

# ENHANCING VENOUS LEG ULCER HEALING WITH AN IONIC SILVER HYDROGEL\*


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wound & skin care education

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## INTRODUCTION

Chronic venous insufficiency is a condition often resulting in ulceration and permanent skin changes. Venous ulcers were previously known as “venous stasis” ulcers since their development was thought to be caused by blood pooling in the veins. More recent literature indicates that venous hypertension rather than venous stasis is both the cause of these ulcers and the reason that they do not heal. Typically, the skin surrounding these ulcers presents as erythematous and weepy or dry and scaly, further challenging healing.

## PROBLEM

The mean rate of healing for venous ulcers in 5.3 months with a recurrence rate of 22% to 69% at one year. This presents a quality of life and cost dilemma for the patient, caregivers and clinicians secondary to pain, nursing time and potential disability.

The gold standard treatment for venous leg ulcers with accompanying edema is appropriate compression, often with multilayer compression dressings. Often, however, bioburden impedes healing and can diminish overall outcomes. With reduced funding in healthcare, the goal is to close the wounds in the most cost-effective manner and within the shortest period of time.

## OBJECTIVE

Describe a more comprehensive treatment plan for addressing venous leg ulcers, thus maximize outcomes by reducing bioburden, healing times, and overall costs.

## METHODOLOGY

This case series involves four patients with recalcitrant venous leg ulcers. They all have long standing venous leg ulcers and the patient's average age is just over 77 years with the range is 57 to 88. There was one female and three males included in this data. They were chosen to participate due to their recalcitrant venous wounds and their ability to comply with the prescribed treatment. All these patients were unsuccessfully treated with an amorphous hydrogel and a four-layer compression system.

An ionic silver hydrogel was substituted for the previous wound gel and applied under a four-layer compression dressing. The dressing was changed twice a week for two to three weeks, dependent on the patient's drainage, and then reduced to once per week to closure. The patients returned to the wound clinic for monitoring by the CWOCN on a regular basis.

\*SilvaSorb Gel from Medline Industries, Inc., Mundelein, IL. SilvaSorb is a registered trademark of AcryMed Inc.

## CASE 1

8-17-04, 85-year-old male retired truck driver with cardiac disease and PVD



10-05-04, showing significant progress

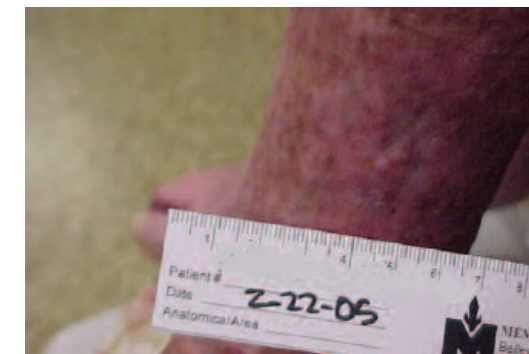


## CASE 2

11-02-04, 88-year-old male with underlying co-morbidities



After 2 months of silver hydrogel\* and compression



## CASE 3

12-14-04, 79-year-old female retired teacher with lesions on her lower extremities



After 1 month, note the progress toward healing



## CASE 4

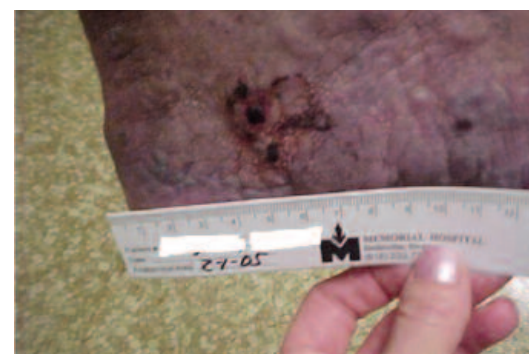
57-year-old male with severe PVD and weeping ulcers on bilateral medial malleoli, 2-01-05, RLE



In only 7 days, two dressing changes, note the significant progress 2-08-05, RLE



2-01-05, LLE



2-08-05, LLE



## PRODUCT OVERVIEW

The silver hydrogel is effective against a broad spectrum of organisms including *Staphylococcus aureus*, *MRSA*, *Pseudomonas aeruginosa*, *Escherichia coli*, *VRE*, fungi including *Candida albicans*, and other clinically significant micro-organisms. It provides controlled-release antimicrobial silver at a constant and consistent rate. It is gentle for the patient due to its non-adherent properties and ease of removal from the wound bed. In addition, it reduces pain as it hydrates dry wounds and maintains an optimally moist wound healing environment. It is easy to use, cost effective and did not melt into the wounds. The long wear time allowed the dressing to remain under the four layer wrap until the next clinic visit.

## RESULTS

All patients showed significant progress within six weeks. The photographs represent four of the patients successfully treated with four-layer compression and the ionic silver hydrogel.

## CONCLUSIONS

Addressing the need for compression is only one element of caring for venous leg ulcers. A comprehensive management plan should include the use of a broad-spectrum antimicrobial. Since there is no known clinical significant resistance and rare sensitivity to silver, an ionic silver hydrogel was chosen and proved to be successful in reducing the healing time in these recalcitrant venous wounds. The silver hydrogel proved to be versatile, cost-effective and long-wearing.

## REFERENCES

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