

Serious muscle damage risk from widely used cholesterol lowering drug very low in general population

May 16 2014, by Dr Lianne Parkin

(Medical Xpress)—Patients taking a higher dose of simvastatin, one of the statin drugs used to prevent heart attacks and strokes, have a greater risk of rhabdomyolysis than people taking a lower dose according to new University of Otago research. However the condition, in which breakdown of muscle tissue can lead to acute kidney failure, is still very rare in both groups.

In a new study published in the journal *International Journal of Cardiology*, the researchers found that people taking 40mg of simvastatin daily were about five times as likely to develop rhabdomyolysis when compared with people taking 20mg daily.

In absolute terms, the risks were about 11 per 100,000 person-years in people taking 40mg simvastatin and 2 per 100,000 person-years in those taking 20mg.

Study lead investigator Dr Lianne Parkin says recent meta-analyses have clearly shown that the benefits of statins in preventing major cardiovascular events far outweigh any serious adverse effects associated with their use.

"However, these meta-analyses were based on highly selected participants in randomised controlled trials and there was very little information about the risk of rhabdomyolysis in people taking the doses

of simvastatin that are recommended for use in New Zealand," Dr Parkin says.

"While previous research has found a greater risk of serious muscle damage in people taking higher doses of statins, our study is the largest investigation to date of rhabdomyolysis in a general population of simvastatin users and the first to provide separate estimates of risk for 40mg and 20mg simvastatin."

The researchers used routinely collected health and prescription medicine data to conduct a study based on 313,552 people of all ages who were dispensed simvastatin at any time between 2005 and 2009. Other factors, including age, sex, medical conditions, and other prescription drugs, were taken into account in the analyses.

"Statins are one of the most widely used classes of drugs," says Dr Parkin, "and it is reassuring to have found a very low risk of rhabdomyolysis in New Zealanders using simvastatin. The greater risk associated with the use of 40mg [simvastatin](#) is one of several factors which patients and their doctors might consider when discussing the balance of benefits and risks of cholesterol-lowering treatment, and the most appropriate dose and type of statin to be used."

More information: "Simvastatin dose and risk of rhabdomyolysis: Nested case–control study based on national health and drug dispensing data." Lianne Parkin, Charlotte Paul, G. Peter Herbison. *International Journal of Cardiology* Received 3 December 2013; received in revised form 11 March 2014; accepted 22 March 2014. published online 14 April 2014. [DOI: 10.1016/j.ijcard.2014.03.150](https://doi.org/10.1016/j.ijcard.2014.03.150)

Provided by University of Otago

Citation: Serious muscle damage risk from widely used cholesterol lowering drug very low in general population (2014, May 16) retrieved 20 March 2024 from <https://medicalxpress.com/news/2014-05-muscle-widely-cholesterol-lowering-drug.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.