

# The Use of CurX Antimicrobial Gel in a Slow Healing Wound Complicated by Patient Non-Compliance

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## Case Study

A 56-year-old black male presented to clinic with the chief complaint of venous ulcers of right dorsal and plantar surfaces of foot and 2nd and 3rd toes on 7/21/15. He had a prior medical history significant for chronic lymphedema, DM, HTN, Hyperlipidemia, CVA with residual hemiparesis of right side, wheelchair bound, tobacco dependence, seizure disorder, depression and asthma. He had been treated in the past with butadiene gauze wraps and iodasorb with kling, ace, and coban wraps with little improvement. Wound care was delivered twice weekly.

## Labs

Due to the patient's ambulatory limitations, a nutritional evaluation was conducted to rule out protein malnutrition. Labs revealed: TP: 7.8, Alb: 3.2, A1C: 5.8% with 500 mg metformin bid.

## Social Constraints

This case was complicated by social barriers: The patient lives by himself in subsidized housing with no air conditioning. He sleeps in his wheelchair due to compromised ambulatory and health status. He has no family or social support. He declines to have home health assist with ADLs and limb elevation.

## Prior Treatments of Wounds

The patient received Clindamycin 300 TID x 7 days 9/14/15 due to the markedly minimal improvement of wound status over the first 7 weeks of treatment. Minimal improvement was noted after the antibiotic course.

## Method



## 10/2/15

CurX Antimicrobial Gel was utilized for the first time on 10/2/15. A thin layer was applied to affected limb and ulcerations. The limb was dressed with gauze and coban in a compression wrap with weekly dressing changes to follow in this manner.

## Results



**10/23/15**

By October 23, significant improvement in wound appearance was observed and the wound on dorsal surface of R foot had resolved completely.



**11/12/15**

By November 12, entire dorsal surface was resolved and wounds were limited to plantar surface of R 2nd and 3rd toes.



**12/11/15**

By December, wounds on plantar surfaces of R foot were very defined and without any maceration.



**1/15/16**

By January 15, wounds had become essentially dry eschars with all tissues fully epithelialized.

*On 2/1/16, patient lost Medicaid and had accidentally unenrolled from CareMore. He reported that he had no means of transportation to his PCP office. We attempted to have patient receive Home Health services via PCP without success. **Patient was not seen for 30 days.** Next visit, below:*



**3/1/16**

Patient followed up in the CareMore clinic on March 1st, more than one month after last dressing change on January 31st. Patient had the same CurX, gauze, and coban dressing on limb and foot for more than 1 month without a dressing change. Foot and toes remained in stable condition without any ulcerations or fissures.

## **Discussion**

Patients with lymphedema often experience skin changes. If caught early, in the simple edematous stage, compression and leg elevation may be sufficient to resolve issues. However, when lymphedema goes without treatment for an extended period of time, the results are extensive and permanent damage to the skin can occur. Initially, the skin will begin to lose elasticity and develop a thick, tree-bark like appearance. The reduction in elasticity results in skin that ulcerates and fissures easily as the tensile strength of the epidermis is compromised. Any opening in the skin should be treated as a portal for infection. In the case of infection, the skin will undergo darkening, as seen here with necrotic appearing tissue covering the digits.

The patient in this study clearly suffered from chronic lymphedema. This was complicated by his mental health and social barriers. All previous attempts to treat the patient's extensive wounds had failed but the introduction of CurX Gel to the treatment marked a significant turning point in his care. Even in the face of extensive non-compliance and extended dressing change intervals, CurX remained in contact with the wound and continued to manage the environment.

## **Conclusion**

Stalled wounds represent a major cost to healthcare, both in terms of time and resources. In this case, multiple previous dressing attempts had failed to trigger healing. As is seen, the introduction of CurX triggered rapid healing. Patient non-compliance is also a pervasive issue in podiatric care. Mental health issues and lack of resources often complicate treatment in the event the treatment plan is not adhered to. With many of the treatments attempted in this case, a barrier to healing was the lack of compliance of the patient coupled with extended periods of time between dressing changes. One of the major benefits of CurX Gel is that, with its petrol base and extended-release technology, it maintains efficacy in the face of lapses in care. CurX Gel also stands out in this situation for its ability to continue to treat without macerating the tissue.