

Pediatric Fever Without a Source: 29 days-3 months

Dr. Christine Cho (UCSF) talk: <http://alturl.com/y6gd3> <http://alturl.com/i8n7o>

- Age: 29 days to 3 months old
- Fever defined as temperature $\geq 38^{\circ}\text{C}$ / 100.4°F (rectal)
- Viral URI symptoms do NOT count as a fever source in this age group.
 - While RSV+ infants have a decreased SBI risk, rate of concurrent UTI = 5.5%

Background

- History and physical are not reliable to rule-out **serious bacterial infection** (SBI)
- SBI includes UTIs (up to 15%), bacteremia (1%), meningitis (0.2-0.4%)
- Think about other causes for SBI's:
 - Gastroenteritis
 - Osteomyelitis
 - Pneumonia
 - Septic joint
 - Soft tissue infection
- Pathogens: E. coli, GBS, S. pneumo >> N meningitides, H flu (type B), Staph aureus
- Pyelonephritis: diagnosed if positive for LE or nitrites, or >10 WBC/hpf
- CAUTION: Serum WBC does NOT predict meningitis (Bonsu, *Annals EM*, 2003)

"Low risk infant" criteria

	<u>Rochester criteria</u>	<u>Philadelphia criteria</u>	<u>Boston criteria</u>
History	<ul style="list-style-type: none">• Term infant• No perinatal abx• No underlying dz• Not hospitalized longer than mother	<ul style="list-style-type: none">• Immunocompetent	<ul style="list-style-type: none">• No immunizations within last 48 hr• No abx within last 48 hr• Not dehydrated
Physical	<ul style="list-style-type: none">• Well-appearing• No ear, soft tissue, or bone infection	<ul style="list-style-type: none">• Well-appearing• Unremarkable exam	<ul style="list-style-type: none">• Well-appearing• No ear, soft tissue, or bone infection
Labs	<ul style="list-style-type: none">• WBC 5K-15K• Absolute band <1.5K• Urine ≤ 10 WBC/hpf• Stool ≤ 5 WBC/hpf	<ul style="list-style-type: none">• WBC <15K• Band-neutrophil ratio <0.2• Urine <10 WBC/hpf• Urine gram stain neg• CSF <8 WBC• CSF gram stain neg• CXR: no infiltrate• Stool (if diarrhea): no blood, few or no WBC on smear	<ul style="list-style-type: none">• WBC < 20K• Urine <10 WBC/hpf• CSF <10 WBC/hpf• CXR: no infiltrate



Workup recommendations by study group

All recommend minimum workup: CBC, catheterized UA and urine culture

Criteria	Age	Blood cx	CXR	LP	Abx pre-D/C home
Rochester	29-60 days	If abnl WBC	If resp sx	If abnl WBC	Not required
Philadelphia	29-60 days	Required	Required	Required	Not required
Boston	29-90 days	Required	If resp sx	Required	Required

Suggested workup (varies by provider and local practices)

1. CBC with differential
2. Blood culture
3. Catheterized urinalysis and urine culture (or via suprapubic tap)
4. *Consider:* CSF studies, if ill-appearing infant. NOTE: Strongly consider if giving antibiotics (cell count, glucose, protein, gram stain, culture, extra tube to hold for potential other studies)
5. *Consider:* Stool culture (if diarrhea)
6. *Consider:* CXR and rapid viral testing (if respiratory sx or increased work of breathing)

Treatment

LOW RISK infant: *Must have a reliable caregiver who can return in 24 hours*

Option #1: No antibiotics and close follow-up in 24 hrs

Option #2: Ceftriaxone IV/IM after LP w/ close follow-up in 24 hrs

HIGH RISK infant:

Disposition = Admit to hospital for ceftriaxone IV/IM

