Purpose

Patient turning is the mainstay of pressure ulcer prevention. Literature shows that compliance to turn protocols varies from 15%-66%. This performance improvement project intended to identify characteristics in patient turning practices on a busy 27-bed medical/surgical unit by using a novel technology that continuously monitors patient position and alerts nurses when turns are due.

Methods

A FDA-cleared, wireless patient monitoring system (Leaf Healthcare, Pleasanton, CA) was deployed on the unit. The system continuously monitors patient movement and records all patient turns. Individualized turning parameters could be prescribed for each patient. The turn clock automatically resets for any turn that meets prescribed angle and tissue decompression thresholds.

Results

3287 hours of turn data were gathered from 69 patients over 31 days. Average turn protocol compliance was 90.3% and varied between 78% and 98% throughout a 24-hour period.

Periods of reduced compliance coincided with shift changes, high patient admit days and medication delivery times.

- Times with the most overdue turns
  - Medication administration times
  - Vital signs recording times
  - Admissions
  - Shift changes
  - Mon, Wed, and Thurs (high admit days)

- Times with the fewest overdue turns
  - Night shift (nursing down-time)
  - When more CNAs are present

Conclusions

This process improvement project demonstrates that continuous position monitoring technology provides high patient turning protocol compliance. Our correlation analysis identified 1) busy admit/discharge days and 2) shift changes as the periods with lowest compliance. This evidence-based analysis was used by nursing management to adjust staffing levels during these periods when turning demands tended to exceed available resources.

References

1. Are We Ready for This Change? Preventing Pressure Ulcers in Hospitals: A Toolkit for Improving Quality of Care. April 2011