

# EM CASE OF THE WEEK.

BROWARD HEALTH MEDICAL CENTER  
DEPARTMENT OF EMERGENCY MEDICINE



Care Warriors

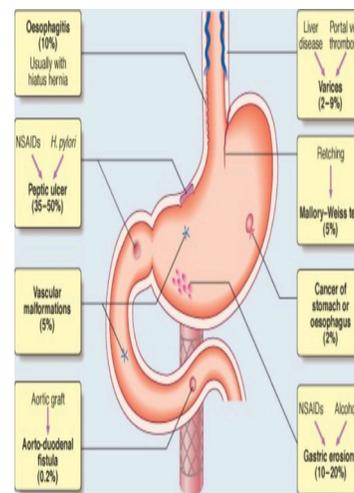
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## Acute Upper GI Bleed

A 53-year-old male with past medical history significant for alcoholism and lower back pain presents to the ED with fatigue and shortness of breath on exertion persisting for the past 72 hours. He has never experienced these symptoms prior to this episode. He also admits to two episodes of coffee ground emesis. He denies chest pain, abdominal pain or black stools. He denies the use of aspirin or anticoagulants and his last colonoscopy was at 50 years of age. Patient is afebrile, tachycardic with a heart rate of 115 beats per minute, hypotensive with a blood pressure of 100/50, and breathing at a rate of 22 breaths per minute. On physical exam, patient is pale, and cool to touch. Conjunctival pallor is also present. A fecal occult blood test is positive. Remainder of the physical exam is within normal limits. Which of the following is the most appropriate initial treatment for this patient's condition?

- A. 2 large bore peripheral IV's with fluid resuscitation
- B. PPI infusion
- C. Urgent upper endoscopic evaluation
- D. Surgery consultation



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**Common Causes of UGIB include esophagitis, gastric erosion or peptic ulcers from chronic NSAID use (risk increased with concomitant steroid use), and alcohol use, H. Pylori infection varices, Mallory Weiss tear, and vascular malformations.**

**Baseline characteristics predictive of rebleeding and death include hemodynamic compromise (tachycardia or hypotension), increasing age, and comorbidities.**

*EM Case of the Week is a weekly "pop quiz" for ED staff.*

The goal is to educate all ED personnel by sharing common pearls and pitfalls involving the care of ED patients. We intend on providing better patient care through better education for our nurses and staff.

**BROWARD HEALTH MEDICAL CENTER**

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The correct answer is A. Fluid resuscitation with crystalloid infusion is of the utmost importance when treating a patient for hemorrhage due to any cause. After stabilizing the patient, it is appropriate to move onto determining the cause of the patient's hemorrhage.

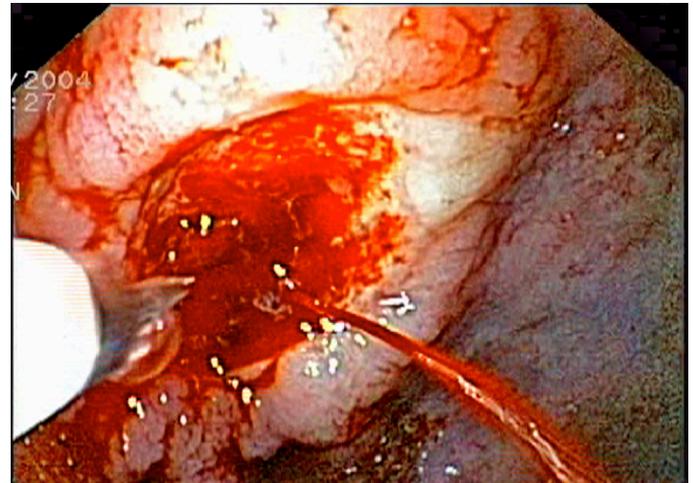
The most common causes of upper GI bleeding include peptic ulcer (31-67%), varices (6-39%), gastroduodenal erosions (2-18%), Mallory Weiss tears (2-8%), erosive esophagitis (1-13%), and neoplasm (2-8%). Gastrointestinal bleeding accounts for ~150 hospitalizations per 100,000 population annually in the US with upper GI bleed 2x more common than lower.

#### Discussion

GI bleed presents as either overt or occult bleeding- Overt bleeding is seen as hematemesis (vomitus of red blood or coffee ground material), melena (black, tarry stool), and/or hematochezia (passage of bright red or maroon blood from the rectum). Occult bleeding may be identified when patients present with **symptoms of blood loss** such as lightheadedness, syncope, angina, or dyspnea; or when CBC reveals iron deficiency anemia or with a positive fecal occult blood test.

Peptic ulcers are the most common cause of upper GI bleed. Prognostic information about ulcers is provided during endoscopic evaluation: Patients with clean based ulcers have rates of recurrent bleeding approaching zero, versus those with active bleeding or those with a non-bleeding visible vessel have further bleeding that requires urgent surgery. These patients benefit from endoscopic therapy, including absolute alcohol, 1:10,000 epinephrine), and/or clips.

Approximately one third of patients with bleeding ulcers will re-bleed within 1-2 years if no preventive strategies are taken. Prevention focuses on three major components of ulcer generation- 1. H. Pylori infection, 2. NSAID use, and 3. Acid.



<https://uptodategastro.wordpress.com/page/4/>

#### Treatment

Fluid resuscitation is the first and most important step. Transfusion recommended when hemoglobin drops below 7

Endoscopic evaluation should be performed within 24 hours for most patients

Consider IV PPI infusion for ulcers- decreases high risk ulcer stigmata such as active bleeding, and the need for endoscopic therapy (however does not improve clinical outcomes such as further bleeding, surgery, or death). Endoscopic therapy is indicated for active bleeding ulcers or visible vessels. Also consider treatment with pro-motility agent erythromycin approximately 30 minutes prior to endoscopic evaluation because it provides an increase in diagnostic yield.

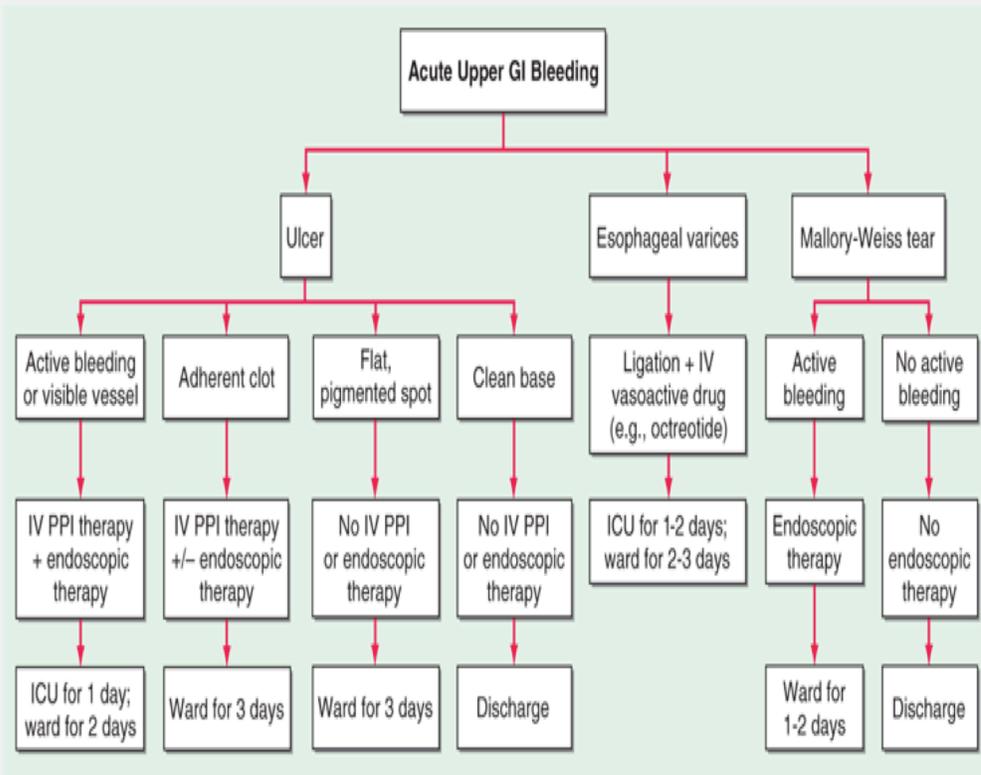
Esophageal varices should be ligated. Octreotide is also indicated to stop or slow bleeding

Mallory Weiss tears that are actively bleeding require endoscopic therapy and monitoring in the ICU whereas ones that are no longer bleeding do not and can be discharged.

For a list of educational lectures, grand rounds, workshops, and didactics please visit [BrowardER.com](http://BrowardER.com) and **click** on the **"Conference"** link.

*All are welcome to attend!*

# Warriors



## ABOUT THE AUTHOR

This month's case was written by Arash Zarrin. Arash is a 4<sup>th</sup> year medical student from NSU-COM. He did her emergency medicine rotation at Broward Health North in January 2018. Arash plans on pursuing a career in Integrative Gastroenterology.

Measurement of the heart rate and blood pressure is the best way to initially assess a patient with a GI bleed. Clinically significant bleeding leads to postural changes in heart rate or blood pressure, tachycardia, and finally, recumbent hypotension. Hemoglobin does not fall readily due to proportionate reductions in plasma and red cell volume. Therefore, hemoglobin may be normal.

The incidence of GI bleed has decreased in recent decades primarily due to a reduction in upper GI bleed specifically. Mortality has also dropped to < 5%. Patients rarely die from exsanguination but rather die due to decompensation or underlying illnesses.

## Take Home Points

- There are some common causes of acute upper GI bleed, including peptic ulcer, varices, and erosions.
- The history is very important in narrowing down the differential sources
- Hematemesis indicates an upper GI source of bleeding (above the ligament of Treitz). Melena indicates blood has been present in the GI tract for at least 14 hours. Hematochezia usually presents a lower source of GI bleeding, An upper GI bleed may occur so briskly that hematochezia can be the presenting sign (hemodynamic instability will most likely be present in this case as well).
- Fluid resuscitation is of vital importance when dealing with a hemodynamically unstable patient and should be the first action taken.
- Endoscopic evaluation should be done within 24 hours for most patients to identify the source of bleeding.

## REFERENCES

Acute GI Bleed. Wiener, C. (Ed.5), Harrison's principles of internal medicine (18th ed., Vol. 2 New York, NY: McGraw Hill