Hydroconductive Debridement: A New Perspective in Reducing Slough and Necrotic Tissue

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Introduction

Debridement is intended to optimally manage wounds through the removal of slough, necrotic tissue, and cellulitis. Successful debridement prepares the wound bed for healing and prevents complications. This review will focus on the use of a hydroconductive dressing for debridement, which can be achieved by removing adherent slough and eschar, as well as reducing the activity and number of bacteria. The wound bed is scanned with a wound image analysis program, providing an unobstructed view of the wound bed for granulation tissue and reducing bioburden and other toxic factors that can make the wound bed susceptible to infection.

Methods

1. The wound bed was photographed at dressing changes.
2. Dressings were applied with or without compression. The dressings were changed every 1 to 7 days.
3. Wound bed slough was wiped away with gauze and gentle pressure.
4. Shredding was controlled prior to photo documentation.

Dressing Placeinent

1. Drawtex application, the dressing was either cut into a rectangle for the wound area or cut into a lip, ensuring that the dressing directly contacted the wound area. A secondary dressing was employed as necessary.

Dressing Removal and Wound Bed Preparation

1. The wound bed was cleaned with a wound cleanser or soap and water.
2. The wound bed was photographed at dressing changes.
3. Images were taken at a high digital quality to ensure accurate wound bed-quality analysis.

Documention

1. The wound area was photographed at dressing changes.
2. Photographs were taken with a concise measurement tool in the image.
3. The photographs were analyzed using a computer algorithm, after which, imaging of the images was performed.
4. Images were taken at a high digital quality to ensure accurate wound bed-quality analysis.

Submission of Documentation for Wound Bed Quality Analysis

1. The wound bed image can be uploaded to a cloud system or computer, and the wound area can be measured.
2. The wound bed was photographed at dressing changes.
3. Images were taken at a high digital quality to ensure accurate wound bed-quality analysis.

Results

The results of this eight-case series indicate that the hydroconductive dressing was able to remove adherent slough and necrotic tissue at an average rate of 36% by Week 1, 52% by Week 2, and 77% by Week 3. Case study #3 (upper left) is an example of a wound with a 37.25 cm² surface area that showed a 68% reduction in slough over the 3 weeks.

Conclusions

1. Hydroconductive dressings can be used to remove adherent slough and eschar at an average rate of 36% by Week 1, 52% by Week 2, and 77% by Week 3.
2. There was a corresponding reduction in the average percentage reduction in wound area of 15% by Week 1, 35% by Week 2, and 47% by Week 3. Case study #7 (middle right) demonstrates that the hydroconductive dressing is able to remove adherent slough and eschar at an average rate of 50% by Week 1, 63% by Week 2, and 97% by Week 3.

Case Study #3