

The Use of a Super-absorbent Dressing* to Manage Periwound Maceration and Odor in Chronic Wounds


Ellen Vorbeck, DNP, APRN-BC, CWOCN, CWS
University of Colorado
Denver, CO

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INTRODUCTION

Periwound maceration has been associated with slow healing of wounds. Management of maceration is frequently attempted with the use of absorbent foams, alginates, and hydrogels. However, these dressings either lose integrity when saturated (alginates and hydrogels), allow exudate to be regressed back into the wound when compressed, or are unable to absorb well under compression. The latter has been observed with absorbent foam in particular. Super absorbent material containing dressings have been described as products that can: (a) absorb under pressure, and (b) resist “squeezing out” when used as a secondary dressing with typical pressure under a compression wrap (40 mm Hg).

Our new wound center provides care for many patients that suffer from malodorous, highly exudative, macerated wounds which are managed with compression dressings as the standard of care. We tested a superabsorbent dressing to assess the impact on maceration and wound odor levels.

METHODS

A convenience sample of 6 patients with venous or plebolymphedema related exudate/ulcerations which caused problems of odor, periwound maceration and slow wound healing were evaluated. The patients were treated with the superabsorbent dressing consistently for 4-6 weeks, changing dressings during clinic visit 1-3 times a week. Evaluation end points included periwound maceration; wound healing; and evaluation of odor status of the wounds. The same compression bandage was used consistently on all the patients over the entire duration of care. Patients continued with their compression and lymphedema therapy and were encouraged to elevate and ambulate to facilitate venous return.



DM 12-10-12 Left Leg



DM 12-20-12 Left Leg



DM 12-10-12 Right Leg



DM 12-20-12 Right Leg

RESULTS AND DISCUSSION

We observed that the dressings were saturated with fluid at dressing changes, though the periwound skin in every case showed no evidence of the previously seen levels of maceration, as evidenced in the photographic images. The fluid lock feature of the dressings was notable in practice. The wounds demonstrated reduced odor levels over time. In addition, there was no adhesion of the dressing to the wound and the contact layer made of a specially engineered perforated polymer transferred and allowed absorption of serosanguinous fluid without pooling of solid matter on the wound surface. It is not unusual for us to see “dripping” dressings when they are removed from a wound. In this case, the fluids in the dressing were securely absorbed.



MR 10-26-12



MR 11-15-12



WB 10-12-12 Left Leg



WB 11-02-12 Left Leg

Initials	Age	Gender	Location	Type of compression	Etiology	Comorbidity	Odor (0-5)	Resolution Odor	Resolution Condition
RV	59	F	Bilateral legs	4 layer compression	Phlebolympheidema, Lipodermatosclerosis, weepy edema with maceration	poorly controlled DM, morbid obesity	5	4 weeks	4 weeks (exudate)
DM	67	M	Bilateral legs	2 layer	CVI	A Fib, CHF, DVT, anticoag therapy, cardiomyopathy	5	3 weeks	7 weeks (wound)
MR	79	M	Bilateral legs	4 layer compression pump	Stasis dermatitis, Lipodermatosclerosis, Phylebolympheidema,	Systolic murmur, edema, DM	4	2 weeks	4 weeks (exacerbation)
RT	71	M	Bilateral legs	Short stretch	Lipodermatosclerosis, poorly controlled lymphedema	Parkinson's	5	8 weeks (at week 3, odor was 1/5)	8 weeks (maceration)
WB	68	M	Bilateral legs	2 layer	Lipodermatosclerosis, lymphedema, CVI	Morbid obesity	5	8 weeks (at week 2, odor was 2/5)	6 weeks (exudate)
RG	58	M	Right leg	2 layer	CVI, edema, Necrotizing fasciitis	Multiple abscesses and debridement	4	3 weeks	6 weeks (wound)

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