

Improving Diabetic Foot Ulcer Closure Rates Using Fentonite® AgFresh® Hydrogel

MEDICAL HISTORY

NS is a 76 year old patient with a reoccurring diabetic foot ulcer. NS was referred to our center on 10-25-22 where he was evaluated by Dr. Lavor. Upon evaluation, the patient's medical history was taken. The patient presented with coronary artery disease, anemia, type two diabetes, and arthritis. He is debilitated with contractures of his extremities secondary to arthritis and he has a loss of mental stability. The ulcer is recurrent times two. Under previous care, the wound was very slow to heal and closure would take 6 months or more.

WOUND CARE PLAN

Between 10-25-22 and 12-28-22 NS was treated with Fentonite AgFresh. The dressing was changed three times a week and the area washed. He had weekly office visits and debridement as needed. The foot area was off-loaded during treatment. NS was released from our care on 12-28-22 upon complete resolution of the wound.

TREATMENT AND PROGRESS OVER LESS THAN 2-MONTH PERIOD

11/15/22



12/12/22



12/28/22



PATIENT ECONOMIC STUDY

NS is a 76-year-old patient with comorbidities who had an ulcer recurring two times on the heel. The estimated healing time for the wound was six months before starting with a previous treatment plan.

Previous costs and treatments lasted six months:

1. Office Visits: \$2,976
2. Debridement Costs: \$3,120
3. Product Cost: \$500

Approximate total: \$6,596

New Treatment Protocol:

The patient was changed to:

BioRelease Fentonite (AgFresh)

The wounds were cleaned, and dressings were changed 3x a week.

Costs After Two Months of Treatment

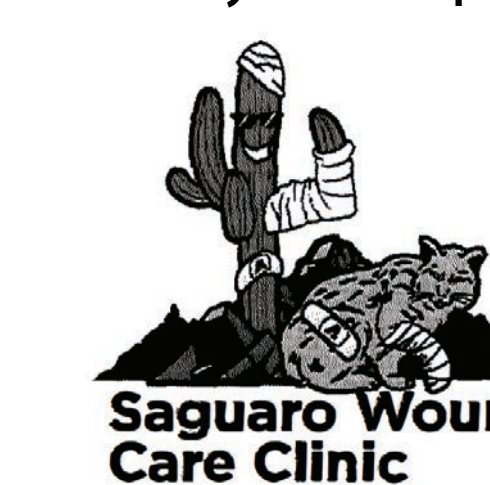
1. Office Visits: \$992
2. Debridement: \$999
3. Product Cost: \$300

Approximate total: \$2,234

The original treatment was equal in price to the McCord system, but the McCord system healed 3x faster!

INVESTIGATORS

Michael Lavor, MD is Medical Director of Saguardo Wound Care Clinic. He served as Dept. Chairman for General and Vascular Surgery at Tucson Medical Center, and Chief of Surgery and Staff at El Dorado Hospital. He is board certified in general surgery and fellow in the American College of Surgeons. He's past president of the Rocky Mountain Vascular Surgical Society, a Fellow in the Southwestern Surgical Congress. He was Commander/OIC of a surgical base in Afghanistan, 2012-2013. **Jessica Barcelo (CCMA)** is a clinically certified medical assistant. She served two years as clinical lead for an urgent care center with an additional two-years experience as a wound care specialist.



7140 E. Rosewood Street, Suite 110
Tucson, AZ 85710
Phone (520) 633-1715
Saguardowoundcare@gmail.com

TESTING FACILITY



ImQuest BioSciences, Inc.
7340 Executive Way, Suite R, Maryland 21704
STUDY DIRECTOR – Tracy L. Hartman, M.S.

DIABETIC FOOT ULCER CARE COSTS AND IMPLICATIONS

Diabetes can be a very serious medical condition, one that is often associated with various health issues and high risks. There is a five-fold increase in costs in the first year following the development of an ulcer. For instance, according to recent reports, the lifetime risk for a person living with diabetes to develop a diabetic foot ulcer is estimated to be 25%, and the risk of an extremity amputation reaches as high as 40%. Unfortunately, it's not just the severity but also the prevalence; more than half of all amputations carried out each year in the

United States are due to diabetes-related conditions. As such, controlling diabetes and early detection are key ingredients to mitigating those risks.

Diabetic foot problems pose a large burden for managers of global health care systems due to the high recidivation rates and amputation risks associated with them. Diabetes is the leading cause of non-traumatic lower limb amputations, making it an important factor in health outcomes across the world. Poor wound

healing leads to chronic inflammation and eventual infection, which causes a significant number of patients to reappear in hospital. Apart from higher costs due to multiple hospitalizations, amputation also has a major psychological impact for those affected. Joint efforts aimed at prevention, early detection of complications, and improved treatments are necessary to reduce the prevalence of diabetic foot problems and their negative influence on global health outcomes.

REFERENCES

Alliance of Wound Care Stakeholders. (2018). Chronic Wounds: Economic Impact & Costs to Medicare. (1-2). Retrieved from <https://www.woundcarestakeholders.org/news/studies-and-publications/chronic-wounds-economic-impact-costs-to-medicare>

Jodheea-Jutton, A; Hindocha, S; Bhaw-Luximon. (January 30, 2022). Health Economics of Diabetic Foot Ulcer and Recent Trends to Accelerate Treatment. *Elsevier*. (1-10). Retrieved from <https://doi.org/10.1016/j.foot.2022.101909>

Sen, C. K. (January 15th, 2019). Human Wounds and Its Burden: An Updated Compendium of Estimates. Wound Healing Society. DOI: 10.1089/wound.2019.0946. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/30809421>