

# Evaluating A Chitosan Lactate Gelling Microfibre Dressing In Complex Wound Environments: A Clinical Case Series

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## INTRODUCTION

This case series examined the effectiveness of a chitosan-based wound dressing (MaxioCel®) in managing complex wounds across varied patient demographics. The wounds evaluated comprised of 1 x Pressure Ulcer, 3 x Cavity Wounds, 1 x Leg Ulcer (5 wounds in total).

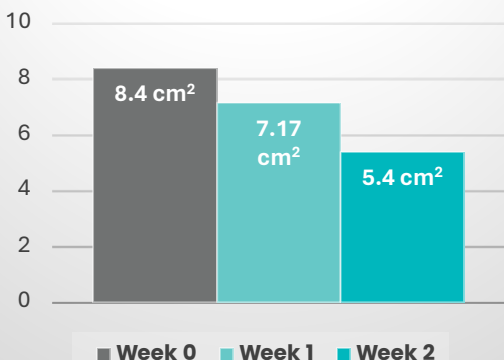
## METHOD

Following local guidelines and with patient consent, a controlled evaluation was conducted on five patients aged from 20–95 years, with various wound types, co-morbidities, and wound durations of between 5 days to 12 months. Appropriate secondary dressings were selected during treatment. Wound improvement rates were monitored, with quantitative and qualitative assessments conducted at the initial assessment, after seven days, and a final evaluation one week later. The frequency of dressing changes was adapted according to the requirements of each wound.

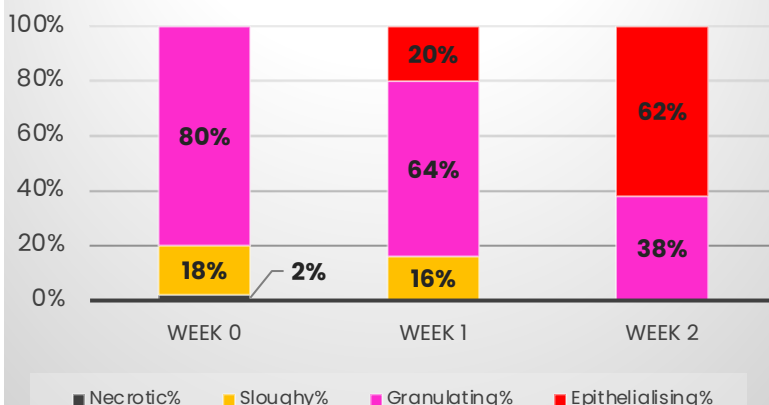
## RESULTS

Wounds in this study were considered complex and/or non-responsive to previous treatments, all showed significant clinical improvement with the chitosan-based dressing. Over 14 days wound surface area reduced from average 8.4cm<sup>2</sup> to 5.4cm<sup>2</sup> (Table 1). Closure of three wounds was achieved and with two wounds showing improvement. Observations of wound bed tissue revealed increased autolytic debridement of sloughy and necrotic tissue with granulation and epithelialisation tissue improved as a result (Table 2). No deterioration of the surrounding skin was noted. All clinicians stated they would continue to use the chitosan dressing and recommend it to other healthcare professionals.

**Table 1: Average Wound Surface Area Reduction (5 wounds)**



**Table 2: Average Condition of Wound Bed (5 wounds)**



## CONCLUSION

This evaluation demonstrated notable clinical improvements in wounds treated with MaxioCel. The dressing had a positive impact on previously static non-healing wounds. All other wound parameters showed either improvement or no deterioration with high levels of user satisfaction. These findings support the consideration of this dressing particularly in static and complex non-healing wounds.

**References:** Tickle J. Evaluation of a chitosan dressing in the management of hard-to-heal wounds. Br J Nurs. 2023 Feb 23;32(4):S44-S50.doi: 10.12968/bjon.2023.32.4.S44.PMID: 36840523.

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# CASE STUDIES

## Post surgical wound

This case study of a 55-year-old female patient who underwent skin-sparing mastectomy and immediate reconstruction with a tissue expander. Post-operatively, a wound developed in the right chest cavity, which was managed with a hydrofibre dressing (Aquacel®) with dressing changes every three days.

Initially measuring 1cm length x 1cm Wide x 1cm Deep, the wound showed significant improvement with MaxioCel® treatment, reducing in size over 14 days and completely healing. The patient experienced no pain throughout the treatment.

MaxioCel demonstrated excellent performance, absorption capacity, and the promotion of healing, with healthcare professionals noting the product's activation of the healing process.



13.10.2023



27.10.2023

## Chronic Leg Ulcer

The case involves an 86-year-old female with a one-year-old wound on the left lower limb, compounded by medical conditions including hypertension and peripheral venous disease.

Initially treated with iodine-based dressings, the wound, measured 4x3 cm on initial assessment, with 10% necrotic and 90% sloughy tissue.

After starting MaxioCel, significant improvement was seen, with the wound almost healing by the final assessment and showing 90% granulation.

MaxioCel facilitated notable progress and autolytic debridement in a wound that had been static, and clinicians stated that they would continue to use and recommend MaxioCel based on these results.



09.06.2023



22.06.2023

## Key Clinical Benefits

- 1 Enhanced Healing:** MaxioCel supported the healing process (Table 3) increasing granulation and epithelialisation.
- 2 Exudate Management:** Effectively managed high levels of exudate and protected peri wound skin against maceration.
- 3 Ease of Use and Versatility:** MaxioCel's cohesive structure allowed for easy application and removal, making it suitable for a wide range of wound types.

Table 3: Average Wound Healing Progress After 2 Weeks (5 wounds)

