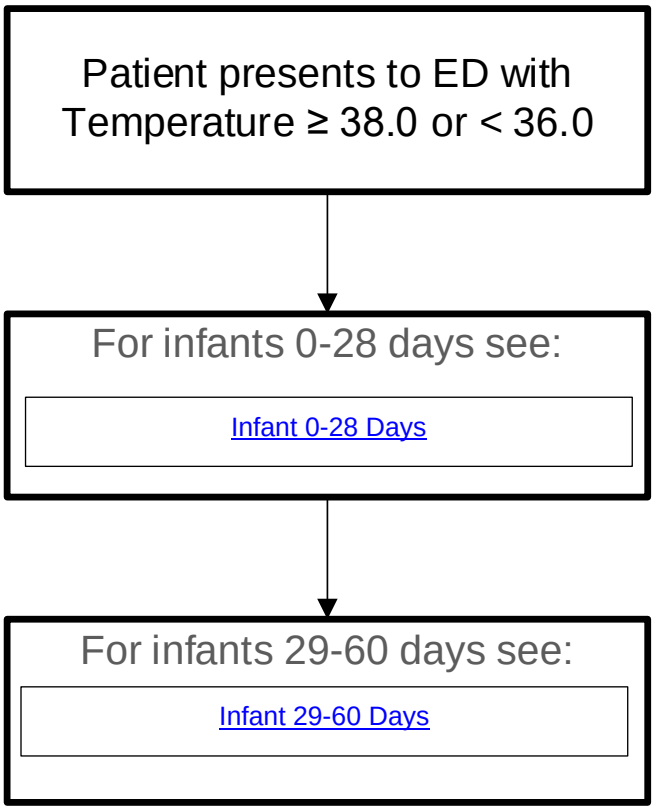
Clinical Pathways Program

Guideline: Pediatric Febrile Infant 0-60 days, Inpatient

Last updated: 9/29/23

Clinical algorithm:



Clinical guideline summary

CLINICAL GUIDELINE NAME: Febrile Neonatal 0-60 days

PATIENT POPULATION AND DIAGNOSIS: Infants ≤ 60 Days

APPLICABLE TO: Helen DeVos Children's Hospital, SH Regional Hospitals

BRIEF DESCRIPTION: This clinical practice guideline applies to the initial evaluation and management of infants less than 60 days with fever.

TEAM LEADER(S): Erica Michiels, Andrea Hadley, Rosey Olivero, and Nicole Kalinowski

OWNING EXPERT IMPROVEMENT TEAM (EIT): Inpatient Pediatric Clinical Practice EIT

MANAGING CLINICAL PRACTICE COUNCIL (CPC): Children's Health CPC

CPC APPROVAL DATE: 6/17/2021

OTHER TEAM(S) IMPACTED (Example: other CPCs, anesthesia, nursing, radiology, etc.): Nursing, Pharmacy, Infectious disease

IMPLEMENTATION DATE: 6/18/2021

LAST REVISED: 1/17/2022

FOR MORE INFORMATION, CONTACT: Erica Michiels

Clinical pathways clinical approach

TREATMENT AND MANAGEMENT:

Infant 0-28 Days

Febrile Neonatal Guideline 0-28 Days

Measured temperature at home or in the ED ≥ 38.0 or < 36.0

0-21 days old
ESI Level 1

22-28 days old
ESI Level 1

Full Sepsis Evaluation:
Order:
- CBC with diff
- CMP
- Blood cultures
- UA & Urine Culture
- COVID Test
- PCT level

Order if Signs/Symptoms:
- Respiratory Viral Testing
- CXR
- Stool studies

Complete Checklist:
- HSV **(BOX 4)**

YES

ill-appearing? (BOX 1)

NO

For infants with evident source of fever (Bronchiolitis, mastitis, or abscess +/- cellulitis), consider contacting HDVCH Hospitalists to determine if any further workup is needed.

Order:
- CBC w/diff
- CMP
- Blood Culture
- UA & Urine Culture
- PCT level
- COVID Testing

Order if Signs/Symptoms:
- Respiratory Viral Testing
- CXR
- Stool studies

Complete Checklists:
- Bacterial infection **(BOX 3)**
- HSV **(BOX 4)**

High Risk for Bacterial or HSV infection?

YES

- **Perform LP (BOX 5)**
- **Give ABX (BOX 2)**
- **Admit Patient**
- **SEE BOX 6**

NO

- **NO LP**
- **NO ABX**
- **Admit Patient**
- **SEE BOX 6**

BOX 1. Pediatric Assessment Triangle
1 or more findings is **ill-appearing**:

BOX 2. Antimicrobial Therapy 0-28 days
Meningitis doses are used initially

*Not ill appearing	Ill appearing or CSF pleocytosis
Ampicillin Gentamicin Consider Acyclovir	Ampicillin Vancomycin Ceftazidime Acyclovir

*CSF pleocytosis for pts 0-28 days WBC >18

BOX 3: Bacterial Infection Checklist:

If "yes" to any questions below, patient is high risk for bacterial infection:
- Born less than 37 weeks gestation
- Prior hospitalization or NICU stay
- Chronic medical problems
- Systemic antibiotics in last 72 hours
- WBC <5,000 or >15,000
- UA+ for nitrates, leukocytes and WBC >5
- PCT ≥ 0.5ng/mL
- Bands > 1500
- Infiltrate on CXR

BOX 4: HSV Checklist:

If "yes" to any questions below, obtain CSF HSV PCR and viral culture of vesicle, if present:
- < 14 days
- Prematurity
- Maternal hx of genital HSV
- ALT > 50
- Seizure at home
- ill appearance
- Vesicular rash
- Thrombocytopenia
- Pleocytosis

BOX 5: LP CSF Studies:
- CSF Culture
- Cell Count
- Glucose
- Protein
- Consider HSV PCR
- Consider Enterovirus PCR.
- If limited fluid, prioritize culture.

BOX 6. Duration of Treatment/Hospitalization
**If empiric antibiotics are initiated, discontinue antibiotics within 24-36 hours if culture remains negative and discharge the infant by 24-36 hours if discharge criteria are met and appropriate follow-up is arranged.

Infant 29-60 Days

Febrile Neonatal Guideline 29-60 Days

Measured temperature at home or in the ED ≥ 38.0 or < 36.0

29-60 days old
Minimally ESI Level 2

Order:
- CBC w/diff
- CMP
- Blood Culture
- UA & Urine Culture
- PCT level
- COVID Testing

Order if Signs/Symptoms:
- Respiratory Viral Testing
- CXR
- Stool studies

Complete Checklists:
- Bacterial infection **(BOX 3)**
- HSV up to 42 days **(BOX 4)**

ill-appearing? (BOX 1)

NO → For infants with evident source (Bronchiolitis, mastitis, or abscess +/- cellulitis), consider contacting HDVCH Hospitalists to determine if further workup is needed.

YES

Patient less than 42 days & High Risk for HSV?

YES → **Perform LP (BOX 5)**
- **Give ABX: (BOX 2)**
- **Admit Patient**
- **SEE BOX 6**

NO

High risk for bacterial infection?

YES → **Positive UA?**

YES → **Normal inflammatory markers?**

YES →
- **NO LP**
- **Cephalexin PO 100mg/kg/day TID**
- **Discharge home with f/u in 12-24 hrs**

NO → **Positive UA?**

NO → **Normal inflammatory markers?**

NO →
- **NO LP**
- **Give ABX: (BOX 2)**
- **Admit Patient**
- **SEE BOX 6**

NO → **Coordinated follow up plan established?**

YES →
- **NO LP**
- **NO ABX**
- **Discharge Patient**

NO →
- **NO LP**
- **NO ABX**
- **Admit Patient**
- **SEE BOX 6**

BOX 1. Pediatric Assessment Triangle

1 or more findings is **ill-appearing**:

BOX 2. Antimicrobial Therapy 29-60 days
Meningitis doses are used initially

*Not ill appearing	ill appearing or CSF pleocytosis
Ceftriaxone Or Cephalexin if oral treatment for UTI	Ceftriaxone Vancomycin Acyclovir (if indicated by BOX 4)

*CSF pleocytosis for pts 29-60 days WBC >8

BOX 3: Bacterial Infection Checklist:

If "yes" to any questions below, patient is high risk for bacterial infection:
- Born less than 37 weeks gestation
- Prior hospitalization or NICU stay
- Chronic medical problems
- Systemic antibiotics in last 72 hours
- WBC <5,000 or >15,000
- UA+ for nitrates, leukocytes and WBC >5
- PCT ≥ 0.5ng/mL
- Bands > 1500
- Infiltrate on CXR

BOX 4: HSV Checklist:

If "yes" to any questions below, obtain CSF HSV PCR and viral culture of vesicle, if present:
- Prematurity
- Maternal hx of genital HSV
- ALT >50
- Seizure at home
- ill appearance
- Abnormal triage temperature
- Vesicular rash
- Thrombocytopenia
- Pleocytosis

BOX 5: LP CSF Studies:
- CSF Culture
- Cell Count
- Glucose
- Protein
- Consider HSV PCR
- Consider Enterovirus PCR.
- If limited fluid, prioritize culture.

BOX 6. Duration of Treatment/Hospitalization

If empiric antibiotics are initiated, discontinue antibiotics within 24-36 hours if culture remains negative and discharge the infant by 24-36 hours if discharge criteria are met and appropriate follow-up is arranged.

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