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A few steps could lead to big gains for hospitalized seniors

Research links higher mobility while hospitalized to reduced stays

GALVESTON, Texas — "You'll be back on your feet in no time" is a phrase familiar to anyone who's ever had to spend time in a hospital. Now, a new study has shown that hospitalized elderly patients who literally "get back on their feet" by taking even short walks around a hospital unit tend to leave the hospital sooner than their more sedentary peers.

Conducted at the University of Texas Medical Branch at Galveston and described in a paper appearing in the current issue of *Archives of Internal Medicine*, the study draws on data collected from 162 hospitalized patients over age 65. Each patient was fitted with a pager-sized "step activity monitor" attached to his or her ankle — an electronic device capable of counting every step the patient took. "Using these monitors, we were able to see a correlation between even relatively small amounts of increased mobility and shorter lengths of stay in the hospital," said Steve Fisher, a UTMB Health assistant professor and lead author on the paper. "We still found this effect after we used a statistical model to adjust for the differing severities of the patients' illnesses."

Clinicians have long recognized the importance of getting patients with orthopedic or neurologic conditions up and walking as soon as possible, but no such "standard of care" currently exists for older adults admitted for acute medical illnesses. According to the authors of the UTMB Health study, their work could serve as a first step toward that goal — and may also open the door to other improvements in hospital care for the elderly.

"Mobility is a key measure in older people's independence and quality of life generally, and this study suggests that's also true in the hospital setting," said Fisher. "When we hospitalize elderly people, we set

up a paradoxical situation: you can have a positive outcome of the acute problem that brought them there, but still have negative consequences as a result of extended immobility."

Mobility in the hospital as measured by an activity monitor could potentially become a kind of vital sign for the elderly, Fisher said, as well as a tool that would help researchers find the minimal levels of activity necessary to protect elderly patients from long-term declines in function.

"This is very preliminary, but it's leading to a lot of questions right now that I think need to be answered," said UTMB Health professor Glenn Ostir, a co-author on the paper and director of research for the university's Acute Care for Elders unit. "We know from other research that mobility is linked to older people's quality of life, independence, maintenance of healthy muscle mass, all these things. And so we need to look at this and say what is the impact of mobility in the hospital on the overall health of the older person once they leave the hospital — do they rebound and do better, or do they wind up in a downward spiral that leads to increased re-hospitalization? The step monitors have given us the technology to potentially do this, and we're excited about the chance to answer these questions and make a positive difference in people's lives."

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ABOUT UTMB Health: Established in 1891, Texas' first academic health center comprises four health sciences schools, three institutes for advanced study, a research enterprise that includes one of only two national laboratories dedicated to the safe study of infectious threats to human health, and a health system offering a full range of primary and specialized medical services throughout Galveston County and the Texas Gulf Coast region. UTMB Health is a component of the University of Texas System.

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