

Paediatric Burn Wound Management: Clinical Outcomes from a Case Series Using MaxioCel Chitosan Dressings

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Introduction

Burn injuries in paediatric patients are a significant cause of morbidity and often require careful wound management to prevent infection, minimise pain, and promote rapid healing.

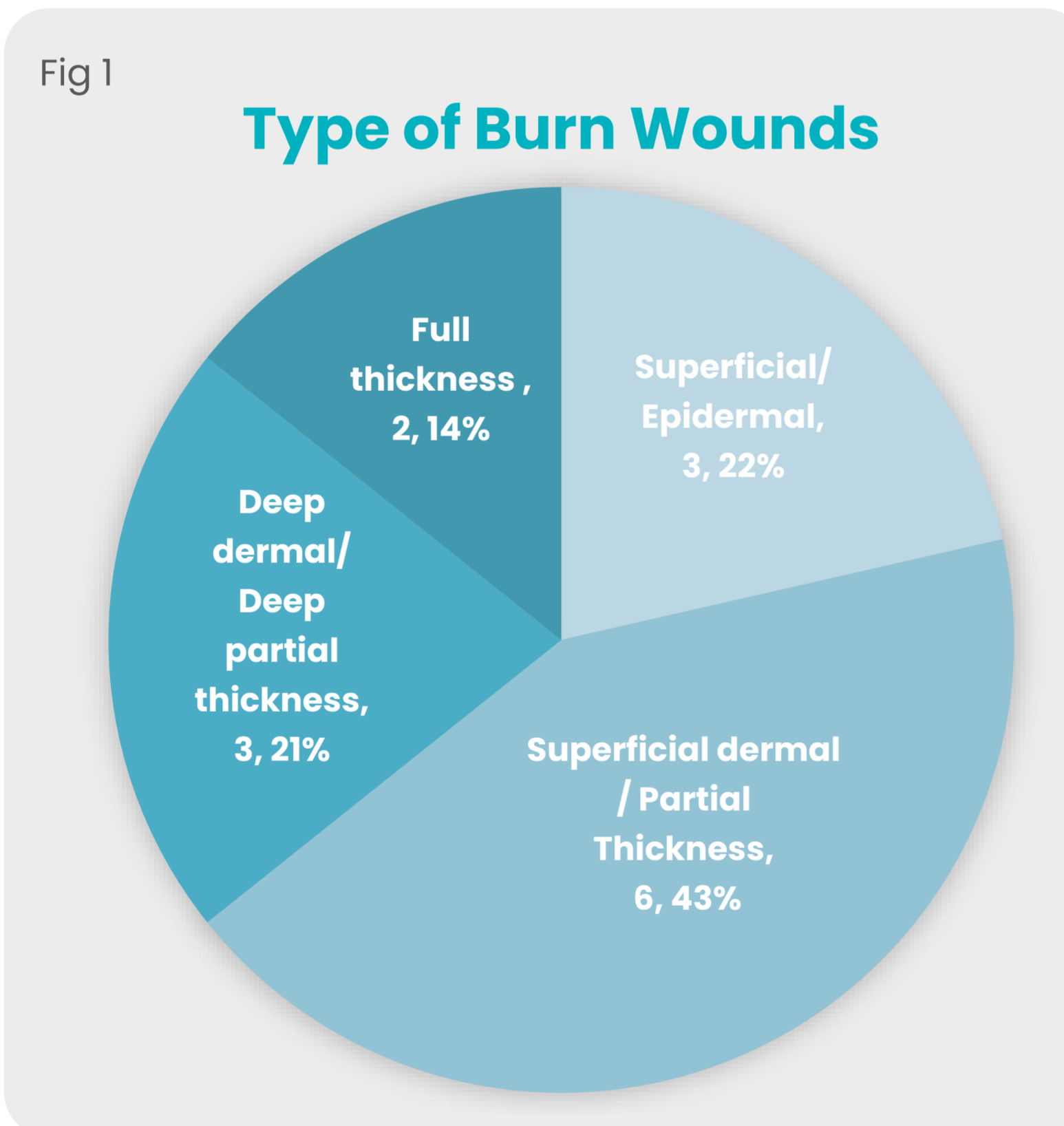
Dressing selection plays a critical role in wound outcomes, particularly in children, where frequent dressing changes can increase distress and impede recovery. MaxioCel, a chitosan gelling fibre wound dressing, has been designed to conform to the wound bed, support autolytic debridement, and maintain a moist healing environment. This study evaluates the clinical effectiveness, pain reduction, exudate management, and usability of MaxioCel in paediatric burn wounds of varying severity.

Method

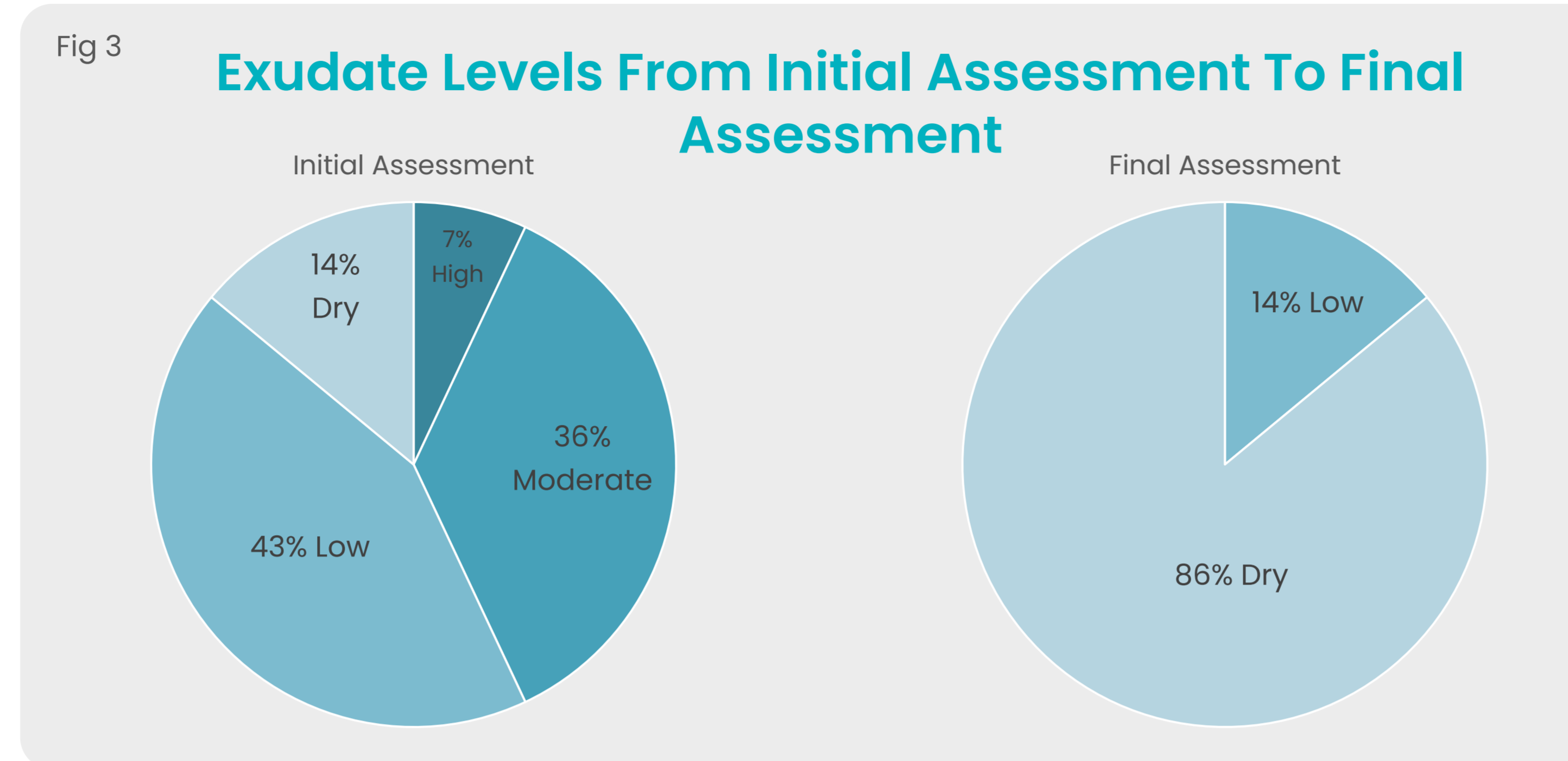
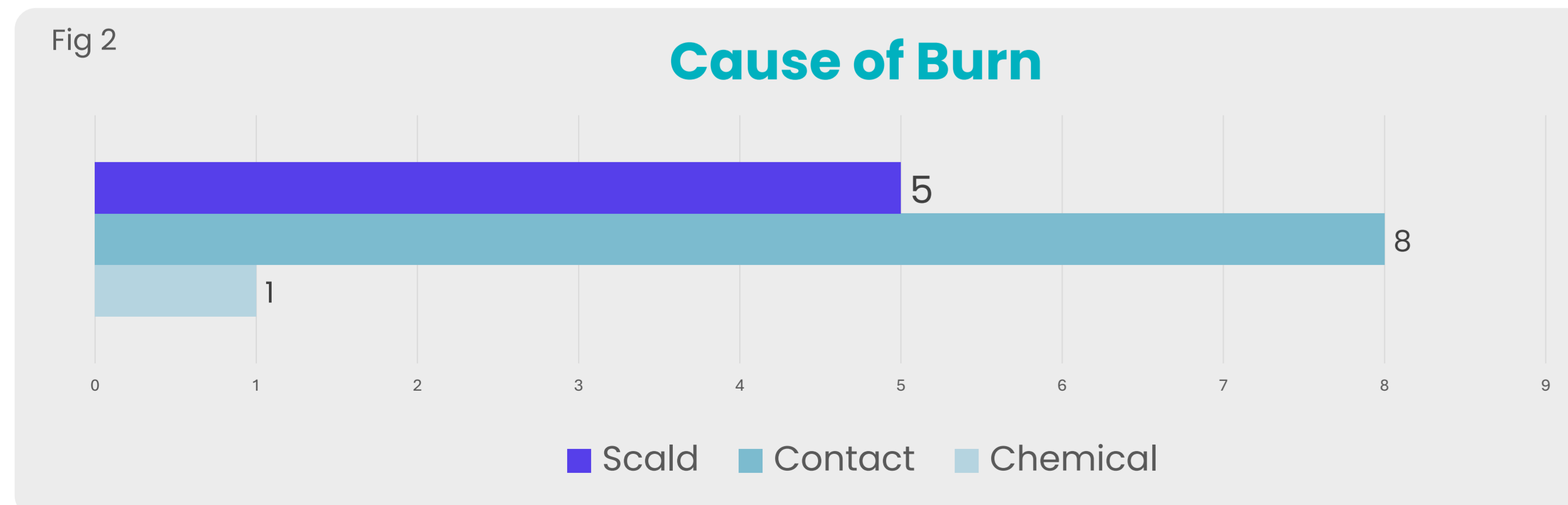
Fourteen paediatric patients (7 females, 7 males), aged 7 months to 17 years, with acute burn wounds (average duration 12 days) were enrolled.

14 Paediatric patients

The majority of injuries were caused by contact or scald burns (Fig 2). Wounds were classified as superficial/epidermal (n=3), superficial dermal/partial-thickness (n=6), deep dermal/deep partial-thickness (n=3), and full-thickness (n=2) (Fig 1).



MaxioCel dressings were applied according to standard protocols and evaluated for 7 days or until complete healing was achieved. Outcomes assessed included wound dimension reduction, pain scores, exudate levels, and peri-wound skin condition. Clinician and patient feedback on dressing application, wear comfort, and usability were also recorded.

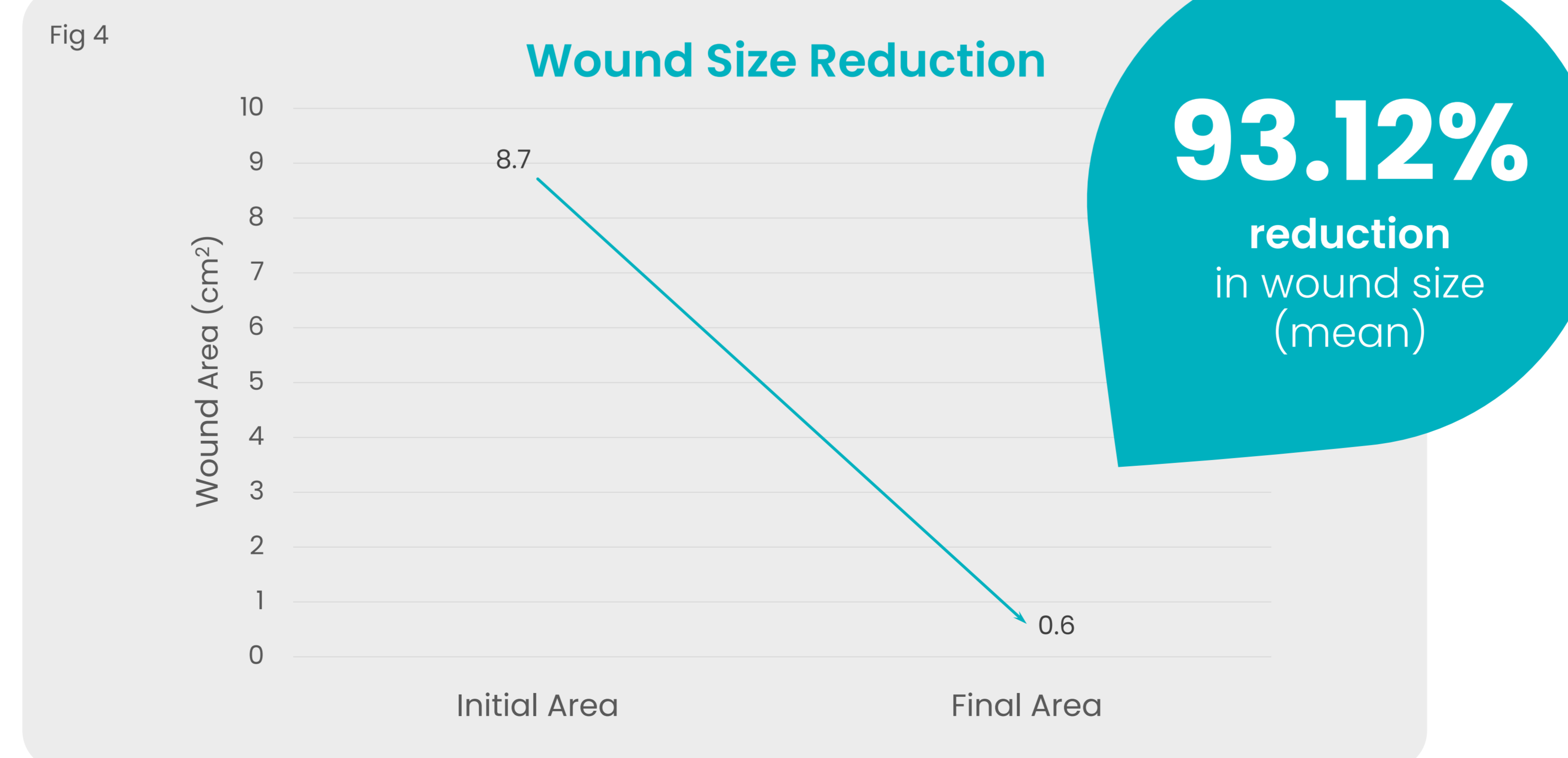


Results

Of the 14 cases, 10 wounds achieved complete healing within 7 days. Overall, MaxioCel treatment resulted in a mean reduction in wound size of 93.12% (Fig 4). Pain assessment, recorded for 12 patients, demonstrated an 88% reduction at final assessment.

Clinicians reported the dressing was easy to apply and conformed directly to the wound bed. The extended wear time reduced the need for frequent changes, minimised distress, and facilitated painless removal, either by peeling off healed areas or by wetting for non-healed wounds. Paediatric patients consistently reported comfort and ease of wear.

Peri-wound skin appeared healthy in 100% of cases following MaxioCel use. Exudate levels decreased progressively (Fig 3), with the majority of wounds becoming dry over the treatment period.



“MaxioCel dressing provides a clinically effective, safe, and patient-friendly approach for the management of paediatric burn wounds.”



Discussion

The findings demonstrate that MaxioCel dressing is effective in promoting rapid healing in paediatric burn wounds of differing severities, while simultaneously reducing pain and exudate. Its ease of application, long wear time, and atraumatic removal were particularly advantageous in a paediatric setting, reducing procedural stress for both patients and caregivers.

The combination of clinical effectiveness and favourable user experience supports its role as a practical option for paediatric burn wound management.

Conclusion

MaxioCel dressing provides a clinically effective, safe, and patient-friendly approach for the management of paediatric burn wounds.

It supports rapid wound healing, significant pain reduction, exudate control, and healthy peri-wound skin maintenance, while reducing dressing change frequency and procedural distress. These outcomes suggest MaxioCel is a valuable tool in paediatric burn care.

Case Study



- 5-year-old female Annie (pseudonym) presented with a partial-thickness contact burn to her forearm, caused by an iron.
- The wound measured 8cm x 2cm.
- MaxioCel was commenced as a primary dressing with aims to manage exudate and facilitate healing.
- A simple gauze and bandage were applied to secure into place.
- Within 7 days, full wound healing had been achieved.