CLINICAL GUIDELINE
FOR MANAGEMENT OF
ACUTE GASTROINTESTINAL HEMORRHAGE (BLEED)

Clinical guidelines and related tools serve as recommendations for care and are not meant to substitute for clinician judgment, nor should they be construed as mandating practice.

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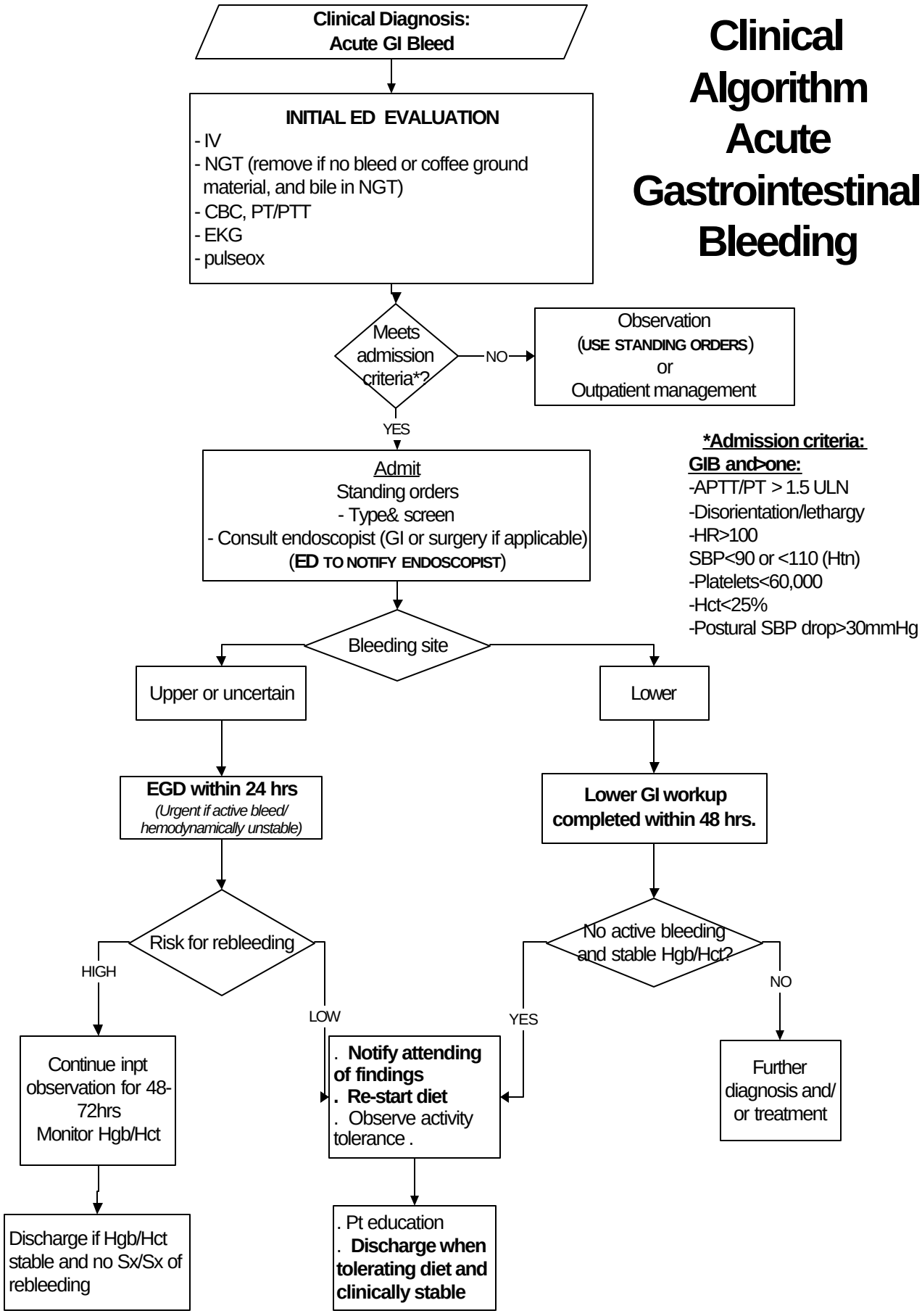
KEY RECOMMENDATIONS

1. Emergency Dept staff should notify the endoscopist while the patient is in the ED concerning consult for GI bleed.

2. Endoscopy for upper GI workup should be targeted for completion within 24 hours of admission. In uncomplicated patients who are hemodynamically stable, lower GI workup should be completed within 48 hours.

3. Patients should be stratified according to the risk of re-bleeding (based on endoscopy results).
   - The endoscopist should communicate findings of endoscopy to the attending physician when the procedure is completed.
   - Consideration should be given to discharge following endoscopy for those classified as Low Risk.

SJHS Clinical Algorithm Acute Gastrointestinal Bleeding



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ACUTE GASTROINTESTINAL BLEEDING
ADMISSION ORDERS PAGE 1 OF 2

• = Recommended = physician's option - check off to order

Additional diagnoses:_____

1. Admit to unit: _____

ATTENDING: _____ PRIMARY CARE PHYSICIAN_____

Consult: ☒ Endoscopist Dr_____ Reason: GI Bleed

☐ Dr _____ Reason_____

2. ☐ Discharge planning referral

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3. Laboratory studies:

☐ Check to be sure all Emergency Dept. initial orders are complete and results are posted on the chart.

☐ If any of these orders are not complete, do them now: CBC with differential, BUN/CR, LYTES, ALT/AST, Serum Albumin, Total Bili, Alk Phos, PT/PTT

☐ Hgb/Hct q8hrs x24hours

☐ Type and screen for 2 units Packed Red Blood Cells

Other: _____

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5. Ancillary orders:

☐ EKG (if not done yet)

☐ Check pulse ox prn respiratory distress on room air. If O_2 sat $\leq$ 92% notify physician.

☐ O_2 _____liters/min by (device) _____. Titrate for O_2 sats >92%. Re-evaluate need in 24 hrs per oxygen protocol.

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6. Diet

☒ NPO except meds ☐ Other:_____

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7. Activity:

☒ Bed rest with bedside commode for 24 hrs, then increase as tolerated

☐ Other: _____

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8. Miscellaneous:

☒ Obtain old medical records

☒ VS: BP/HR q2hrs until stable, then per unit protocol Other _____

☒ Patient education prior to discharge: diet, meds, avoidance of NSAIDS

☒ I&O q shift x 24 hours.

☐ Nasogastric Tube to low intermittent suction

Doctors signature: _____ Date: _____ Time _____

Nurses signature _____ Date: _____ Time _____

• = Recommended = physician's option - check off to order

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9. ALLERGIES:_____

10. Medications. ☒May substitute hospital formulary drug

☒ **IV access:** Insert two large bore IVs (18 or 16 gauge):

☒ #1 Normal saline solution _____ml/hr

☐ #2 _____

☐ Famotidine (Pepcid) 20 mg IVP q12hrs

Doctors signature: _____ Date: _____ Time _____

Nurses signature _____ Date: _____ Time _____

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POST-ENDOSCOPY ORDERS

• = Recommended = physician's option - check off to order

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1. DIET:

- ☐ Clear liquids, advance to soft diet as tolerated
- ☐ Regular
- ☐ NPO until _____ then advance to _____
- ☐ Other _____

2. LABORATORY TESTS:

H&H _____

Other _____

3. ACTIVITY: _____

4. VITAL SIGNS:_____

5. MEDICATIONS:

- ☐ IV Fluids: _____
- ☐ Lansoprazole (Prevacid) 30 MG orally QD
- ☐ _____

6. OTHER:

- ☐ Attending physician/resident notified by endoscopist concerning low risk findings. May be considered for discharge if diet tolerated.
- ☐ Unit nurse to notify attending physician of the following endoscopy results: Based on endoscopy results pt is at low risk for re-bleeding and may be considered for discharge if diet tolerated.

Doctors signature: _____ Date: _____ Time _____

Nurses signature _____ Date: _____ Time _____

Target LOS:
Cases with Low Risk Re-bleed after endosc
Other cases: 4 days
Detour off pathway_____(date/initials)

ACUTE GASTROINTESTINAL HEMORRHAGE (GI BLEED) CLINICAL PATHWAY
Detour if surgical case

DRAFT 7/2/01

	ED/Day 1	Day 2
Clinical Outcomes	• VS, including pain scores, within acceptable range • **EGD *or* colonoscopy for GI bleed scheduled, or alternate plan defined**	• **Hg/Hct stable** • **VS, including pain scores, within acceptable range** • EGD or colonoscopy completed ***or*** alternate plan defined • Tolerating increased activity level • Tolerating ≥50% of diet • Pt/family communicate continuing plan for care, including avoidance of GI bleed risk factors
Individual Outcomes		
Consults	**Endoscopist (ED to notify while in ED)** As ordered: •	
Labs/Tests	Type & Screen 2 units PRBC Hgb/Hct q____hrs x ____hrs As ordered: _____	• **EGD/Colonoscopy completed and results available**. • **Attending physician/resident notified if patient identified as low risk for re-bleed**
Nutrition	NPO except meds	• NPO except meds then diet as ordered following EGD/ endoscopy •
Assessment	• Obtain admission Ht/Wt • VS q2 hrs x ____ hrs until stable, then per unit routine. • I&O q8 hrs x 24 hrs (monitor NG suction as below) • Assess NSAID, alcohol use as risk factors for GI hemorrhage • As ordered: _____	• VS as ordered post-endoscopy/EGD then per unit routine • Monitor dietary tolerance when initiated
Treatment	As ordered: • NG Tube to low intermittent suction (consider for removal if no blood/ coffee ground materials and bile seen) • GI prep: _____ • As ordered: _____	As ordered: • NG Tube to low intermittent suction (consider for removal if no blood/ coffee ground materials and bile seen) • GI prep: _____
Medications	As ordered: IV: _____ Anti-secretory medication:_____	• Re-evaluate need for IV access • Anti-secretory medication as ordered:_____
Activity	• Bedrest x 24hrs, then increase as tolerated. • Assist with commode • Monitor for fall risk	• Increase as tolerated • Monitor for fall risk
Education	• Orient to unit and plan for care, including diagnostic procedures scheduled • Education for patient/family concerning risk factors for GI bleed.	• Risk factors for GI bleed. • Medications, activity, post-discharge follow-up
Discharge Planning	Identify discharge needs	Consider for discharge if patient identified as low-risk for re-bleed following EGD/endoscopy, tolerating oral intake and increased activity.
Clinical Variance		
Time/Signature	_____/_____ _____/_____ _____/_____ _____/_____	_____/_____ _____/_____ _____/_____ _____/_____

ACUTE GASTROINTESTINAL HEMORRHAGE (GI BLEED)
CLINICAL PATHWAY
Detour if surgical case

		Day 4
	• n acceptable range d ***or*** alternate plan defined • Tolerating increased activity level • Tolerating ≥50% of diet • Pt/family communicate continuing plan for care, including avoidance of GI bleed risk factors	• Hg/Hct stable • VS, including pain scores, within acceptable range • EGD or colonoscopy completed ***or*** alternate plan defined • Tolerating increased activity level • Tolerating ≥50% of diet • Pt/family communicate continuing plan for care, including avoidance of GI bleed risk factors
Individual Outcomes		
Consults		
Labs/Tests	• EGD/Colonoscopy completed and results available. • Attending physician/resident notified if patient identified as low risk for re-bleed	
Nutrition	• Diet as ordered following EGD/ endoscopy •	• As ordered •
Assessment	• VS as ordered then per unit routine • Monitor dietary, activity tolerance	• VS as ordered then per unit routine • Monitor dietary, activity tolerance
Treatment	As ordered: •	As ordered: •
Medications	• Re-evaluate need for IV access • As ordered: ➢ Anti-secretory medication:_____	• Re-evaluate need for IV access • As ordered: ➢ Anti-secretory medication:_____
Activity	• Increase as tolerated • Assist with commode • Monitor for fall risk	• Increase as tolerated • Monitor for fall risk
Education	• Risk factors for GI bleed. • Medications, activity, post-discharge follow-up	• Risk factors for GI bleed. • Medications, activity, post-discharge follow-up •
Discharge Planning	Consider for discharge if patient identified as low-risk for re-bleed following EGD/endoscopy, tolerating oral intake and increased activity. Discharge plan in place	Consider for discharge if hemodynamically stable, patient tolerating oral intake and increased activity. Discharge plan in place
Clinical Variance		
Time/Signature	_____/_____ _____/_____ _____/_____ _____/_____	_____/_____ _____/_____ _____/_____ _____/_____

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ULCERS: CAUSES, DIAGNOSIS AND TREATMENT

Gastrointestinal (GI) bleeding is a common clinical problem. It may involve a slow, chronic blood loss up to a life threatening hemorrhage. Many bleeding episodes resolve on their own. Sometimes the symptoms may lead to hospitalization to identify the bleeding site and begin proper treatment. One cause of GI bleeding is an ulcer.

WHAT IS AN ULCER?

An ulcer is an open sore in the lining of the stomach or duodenum (beginning of the small intestine). These organs contain acid and enzymes, which help digest food.

HOW ULCERS DEVELOP

There are two main reasons why ulcers develop:

- Bacteria (H. Pylori)
- Certain medications used for pain, such as Ibuprofen (Motrin) and Aspirin.

WARNING SIGNS

Here are some of the warning signs of an ulcer:

- Dark, tar-like, black bowel movement, which may be difficult to wipe off.
- Nausea
- Vomiting black or bloody (red) material
- Pain in the stomach area
- Burning, cramping, or hunger pain usually occurring at night
- Pain which gets somewhat better after taking antacids (Rolaids, Tums, Maalox) or food

DIAGNOSIS

Ulcers are often suspected from the patient's history and the symptoms described to the doctor. The diagnosis can be confirmed by either endoscopy or X-Ray. Endoscopy is a procedure used to examine the swallowing tube (esophagus), stomach, and the duodenum. The endoscopy procedure takes about fifteen minutes, and results are discussed following the test. With the X-Ray, or Upper GI series, the patient drinks barium (a chalky milkshake-type drink) before the test.

TREATMENT

It is very important to finish taking all the medication ordered by the doctor so that the ulcer won't come back.

- The doctor may order medication to reduce the acid in the stomach.
- If bacteria are a cause of the ulcer, antibiotics may be prescribed for one to two weeks.
- Special diets are no longer used to help ulcers heal.

PREVENTION

You can help prevent an ulcer from coming back. If pain medicine is needed, **avoid aspirin or other arthritis medicines, such as ibuprofen**. Your doctor may recommend using a non-aspirin pain reliever, such as acetaminophen (Tylenol). It is very important to **stop smoking** and **avoid drinking alcohol.**

Call your doctor with any questions or if your symptoms start to come back. Above all, remember to keep your follow-up appointment with your doctor.

ACUTE GASTROINTESTINAL HEMORRHAGE

QUALITY INDICATORS

CLINICAL

1. Endoscopy within 24 hours. Lower GI workup completed within 48 hours.
2. Discharge of low risk cases consistent with endoscopy recommendation
3. Transfusions in agreement with current guidelines.
4. Patient education prior to discharge re: risk factors for GI bleeding

ADMINISTRATIVE

1. LOS
2. Hemoglobin/Hematocrit utilization

REFERENCES

1. Zuckerman GR, Prakash C. Acute lower intestinal bleeding. Gastrointestinal Endoscopy 49, No.2:228, 1999.

2. Laine L. Acute and Chronic Gastrointestinal Bleeding. In: Gastrointestinal and Liver Diseases. 6th ed., 1998, p.198

3. Lin HJ, et al. Clinical courses and predictors for rebleeding in patients with peptic ulcers and non-bleeding visible vessels: A prospective study. Gut 35:1389, 1994.

4. Hsu PI, et al. Bleeding peptic ulcer- Risk factors for rebleeding and sequential changes in endoscopic findings. Gut 35: 746, 1994

5. Laine L et al. The prognostic value of endoscopic findings in patients with major upper gastrointestinal tract hemorrhage. Gastroenterology 102: 314, 1992.

6. Spiegel BMR, Vakil NB, Ofman JJ. Endoscopy for acute nonvariceal upper gastrointestinal tract hemorrhage: Is sooner better? Arch Intern Med Vol. 161, Number 11:1393, 2001.

7. American Society of Anesthesiologists Task Force: Practice guidelines for blood component therapy. Anesthesiology 84: 732; 1996.

8. Hebert, PC; Wells, G; Blajchman, MA et al. A multicenter, randomized controlled clinical trial of transfusion requirements in critical care. New England Journal of Medicine, 340, 409; 1999.

ACUTE GASTROINTESTINAL HEMORRHAGE

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APPENDIX A

GUIDELINES FOR TRANSFUSION

This guideline should be used for educational purposes

PACKED RED BLOOD CELLS (PRBC)

The decision to transfuse has to be individualized, and based on the initial hemoglobin level, rate of its decrease, presence or absence of active bleeding, patient signs and symptoms, and other factors.

Following are general recommendations about hemoglobin levels that might trigger a decision to transfuse:

Hemoglobin <8 gm/dl with an otherwise stable patient
Hemoglobin <10 gm/dl for patients age >65, cardiac or pulmonary disease

PLATELET CONCENTRATES (dose: 6 units)

Platelet <10,000 for prophylaxis
Platelet <20,000 for prophylaxis if patient is febrile or in induction phase
Platelet <50,000 if serious bleeding, planned surgery or invasive procedure

FRESH FROZEN PLASMA (FFP)

If serious bleeding or surgery, ***and****:*

If INR >1.5 or PT >18 seconds
OR
PTT >60 seconds **NOT** due to heparin, inhibitor, or single factor deficiency