Can Technology Assist Reducing Incidence of Hospital Acquired Pressure Injuries (HAPI)?: A Performance Improvement Project

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ABSTRACT

Purpose: The purpose of this year-long performance improvement project is to improve timeliness and adequacy patient repositioning to evaluate its impact on HAPI rates at a 440-bed cardiac care destination hospital.

Methodology: Wireless, wearable monitoring system which monitors patient mobility in and out of bed was implemented on eight nursing units. The system provides real-time visual turn cues on patients’ individual repositioning needs and has been shown to improve timeliness and adequacy of patient turning. 460 staff received system and skills training on adequate patient offloading technique prior to implementation. Facility turn protocol consisted of a 2-hour turn interval, minimum lateral turn angle of +/-20 degrees and a 15-minute minimum tissue reperfusion time between turns.

Sample Size: In the initial 6-month period, 960 patients were monitored for 82,735 care days. Average monthly adherence to facility turn protocol was 90%, which is significantly higher than averages reported in literature (38%-64%).

Results/Outcomes: Sacral and coccyx HAPIs were reduced from 12 to 0. Significant reduction in wound healing of sacral and coccyx HAPIs was observed. Staff see visual alerts on patients’ turn status and who requires assistance repositioning. Patients who reposition themselves reset their turn clock, provided the turn meets the inclusion protocol to receive a sensor. Patients with known allergy to adhesives were excluded.

OBJECTIVES

- Improve patient mobility by optimizing patient repositioning
- Reduce HAPIs
- Obtain objective repositioning data that can be used in root cause analyses
- Staff see visual alerts on patients’ turn status and who requires assistance repositioning.
- Patients who reposition themselves reset their turn clock, provided the turn meets the prescribed turn angle and tissue reperfusion time.

REFERENCES

1. Leaf Healthcare Inc., Pleasanton CA