



CSF Results

Normal CSF	0-28 days	29-90 days
WBC	<20	<10
Glucose	>40	>40
Protein	<100	<75

Absence of neutrophils (polys) makes bacterial meningitis unlikely. CSF neutrophils (polys) $>75\%$ increases likelihood of bacterial meningitis.

Do not use correction formulas for traumatic LPs.

Special Circumstances

1. Immunizations within 24 hours of fever <101 and well-appearing: no work-up necessary but must follow-up in village or Bethel within 12-24 hours. If fevers persist or infant is not well-appearing, perform work-up as above.

2. Pre-treatment with antibiotics with no focal bacterial infection: infant must be observed a full 48 hours off antibiotics. This may require staying in Bethel for 48 hours of antibiotics followed by another 48 hours of observation off antibiotics with daily follow-up. Consider ordering CSF Multiplex PCR, a send-out test.

3. Unsuccessful LP: treat if appropriate and consider a repeat LP in 12-24 hours and determine treatment course based on cell counts. If repeat LP not performed or unsuccessful, either treat for 10-14 days with meningitic dosing of IV antibiotics or stop antibiotics at 48 hours and observe infant for an additional 48 hours off antibiotics. Consider admission.

HSV Work-up

- CSF HSV PCR
- Blood HSV PCR
- CMP
- Nasopharyngeal, conjunctival, and anal swabs and vesicle fluid for HSV PCR.

Risk-Stratification Resource:

[Kaiser Neonatal Sepsis Calculator](#)

Treatment

No febrile infant <90 days should receive antibiotics without an LP.

• 0-7 days: please consult a pediatrician, pharmacist, or Neofax.

• 8-28 days:

-If well-appearing and low suspicion for meningitis: ampicillin 50 mg/kg IV Q8h AND gentamicin 4 mg/kg IV Q24h

-If well-appearing and any suspicion for meningitis: ampicillin 75 mg/kg IV Q6h AND cefepime 50 mg/kg IV Q12h

-If ill-appearing and/or positive CSF Gram stain: please consult a pediatrician and/or a pharmacist.

• 29-90 days: ceftriaxone 75 mg/kg IV/IM Q24h OR if worried about meningitis 100 mg/kg IV once then 50 mg/kg IV Q12h

• Continue IV/IM antibiotics until cultures are negative and patient is clinically stable $\times 48-72$ hours or until specific organism and sensitivities are available to direct therapy.

• If known HSV exposure, seizures, or severe illness: acyclovir 20 mg/kg IV Q8h with IVF, perform HSV work-up (see box), and consult pediatrics.

• If suspicion for bacterial meningitis, strongly consider medevac.

• If transferring patient, send any extra CSF on ice with patient.