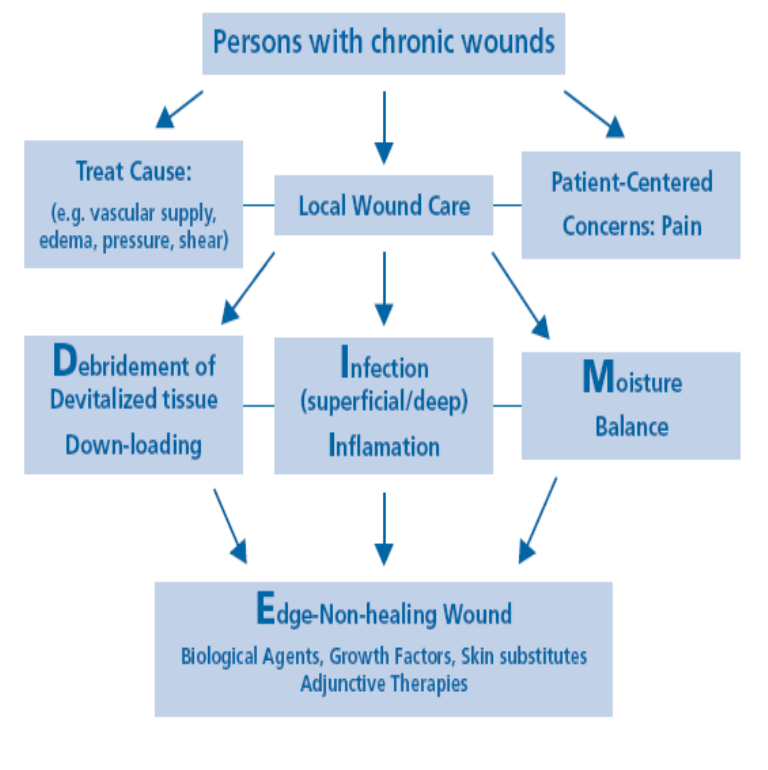


# Inadine dressing for the management of chronic wounds: interim report

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## Wound Bed Preparation Paradigm



## Background

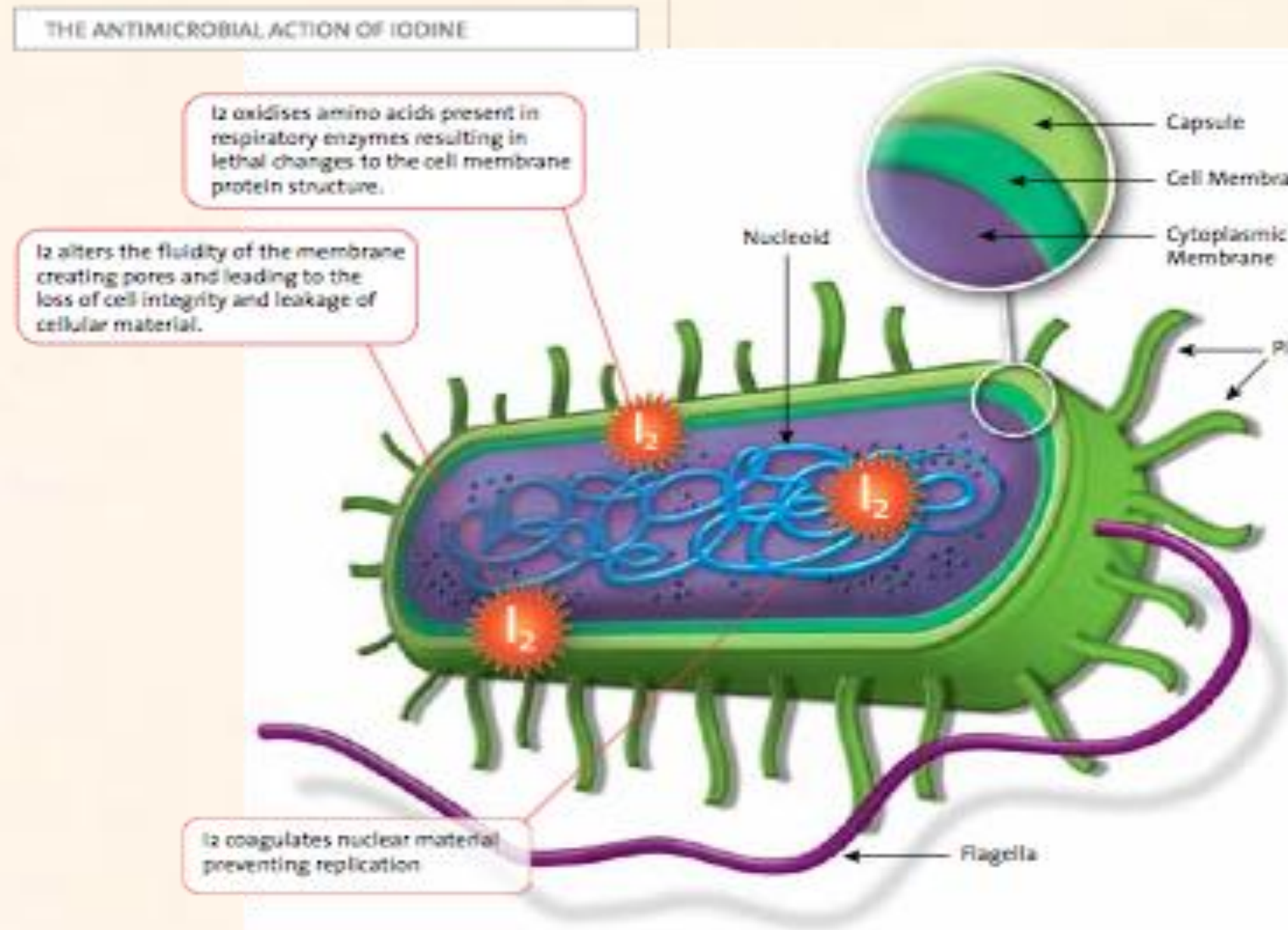
Chronic wounds are often complex, recalcitrant to healing, and may persist for months or years due to underlying disease processes or complications. Sibbald et al proposed the wound bed preparation (WBP) to capture the comprehensive approach to managing chronic wounds and optimizing achievable patient outcomes. Of the key components of local wound involving debridement, infection, and moisture balance, **bacterial control is arguably the most challenging and contentious issue**. All chronic wounds are invariably colonized by microorganisms representing a complex ecology. In view of the ubiquitous presence of microbes, the clinician must discern whether bacterial balance (contamination or colonization) or bacterial damage (critical colonization or infection) has occurred to institute appropriate interventions. Topical antimicrobial agents are often used to treat superficial and local wound infection.



**P**ovidone iodine (PVP-I) is one of the most commonly used broad-spectrum topical antiseptics that is active against both gram-positive and gram-negative bacteria, fungi, protozoa, and viruses in vitro. According to a systematic review of 27 randomized clinical trials involving various wound types, **iodine did not delay wound healing**. Several trials actually reported that iodine was significantly superior to other antiseptic agents in reducing bacterial burden. Adverse effects, including thyroid function derailment, did not occur more frequently with iodine. **INADINE\* dressing** is a topical wound dressing impregnated with a polyethylene glycol base containing **10% povidone iodine (PVP-I)** as a broad bactericidal agent. PVP-I will be released independent of the level of wound exudate and can be used for maintenance or non-healable wounds where moisture reduction is preferred. As the PVP-I is completely released the dressing becomes white. The sustained release of iodine without sticking to the wound base (viscose mesh that minimize tissue adherence). In a prospective randomized trial of 213 patients with partial thickness burns, patients achieved faster healing ( $p=0.01$ ) and less pain upon dressing removal ( $p=0.02$ ) with INADINE compared to BACTIGRAS\*\* (Tuelle gras with 0.5% Chlorhexidine Gluconate).

## Objective

The purpose of this pilot study is to assess the effectiveness of topical PVP-I as a topical antimicrobial agent to manage chronic wounds.



## Method and sample

A total of 13 patients with ulcers in their legs ( $n=6$ ) and feet ( $n=5$ ) were treated with INADINE for 4 weeks. Wound surface areas were evaluated by measuring the longest length and width perpendicular to each other. Wound characteristics were documented by using standardized instruments. Pain was measured using a numerical rating scale. Complete data was obtained from 11 patients for analysis. All wounds in this study were treated with INADINE and TIELLE™ Plus Hydropolymer Adhesive Dressings

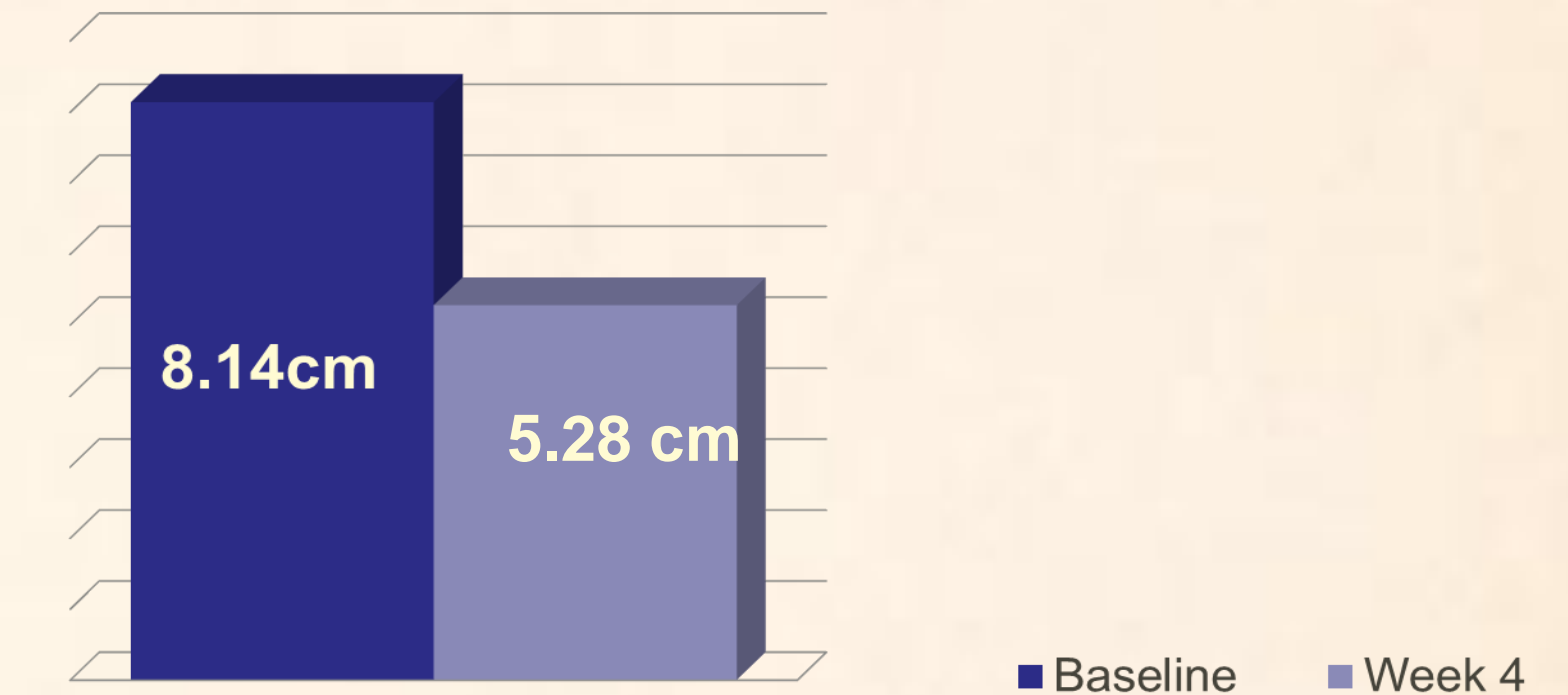
### Case example

- 57 year old female teacher
- History of:
  - Lymphedema
  - Vasculitis
  - Hypothyroidism
  - Diabetes
  - Asthma
  - DVT
  - Phlebitis
  - 4 Pregnancies
- Baseline visit 4.6 X 4cm

Baseline



Week 4



## Results

- The mean wound surface area was 8.14 cm<sup>2</sup> (SD=20.68) at baseline and reduced to 5.28 cm<sup>2</sup> at week 4; a total of 35 % reduction.
- Ten patients exhibited improvement in the wound size versus one patient display deterioration. Binomial test indicated a significant difference ( $p=0.012$ ).
- Three patients achieved complete wound closure during the study.
- Pain was reduced from 3.8 at baseline to 2.25 at week 4 ( $p=0.008$ ).
- There was no significant adverse event reported during the study.
- For maintenance and non-healable wounds dressing changes were reduced from daily to 3 times a week.

## Clinical implications

**Povidone iodine impregnated mesh is effective in the treatment of chronic leg and foot ulcers:**

- **Decreased wound size**
- **Decreased frequency of dressing change**
- **Low cost (less than \$3 per dressing)**
- **Prevented limb threatening deeper infections**

