SSM Health Cardinal Glennon Children's Hospital

Management of the Well-appearing Febrile Infant Age 29-60 Days

Clinical Practice Guideline

Approved by SSM Health Cardinal Glennon Clinical Practice Guideline Committee April 27, 2023

Management of the Well-Appearing Febrile Newborn Age 29-60 Days
Clinical Practice Guideline

SSMHealth Cardinal Glennon Access Center Transfer Line
888-229-2424

1. SSMHealth Cardinal Glennon CPG Home

2. Resources
a. Robert H. Pantell, Kenneth B. Roberts, William G. Adams, et al. Clinical Practice Guideline: Evaluation and Management of Well-Appearing Febrile Infants 8 to 60 Days Old. *Pediatrics*. 2021;148(2):e2021052228
b. Thomson J, et al. Cerebrospinal Fluid Reference Values for Young Infants Undergoing Lumbar puncture. *Pediatrics*. 2018; 141(3):e20173405.

Owners/Authors (Department)
Katherine Randolph, DO (PGY-3, Pediatrics)
Trevor Tredway, MD (Pediatric Emergency Medicine)
Jacob Hayes, MD (PGY-6, Pediatric Emergency Medicine)
Aline Tanios, MD (Pediatric Hospitalist Medicine)
Samantha Hanna, MD (Pediatric Hospitalist Medicine)
Jennifer Hoefert, MD (Pediatric Hospitalist Medicine)
Andrew Ellis, MD (Pediatric Hospitalist Medicine)
Aaron Miller, MD (Pediatric Infectious Disease)
Wail Hayajneh, MD (Pediatric Infectious Disease)
Jeanine Cain, PharmD (Inpatient Pediatrics)

Approved by SSM Health Cardinal Glennon Clinical Practice Guidelines Committee April 27, 2023
Committee Chair: Andrew Ellis, MD
(Andrew.Ellis@ssmhealth.com)

Exclusion Criteria
- Patients not meeting inclusion criteria
- Evidence of focal infection (skin/soft tissue, omphalitis, septic arthritis, osteomyelitis
- Clinical bronchiolitis

Inclusion Criteria
- Well-appearing
- Temperature < 36.0C or > 38.0C prior to arrival OR during visit
- Gestational Age at Birth ≥ 37 weeks
- Age 29-60 days
- No Obvious source of infection (see "Exclusion Criteria")

Box 1: Abnormal Inflammatory Markers
- Temperature > 38.5C (101.3F)
- Procalcitonin > 0.5ng/mL
- CRP > 2.0mg/dL
- ANC > 5200/mm^3

Obtain the following:
- Urinalysis (by catheterization or suprapubic aspiration)
- Blood culture
- CBC
- CRP and Procalcitonin

Box 2: Cerebrospinal Fluid Studies
- Cell count, gram stain, glucose, protein, bacterial culture, enterovirus PCR
- Consider meningoencephalitis PCR panel if available

Abnormal Inflammatory Markers? (1 or more) (*see Box 1*)

YES:
1. Consider LP if significantly abnormal or multiple abnormal inflammatory markers (*see Box 2 for CSF studies*)
2. Consider HSV testing (*see Box 3*)
3. Engage in shared decision making with family
4. If urinalysis positive, send catheter or SPA urine culture

Assess CSF Result

- **Positive (>9 WBC)**
  1. Administer IV antibiotics (*see Box 4*)
  2. Consider HSV testing (*see Box 3*)
  2. Admit to hospital
- **Negative**
  1. May administer oral or IV antibiotics (*see Box 4*)
  2. Assess discharge criteria, consider discharge if criteria met
  OR
  3. Admit to Hospital
- **Not performed or uninterpretable**

Box 3: HSV Studies
Consider in infants with vesicles, seizures, hypothermia, mucous membrane ulcers, CSF pleocytosis with negative gram stain, leukopenia, thrombocytopenia, or elevated ALT

Send CSF PCR, HSV surface PCR swab (single swab from conjunctiva->nares->mouth->anus), ALT, blood PCR

Start empiric acyclovir if testing obtained (*see Box 4*)

Consider IV antimicrobial administration (*see Box 4*)

ANTIMICROBIALS NOT GIVEN:
1. Admit to hospital
2. Repeat LP and/or inflammatory markers as needed

ANTIMICROBIALS GIVEN:
1. Assess discharge criteria
2. Consider discharge home with close follow-up (within 24 hours) if criteria met
OR
3. Admit to hospital

NO:
1. Need not perform LP
2. Need not administer antimicrobials
3. Assess discharge criteria
4. Discharge home if criteria met with close follow-up (within 24 hours)

Positive Urinalysis? (≥10 WBC/hpf)

YES:
1. Send catheter or SPA urine culture
2. Need not obtain LP
3. Initiate oral antibiotics (*see Box 4*)
4. Assess discharge criteria
5. Discharge home if criteria met with close follow-up (within 24 hours)

Pathogen or source identified after 24 to 36 hours?

NO:
1. Discontinue any antimicrobials
2. Discharge hospitalized children
3. Manage for duration of illness

YES:

Source limited to urine?

YES:
1. Transition to or continue (if started) oral antibiotics and complete therapy (*see Box 4*)
2. Discharge hospitalized infants
3. Manage for duration of illness

NO:
Treat Infection

Box 4: Antimicrobials by suspected infection source

Empiric
Ceftriaxone IV/IM 50mg/kg q24h

UTI
Ceftriaxone IV/IM 50mg/kg q24h
Cephalexin PO 50-100mg/kg/day divided in 4 doses
Cefixime PO 8mg/kg every 24 hours

Meningitis
Ceftriaxone IV 50mg/kg every 12 hours OR Ceftazidime IV/IM 50mg/kg every 8 hours
PLUS
Vancomycin IV 20mg/kg every 8 hours

HSV Infection
Acyclovir IV 20mg/kg q8h

Discharge Criteria
- Reliable phone and transportation
- Parental willingness and ability to observe, identify, and communicate condition changes to the care team (primary care physician)
- Agreement and ability to follow up within 24 hours with primary care physician