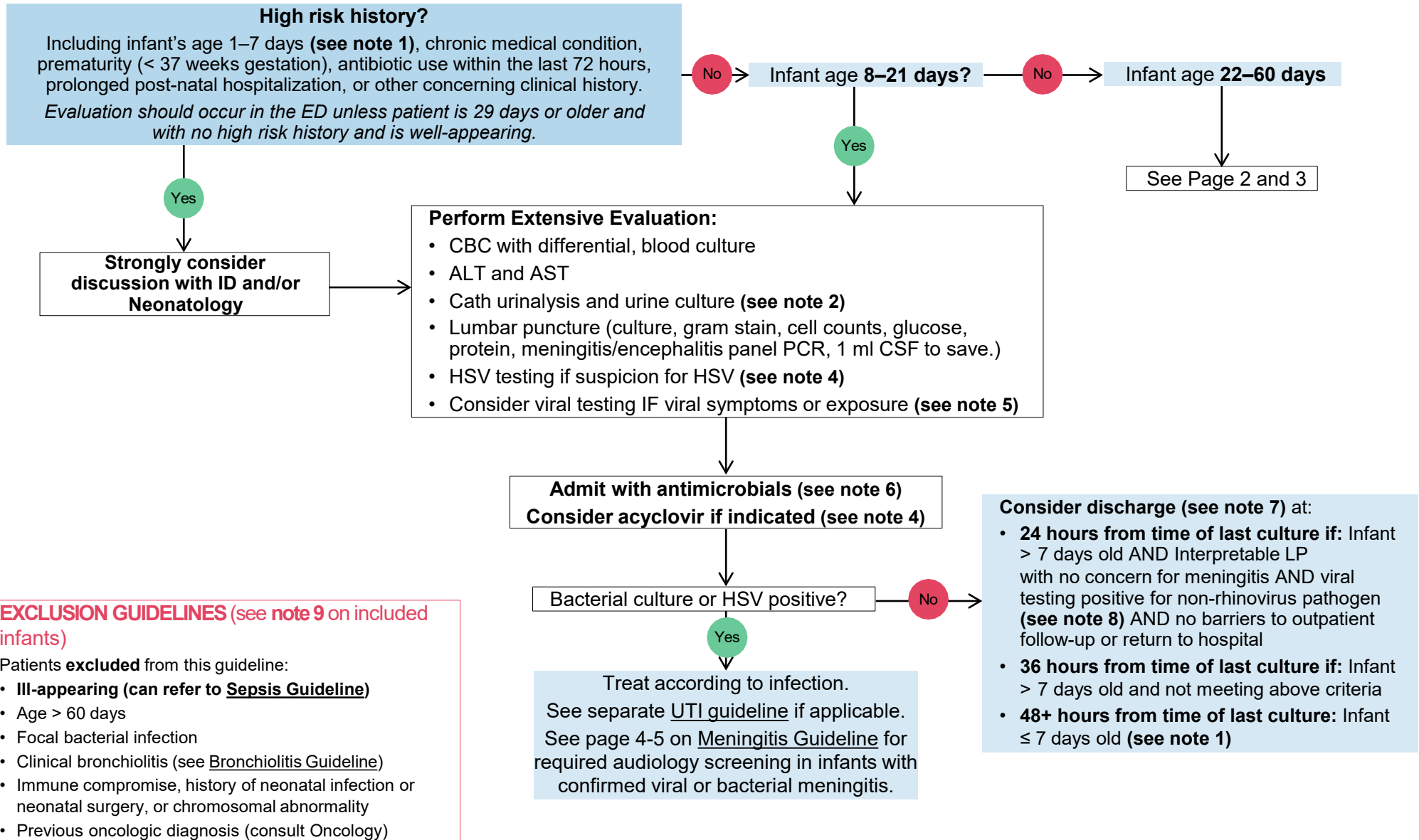
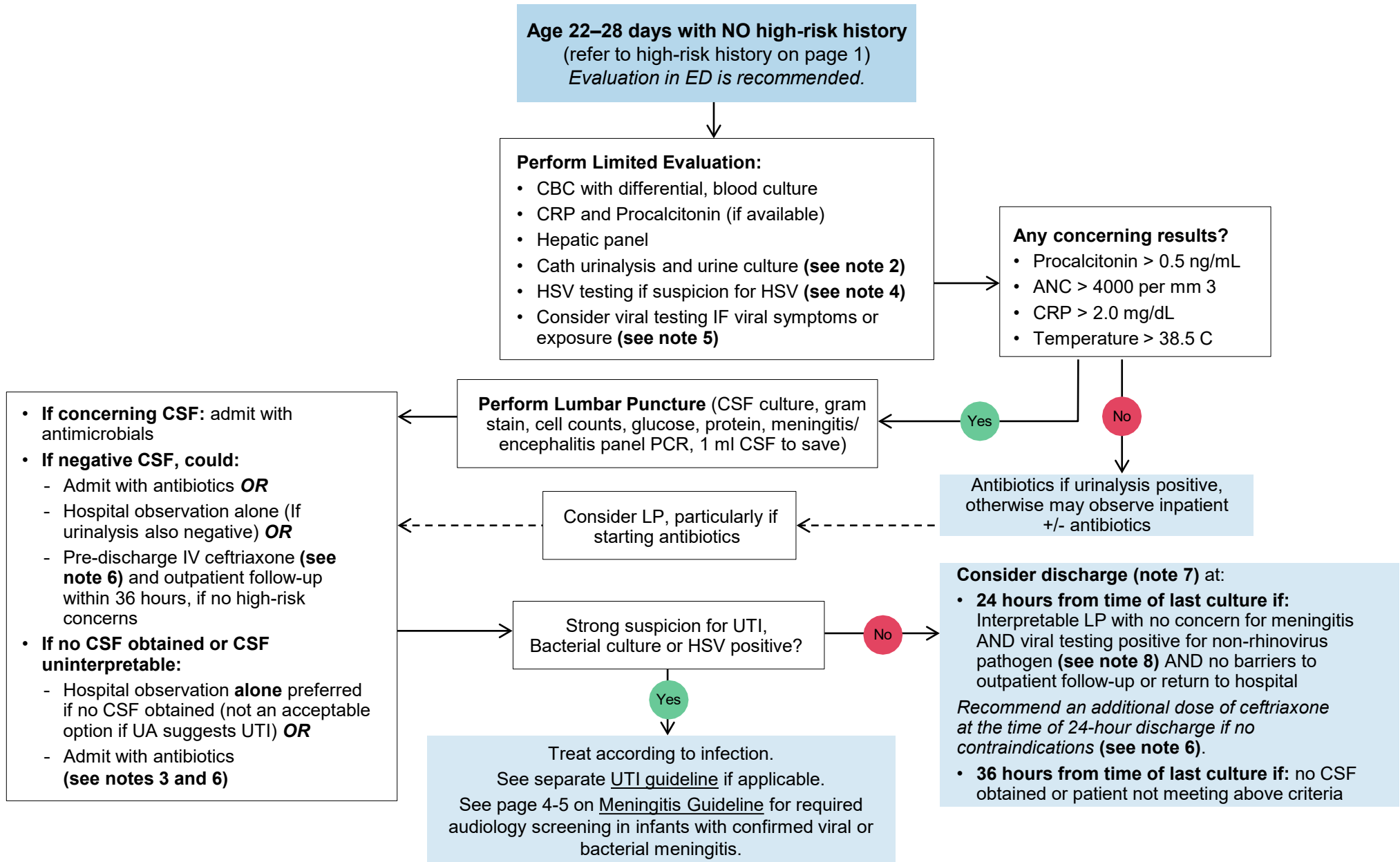


Aim: Standardize evaluation and management of well-appearing febrile infants, safely reduce length of stay and any unnecessary interventions.



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Age 29–60 days with no high-risk history

May perform initial limited evaluation in outpatient clinic if patient is well-appearing and lab testing is available with turnaround time within 1–2 hours to make disposition decisions.

Perform Limited Evaluation:

- CBC with differential, blood culture
- CRP and Procalcitonin (if available)
- Cath urinalysis and urine culture (see note 2)
- HSV testing and ALT/AST if suspicion for HSV (see note 4)
- Consider viral testing IF viral symptoms or exposure (see note 5)

Any concerning results?

- Procalcitonin > 0.5 ng/mL
- ANC > 4000 per mm³
- CRP > 2.0 mg/dL
- Temperature > 38.5 C

Yes

No

Consider LP

The PECARN Rule tool (for Low Risk Febrile Infants 29-60 days) can be useful to assist with febrile infant risk stratification

Is urinalysis positive?
(see note 2)

Yes

No

Treat for probable UTI. See UTI guideline.

Able to follow-up within 24–36 hours AND caregiver comfortable with discharge?

Yes

Consider discharge home; need not administer antibiotics (see note 7)

Strong suspicion for UTI, bacterial culture or HSV positive?

No

Yes

Consider discharge (note 7) at:

- **24 hours from time of last culture if:** No barriers to outpatient follow-up or return to hospital
- Consider an additional dose of ceftriaxone at the time of 24-hour discharge.

Treat according to infection. See separate UTI guideline if applicable. See page 4-5 on Meningitis Guideline for required audiology screening in infants with confirmed viral or bacterial meningitis.

- **If concerning CSF:** admit with antimicrobials
- **If negative CSF, could (see note 10):**

- Admit with antibiotics **OR**
- Hospital observation alone (if urinalysis also negative) **OR**
- Pre-discharge IV ceftriaxone and outpatient follow-up within 36 hours, if no high-risk concerns

- **If LP not performed or CSF uninterpretable:**

- Hospital observation **alone** as long as there are no concerning results. This is preferred if no CSF obtained (not an acceptable option if UA suggests UTI) **OR**
- Admit with antibiotics (see notes 3 and 6) **OR**
- Consider pre-discharge IV ceftriaxone and discharge with outpatient follow-up within 36 hours.

Aim: Standardize evaluation and management of well-appearing febrile infants, safely reduce length of stay and any unnecessary interventions.

NOTE 1: INFANTS 1-7 DAYS OLD

- Neonates age 1–7 days old are excluded from the AAP 2021 Guideline “Evaluation and Management of Well-Appearing Febrile Infants 8 to 60 Days Old”, however based on expert input at Children’s MN, they are included in this guideline with the assumption that their management will be performed in consultation with ID and/or Neonatology
- If planned or considered admission to NICU, recommend discussion of antibiotic choice with neonatologist
- Discharge of infants < 8 days old before 48 hours of negative cultures is not supported in the literature

NOTE 2: URINALYSIS AND UTI

- **Urinalysis (UA) considered positive if:** presence of **nitrites** OR **pyuria** (\geq trace leukocyte esterase or ≥ 5 WBC/hpf)
- Dilute/unspun urine specimen (SG < 1.015) may underestimate WBC count
- Several studies indicate very low risk of bacterial meningitis in well-appearing infants > 28 days of age with UTI.

NOTE 3: BACTERIAL MENINGITIS

Consider longer observation in pts with high suspicion of bacterial meningitis (i.e. CSF pleocytosis.) Mean time to positivity = 28.6 hours, 81% identified by 36 hours

- “Abnormal CSF” would be CSF with values straying from the typical ranges for age listed in the table below¹:

	Age, days	Median	Range
WBCs per mm ³	1–28	5	0–18
	29–60	3	0–8.5
Protein mg/dL	1–28	73	15.8–131.0
	29–60	54	5.5–105.5
Glucose	1–28	46	30–61
	29–60	48	20.6–65.5

See audiology management for infants with diagnosed meningitis in [Suspected Meningitis Guideline](#) page 4-5.

NOTE 4: HSV

- Recommend HSV testing if any of the following: known HSV exposure, maternal history of genital or mucocutaneous lesions, maternal perinatal fevers (i.e. 48 hours prior to, or after, delivery), persistent hypothermia, mucus membrane ulcers, skin vesicles, seizure, leukopenia and/or thrombocytopenia, increased ALT or AST, CSF pleocytosis in the absence of positive Gram stain results
- HSV testing should include:
 - PCR on whole blood
 - PCR of the eye, mouth, nasopharynx and anus
 - PCR on CSF
 - PCR of any vesicle
- **Acyclovir dosing:** 20 mg/kg/dose IV q 8 hours

NOTE 5: ADDITIONAL VIRAL TESTING

- Consider rapid influenza and RSV in season, and SARS-CoV2
- Consider Respiratory Pathogen PCR Panel
- Consider Enterovirus PCR on plasma (more prevalent in summer and fall, but can be seen year-round)

Aim: Standardize evaluation and management of well-appearing febrile infants, safely reduce length of stay and any unnecessary interventions.

NOTE 6: ANTIBIOTIC DOSING FOR INFANTS > 2 kg***Suspicion of Bacterial Meningitis**

- **1-7 days of age: (See Note 1):** Ampicillin 100mg/kg/IV Q8H AND ceftazidime 50mg/kg IV Q12H
- **8-28 days of age:** Ampicillin 75mg/kg IV Q6H AND ceftazidime 50mg/kg IV Q8H
- **29-60 days of age:** Ceftriaxone 50mg/kg IV Q12H AND vancomycin 15mg/kg IV Q8H

No Suspicion of Bacterial Meningitis

- **1-7 days of age (See note 1):** Ampicillin 50mg/kg IV Q8H AND ceftazidime 50mg/kg IV Q12H
- **8-28 days of age:** Ampicillin 50mg/kg IV Q8H AND ceftazidime 50mg/kg IV Q8H
- **29-60 days:** Ceftriaxone 50mg/kg IV Q24H

*Ceftriaxone monotherapy prior to a discharge, or ceftriaxone plus ampicillin in an inpatient, may be considered in the appropriate clinical setting, in term neonates 22–28 days with normal bilirubin levels and not receiving IV calcium-containing fluids (including TPN).

*If infant's weight ≤ 2 kg, consult with pharmacy and/or NICU for antibiotic dosing.

NOTE 7: SHARED DECISION MAKING – FACTORS TO CONSIDER WHEN DECIDING DISCHARGE TIMING

- Alternative source for fever and patient's risk criteria
- Caregiver experience and comfort
- Accessibility to reliable follow-up within 24–36 hours
- Proximity to hospital should new concerns arise
- Infant's fever curve and other clinical status (e.g., oral intake)
- Family awareness that cultures may turn positive after discharge, potentially necessitating return to hospital

NOTE 8: RHINOVIRUS DETECTION

- Human rhinovirus detection is common in febrile infants. Detection of this virus alone does not alter risk of invasive bacterial infection in infants 1–28 days old

NOTE 9: PATIENTS INCLUDED IN THIS GUIDELINE

Febrile infants that **remain on this pathway** include:

- Infants who only had a fever at home prior to presentation
- Infants with diarrhea
- Infants with acute otitis media

NOTE 10: IF A TERM INFANT 29–60 DAYS HAS AN LP WITH UNEQUIVOCALLY CLEAR CSF, OPTIONS INCLUDE:

- Discharge home after a dose of ceftriaxone AND follow-up within 24 hours OR
- Observe in the hospital without antibiotics OR
- Admit to the hospital with empiric antimicrobials

Use shared decision making with caregivers and clinical judgement considering additional factors such as barriers to follow-up.

Aim: Standardize evaluation and management of well-appearing febrile infants, safely reduce length of stay and any unnecessary interventions.

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