Testosterone therapy decreases hospital readmissions in older men with low testosterone

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A new large-scale population-based study from The University of Texas Medical Branch at Galveston showed for the first time that older men using testosterone therapy were less likely to have complications that require them to go back to the hospital within a month of being discharged than men not using this therapy. The study is currently available in *Mayo Clinic Proceedings*.

Using nationally representative SEER-Medicare linked data, the researchers identified 6,372 men over 66 with low testosterone who were hospitalized at least once between January 2007 and December 2012. The distribution of age, ethnicity/race and marital status were comparable between testosterone users and nonusers.

The study analyzed data to determine the patients' risk of going back to the hospital within 30 days after hospital discharge. The older men receiving therapy for low testosterone were less likely to return to the hospital. The overall rate of 30-day hospital readmissions was 9.8 percent for testosterone users and 13 percent for non-users. This decline was stronger for emergency readmissions, with a rate of 6.2 percent for testosterone users and 10 percent for non-users.

"It is possible that our findings of decreased hospitalization among male Medicare beneficiaries who received testosterone therapy reflect the improved health, strength and exercise capacity seen in previous
"studies," said lead author Jacques Baillargeon, UTMB professor of epidemiology in the department of preventative medicine and community health. "Our findings suggest that one of the benefits of androgen therapy may be quicker recovery from a hospital stay and lower readmission rates. Given the importance of potentially avoidable hospital readmissions among older adults, further exploration of this intervention holds broad clinical and public health relevance."

Reducing avoidable hospital readmissions is a national health priority and a major focus of health care reform in the United States. When older persons go home after a stay in the hospital, many are less independent and have poorer day-to-day health. Previous studies have confirmed that age-related loss of muscle mass and strength is hastened by hospital stays and leads to higher rates of rehospitalizations, admission to long-term care facilities and death.

Testosterone deficiency is associated with muscle loss and overall health decline, rendering older men with low testosterone particularly vulnerable to "post-hospital syndrome." Testosterone therapy, which increases muscle mass and strength, is reported to improve mobility, functional health and exercise capacity in older men with low testosterone.

Other authors of this paper include UTMB's Rachel Deer, Yong-Fang Kuo, Dong Zhang, James Goodwin and Elena Volpi. This research was supported by the National Institutes of Health and the Agency for Healthcare Research and Quality.
