



# PRESS RELEASE

## ASN Contacts:

Christine Feheley (202) 640-4638 | [cfeheley@asn-online.org](mailto:cfeheley@asn-online.org)

Tracy Hampton [thampton@nasw.org](mailto:thampton@nasw.org)

## 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.

Disclosures: Dr. Massy reports grants and other from Amgen, grants and other from Sanofi-Genzyme, grants from French Government, grants from MSD, grants from GSK, grants from Lilly, grants from FMC, grants and other from Baxter, grants from Otsuka, other from Daichi, other from Astellas, outside the submitted work.

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.

Dr. Stengel receives support from CKD-REIN. CKD-REIN is supported by a public-private partnership with funding from 9 pharmaceutical companies including Amgen, Fresenius Medical Care, and GlaxoSmithKline (GSK), since 2012, Lilly France since 2013, and Otsuka Pharmaceutical since 2015, Baxter and Merck Sharp & Dohme-Chibret (MSD France) from 2012 to 2017, Sanofi-Genzyme from 2012 to 2015, Vifor Fresenius, and AstraZeneca, since 2018.

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.

Dr. Pecoits-Filho has received research grants from Fresenius Medical Care, National Council for Scientific and Technological Development, honorarium (payed to employer) from Astra Zeneca, Boehringer-Lilly, Novo Nordisk, Akebia, Bayer for participation in advisory Boards and educational activities.

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.

*The content of this article does not reflect the views or opinions of The American Society of Nephrology (ASN). Responsibility for the information and views expressed therein lies entirely with the author(s). ASN does not offer medical advice. All content in ASN publications is for informational purposes only, and is not intended to cover all possible uses, directions, precautions, drug interactions, or adverse effects. This content should not be used during a medical emergency or for the diagnosis or treatment of any medical condition. Please consult your doctor or other qualified health care provider if you have any questions about a medical condition, or before taking any drug, changing your diet or commencing or discontinuing any course of treatment. Do not ignore or delay obtaining professional medical advice because of information accessed through ASN. Call 911 or your doctor for all medical emergencies.*

Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation, communicating new knowledge, and advocating for the highest quality care for patients. ASN has more than 21,000 members representing 131 countries. For more information, visit [www.asn-online.org](http://www.asn-online.org).

###