

High risk of collisions for dementia patients on psychotropic medications

Symptoms or prescription of meds should prompt physicians to evaluate effect on road safety

Toronto, ON (October 8, 2008) - Older drivers with dementia who are prescribed psychotropic medication and/or exhibit psychiatric symptoms should be evaluated for road safety, says new research from the Institute of Clinical Evaluative Sciences (ICES), Ontario Ministries of Health and Transportation and Sunnybrook Health Sciences Centre.

"Patients on psychotropic medications - antipsychotics, benzodiazepines or antidepressants - were at a significantly greater risk of a motor vehicle collision (MVC) by approximately 50 percent," says Dr. Mark Rapoport, lead investigator of the study, psychiatrist at Sunnybrook Health Sciences Centre, and Assistant Professor in the Department of Psychiatry at University of Toronto. "Although behavioural disturbances sometimes predict driving cessation in dementia, there are many of these patients who do not cease driving and may be at a distinctly higher risk."

The study, reported in a *Letter to the Editor* in the October 2008 issue of the *Journal of the American Geriatrics Society*, showed that antipsychotic medications were associated with the highest risk of a collision, benzodiazepines were associated with a modestly greater risk than placebo, and the risk with antidepressants was intermediate, with newer antidepressants paradoxically posing a higher risk than the older ones.

"We've known for a long time that dementia poses a serious risk to road safety, and this is a condition in which depression, delusions and agitation are quite common. The study suggests a marked increase in this risk associated with these behavioral and psychological symptoms," says Dr. Rapoport, who is also a team member on the project *CanDRIVE - Keeping Safe Older Drivers Driving*.

"The greater risk of a motor vehicle collision may reflect the underlying indication for the prescriptions rather than the pharmacological properties of the drugs themselves," adds Dr. Nathan Herrmann, co-investigator of the study, geriatric psychiatrist at Sunnybrook and a Professor at University of Toronto.

The study tested the association between psychotropic medications and MVC in drivers with dementia from April 1997 to March 2005 in Ontario. Participants were adults aged 65 and older who had dementia, lived at home in the community, were licensed drivers, and were involved in a MVC at age 67 or older during the study period. Exposure to prescribed benzodiazepines, antidepressants, or antipsychotics in the 120 days before the collision date was assessed. These subjects served as their own controls. The researchers investigated and contrasted drug exposure during the four months before the collision with exposure in the same four months one year before the collision. Two separate topical agents were also examined in the study as neutral controls and showed no association with a significant collision risk.

Study authors included those from Sunnybrook, The Ottawa Hospital, Baycrest Centre for Geriatric Care, and the Institute for Clinical Evaluative Sciences. "The collaborative and confidential sharing of data from the Ontario Ministries of Health and Transportation with ICES was an important innovation implemented for this study, paving the way for potential future research on road risks associated with health conditions," adds Rapoport. The study was funded by the Physicians Services Inc. Foundation.

ICES is an independent, non-profit organization that uses population-based health information to produce knowledge on a broad range of health care issues. Our unbiased evidence provides measures of health system performance, a clearer understanding of the shifting health care needs of Ontarians, and a stimulus for discussion of practical solutions to optimize scarce

resources. ICES knowledge is highly regarded in Canada and abroad, and is widely used by government, hospitals, planners, and practitioners to make decisions about care delivery and to develop policy.

Sunnybrook Health Sciences Centre is inventing the future of health care for the 1 million patients the hospital cares for each year through the dedication of its more than 10,000 staff and volunteers. An internationally recognized leader in research and education and a full affiliation with the University of Toronto distinguishes Sunnybrook as one of Canada's premier academic health sciences centres. Sunnybrook specializes in caring for Canada's war veterans, high-risk pregnancies, critically-ill newborns, adults and the elderly, and treating and preventing cancer, cardiovascular disease, neurological disorders, orthopaedic and arthritic conditions and traumatic injuries.

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