Confirming Effective Off-Loading and Repositioning Using Continuous Bedside Pressure Mapping†

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Purpose/Problem

National Pressure Ulcer Advisory Panel Guidelines recommend repositioning patients to reduce the magnitude and duration of pressure over vulnerable areas of the body and repositioning in such a way that pressure is relieved or redistributed. 1,2 Techniques such as the 30° side-lying position are recommended, but ultimately each individual patient’s condition needs to be considered when assessing for effective positioning and off-loading of pressure.1 Currently, caregivers have no real-time, bedside assessment tool to see if their repositioning and off-loading for each patient is effective.

Methods

A continuous bedside pressure mapping (CBPM) system was utilized to assess various off-loading and repositioning scenarios to determine if its use could enhance individual off-loading and repositioning techniques at the bedside. Scenarios of heel off-loading, side-lying repositioning, head of bed elevation, and repositioning in such as way that pressure is relieved or redistributed.

Outcomes

With the use of the CBPM system, lower peak pressures and lower overall pressures were observed. Effective heel off-loading can be easily and quickly monitored without having to disrupt the patient, or remove blankets, with the use of the CBPM system. Objects that can cause high pressures beneath patients, like cell phones and tape rolls, are easily identified on the CBPM monitor. These results were consistent on both the standard foam mattress and the air mattress.

Conclusions

CBPM provides real-time monitoring to confirm effective off-loading and repositioning on both foam and air mattresses. CBPM provides monitoring that could alert caregivers to situations that could put patients at high risk for pressure damage to their skin.1,2

References


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