

Table 1: Guidelines for Staging and Management of Necrotizing Enterocolitis*

Babies may progress during first 48-72 hours and stage may need to be modified

STAGE	ILLNESS SEVERITY	SYSTEMIC SIGNS	INTESTINAL SIGNS	RADIOLOGIC SIGNS	SURGERY CONSULT	XRAY FREQ.	ANTIBIOTICS	Course Length	Transfer to center that is able to do complex surgical procedures
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I. Suspected – No radiographic evidence. Differential includes ileus, other system infections and cows milk protein allergy

Ia.	Suspicious, mildly ill	Temperature instability, apnea, bradycardia, feeding intolerance	Residuals, mild distension, occult blood	Normal or mild ileus	No	Q6-8 hrs x 24-48 hours	Ampicillin Gentamicin	48 hours	no
Ib.	Suspicious, mildly ill	Same as IA	Same as IA – gross blood	Same as IA	No	Same as IA	Ampicillin Gentamicin	5 days	no

II. Definite – Must have radiographic/ultrasound diagnosis

Ila.	Mildly ill	Same as IA, mild lab changes	Same as I, plus abdominal tenderness	Pneumatosis Intestinalis +/- fixed dilated loops	Yes	Q 6 hrs x 48 hours	Ampicillin Gentamicin	7 days	If sentinel loops persists transfer to surgical center
Ilb.	Moderately ill	Same as IA with more lab changes, needs more support	Same as IIA, plus abdominal cellulitis	IIA ± portal venous gas ± ascites	Yes	Q 6 hrs x 48 hours	Ampicillin Gentamicin Flagyl	10 days	Presence of portal gas and/or abdominal cellulitis should prompt transfer to surgical center

III. Advanced: Infants are severely ill with radiographic evidence (without or without evidence of perforation)

IIIa.	Severely ill, bowel intact ¹	Severe metabolic and/or resp acidosis, electrolyte & CBC abnormalities, shock	As above plus peritonitis, marked tenderness and distension	Same as IIB May see persistent ileus, abdominal distension, absent bowel gas	Yes	Q6 x 48 hours	Ampicillin Gentamicin Flagyl	At least 14 days	Transfer
IIIb.	Severely ill, perforated (not SIPs) ²	Same as IIIA	Same as IIIA	Pneumoperitoneum	Yes	X-rays prn	Ampicillin Gentamicin Flagyl	At least 14 days	Transfer

NOTES

1. Surgical intervention may be warranted if no clinical improvement after 48-72 hours and abdominal exam/x-rays remain concerning. Consider drain or paracentesis/ultrasound as a diagnostic study if NEC diagnosis unclear
2. *Spontaneous intestinal perforation (SIP) is not included in this guideline.
3. NPO Duration For non-surgical NEC—Feed on the day after antibiotic completion.