Acute Upper Gastrointestinal Bleeding

(Guidelines for the management of patients presenting with haematemesis or melaena)

Acute GI bleeding is a serious disorder with a mortality of 14%. Mortality is increased in the elderly and in patients with severe co-morbidity. The key to management is adequate support of the circulation. Endoscopy is undertaken once resuscitation has been achieved.

Assessment :

Is the patient hypovolaemic? (any of the following)

Pulse >100 per minute

BP systolic <100mm Hg, postural drop >10 mm Hg

Cold clammy peripheries

History : Haematemesis / Melaena

Liver disease, alcohol, NSAID's, Anticoagulants, Peptic Ulceration

Management :

1) Obtain venous access : insert a minimum of 2 green venflons (18G, 80 ml/minute)
2) FBC, U&Es, INR, Group and Save/ Crossmatch (see below)
3) Resuscitate : -colloid or blood to achieve systolic >100 (consider O Negative blood in emergency)
   -correct clotting abnormalities
4) Determine Risk Assessment :
   i) Is a variceal bleed likely ?
      (Liver disease, Jaundice, Ascites, Alcohol Abuse)
   ii) Calculate Rockall Score for all patients (use form below):

For non-variceal bleeding a **Rockall score of <2 indicates low risk**.
For non-variceal bleeding a **Rockal score of 2 or more indicates high risk.**
5) Complete Rockall form below and fax to endoscopy

Further Management of Non-variceal bleeds.

Low Risk Patients :

Group and save only

Keep nil by mouth until timing of endoscopy known

Arrange OGD on next available list (fax Rockall form)

Discharge after OGD if no risk factors for rebleeding are found on OGD.

High Risk Patients :

-Cross Match at least 4 units

-Resuscitation with blood and / or colloid

Aim for a Hb of 10 in non-variceal patients (Hb of 8 in varices).

If haemodynamically stable and Hb >10, then most patients <u>will not</u> need a transfusion. Over-transfusion can be harmful and is to be avoided.

-Insert urinary catheter to monitor urine output

-Consider CVP line for access or if co-morbidity makes fluid management difficult (ie severe cardiac or renal disease).

-Management on HDU is usually required if patient is ill enough to require CVP line, has major co-morbidities, is haemodynamically unstable or has continued large volume haematemesis / melaena or is likely to need surgery.
-Senior Review (Inform Medical Registrar)
-Inform surgeon (Registrar or Consultant)
-If haemodynamically unstable or continued large volume haematemesis contact GI team / endoscopist (see below).

-IV H_2 blockers or IV PPI's are not currently indicated until after endoscopy (if endoscopy is arranged in the first 24-48hrs after admission)

Potential Variceal Patients :

The mortaility for this presentation is approximately 50%. Terlipressin, endoscopic therapy and antibiotics all improve mortality rates. As with non-variceal bleeding, resuscitation is the key initial procedure, although endoscopic therapy plays a greater part.

Management :

1) Obtain venous access : insert a minimum of 2 green venflons (18G, 80 ml/minute)
2) FBC, U&Es, INR, Crossmatch 6-8 units
3) Resuscitate : -colloid or blood to achieve systolic >100 (consider O-negative blood in emergency)
   -The aim of resuscitation is to have a haemodynaically stable patient with a target Hb of 8.
   -correct clotting abnormalities
   -IV Terlipressin (2mg bolus, then 1-2mg QDS for up to 72 hours).
Terlipressin should be used with caution in patients with Ischaemic Heart Disease)
4) Insert urinary catheter
5) Senior Review (Medical registrar)
6) Contact Endoscopist to arrange OGD
7) If Endoscopy confirms varices then start antibiotics (Tazocin or if Penicillin allergy then Meropenem)

Arranging Endoscopy for GI bleed patients.

1) Completing and Faxing the Rockall Form (below) to endoscopy will ensure that the patient is added to the next available endoscopy list, usually within 24-48 hours. This is appropriate for most patients.
   (NB at weekends there is no-one standing by the Fax machine : please ring the on-call endoscopist)
2) If the patient is a suspected variceal bleed or the patient is unstable despite initial resuscitation then a more urgent referral is needed :-
   a. Weekday (Mon-Fri 9am-5pm) : ring endoscopy unit; extn 4191 / 5191.
   b. Weekend or Weekday after 5pm ring on-call endoscopist via switchboard. It is anticipated that patients will be reviewed and referred to the endoscopist by SpR or consultant.

Indications for surgery in bleeding peptic ulcer are :-
Age <60 years : Failure at OGD to stop bleeding and/or >8 unit blood transfusion. Or second rebleed.
Age >60 years : Failure at OGD to stop bleeding and/or 4 unit blood transfusion. Or first rebleed.

Post Endoscopy management of GI bleed.

The endoscopy will usually guide the further management, however there are some simple rules that should generally be followed.

-Patients should have daily bloods (minimum of FBC, usually U/E and if indicated clotting) until stable for $\geq$ 24 hrs.

-If any sign of re-bleed (falling Hb or recurrent haematemesis / melaena) then patient should be discussed with senior to determine if surgery or repeat OGD is indicated.

-Those at high risk of re-bleed are treated with omeprazole infusion :-
80 mg bolus (over 5 mins)
+ 8 mg / hr infusion for 72 hrs (40 mg in 100mls N/saline at 20 mls per hour).

-Those at high risk of re-bleed should have at least 4 units of blood cross-matched.

-All patients with gastric ulcer will need plans made before discharge to rescope in 6-8 weeks to ensure healing.

-If discharged on H.Pylori eradication ensure TTO's indicate if and how long any PPI should be continued for. PPI usually needed for 8 weeks.

-All patients with a variceal bleed need antibiotics ((Tazocin or if Penicillin allergy then Meropenem)

"Rockall Form" : available on all medical wards

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Assessment Sheet

Affix Patient Label

Adequate assessment prior to the dispersal of patients to outlying wards is essential since these patients tend to deteriorate several hours after admission, ie when the admitting team is not around. Inadequate assessment or resuscitation at the outset therefore prejudices their management.

The following points MUST be recorded before the patient leaves the assessment area :

Venous Access x 2 ☐

Haematemesis ☐ Melaena ☐

Admission Systolic BP ……

Admission Pulse ……

Hb ……

INR ……

Urea ……

Referred to Endoscopy Unit ☐ **Senior Review** ☐

Terlipressin Given ☐

(Terlipressin should be given to all potential variceal bleed patients)

Risk Assessment :

The history and examination enables patients to be classed as those who are likely to have Non-Variceal bleeds or those who have Potential Variceal bleeds (variceal bleed patients carry high mortality and their management is outlined overleaf). For the non-variceal bleeds the Rockall system is useful to determine high or low risk patients:-

Rockall Score Calculation **:**

A subtotal score for each of the 3 categories (Age, Shock and Co-morbidity) needs to be determined and these are then added together to give a Total Rockall Score (range 0-7).

Age	score
<60	0
60-79	1
80	2
Subtotal	

Shock	score
Systolic >100 Pulse <100	0
Systolic <100 **Pulse >100**	1
Systolic <100	2
Subtotal	

Co-morbidity	score
Nil significant	0
Renal or Liver Failure or disseminated cancer	3
Subtotal	

Enter the total Rockall Score here: ……

For non-variceal bleeding a **Rockall score of <2 indicates low risk**.

For non-variceal bleeding a **Rockall score of 2 or more indicates high risk.**

Indicate the most appropriate risk category here :-

Low Risk Non-variceal ☐ High Risk Non-variceal ☐ Potential Variceal☐