Emergency Department Guideline
Infant Fever 29-60 Days

Inclusion criteria
• Full term (≥ 37 weeks) infant 29-60 days with no underlying medical condition (including significant NICU course)
• Fever ≥ 38.0° C or reliable history of fever

Triage considerations
• Triage level 2
• Vital signs with BP; rectal temp for all
• Place on continuous pulse ox if concerns
• Notify physician and place on CR monitor if evidence of instability (bradycardia, capillary refill > 3 seconds, skin is mottled, ill appearing child, or depressed LOC)
• Discuss with attending whether to draw labs and perform urine cath before or after full MD H&P

Laboratory studies
• All infants receive:
  o CBC/diff
  o Blood culture
  o Cath urinalysis with micro and mandatory culture (no reflex)
  o RSV, influenza rapid testing in season
• If suspect HSV or dehydration:
  o CMP
• If hemodynamically unstable, purpura, or other concern for frank sepsis:
  o PT/INR, PTT, fibrinogen, VBG, lactate
  o Perform LP (but do not delay antibiotics)
• Perform LP on stable infants if:
  o Concern for HSV (vesicular lesions, seizure, reported maternal or family history)
  o Abnormal CBC
  o Consider for abnormal UA, abnormal CXR, poor feeding, irritability, lethargy, bulging fontanel or other clinical concerns

Abnormal lab definitions

CSF
• > 9 WBCs OR
• > 10,000 RBCs without clear history of traumatic tap
• Any PMNs on cell count

UA
• Positive nitrite OR
• Positive leukocyte esterase OR
• > 10 WBC/hpf

CBC
• WBC < 5,000 OR
• WBC > 15,000
• If LP performed, send CSF for:
  o Cell count
  o Total protein
  o Glucose
  o Gram stain and culture
  o HSV PCR if vesicular lesions, seizure, abnormal CSF, reported maternal or family history of HSV
  o Enterovirus PCR if summer
• If LP is attempted but minimal or no CSF obtained:
  o If low quantity, bacterial culture is highest priority
  o If multiple attempts unsuccessful, treat as if abnormal and give antibiotics as below
• If giving acyclovir (consider deferring to floor but must be done 8 hours within giving acyclovir):
  o Unroof vesicle, if present:
    ▪ Send viral transport media swab (red tube with fine metal swab and pink fluid) for HSV PCR and culture
  o Eye swab, rectal swab, mouth swab for HSV PCR and culture
  o Add-on LFTs

Imaging
• CXR if respiratory symptoms or signs
• If >10,000 RBCs without clear history of traumatic tap, seizure, or other neurologic concerns, consider head CT for evaluation for trauma or other neurologic processes

Medications/interventions
• Infants with any high risk features (abnormal CBC, UA, CXR, septic appearance):
  o Ceftriaxone 50 mg/kg IV/IM
• If CSF returns abnormal:
  o Repeat ceftriaxone 50 mg/kg IV/IM x 1 (to total 100 mg/kg)
  o Consider vancomycin 15 mg/kg IV
  o Consider acyclovir 20 mg/kg IV
• If hemodynamically unstable or GPC on CSF Gram stain:
  o Give vancomycin 15 mg/kg IV
• Even if CSF normal, if vesicular lesions, seizure, or reported maternal or family history of HSV:
  o Acyclovir 20 mg/kg IV
• If positive rapid influenza or if significant clinical concerns (high fever, cough, family history, epidemic, etc):
  o Tamiflu 3 mg/kg PO
• If evidence of dehydration or hemodynamic instability:
  o NS bolus, 20 ml/kg; repeat as needed. If instability not improving, refer to sepsis guideline
Consultations
- Subspecialty services as needed for patients with underlying conditions
- Hospitalist for admission if indicated

Reassessments
- VS q1h

Differential diagnosis
- Sepsis
- Bacteremia
- UTI
- Viral or bacterial meningitis
- Pneumonia
- Disseminated HSV
- Viral illness
- Spurious fever

Discharge or admission criteria
- PICU
  - Hemodynamic instability
  - Evidence of DIC
  - Ongoing seizure activity
  - Severe respiratory compromise
- Inpatient floor
  - Abnormal CSF
  - Abnormal UA
  - Abnormal CXR
  - Concern for HSV
  - Dehydration or poor PO
  - Other clinical or family concerns
  - Barriers to obtaining follow-up within 24 hours (e.g. transportation)
- Discharge to home
  - Good PO intake
  - Stable respiratory status
  - All labs low risk
    - OR high risk CBC, other labs low risk, CSF obtained and ceftriaxone given
  - Follow-up within 24 hours available
    - Recommend pediatrician or repeat ED visit in 24 hours for culture check, second dose ceftriaxone if LP performed and first dose given

Quality measures
- Antibiotics, if indicated, started within 1 hour
- All infants with blood and urine cultures
- LP attempt before antibiotics, if given for elevated WBC (not necessary if given for pneumonia or UTI)
This UMMCH Guideline addresses only key points of care for the specific population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Guideline does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure or course of action.

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Updated 1/14

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