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 transition symptoms.
- Duration of antibiotic therapy should be based on culture results and clinical status.

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

**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

Approved Evidence Based Medicine Committee 9-21-16
Reassess the appropriateness of Care Guidelines as condition changes and 24 hrs after admission. This guideline is a tool to aid clinical decision making. It is not a standard of care. The physician should deviate from the guideline when clinical judgment so indicates.

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