

A Case Series Evaluating a new Povidone-Iodine Dressing

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Introduction

Dressing characteristics such as antimicrobial action, ease of use, wear time and non-adherent properties are important considerations for the clinician. When slow release iodine is indicated for wounds for its antimicrobial properties, certain issues may become problematic. The current form of slow release iodine can be difficult to apply, messy, and can add extra steps to the dressing protocol. Adherence of the dressings to wounds can also be problematic. Sometimes, wound drainage does not warrant the slow release iodine that is currently available but the wound can still benefit from the effects of slow release iodine. These issues have led to a creation of a product which is a non-adherent topical dressing with an ointment containing 10% povidone iodine which contains polyethylene glycol and purified water. This product was developed to address the issues that the current slow release iodine may have and to simplify dressing protocols. This product is fairly new to Canada but has been used successfully for years in Europe.

Objectives:

The goal of this study was to evaluate a new povidone-iodine dressing* in a regular clinical practice setting for a variety of wounds.

Purpose:

To evaluate the effectiveness of a povidone-iodine dressing* which is new to Canada.

Methods:

Patients with low to moderately draining wounds of any etiology were given a treatment protocol involving this dressing. Photographic consents were obtained from patients. Treatment was provided by the patients' usual homecare nurses. Outcome measures were assessed at the initial visit, two weeks, and six weeks into treatment.

The outcome measures that were assessed included:
 •Wound surface area by diameter product measurement
 •Verbal-numeric pain scores
 •Photographic Wound Assessment Tool scores (PWAT**)
 •Digital Photographs

Ulcer Characteristics:

There were nine patients with a total of eleven wounds that were enrolled. Wounds were fairly shallow with low to moderately exudate. Bacterial burden were rated for these wounds at day 0. Six were rated at colonized, 4 were rated as no infection, and 1 was rated as having localized infection. There were a variety of wound etiologies which are listed below:

- 1 traumatic
- 1 post surgical
- 1 mixed arterial
- 1 pressure
- 2 diabetic neuropathic
- 1 venous leg ulcer
- 2 neuropathic (non-diabetic)

Patient Demographics:

There were 8 males and 3 females enrolled in this study. The average age was 66.55 years old.

Patient 1 Skin Tear



Initial
Wound duration-8 weeks



Week 2



Week 6

Patient 2 Non closing pin site on a person with Diabetes



Initial
Duration of wound-6 weeks



Week 2

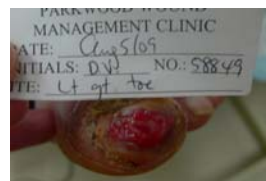


Week 6

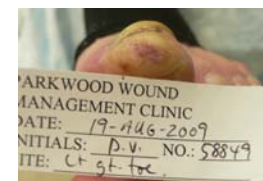
Patient 3 Diabetic Foot



Initial
Duration of wound-0 weeks



Week 2



Week 6

Patient 4 Venous Leg Ulcer



Initial
Duration of wound- 520 weeks



Week 2



Week 6

Patient 5 Pressure Wound



Initial
Duration of wound- 4 weeks



Week 2

Results:

- Six out of the nine patients showed significant improvement
- Three out of the nine patients stopped using the dressing as their wounds became slightly larger and there was little change in the Photographic Wound Assessment Tool (PWAT) and pain scores
- All wounds were included in the final analysis (11 wounds on 9 patients)
- The mean wound surface area decreased from 11.7 cm² to 8.9 cm² (24 % reduction in wound size)
- 22% of wounds closed completely
- Mean pain score decreased from 0.9 to 0
- Mean PWAT decreased from 11 to 6.9 (37 % decrease)
- No patients were intolerant to the dressing
- There were no clinical infections that developed during the study

Discussion:

- This dressing was new to the clinicians who were seeking a sense of which wounds were appropriate for these dressings during this trial
- Those wounds that did not do well were longstanding, complex, and had excessive exudate
- Clinicians noted that there were no adverse reactions to the peri-wound. In several of the wounds, it in fact helped to prevent scaling formation
- The dressing was easy to apply and removed without any adherence to the wound
- No pain was associated with this dressing, even during removal
- The feature that the dressing fades in colour when it has lost its antiseptic efficacy indicating the need to reapply the dressing is clinically a useful tool for the clinician
- Some of the patients whose wounds were not closed at week 6, continued to use the product post trial because the dressing was deemed to be clinically effective

Conclusion:

Based on this small sample of patients, this dressing would be a valuable alternative for uncomplicated, low to moderately draining wounds to manage or prevent localized infection of the wound bed. Clinicians would find this dressing a valuable addition to their current treatment options.

References:

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