

Progression of the Wound Healing Response in Three Patients with Chronic Wounds Utilizing a New Active Fluid Management™ Dressing* Containing a Silver Ion Antimicrobial

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Background

The following case studies were selected from a 4-week clinical study of AFM™ Ag Antimicrobial Dressings, a unique product with a combination of Active Fluid Management and microbial barrier properties. The dressing is designed to transport exudate from the hydrophobic wound contact side to the hydrophilic (printed) side of the dressing. This uni-directional flow property also can enhance tissue hydration when the dressing is applied with the hydrophilic printed side towards the wound.

Case #1

A 79 year old female resident of a long term care facility. PMH includes: NIDDM, COPD, CVA, HTN, Hypothyroidism, A-fib and Depression. She is on 10mg daily of Prednisone for her COPD.

Patient is on a controlled carbohydrate diet, ambulates minimally and uses a wheelchair to attend activities. Her LLE venous ulcer has been present for 2-3 months, is quite painful (particularly when touched), and she cannot tolerate compression. Most recently, Panifil was being used daily. Clinical study was initiated on 9/7/05. In 4 weeks of study, her wound reduced in surface area and no longer had depth. Granulation tissue shifted from 30% to 85%. At study conclusion, she opted to continue with AFM Ag. During this extended period, several observations were noted:

The hydrophobic layer stuck slightly to fibrinous tissue as the exudate decreased. A hydrogel was added to interface to reduce adherence.

Later, we reversed the dressing, placing the hydrophilic layer in contact with the wound bed. This maintained a moist wound environment and eliminated adherence.

CNAs noted her reduction in pain resulting in increased restorative ambulation.

Wound healed by 3/16/06.



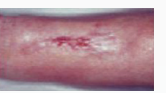
Initial Visit (9/7/05)
• 30% granulation
• L 6.2 x W 4.0 x D 0.2 cm



8 weeks of treatment (11/2/05)
• 95% granulation
• L 7.0 x W 2.0 x D 0.0 cm

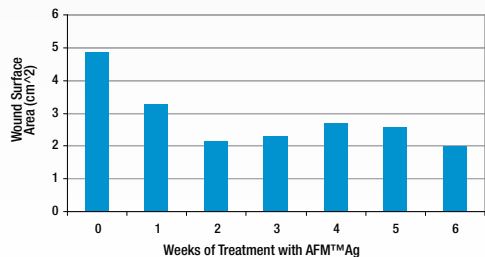


17 weeks of treatment (1/20/06)
• L 3.4 x W 0.7 x D 0.0 cm



25 weeks of treatment (3/16/06)
• Wound healed

Wound Area vs. Time



Case #2

An 18 year-old male who was referred to our practice by his CWOCN in Maine. He was attending college in the Philadelphia area beginning in August 2005.

PMH is remarkable for Parks-Weber Syndrome, congenital A-V malformation in his RLE. His first ulcer occurrence was in grade school. Over the years, he has experienced multiple ulcer occurrences and has been treated with skin grafts, antibiotics, and multiple embolizations for bleeding leg ulcers. He has not been ulcer free since 2003.

He is being followed medically by physicians at Boston Children's Hospital where he is on an experimental protocol for his A-V malformation (initiated in March 2005). This includes Thalidomide 500mg daily with Celebrex 200mg BID. The potential angiogenic effect is being evaluated at intervals by MRI.

Clinical study was initiated on 9/6/05. His right calf presented with 14 ulcers. AFM Ag was applied to all but 3 ulcers. Because of particular severity of these 3 ulcers, he chose to continue with the previous treatment (Aquacel® Ag). At the Week 1 study visit, AFM Ag was applied to all ulcers (at the patient's request) because of a noticeable improvement in study ulcers, including exudate reduction. Dressings were changed daily.

The patient chose to remain on AFM Ag dressings beyond the 4 week study period. During this extended period (5 months), we learned that the dressing can be reversed (hydrophobic [unprinted] vs. hydrophilic [printed] sides) based on the amount of exudate. The patient continued to wear his 40-55 mg compression stocking and play soccer and basketball! AFM Ag covered with Kling were then being changed every 2-3 days.

By 1/17/06, he presented with only 6 leg ulcers and by 3/24/06, he was healed. He now continues to wear only his compression stocking.



6 weeks of treatment (10/21/05)



4 weeks of treatment (10/3/05)



19 weeks of treatment (1/17/06)



19 weeks of treatment (1/17/06)



28 weeks of treatment (3/24/06)



28 weeks of treatment (3/24/06)

Case #3

A 44 year-old male resident of a long term care facility. He was admitted from an acute care hospital in early 2005 with multiple pressure ulcers, including a failed sacral flap performed during his extended hospitalization for a Stage IV pressure ulcer.

PMH includes HIV, T3-T5 abscess, S/P I&D, resulting paraplegia, S/P colostomy, GERD and hypothyroidism.

Pressure reduction measures include an alternating pressure replacement mattress. He uses a prone cart to travel throughout the building.

Nutritionally, he consumes a house diet with supplements. Albumin level is 3.5.

During the course of the 4 week treatment with AFM Ag, his pressure ulcer reduced in surface area and necrotic slough debried.



Initial Visit (8/23/05)
• 40% slough
• L 3.0 x W 2.1 x D 0.2 cm



2 weeks of treatment (9/6/05)
• 100% vibrant granulation
• L 2.5 x W 2.0 x D 0.1 cm



4 weeks of treatment (9/20/05)
• 100% granulation
• L 2.2 x W 1.5 x D 0.1 cm

Wound Area vs. Time

