

Improving Patient Comfort and Satisfaction in Emergency Departments with a Micropressure Overlay

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BACKGROUND:

In the United States, emergency departments (EDs) handle over 117 million visits, resulting in 6.2 million hospital admissions. Elderly patients, who are at high risk for pressure ulcers (PU) due to their immobility, impaired mental status and incontinence, account for almost 30% of the ED visits. During crowded periods, patients admitted to EDs face extended wait times and typically spend considerable amount of time laying on stretchers that provided limited pressure redistribution and patient comfort. Family members of frail elderly patients placed on ED stretchers have expressed concerns regarding the discomfort experienced by their loved ones and the increased risk for developing PUs. Approximately 6% of elderly patients develop PU within 48 hours of ED admission. As part of an initiative to improve patient satisfaction in crowded EDs, a large health system evaluated a low profile active (alternating pressure) micropressure overlay that was placed over a 4" thick foam stretcher pads.

OBJECTIVE:

To evaluate the effectiveness of a micropressure overlay placed over static foam stretcher pads in improving patient comfort and reduce risk of PU development during extended wait periods in crowded EDs.



METHODS:

The study was conducted in 6 acute care hospitals with extended wait times and busy EDs within a Level 1 quaternary health system. A standardized evaluation tool with the following patient selection criteria was developed: abnormal BMI, over age 65, holding time of 2 hours or more, cognitive understanding, weight limit of 400 lbs, and Braden <18. The tool captured time on overlay, comfort level, and any alteration in the skin after usage of overlay. Monitoring was performed during each shift with skin assessments and final assessment done at discharge.

"In busy Level 1 quaternary health system EDs with time on surface up to 28 hours, no new skin breakdown was observed."

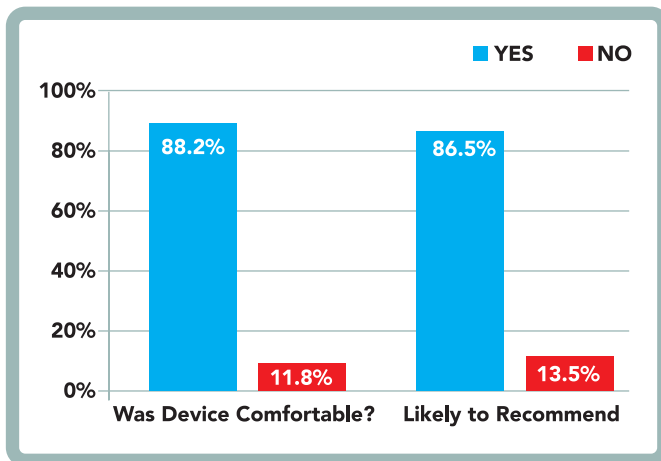
RESULTS:

A total of 119 patients participated in the evaluation. The time on overlay ranged from 2 hours to 28 hours. No new skin breakdown was observed for patients placed on the overlay. Patients with existing pressure ulcer did not experience any further deterioration. More than 88% of patients rated the overlays as being comfortable and almost 87% recommended the usage of overlay in EDs for improving patient comfort.

88%
Rated Comfortable

CONCLUSION:

The evaluation indicated that the micropressure overlay helped improve patient comfort in crowded emergency departments (EDs). The overlay also has the potential to reduce the risk for pressure ulcer development during extended wait periods in the EDs.



Patient Comments

- It makes the wait and overall experience better
- Felt awesome
- When machine not on I was sore, but when turned on I was more comfortable

REFERENCES:

1. Niska R, Bhuiya F, Xu J. National Hospital Ambulatory Medical Care Survey: 2007 Emergency Department Summary. Dept of Health and Human Services, Centers for Disease Control and Prevention, National Health Statistics Reports; no 26. Hyattsville, MD: National Center for Health Statistics; 2010.
2. Baumgarten M, Margolis DJ, Localio AR, et al. Pressure ulcers among elderly patients early in the hospital stay. J Gerontol A Biol Sci Med Sci. 2006;61:749-754.
3. Pham B, Teague L, Mahoney J, Goodman L, Paulden M, Poss J, Li J, Ieraci L, Carcone S, Krahn M. Early prevention of pressure ulcers among elderly patients admitted through emergency departments: a cost-effectiveness analysis. Ann Emerg Med. 2011 Nov;58(5):468-78.