

Reducing Clinical Costs of Care Using a Super-Absorbent Dressing with Low Sub-Bandage Pressures Under a Short-Stretch Bandage

Background:

Choosing a compression system is often at discretion of the clinician, who considers the effectiveness of the system coupled with individual patient characteristics. Cost considerations are usually considered a lower priority. With the looming reimbursement changes favoring bundled charges for the episode of care, interventions to control cost without sacrificing clinical outcomes are more relevant than ever. A recent meta-analysis comparing short stretch bandages (SSB) to 4-layer compression (4-LC) did not report significant differences in healing ulcerations.¹ We examined the economic and clinical use of a super-absorbent dressing*(S-AD) under the SSB** for the management of venous leg ulcers (VLUs).

Method:

The S-AD, having comparative data to other S-ADs showing lowest effect on sub-bandage pressures when fully expanded², was applied as a primary or secondary dressing and secured with cotton undercast padding, fluffy rolled gauze or self-adherent wrap. If a primary dressing was needed, a calcium alginate or a foam dressing was used. Compression was applied using a SSB. Costs of care were compared to application of 4-LC. Reimbursements in the outpatient wound center were also calculated.

Conclusion:

The use of a S-AD dressing that has the least impact on sub-bandage pressures under a SSB is a viable option to achieve clinical outcomes for VLU patients while simultaneously reducing the cost of care. More study is warranted.

Results:

Cost to the outpatient wound clinic for S-AD with SSB method requires an average of twice weekly change, usually performed weekly at wound center and once/week by home health when determined to be appropriate – usually within one month of initiating S-AD/SSB method – cost was reduced by \$374.00. Per visit reimbursement remained stable resulting in a \$779.00 per patient per month reduction in operating costs. There were no impacts in aggregate healing rates. Patients experienced an overall reduction in co-pays and travel costs. Home health agencies experienced a reduction in visits.

Vasculitic Wound: 64 year old female patient with 2 month history of non healing wounds and swelling left leg

- ▶ **Past Medical History**
Type II Diabetes
High Cholesterol
Hypertension
- ▶ **Surgical History**
Ostomy
Hysterectomy
Bowel Resection

The patient presents to the center with large non healing vasculitic ulcers on her left anterior shin and lateral calf. The wound bed has loose slough with some necrotic areas. There is copious amounts of serous fluid from the wound. Prior to utilizing "Eclipse contour" the patient was using 10 abd pads, kerlix, Santyl, Hydrofera blue, Multilayer wraps and was changing the dressing every day. The cost was shared with home health and the wound care center. The wound care team saw the patient 3 times a week and the HHA was the remainder of the days. We implemented the "Eclipse Contour" to decrease visits and total cost for the center and HHA. We continued to use Santyl and Hydrofera blue as the primary dressing and then "Eclipse Contour", kerlix, and double layer tubigrip. The frequency was decreased to three times a week with two changes at the wound care center and once with home care. We then discontinued treatment with the HHA and ordered her supplies for the patient at home. The dressing frequency was adjusted again and she was only seen twice a week. Treatment continues...

- 1 Decreased visits for VNA and Wound care center
- 2 Decreased Copay/transportation cost
- 3 Decreased supplies/nursing time



Vasculitic Wound: 66 year old Male patient with long standing swelling to bilateral legs and wound on right heel

- ▶ **Past Medical History**
Adenomatous polyp of colon Chest Pain
Atrial Fibrillation Venous Leg Disease
Barrett's Esophagus High Cholesterol
Cellulitis Type II Diabetes
Cerebral Artery Occlusion 4 stents placed
- ▶ **Surgical History**
Carotid Endarterectomy Right
Ear Surgery, Skin graft to ear drums
Stent Placement x4

The patient presented to the wound care center with multiple lower leg wounds and an ulcer on his right heel. The wound bed had stringy slough, red granulation, and macerated wound edges. The wound was draining copious amounts of serous fluid. Prior to utilizing an "Eclipse 6x6" (EC 6x6) the patient was using other alginates with silver, abd's, gauze, and multilayer dressings. The patients dressings were changed every day by the wound care center due to maceration and strike through. With aggressive lymphedema compression and the use of the EC 6x6 we managed to reduce his dressing frequency to two days a week. The primary dressing included an antimicrobial dressing with the secondary of the EC 6x6.

- 1 Decreased dressing change
- 2 Decreased supplies
- 3 Decreased maceration
- 4 Decreased visits/copays/ambulation (which he needed to offload the area)



*Eclipse® Contour, Advancis Medical, Nottinghamshire, UK. Distributed in US by Dukal Corporation, Ronkonkoma, NY
 **Kossip® K Short Stretch Bandage, Lohmann and Rauscher USA, Inc., Milwaukee, WI
 1. Resende De Carvalho M, Ulfari Palvato S, Andrade Silveira I, Baptista de Oliveira S. A meta-analysis to compare four-layer to short-stretch compression bandaging for venous leg ulcer healing. *Ostomy Wound Management*. 2018;44(5):30-37. doi:10.25270/owm-2018.5.3037
 2. Cook L. Effect of super-absorbent dressings on compression sub-bandage pressure. *Bull J of Comm Nurs*. 2011;14(3):38-40-43.