

Neonatal Early Onset Sepsis (EOS) Care Guideline

Inclusion Criteria:

- ≤ 72 hours old, transferred from birth hospital
- Signs or symptoms of infection (e.g. respiratory distress, hypoglycemia, hypothermia)
- +/- History of maternal chorioamnionitis diagnosed by obstetrician
- +/- Risk factors of early onset sepsis and/or abnormal screening labs (CBC, +/- CRP)

Assessment

- Vital signs
- Physical exam

Interventions

- NICU admission for monitoring, evaluation, and treatment
- Labs: serial CBC with manual differential, blood culture, CRP after discussion with medical team
- Consider lumbar puncture for CSF evaluation (see further recommendations)
- Consider holding enteral feeds if in respiratory distress or clinically unstable
- Intravenous hydration as needed
- Blood gas and CXR for respiratory symptoms

Antibiotics (Refer to order sets for dosing)

- Ampicillin and gentamicin
- Consider cefotaxime instead of gentamicin if meningitis strongly suspected or significant concern for renal failure

Further Recommendations

- Lumbar puncture should be performed in infants with a: 1) positive blood culture, 2) high probability of sepsis based on clinical signs or abnormal lab data, 3) no clinical improvement when treated with appropriate antimicrobial therapy
- Minimize unnecessary antibiotic exposure by discontinuing antibiotics at 48 hours if blood culture negative and clinical status reassuring.
- Abnormal CBC and/or CRP should not be the sole indication for prolonging antibiotic duration in an asymptomatic patient or a child who had brief transitional symptoms.
- Duration of antibiotic therapy should be based on culture results and clinical status.

Considerations

- Risk factors for EOS include: prematurity, history of prolonged rupture of membranes (> 18 hrs); inadequate GBS intrapartum antibiotic prophylaxis for the mother; history of maternal fever during labor
- Consider viral etiology if the patient does not respond to antibiotic therapy or has elevated liver enzymes or cardiac dysfunction
- Consider ID consult if patient does not respond to antibiotic therapy

Safety Monitoring

Gentamicin nephrotoxicity: gentamicin trough level should be obtained if planning on duration longer than 48 hrs