

Widely used heartburn and peptic ulcer medicines increase risk of rare kidney disease

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(Medical Xpress)—New Zealanders taking a proton pump inhibitor (PPI), a type of medicine used to treat gastric acid reflux disorders and peptic ulcer disease, are at an increased risk of a rare kidney disease, according to new findings by University of Otago researchers.

In a newly published study in the journal *Kidney International*, the researchers found that people who were currently taking a PPI (omeprazole, pantoprazole, or lansoprazole) were about five times more likely to be admitted to hospital with interstitial nephritis than similar people who were past users of a PPI.

Study co-author Dr Lianne Parkin says that interstitial nephritis is a rare, but potentially serious condition, involving inflammation of the [kidney tissue](#).

"While PPIs have been shown to be an effective treatment for gastro-oesophageal reflux and [peptic ulcer](#) diseases, there is also evidence, from New Zealand and overseas, which suggests these drugs are sometimes inappropriately prescribed.

"Previous studies have suggested that PPIs increase the risk of interstitial nephritis, however our study is the largest to date and the first to confirm the relationship. We were also able to calculate the absolute risk associated with these drugs, which provides useful information for patients and doctors," says Dr Parkin. "For example, for every 100,000 people taking a PPI, we found that about 12 per year developed interstitial nephritis as compared with 2 per 100,000 among past users."

"The excess risk of interstitial nephritis we observed in current users of PPIs, although low in absolute terms, is important from a population

perspective as PPIs are one of the most widely prescribed groups of drugs – for instance, about 20% of the New Zealand population was dispensed a PPI at least once between 2005 and 2009. In addition, New Zealanders have been able to purchase a PPI over the counter, without medical advice, since late 2009," says Dr Parkin.

The researchers used routinely collected health and prescription medicine data to conduct a study based on 572,661 people of all ages who were dispensed omeprazole, pantoprazole, or lansoprazole at any time between 2005 and 2009. Patients with pre-existing kidney disease were excluded from the study, and other potential influences, including age, sex, and other medical conditions and prescription drugs, were taken into account in the analyses.

"Although the PPIs included in our study are extremely safe for the vast majority of users," says Dr Parkin, "it is important for prescribers to be aware of this increased risk of interstitial nephritis, and for patients to seek appropriate advice before using these medicines."

Provided by University of Otago

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