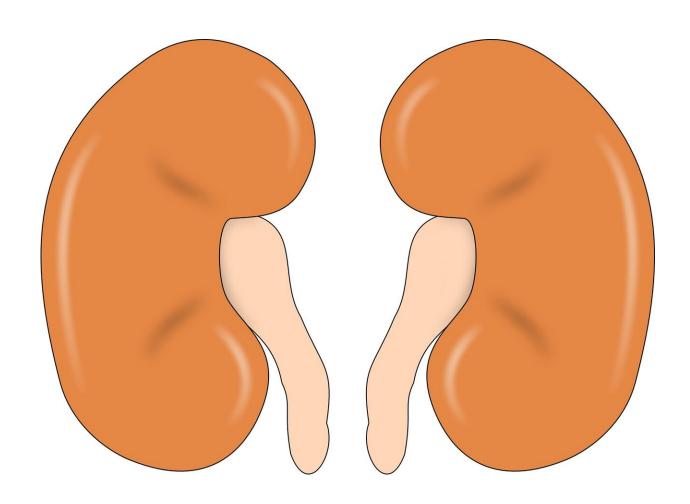


Many children with kidney disease may be prescribed drugs that are toxic to the kidneys

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An analysis of records from primary care practices in the United Kingdom found that many children with kidney disease are prescribed



medications that may be toxic to their kidneys. The findings, which appear in an upcoming issue of *CJASN*, suggest that research is needed to determine whether these medications are necessary and appropriate, or if alternatives could be prescribed instead.

For children with <u>chronic kidney disease</u> (CKD), it's important to limit intake of medications that can damage the kidneys. To study this issue, Claire Lefebvre, MDCM (University of Montreal) and her colleagues analyzed 1997-2017 data on children who received care at general primary care practices in the United Kingdom. Children with CKD were matched 1:4 with patients without CKD. The researchers labeled medications as Category A (consistently recognized as toxic to the kidneys) and Category B (recognized as potentially toxic to the kidneys).

The analysis included 1,018 patients with newly diagnosed CKD who were matched to 4,072 patients without CKD. Over an average follow-up of 3.3 years, 26% of patients with CKD and 15% of patients without CKD were prescribed one or more Category A medications. When considering Category B medications (which include Category A medications), 71% of patients with CKD and 50% of patients without CKD received at least one medication during follow-up.

The rate of Class A prescriptions was 71 per 100 person-years and 8 per 100 person-years in CKD and non-CKD patients, respectively. (A person-year is the number of years of follow-up multiplied by the number of people in the analysis.) The respective rates of Class B prescriptions were 278 vs. 44 per 100 person-years. Analyses revealed that children with CKD were prescribed medications that were potentially toxic to the kidneys at a rate that was 4-times higher than in children without CKD.

"We have shown that medications potentially toxic to the <u>kidney</u> are prescribed at <u>high rates</u> to children with <u>kidney disease</u>, suggesting the need for increased awareness among physicians and patients about this



problem," said Dr. Lefebvre. "We hope this research will encourage future studies evaluating the reasons for these high rates and, eventually, the development of clinical decision support systems and physician education programs to reduce inappropriate nephrotoxic medication prescribing in children with CKD."

More information: "Primary Care Prescriptions of Potentially Nephrotoxic Medications in Children with Chronic Kidney Disease," DOI: 10.2215/CJN.03550319

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