PEDIATRIC EMERGENCY DEPARTMENT CLINICAL GUIDELINE:
FEVER IN NEONATE (0-28 days)

Population and Definitions:
- Includes infants < 29 days
- Includes infants with a history of fever of 100.4°F (38°C) or greater
  - Includes fever measured at home in any location, whether it is present in the ED or not
  - Includes fever measured rectally in ED
  - Does not include tactile temperatures with or without fussiness (see separate section)*

Perinatal History:
- Gestational age, type of delivery, location/hospital of delivery
- Prenatal care, maternal cultures/infections/antibiotics
  - Specifically ask about Group B Strep and Herpes (both history of and new outbreaks as well as current symptoms)
- Infant cultures/infections/antibiotics
- Maternal and infant length of stay/complications

Recent History
- Fever details
- Feeding, activity, fussiness
- Wetting, stools
- Infectious contacts

Physical Examination:
- Rapid cardiopulmonary assessment
- Assessment of hydration and perfusion
- General physical examination for evidence of focal infection
- Examination for presence of jaundice, hepatosplenomegaly, or skin lesions

Diagnostic Evaluation:
- Full sepsis evaluation
- CBC/diff, BCx and IV lock
- Cath U/A and Cx (or suprapubic tap, but not a bagged specimen)
- LP for CSF cell count, glucose, protein, culture/gram stain and possibly HSV PCR
- CXR if any respiratory symptoms
- NP swab for RSV, influenza, paraflu if indicated (season and/or symptoms)

Disposition & Management:
- All infants < 29 days receive antibiotics (first dose in ER) and are admitted
- **Antibiotics:**
  - **Ampicillin**
    - 100mg/kg/dose q12 hrs IV/IM if <7 days
    - 50mg/kg/dose q 6hrs IV/IM if > 7 days
    - Recommended to cover Listeria
    - General recommended coverage up until approx 6wks (pending culture results)
  - **Gentamicin (age < 2wks)**
    - 3 mg/kg/dose q 24hrs IV if < 7 days
    - 2.5mg/kg/dose q 12hrs IV if > 7 days
Gram negative coverage
• Combined w/ampicillin provides synergistic coverage for Grp B Strep
• General recommendation 0-2wks of life, and then may switch to ceftriaxone or cefotaxime (easier dosing/does not require monitoring of levels)

OR
• Cefotaxime 50 mg/kg/dose divided q 6hrs IV (or IM) (age > 2wks)
• Consider adding Vancomycin 15mg/kg/dose IV if infant is critically ill or if mother or child were previously treated with antibiotics for Group B Strep (resistant organisms)
• Consider adding Acyclovir 20mg/kg/dose IV if infant is critically ill, seizing, or mother has a history of herpes
  ▪ Seen early – classically within the first 1-3 weeks of life
  ▪ LFT’s may be elevated – particularly SGPT (systemic herpes infection)
  ▪ Send HSV PCR on CSF

* Special Scenario - Tactile Fevers & “Fussy Babies” without documented fevers
• History and Physical examination are essentially the same
• Laboratory evaluations are variable, and there are no standardized recommendations. The most common finding in this group of neonates (without documented fever in the ER, but with reported tactile fever and historical fussiness reported by family is the occasional finding of a UTI).
• CBC, BCx, Cath U/A and Cx is therefore a reasonable consideration, particularly if the baby does seem to be irritable, but not mandatory.

REFERENCES:


DISCLAIMER:
This clinical guideline has been developed for the purpose of unifying the general emergency care of infants with fever. It is intended to aid, rather than substitute for, professional judgment. It is not intended to serve as a rigid protocol or a written proxy for the standard of care. Failure to comply with this guideline does not represent a breach of the standard of care.