

Non-variceal bleeding

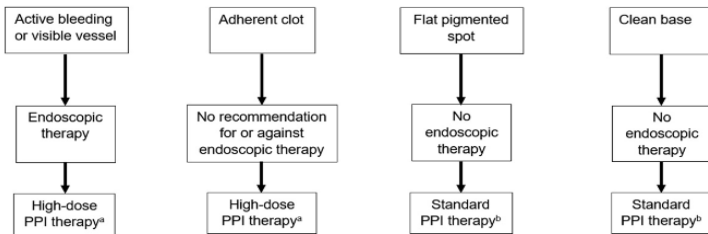
Context: Objectively assessing the acuity and severity of GI bleeding can be difficult.

Current: Risk scores can help identify low risk patients for discharge home directly from the ED. For upper GI bleeding, those with Glasgow-Blatchford score of 0-1 are low risk.¹ For lower GI bleeding, those with Oakland score <8 are low risk.²

Cutting edge: For patient undergoing endoscopy, consider administering a prokinetic (IV erythromycin) 1 hour prior to endoscopy to improve visualization and therapeutic interventions.³ Doing so reliably may be a target for process improvement interventions.

Outcome	No. of studies (no. of subjects)	Erythromycin vs no erythromycin/placebo effect size (95% CI)
Further bleeding	1 study (N = 29) (19)	RR = 0.54 (0.05–5.28)
Mortality	3 studies (N = 278) (20–22)	RR = 0.81 (0.41–1.60)
Second-look endoscopy	8 studies (N = 598) (18)	OR = 0.51 (0.34–0.77)
Hospital days	5 studies (N = 375) (18)	Mean difference = -1.75 (-2.43 to -1.06)
Units of red cells transfused	6 studies (N = 544) (18)	Mean difference = -1.06 (-2.24 to 0.13) ³

Acid Suppression



Current: Proton-pump-inhibitor (PPI) therapy are helpful for mucosal healing.

Context: PPIs are often prescribed with excessive intensity and for excessive duration.

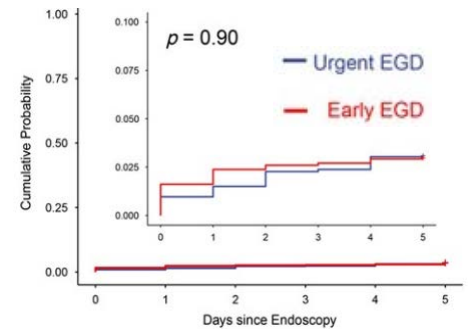
Cutting Edge: Use endoscopic findings to guide intensity and duration of PPI therapy.³

Variceal bleeding

Context: Patients with significant portal hypertension are at risk for massive hemorrhage through esophageal or gastric varices.

Current: Administer blood, antibiotics, and vasoactive agents (ie, octreotide) as soon as possible.

Cutting edge: Optimal timing is unclear. Early is probably better if critically ill, otherwise may be acceptable to wait up to 24 hours.⁴



Direct Oral Anticoagulants (DOACs) and GI Bleeding

Context: Routing coagulation testing is not helpful for patients on DOACs.

Current: Direct reversal agents are now available, including idarucizumab (a mono-clonal Ab fragment that reverses direct thrombin inhibitors) and andexanet (a factor Xa décor that reverses Xa inhibitors).

Cutting Edge: These medications are wildly expensive (>\$5,000/vial for idarucizumab, >\$30,000/treatment for andexanet) and are best reserved for major, life-threatening bleeding such as shock, decrease in Hgb >5, or requiring >5 units of PRBC.

References:

- Blatchford et al. A risk score to predict need for treatment for upper-gastrointestinal haemorrhage. *Lancet*. 2000;356(9238):1318. PMID: 11073021
- Oakland et al. Derivation and validation of a novel risk score for safe discharge after acute lower gastrointestinal bleeding. *Lancet Gastroenterol Hepatol*. 2017;2(9):635. PMID: 28651935
- Laine et al. ACG Clinical Guideline: Upper Gastrointestinal and Ulcer Bleeding. *Am J Gastroenterol*. 2021;116(5):899. PMID: 33929377
- Zhang et al. Timing of endoscopy for acute variceal bleeding in patients with cirrhosis (CHESS1905). *Hepatol Commun*. 2023;7(5):e0152. PMID: 37141513