Common medications can contribute to lower urinary tract symptoms in men

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Use of selected prescription medications, including antidepressants, antihistamines, bronchodilators, anticholinergics, sympathomimetics, and diuretics contribute to 10 percent of lower urinary tract symptoms among men according to a Kaiser Permanente study published in the *Archives of Internal Medicine*.

This study demonstrates an association between the use of these selected prescription drugs and LUTS among men enrolled in the California Men's Health Study, a multiethnic cohort of men ages 46 to 69 who are members of the northern and southern California regions of Kaiser Permanente, the largest managed care organization in the state of California. The study examined information from 63,579 ethnically diverse men between 2002 and 2003, and characterized the severity of LUTS using the American Urological Association Symptom Index. Common LUTS include urinary frequency, weak stream, post-void dribbling, and hesitancy in initiating the stream.

In this study cohort, 14,215 men had benign prostatic hyperplasia, commonly known as enlarged prostate, which is considered the predominant cause of LUTS. "It is a common misconception that LUTS are solely due to BPH. LUTS have many contributing factors. Interestingly in this study, men without BPH were more likely to be affected by these common medications having lower urinary tract symptoms," said study lead author Melanie C. Wuerstle, MD, from the Department of Urology at Kaiser Permanente Los Angeles Medical Center.

While previous research has shown that several categories of prescription drugs can worsen LUTS, this study utilized pharmacy and electronic health records to document the magnitude of the association between specific categories of commonly used medications and LUTS.

The six classes of medications studied demonstrated an association with LUTS, a finding which could impact treatment guidelines. "If a man has LUTS, his physician will traditionally prescribe an additional medication or suggest surgery. Clinically, the findings from this study suggest that an important step in evaluation of LUTS would be to review the medications the patient is already taking. When necessary, doctors should consider changing the medications which may be causing LUTS before adding new medications or invasive therapy," said Dr. Wuerstle.

The Kaiser Permanente study found:

- antidepressants account for 4 % of LUTS
- diuretics account for 3 % of LUTS
- bronchodilators account for 2 % of LUTS
- antihistamines account for 1% of LUTS

Medication use varied by race/ethnicity, with more Asian men using antihistamines (16%) and African Americans using proportionately more diuretics (31%). African Americans had a greater proportion of moderate to severe LUTS while Asian Americans had a greater prevalence of mild LUTS.

This study is part of Kaiser Permanente's ongoing research into health disparities in an effort to eliminate them. A Kaiser Permanente study last year in the Journal of General Internal Medicine found that people with diabetes who have limited health literacy are at higher risk for hypoglycemia. Another Kaiser Permanente study last year in the Journal

of Community Health found that community intervention can help American Indian families change behavior related to early childhood weight gain, obesity and behavior change. More information on Kaiser Permanente's health disparities work can be found here: kp.org/healthdisparities

Medication use also increased with age, especially bronchodilators, anticholinergics, and diuretics. The strongest age-related increase was observed with diuretic use, from 8 percent in men aged 45 to 49 years to 23 percent in men aged 70 to 74 years. This drug in particular, can cause more frequent urination which could be mistaken for prostate disease.

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