

## Role of screening, monitoring in early kidney disease unclear

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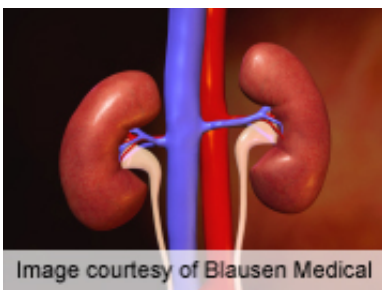


Image courtesy of Blausen Medical

Certain blood pressure-lowering drugs most effective treatment, reports review.

(HealthDay) -- At least one in 10 U.S. adults is estimated to have chronic kidney disease, but whether screening and monitoring people in the earlier stages of the disease provides a benefit just isn't clear, a new review of the available clinical trials revealed.

The finding doesn't necessarily mean that early screening or monitoring of [kidney disease](#) isn't helpful, it just shows no clear evidence to prove that it is. "We didn't find direct evidence for benefits or harms. There were no [randomized controlled trials](#) for screening or monitoring," said the study's lead author, Dr. Howard Fink, a staff physician at the Veterans Affairs Medical Center in Minneapolis, Minn.

But, when the reviewers looked at the treatment options available to people with early-stage [chronic kidney disease](#), they found evidence that

two types of blood pressure-lowering medication reduced progression to end-stage kidney disease and one medication reduced the risk of death.

The two medication classes were angiotensin-converting enzyme (ACE) inhibitors and angiotensin II-receptor blockers (ARBs). The benefits from these medications were stronger in people who had worsening kidney disease and those with diabetes, according to the review.

Results of the review are published in the April 17 issue of the [Annals of Internal Medicine](#).

Eleven percent of American adults have chronic kidney disease in its earliest stages (one through three), according to the review. Chronic kidney disease is more likely to occur in older people, and those with other [chronic medical conditions](#), such as heart disease, [high blood pressure](#) and diabetes. Most people don't have symptoms of early chronic kidney disease. It is detected through urine and blood tests.

Not everyone with chronic kidney disease will develop end-stage [renal disease](#) and need dialysis, but having early chronic kidney disease increases a person's risk of heart disease, stroke, [kidney failure](#) and death, according to the review.

The researchers searched available medical literature from 1985 through November 2011 for randomized, controlled clinical trials of people with early chronic kidney disease. A randomized controlled trial, considered the "gold standard" in research, is a study in which people are randomly assigned to receive one of several interventions.

The investigators found no trials that evaluated screening or monitoring for those with early disease, so they were unable to determine whether early detection and follow-up care would be beneficial or not.

When they searched for early chronic kidney disease treatment trials, they found 110 randomized controlled studies that included a number of treatments.

The review found that ACE inhibitors decreased the risk of end-stage renal disease by 35 percent and ARBs reduced the risk by 23 percent compared to an inactive placebo. The risk reduction was most significant for people who had signs of worsening kidney disease (macroalbuminuria).

The researchers also found evidence that ACE inhibitors lowered the risk of death by 21 percent compared to placebo in people who had more serious kidney disease, cardiovascular disease and poorly controlled diabetes.

"The risk of people with mild chronic kidney disease developing end-stage renal disease is very low, so it may be that these medications have a unique benefit in people with worse chronic kidney disease, or it may be that you just don't have enough statistical power in these trials to see the benefits in people with milder chronic kidney disease," explained Fink.

ACE inhibitors include: captopril (Capoten), enalapril (Vasotec), ramipril (Altace) and quinapril (Accupril). ARBs include: candesartan (Atacand), valsartan (Diovan), losartan (Cozaar) and olmesartan (Benicar).

Other blood pressure-lowering medications didn't provide the same benefits as ACE inhibitors and ARBs. Statins (cholesterol-lowering drugs) and beta blockers (drugs that help regulate heart rate and lower blood pressure) showed a reduction in the risk of death and cardiovascular events compared to placebo, but only in people with worsening kidney disease, or high cholesterol or congestive heart failure.

"This review shows that the evidence in early chronic kidney disease is

very, very weak. The problem right now is that no one knows who will get worse and progress to end-stage renal disease," said Dr. Robert Provenzano, chair of the department of nephrology at St. John Providence Health System in Detroit, Mich.

Provenzano added that he wasn't surprised the reviewers found [ACE inhibitors](#) and ARBs to be most effective for people with early kidney disease.

He said that if people are interested in keeping their kidneys healthy, they should follow the same advice for keeping your heart healthy. Eat right to control your blood sugar, cholesterol and blood pressure levels. Limit the salt in your diet. Don't smoke, and stay active.

**More information:** Learn more about chronic kidney disease from the [National Kidney Foundation](#).

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