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Media Release

High-potency statins linked to increased risk of diabetes

Drug safety network finds risk in potent cholesterol-lowering drugs

TORONTO, ON, May 29, 2014 — In the most comprehensive study of its kind, researchers with the Canadian Network for Observational Drug Effect Studies (CNODES) found that patients taking higher strength statins face an increased risk of developing diabetes. Their paper is published in the latest issue of the *British Medical Journal (BMJ)*.

The study found a 15 per cent relative increase in the risk of diabetes within two years of starting treatment with high potency statins, as compared with low potency statins. Patients included in the study had started statin therapy after experiencing a major cardiovascular event such as a heart attack or stroke. About two-thirds of these patients were prescribed a high potency statin.

"Although statins are recommended for patients after a heart attack or stroke, these findings tell us that doctors need to consider the possibility that high doses of statins will increase the risk of diabetes in such patients" said Dr. Colin Dormuth, Assistant Professor of Anesthesiology, Pharmacology and Therapeutics at the University of British Columbia, the paper's lead author.

In absolute terms, the 15 per cent relative increase in risk of diabetes over two years means that one additional case of diabetes was estimated to have occurred for every 350 patients treated with a high potency statin instead of a low potency statin.

"The health consequences of a diabetes diagnosis can be significant," advised study co-author Dr. Lorraine Lipscombe, an endocrinologist at Women's College Hospital and an adjunct scientist at ICES. "Following a heart attack or stroke, doctors are more likely to prescribe a high potency statin, but a lower strength statin may be a better choice for many patients."

Statins are among the most widely used prescription drugs and are proven to be life-saving for patients with heart disease.

Statins considered to be high potency were rosuvastatin (e.g., Crestor) at doses of 10mg or higher, atorvastatin (e.g., Lipitor) at doses of 20mg or higher, and simvastatin (e.g., Zocor) at doses of 40mg or more. All other statins were considered lower potency.

To conduct the study, CNODES researchers from across Canada examined the health records of 136,966 patients who were 40 years of age or older in Canada, the United States, and the United Kingdom. As is its mandate, the Network has the ability to analyze a large amount of anonymous patient data to assess questions of drug safety more reliably than would otherwise be possible in smaller studies.

"This study highlights the importance of the CNODES pan-Canadian collaboration in addressing questions of prescription drug safety," said Dr. Samy Suissa, the Principal Investigator of CNODES and Director of the Centre for Clinical Epidemiology at the Lady Davis Institute at the Jewish General Hospital in Montreal. "The cutting-edge methods used in this study result in better protection of the health of Canadians against inappropriate medication use."

CNODES is part of the Drug Safety and Effectiveness Network (DSEN), which is funded by the Canadian Institutes of Health Research (CIHR).

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