

Necrotizing Enterocolitis Diagnosis and Management

Necrotizing enterocolitis is a transmural necrotizing inflammation of the intestinal wall. Diagnostic workup includes complete blood count, blood cultures, and imaging. On abdominal imaging, pneumatosis intestinalis might be seen in addition to increased bowel wall thickness. Management principles include putting the patient on NPO status with nasogastric tube suction, broad spectrum antibiotics until culture results become available, and surgery if necessary.



PLAY PICMONIC

Diagnosis

Complete Blood Count (CBC)

[Blood Cell Count-dracula](#)

In the initial workup of this disease, a complete blood count (CBC) should be ordered. This might show a typical inflammatory state and helps to quickly evaluate for risk of sepsis and shock.

Blood Cultures

[Blood Petri-dish](#)

Patients with NEC should have a blood culture performed to direct antibiotic treatment.

Pneumatosis Intestinalis

[Balloon Floating with Intestine](#)

On abdominal imaging, pneumatosis intestinalis might be seen. This is defined as bead-like or bubble-shaped intramural air pockets. If perforation has occurred, pneumoperitoneum may also be seen.

Increased Bowel Wall Thickness

[Up-arrow Bowel-bowl on Thick Wall](#)

Abdominal imaging may also show a thickening of the gut wall and air-fluid levels. Ultrasound can be useful to measure bowel wall thickness if radiographs are inconclusive.

Management

NPO with NG Tube to Suction

[NPO-zipper-mouth with NG Tube to Suction](#)

If NEC is suspected, the patient is immediately switched to parenteral nutrition i.e. all oral medication is discontinued. A gastric drainage tube is placed and connected to suction to allow decompression.

Broad Spectrum Antibiotics

[Broad-spectrum of Colors with ABX-guy](#)

Since NEC often leads to sepsis, patients are given broad-spectrum antibiotics as empiric treatment. After culture results are available, antibiotics are tailored.

Surgery

[Surgeon](#)

Surgical intervention is indicated in the case of perforation, but also in the advanced stage of the disease, and is intended to prevent further intestinal distension and thus improve the perfusion of the intestinal wall. If possible, bowel that looks necrotic should be left in place and resected only as a last resort, since large parts of the bowel can recover.