

Initiating empirical therapy for sepsis reduces blood culture sensitivity

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(HealthDay)—When empirical antimicrobial therapy is initiated in

patients with severe manifestations of sepsis, the sensitivity of blood cultures drawn shortly after treatment initiation is reduced, according to a study published online Sept. 17 in the *Annals of Internal Medicine*.

Matthew P. Cheng, M.D., from Brigham and Women's Hospital and Harvard Medical School in Boston, and colleagues determined the sensitivity of blood cultures obtained shortly after initiation of antimicrobial therapy in patients with severe manifestations of sepsis from seven emergency departments in North America. A total of 325 patients were included in the study and had repeated blood cultures drawn after antimicrobial therapy initiation (median time, 70 minutes).

The researchers found that in 31.4 percent of the patients, pre-antimicrobial blood cultures were positive for one or more microbial pathogens. In 19.4 percent of patients, post-antimicrobial blood cultures were positive for one or more [microbial pathogens](#). There was a 12.0 percent absolute difference in the proportion of positive blood cultures before and after initiation of antimicrobial therapy. Post-antimicrobial [culture](#) had a sensitivity of 52.9 percent. Microbial pathogens were found in 67.6 percent of 102 patients when the results of other microbiological cultures were included.

"These findings are important in considering the optimal balance between prompt antimicrobial administration and the need for accurate microbiological data in the care of patients with sepsis," the authors write.

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