

Increased Risk of Antipsychotic Therapy Associated Adverse Events in Males with Dementia

STUDY OBJECTIVE

To understand how drug therapy differently affects older women and men.

STUDY DESIGN

Design: Retrospective cohort study

Setting: Six linkable Ontario administrative healthcare databases were used to identify residents age ≥ 66 years with dementia and no established major psychiatric disorder with newly prescribed atypical antipsychotic medication between April 2007 and March 2010.

Data Analysis: The relationship between gender and the risk of a "serious event" was estimated using logistic regression. The adjusted models controlled for 7 covariates: setting of care, age, dementia description, Charlson Co-morbidity Index (CCI), number of drugs dispensed in the past year, antipsychotic dose, and history of prior hospitalization. Strata based on 4 risk factors were also examined: setting of care (community vs. long-term care facility), age (<85 vs. ≥ 85), CCI (no score vs. 0 vs. 1 vs. ≥ 2), and antipsychotic drug dose.

Outcomes: "Serious event" meaning a hospital admission or death within 30 days of initiation of atypical antipsychotic therapy.

MAIN RESULTS

There were 21526 older adults with dementia with newly prescribed antipsychotic therapy, including 64% females and 55% living in the community. The median age was

84 and 35% had dementia alone, while 65% had dementia and a co-existing mental health disorder. Over half had been prescribed >10 drug therapies in the past year. The most frequently dispensed antipsychotic therapy was risperidone (47.5%). Overall, 8.8% had a serious event, including 2.6% who died and 6.8% with hospital admission within 30-days. Men were 47% more likely than were women to suffer a serious event [adjusted odds ratio (aOR) 1.47; 95% CI 1.33-1.62] and men were consistently more likely than women to have a serious event in each stratum of the 4 risk factors. Women dispensed high-dose antipsychotic therapy were twice (aOR 2.13) as likely (and men three-times as likely with aOR 3.52) to develop a serious event.

CONCLUSION

ABSTRACTED FROM

Rochoon PA, Gruneir A, Gill SS, et al. Older men with dementia are at greater risk than women of serious events after initiating antipsychotic therapy, *J Am Geriatr Soc* 2013; 61: 55-61.

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COMMENTARY by Christopher R. Carpenter, MD, MSc (Washington University in St. Louis)

Adverse consequences of drug therapy are common precipitants of emergency department (ED) visits and can occur when adding, changing, or removing medications from a patient's medical management. The identification of specific medications leading to ED visits is high-priority research with applicability to primary care, emergency medicine and hospitalist medicine.[1] Unfortunately, existing epidemiologic data that attempts to link medication history with adverse events suffer from two methodological flaws.[2] First, confirming drug exposure is problematic since prescribing a medication is not synonymous with patient compliance. Second, investigators not blinded to the exposure determine outcomes, leaving open the possibility of bias. The current research is pertinent to ED providers by providing quantitative estimates of risk in older adults while controlling for commonly confounding geriatric syndromes. ED providers need to assess the dose, duration, and indication for antipsychotic medications in older adults presenting with delirium or falls. In addition, ED providers should "start low and go slow" when newly prescribing antipsychotic medications in this population in conjunction with primary care. Future research is needed to evaluate the specific antipsychotic-related decompensation (delirium, falls, failure to thrive) that preceding arrival in the ED, in addition to firmly establishing a cause-effect relationship and outline viable medical management alternatives for this frail population.

1. Carpenter CR, Shah MN, Hustey FM, Heard K, Miller DK: **High yield research opportunities in geriatric emergency medicine research: prehospital care, delirium, adverse drug events, and falls.** *J Gerontol Med Sci* 2011, **66**(7):775-783.
2. Laroche ML, Charmes JP, Nouaille Y, Picard N, Merle L: **Is inappropriate medication use a major cause of adverse drug reactions in the elderly?** *Br J Clin Pharmacol* 2007, **63**(2):177-186.