Duke Study to Determine Optimal Patient Repositioning Intervals to Prevent Pressure Ulcers

The Study uses the novel Leaf Patient Monitoring System to assess mobility.

Pleasanton, Calif. (July 25, 2017) — Duke University School of Nursing researchers have launched a five-year study to determine optimal timing for turning or repositioning patients to reduce the risk of pressure ulcers, which affect up to 24 percent of long-term care residents, 10 percent of hospital patients, and add $11 billion to annual U.S. healthcare costs.

Pressure ulcers are skin lesions that occur when pressure constricts blood flow to the skin over a bony region, eventually leading to tissue death. They typically develop when hospital patients and nursing home residents are immobile, and are associated with painful complications, prolonged hospital stays and even death.

Caregivers prevent pressure ulcers by repositioning patients frequently to minimize compression of a single point. Medical best practice calls for patients to move every two hours, a standard developed more than 150 years ago and supported by a small study from 1962.

The Duke study, funded by the National Institutes of Nursing Research, part of the National Institutes of Health, will determine whether nursing home resident repositioning can be extended to three or four hours without increasing the incidence rates. It will determine:

- Differences for residents repositioned at two-, three-, or four-hour intervals
- How medical severity changes in relation to risk level and repositioning schedule
- Individual and system costs and staff satisfaction
- The effects of repositioning on high-density foam mattresses

“We need this information to decide how to deliver the best prevention care realistically and safely,” said Tracey L. Yap, RN, PhD, FAAN, associate professor at Duke University School of Nursing and the principal investigator. “The standard patient turn protocol of two hours was originally set by Florence Nightingale. We are overdue to find updated ways to improve quality of life while reducing facility-acquired pressure ulcers and lowering healthcare costs.”
The study will use innovative technology: the Leaf Patient Monitoring System, which electronically monitors patients’ mobility and automatically documents their progress along a prescribed mobility protocol. The system tracks movement and activity in bed-bound, chair-bound, or ambulatory patients. Leaf’s wearable, wireless sensor will continuously monitor residents’ mobility and activity at nine nursing homes and automatically track patient repositioning.

Dr. Yap’s research team includes Susan Kennerly, PhD RN, FAAN (East Carolina University); Susan Horn, PhD (University of Utah), and Nancy Bergstrom, PhD, RN, FAAN, Santanu Datta, PhD, and Cathleen Colon-Emeric, MD, FACP (both of Duke University).

About Leaf Healthcare, Inc.

Leaf Healthcare creates wireless patient monitoring solutions for healthcare providers seeking efficient, cost effective ways to improve patient safety and clinical outcomes. Its patient monitoring system wirelessly monitors a patient’s position and movement and uses that data to automate and document mobility protocols for patients. The company plans to incorporate more monitoring features and capabilities into its technology platform, enabling ever-broader improvements to patient safety, clinical efficiency and patient outcomes. To learn more, visit www.leafhealthcare.com.

Media Contact:

Mark Smith
Vice President
Leaf Healthcare, Inc.
844-826-5323
mark.smith@leafhealthcare.com