Still Scope for Improvement -
An Acute Upper Gastrointestinal Bleeding Management Audit
Can a daily empty endoscopy slot improve time to endoscopy?

Donaldson S¹, Driver R², Chhokar G³, Stearn B⁴
¹Foundation Year Two Doctor, ²Gastroenterology Specialist Registrar, ³Elderly Medicine Registrar, ⁴Clinical Effectiveness and NICE Manager

Background
- Upper gastrointestinal bleeding is the commonest medical emergency managed by gastroenterologists in the UK and carries a 10% hospital mortality rate.
- Timely endoscopy aids diagnosis, yields information that helps predict outcome and allows treatment.
- Service provision varies considerably across the UK.

Objectives
- To audit compliance with NICE 2012 acute upper gastrointestinal bleeding guidelines
- To improve risk assessment and management of acute upper gastrointestinal bleeds
- To reduce time to endoscopy

Methods
- A retrospective baseline audit in 2010 reviewed the management of 30 cases of acute upper gastrointestinal bleeding.
- In 2013, a further 30 cases were prospectively assessed on a proforma created using current NICE guidance as the standard.
- A re-audit one month following implementation of recommendations analysed twelve prospective cases.

Cycle 1 Conclusions
- Pre-endoscopy Rockall score documentation is poor.
- Proton pump inhibitor (PPI) received pre-endoscopy by 83% against NICE guidance.
- Iv fluids received by 73%.
- 40% receive endoscopy within 24 hours.
- Post-endoscopy Rockall Score documented in only 4.5%.

Cycle 2 Conclusions
- Improved Rockall score documentation but it is not guiding time to endoscopy.
- Median time to endoscopy was 26 hours (range = 3 – 225 hours). 77% received iv fluid resuscitation.
- Pre-endoscopy PPI prescribed in 79% and only 62.5% of those who required 72 hour infusions post-endoscopy received treatment.
- Post-endoscopy Rockall score is still poorly documented (4.5%).

Cycle 3 Conclusions
- Risk assessment is performed more consistently on initial presentation but is still not being used to prioritise patients for endoscopy.
- There has been improvement in fluid resuscitation (92%) and prescription of PPI infusions when indicated post-endoscopy (100%).
- Still times to endoscopy are poor despite a ‘daily empty slot’ with only 27%* of cases receiving endoscopy within 24 hours.
- Median time to endoscopy was 47 hours (range = 2-100 hours). PPIs were prescribed in 67% because of the delay to endoscopy. There is still room for improvement in service provision.

Future Action
- A named endoscopist on-call rota for in and out-of-hours bleeds
- Electronic endoscopy requests by ICE to be actioned according to Rockall score by a senior endoscopist nurse
- Implementation of an upper gastrointestinal bleeding integrated care pathway that starts on admission and acts as both a protocol and toolkit for stepwise documentation of patient management and progress
- A fourth cycle following implementation of these recommendations and incorporating the updated NICE quality standards (QS38 July 2013) for acute upper gastrointestinal bleeding is recommended

Criteria
- Rockall Score should be documented pre-OGD
- IV fluids should be given
- Endoscopy should be within 24 hours of admission
- Full Rockall score should be documented post - OGD

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Gold Standard</th>
<th>Cycle 1</th>
<th>Cycle 2</th>
<th>Cycle 3</th>
</tr>
</thead>
<tbody>
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<td>Rockall Score should be documented pre-OGD</td>
<td>100%</td>
<td>30%</td>
<td>61%</td>
<td>92%</td>
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<tr>
<td>IV fluids should be given</td>
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<td>73%</td>
<td>77%</td>
<td>92%</td>
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<tr>
<td>Endoscopy should be within 24 hours of admission</td>
<td>100%</td>
<td>40%</td>
<td>45%</td>
<td>*27%</td>
</tr>
<tr>
<td>Full Rockall score should be documented post - OGD</td>
<td>100%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Figure 1
Pie charts demonstrating the proportion of patients receiving endoscopy within 24 hours in each cycle

Cycle 1: 40% Cycle 2: 60% Cycle 3: 55%
Cycle 3+: 27% 73%

*Why did the ‘daily empty slot’ fail to improve times to endoscopy?*
- Endoscopy lists were cancelled/reduced due to a washer being broken
- Patients not nil-by-mouth so wasted slot
- Request cards not marked as urgent and lacking doctor’s bleep number
- Weekend cards not reaching endoscopy clerk until Monday morning

Intervention
- Rockall Score printed in acute clerking proforma

Interventions
1. Daily empty endoscopy slot
2. Rejection of OGD requests cards lacking a Rockall Score
3. Laminated reminders in endoscopy to calculate post-OGD Rockall Score
4. Education of junior doctors