

## Appendix 1: PICU NEC Management Pathway

NEC Stage	Systemic Signs	Abdo Exam	AXR	Laparotomy (if applicable)	Antibiotic Duration	NBM Duration	Initiate PN	Imaging frequency	Surgical Referral
<b>Unlikely</b>	None	None or slight abdominal distention	Normal or gas filled loops/dilated loops		None	24hours	No	Nil unless clinical deterioration	No
<b>Possible</b>	Irritable, pyrexia, brady/tachycardia	Abdominal distention, high GRV, vomiting	Normal or gas filled loops/dilated loops		48hours and re-evaluate	48hours  Consider change to EN formula	No	Nil unless clinical deterioration	Maybe
<b>Probable</b>	Pyrexia, hypotension, mild lactataemia/ metabolic acidosis	Same as above, mild abdo tenderness, bloody stools (haematochezia),	Dilated loops, thickened bowel wall, paucity of colonic gas, mild ileus, possible pneumatosis		5-7days	5-7days  Restart on HRA protocol	Yes	Day 5 unless clinical deterioration	Yes
<b>Definite</b>	Same as above, cardiovascular instability, metabolic acidosis and lactataemia +/- thrombocytopenia, increased VIS score	Same as above, absent bowel sounds, ascites, severe abdo tenderness +/- abdominal cellulitis	Pneumatosis +/- Portal Gas	Bowel ischaemia requiring resection	7-10days or 10-14days if laparotomy	7 days (if AXR normal on day 5) or 10 days  Restart on HRA Protocol	Yes	24 hours +  Day 5 unless clinical deterioration +/- if laparotomy as per surgical instructions	Yes
<b>Advanced</b>	Same as above +/- hypotension, DIC, severe cardiovascular instability	Same as above + peritonitis	Widespread pneumatosis +/- Portal Gas +/- pneumoperitoneum	Bowel ischaemia, perforation +/- NEC Totalis	14days	As per surgical instruction  Restart on HRA Protocol	Yes	As per surgical instruction	Yes – Urgent

AXR findings are used to define NEC Category as signs and symptoms may be due to other pathology ie sepsis.