

Pediatric Fever Without a Source: Birth-28 days old

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

- Age \leq 28 days (be more conservative for premature infants)
- Fever defined as temperature \geq 38°C / 100.4°F (rectal)
- Viral URI symptoms do NOT count as a fever source in this age group.

Background

- History and physical are not reliable to rule-out **serious bacterial infection** (SBI)
 - 12-28% of febrile neonates have SBI, and a high rate of missed SBIs exist. (Ishimine, *EM Clinics of N Amer*, 2007)
- SBI includes UTIs (20%), bacteremia (3%), meningitis (1%)
- Think about other causes for SBI's:
 - Bacterial gastroenteritis
 - Gonococcal keratoconjunctivitis
 - Omphalitis
 - Osteomyelitis
 - Peritonitis
 - Pneumonia
 - Septic joint
- Pathogens: E. coli, GBS, HSV >> Listeria, Salmonella, Staph aureus

Workup

1. CBC with differential
2. Blood cultures
3. Catheterized urinalysis and urine culture (or via suprapubic tap)
4. CSF studies (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, although viral testing should not change sepsis workup)

Treatment

- Timely administration of IV antibiotics (**Ampicillin + Cefotaxime**, or **Ampicillin + Gentamicin**). May give IM, if IV not possible (**Cefotaxime** more consistently absorbed IM than **Gentamicin**).
- Add **Acyclovir**, if any 1 of following...
 - Ill-appearing,
 - Skin or mucosal lesions consistent with HSV (i.e. vesicles)
 - CSF pleocytosis
 - Seizure
 - Focal neurologic signs
 - Abnormal neuroimaging
 - Respiratory distress, apnea, or progressive pneumonitis
 - Thrombocytopenia
 - Elevated liver transaminases, viral hepatitis, or acute liver failure
 - Conjunctivitis, excessive tearing, or painful eye symptoms

Disseminated HSV and HSV encephalitis may not present with rash.

Disposition

- Admit all to hospital

