PRESS RELEASE

ASN Contact: Christine Feheley
(202) 640-4638 | cfeheley@asn-online.org

REAL-WORLD DATA LINKS ROSUVASTATIN WITH SIGNS OF KIDNEY DAMAGE

Other statins may be safer for kidney health.

Highlights

- Compared with atorvastatin, rosuvastatin was associated with an 8% higher risk of hematuria (blood in the urine), a 17% higher risk of proteinuria (protein in the urine), and a 15% higher risk of developing kidney failure requiring replacement therapy such as dialysis or transplantation.
- Risks were higher with a higher dose of rosuvastatin.
- Many patients with advanced kidney disease were prescribed a rosuvastatin daily dose exceeding the recommended dose for these patients

Washington, DC (July 19, 2022) — Statins can effectively lower high cholesterol, and many individuals take rosuvastatin, one member of this drug class. New research based on patient health records and published in *JASN* suggests that rosuvastatin, especially at higher doses, may have damaging effects on the kidneys.

Reports had linked rosuvastatin with signs of kidney damage—hematuria (blood in the urine) and proteinuria (protein in the urine)—at the time of its approval by the US Food and Drug Administration, but little post-marketing surveillance exists to assess real-world risk. To investigate, Jung-Im Shin, MD, PhD (Johns Hopkins Bloomberg School of Public Health) and her colleagues analyzed electronic health record data for 152,101 new users of rosuvastatin and 795,799 new users of another statin called atorvastatin from 2011–2019.

Over a median follow-up of 3.1 years, the team identified hematuria in 2.9% of patients and proteinuria in 1.0% of patients. Compared with atorvastatin, rosuvastatin was associated with an 8% higher risk of hematuria, a 17% higher risk of proteinuria, and a 15% higher risk of developing kidney failure requiring replacement therapy such as dialysis or transplantation. Risks of hematuria and proteinuria were higher with a higher dose of rosuvastatin. Also, among patients with advanced kidney disease, 44% were prescribed a higher dose of rosuvastatin than the US Food and Drug Administration recommends for individuals with poor kidney function.

“We observed a higher risk of hematuria, proteinuria, as well as kidney failure with rosuvastatin use and similar cardiovascular benefits between the rosuvastatin and

atorvastatin groups," said Dr. Shin. "Because rosuvastatin may cause proteinuria and hematuria, especially with high dose, high dose rosuvastatin may not merit the risk—even if small—particularly for patients with advanced kidney disease."

Dr. Shin's co-authors include Derek M. Fine, MD; Yingying Sang, MS; Aditya Surapaneni, PhD; Stephan C. Dunning, MBA; Lesley A. Inker, MD, MS; Thomas D. Nolin, PharmD, PhD; Alex R. Chang, MD, MS; and Morgan E. Grams, MD, PhD.

Disclosures: The authors reported no financial disclosures relevant to the study.

The article, titled "Association of Rosuvastatin Use with Risk of Hematuria and Proteinuria," will appear online at http://jasn.asnjournals.org/ on July 19, 2022; doi: 10.1681/ASN.2022020135.

About ASN

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 20,000 members representing 132 countries. For more information, visit www.asn-online.org and follow us on Facebook, Twitter, LinkedIn, and Instagram.

# # #