

Antibiotic shows effectiveness against deadly staph infections

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An antibiotic that has shown effectiveness for bacterial pneumonia also appears successful in fighting methicillin-resistant staph infections, reports a team led by Duke Health.

The [drug](#), ceftobiprole, showed similar benefit when tested against the antibiotic daptomycin to treat complicated *Staphylococcus aureus* bacterial infections. If approved by the FDA, ceftobiprole could provide another line of defense against a common and often deadly bacterial infection.

"This is an area of true need," said Thomas Holland, M.D., associate professor in the Department of Medicine at Duke University School of Medicine and chair of the data review committee of the study, published Sept. 27 in the [New England Journal of Medicine](#). "There has not been a [new antibiotic](#) approved for the treatment of *S. aureus* bacteremia for over 15 years."

The study, called ERADICATE, enrolled 390 patients with complicated staph infections at 60 sites in 17 countries from August 2018 through March 2022. Roughly half were randomly assigned to receive infusions of ceftobiprole and the other half were treated intravenously with daptomycin.

The primary outcome was overall treatment success, which required survival, clearance of the bacteria from the bloodstream, symptom improvement, and no new bacterial complications 70 days after treatment. Safety was also assessed.

The study found that both antibiotics performed similarly. Of the

ceftobiprole group, 69.8% of patients experienced overall success, compared to 68.7% in the daptomycin group. Both drugs were also similarly tolerated, with gastrointestinal issues being the most common side effect.

"Despite a lot of work in [medical science](#), complicated staph infections still have a 25% mortality rate at 90 days," said study co-author Vance G. Fowler, Jr., professor in Duke's departments of Medicine and Molecular Genetics & Microbiology. "We need more options for treating these infections."

More information: Thomas L. Holland et al, Ceftobiprole for Treatment of Complicated Staphylococcus aureus Bacteremia, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMoa2300220](https://doi.org/10.1056/NEJMoa2300220)

Provided by Duke University

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