Low Risk Upper GI Bleed Pathway

Ambulatory Care Pathway

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Overarching principles:

1. The severity of upper GI bleeding of patients presenting to UK hospitals varies from trivial to life threatening. The overall mortality for patients admitted significantly exceeds that of Myocardial Infarction.
2. Many patients can safely be managed in an Ambulatory Care setting. Correct initial (pre-endoscopy) assessment is therefore essential. In about 30% of patients no cause for suspected upper GI bleeding is ultimately found.
3. Clinical assessment is paramount and takes precedence over any scoring system or risk assessment tool.
4. It is arguable that patients under the age of 50 who present with trivial upper GI bleeding may not need an endoscopy at all and should be checked for H.pylori instead. Endoscopy may nonetheless be indicated for other reasons (reassurance, diagnostic accuracy, etc.). These decisions are best made on a patient by patient basis.

Patient admitted as a result of upper GI bleeding roughly divide into two groups:

1. Trivial bleeding best managed as an ambulatory care out-patient
2. Significant bleeding which needs to be investigated reasonably urgently or rarely very urgently. This pathway does not describe the management of these patients.

Risk Assessment Principles:

Calculate Rockall score and Glasgow Blatchford Score. As parameters for assessment of shock (heart rate and blood pressure), use those recorded by staff in the Accident and Emergency Department on admission of the patient. Patients suitable for ambulatory care should have a pre-endoscopy Rockall score of 0 or 1 and a Glasgow Blatchford score of zero.

- Take a full history including drug history. Elicit factors that may have precipitated bleeding (such as retching or vomiting preceding a Mallory-Weiss tear) or are known risk factors (H. Pylori infection, NSAID or aspirin exposure, etc.).
- Record vital signs (HR, BP, oxygen saturation, respiratory rate). Postural drop of blood pressure may be an early sign of volume depletion, particularly in young patients. BP measurements in the standing position may have to be repeated for several minutes.
- Perform a full clinical examination including a rectal examination for melaena.
- Request urgent laboratory investigations including FBC, U&Es, LFTs, clotting screen, glucose, Group and Save.
- Consider IV access (possibly with wide bore cannula) if doubt about significance of bleeding event.
- Please refer to NICE guidance for upper GI bleeding (CG141) for further guidance.
- Start Omeprazole 20mg OD, stop drugs potentially irritant to GI mucosa e.g.: NSAIDs. Stop other anti-platelet agents such as Clopidogrel. If there is doubt about whether a medication should be stopped, consult with a more senior doctor.
- Monitor for continued bleeding or haemodynamic deterioration for four hours
- Make a clinical judgement about severity of bleeding event (i.e. review patient, blood tests and observation chart). If not sure, consult with more senior doctors immediately or wait until post-take ward round.
- If patient is deemed to be at low risk, refer to ambulatory care.

Initial Rockall Score Criteria (Prior to Gastroscopy)

<table>
<thead>
<tr>
<th>Age</th>
<th>Age &lt; 60 = 0 point</th>
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<tbody>
<tr>
<td></td>
<td>Age 60-79 = 1 point</td>
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<tr>
<td></td>
<td>Age &gt; 80 = 2 points</td>
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<table>
<thead>
<tr>
<th>Shock</th>
<th>&quot;No Shock&quot; = (SBP &gt; 100 mmHg, pulse &lt; 100/min = 0 points</th>
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<tbody>
<tr>
<td></td>
<td>&quot;Tachycardia&quot; = (SBP &gt; 100 mmHg, pulse &gt; 100/min = 1 point</td>
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<tr>
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<td>&quot;Hypotension&quot; = (SBP &lt; 100mmHg = 2 points</td>
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<tr>
<th>Co-morbidity</th>
<th>No major co-morbidity = 0 points</th>
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<tr>
<td></td>
<td>Cardiac Failure, IHD or any major co-morbidity = 2 points</td>
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<td></td>
<td>Renal or Liver failure, disseminated malignancy = 3 points</td>
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<tr>
<th>Additional Criteria for Full Score (after gastroscopy)</th>
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<tbody>
<tr>
<td>Diagnosis</td>
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<tr>
<td>Mallory-Weiss tear, no lesion seen nor SRH = 0 points</td>
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<tr>
<td>All other diagnoses = 1 point</td>
</tr>
<tr>
<td>Malignancy of Upper GI Tract = 2 points</td>
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| Major Stigmata of recent haemorrhage (SRH)? |
| Blood in the upper GI tract, adherent clot, visible or spurting vessel – 2 points |

Glasgow Blatchford score

The Glasgow-Blatchford bleeding score (GBS) is based on simple clinical and laboratory variables; a score of 0 identifies low-risk patients who might be suitable for outpatient management:

The factors used in the GBS include blood urea, haemoglobin value, systolic blood pressure and pulse rate.

- **Blood urea (mmol/L)**
  6·5-7·9 = 2 points
  8·0-9·9 = 3 points
  10·0-25·0 = 4 points

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>25.0 = 6 points
• Haemoglobin for men (g/L)
  120-129 = 1 point
  100-119 = 3 points
  <100 = 6 points
• Haemoglobin for women (g/L)
  100-119 = 1 point
  <100 = 6 point
• Systolic blood pressure (mm Hg)
  100-109 = 1 point
  90-99 = 2 point
  <90 = 3 point
• Other markers Pulse
  >=100/min = 1 point
  presentation with melaena = 1 point
  presentation with syncope = 2 point

hepatic disease* = 2 point
cardiac failure** = 2 point

• * Known history, or clinical and laboratory evidence, of chronic or acute liver disease.
• ** Known history, or clinical and echocardiographic evidence, of cardiac failure

• Low-risk criteria of GBS
  urea <6.5 mmol/L
  haemoglobin >=130 g/L (men) or >=120 g/L (women)
  systolic blood pressure >=110 mm Hg
  pulse <100 beats per min
  absence of melaena, syncope, cardiac failure, or liver disease

In the validation group, scores of 6 or more were associated with a greater than 50% risk of needing an intervention.

Procedure to ensure endoscopy is requested

• If a decision has been made that a patient should have an endoscopy, fill in an endoscopy referral form to go to Endoscopy Unit the next working day.
• Mark form “Results to Dr. Rehman, Fairfax Ward please”, “Urgent – GI bleed” and “any” in the potential endoscopist part of the form.
• Inform the patient that they are likely to receive an appointment for an endoscopy in the next few days from the endoscopy booking office. Ensure that patient contact details (including telephone numbers) are correct on the endoscopy referral form.
• Patients can be consented for diagnostic upper GI endoscopy at initial assessment as long as the person taking consent has been trained, and is confident that he/she is competent to do so. In general terms, diagnostic endoscopy is very safe, and the adverse events relate mainly to sedation. Alternatives include not doing an endoscopy or performing barium contrast studies, although the latter are less accurate compared to endoscopy. If you are taking consent, please document that the patient has been given an advice sheet on the consent form. Consent forms and advice sheets can be printed off from the “Endoscopy” section of the intranet.
• If not confident, ask for senior advice. Under (hopefully) rare circumstances consent can be obtained when the patient presents to endoscopy at the time of their appointment but this is not ideal. Please ensure that the patient has been given an advice sheet and a blank consent form prior to discharge.

• Please inform the patient that if they receive sedation before endoscopy, they can’t drive, drink alcohol, operate machinery (including sometimes kitchen appliances) or sign legal documents (including cheques) for 24 hours after the procedure. Full details as to what patients are advised not to do are available from the Endoscopy Unit and is distributed with the information that is sent out by the Endoscopy Unit. In general terms about 65% of patients tolerate diagnostic endoscopy perfectly well without sedation with local anaesthetic spray applied to their pharynx.

• Warn the patient that they may require follow-up in the ambulatory care clinic after the endoscopy has been performed.

**Follow-up after endoscopy**

The endoscopy findings will determine what follow-up is necessary. Follow-up may not be necessary in the ambulatory care clinic, but may appropriately be devolved to primary care. This is not an exhaustive list, but gives some illustrative examples of common conditions;

• Mallory-Weiss tear: these are usually trivial with no particular management necessary. If they are healing, then PPIs are probably best continued for maybe another week after endoscopy, but there is no specific guidance.

• Peptic Ulcer Disease: Ulcers often need about one month treatment with PPIs. Evidence of *H. Pylori* infection should be sought (e.g. through stool tests or with urease testing at the time of endoscopy) and treated if present. If *H. Pylori* tests are thought to be falsely negative, usually as a result of concomitant PPI dosing, empirical treatment should be considered, particularly with duodenal ulcer disease. Gastric ulcers need to be biopsied to exclude malignancy, and the results of these biopsies may have to be ascertained by the Ambulatory Clinic staff. Repeat endoscopy is usually necessary to check for healing of gastric ulcers. The appropriate test to check for *H. Pylori* eradication once a treatment course of eradication therapy has been prescribed is a C-urea breath test. These can be requested through the Endoscopy Unit, and their results may need to be ascertained by the requesting clinician subsequently. These tests are generally performed about eight weeks after treatment, and the patient has to be off PPIs for about 4 weeks prior to the test or it may be falsely negative.

• Oesophagitis: This is treated with PPIs. Patients with severe oesophagitis (Los Angeles classification grade C and D) will generally need follow-up endoscopy to ensure healing after about eight weeks having received adequate treatment doses of PPIs.

• Oesophageal Varices: These patients are probably best referred for specialist assessment. An ultrasound of the liver is almost always necessary, including Doppler studies of the portal vein and hepatic veins. Please refer directly to Dr. Shearman via a formal letter.

• Suspected upper GI malignancy: Please refer to Dr. Usselmann and inform Upper GI Cancer Nurse Specialist (Sue Scott or Annie Court).
• **Gastric Polyps**: These may have been biopsied at the time of endoscopy. Adenomatous polyps probably need follow-up (please refer to Dr. Usselmann) and some others may need further endoscopy, depending on endoscopic appearances and size.

• **Barrett’s oesophagus**: The management of Barrett’s oesophagus is controversial. Risk of progression to significant pathology is very low. The Department of Gastroenterology considers patients for regular endoscopic surveillance after discussion of advantages and disadvantages, assuming the patient is keen to put him or herself forward and willing and fit to undergo oesophagectomy if significant pathology is found.
Low Risk Upper GI Bleed

Acute GI Bleed
Haematemesis (Fresh or witnessed coffee ground vomit) or melena

ED or Medical Team Assessment
Take a full history and drug history (gastro toxic drugs, warfarin, alcohol)
Pulse, Lying/Standing BP (0, 1 & 3 minutes), Sats and respiratory rate
Give full examination including rectal
Wide bore intravenous access
U&Es, FBC, LFTs, coagulation screening and G&S

Patient Low Risk? (Age <60, no warfarin, no co-morbidity*, Rockall Score 0 or 1 And Glasgow Blatchford Score 0)

Yes
Send to Ambulatory Care

No
Monitoring Actions
Monitor BP/Pulse hourly for four hours
Monitor for evidence of continued bleeding

Treatment
Start Omeprazole 20mg OD, stop gastro toxic drugs

Book endoscopy – next routing outpatient (within 1 week) if score 0 or same day if score 1

Review against discharge criteria:
Haemodynamically stable: BP >100 systolic; HR < 100
Blood investigations normal for patient
No further episodes of GI Bleed
Assessed as low risk (post endoscopy score <3)

Follow up plan:
Patient booked into Ambulatory Care Clinic for follow up and endoscopy

Discharge: Patient discharged with copy of discharge summary, information sheet and details of follow up

Chronic Liver Disease, significant CVS / Renal pathology *

Not suitable for ambulatory care – Admit MAU/Castle. Refer Gastro team.