CrackCast Episode 30 – GI Bleeding

Episode overview:

1) List 5 causes of UGIB in adults and pediatrics
2) List 5 causes of LGIB in adults and pediatrics
3) Describe your management approach for severe UGIB
4) List 6 low-risk criteria D/C of GIB
5) List components of the Rockall and Glasgow-Blatchford score

Wisecracks:

1) Describe the insertion of a Blakemore tube
2) List 6 causes of false positive stool guaic

Rosen's in perspective:

Large burden of disease

- More than 1 million admissions in US per year.

Risk factors:

- Medication use:
  - Aspirin
  - **NSAIDs**
  - Steroids
  - **Anticoagulants (warfarin, heparin)**
  - Chemotherapeutic agents
- **History of PUD**
- **Known liver disease**
- **Cirrhosis**
- **Advanced age >60**
- **Alcoholism**
- Current Smoker
- Chronic medical comorbidities
  - CHF
  - Diabetes
  - Renal Failure
  - Malignancy
  - CAD
- **History of AAA or graft**

Anatomic classification: Upper versus Lower

Above ligament of treitz (distal duodenum) is upper gastrointestinal bleed **(UGIB) mortality 12-14%**
Below ligament of treitz is lower gastrointestinal bleed **(LGIB) mortality 4%**.
UGIB - think hematemesis and melena and HIGH BUN
LGIB - think hematochezia (BRPR versus maroon stools)
Two major but rare causes of severe, life threatening GIB: Variceal bleeds and Aortoenteric fistula.

Don't forget about mimics:

UGIB	LGIB
Epistaxis Hemoptysis Dental Bleeds Red Food Colouring Bismuth/Iron supplements	Vaginal Bleeding Gross Hematuria Red Foods (BEETS)

1) List 5 causes of UGIB in adults and pediatrics

Rosen's 8th Edition – Table 30 – 1.

Adults	Pediatrics
Peptic ulcers (gastric more than duodenal) Gastric erosion Esophagogastric varices Mallory-Weiss tears Esophagitis Gastric cancer	Duodenal ulcers Gastric ulcers Esophagitis Gastric erosion Esophageal varices Mallory-Weiss tears

Question 2) List 5 causes of LGIB in adults and pediatrics

Rosen's 8th edition. Table 30 -2.

Adult	Pediatrics
Diverticular disease Angiodysplasia Colitis (inflammatory, infectious, ischemic) Anorectal sources Neoplasm Upper GI bleeding	Anorectal fissure Infectious colitis Inflammatory bowel disease Juvenile polyps Intussusception Meckel's diverticulum

3) Describe your management approach for severe UGIB

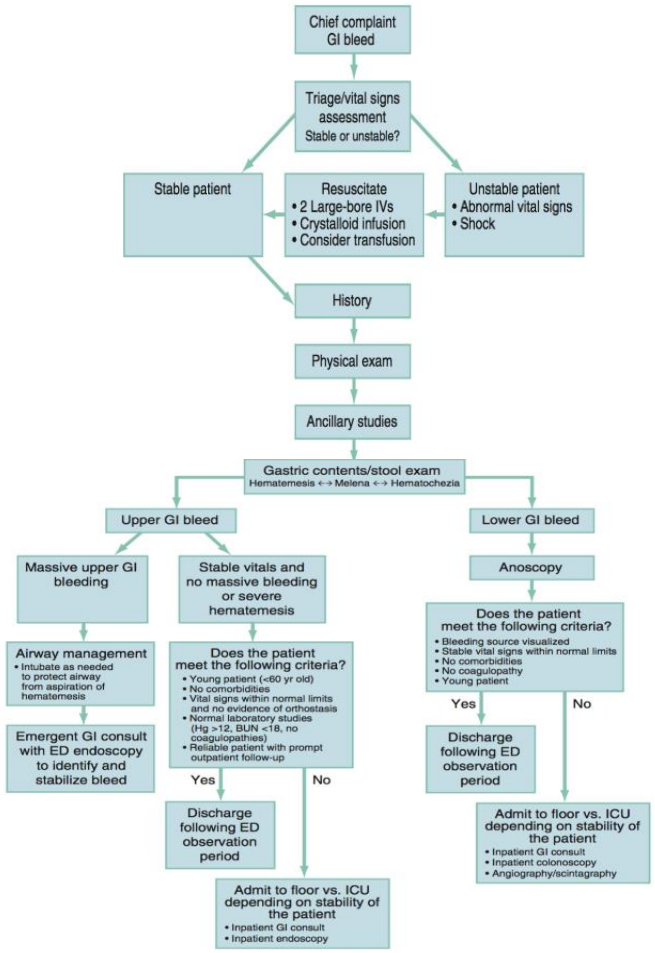

Figure 30-1. Diagnostic and management strategies for gastrointestinal bleeding. *BUN,* blood urea nitrogen; *ED,* emergency department; *GI,* gastrointestinal; *Hg,* hemoglobin; *ICU,* intensive care unit; *IV,* intravenous.

4) List 6 low-risk criteria for safe discharge of GIB

Upper:

- **no comorbid diseases**
- **normal vital signs**
- **normal or trace positive result on stool guaiac testing**
- negative findings on gastric aspiration
- **normal hemoglobin and hematocrit**
- good support systems
- **proper understanding of signs and symptoms of significant bleeding**
- **immediate access to emergent care**
- follow-up within 24 hours

Lower: **ADMIT** if not clearly hemorrhoids, fissure, or proctitis

5) List components of the Rockall and Glasgow-Blatchford score

Table 30-4 Clinical Rockall Risk Score*

	Score			
VARIABLE	**0**	**1**	**2**	**3**
Age (years)	<60	60-79	≥80	
Shock		HR >100 beats/min	SBP <100 mm Hg, IHD, CHF, any major comorbidity	Renal failure, liver failure, metastatic malignancy

CHF, congestive heart failure; *HR*, heart rate; *IHD*, ischemic heart disease; *SBP*, systolic blood pressure.
*Scores are calculated without endoscopic findings, and patients with scores greater than 0 are considered at high risk for developing adverse outcomes (recurrent bleeding, death).

Table 30-3 Blatchford Score*

ADMISSION RISK MARKER	SCORE COMPONENT VALUE
Blood urea nitrogen level (mg/dL)	
≥18.2 to <22.4	2
>22.4 to <28	3
>28 to <70	4
>70	6
Hemoglobin level for men (g/dL)	
>12 to <13	1
≥10 to <12	3
<10	6
Hemoglobin level for women (g/dL)	
≥10 to <12	1
<10	6
Systolic blood pressure (mm Hg)	
≥100 to <109	1
>90 to <99	2
<90	3
Other markers	
Pulse rate ≥100 beats/min	1
Presentation with melena	1
Presentation with syncope	2
Hepatic disease	2
Heart failure	2

*Range of scores is from 0 to 23 with high risk greater than 0.

Wisecracks:

1) Describe the insertion of a Blakemore tube

See http://emcrit.org/procedures/blakemore-tube-placement/

How to Do it:

1. Patient should be intubated and the head of the bed up at 45 degrees.
2. Test balloons on Blakemore and fully deflate. Mark salem sump at the 50 cm mark of the Blakemore with the tip 2 cm above gastric balloon and then 2 cm above esophageal balloon.
3. Insert the Blakemore tube through the mouth just like an NGT. You may need the aid of the laryngoscope and sometimes McGill forceps. Make sure the depth-marker numbers face the patient's right-side.
4. Stop at 50 cm. Test with slip syringe while auscultating over stomach and lungs. Inflate gastric port with 50 ml of air or saline.
5. Get a chest x-ray to confirm placement of gastric balloon in stomach.
6. Inflate with additional 200 ml of air (250 ml total)
7. Apply 1 kg of traction using roller bandage and 1 liter IV fluid bag hung over IV pole. Mark the depth at the mouth. The tube will stretch slightly over the next 10 minutes as it warms to body temperature.
8. After stretching, the tube may be secured to the ETAD tube holder.
9. Insert the salem-sump until the depth marked gastric is at 50 cm on the Blakemore. Suction both Blakemore lavage port and salem sump. You may need to wash blood clots out of the stomach with sterile water or saline.
10. If bleeding continues, you will need to inflate esophageal balloon.
11. Pull salem sump back until the esoph. mark is at the 50 cm point of the Blakemore. Attach a manometer to the second 3-way stopcock on the esophageal port of the Blakemore. Inflate to 30 mm Hg. If bleeding continues, inflate to 45 mm Hg.
12. Consider switching traction to Hollister ETAD Device.

2) List 6 causes of false positive stool guaic

False positives can be triggered by ingestions of red meat, turnips, horseradish, vitamin C, methylene blue, and bromide preparations.