**AIM:**
- To audit and identify whether critical care nurses in local unit administer metoclopramide according to enteral feeding protocol;
- To critically explore the educational needs of critical care nurses from all levels of experience;
- To make recommendations for updating prokinetics use on enteral feeding protocol.

**Enteral Feeding definition:** “Feeding provided through the gastrointestinal tract via a tube, catheter, or stoma that delivers nutrients distal to the oral cavity.”¹

**Background:** Enteral nutrition via tube feeding is the preferred way of feeding the critically ill patient and an important means of countering the catabolic state induced by severe diseases.² Critical ill patients require nutritional support to improve their clinical outcome, and early enteral feeding has shown beneficial effects. Enteral nutrition causes increased blood flow to the mucosa, which decreases stress ulceration and enhances gut immune function.³

**Enteral Nutrition**

<table>
<thead>
<tr>
<th>Contraindications²,⁴</th>
<th>Gastrointestinal Complications³,⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absolute</strong></td>
<td></td>
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<tr>
<td>Diseases associated with lies (retroperitoneal hematoma and peritonitis)</td>
<td>Increased Gastric Residual Volume</td>
</tr>
<tr>
<td>Intestinal Obstruction ischaemia or perforation</td>
<td>Vomiting and Regurgitation</td>
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<tr>
<td>Active gastrointestinal haemorrhage</td>
<td>Abdominal discomfort and distention</td>
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<td>Hemodynamic instability</td>
<td>Constipation</td>
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<tr>
<td>Diverticular abscess</td>
<td>Diarrhoea</td>
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<tr>
<td>Early stages of short bowel syndrome</td>
<td>Abnormal abdominal radiographs</td>
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<tr>
<td>Severe malabsorption</td>
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<td>Small bowel fistula</td>
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</tbody>
</table>

**Enteral Nutrition**

**Discussion:** Limitations: Only one ICU audited; Auditor limited audit experience; Small sample size; All data solely based on nursing documentation may affect accuracy of sampling. Audit not meeting local protocol, however main results and themes appear to correlate to the literature and NICE Guidelines.⁵

- Feeding protocols with prokinetics and a higher gastric residual volume threshold are associated with a trend towards a reduction in gastric residual volume and less time taken to reach goal feeding rate.⁷
- More than 97% of nurses surveyed assessed intolerance solely by measuring gastric residual volumes.³⁹
- Metoclopramide, 10mg four times a day, has been shown to be efficacious for elevated gastric residual volumes.⁵⁹,⁶⁰
- Metoclopramide also has associated adverse complications, including tardive dyskinesia and QT prolongation, predisposing to cardiac arrhythmias.³
- Combination therapy with erythromycin and metoclopramide did demonstrate improved gastric residual volume allowing greater feeding success.³

**Recommendations:**
- Teaching programmes for new staff nurses and development sessions for all nursing staff.
- Multidisciplinary update programme to review and analyse the local enteral feeding protocol and use of metoclopramide as a prokinetic.
- Repeat audit using a large scale of patients to improve accuracy and outcome results.

**References:**