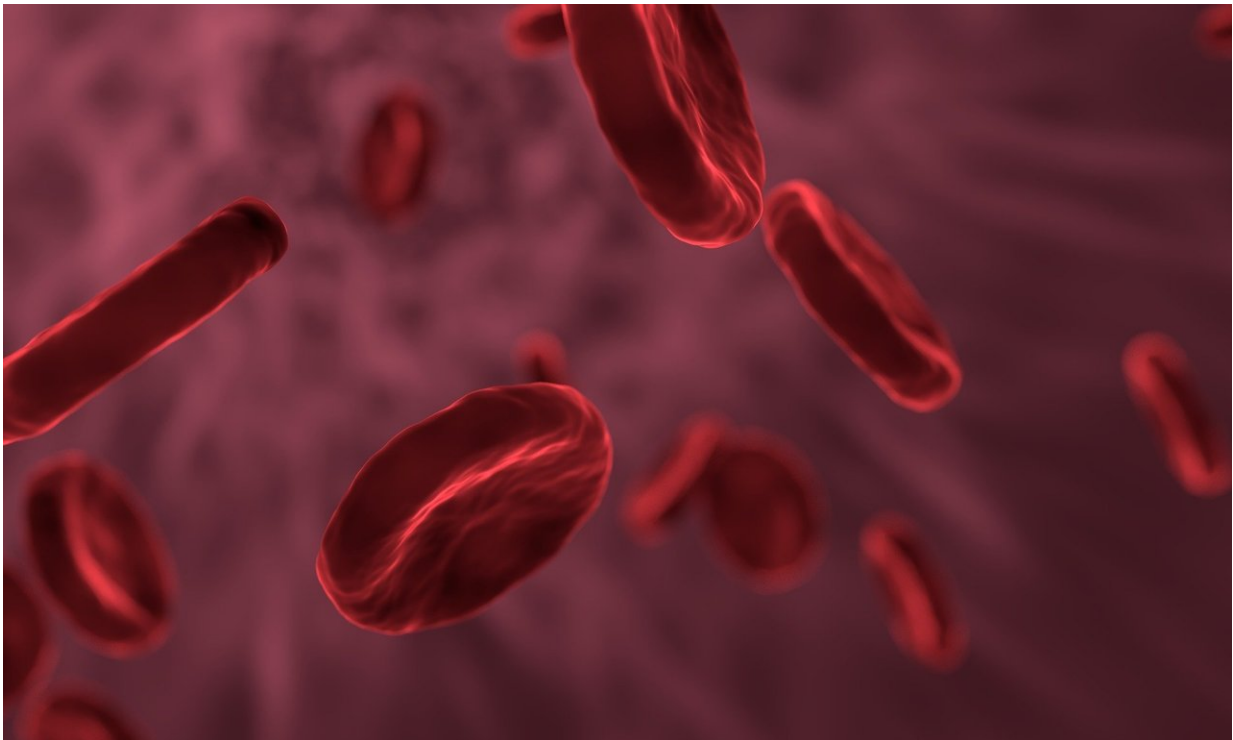


T2Bacteria Panel rapidly and accurately diagnoses common bloodstream infections

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In a clinical trial, the T2Bacteria Panel showed promise for rapidly and accurately diagnosing bloodstream infections or sepsis caused by five common bacteria. The test could be used in a clinical setting in place of blood cultures, which are insensitive and can take a long time to show results. How these findings will affect clinical practice is not yet

determined. Findings from a diagnostic accuracy study are published in *Annals of Internal Medicine*.

In 2018, the T2Bacteria Panel was cleared by the FDA to identify sepsis-causing bacteria directly from whole blood without the wait for blood culture, which currently takes 1 to 5 or more days and is the current standard of care for diagnosing bloodstream infections. The T2Bacteria Panel can deliver results in 3 to 5 hours for the most common ESKAPE bacteria, or *Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa* and *Escherichia coli*.

Researchers from the University of Pittsburgh School of Medicine studied 1,427 patients at 11 U.S. hospitals for whom blood cultures were ordered to assess performance of the T2Bacteria Panel in diagnosing suspected bloodstream infections. The researchers compared blood culture results to those obtained using the T2Bacteria Panel. The T2Bacteria Panel accurately identified or excluded bloodstream infections caused by five common ESKAPE pathogens in about 4 to 8 hours versus about 24 to 72 hours and 5 days, respectively, for blood cultures. According to the researchers, these findings suggest that using the T2Bacteria Panel could shorten the time to appropriate antibiotic treatment in patients, which has the potential to improve clinical outcomes.

The authors of an accompanying editorial from Atrium Health—Carolinas Medical Center caution that the clinical benefit of the T2Bacteria Panel is still uncertain. Outcomes studies are needed to determine if use of the T2Bacteria Panel can lead to better outcomes, such as significantly shorter time to appropriate therapy. Other factors, such as potential overuse of antibiotics, cost, and laboratory time must also be considered.

More information: Study:

<http://annals.org/aim/article/doi/10.7326/M19-0971>

Editorial: <http://annals.org/aim/article/doi/10.7326/M18-2772>

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