

# Is Taking Blood Cultures Indicated in Acute Pyelonephritis Patients Who Have Used Antibiotics before Presentation?

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## Dear Editors:

We read with great interest the manuscript of Kim et al. [1] on the usefulness of blood culture in patients hospitalized for community-acquired acute pyelonephritis. This is a controversial issue, and many prior publications have questioned the value of routine blood cultures given that the additional value of blood culture to urine culture is limited and rarely results in a change in the management of patients [2-6]. Kim et al. showed that among 645 patients with both urine and blood cultures available, only 49 patients (7.6%) had positive blood cultures. Furthermore, among the patients with both positive urine and blood cultures (n = 225), a different pathogen was identified in the blood culture in 11 patients. Therefore, blood cultures were potentially useful in 60 of the 645 patients, although obtaining blood cultures resulted in a change in antibiotic regimen in only 15 patients (2.3% of patients with both urine and blood cultures available).

It is interesting that the rate of negative cultures in their study was high, with 252 of 820 patients having negative urine cultures (30.7%) and 144 patients having no pathogenic growth in either the urine or blood culture. The authors have attributed this finding to antibiotic use before presentation to tertiary hospitals. The authors also hypothesized that such antibiotic use may have been sufficient to sterilize urine but not blood, therefore explaining the high rate of pathogen isolation in blood cultures only. However, the authors did not provide any data on the number of patients who had received antibiotics before presentation and the yield of urine and blood cultures in this subgroup of patients. Such data would support their hypothesis and strengthen a potential recommendation to obtain blood cultures in such patients. Furthermore, a table comparing the characteristics of patients with positive blood-only cultures with those of patients with positive urine-only or both urine and blood cultures would be useful to identify the subgroup of patients who could benefit from obtaining blood cultures.

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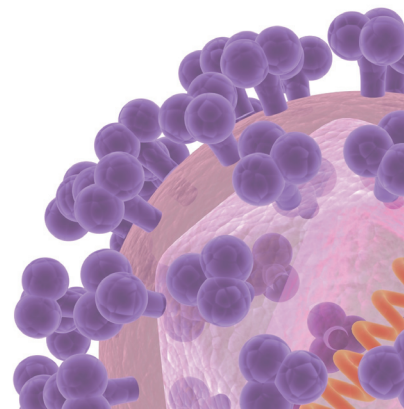
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## Conflicts of Interest

No conflicts of interest.

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