

# Pilot series of recalcitrant lower extremity wounds managed with an ovine collagen extracellular matrix (CECM)<sup>1</sup> and gentian violet/methylene blue (GV/MB) antibacterial foam dressings<sup>2</sup>

• Eric Lullove, DPM CWS FACCWS, Medical Director, West Boca Center for Wound Healing, Florida

## Purpose:

To conduct a pilot series of recalcitrant lower extremity wounds managed with an ovine collagen extracellular matrix (CECM)<sup>1</sup> and gentian violet/methylene blue (GV/MB) antibacterial foam dressings<sup>2</sup> to assess healing and cost data.

## Method:

Data were collected retrospectively from the medical records of five consecutive patients who had chronic lower extremity wounds that were managed with the two products concurrently during the time period from April 2013 to October 2013. All eligible patients were included in this retrospective analysis study from April 2013 to October 2013. Exclusion criteria included those patients with active infection, non-adherence or hospitalization during treatment therapy. Treatments included weekly wound cleansing, measurements, excisional debridement of devitalized tissue and application of the ovine CECM hydrated with normal saline with appropriate use of a GV/MB antibacterial foam secondary dressing secured with roll gauze and tape. Patients were seen once weekly for debridement, physician assessment, and wound care. The second weekly visit consisted of a nurse assessment of the wound with dressing change. Cost data were tabulated post payment for accuracy.

## Results:

Average cost of care per patient is shown in Table 1. Product costs reflect selling price from medical supply distributor. Average cost of physician and nursing visits is shown in Table 2. Actual weekly cost per pilot study participant is shown in Table 3. Weekly reimbursement provided by insurance company is shown in the right column of Table 3 for each subject. This figure was obtained by dividing the total reimbursement over the course of treatment with Endoform by the number of weeks the patient was using the product. This pilot study of five consecutive patients with recalcitrant wounds revealed a greater than 45% reduction in wound surface size of all patients seen within an 8-12 week period with recalcitrant wounds.

## Conclusion:

This study was based on a retrospective review of 5 patients with various recalcitrant lower extremity wounds. The results bear further investigation with a larger sample size to further explore costs of care and wound closure.

Table 1:

Average cost of product per participant

Supplies	Units used	Size	Cost
GV/MB antibacterial foam	1	4x4	\$6.00
CECM	1	2x2	\$12.00
Gauze Roll	2	4x4	\$0.68
<b>Total</b>			<b>\$18.68</b>
<b>Weeks of care: 12</b>			<b>\$18.68 x 12 = \$224.16</b>

Table 2:

Cost of treatment for physician and nursing visits

Cost of care for physician visit	\$168.68 x 12	\$2024.16
Cost of care for nursing visit	\$75.00 x 12	\$900.00
<b>Total cost of 12 week episode</b>		<b>\$2924.16</b>

Table 3:

Wound metrics and actual weekly delivery reimbursement per participant

Patient 1:	Cost
Size initial: 5.4 cm <sup>2</sup>	<b>\$164.02</b>
4 weeks: 5.4 cm <sup>2</sup>	
8 weeks: 5.4 cm <sup>2</sup>	
12 weeks: 3.0 cm <sup>2</sup>	
16 weeks: 1.9 cm <sup>2</sup>	
20 weeks: healed	
<i>NOTE: patient underwent topical anti-vertuca therapy x 8 weeks before CECM application</i>	
Patient 2:	Cost
Size initial: 4.2 cm <sup>2</sup>	<b>\$90.05</b>
4 weeks: 2.25 cm <sup>2</sup>	
10 weeks: healed	
Patient 3:	Cost
Size initial: 5.75 cm <sup>2</sup>	<b>\$205.51</b>
5 weeks: healed	
Patient 4:	Cost
Size initial: 10.8 cm <sup>2</sup>	<b>\$157.86</b>
4 weeks: 3.2 cm <sup>2</sup>	
8 weeks: 2.5 cm <sup>2</sup>	
12 weeks: 1.3 cm <sup>2</sup>	
14 weeks: healed	
Patient 5:	Cost
Size initial: 2.34 cm <sup>2</sup>	<b>\$246.84</b>
4 weeks: 2.0 cm <sup>2</sup>	
8 weeks: 0.5 cm <sup>2</sup>	
10 weeks: healed	

## References

<sup>1</sup> Endoform dermal template, Distributed by Hollister Incorporated  
<sup>2</sup> Hydrofera Blue classic foam, Distributed by Hollister Incorporated