Mass General Brigham

Guidelines for Initial Blood Culture Collection in Children*		
Low Yield conditions (Not recommended in most circumstances, if clinically indicated 1 blood culture set will suffice)	**Moderate Yield conditions** (Recommended **only** if results are likely to impact management **OR** if the patient is at risk of endovascular infection)	**High Yield Conditions** (Recommended, 2 blood culture sets from different peripheral sites will suffice)
Isolated fever, leukocytosis or presumed viral syndrome outside the neonatal period	Cholangitis	Sepsis/septic shock
Cellulitis	Nonvascular shunt infections	Meningitis
Lower urinary tract infection (outside of the neonatal period)	Pyelonephritis	Native vertebral discitis/osteomyelitis
New fever and withdrawal symptoms while undergoing sedative/opioid infusion weans		Epidural abscess
Pneumonia		Suspected native or prosthetic valve endocarditis or cardiac device infection
Postoperative fever (within 48 hours of surgery)		Suspected vascular graft infection
Surveillance in an asymptomatic child		Suspected Ventriculoatrial shunt infection
		Septic arthritis
		New fever in an immunocompromised patient with risk factors for invasive bacterial or fungal infection
		Fever in a neonate
		Necrotizing skin/soft tissue infection
		Catheter-associated bloodstream infection

Guidelines for Repeat Blood Culture Collection

To document bloodstream infection clearance:

- *Staph aureus or Staph lugdunensis* bacteremia **OR** bacteremia in a patient with known or suspected endocarditis
- Catheter related bloodstream infection before catheter replacement
- Single positive blood culture with skin flora in a patient with a vascular graft or prosthetic heart valve
- Single positive blood culture with skin flora in a patient with an intravascular catheter
- Concern for persistent bacteremia in the absence of source control

Repeat blood cultures are **NOT** Indicated in the following scenarios:

- Demonstration of Gram-negative rod bloodstream infection clearance in a child who is clinically improving
- Persistent fever in an immunocompetent child with initial negative blood cultures
- Persistent fever in an immunocompromised child with no new signs of infection, 48-72 hours of negative blood cultures, and for whom a change in antimicrobials is not planned.
- **DO NOT** repeat blood cultures until at least 24 hours of antimicrobial therapy have been given

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*For children: 1 blood culture set includes 1 pediatric blood culture bottle (if weight <40kg) or 1 adult aerobic bottle (if weight ≥ 40kg). Anaerobic bottles should ONLY be collected in patients with suspected bacteremia and conditions more likely to involve anaerobic pathogens, including neutropenia, intra-abdominal infections, head and neck infections such as Lemierre's syndrome, decubitus ulcers, bite wound infections, infections associated with crushing trauma.

Consider discussing patient with Pediatric ID, virtual pager 14290, if clinical indications for blood culture are unclear.