How to Interpret a Paediatric Blood Culture


Diagnostic Stewardship
Diagnostic stewardship means testing the right patients for the right reasons. If you don’t suspect a Blood Stream Infection (BSI), don’t send a BC.

Consider:
- Presentation and illness severity
- Probable source of infection
- Past medical history
- BSI risk factors

Blood Culture Volume is Key

<table>
<thead>
<tr>
<th>Suggested Minimum BC Volumes</th>
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<tr>
<td>&lt;1 kg</td>
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<tr>
<td>&lt;5 kg</td>
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<tr>
<td>&lt;1 year</td>
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<tr>
<td>2 – 5 years</td>
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<td>5 – 10 years</td>
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Antibiotics
Consider stopping antibiotics at 24-36 hours if BC negative-to-date and low suspicion of BSI.

Negative Blood Culture
Negative BC doesn’t always exclude BSI, especially if a small inoculum was obtained. In any child with high pre-test probability and negative BC to date, consider repeat BC and review antibiotic treatment.

Holistic Approach
Adopt a holistic approach when interpreting the significance of a positive culture - does this fit with the clinical picture; is this bug a common pathogen or possible contaminant? Liaise with Microbiology colleagues for advice.

Persistent Positivity
When the same bug is repeatedly isolated, thorough daily clinical re-evaluation & early liaison with Infectious Diseases is warranted. There must be active attempts for source identification and concerted efforts to achieve source control.