



PRESS RELEASE

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PATIENTS WITH KIDNEY DISEASE—EVEN WITHOUT ANEMIA—MAY BENEFIT FROM IRON TREATMENT

Study links iron deficiency with higher risks of death and cardiovascular events in patients with and without anemia.

Highlights

- Among individuals with chronic kidney disease, iron deficiency was linked with higher risks of death and cardiovascular events, in patients with and without anemia.
- Clinical trials are needed to test the effects of iron treatment, even in the absence of anemia, in patients with chronic kidney disease.

Washington, DC (July 8, 2021) — New research indicates that treating iron deficiency, even in the absence of anemia, may benefit patients with kidney disease. The findings appear in an upcoming issue of *JASN*.

Iron deficiency occurs in 30% to 45% of patients with chronic kidney disease (CKD), and because iron is important for the production of red blood cells (or erythropoiesis), low levels can lead to anemia.

Clinical trials in patients with heart failure and iron deficiency have shown that boosting patients' iron levels improves their cardiovascular health regardless of whether patients have anemia. Roberto Pecoits-Filho, MD, PhD, Murilo Guedes, MD (Arbor Research Collaborative for Health, in Ann Arbor, Michigan), and their colleagues looked to see if this might also be true in the Chronic Kidney Disease Outcomes and Practice Patterns Study (CKDopps), an observational study of patients with advanced non-dialysis CKD. Among 5,145 patients with CKD from Brazil, France, the United States, and Germany who were followed for a median of 3 years, there were 47 deaths per 1,000 patients each year, and there were 48 major cardiovascular events per 1,000 patients each year. Iron deficiency was linked with higher risks of death and cardiovascular events, in patients with and without anemia.

“Intervention studies addressing the impact of iron deficiency treatment beyond its erythropoietic effects are necessary to challenge the anemia-focused paradigm of iron deficiency management in CKD, potentially fostering more optimal strategies for improving patient outcomes,” said Dr. Pecoits-Filho. He noted that randomized controlled clinical trials are needed to establish the role of iron treatment, even in the absence of anemia, in patients with CKD.

Study co-authors include Daniel G. Muenz, PhD, Jarcy Zee, PhD, Brian Bieber, MsC, Benedicte Stengel, MD, Ziad A. Massy, MD, Nicolas Mansencal, MD, Michelle M.Y. Wong, MD, David M. Charytan, MD, Helmut Reichel, MD, Sandra Waechter, PhD, Ronald L. Pisoni, PhD, and Bruce M. Robinson, MD, MsC.

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Helmut Reichel and Nicolas Mansencal have no conflicts of interest to declare.

Dr. Charytan reports personal fees from Janssen, PLC Medical, Amgen, Gilead, AstraZeneca, Zoll, Medtronic, Merck, GSK, NovoNordisk, Fresenius, and research support from Amgen, NovoNordisk and Gilead.

Jarcy Zee, Brian Bieber, Daniel Muenz, Ronald L. Pisoni, Murilo Guedes, and Roberto Pecoits-Filho are employees of Arbor Research Collaborative for Health, which administers the DOPPS Programs. They have no additional conflicts to disclose.

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Michelle Wong is a former consultant for Arbor Research Collaborative for Health.

Sandra Wachter is an employee of Vifor Pharma Ltd., market leader in IV iron products.

Dr. Robinson has received consultancy fees or travel reimbursement since 2018 from AstraZeneca, GlaxoSmithKline, and Kyowa Kirin Co., all paid directly to his institution of employment. He is an employee of Arbor Research Collaborative for Health, which administers the DOPPS Programs.

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The article, titled “Serum Biomarkers of Iron Stores Are Associated with an Increased Risk of All-Cause Mortality and Cardiovascular Events in Non-Dialysis Chronic Kidney

Disease Patients, With or Without Anemia,” will appear online at <http://jasn.asnjournals.org/> on July 8, 2021, doi: 10.1681/ASN.2020101531.

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