PROTOCOL DOCUMENT

Burton Hospitals

NHS Foundation Trust

UPPER GASTROINTESTINAL HAEMORRHAGE PROTOCOL

Approved by:	**Trust Executive Committee**
On:	**22 May 2018**
Review Date:	**March 2021**
Corporate / Divisional	**Medicine**
Clinical / Non Clinical	**Clinical**
Department Responsible for Review:	**Acute Medicine Speciality**
Distribution:	
• Essential reading for:	**All Medical teams** **Clinical Site Practitioners** **All wards** **Nursing staff**
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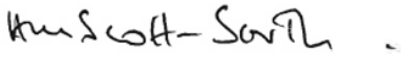
Version Number:	**2**
Signature:	
	Chief Executive
Date :	**23 May 2018**

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POLICY INDEX SHEET

Title:	**Upper Gastrointestinal Haemorrhage Protocol**
Original Issue Date:	**April 2015**
Date of Last Review:	**March 2018**
Responsibility:	**Medicine**
Stored:	**Intranet**
Key words:	**Upper GI Bleed**
Linked Trust Policies:	
Equality Impact assessed	**EIA 423**
Responsible Committee / Group	**Drugs & Therapeutics Group**
Consulted	**General Surgeons** **Gastroenterologists** **Drugs & Therapeutics Group**

POLICY INDEX SHEET

REVIEW AND AMENDMENT LOG

Version	Type of change	Date	Description of Change
1		April 2015	New Policy
2	Review	March 2018	Review and update

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UPPER GASTROINTESTINAL HAEMORRHAGE PROTOCOL

1. RECOGNITION AND ASSESSMENT

Symptoms and signs:

- Coffee-ground vomit (dark brown, denatured blood in vomit)
- Haematemesis (bright red or clotted blood in vomit)
- Melaena (black, tarry, smelly stool containing digested blood). Rarely, severe upper GI haemorrhage can present as dark altered or very rarely fresh blood per rectum with no other features to suggest upper GI pathology
- Postural dizziness or fainting
- Evidence of severe bleeding – defined as presence of shock with tachycardia (heart rate >100 beats/min), hypotension (systolic BP <100 mmHg) and clammy skin, or of postural hypotension in patient who is not clinically shocked
- Evidence of anaemia
- Features of precipitating disease, jaundice, stigmata of liver disease
- Features of bleeding disorder (petechiae)
- Buccal or facial telangiectasia.

Bright red rectal bleeding in the absence of hypotension is likely to arise from lower gastrointestinal tract

Previous history:

Enquire about:

- Peptic ulceration
- Previous bleeds
- Liver disease
- Family history of bleeding
- Ulcerogenic medication/anticoagulants
- Alcohol
- Weight loss
- Anticoagulation
- Use of NSAIs.

2. ASSESSMENT OF RISK

It is essential to categorise patients according to their risk of death/rebleeding – Use Glasgow Blatchford (GBS) score (see Figure 1): ≥1 high-risk; 0 low-risk

If more than one of the following are present, patient is at high risk:

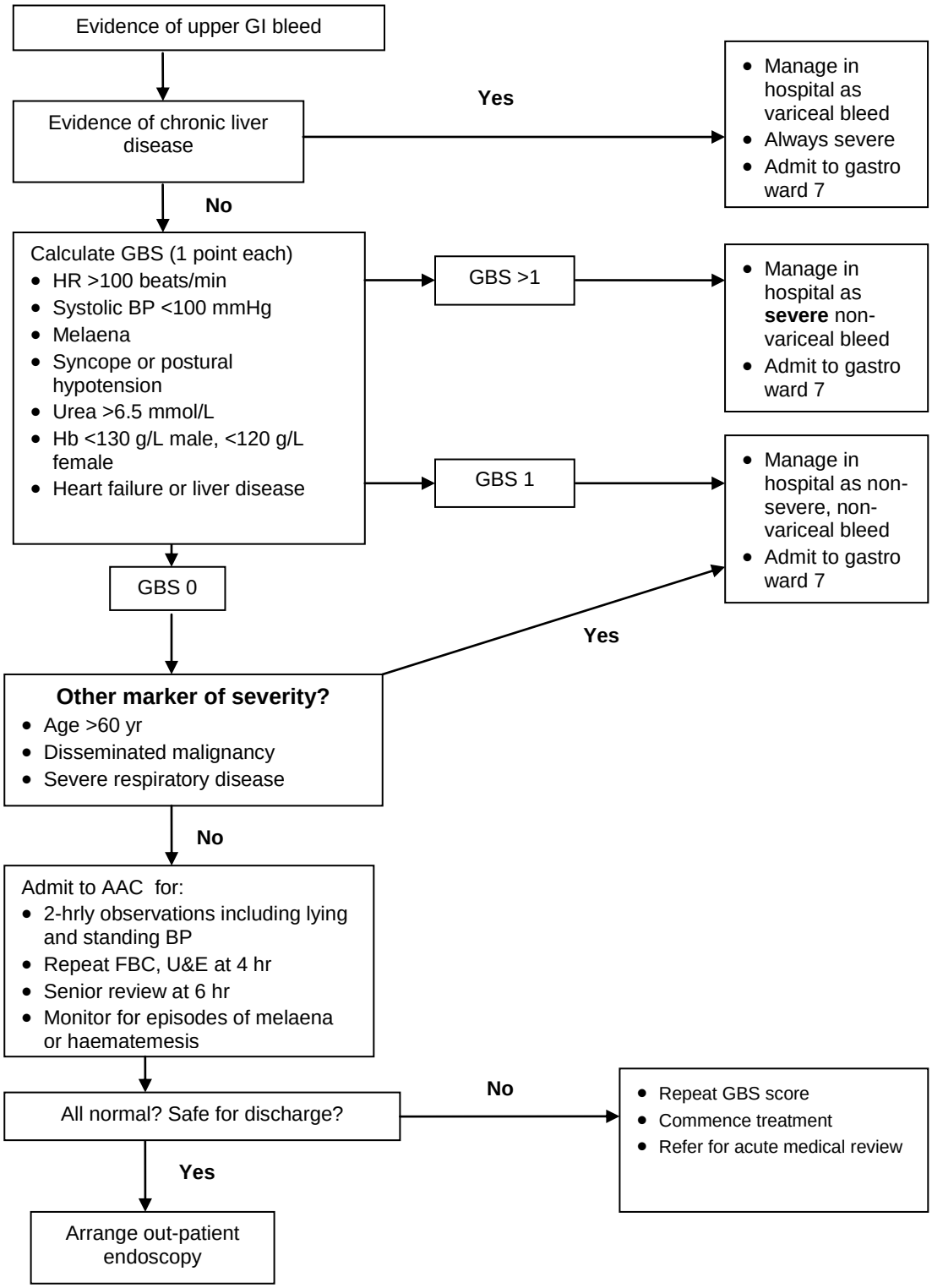
- Heart rate >100 beats/min and systolic BP <100 mmHg, or postural hypotension (fall ≥20 mmHg 3 min after standing)

- Recent syncope
- Melaena
- Heart failure or liver disease
- Haemoglobin (Hb) <130 g/L (male), or <120 g/L (female)
- Urea >6.5 mmol/L.

Additional markers of severity:

- Rebleeding after admission
- GI bleeding arising after admission with another condition
- Actively bleeding ulcer or visible non-bleeding vessel at endoscopy
- Disseminated malignancy
- Severe respiratory disease.

Figure 1 is an aid to judgement:



Investigations

All

- FBC
- U&E.

Non-severe bleeding

- Group and save (non-urgent).

Severe bleeding

- INR
- LFTs
- Crossmatch (4 units) – notify blood transfusion laboratory of clinical problem and degree of urgency.

3. MANAGEMENT – AAC

Observations – 2-hrly

- Heart rate
- BP: lying and standing at 3 min.

Investigations

- See above
- Repeat FBC and U&E 4 hr after admission to AAC.

Treatment

- None, unless specific cause or increase in severity identified.

Review

- After 6 hr.

Admission criteria

- Glasgow Blatchford score $\geq$1
- Further episode of GI bleed
- Haemodynamic instability
- Abnormal blood results.

4. PATIENTS FOR POSSIBLE DISCHARGE

Criteria for AAC discharge and out-patient endoscopy

- Glasgow-Blatchford score 0
- No co-morbidities requiring acute admission
- Patient information pack provided to patient
- Request OGD on as urgent out-patient
- Give patient copy of discharge letter.

5. PATIENTS REQUIRING ADMISSION

Non-severe non-variceal bleeding:

- Baseline observations with a view to upper GI endoscopy within 24 hr/next available endoscopy list

- Wide bore IV access
- Allow food and drink until 4 hr before endoscopy
- No treatment necessary before endoscopy
- Send patient GI Ward 7.

Severe non-variceal bleeding:

The first priority is to replace fluid loss and restore BP

- Insert two large bore (14–16 G) venous cannulae
- Infuse compound sodium lactate (Hartmann's) solution (or, alternatively, sodium chloride 0.9%) 1–2 L over 30–120 min to achieve systolic BP >100 mmHg
- In patients with significant cardiac disease, consider inserting central venous pressure (CVP) line to guide IV fluid replacement
- Stop antihypertensive, diuretics, NSAIDs, anticoagulants, aspirin
- Measure urine output. Adequately resuscitated patients have urine output of >30 mL/hr
- Keep patient nil-by-mouth
- If not already an in-patient **admit**, preferably to GI Ward 7
- Transfuse as soon as blood available – see **Blood and blood products** guidelines
    - Prefer packed cells
    - If 50% of total blood volume loss in 3 hr, follow **Massive haemorrhage protocol** with blood bank to obtain blood products rapidly – see **Massive haemorrhage protocol** on Trust intranet>Clinicians>Clinical guidance>Blood and blood products> or use flowchart within **Maximum surgical blood ordering schedule** guideline in **Surgical** guidelines
- Once resuscitation has begun, give IV omeprazole – 80 mg by IV infusion over 40–60 min, then by continuous IV infusion of 40 mg in 100 mL sodium chloride 0.9% at 20 mL/hr (8 mg/hr) for 72 hr. Arrange upper GI endoscopy .Discuss with any endoscopist doing a list in person
- Out of hours. If the patient has had a severe UGIB with GBS score 1 or above contact DW/AP/MG/FA if they are the physician on call. If not, contact on call surgical team

- If it is not possible to arrange emergency out of hours endoscopy then discuss case with on call Consultant and contact the on call Endoscopist for Royal Derby Hospital via RDH switchboard (on 01332 340131) for further advice. If patient is to be transferred, refer to the Transfer of Patients Policy.
    - After preliminary resuscitation, discuss all patients with severe non-variceal bleeding with on-call surgical team
        - If doubt about realistic possibility of surgery, duty surgeon and duty physician to review patient in consultation
        - If any difficulties are encountered with this policy, inform on-call consultant physician
    - Indications for surgical intervention (or interventional radiology under surgical care) are:
        - Exsanguinating haemorrhage (too fast to replace or requiring >4 units of blood to restore blood pressure)
        - Failed medical therapy

- Special situation (e.g. patients with rare blood group or refusing blood transfusions).

Oesophageal variceal bleeding:

Haemorrhage from oesophageal varices is always life-threatening

- Identify patients from clinical history, previous hospital notes or by clinical signs (e.g. jaundice, ascites, spider naevi)
- Insert two large bore (14–16 G) venous cannulae, one in each antecubital fossa. In patients with significant cardiovascular disease, a CVP line is advisable
- Initially infuse sodium chloride 0.9% 1 L over 2–4 hr:
    - If Hb <100 g/L, transfuse one unit of blood for every g/L <100 g/dL – see **Blood and blood products** guidelines
- Correct raised INR with fresh frozen plasma but prothrombin complex recommended for major bleeding associated with warfarin (see **Warfarin** Policy)
- Continue fluid replacement, aiming to restore heart rate <100 beats/min, systolic BP
  >80 mmHg and Hb ≥100 g/L, but avoid rapid fluid replacement as it increases risk of rebleeding
- Whilst awaiting endoscopy, give terlipressin 2 mg IV bolus then 1 mg 6-hrly, duration directed by endoscopist
- If haemorrhage still not controlled, discuss with gastroenterology team
- Give co-amoxiclav 625 mg oral or 1.2 g IV 8-hrly for three days
    - In penicillin allergic patients give Meropenen 0.5 g IV 8-hrly and metronidazole oral 400 mg 8-hrly or 500 mg IV by infusion 8-hrly for three days. If previously MRSA colonised, add vancomycin IV by infusion – see **Vancomycin** guideline
    - Always obtain blood culture before giving an IV antimicrobial – see **Collection of blood culture specimens** guideline
- If septic – see **Sepsis, severe sepsis and septic shock** guideline
- In patients with grade 4 encephalopathy – see **Acute liver failure with encephalopathy** guideline, discuss endotracheal intubation with gastroenterology team and, if decided appropriate to intubate, contact critical care team
- If not already in-patient, admit to ward 7
- Contact gastroenterology team for advice on further management.

Do not refer to surgical team

6. SUBSEQUENT MANAGEMENT

Non-variceal bleeding:

- Continue observations until outcome of upper GI endoscopy known
- Follow advice appearing on endoscopy report.

Preferred eradication regimen for *Helicobacter pylori* is:
Omeprazole 20 mg oral 12-hrly
Amoxicillin 500 mg oral 8-hrly
Metronidazole 400 mg oral 8-hrly
for one week, then continue omeprazole 20 mg oral daily for 6 weeks

In patients allergic to penicillin:
Omeprazole 20 mg oral 12-hrly
Clarithromycin 250 mg oral 12-hrly
Metronidazole 400 mg oral 12-hrly
for one week, then continue omeprazole 20 mg oral daily for 6 weeks
Absolute compliance with this regimen is essential in order to achieve an eradication rate of 90%

Simvastatin contraindicated in combination with clarithromycin and restricted to ≤20 mg in patients taking amlodipine (see current BNF for other interactions)

- After successful eradication of *Helicobacter pylori* and course of PPI for ulcer healing, if NSAID therapy must be reintroduced, continue omeprazole 20 mg oral daily for as long as NSAID required
- If neoplasm identified, refer to upper GI cancer nurse specialist.

Patients who rebleed:

- if an otherwise stable patient who is potentially referable for surgery rebleeds, request **urgent** endoscopy and discuss with on-call surgical team

Indications for surgical intervention:

- Exsanguinating haemorrhage (too fast to replace)
- Failed endoscopic therapy
- Major rebleed after successful endoscopic therapy
- Special situation (e.g. patients with rare blood group or patients refusing blood transfusion) – a major bleed may warrant early surgery
- Once agreed with surgical team, transfer high-risk patients to SAU.

Variceal bleeding:

- Contact gastroenterology team for advice on management:
- If not admitted directly, transfer patient to GI ward 7.

7. MONITORING TREATMENT

All patients:

- 4-hrly heart rate and BP
- Observe vomit for blood content and stool chart for melaena
- Daily Hb until it is stable (not falling)
- In patients with severe bleeding, urine output – aim for >30 mL/hr.

8. DISCHARGE AND FOLLOW-UP

- Discharge when stable.

Non-variceal bleeding:

- If *H.pylori* positive **duodenal** ulcer*,* arrange faecal antigen testing for *H pylori* >4 weeks after completion of eradication therapy
- If *H.pylori* positive **gastric** ulcer, ask GP to arrange faecal antigen testing for *H pylori* >4 weeks after completion of eradication therapy and repeat upper GI endoscopy to check healing 6–8 weeks following discharge
- If Hb still <100 g/L, start ferrous sulphate 200 mg oral 8-hrly.

- **Non-severe bleeding with transient pathology (e.g. Mallory–Weiss tear, acute erosion):**
- Discharge promptly after endoscopy with no follow-up.

- **Non-severe bleeding and ulcer-related disease:**
- Discharge young stable patients (aged <45-yrs) promptly after endoscopy
- Discharge older patients (aged >45-yrs) when their condition is stable.

- **Severe bleeding and ulcer-related disease:**
- Discharge when condition and Hb stable.

Variceal bleeding:

- Start propranolol 40 mg oral 12-hrly, unless contraindicated, as prophylaxis for further variceal bleeding
- Contact service week Gastroenterologist via switchboard 09:00-17:00 weekdays.

Neoplasia:

- Discuss further investigation and treatment with upper GI cancer team – contact cancer nurse specialist.