

# Common antibiotics and blood pressure medication may result in hospitalization

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Mixing commonly used antibiotics with common blood pressure medications may cause hypotension (abnormally low blood pressure) and induce shock in older patients, requiring hospitalization, according to a study published in *CMAJ*.

Provided by Canadian Medical Association Journal

"Macrolide antibiotics (erythromycin, clarithromycin and azithromycin) are among the most widely prescribed antibiotics, with millions of [prescriptions](#) dispensed in Canada each year." writes Dr. David Juurlink, Scientist at the Sunnybrook Research Institute and the Institute for Clinical Evaluative Sciences with coauthors. "The drugs are generally well-tolerated, but they can cause several important drug interactions."

This study was conducted among Ontarians 66 years and older who were treated with a calcium-channel blocker (drugs often used to treat [high blood pressure](#)) between 1994 and 2009. The researchers then identified those who were hospitalized for low blood pressure and, in that group, whether or not a macrolide antibiotic had been prescribed shortly beforehand.

The researchers identified 7100 patients hospitalized for low blood pressure or shock while taking a calcium channel blocker. Treatment with erythromycin was found to increase the risk of [low blood pressure](#) almost 6-fold, while clarithromycin increased the risk almost 4-fold. In contrast, azithromycin did not increase the risk of hypotension.

"In older patients receiving calcium channel blockers, the two macrolide antibiotics erythromycin and clarithromycin are associated with a major increase in the risk of hospitalization for hypotension," conclude the authors. "However, the related drug [azithromycin](#) appears safe. When clinically appropriate, it should be used preferentially in patients receiving a calcium channel blocker."

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