intervention radiology revascularisation procedures:

- 12.10.21 - Left angio antegrade femoral angioplasty
- 18.07.22 - Left infra-popliteal angioplasty
- 26.08.22 - Left SFA bovine patch angioplasty
  
- 02.11.22 - 6.11.22 - Iloprost infusion

Feb '21 – Oct '22 - Different dressings were used most often povidone-iodine (Inadine®) or gelling fibre (AQUACEL®), regularly being changed in the community by the practice & district nurses and by the ward nurses when inpatient.

### MaxioCel commenced

With aim of treatment to protect granulation tissue, manage exudate, and promote healing.

### Wound healing progression

Wound was cleaner and drier after using MaxioCel dressing. Patient reported reduction in wound pain, perception reducing from 8 to 2 (VAS). Serous exudate reduced.

Patient was discharged and MaxioCel used until 19.11.22. A simple dressing (Softpore®) was then used for final three weeks until wound was taken through to healing.



02.11.22



10.11.22



24.01.23

### Key Clinical Benefits

- 1 Wound improved faster than expected, able to discharge the patient earlier and hand over continuity of care to the community nurses.
- 2 Very easy to apply (dressing could be folded) and to remove in one piece.
- 3 Wound became cleaner and drier, much less serous exudate.
- 4 Cost and time efficient due to reduced number of dressing changes required.

### Key Patient Benefits

- 1 Patient's perception of wound pain level was lowered from 8 to 2 (VAS).
- 2 Patient was very happy with this dressing as it was more comfortable / less painful compared to the previous dressings used.
- 3 Early discharge supported improvement in patients quality of life.

