Guideline for advancing enteral feeds in a newborn with a small bowel stoma

Initiate feeds with the agreement of surgical team if stoma is functioning and there are no contraindications to enteral feeding

Day 1: Start EBM at ~10 to 20 ml/kg/day

Tolerating enteral feeds?

Yes

Are all of the following present?
• Stoma output <40 ml/kg/day
• Urine output >1 ml/kg/hour and no signs or symptoms of dehydration
• Stable electrolyte and acid base balance

Advance by 10-20 ml/kg/day every 24 hours
• Wean IVN based on fluid volume and weight gain
• Monitor tolerance after each advance until full enteral feeds are reached

No

Are all of the following present?
• Stoma output 40 to 70 ml/kg/day
• Urine output >1 ml/kg/hour and no signs or symptoms of dehydration
• Stable electrolyte and acid base balance

Continue current rate of feeds

Reassess the next day for possible feed advancement

Is either one of the following present?
• Stoma output >70 ml/kg/day
• Urine output <1 ml/kg/hour and signs of dehydration

Reduce rate or withhold feeds

Reassess the next day for possible feed advancement

Are all of the following present?
• Vomiting or aspirates - refer to Withholding Feeds guideline, Newborn Service website
• Abdominal distension causing clinical concern - review clinically (do not adjust enteral feeds until review)
• Blood in stool - hold enteral feeds until NEC assessment is complete

Vomiting or aspirates

Abdominal distension causing clinical concern

Blood in stool

N.B. Intravenous fluid replacements: When stoma losses reach >40 ml/kg/day commence replacement of losses above 40 ml/kg/day ml for ml with 10 mmol KCL in 500 ml 0.9% NaCl.

1. Stoma output is the combined output from all stomas + stool
2. This guideline may be too conservative for more mature babies who have a defunctioning stoma for structural anomalies like anorectal malformation
3. Contraindications to enteral feeding: Ileus, grossly bloody stools or ostomy output, or radiologic changes suggesting intestinal ischaemia; shock/poor perfusion due to cardiac or respiratory insufficiency; bilious and/or persistent vomiting (>3 episodes in 12 hours); clinical suspicion of obstruction or ileus (severe distension, decreased ostomy output and/or radiologic changes suggesting obstruction or ileus).
4. If feeds are withheld for <24 hours, they can be restarted at 75% of previous rate.
5. Monitor urinary sodium weekly. Infants with an ileostomy will require additional sodium

## Enteral Nutrition Feeding Plan

Feeds can be increased if stoma output is <40 ml/kg/day

<table>
<thead>
<tr>
<th>Feed type</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bolus ________ml q ______ hrly</td>
</tr>
<tr>
<td></td>
<td>Continuous __________ml x 24 hours</td>
</tr>
</tbody>
</table>

### Current weight

### Feed increases

Increase feed volume by 1 ml per feed
BUT only if aspirates are low (as per unit protocol)
AND stoma output is less than 40 ml/Kg in previous 24 hours

Increase feed if total ostomy output is less than:

- ______ ml per 12 hours

### Stoma loss replacement (tick one)

- Replace stoma losses in excess of 40 ml/kg in previous 24 hours
  - = 10 ml/kg in previous 6 hours
- Replace ALL stoma output if stoma losses exceed 40 ml/kg

Replace if stoma output is greater than:

- ______ ml per 6 hours

### Monitor

- Weight on alternate days
- Serum sodium
- Serum potassium

### Consider

- Urinary sodium (if growth is slow)
  - (should be >20 mmol/L)
- Serum zinc (if output is frequently >40 ml/kg/day)

### Feed increases of less than 20 ml/kg/d

<table>
<thead>
<tr>
<th>Weight</th>
<th>Increase feeds by 1 ml per feed every</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 to 1250 g</td>
<td>q24 hr</td>
</tr>
<tr>
<td>1251 to 2000 g</td>
<td>q12 hr</td>
</tr>
<tr>
<td>2001 to 2500 g</td>
<td>q8 hr</td>
</tr>
<tr>
<td>&gt;2500 g</td>
<td>q6 hr</td>
</tr>
</tbody>
</table>