

Wound Contact Layers Enabling Undisturbed Wound Healing

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Introduction

The aim of this study was to evaluate the impact of wound contact layers on providing an undisturbed wound environment that would enable an optimal healing process. A wound dressing is designed to protect and provide an optimal environment for the healing process to proceed. Whilst intimate contact between the wound dressing and the wound bed is a common feature of modern dressings, the potential for disturbance to the wound bed and peri-wound skin upon removal of the dressing exists.

The development of Wound Contact Layer (WCL) dressings as an interface between the wound and secondary dressing, designed to prevent problems associated with trauma to wound and surrounding skin tissue. However little clinical evidence exists regarding these types of dressings, specifically in relation to wear time - how long they can be left in situ in a wound without adherence and subsequent tissue trauma and or pain. Where as some WCL claim a wear time of up to 14 days other claims of between 3- 7 days would appear to be more clinically acceptable.

However it is recognised that allowing “undisturbed” healing, will reduce the impact of trauma that might occur from an adherent wound dressing removal enables a better wound healing outcome. Ultimately the longer any wound dressing or WCL could remain in situ the better, this would allow for undisturbed healing, less chance of trauma and the reduced risk of infection by contamination of bacteria from the external environment. This study looks at the impact of Atrauman® WCL on healing and the ability of each to be retained in place without causing a detriment to the healing process.

Methods

The study was designed as a case study series to allow an in-depth, multi-faceted exploration of the complex issues treating complex wounds in their real-life settings. Patients included in the study were selected by the Clinical Investigator(s) according to whether the patient required a WCL.

WCL are indicated for a variety of wounds including, partial and full-thickness wounds, infected wounds, donor sites and split-thickness skin grafts. The reason for their use is to allow the wound to remain in an “undisturbed” state and thus enable a better clinical outcome in terms of healing.

The patients were treated according to normal clinical practice for the treatment of their wound. If a WCL was used it was placed on the wound surface and secondary dressings, fixation, ancillary products and topical medication used as required. However at each dressing change a decision was made as to whether the WCL would be retained in place until the next dressing change.

The Primary objective was to discover if the clinician was confident to retain the WCL in position until the next dressing change and that the WCL was comfortable for patient and assessment as to whether there was any adherence, tissue damage to the wound and/or peri-wound skin, bleeding or cellular infiltration into the WCL.

Results

- Atrauman® Silicone was able to be retained in place for between 10 and 14 days without any detrimental effect on the wound. However clinical practice deems that the optimum time for retention of the dressing without removal would be 7 – 10 days.
- This is because in many cases direct visual observation of the wound was required for ongoing assessment of healing progression and review of treatment regimen. This dressing proved to be popular with the patients due to the fact that it conformed well to the wound, was comfortable to wear and didn't cause any pain upon removal. In some cases adherence to the secondary dressing was observed. Atrauman® was able to be retained in place for between 5 and 7 days and performed effectively as a wound contact layer.

Figure 1 - 15.9.18



Figure 2a - 19.9.18
Before Dressing Removed



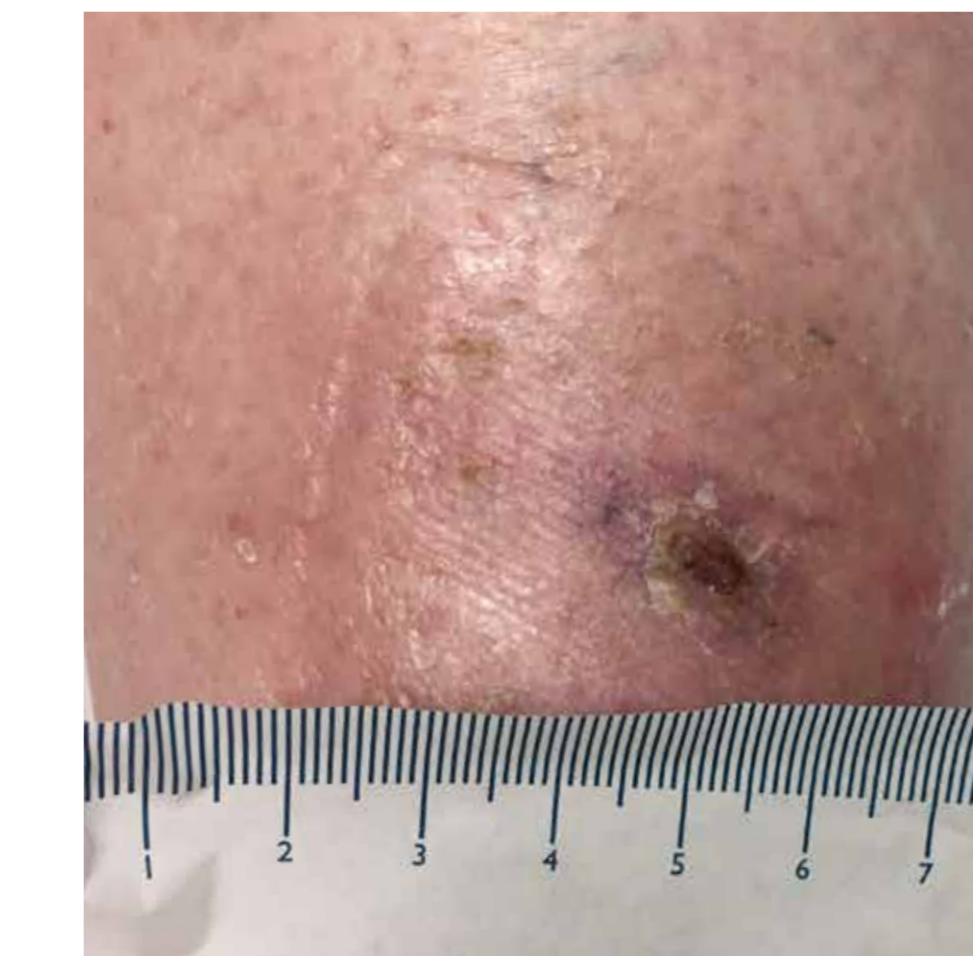
Figure 2b - 19.9.18
After Dressing Removed



Figure 3a - 5.10.18
Before Dressing Removed



Figure 3b - 5.10.18
After Dressing Removed



Conclusion

The basic premise of undisturbed healing, to allow the wound to regenerate without the repeated traumatic insults of dressing changes, is to leave a dressing (WCL) in place as long as possible, but without risking the wound degenerating, due to for example infection, maceration etc., This study has shown that Atrauman® and Atrauman® Silicone can be left in place for between 5 to 7 days and 10 to 14 days respectively without causing damage to underlying tissue or increasing the risks of infection. Not only that but the process of “undisturbed” healing demonstrated with these dressings showed excellent patient outcomes in terms of healing the wound.