Impact of Sodium-Carboxymethylcellulose Foam Dressings* on Real-Time Incidence of Facility Acquired Pressure Ulcers

Catherine T. Milne APRN, MSN, BC-ANP/CNS, CWOCN
Connecticut Clinical Nursing Associates, LLC
Bristol, Connecticut

Introduction:

Many institutions perform quarterly evaluations to determine pressure ulcer (PU) prevalence. The latest data from a large scale study[1] shows a facility-acquired prevalence rate on Medical-Surgical units of 4.0%. However, real time incidence (RTI) is more accurate in capturing wide ranges in actual pressure ulcer rates and allow targeted quality improvement interventions[2], such as managing skin microclimate[3] through dressings and surface overlays.

Objective:

A prospective evaluation of the impact of a Sodium Carboxymethylcellulose (Na-CMC) foam dressing* on real time incidence of pressure ulcers on a Medical-Surgical unit.

Method:

All patients with a Braden Scale of 18 or less had a Na-CMC foam dressing placed on the sacral area at time of identified risk. No other changes in usual care (e.g. support surfaces, nutrition, repositioning and incontinence management) were implemented during this time. Real-time incidence data of PU development and location was collected.

Outcome:

Pre-implementation real-time incidence rates ranged from 0% to 17.2% with an average of 4.3%. Post-implementation rates ranged from 0% to 5.2% with an average of 1.8%.

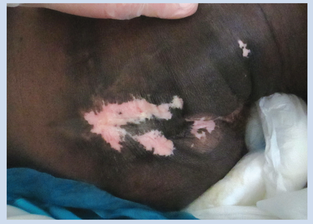
Conclusion:

This evaluation suggests that skin microclimate control using a Na-CMC foam dressing can positively impact facility acquired pressure ulcer rates. Further study is warranted.

Case #1

82 year old female admitted with urosepsis and dehydration. Braden risk score of 12. Patient with both fecal and urinary incontinence. History of Stage 4 pressure ulcer of the sacrum. Area had healed but no re-pigmentation noted.

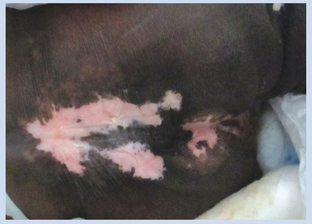
Upon discharge, sacral area skin was noted to be improved upon discharge. Braden score unchanged at discharge.



At risk, before Na-CMC foam with silicone border dressing was applied.

Day 5 of preventative Na-CMC foam with silicone border dressing.

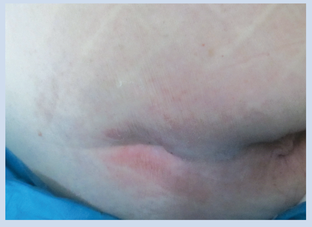
Day 5 Close up of preventive Na-CMC foam with silicone border dressing.



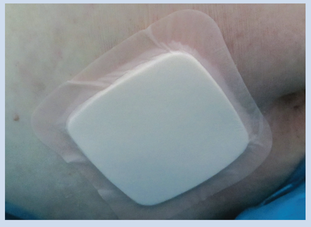
Skin 5 days after Na-CMC foam with silicone border dressing.

Case #2

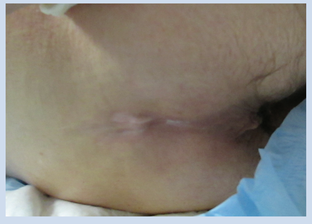
78 year old female with admission diagnosis of pneumonia. Past medical history includes severe dementia, fecal and urinary incontinence, hypothyroidism and Parkinson's Disease. Braden score on admission 13. Sacral area with diffuse blanchable erythema noted on admission and did not deteriorate.



Day 1 of consultation - early incontinence-associated dermatitis (IAD) prior to Na-CMC foam with silicone border dressing.



Day 5 – IAD of Na-CMC foam with silicone border dressing.



IAD 5 days after protective management with Na-CMC foam with silicone border dressing. Note good skin condition.

References

1. Lachenbruch C, Vangilder C, Harrison P. A Comparison of Acute Care Overall and Facility-Acquired Pressure Ulcer Patients from the 2011 International Pressure Ulcer Prevalence™ Survey. Poster presented at: Wound, Ostomy, Continence Nurses Society 44th Annual Conference, Charlotte, NC. Available at: http://wocn.confex.com/wocn/2012am/webprogram/Paper6942.html. Accessed November 2, 2012.
2. Corbett L, Curley JA, Ough N, Strycharz CA, Morton R, Yavinsky CE. Real Time Pressure Ulcer Incidence Drives Quality Improvement. Oral presentation given at: 24th Annual Symposium on Advanced Wound Care and Wound Healing Society, Atlanta, Ga. 2012. Abstract available at: http://www.o-wm.com/content/24th-annual-spring-symposium-advanced-wound-care-andwound-healing-society-meeting-07page=0,8. Accessed November 2, 2012.
3. Clark M, Black J. Skin IQ microclimate manager made easy. *Wounds International* 2011; 2(2). Available at: http://www.woundsinternational.com/made-easys/skin-iq-microclimate-managermade-easy/. Accessed: November 2, 2012.

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*AQUACEL® Foam dressing, ConvaTec Inc. Skillman, NJ, has been designed to protect against skin breakdown caused by shear forces, friction, /and/or excess moisture and may be used as a part of a comprehensive protocol of care to protect at-risk areas.

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