

# EM CASE OF THE WEEK

BROWARD HEALTH MEDICAL CENTER DEPARTMENT OF EMERGENCY MEDICINE



## Acute GI Bleed

*An 81 year old male with PMH of CAD, s/p 2 stents, HTN, and DM2 is rushed to the ED via EMS for profuse bleeding from his rectum for the past 30 minutes. Vital signs are T 97.8, HR 120, RR 22, BP 90/48, O2 sat 99%. He is responsive and admits to having less significant bleeding for the past 2 days. He admits to palpitations, diaphoresis, and dizziness. He has never had a colonoscopy.*

*What is the next most appropriate step in his management?*

- A. Consult a gastroenterologist for immediate endoscopic evaluation
- B. Consult surgery for emergent colectomy
- C. Immediately start administering PRBCs
- D. Evaluate hemodynamic stability, and gain IV access
- E. Provide him comfort and assurance, since the majority of lower GI bleeds self-resolve

## EM CASE OF THE MONTH

EM Case of the Month is a monthly “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.







## Take Home Points

- The best initial management of any unstable patient, is to perform the ABCs of resuscitation
- The procedure of choice for diagnosis and treatment of an acute lower GI bleed is colonoscopy/sigmoidoscopy +/- upper endoscopy.
- Majority of lower GI bleeds are secondary to diverticular disease, which self-resolve 80% of the time.
- ICU admission should be considered in a patient even if stability is gained in the ED, especially if the patient has multiple comorbidities.
- Beside the point: Encourage timely colon cancer screening for all patients. It can save a life 😊

## Acute Lower GI Hemorrhage

**The correct answer is:**

**D. Evaluate hemodynamic stability, and gain IV access.**

As is the case for every unstable patient that comes into the ED, the first step in management is to evaluate hemodynamic status, gain IV access, and treat accordingly. Read below to find out more!



Occult GI bleeding is often encountered in the ED, usually discovered in an older, anemic patient. Occasionally, however, a patient arrives who is actively hemorrhaging from the GI tract, and clinically unstable. The discussion points will focus on this type of patient, with an emphasis on the initial evaluation and management. There will also be a concise review on the etiology, treatment, and prognosis of lower GI hemorrhages.

### Initial Evaluation and Management

The initial assessment of the unstable patient plays a critical role in determining patient outcomes. This portion is also highly dependent upon the ED nurses, technicians, and physicians. As in a majority of ED cases, initial evaluation and management occur simultaneously.

#### *Vital signs*

Is the patient hypotensive, tachycardic, tachypneic, and/or with decreased mentation? Better hurry! Even if a patient is not showing all evidence of hemodynamic instability, a change in one can imply impending HD collapse. Keep patient on a cardiac telemetry monitor. Start fluids via large bore IV catheter. Provide supplemental oxygen if needed, and blood replacement as indicated.

For a list of educational lectures, grand rounds, workshops, and didactics please visit

<http://www.BrowardER.com>

and click on the "Conference" link. All are welcome to attend !



### History

Important aspects of the history include:

- Nature of bleeding, duration, stool frequency & color
- Associated symptoms, including presence of pain
- Past history of bleeds, abdominal surgery, trauma, GI conditions (ulcers/IBD), radiation therapy, recent GI procedures.
- Any findings on previous Colonoscopy/EGD
- Other medical conditions
- Medications, including NSAIDS and anticoagulants

### Physical exam

Evaluate the heart, lungs, abdomen, and perform a digital rectal exam to help you assess vital organs, as well as look for clues to the possible source of bleed and any comorbid conditions.

### Laboratory Values

Check a CBC to evaluate level of Hg and Hct, knowing that often there is a discrepancy in true values in a dehydrated or actively bleeding patient. A PT/PTT, especially in a patient with liver disease or on anticoagulants. Abnormal values should be treated accordingly, usually with replacement of clotting factors with FFP. BMP should be ordered to look for any electrolyte/metabolic derangements, and to look at BUN and creatinine values. Elevated BUN:Cr ratio may indicate an upper GI source of hemorrhage. A blood type and screen should also be ordered.

### Other diagnostic tools

An EKG should be performed, especially in a patient over the age of 50 and/or with significant risk factors, or any complaints of angina or palpitations.

Approximately 10% of patients presenting with hematochezia, will have an upper GI source of bleeding; Placing a nasogastric tube and analysis of the aspirate can help direct the differential, and subsequent choice of diagnostic studies.

### Etiology

Most patients presenting in this manner will be over the age of 60. The most common source of bleeding is from diverticular disease, which will often present as painless hematochezia.

Other common causes include AVMs, colitis, post-polypectomy, tumors, hemorrhoids and other anorectal conditions. As previously mentioned, a small percentage of these patients will actually have an upper GI source of bleeding.

### Treatment

Consults should be placed for Gastroenterology, Surgery, and possibly Interventional Radiology. Following resuscitation, the procedure of choice in these patients is a colonoscopy or sigmoidoscopy (after adequate bowel preparation) +/- upper endoscopy. Bowel prep has not been shown to increase bleeding in patients, and is necessary in order to adequately visualize structures. Endoscopic therapies can include thermal coagulation, as well as injection of vasopressor, sclerosants, and application of clips to achieve hemostasis.

Arteriography can also be utilized to identify the location of bleed and possible intervention with embolization and vasopressors. Arteriography is usually reserved for patients who are too unstable for endoscopy or where endoscopic intervention has failed to stop the bleeding.

Immediate surgical intervention is necessary in a patient who is exsanguinating. Surgery may also be necessary in a patient who experiences recurrent colonic bleeds, depending on the etiology.

### Prognosis

The mortality associated with a lower GI hemorrhage is approximately 10-15%, but highly dependent on the etiology of the bleed. Majority of bleeds due to diverticular disease will self-resolve. Poor prognosticators include comorbid conditions, low albumin, increased PT/INR, and increased bilirubin.

Patients who are unresponsive to initial resuscitation, and/or have multiple comorbidities should be admitted to the ICU for further management.

### Reference

Zuccaro, Gregory. "Management of the Adult Patient with Acute Lower Gastrointestinal Bleeding." *The American Journal of Gastroenterology* 93.8 (1998): 1202-208. *Clinical Guidelines*. American College of Gastroenterology.

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