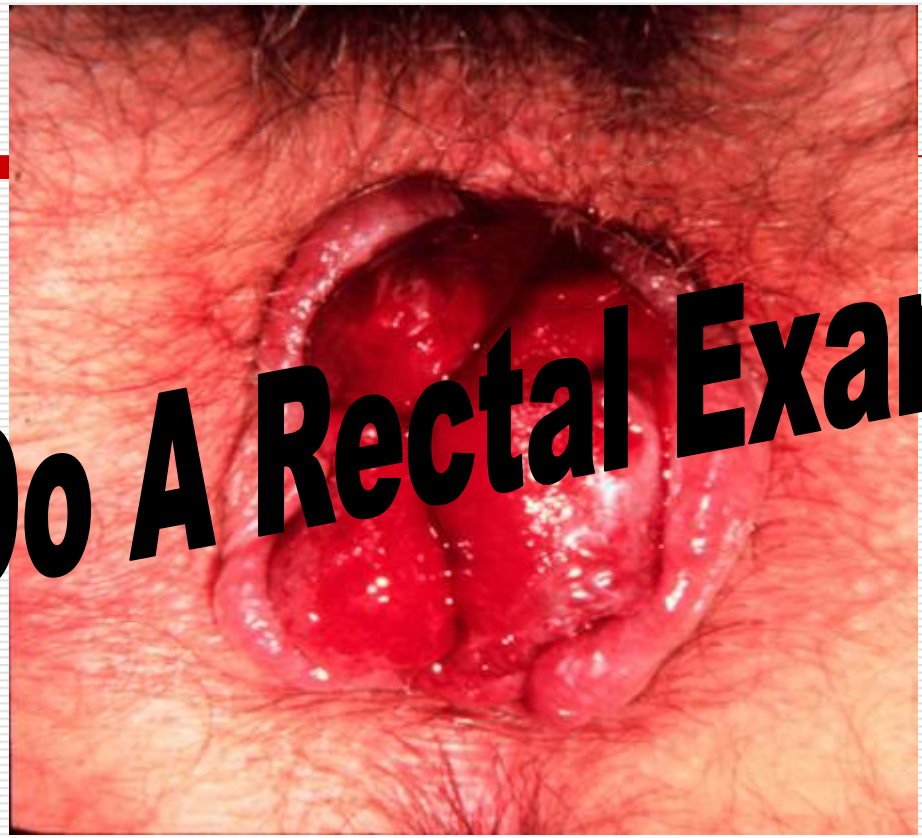
ACUTE GIB



The Essentials for Internal Medicine Residents

Five things I want you to Remember

- When in doubt, go to GI website
- All cirrhotics with GI bleed get ABX
- DO A RECTAL EXAM
- Describe stool as bloody (red or MELENIC) or nonbloody (not “darkish” not “heme +”)
- All patients with GIB’s don’t need emergent endoscopy

OBJECTIVES

- How to assess/prognosticate patients with GIB
- Differential Diagnosis for GIB
  - UGIB
  - LGIB
- Treatment of GIB
- What to do with Anticoagulation

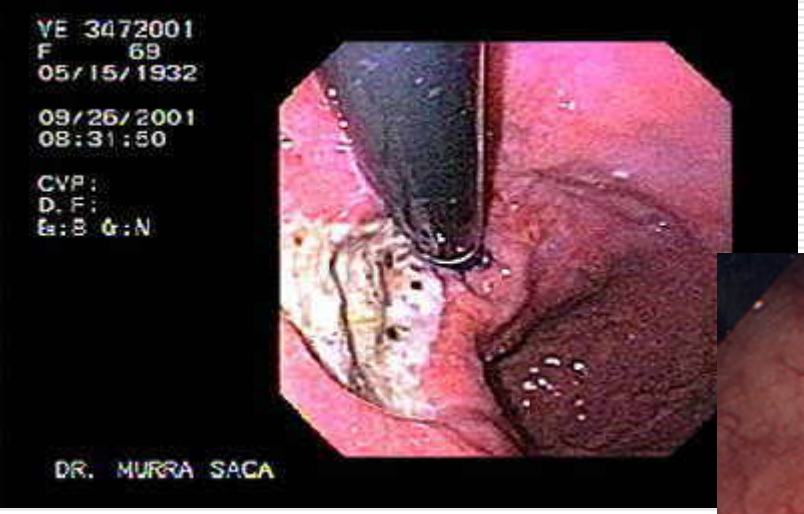
IF YOU DON'T HEAR ANYTHING ELSE

- ALL CIRRHOTIC PATIENTS WITH GIB GET….

ABX

Flouroquinilone or 3rd gen Cephalosporin

7 DAYS!!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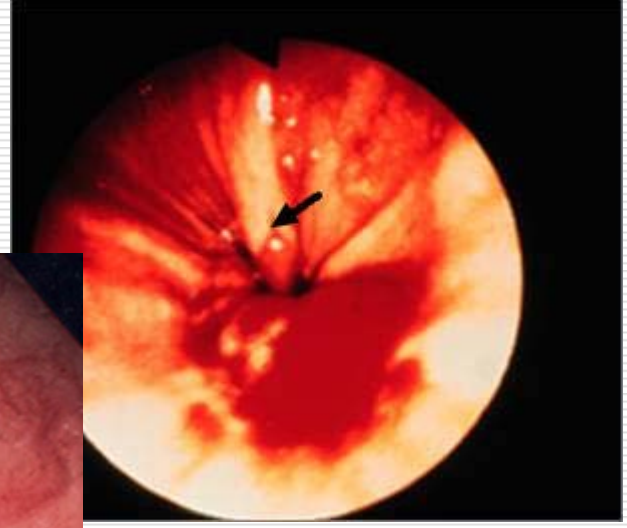
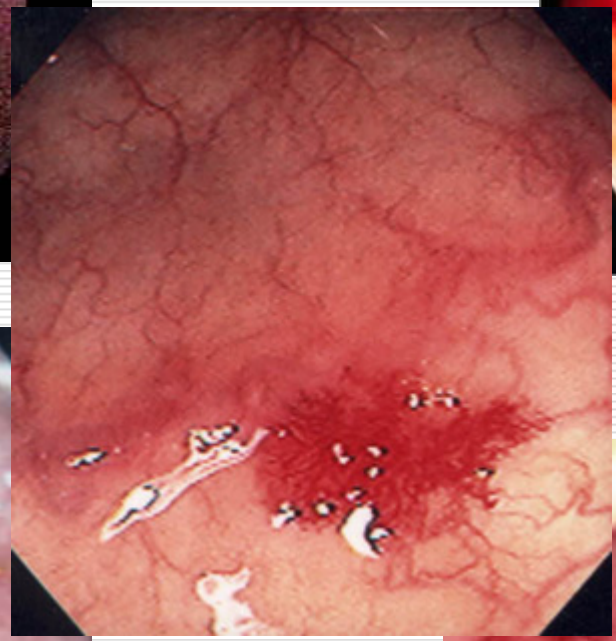
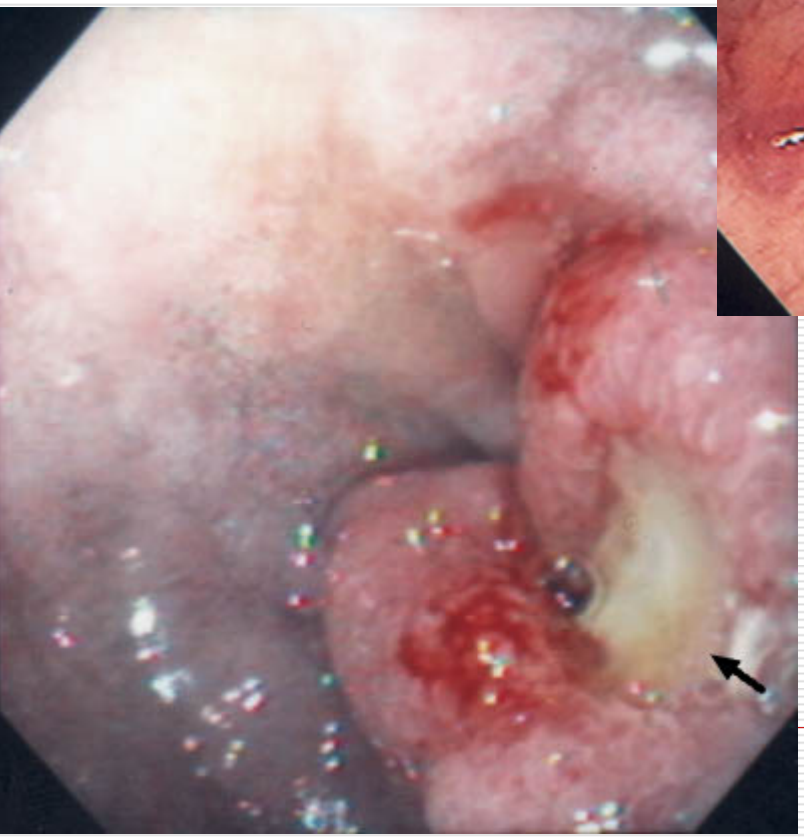
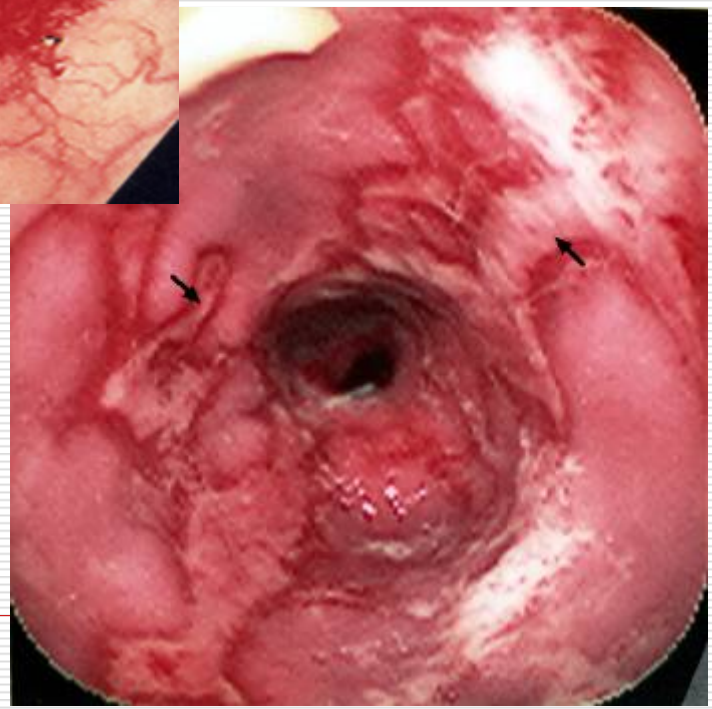
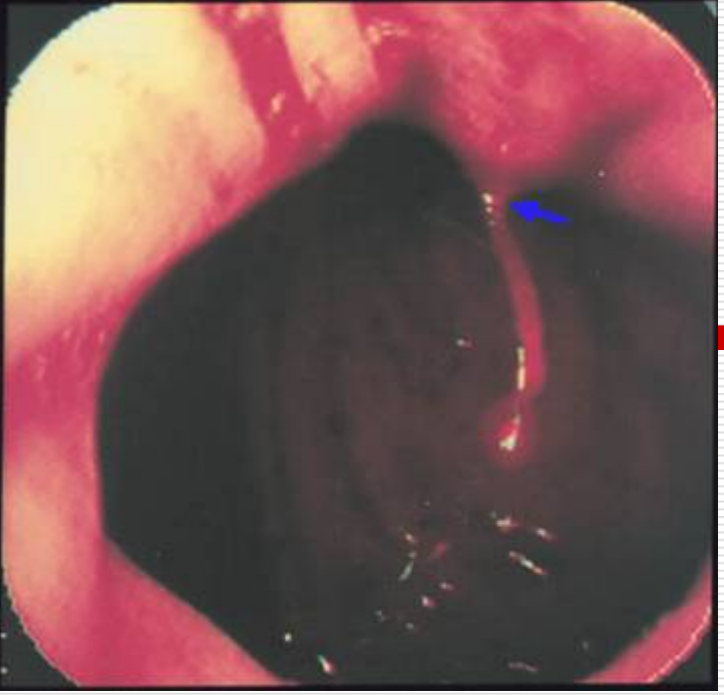
DR. MURRA SACA

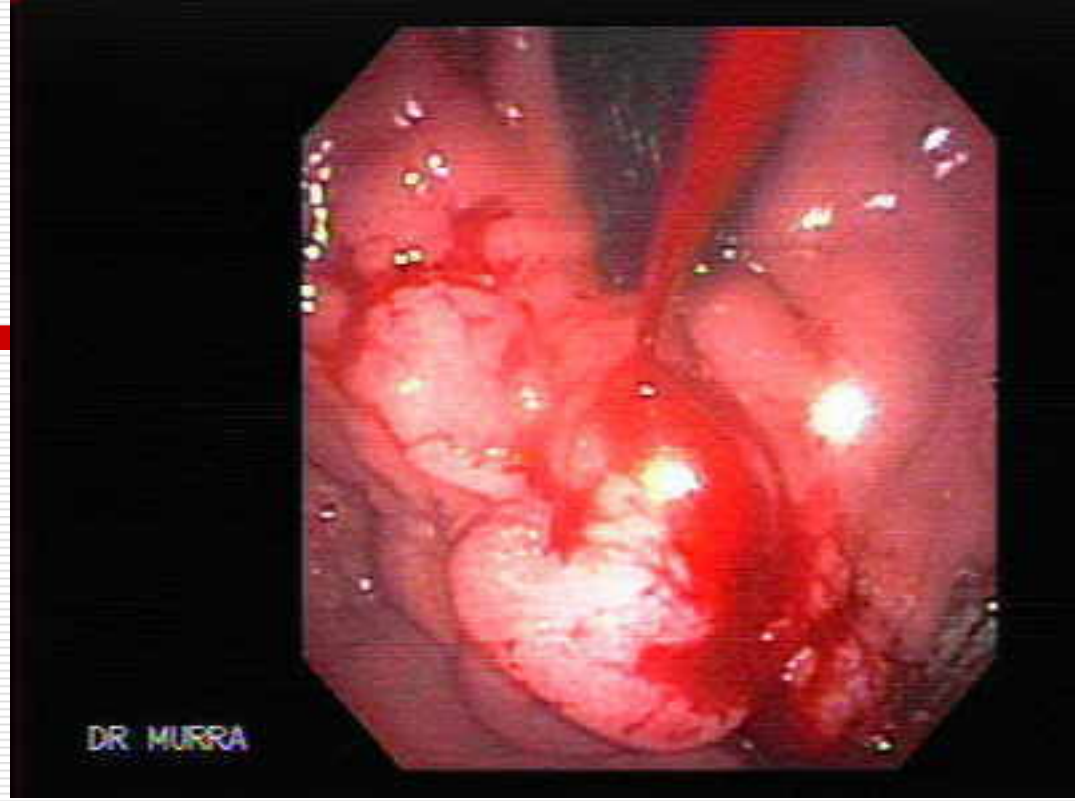


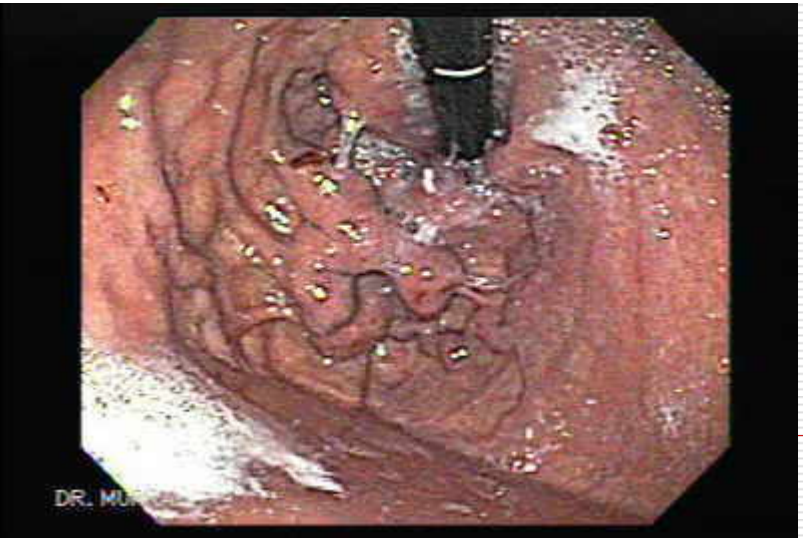


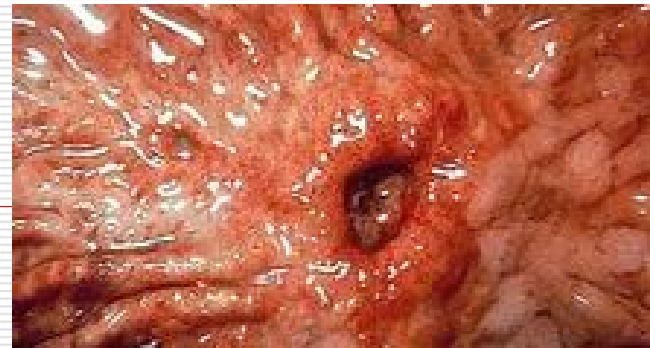







DR MURRA





Clinical Senario #1

- 48 y/o aam with ef ~10%. Bloody ng aspirate with negative rectal and stable hgb. On assesment: confused and hypotensive on two pressors going through peripheral IV's. SBP ~ 70.
- What would u do as a GI fellow?

Clinical Senario #2

- 50 y/o AAF with bloody diarrhea and hgb 6.9. According to intern vitals are stable and when asked what the rectal shows, he/she replies: “the er says it was heme +, we just need to get her scoped tomorrow b/c its Friday”
- What would you say/do?

Clinical Senario #3

- 35 y/o with knawing epigastric pain x 1 month presents with melena. Hgb 10. vitals normal and not orthostatic.
  - What is likely endoscopic finding?
  - If endoscopic finding is confirmed, does patient require hospitalization?

Clinical senario #4

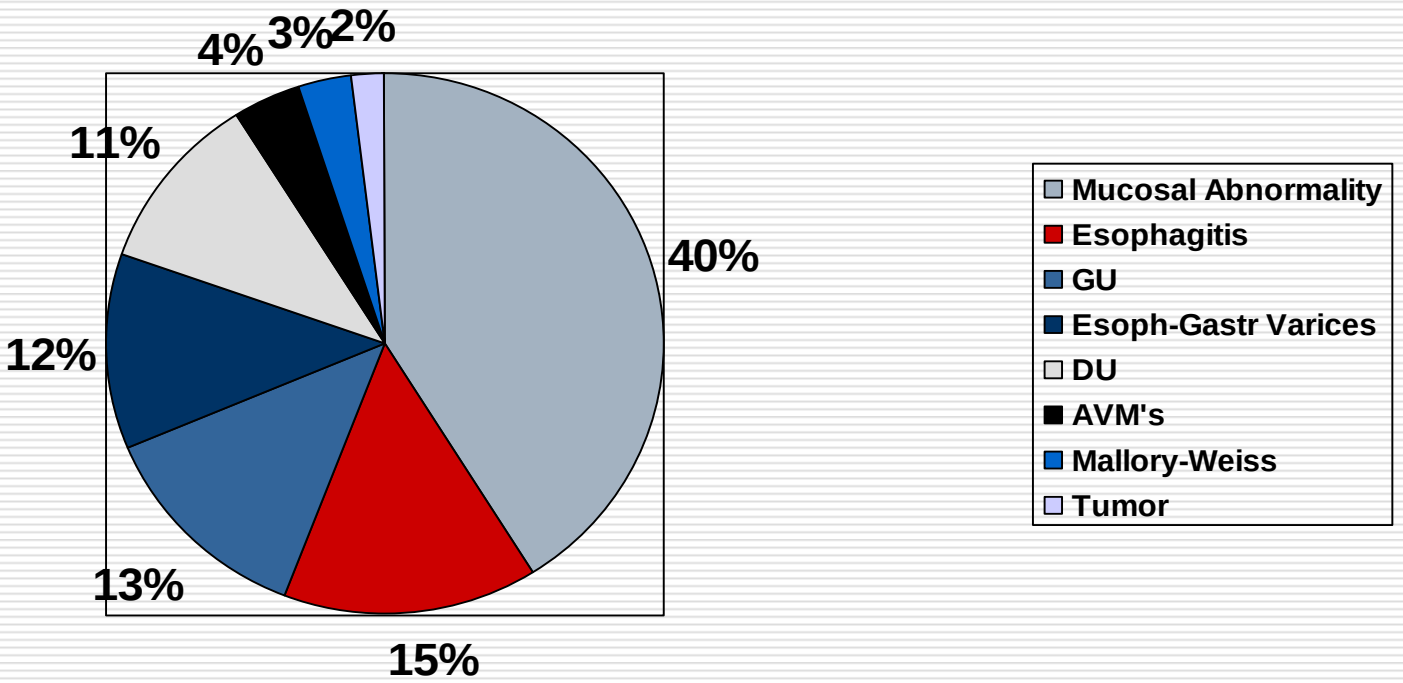
- 50 y/o cirrhotic with one episode of melena. + tachycardia but normotensive and not orthostatic.
- Should this patient get urgent endoscopy?
- What medicines should you start prior to calling fellow?
- Is the patient at risk of infection?

UGIB

- Incidence: 36-100 per 170,000 persons
- 40% > 60 years old
- Self limited in 80%
- EGD in < 24 hours done in 90%
- Endoscopic hemostasis done in 25%

Causes of UGI Bleeding

Boonpongmanee S et al. Gastrointest Endosc 2004;59:788



Historical clues and UGIB's

- **Mallory-Weiss tear**: Emesis before hematemesis, alcoholism
- **Esophageal ulcer:** Odynophagia, GERD, esophagotoxic pill ingestion
- **Peptic ulcer:** Epigastric/RUQ pain, NSAID or aspirin use
- **Stress gastritis:** Patient in an ICU, gastrointestinal bleeding occurring after admission, respiratory failure, multiorgan failure
- **Varices/portal gastropathy:** Alcoholism, cirrhosis
- **Gastric antral vascular ectasia:** Renal failure, cirrhosis
- **Malignancy:** Recent involuntary weight loss, dysphagia, cachexia, early satiety
- **Angiodysplasia:** Chronic renal failure, hereditary hemorrhagic telangiectasia, Aortoenteric fistula, Known aortic aneurysm, prior abdominal aortic aneurysm repair

Acute Upper Non-Variceal Bleed

Mortality & EGD Timing

- Mortality: 10,000 to 20,000 per year
  - Overall: 14 % (10-36%)
    - ***Admission*** for GI bleed: **11 %** mortality
    - GI bleed in ***the hospitalized***: **33 %** mortality

- Timing of EGD ("< 6 h", VS. "within 48 h")
  (Gastrointest Endosc 2004; 60:1-8) :
  - No effect in transfusion needs nor LOS
  - No effect on need for surgery
  - **No effect on mortality**
  - More "high risk" lesions found on early EGD (good for training & may decrease rebleeding rate).

Signs of UGI Bleed

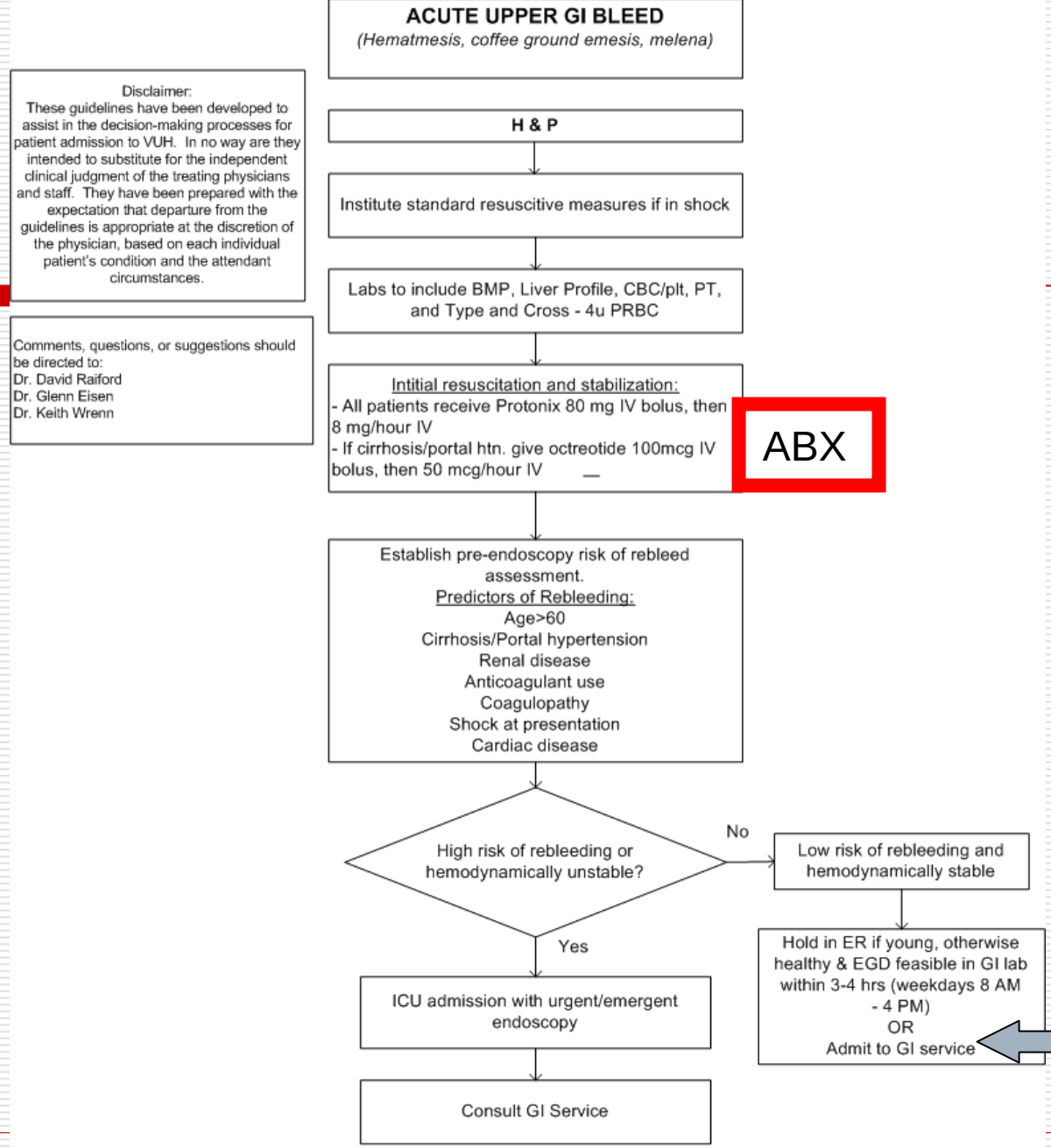
- Hematemesis (above ligament of Treitz)
- Coffee ground emesis (above lig. Treitz)
- Melena: may be upper or lower source
  - > 200 mL blood in stomach, or
  - Up to 150 mL blood in cecum)
- Hematochezia: usually lower source; 11% from upper source.
  - > 100 mL blood in Lt colon, or
  - > 150 mL blood in Rt colon, or
  - > 1000 mL upper bleed (orthostatic @ 3 min: BPs drop =/> 10 mmHg and/or HR increase > 20 bpm).

Utility of NGT Aspiration

- 50% of bleedings from duodenal lesion have (-) NGT aspirate (Gastrointest Endosc 1981;27:94-103)
- Compared with endoscopy, NGT aspirate has: 79% Sensitivity & 55% Specificity for active bleeding (Arch Intern Med 1990;150:1381-4)
- 14% of those with clear or bilious aspirate have high-risk lesions (Gastrointest Endosc 2004;59:172-8).
- 42% of those with blood in NGT aspirate, have “clean base” or “pigmented spot”.
- **To do NGT aspiration has limited prognostic value and does not change management.**

When to be Nervous

- Agitation
- Hypotension
- Pallor or Hemoglobin < 8 g/dL
- Tachycardia or Bradycardia (vagal)
- Orthostatic @ 3 minutes: 20% volume loss
- Sytolic Sytolic drop =/> 10 mmHg
- HR rise > 20/min


ACUTE UPPER GI BLEED
(Hematmesis, coffee ground emesis, melena)
Disclaimer:
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Comments, questions, or suggestions should be directed to:
Dr. David Raiford
Dr. Glenn Eisen
Dr. Keith Wrenn
H & P
Institute standard resuscitive measures if in shock
Labs to include BMP, Liver Profile, CBC/plt, PT, and Type and Cross - 4u PRBC
Intitial resuscitation and stabilization:
- All patients receive Protonix 80 mg IV bolus, then 8 mg/hour IV
- If cirrhosis/portal htn. give octreotide 100mcg IV bolus, then 50 mcg/hour IV
ABX
Establish pre-endoscopy risk of rebleed assessment.
Predictors of Rebleeding:
Age>60
Cirrhosis/Portal hypertension
Renal disease
Anticoagulant use
Coagulopathy
Shock at presentation
Cardiac disease
High risk of rebleeding or hemodynamically unstable?
No
Low risk of rebleeding and hemodynamically stable
Yes
ICU admission with urgent/emergent endoscopy
Consult GI Service
Hold in ER if young, otherwise healthy & EGD feasible in GI lab within 3-4 hrs (weekdays 8 AM - 4 PM)
OR
Admit to GI service
NEVER
7/14/03

General Measures

- Consider airway
- Get large volume IV access
- Resucitate with NS
- Start blood transfusion (goal Hct 30%; >20% in young)
- Consider anesthesia consult
- Antibiotics in cirrhotics (Norfloxacine or Ceftriaxone)

General Measures

- FFP for coagulopathy (15 mL/kg)
- Platelet transfusion if platelets < 50K (1 single donor unit, or 1 random pooled unit/ 10 kg)
- Surgery consult
- Erythromycin 250 mg IV, 30-120 minutes before EGD (clears stomach 82% vs. 33% with placebo).

What to do with Coumadin or Plavix

- Main goal is early therapeutic endoscopy with minimal or no interruption of anticoagulant/antiplatelet therapy.
- Consult with Cardiologist.
- Evaluate: risk of continuous/recurrent bleed and severity of hemorrhage, vs risk of thrombosis.
- WARFARIN
  - Give FFP until INR is 1.5-2.5.
  - In high risk for thrombosis consider IV heparin
    - A.Fib w valv dz
    - Mech Mitral valve
    - prev thromboemb
    - Thrombophilia synd
- CLOPIDOGREL
  - In drug eluting coronary stent, risk is highest for initial 6 mo and remains high for 1 year.
  - In bare stents risk is highest for 1 month.
  - **In high risk, maximal discontinuation of clopidogrel should be 5 days**
  - **days**
  - Consider using ASA while off clopidogrel.

Key early decisions in the medical management of acute upper gastrointestinal bleeding

Triage

Admit to hospital versus discharge from emergency room
Admit to ICU versus monitored bed versus unmonitored hospital bed
Emergency versus routine gastroenterology consult
Surgical consult or not

Intensive monitoring

Nasogastric tube insertion or not
Central venous line or Swann-Ganz catheter or not
Foley insertion or not

General supportive therapy

Endotracheal intubation or not
Transfuse packed erythrocytes or not
Transfuse other blood products or not
PPI therapy or not
Octreotide therapy or not

Endoscopy

Emergency versus elective endoscopy
EGD versus colonoscopy
Endoscopic therapy or not
Specific modality of endoscopic therapy

Indications for Very early EGD
(Less than 12 h from onset)

- Likely to lead to Change in Management
- Has clinical features predictive of High Rebleeding Risk.

Indications for Very early EGD (<12 h)

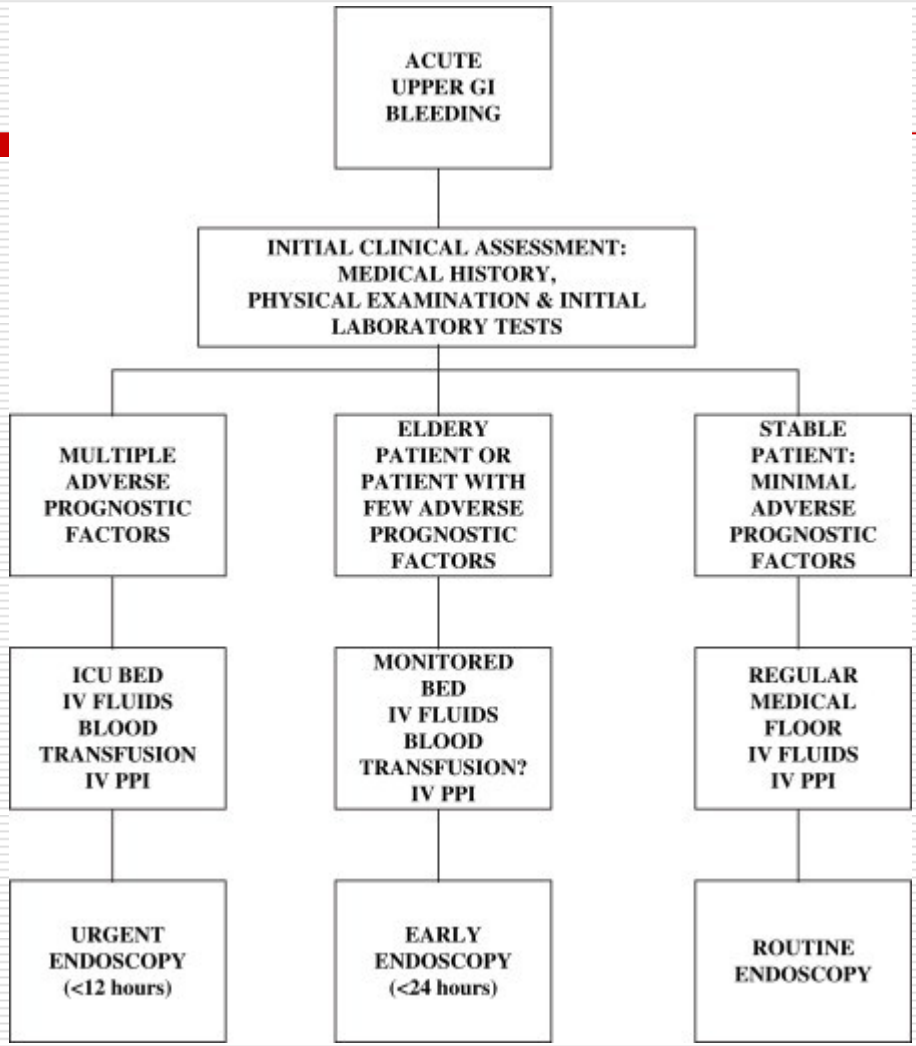
- Portal hypertension
- Cirrhosis
- History of aortic graft
- Possible hemobilia, or hemosuccus pancreaticus.
- Presentation with shock
- Age > 60
- Rockall score =/> 3 score (Intermediate or High)
- Hemoglobin < 8 g/dL
- Hematemesis, hematochezia, or BRB in NGT
- In-patient status at time of bleed
- Severe co-morbidity
- Continuous bleeding (RBC transfusion > 6 units)

UGI Bleed Score – Rockall 1996

Rebleeding & Mortality Risk

*	0	1	2	3
Age	<60	60-79	>80	
Vitals	SBP>100 P<100	SBP>100 P>100	SBP<100	
Co-morbidity	None		CHF CAD	Renal failure Liver failure Cancer w/ mets
Diagnosis	MW tear	All other Dx	UGI cancer	
Stigmata	Clean base Flat spot	Visible vessel Adherent clot Spurting vessel		

*Risk of rebleeding and mortality increases with score: Low (0-2), Intermediate (3-4), High (5-10)



M . Cappell , D . Friedel. Medical Clinics of North America , Volume 92 , Issue 3 , Pages 491 - 509

Medical Therapy

- PPI continuous intravenous infusion for 3 days decreases rebleeding in patients with ulcers that require endoscopic intervention (6.7% vs 22.5% with placebo)
- Cirrhotic patients with GI bleed of any source, have less infections and lower rebleeding rate with "selective intestinal decontamination" with:
  - Ceftriaxone 1 gm/d x 7 days, or
  - Norfloxacine 400mg p.o. BID x 7 days
- In H.Pylori(+) Peptic Ulcer: eradication decreases ulcer recurrence:
  - DU: from 67% to 6%, and
  - GU: from 59% to 4%.

Indications for Surgery

- Active bleeding not controlled after 2 endoscopic interventions (Lau J et al. N (Lau J et al. N Engl Engl J Med 1999; 340:751).
- Recurrent hemorrhage after stabilization and 2 endoscopies therapies.
- Hemodynamic instability despite vigorous resuscitation and 3 units of PRBC.
- Recurrent bleed with shock.
- Continuous slow bleed of > 3 units PRBC/day.

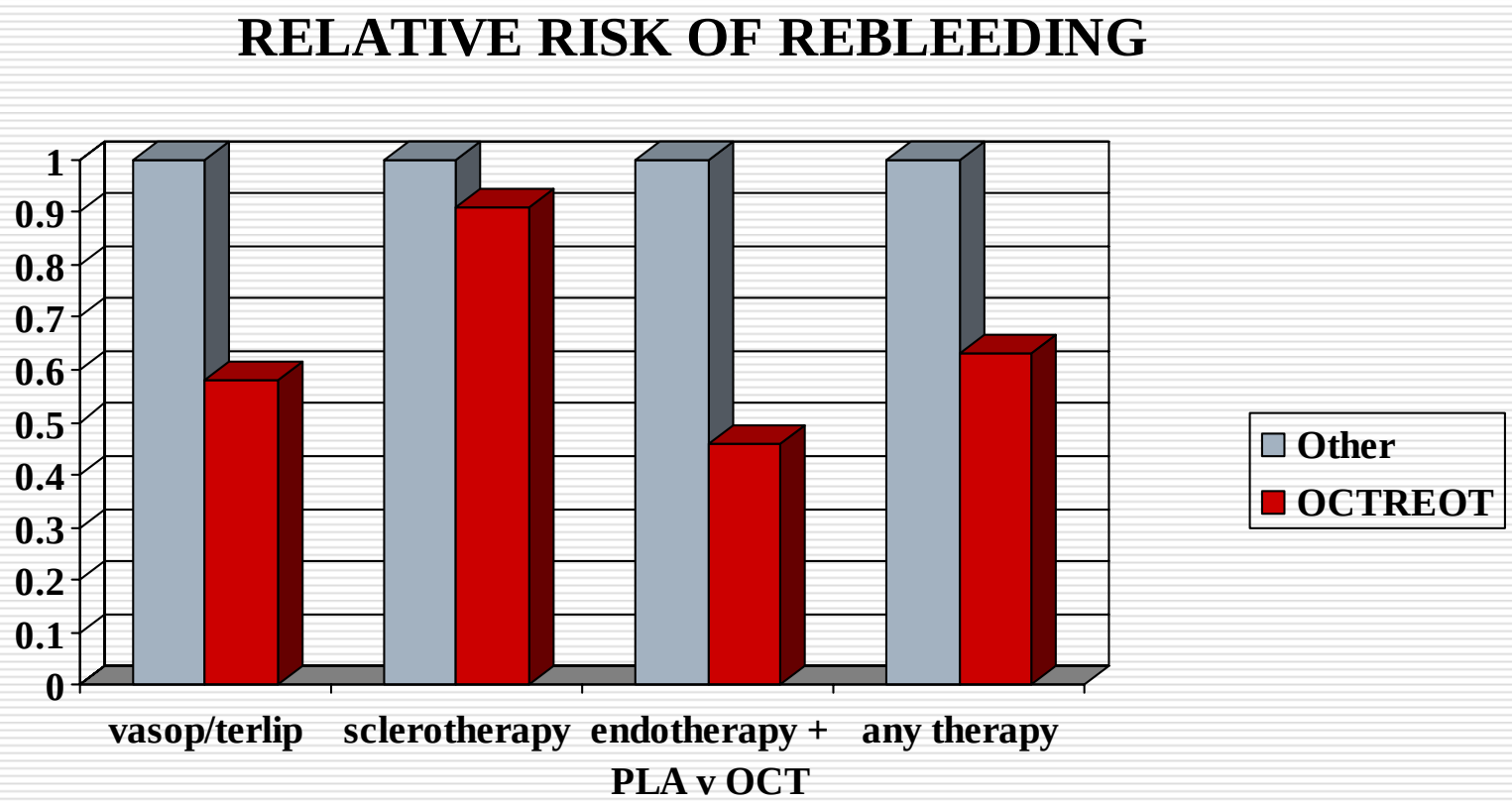
Vairceal Bleed: Natural History

- **Spontaneous hemostasis**: 50%
- **Rebleeding risk**: 70% at 1 year
  - A) Maximum: first 48 hours,
  - B) High: within 3-4 initial days (> 50%),
  - C) Medium: 10 days to 6 weeks,
  - D) Average: after initial 6 weeks (risk identical to that who has never bleed).
- **In-hospital mortality**: 40 % (due to continuous bleed, rebleed, advanced disease, infection, HRS)
- **Mortality after 2 week survival**: 52 % at 1 year

Rebleed from Acute Variceal-bleed

Octreotide Meta-Analysis

Gastroenterol 2001;120:946-954



Risk of Infection

Cirrhotic with Gastrointestinal Hemorrhage

- **Risk of Infection: 60%**
- **Acquisition time**:
  - A) 1/3 before or at time of admission,
  - B) 2/3 after hospital admission.
- **Types of Infection**:
  - UTI (20-25%), - SBP (15-20%),
  - Respiratory (8%) - Bacteremia (8%).

Prophylactic antibiotics

- Decreases mortality by 25% **(RR 0.75)**,
- Reduces infection risk by 60% **(RR 0.4)**
- Decrease rebleeding rate by 56% **(RR 0.44)**
- Decreases Transfusion needs (2.7 vs 0.7 units)
- **Regimens**
- 7 days of
  - A) Ofloxacin 200 mg BID,
  - B) Norfloxacin 400 mg BID,
  - C) Ciprofloxacin 500 mg BID
  - D) Ceftriaxone 1 g/d

Acute Lower Gastrointestinal Bleed

Clinical Senarios

- Hematochezia + pain:
- Hematochezia + no pain + elderly:
- Hematochezia, blood oozing from rectum w/o BM:
- What is the likely outcome of these disorders WITHOUT GI consult?

Magnitude of the Problem

- Incidence: 20/100,000 persons
- Mortality: 3.6% (23% if starts in hospital)
- Mean Age: 63-77
- Source of Hematochezia:
  - 76% colon
  - 11% above Ligament of Treitz
  - 9% small bowel
  - 6 % unknown

Etiology of Lower GI Bleeding

Zuckerman G et al. Gastrointest Endosc 1999;49:228

- Diverticulosis: 33%
- Colon Ca or polyps: 19%
- Colitis (IBD, infectious, ischemic, radiation, vasculitis, etc.): 18%
- Angiodysplasia: 8%
- Other intestinal lesions (post-polypectomy, Ao-enteric fistula, stercoral ulcer, etc.): 8%
- Ano-rectal: 4%
- Unknown: 16%

Angiography

- Yield:
  - When actively bleeding: 61-72%;
  - Overall: 27-77% (mean 40%).
- Reasonable test in patient with hemodynamic instability, or ongoing blood transfusion need.
- Provocative angiography (anticoagulation or thrombolytic) can increase yield but may cause uncontrollable bleed (not recommended by me)

Tagged RBC Scan

- Tc-99m-labeled RBC scan
- Yield: 45% (15% for “occult” & 70% for “overt” obscure GI bleed)
- Needs bleed of 0.1-0.4 mL/min
- Frequent false (+) and (-).
- Early (within 4 hours) (+) is more reliable than late (+)

ACUTE LOWER GI BLEEDING

(Hematochezia)

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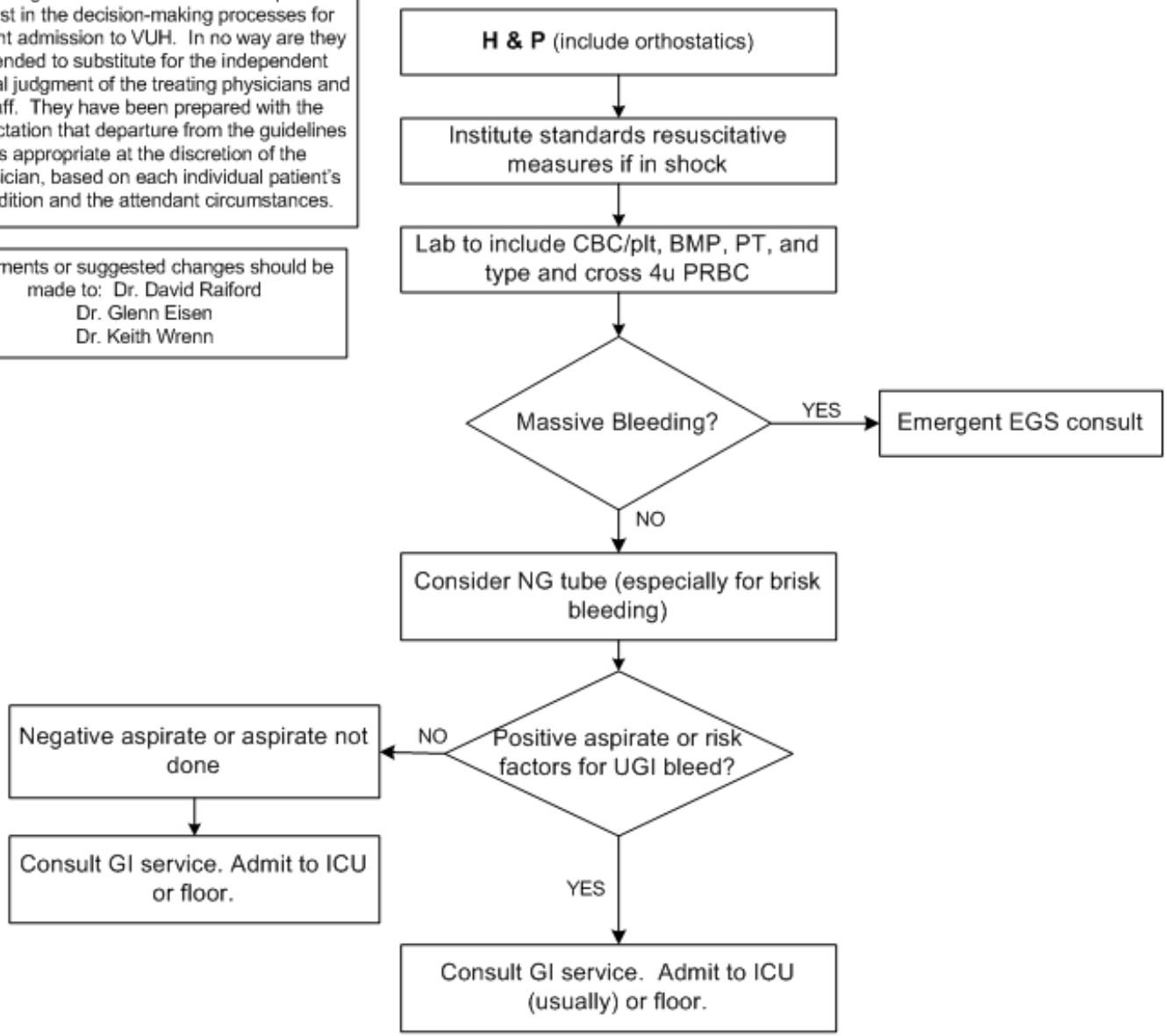

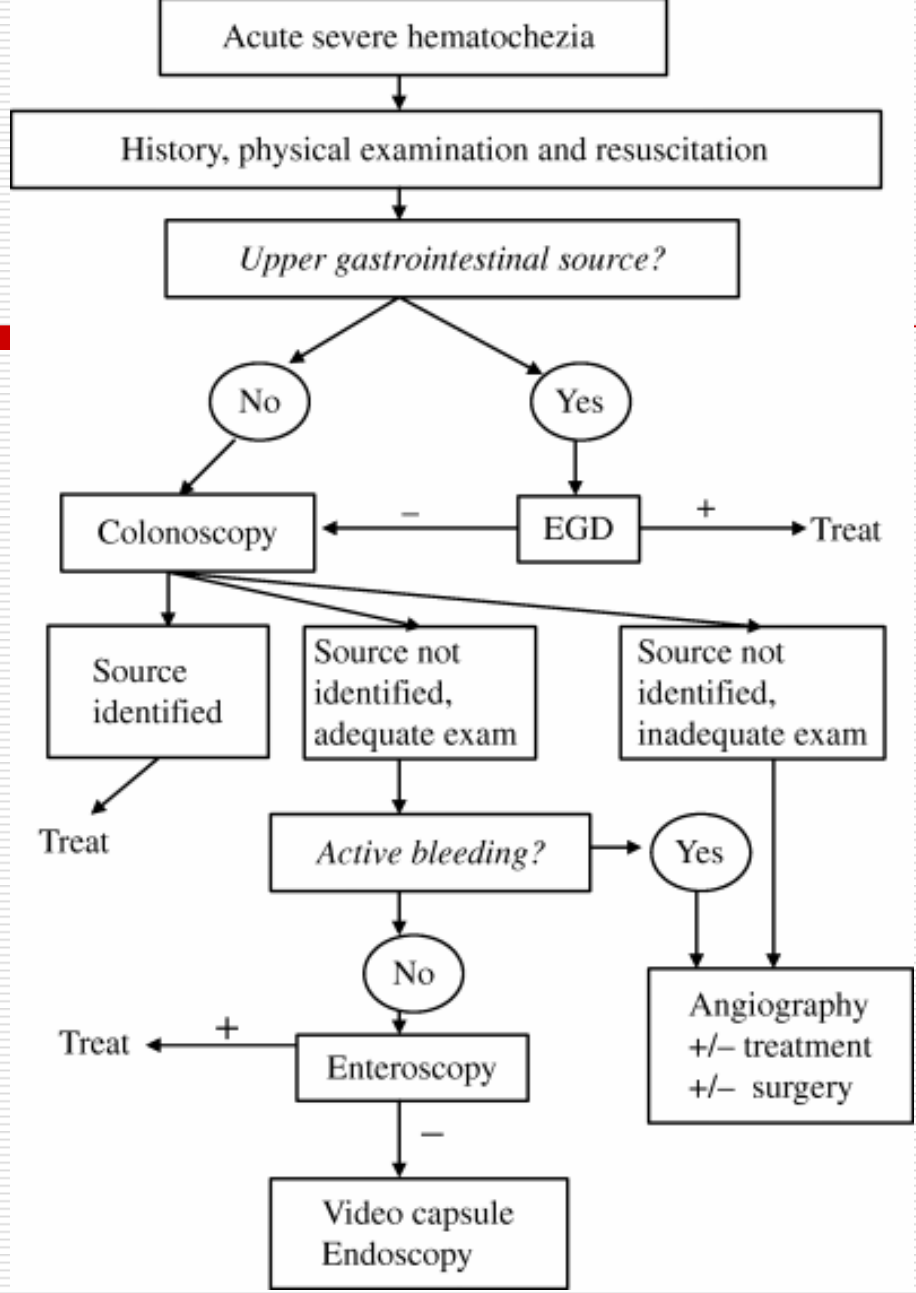

Farrell JJ, Friedman LS. Aliment Pharmacol Ther. 2005 Jun 1;21(11):1281-98.

IF YOU DON'T HEAR ANYTHING ELSE

- ALL CIRRHOTIC PATIENTS WITH GIB GET….

ABX

Flouroquinilone or 3rd gen Cephalosporin

7 DAYS!

IF YOU GET A GIB

- Stabilize patient with intubation, correction of coagulopathy, blood/fluid
- DON'T call me and say ER says rectal was "Heme +" DO A RECTAL EXAM and describe stool appropriately.
- Go to UofL GI WEBSITE
- Take careful history and physical
- Calculate Rockall Score
- Start Octreotide/PPI/ABX
- Call GI fellow


DADDY'S LITTLE
MONKEY
daddy's little
monkey
06/20/2009