Use of a PVA Foam Impregnated with Methylene Blue and Gentian Violet* to promote wound bed granulation and epithelialization in lower extremity wounds

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Introduction:

Iowa Health Home Care is an integrated home health provider serving communities across Iowa and into its neighboring states. Comprehensive services include adult and pediatric nursing care, personal care and home support, rehabilitation therapy, respiratory therapy, infusion therapy, palliative care, hospice, and home medical equipment. Advanced telehealth and wound care technology, including interactive video monitoring, allows clinicians to provide interventional care virtually. This helps reduce unnecessary hospitalizations and improves access to services. In 2011, Iowa Health Home Care conducted 372,339 patient care visits. The three agency WOC nurses have a caseload of 750-800 patients.

The Challenge:

Wound care for the home care population requires utilization of appropriate wound care protocols within homecare reimbursement guidelines and homecare guidelines require intermittent skilled nursing visits. Providing WOCN consultations, adequate education, and preparation of the staff to manage wound care posed numerous challenges. Starting in January 2009, Iowa Health Home Care implemented an electronic medical record with digital photo software. The WOC nurses review the patients utilizing the computerized assessments and digital photos. Goals for wound care include efficient debridement, prevention of infection and best practices for wound healing.

The Objective:

The objective of this presentation is to review the clinical benefits of a highly absorbent, broad spectrum bacteriostatic foam on acute and chronic lower extremity wounds in the aging homecare population with multiple co-morbidities.

Hydrofera Blue® foam dressing, available from Hollister Wound Care.

Case 1:

85 year old patient with an acute traumatic wound of 4 days duration to the left anterior lower extremity injury secondary to a fall. Challenges to healing included chronic venous stasis, edema and history of coronary artery disease.

Case 1: Day 0
Wound Protocol of daily dressing changes with Silver Sulfadiazine covered with a non adherent dressing.

Case 1 Day 0

Case 1: Day 4
Minimal change to the wound utilizing Silver Sulfadiazine; current protocol continued. Patient was seen at wound clinic for debridement of the loose pedicle along the right side. WOC nurse evaluated the wound on the following day; contacted the Wound Healing Center to change the wound protocol to Hydrofera Blue covered with gauze and secured with gauze wrap and an elastic bandage. The dressing was changed 3 times per week according to product instructions.

Case 1 Day 4 utilizing Silver Sulfadiazine

Case 1: Day 8
WOC nurse noted decreased slough with evidence of epithelialization in the wound bed. Patient had appointment at Wound Healing Center; seeing marked improvement, the doctor changed the protocol to a neutral hydrogel covered with a non adherent dressing every 2 days.

Case 1 Day 8 after 4 days use of Hydrofera Blue

Case 2:

74 year old patient with dehiscence of 3 months duration. The patient was scheduled for transmetatarsal amputation in 3 days. Challenges to healing included coronary artery disease, peripheral vascular disease, renal failure, and use of nicotine.

Case 2: Day 0
WOC contacted the Podiatrist to request use of Hydrofera Blue covered by gauze with dressing change 3 times per week. Podiatrist agreed, and patient was removed from surgery schedule

Case 2 Day 0

Case 2: Day 13
WOC noted the contraction of wound, and epithelialization.

Case 2 Day 13

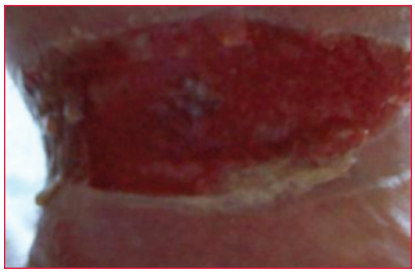
Case 2: Day 57
Patient discharged from home care, amputation was avoided. Follow up indicates he has maintained well at home without further surgery.

Case 2 Day 57

Case 3:

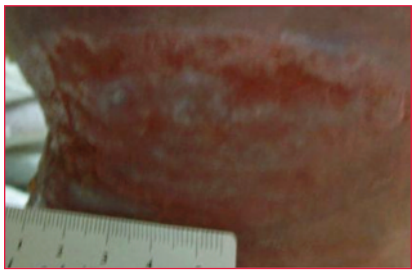
65 year old patient with lymphedema and an ulcer of 5 days duration. Challenges to healing include diabetes, morbid obesity, history of previous amputation of bilateral great toes, and continued use of nicotine. The patient refused lymphedema pump, leg elevation and CPAP for sleep apnea.

Case 3: Day 0
Started Hydrofera Blue covered by gauze and continued 4 layer compression wrap.



Case 3 Day 0

Case 3: Day 6
WOC noted the nearly complete epithelialization of the wound. Discontinued Hydrofera Blue and started using a 4-layer compression wrap with a neutral contact layer.



Case 3 Day 6

Case 4:

76 year old patient with an acute traumatic wound of 4 days duration on the left lower extremity due to a large object falling on the leg. Challenges to healing included Diabetes, and coronary artery disease.

Case 4: Day 0
WOC evaluated on Day 0, and Hydrofera Blue covered by gauze initiated with dressing changes three times per week.

Case 4 Day 0

Case 4: Day 6
WOC noted the complete debridement of slough, with evidence of epithelialization and contraction of the wound.

Case 4 Day 6

Case 4: Day 9
Complete closure following 3 dressing applications.

Case 4 Day 9

Results:

The use of this innovative dressing was extremely successful in these patients and demonstrated efficacy. Dressings were changed in the homecare setting according to the product instructions for use (every 2–3 days). Outcomes include efficient autolytic debridement of wound bed slough, establishment of granulation tissue, reduced wound volume, epithelialization without development of complications such as infection, hyperplasia or epibole.

Conclusion:

With appropriate early intervention and utilization of appropriate resources, the patients with acute wounds healed quickly and did not develop into a chronic/non-healing wound. The chronic wound healed and prevented further amputation during our care of the patient.

The use of Hydrofera Blue bacteriostatic dressings by this agency resulted in a decrease in the number of home care visits due to the less frequent dressing changes. Excellent clinical outcomes were noted in each of the cases presented, which is consistent with our results from our ongoing use of Hydrofera Blue dressings.

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Caution: Federal law restricts this device for sale or on the order of a physician or licensed healthcare professional.

Hydrofera Blue dressings are not indicated for third-degree burns, and are not for use as an implant. If the dressing dries out, thoroughly moisten it with sterile saline or sterile water before removal. Regular evaluation and cleansing of infected wounds should be a common practice.

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