Certain medications associated with increased risk of urinary retention in men with COPD

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Men with chronic obstructive pulmonary disease (COPD) who are treated with inhaled anticholinergic drugs appear to have an increased risk of developing urinary retention (inability to urinate), according to a report in the May 23 issue of *Archives of Internal Medicine*. The article is part of the journal's Less Is More series.

Chronic obstructive pulmonary disease is a progressive respiratory disorder in which inflammation or blockage in the lungs makes breathing difficult. According to background information in the article, it affects 10 percent of people age 40 years and older. Inhaled anticholinergic medications (IACs) help the airway's muscles relax and reduce obstructions in airflow. However, the authors note, "there is uncertainty about whether IACs cause clinically important systemic anticholinergic effects."

In previous clinical trials of these medications, a connection was noticed with acute urinary retention (AUR), an inability to urinate which is considered a medical emergency. The authors note that AUR can lead to serious complications. "Understanding the risk of AUR associated with IAC therapy would help to identify those at risk for this complication," they explain.

Anne Stephenson, M.D., Ph.D., from St. Michael's Hospital, Toronto, Canada, and colleagues conducted a study using data from Ontario's universal health insurance program. They selected individuals ages 66 years or older with COPD and searched the data for treatment with IACs and development of AUR between April 2003 and March 2009. Researchers further segmented the data by patients' IAC regimens.

Among the original cohort of 565,073 patients with COPD, a total of 9,432 men and 1,806 women developed AUR. "This relationship was not statistically significant in women," the researchers write, but was significant in men. Among IAC users, the odds of AUR were about 40 percent higher in men who had been using IACs for one month or less and about 80 percent higher in men with an enlarged prostate gland. Simultaneous use of both short-acting and long-acting IACs significantly elevated men's odds of AUR.

"Physicians should highlight for patients the possible connection between urinary symptoms and inhaled respiratory medication use to ensure that changes in urinary flow (ie, incomplete voiding, urinary incontinence, and decreased urinary flow) are reported to the physician prescribing the IAC," explain the authors. They add that the odds of AUR may be reduced by taking the lowest effective dose of IACs and avoiding combinations that raise a patient's risk. "Physicians and the public need to be aware of the potential for this significant adverse event," they conclude, "so that preventive measures and potential therapy can be considered."

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