

How have changes in the use of anemia drugs affected dialysis patients?

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A new study examines whether recent changes in the use of anemia drugs for patients on dialysis have contributed to changes in rates of death or cardiovascular events. The findings, which appear in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN), indicate that these risks appear to be decreasing for patients on dialysis as well as for older adults (Medicare beneficiaries) who are not on dialysis. These results suggest that recent trends in the use of anemia drugs in response to US Food and Drug Administration labeling changes and prospective payment for dialysis services ("bundling") have been either neutral or possibly beneficial for patients on dialysis.

Anemia is common in patients with [chronic kidney disease](#) and almost universal in patients who undergo maintenance [dialysis](#). Erythropoiesis-stimulating agents (ESAs) that boost blood cell production are often used to correct anemia, but when some clinical trials revealed that routine use of ESAs could increase the risks of stroke, myocardial infarction (heart attack) and venous thromboembolic disease (blood clots), use of these medications declined in conjunction with changes in the drugs' labeling. Their use also declined in response to changes in 2011 concerning how Medicare pays for components of [dialysis care](#). As a result, levels of hemoglobin—the component of blood that transports oxygen throughout the body—among patients receiving dialysis have decreased and the use of blood transfusions, which ESAs were intended to reduce, have increased.

To examine whether these trends influenced the risks of death and

[cardiovascular events](#), Glenn Chertow, MD, MPH (Stanford University School of Medicine) and his colleagues conducted a study of US patients who were on dialysis during the study period of January 1, 2005 through December 31, 2012. The analysis included approximately 250,000 patients receiving maintenance dialysis in each calendar year between 2005 and 2012.

The researchers found that there were marked declines in ESA use and resulting hemoglobin concentrations, and a consequent increase in transfusions in [patients](#) starting in 2010 and continuing through 2012. They also observed decreasing death rates and rates of major cardiovascular events, starting at least in 2005. "While rates of death and cardiovascular events remain very high in the dialysis population, these rates have been declining over the past several years. Interestingly, we also saw favorable trends for most cardiovascular events in the much larger population of Medicare beneficiaries—mostly persons over 65—who were not on dialysis," said Dr. Chertow. "These secular trends make it difficult to know for sure whether the lower than expected rates of stroke and heart failure that we observed in the dialysis population in 2012 were due to decreasing use of ESAs, other health-related factors, or to improvements in clinical practice."

More information: The article, entitled "Epoetin Alfa and Outcomes in Dialysis amid Regulatory and Payment Reform," will appear online on February 25, 2016. [DOI: 10.1681/ASN.2015111232](https://doi.org/10.1681/ASN.2015111232)

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