# Neonatal Necrotizing Enterocolitis (NEC) Care Guideline

## Inclusion Criteria:
- ≥ 7 days old
- Primary abdominal process
- Abdominal distension, blood in stool or vomitus, or significant feeding intolerance

## Exclusion Criteria:
- Congenital GI anomalies

### Assessment
- Vital signs, cardiac/respiratory/neuro status
- Hemodynamic status
- GI function, feeding tolerance, abdominal girth and discoloration

### Interventions
- Hold enteral feedings
- NGT to intermittent suction
- Intravenous hydration
- Analgesia – review options based on clinical status
- Labs: CBC, CRP, BMP, PT, fibrinogen, blood gas, culture blood; if able to obtain – culture urine, CSF, & peritoneal fluid
- Stat abdominal complete series; serial film frequency based on clinical status
- Surgical consult for suspected perforation or unresponsive to medical management
- ID consult if history of prolonged antibiotic exposure or abscess is present

### Antibiotics
- Piperacillin/tazobactam (dose based on post conceptual & chronological age & weight)
- Vancomycin - for 72 hrs then re-evaluate (dose based on post conceptual & chronological age & recent SCr)
- If hemodynamically unstable or suspected intestinal obstruction- Gentamicin (dose based on post conceptual & chronological age & recent SCr)
- If positive blood culture & unable to perform lumbar puncture, or highly suspect meningitis consider Meropenem

### Continued Considerations
- Adjust antibiotics per culture results and response to therapy
- Repeat radiographic studies if signs & symptoms of infection escalate (e.g. progressive neutropenia or thrombocytopenia
- Monitor fluid and electrolyte status for possible third-spacing

### Recommendations/Considerations
- Patients at risk for NEC include prematurity, <1500 grams birth weight, receiving enteral feedings, ischemia related conditions
- Initiate TPN if enteral restriction exceeds 7 days
- Consider initiation of empiric antifungal therapy for worsening clinical status (refer to Neonatal Fungal Sepsis Guideline)
- Recommended dose of Piperacillin/tazobactam is 100 mg/kg/dose IV q 12 hrs (≤ 29 wks) or 100 mg/kg/dose IV q 8 hrs (≥ 30 wks)
- Duration of antibiotics should be at least 10-14 days based on clinical status
- Follow feeding intolerance guidelines in the Gavage Feeding Procedure (Mosby)

### Parent Education
- Assure parents of premature infants have received the “High Risk” CD-ROM
- Keep parents updated on infant’s condition
- Guide parents to appropriate support services