



# ACG Clinical Guideline: Upper Gastrointestinal and Ulcer Bleeding



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## Management Pre- and Post Endoscopic Therapy in Upper Gastrointestinal Bleeding

### Risk Stratification

- Glasgow-Blatchford score (GBS) is an assessment tool to identify very-low risk pts
- Patients classified as very-low risk  $\leq 1\%$  false negative rate (i.e. GBS 0-1) can be discharged with outpatient f/u
- Decisions for admission and discharge must individualized to the patient and practice setting

### Red Blood Cell Transfusion

- Restrictive RBC transfusion threshold ( $<7\text{g/dL}$ ) reduces further bleeding and death
- Hypotensive patients can be transfused at Hgb levels  $>7\text{g/dL}$
- Threshold of  $<8\text{g/dL}$  for RBC transfusions in patients w/ cardiovascular disease

### Pre-Endoscopic Therapy

- $\uparrow$  visualization on index endoscopy can  $\downarrow$  LOS,  $\downarrow$  need for repeat endoscopy and  $\uparrow$  diagnostic yield
- Infusion of 250mg of erythromycin 20-90 minutes prior to endoscopy has benefit, but no improvement in clinical outcomes
- Patients w/ UGIB should undergo endoscopy within 24 hrs of presentation
- No recommendation for or against PPI in patient's pre-endoscopy

### Post-Endoscopy Medical Management

- $\downarrow$  intragastric acid  $\rightarrow$   $\uparrow$  clot formation and stability
- Initial PO or IV bolus dose of PPI at 80mg  $\downarrow$  the intragastric pH; especially in Western pts
- IV PPI is more rapid onset
- High dose PPI (i.e.  $\geq 80\text{mg}$  daily) for  $\geq 3$  days continuously or intermittently after endoscopic tx  $\downarrow$  further bleeding and mortality
- UGIB due to high-risk ulcers who received endoscopic therapy should receive BID PPI for 2 weeks post index endoscopy

### Recurrent GI Bleeding Post-Endoscopy

- Recurrent bleeding after endoscopy  $\rightarrow$  repeat endoscopy  $\rightarrow$  surgery or IR transcatheter arterial embolization (TAE)
- Repeat endoscopy is associated with fewer complications than surgery
- No RCT's are available that compare repeat endoscopy vs IR TAE
- Endoscopy failure in the treatment of UGIB should undergo TAE due to  $\downarrow$  complication rate despite  $\uparrow$  rates of post intervention bleeding
- Surgery after failed endoscopy and unsuccessful TAE

## Endoscopic Therapy for Upper Gastrointestinal Bleeding

UGIB due to actively spurting, actively oozing, and non-bleeding visible vessels should receive endoscopic therapy

### Endoscopic Therapies: Strong Rec's

#### Bipolar Electrocoagulation/Heater Probe

- Thermal contact devices decrease bleeding and mortality
- 3.2 mm probe firm pressure for 8-10 seconds
  - 15W for Bipolar Electrocoagulation
  - 30J for Heater probe

#### Sclerosant Injection

- Absolute ethanol injections were found to reduce bleeding and mortality, pilodocanol not recommended

### Endoscopic Therapies: Conditional Rec's

#### Hemoclips

- Attempt to seal the underlying artery
- Evidence is less robust

#### Argon Plasma Coagulation (APC)

- Less robust evidence, better than no intervention

#### Soft Monopolar Electrocoagulation

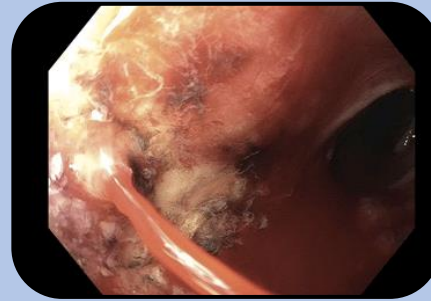
- Developed for coagulation in ESD
- 50-80W for 1-2 seconds

#### Hemostatic Powder Spray (TC-325)

- Limited duration of effect, very expensive, poor evidence as monotherapy

#### Over the Scope Clip (OTSC)

- Preferred in patients with recurrent bleeding
- More studies required before considered a 1<sup>st</sup> line option



Actively Bleeding Vessel:  
Spurting, actively oozing or visible vessel

- Endoscopic Therapy
- High Dose PPI therapy



Adherent Clot

- No recommendation for or against endoscopic therapy
- High Dose PPI Therapy



Flat Pigmented Spot or Clean Base

- No Endoscopic therapy
- Standard PPI therapy

#### High dose PPI Therapy

- Continuous: 80mg bolus followed by 8-mg/min infusion 72hrs
  - Intermittent: 40mg 2 to 4 times daily for 72hrs. PO if feasible
- #### Standard Dose PPI Therapy
- PPI once daily

Epinephrine as monotherapy is not recommended. Epinephrine used with a secondary hemostatic modality more effectively ↓ bleeding.