

# Do Children with Urinary Tract Infection Require Blood Cultures?

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Urine cultures are more reliable to detect bacterial diagnosis of urinary tract infection (UTI) than blood cultures in patients with acute pyelonephritis. Overall urine cultures yield higher (95%) than blood cultures (19%) in patients with acute pyelonephritis if the patients were not treated with antibiotics within the last week (1,2). However, blood cultures positivity would increase up to 50% in patients with sepsis and complicated UTI (3,4). Therefore, blood cultures may be useful in UTI when the probability of a negative urine (patients with prior antibiotic treatment) but positive blood culture (complicated UTI) is high (6-9).

Based on the recent literature review the following are the potential indications for blood culture in children with UTI:

1. Newborns and infants less than 1-year-old
2. Children with suspected UTI but negative urine cultures
3. Children with antibiotic pretreatment
4. Children with catheter-associated UTI
5. UTI associated with ureteral obstruction
6. Children with severe urinary sepsis and septic shock
7. Febrile children with neurogenic bladder
8. Children with staphylococcus aureus bacteriuria

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