Febrile Infant

Last Revision 11/2025

Exclusion Criteria: Consider additional and/or different evaluation/treatment

- Complex medical history
- Gestational Age <37 weeks
- Physical Exam suggestive of focal bacterial infection (omphalitis, mastitis, osteomyelitis, cellulitis)
- Exam concerning for meningitis (e.g. positional crying, ill appearance)

HSV Risk Assessment

- Hypothermia*
- Skin or oral lesions
- ANC <1000, thrombocytopenia, or increased ALT
- Maternal genital HSV or fever 48hrs before or after delivery

**Hypothermia: <36°C on repeat evaluation after controlling possible environmental issues*

HSV Testing

- Herpes Simplex I and II , PCR, Infant screen (eye, nose, mouth, anus)
- Herpes Simplex I and II, PCR, Plasma
- Herpes Simplex I and II, PCR, CSF
- Herpes Simplex I and II, PCR, Vesicle/Skin (if lesion is present)

Definitions

Elevated Inflammatory Markers:
Procalcitonin (PCT) > 0.5 ng/mL or
ANC > 4000

Positive UA:
Any leukocyte esterase
WBC > 5/hpf
Positive gram stain

Positive CSF:
WBC > 8
Positive gram stain
or unable to interpret

Febrile infant ≤ 59 days old with Fever ≥ 100.4F (38C)
See Exclusion Criteria

Triage RN Assessment:
ESI 1 or 2

*III Appearing → Sepsis Evaluation and Treatment
Consider Alternative Diagnoses
(Cardiac, Inborn Error of Metabolism, etc.)

RN & Provider Assessments:

- History & Physical
- HSV Risk Assessment *(see side bar)*
- Labs & IV placement: CBC, BCx, UA, UCx, PCT, RPP
- If ≤21 days or at risk: HSV, BMP and HFP

≤ 21 Days | **22-28 Days** | **29-59 Days**

Testing:

- Blood and urine as above, & perform LP
- CSF gram stain, culture, cell counts, protein, glucose, meningitis/encephalitis panel
- HSV testing (see side bar)

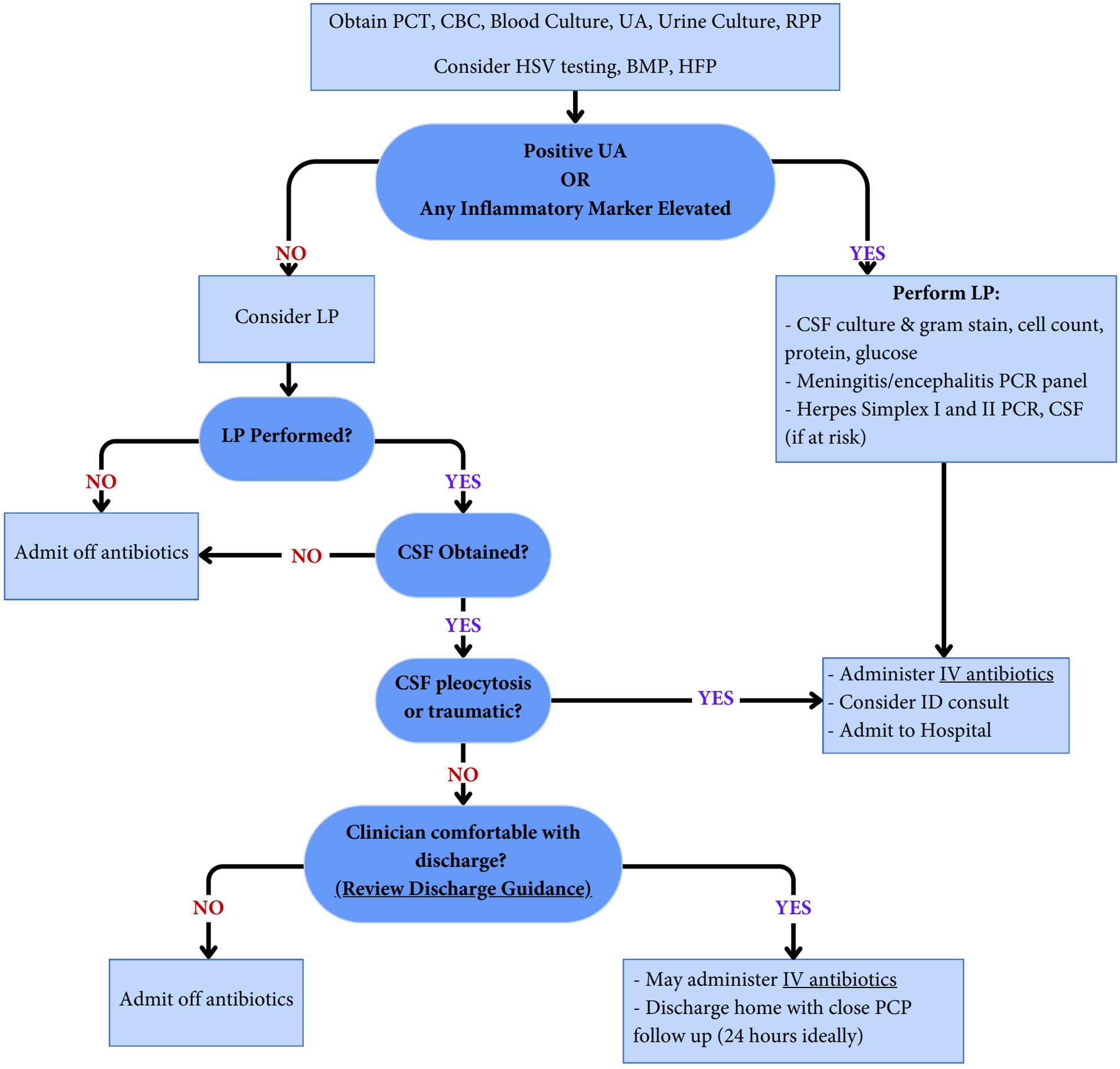
*There is not substantial evidence for universal testing and treatment in this age group. Our institution has chosen to implement in this way for this age group.

Treatment:

- Ampicillin AND
- Gentamicin OR Ceftazidime
  - Consider Ceftazidime if high suspicion for meningitis (CSF pleocytosis)
- Acyclovir if HSV testing sent

Admit to Hospitalist or PICU if ill

Febrile Infant 22-28 days-old



Febrile Infant 29-59 days-old

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Obtain PCT, CBC, Blood Culture, UA, Urine Culture, RPP

Consider based on risk: HSV testing, BMP, HFP

Any Inflammatory Marker Elevated

NO

Urinalysis Result

NEGATIVE

-No LP
-No Antibiotics
-Discharge home with 24 hour PCP follow up

POSITIVE

-No LP
-Administer oral antibiotics for UTI
-Discharge home with oral antibiotics and 24 hour PCP follow up

YES

Shared Decision Making Regarding LP

NO CSF

Positive UA
Administer Ceftriaxone and admit to the hospital

Negative UA
Admit off antibiotics

NEGATIVE CSF

Positive UA
Administer Ceftriaxone. May admit to hospital or discharge with oral abx & 24hr follow up

Negative UA
Admit off antibiotics or administer Ceftriaxone and 24hr PCP follow up

POSITIVE CSF

-Administer Ceftriaxone
-Admit to Hospital
-Consult ID

RESPIRATORY VIRAL GUIDANCE

- Bronchiolitis: well appearing infants with bronchiolitis may not require LP or antimicrobials. Use clinical appearance and degree of IM elevation to guide decision making.
- Positive RPP: results may factor into your decision to LP or admit patients. Aside from a decrease in IBI among febrile COVID-19 positive infants, there is not yet additional evidence to provide specific guidance on this topic.

SHARED DECISION-MAKING REGARDING LP

- Discuss risks and benefits of LP vs not obtaining LP (delayed diagnosis of meningitis) weighing patient specific factors including degree of IM elevation and RPP results if available.
- Discuss outcome of each decision
- Document discussion in EHR

Risk of SBI decreases every week of life. Rate of meningitis in low risk infants is <1%. Per AAP, obtaining LP if any IM is abnormal is a "weak recommendation."

DISCHARGE GUIDANCE

- Remains well in ED
- Feeding well
- PCP contacted for follow up in 24 hours
- Family without concerns (reliable transportation, etc.)
- Vital signs repeated within 1 hour of discharge

INPATIENT OBSERVATION GUIDANCE

- Patients without identified source of fever: Observe for 24-36 hours after cultures drawn.
- Well appearing patients aged ≥22 days old with identified source of infection, consider discharge at 24 hours.

Antimicrobial	Postnatal Age		
	≤ 7 days	8 days-22 days	> 22 days
Ampicillin IV	100 mg/kg/dose every 8 hours	75 mg/kg/dose every 6 hours	
Gentamicin IV	4 mg/kg/dose every 24 hours		
Acyclovir IV	20 mg/kg/dose every 8 hours		
CefTAZidime IV	50 mg/kg/dose every 8 hours		
Ceftriaxone IV Meningitic Dosing			50 mg/kg every 12 hours
Ceftriaxone IV Standard Dosing			50 mg/kg every 24 hours

References

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GOALS

- Provide an institutional evidence-based guideline for the evaluation & management of febrile infants
- Improve the safety, timeliness, & efficiency of care for well appearing febrile infants by standardizing management decisions
- Improve efficiency and communication among the medical team
- Educate physicians, APPs, and nurses about the care of febrile infants

METRICS

- Rate of SBI and IBI identified
- Rate of missed SBI and IBI
- % patients with blood testing completed
- Rate of 72-hour revisits
- Rate of 22-28 day olds who do not receive LP
- Rate of 29-59 day olds who do receive LP
- Rate of LPs performed inpatient (that were not performed in ED)
- LOS: ED and Hospital

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