Risk of Medication-Associated Initiation of Oxybutynin in Elderly Men and Women

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OBJECTIVES: To determine whether there is greater risk of initiation of oxybutynin to treat urinary incontinence (UI) after initiation of medicines reported to be associated with UI.

DESIGN: Prescription sequence symmetry analysis (PSSA).

SETTING: Administrative claims data from the Australian Government Department of Veterans’ Affairs.

PARTICIPANTS: Individuals who initiated oxybutynin and a medicine reported to be associated with UI in a 12-month period.

MEASUREMENTS: Between January 1, 2001, and December 31, 2011, the distribution of incident dispensing of medicines reported to be associated with UI (prazosin, diuretics, calcium channel blockers (CCBs), angiotensin-converting enzyme inhibitors (ACEIs), angiotensin receptor blockers (ARBs), hormone replacement therapy (HRT), opioid analgesics, anticonvulsants, levodopa, antipsychotics, sedatives, selective serotonin reuptake inhibitors (SSRIs), venlafaxine, anticholinesterases) was assessed before and after incident dispensing of oxybutynin (to treat UI). Crude and adjusted sequence ratios (ASRs) with 95% confidence intervals (CIs) were calculated.

RESULTS: Significant associations between initiation of CCBs, ACEIs, ARBs, and hypnotic-sedatives and subsequent initiation of oxybutynin were found. ASRs ranged from 1.28 (95% CI = 1.19-1.39) for ACEIs to 1.59 (95% CI = 1.29-1.96) for verapamil. In women, there was greater risk of initiation of oxybutynin after prazosin (ASR = 1.84, 95% CI = 1.29-2.63) and HRT (ASR = 1.54, 95% CI = 1.42-1.67) initiation. PSSA showed no significant association with initiation of opioids, anticonvulsants, levodopa, SSRIs, venlafaxine, or anticholinesterases and subsequent initiation of oxybutynin.

CONCLUSION: This study highlights the potential for initiation of commonly used medicines to be associated with subsequent initiation of oxybutynin to treat UI. Greater awareness of the potential for medicines to contribute to UI is required.