

Spontaneous Intestinal Perforation (SIP) Care Guideline



Inclusion Criteria:

- Pneumoperitoneum 7-10 days of life

Recommendations/ Considerations

- Initiate TPN if plan for ongoing enteral feed restriction
- Consider empiric antifungal therapy for worsening clinical status
- Duration of antibiotics should be 10-14 days based on culture results and clinical status

Assessment

- Vital signs
- Physical exam – especially abdominal exam and hemodynamic perfusion/status
- Feeding history

Interventions

- Consult Surgery
- Hold enteral feedings
- Place NG or OG tube for decompression – low intermittent suction.
 - If patient has G/J Tube – drain to gravity
- Intravenous hydration
- Analgesia – (fentanyl or morphine) as needed
- Labs: CBC, CRP, blood culture – repeat as needed
 - Consider BMP, PT/fibrinogen, blood gas - repeat as needed
- Radiological evaluation: Complete abdominal series or KUB +/- decubitus or cross-table lateral views
- Intra-abdominal cultures if possible (if drains are placed)
- Consult ID

Antibiotics/Antifungals (refer to order sets for dosing)

- Cefepime + Vancomycin + Micafungin
- Changes made based on culture/sensitivity results

Further Recommendations/Considerations

- Monitor fluid and electrolyte status for possible third-spacing
- Repeat radiographic studies and lab tests as needed

Spontaneous Intestinal Perforation (SIP) References

- Buchheit, J. Q., & Stewart, D. L. (1994). Clinical comparison of localized intestinal perforation and necrotizing enterocolitis in neonates. *Pediatrics*, *93*(32), 32-36. **(Level IV)**
- Clyman, R. I., Jin, C., & Hills, N. K. (2020). A role for neonatal bacteremia in deaths due to intestinal perforation: spontaneous intestinal perforation compared with perforated necrotizing enterocolitis. *Journal of Perinatology*, 1662-1670. <https://doi.org/10.1038/s41372-020-0691-4> **(Level IV)**
- Coates, E. W., Karlowicz, M. G., Croitoru, D. P., & Buescher, E. S. (2005). Distinctive distribution of pathogens associated with peritonitis in neonates with focal intestinal perforation compared with necrotizing Enterocolitis. *Pediatrics*, *116*(2), e241-e246. <https://doi.org/10.1542/peds.2004-2537> **(Level IV)**