CLINICAL PATHWAY:

Fever and Sepsis Evaluation in the Infant (Ages 29-60 days)

THIS PATHWAY SERVES AS A GUIDE AND DOES NOT REPLACE CLINICAL JUDGMENT.

Inclusion Criteria: Infant 29-60 days of age with rectal temp ≥38.0 C (at home, PCP, or in ED), gestational age ≥37 weeks
Exclusion Criteria: Currently admitted to NICU, gestational age <37 wks, immunodeficiency, known focal infection, underlying chronic medical disease, current antibiotic therapy, bronchiolitis
(if has bronchiolitis, please treat on **Bronchiolitis Clinical Pathway**, and do not continue on this pathway)

Well Infant
(by hx and appearance on PE)

Diagnostic Tests
- **Blood:** CBC w diff, procalcitonin, culture
- **Urine:** (cath) UA, culture

Consider:
- Stool BIOFIRE (if diarrhea)
- Chest X-ray (if significant respiratory signs and sxs)
- Nasal RSV and Influenza PCR (if symptoms and late fall/winter season)

≥1 abnormal inflammatory marker[3]?

YES → **Ill Infant**[1] (by EITHER hx or appearance on PE, and/or risk factors for HSV infection[2])

NO
(inflammatory markers are normal)

If UTI:
(U/A with positive leukocyte esterase or nitrates, and/or >5 WBC and bacteria)
- **Ceftriaxone IV/IM** 50 mg/kg
- RBUS in ED if able (otherwise, notify PCP to schedule as outpatient)
- Prescribe **Cephalexin PO** 75-100 mg/kg/day divided 4 times daily for 10-14 days

Discharge Instructions:
- Call PCP to inform of work-up
- PCP or ED follow up patient in 24 hours
- If barriers to follow up, consider placing in observation

Ill Infant[1]
(by EITHER hx or appearance on PE, and/or risk factors for HSV infection[2])

Diagnostic Tests
- **Blood:** CBC w diff, procalcitonin, culture, AST, ALT
- **Urine:** (cath) UA, culture
- **CSF:** culture, glucose, protein, cell count, gram stain
  - Add enterovirus PCR (if June-Oct)

If risk factors for HSV[2]:
- *Blood:* HSV PCR
- *Skin: HSV* PCR (swab mouth, conjunctiva, rectum) AND HSV PCR of unroofed vesicles if present
- *CSF:* HSV PCR
- *Place on contact precautions*

Consider:
- Stool BIOFIRE (if diarrhea)
- Chest X-ray (if significant respiratory signs and sxs; not required if exam consistent with bronchiolitis)
- Nasal RSV and Influenza PCR (if symptoms and late fall/winter season)

Start empiric antimicrobials:
- **Ceftriaxone IV** 50 mg/kg/dose q12hr
- *If suspicion of HSV infection:* Add **Acyclovir IV** 20 mg/kg/dose q8hr
- *If concern for meningitis:* Add **Vancomycin IV**
  - <52 weeks PMA[‡]/about <3 mo old: 15 mg/kg q8hr or as determined by pharmacy based on estimated AUC
- *If ANC <500*: administer ceftazidime instead of ceftriaxone, and consult ID. Treat off pathway.

[‡]PMA (Post-Menstrual Age) = gestational age + postnatal age

Admit to Inpatient Units

Focal infection identified?

Yes → - Treat as indicated
-Consider Infectious Disease Consult
- If UTI, may still d/c home at 24-36 hrs if well appearing and blood and CSF cxs neg (do not need to wait for sensitivities)

No → Improving?

No → Further evaluation and treatment per inpatient team. Consider Infectious Disease consult.

Yes → **Discharge Criteria:**
- Infant well appearing, improving clinically and tolerating feeds well
- Blood, urine, CSF culture results negative after 36 hours for well appearing + high risk lab results
- Blood, urine, CSF culture results negative after 24 hours for well appearing + low risk lab results
- CSF HSV PCR negative
- No new symptoms of concern
- Family understands discharge instructions and ongoing infant needs
- Follow-up provider identified; discharge plan and close follow-up arranged

If there is a clinical suspicion for Multi-System Inflammatory Syndrome in Children (MIS-C), please follow the **MIS-C Clinical Pathway**.

Clinical *suspicion* would include:
Fever ≥100.4 F for ≥3 days (OR fever ≥100.4 for ≥24 hours with signs of shock/ critical illness), no alternative plausible diagnosis, AND any one of the following:
- GI: **abdominal pain, diarrhea, vomiting**
- CV: chest pain, arrhythmia, **signs of shock**, hypotension
- Mucocutaneous: **rash**, oral changes, conjunctivitis, extremity swelling/ peeling
- Resp: cough, shortness of breath, difficulty breathing
- Neuro: altered mental status, headache, irritability

(Bolded symptoms are most common presenting symptoms)

[1]Ill Infant (potential signs):
- Poor feeding
- Excessive sleeping
- Decreased responsiveness
- Inconsolability
- Respiratory distress
- Cyanosis
- Petechial rash
- Seizures
- Parental concern
- Provider concern

[2]Risk Factors for HSV:
- Ill appearing infant (including hypothermia and severe respiratory distress)
- Seizure history
- Conjunctivitis
- Vesicles on skin exam
- Hepatosplenomegaly
- Elevated AST or ALT
- Thrombocytopenia
- CSF pleocytosis
- Negative CSF gram stain
- Interstitial pneumonitis
- Post-natal HSV contact

Maternal risk factors:
- Hx of maternal genital lesions at delivery
- Maternal fever at delivery
- Current/past sexual partners with hx of genital/oral HSV
- New sexual partner during pregnancy
- Maternal sores
- Risky sexual behavior

[3]Abnormal Inflammatory Markers:
- ANC >4000 or <500*
- Procalcitonin >0.5 ng/ml

If procalcitonin unavailable, may substitute following Inflammatory Markers:
- Fever >38.5°C
- CRP >2 mg/dL
- ANC > 4000 or <500*

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