

Less commonly prescribed antibiotic may be better

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The antibiotic most commonly prescribed to treat bloodstream infections in dialysis patients may not always be the best choice, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*.

When *Staphylococcus aureus* bacteria gain access to a patient's bloodstream, the infection then becomes life threatening. Antibiotics can often cure this infection, but without any [antibiotic treatment](#), more than 80% of patients with [bloodstream infections](#) are likely to die. But what's the most appropriate antibiotic to use?

Kevin Chan, MD (Fresenius Medical Care North America and Massachusetts General Hospital) and his colleagues compared the effectiveness of various antibiotics at preventing hospitalization and death from bloodstream infection. They reviewed more than 500,000 blood culture results from their [chronic kidney disease](#) database, looking for methicillin-sensitive strains of *S. aureus* bloodstream infection. They also identified when physicians used [vancomycin](#) or cefazolin to treat these infections. Vancomycin is often perceived as the better antibiotic because it has broad coverage against many strains of bacteria; however, other factors like the antibiotic's killing power and tissue penetration are also important factors in selecting the best treatment.

Among the major findings:

- 56% of patients remained on vancomycin after blood culture results reported *S. aureus* bacteria were susceptible to cefazolin, while only 17% were treated with cefazolin.
- Cefazolin-treated patients experienced a 38% lower rate of hospitalization and death compared with vancomycin-treated patients.
- Cefazolin-treated patients also had a 48% lower rate of sepsis, which is the most serious form of bloodstream infection.

"I think the data suggest there is an opportunity to improve outcomes for patients through appropriate antibiotic selection," said Dr. Chan.

More information: The article, entitled "Prevalence and Outcomes of Antimicrobial Treatment for Staphylococcus Aureus Bloodstream Infection in Outpatients with End-Stage Renal Disease," will appear online on August 16, 2012, [doi: 10.1681/ASN.2012010050](https://doi.org/10.1681/ASN.2012010050)

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