



# PRESS RELEASE

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## HOW HAVE CHANGES IN ANEMIA CARE AFFECTED PATIENTS WITH KIDNEY FAILURE?

*Study reveals lower rates of major adverse cardiovascular events.*

### Highlight

- 2011 changes in policies and recommendations related to the use of erythropoietin-stimulating agents were associated with lower hemoglobin levels and lower risks of major adverse cardiovascular events, mortality, and stroke among adults receiving hemodialysis, but with a higher risk of heart attack.

**Washington, DC (May 19, 2022)** — A recent study published in *CJASN* has investigated how 2011 changes to anemia care have impacted clinical outcomes among patients with kidney failure who are receiving hemodialysis.

Anemia—a shortage of healthy red blood cells that carry oxygen to the body's tissues—is a common problem in individuals with kidney disease. Erythropoietin-stimulating agents (ESAs), which prompt the bone marrow to make red blood cells, have traditionally been used to address the problem; however, studies have linked the medications to a higher risk of cardiovascular problems. In 2011, changes were made to Medicare reimbursement policies and US Food and Drug Administration recommendations related to the use of ESAs—with the goal of taking a more conservative approach.

To investigate the long-term effects of these changes on anemia care and clinical outcomes among patients who have kidney failure and are receiving hemodialysis, Haesuk Park, PhD (University of Florida, Gainesville) and her colleagues examined data from the United States Renal Data System from January 2006 through December 2016.

Among the major findings:

- Of 481,564 patients with kidney failure who were receiving hemodialysis, ESA use immediately decreased by 84.8 per 1,000 persons after the changes.
- Blood transfusion use rapidly increased by 8.34 per 1,000 persons in April 2012 then gradually decreased.
- Patients' levels of hemoglobin (the protein in red blood cells responsible for transporting oxygen) dropped: the percentage of patients with hemoglobin >11

g/dL decreased from 68% in January 2006 to 28% in December 2016, whereas those with hemoglobin <9 g/dL increased from 5% to 9%.

- After the policies and recommendations changed, the risks of stroke, all-cause mortality, cardiovascular mortality, and heart failure were lower by 17%, 13%, 19%, and 14%, respectively; however, the risk of heart attack was higher by 4%.

“Medicare reimbursement policy and FDA-recommended ESA dosing changes adopted in 2011 were associated with decreased ESA use, lower hemoglobin levels, and better clinical outcomes for risk of major adverse cardiovascular events, mortality, and stroke but with a higher risk of acute myocardial infarction among adults receiving hemodialysis,” said Dr. Park. “Due to these significant changes in clinical outcomes, longitudinal follow-up is warranted to assess if the policy changes warrant further refinement.”

Any accompanying Patient Voice poses a number of additional questions for consideration, including ones that relate to patients’ perspectives and quality of life.

Study authors include Haesuk Park, PhD, Raj Desai, MS, Xinyue Liu, PhD, Steven M. Smith, PharmD, MPH, Juan Hincapie-Castillo, PharmD, PhD, Linda Henry, PhD, Amie Goodin, PhD, Saraswathi Gopal, MD, Carl J. Pepine, MD, and Raj Mohandas, MD.

Disclosures: Haesuk Park had financial support from a research grant by BMS/Pfizer Alliance American Thrombosis Investigator Initiated Research Program (ARISTA-USA). Xinyue Liu is a current full-time employee at Merck & Co; this work was conducted when she was affiliated with the University of Florida. The authors do not have any conflicts of interest to disclose regarding the content of the study.

The article, titled “Medicare Bundled Payment Policy on Anemia Care, Major Adverse Cardiovascular Events, and Mortality Among Adults Undergoing Hemodialysis,” will appear online at <http://cjasn.asnjournals.org/> on May 19, 2022, doi: 10.2215/CJN.14361121.

The Patient Voice, titled “Medicare Bundled Payment Policy and Anemia Care: Perspectives from a Patient with Kidney Disease,” will appear online at <http://cjasn.asnjournals.org/> on May 19, 2022, doi: 10.2215/CJN.03540322.

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