

The Health Care Improvement Foundation
2019 Delaware Valley Patient Safety and Quality Award
Entry Form

1. Hospital Name

Einstein Medical Center Montgomery – Einstein Health Care Network

2. Title Of Initiative

Improving Turning Compliance and Reduction of Pressure Injuries

3. Abstract (Please limit this description to 250 words.)

A program was initiated for the Intensive Care Unit (ICU) patients at high risk for development of HAPI (Hospital Acquired Pressure Injury). A wearable patient sensor is applied to record patient turning, mobility and repositioning through a wireless monitoring system. Wearable patient sensors provide an objective recording of patient turning practices and eliminates the reliance on direct observation and self-reported data. Clinical study data has demonstrated that this type of system improves compliance and reporting accuracy and reduces the occurrence rates for HAPI. Improving turning compliance and reducing incidence of HAPI promotes patient and physician satisfaction with care, promotes improved patient safety, improves the overall quality of care and reduces hospital costs associated with HAPI occurrences. These outcomes are consistent with the hospitals mission and vision. Our hospital is the first in Pennsylvania to implement this turning monitoring system.

4. What were the goals of your initiative?

To improve turning compliance and reduce the occurrence of HAPI in acutely ill patients.

5. What were the baseline data and the results of your initiative?

Turning compliance was inconsistently documented prior to implementation and therefore baseline data was unable to be collected. Turn protocol adherence of >85% has been shown to significantly reduce hospital-acquired pressure injuries. Turning protocol adherence is defined as, turning every two hours on left, back or right sides. For the initial 3-month implementation period, February 2019 through April 2019, overall turning adherence averaged 90%. Pressure injury reduction during the three-month pre-implementation period of November, December and January resulted in three pressure injuries with a rate of 2.2/1000 ICU patient days. For the three-month implementation period of February, March and April, there were zero pressure injuries resulting in a rate of 0/1000 ICU patient days. Our current data shows one pressure injury and an overall turning adherence of 89% in May 2019.

6. Describe the interventions that were instrumental in achieving the results for your initiative.

The ICU was equipped with a wireless patient monitoring system, including all required software, training, and technical and clinical support. Patients at high risk of pressure injury, with a Braden Score of 16 or below, are fitted with a remote sensor that continually monitors and records patient turning, mobility and repositioning. The

organizations nurses are responsible for evaluating the risk every twelve hours. Once a patient Braden score is 16 or below, no matter if the patients score changes over time, they will continue to wear the monitor throughout the hospital stay. The sensors can be worn for up to twenty-one days. When the patient is transferred out of ICU, the sensor remains for continued monitoring. The patient's sensor will notify the nurse via a monitor in the ICU that it is time to turn the patient. When the nurse turns the patient, they are also performing a skin assessment for pressure injuries. Nurses were provided a one-hour workshop on application of the sensor, hands on demonstration on proper technique of positioning the patient at a thirty-degree angle, and the electronic based education session hosted by the wearable technology company.

7. Describe the key steps required to successfully replicate this initiative throughout the region. (Please limit this description to 100 words.)

Replication of this process can be accomplished by performing a needs assessment. This starts with holding staff accountable through conducting monthly prevalence studies. Ensure that your wound management program is following best practices as detailed by the Agency for Healthcare Research and Quality (AHRQ) and National Pressure Ulcer Advisory Panel (NPUAP) guidelines for preventing pressure injuries.

8. Explain how the initiative demonstrates innovation (Please limit this description to 100 words.)

Our Wound Ostomy Continence nursing team presented an original research project through our internal grant funding. The funding allows for the exploration of new, innovative ideas and programs in the laboratory, hospital and community to enhance patient care. As the first hospital in Pennsylvania to implement the wireless patient monitoring system, we have been an industry leader in utilization of pressure injury prevention techniques. This wireless patient monitoring system helps to provide constant evaluation of the patient's response to treatment and proper turning. It provides a visual cue to turn the patient and eliminates the guesswork of when to turn.

9. How does this initiative demonstrate collaboration with other providers within the continuum of care? (Please limit this description to 100 words.)

Our collaboration included our CWOCN, occupational and physical therapy, nurses, critical care nursing directors and the director of nursing education and professional development. Being that the program was funded through an internal grant, our senior leadership team was extremely supportive of this new idea. This team recognizes the economic, patient safety and quality effects of a healthcare associated pressure injury.

10. Explain ways in which senior leadership exhibited commitment to the initiative (Please limit this description to 100 words.)

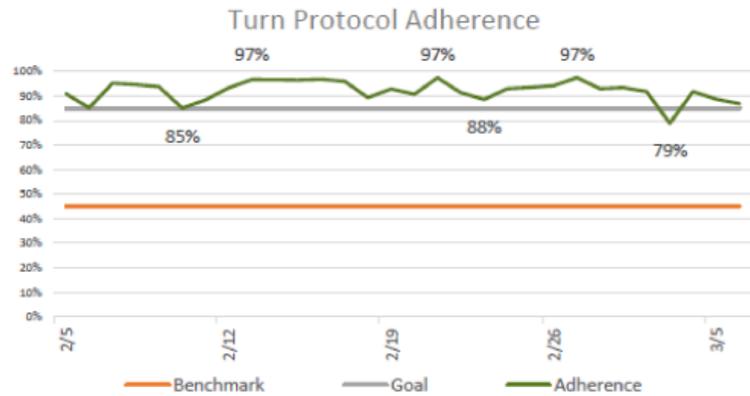
It takes an insightful senior leadership team to put their faith and support in prevention methods that are so new to the area. The Chief Nursing Officer approved the grant initiation and provided an opportunity for nursing staff to demonstrate a creative new way to improve patient care with a positioning monitoring program. Prevention of pressure injuries is a major focus in the state of Pennsylvania given that the reporting

requirements have changed. This poses a challenge for all facilities. Our leadership team proved the opportunity and resources to look for innovative ways to help prevent costly pressure injuries.

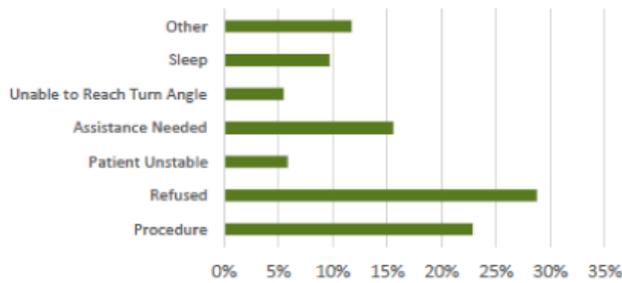
11. Appendices (i.e., tables and graphs)

Key Historical Data

	Feb&Mar
Patients Monitored	50
Monitoring Hours	6,393
Overall Turn Adherence	91%
Day Shift Adherence	90%
Night Shift Adherence	93%
Upright Time (%)	15%
Avg Steps per Patient	60



Pause Analysis



546 pauses (728 pause hours, 11% of monitoring time)

Body Position Distribution vs. Baseline

