

Clarithromycin-statin mix can cause drug interactions, requiring hospitalization

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The combination of the common antibiotic clarithromycin with some statins increases the risk of adverse events, which may require hospital admission for older people, according to a new study published in *CMAJ* (*Canadian Medical Association Journal*).

Statins, used to lower cholesterol, are one of the most widely prescribed drugs, with projections estimated at more than 1 billion people around the globe. Although uncommon, severe [adverse events](#) can occur in some patients when certain medications interact with the [statin](#) and affect the way it is metabolized.

There are some types of statins, namely rosuvastatin and pravastatin, that are metabolized differently than other types of statins. Traditional thinking is that the metabolism of this group of statins is not affected by some other medications; however, new biological studies suggest this may not be the case.

To study this issue further, researchers compared the use of two common antibiotics, clarithromycin and azithromycin, in older adults who were also taking rosuvastatin, pravastatin or fluvastatin to determine if adverse events occurred. They looked at data from the Institute for Clinical Evaluative Sciences on 104 041 statin users aged 66 or over in Ontario, Canada, who also had a prescription for one of the antibiotics (51 523 clarithromycin and 52 518 azithromycin).

Co-prescription of clarithromycin and a statin was associated with a

modest increase in the number of deaths and hospital admissions for acute kidney injury or high potassium levels. The authors suggest that these adverse events may reflect statin toxicity among [older adults](#).

"The population impact of this preventable drug-drug interaction can be considered in the context of the high frequency of clarithromycin and statin co-prescription (rosuvastatin, or Crestor, was the second most commonly dispensed drug in Canada in 2010)," writes Dr. Amit Garg, a nephrologist in the Department of Medicine, Western University, and scientist at the Lawson Health Research Institute and Institute for Clinical Evaluative Sciences Western, London, Ont.

Previous studies have indicated that these types of statins are safer than others to take with [clarithromycin](#).

"Our findings indicate that unintended adverse events may still occur, possibly because of [other metabolic pathways]. To prevent toxicity, the use of azithromycin or another antibiotic that does not interact with statins can be considered," conclude the authors.

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