

Comparing the Effects of a Stroke Medicine in Older Adults with and without Chronic Kidney Disease

Principal investigator

John Brooks, PhD

Organization

University of South Carolina

What was the research about?

Current medical guidelines recommend a type of medicine called ACE/ARBs to help patients live longer and protect their kidneys after a stroke. But studies show that rates of kidney disease have gone up at the same time that more people have been using this medicine. Additional research may help show if some patients shouldn't take ACE/ARBs after a stroke.

In this study, the research team wanted to learn about the effects of taking ACE/ARBs for patients over age 65 who've had a stroke. The team reviewed Medicare claims for stroke survivors with and without chronic kidney disease, or CKD. CKD is a health problem in which the kidneys don't remove waste from the blood well. The team compared patients in areas of the country with different rates of ACE/ARB use. The team looked at how many patients lived and how many had kidney problems over two years.

What were the results?

The study found that taking an ACE/ARB had different effects on survival for patients with and without CKD. Among patients without CKD, in areas where more patients took ACE/ARBs, more were alive after two years. Among patients with CKD in these areas, fewer were alive after two years. However, the study may not have had enough patients with CKD to say for sure what effect ACE/ARBs had on patient survival.

The amount of kidney problems over two years was similar for patients with or without CKD, regardless of how many people took ACE/ARBs in their area.

What did the research team do?

The research team looked at Medicare claims for 35,679 patients who had a stroke in 2010. All patients were over age 65, and 25 percent of these patients had CKD. Among patients with CKD, 60 percent were women, 79 percent were white, 14 percent were black, and 7 percent were other races. Among patients without CKD, 66 percent were women, 85 percent were white, 9 percent were black, and 6 percent were other races.

The research team compared the effects of taking an ACE/ARB on patients with and without CKD.

What were the limits of the study?

The study used the rates of ACE/ARB use from Medicare claims in 2010 in its analysis. Results may have been different if the study used rates from other years.

Future research could continue to explore whether ACE/ARB use should differ for patients with and without CKD. Future research could also focus on finding new methods that can detect the effect of ACE/ARB use in small groups of patients.

How can people use the results?

Researchers could look at this study when planning future research to examine the effects of ACE/ARB use among patients with and without CKD.

To learn more about this project, visit www.pcori.org/Brooks194.