



Dagan R, Soifer S, Phillip M, Shachak E. Ambulatory care of febrile infants younger than 2 months of age classified as being at low risk for having serious bacterial infections. *J Pediatr*. 1988 Mar;112(3):355-60

Pantell RH, Newman TB, Bernzweig J, Bergman DA, Takayama JJ, Segal M, Finch SA, Wasserman RC. Management and outcomes of care of fever in early infancy. *JAMA*. 2004 Mar 10;291(10):1203-12

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Aronson PL, Thurm C, Alpern ER, Alessandrini EA, Williams DJ, Shah SS, Nigrovic LE, McCulloh RJ, Schondelmeyer A, Tieder JS, Neuman MI; Febrile Young Infant Research Collaborative. Variation in care of the febrile young infant <90 days in US pediatric emergency departments. *Pediatrics*. 2014 Oct;134(4):667-77. Erratum in: *Pediatrics*. 2015 Apr;135(4):7.

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Hassoun A, Stankovic C, Rogers A, Duffy E, Zidan M, Levjoki C, Stanley R, Mahajan P. Listeria and enterococcal infections in neonates 28 days of age and younger: is empiric parenteral ampicillin still indicated? *Pediatr Emerg Care*. 2014 Apr;30(4):240-3

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Finkelstein Y, Mosseri R, Garty SL. Concomitant aseptic meningitis and bacterial urinary tract infection in young febrile infants. *Pediatr Infect Dis J*. 2001 Jun;20(6):630-2

Shah SS, Zorc JJ, Levine DA, Platt SL, Kuppermann N. Sterile cerebrospinal fluid pleocytosis in young infants with urinary tract infections. *J Pediatr*. 2008 Aug;153(2):290-2

Schnadower, D, Kuppermann N, Macias CG, Freedman SB, Baskin MN, Ishimine P, Scribner C, Okada P, Beach H, Bulloch B, Agrawal D, Saunders M, Sutherland DM, Blackstone MM, Sarnaik A, McManemy J, Brent A, Bennett J, Plymale JM, Solari P, Mann DJ, Dajan PS; Pediatric Emergency Medicine Collaborative Research Committee of the American Academy of Pediatrics. Sterile cerebrospinal fluid pleocytosis in young febrile infants with urinary tract infections. *Arch Pediatr and Adolesc Med* 2011; Jul;165(7):635-41

Doby, EH, Stockmann C, Korgenski EK, Blaschke AJ, Byington CL. Cerebrospinal fluid pleocytosis in febrile infants 1-90 days with urinary tract infection. *Pediatr Infect Dis J*. 2013 Sep;32(9):1024-6

Byington C. Analysis of SBI by week of age. May 6, 2013

Nigrovic LE1, Kuppermann N, Neuman MI. Risk factors for traumatic or unsuccessful lumbar punctures in children. *Ann Emerg Med*. 2007 Jun;49(6):762-71.

Hanson A. 2014 PMID: 24759486 Hanson AL1, Ros S, Soprano J. Analysis of infant lumbar puncture success rates: sitting flexed versus lateral flexed positions. *Pediatr Emerg Care*. 2014 May;30(5):311-4

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Martinez E1, Mintegi S, Vilar B, Martinez MJ, Lopez A, Catediano E, Gomez B Prevalence and predictors of bacterial meningitis in young

Febrile Infant
29 to 60 days of age

Is patient well appearing?

Full Sepsis Evaluation
HSV Risk Assessment
Admit

Herpes Simplex Virus (HSV) Checklist

YES NO

- Maternal history of HSV (prior disease or active lesions)?
- History of seizures or seizures during the evaluation
- Vesicles on skin exam (including scalp)
- CSF with pleocytosis for age?

If any "Yes" proceed to HSV High Risk recommendation

Obtain:

- UA and urine culture
- CBC with diff
- Blood Culture
- Resp viral testing (if resp sx)
- CRP (or PCT)

Bacterial Infection Checklist

YES NO

- Born at less than 37 weeks gestation?
- History of prior hospitalization?
- Prolonged newborn nursery course?
- Is CBC WBC less than 5,000/cc or greater than 15,000/cc?
- UA positive for nitrites, Leuk esterase, or WBC >5/HPF?
- Are bands >1500/cc?
- Does the child have a chronic illness?
- Received antibiotics prior to this visit?
- History of unexplained hyperbilirubinemia?

If any "Yes" proceed to High Risk Bacterial infection recommendations

Complete Bacterial Infection Checklist

Is the patient at low or high risk for a bacterial infection?

Perform lumbar puncture
Administer antibiotics
Admit patient

Complete HSV Checklist

Is the patient at low or high risk for an HSV infection?

Continue high risk infection management and observe

Obtain HSV surface and vesicle cultures and CSF PCR

Administer acyclovir

Observe pending PCR and viral culture results

Clinical decision to administer antibiotics?

Should the patient be discharged?

Discharge patient

Perform lumbar puncture

Administer antibiotics

Admit patient

Ambulatory Discharge Disposition Checklist

YES NO

- Are the parents comfortable with monitoring their child at home?
- Do the parents have reliable means of receiving communication from the hospital/ED?
- Can bacterial culture results be followed daily by the hospital/ED?
- Can the patient follow-up with their PCP in 24 hours?

If any "No" admit the patient.

Inpatient Discharge Disposition

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