

Supporting Evidence

Foundation of Algorithms

Pantell, R. H., Roberts, K. B., Adams, W. G., Dreyer, B. P., Kuppermann, N., O'Leary, S. T., ... & Woods, C. R. (2021). Evaluation and management of well-appearing febrile infants 8 to 60 days old. *Pediatrics*, 148(2).

Timing Of Antibiotics:

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Schmatz, M., et al (2020). Surviving sepsis in a referral neonatal intensive care unit: association between time to antibiotic administration and in-hospital outcomes. *The Journal of pediatrics*, 217, 59-65.

Creedon, J. K., et al. (2020). Timing of antibiotic administration in pediatric sepsis. *Pediatric emergency care*, 36(10), 464-467.

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Han, M., et al. (2017). Association of delayed antimicrobial therapy with one-year mortality in pediatric sepsis. *Shock* (Augusta, Ga.), 48(1), 29.

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Weiss, S. L., et al. (2014). Delayed antimicrobial therapy increases mortality and organ dysfunction duration in pediatric sepsis. *Critical care medicine*, 42(11), 2409.

Antimicrobial Recommendations:

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Pantell, R. H., et al. (2021). Evaluation and Management of Well-Appearing Febrile Infants 8 to 60 Days Old. *Pediatrics*, 148(2).

Bruno, E., et al. (2018). During the emergency department evaluation of a well-appearing neonate with fever, should empiric acyclovir be initiated?. *The Journal of emergency medicine*, 54(2), 261-265.

Long, S. S., et al. (2011). Herpes simplex virus infection in young infants during 2 decades of empiric acyclovir therapy. *The Pediatric infectious disease journal*, 30(7), 556-561.

ED Well-Appearing Febrile Infant Guideline

* EXCLUSION CRITERIA *

- Ill appearance
- Prematurity (<37 wga)
- Chronic medical problem
- Congenital or chromosomal abnormalities
- Confirmed/suspected immune compromise
- High suspicion for HSV (vesicles)
- Infants <2 weeks old with perinatal history of maternal fever, infection, or antimicrobial use
- Presence of focal bacterial infection (cellulitis, omphalitis, etc, but *excluding* AOM)
- Prior surgery or infection
- Immunizations in the last 48 hours

Table 1: HSV Risk & Treatment

HSV High-Risk Factors (High-risk if ≥1)

- Ill appearance
- Caregiver hx of cold sores or perioral HSV
- Maternal genital lesions +/- 48 hrs from delivery
- Maternal fever +/-48 hrs from delivery or chorioamnionitis
- Skin/mucus membrane vesicles or ulcers
- Seizures or altered mental status
- Hypothermia ≤96.8°F
- Abnormal labs (if obtained):
 - Transaminitis (elevated ALT or AST)
 - Thrombocytopenia
 - Leukopenia
 - CSF pleocytosis in the absence of a positive Gram stain result

HSV workup:

- Serum HSV PCR
- CSF HSV PCR
- HSV surface cultures AND PCR of:
 - Conjunctiva, nasopharynx, oral, anus
 - Any suspicious skin lesions

Table 2: Antimicrobials

- 0-21 days: Ampicillin + Gentamicin
- 22-28 days: Ceftriaxone monotherapy (add ampicillin if there is CSF pleocytosis)
- 29-60 days: Ceftriaxone monotherapy (add vanc if there is CSF pleocytosis)
- 0-42 days: Acyclovir if high-risk for HSV

Other Considerations:

- IM formulations available for all antibiotics and should be used to ensure treatment within 3 hours of arrival
- Antibiotics within 3 hours of arrival should be prioritized over prior LP if necessary

Review whether pt meets criteria (see exclusions to left)

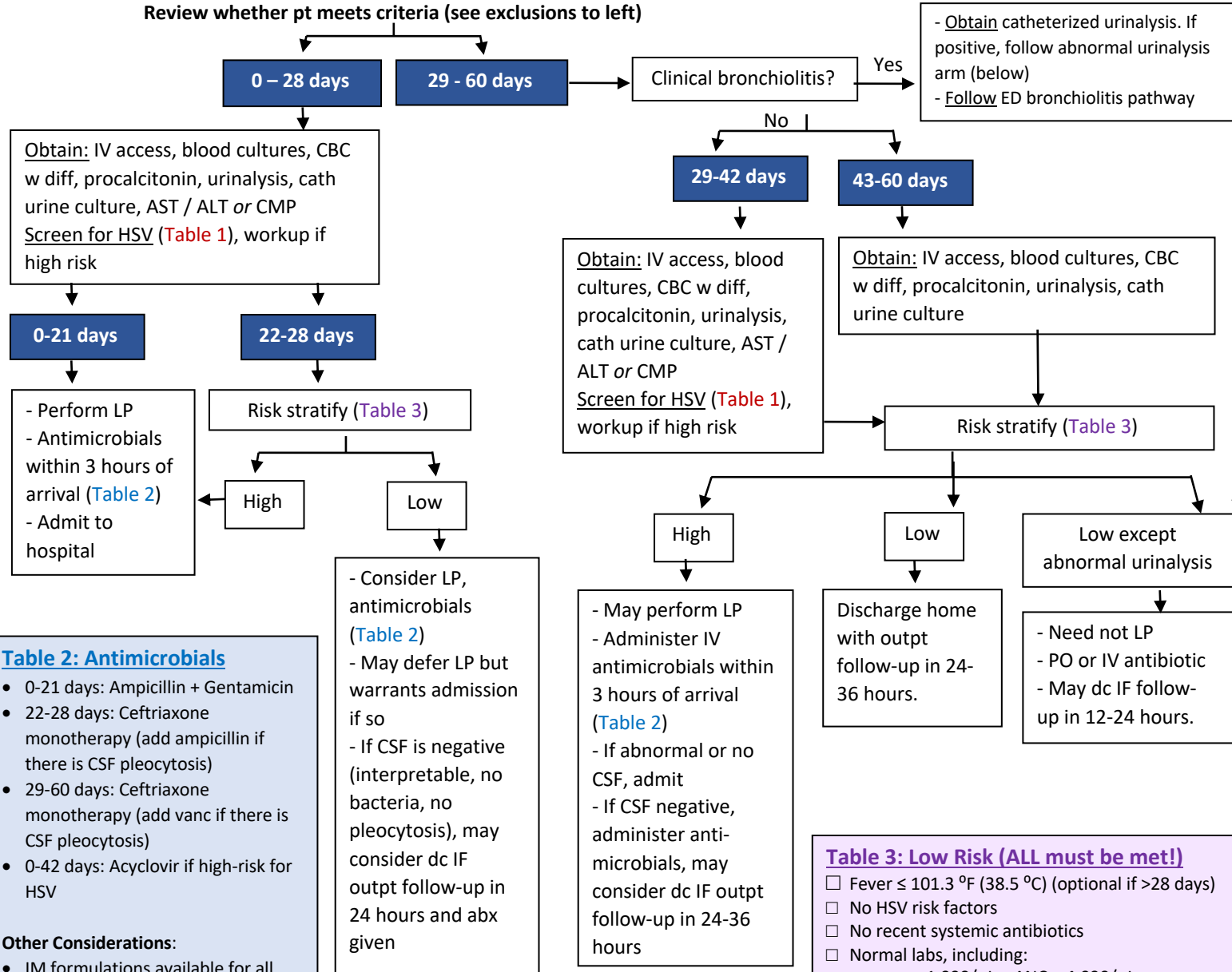


Table 3: Low Risk (ALL must be met!)

- Fever ≤ 101.3 °F (38.5 °C) (optional if >28 days)
- No HSV risk factors
- No recent systemic antibiotics
- Normal labs, including:
 - 1,000/μL < ANC < 4,090/μL
 - Procalcitonin < 0.5 ng/mL
 - Urinalysis: WBC < 5/HPF or <10/μL, no leukocytes or nitrites
 - If obtained, CRP < 2 mg/dL
 - If obtained, no CSF pleocytosis, is atraumatic, and interpretable