

Two classes of medications linked to similar results in peritoneal dialysis patients

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With cardiovascular disease being the No. 1 cause of death in end-stage kidney disease patients on peritoneal dialysis, a new study examined two classes of medications commonly prescribed to prevent cardiovascular events in these patients and found no significant difference in outcomes.

The study, published online in the *Journal of Nephrology*, noted that the two classes of medications, angiotensin-converting enzyme inhibitors (ACEI) and angiotensin-II receptor blockers (ARB), have slightly different mechanisms and could theoretically have differing outcomes.

The researchers also noted that previous studies had suggested that "ACEI may lead to a kinin-mediated increase in insulin sensitivity not seen with ARB. This could potentially lower the cardiovascular risk in patients on peritoneal dialysis because they are exposed to high glucose loads [in their dialysate] that may lead to insulin resistance and its associated [cardiovascular risk](#)."

"Despite this suggestion, we could find no previous study that had compared these two classes of medications head-to-head in patients on peritoneal dialysis to see if ACEI might indeed be better than ARB in this patient population," said Jenny Shen, MD, an LA BioMed lead researcher and corresponding author of the study. "Our study found no [significant difference](#) in the effectiveness of the two classes of medications. Although randomized clinical trials would be needed to confirm these observational results, our study suggests that physicians can use ACEI and ARB interchangeably to prevent cardiovascular risks in their peritoneal dialysis patients."

Using a national database, the U.S. Renal Data System, the researchers surveyed records for all Medicare Part D (a federal prescription drug program) patients who underwent [peritoneal dialysis](#) from 2007 to 2011. Of those, they found 1,892 patients using either drug class. Surveying

their medical records, the researchers said they found no difference in [cardiovascular events](#) or deaths between the users for each medication.

More information: Jenny I. Shen et al. Comparative effectiveness of angiotensin receptor blockers vs. angiotensin-converting enzyme inhibitors on cardiovascular outcomes in patients initiating peritoneal dialysis, *Journal of Nephrology* (2016). [DOI: 10.1007/s40620-016-0340-3](https://doi.org/10.1007/s40620-016-0340-3)

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