**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 (≤1% false negative rate) can be discharged with outpatient follow-up.
- Decisions for admission and discharge must individualized to the patient and practice setting.

### Post-Endoscopy Medical Management

- ↓ intragastric acid → ↑ clot formation and stability
- Initial PO or IV bolus dose of PPI at 80mg ↓ the intragastric pH; especially in Western pts
- IV PPI is more rapid onset
- High dose PPI (≥280mg daily) for ≥3 days continuously or intermittently after endoscopic therapy ↓ further bleeding and mortality
- UGIB due to high-risk ulcers who received endoscopic therapy should receive BID PPI for 2 weeks post index endoscopy

### Red Blood Cell Transfusion

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

### Recurrent GI Bleeding Post-Endoscopy

- Recurrent bleeding after endoscopy → repeat endoscopy → 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 ↓ complication rate despite ↑ rates of post intervention bleeding.
- Surgery after failed endoscopy and unsuccessful TAE.

### Pre-Endoscopic Therapy

- ↑ visualization on index endoscopy can ↓ LOS, ↓ need for repeat endoscopy and ↑ 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.
ACG Clinical Guideline: Upper Gastrointestinal and Ulcer Bleeding
By Chuma Obineme

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 1st 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

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

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


All endoscopic Images were cases performed at either Grady Memorial Hospital or Emory University Hospital