Tips and Tricks on How to Optimally Manage Patients with Upper Gastrointestinal Bleeding

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KEYWORDS

• Upper gastrointestinal bleeding • Endoscopy • Therapeutic devices
• Gastroenterology

KEY POINTS

- Make adequate resuscitation a primary goal before proceeding with endoscopy.
- Maintain knowledge of both benefits and limitations of specific therapeutic devices to best guide selection of treatment modality.
- Remain aware of evolving endoscopic devices that may influence treatment options and outcomes.
- Remain calm and composed by having knowledge and confidence in your experience, training, and preparation. If lacking, scheduled in-service training, online videos, and/or hands-on courses can boost these skills and your confidence.

Videos of hemostasis obtained following injection of epinephrine followed by bipolar diatheramy and then hemoclip placement; treatment of a variceal bleed by placement of 2 hemoclips; and the proper technique for guillotining off an adherent clot from an ulcer in the lesser curvature of the stomach accompany this article at http://www.giendo.theclinics.com/

INTRODUCTION

Presentation of a patient with acute upper GI bleeding can be a source of alarm for the consulting gastroenterologist. The consulting gastroenterologist is pivotal in key management decisions such as when to scope (ie, urgently within 24 hours vs electively)

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and where to scope (emergency department [ED], intensive care unit [ICU], operating room [OR], or endoscopy suite), and in performing expert endoscopic therapy while guiding adjunctive therapies to optimize the treatment plan.

This article provides tips and tricks for the successful management of acute upper GI bleeding that are complementary to the in-depth reviews that accompany it in this issue. This article offers 10 categories of tips and tricks to improve the evaluation and endoscopic management of GI bleeding.

Who Is in Charge?

One of the important first steps in the management of a patient with acute upper GI bleeding is determining who is responsible for and overseeing ongoing patient assessment and resuscitation. Although seemingly a simple task, the chain of command and delineations of responsibilities may be obscure in that patients may present with bleeding to the ED or while an inpatient on the wards. Patients with acute GI bleeding often require transfer to the ICU or specialized bleeding unit. During these times, responsibilities for assignments should be clearly dictated to avoid confusion, lapses in resuscitation, and risk for error.

Initial Management

Endoscopy for acute GI bleeding should be performed only after appropriate resuscitation. The initial evaluation of a patient with GI bleeding should focus on the presenting history, relevant comorbidities, physical examination findings, and medications that influence resuscitation and monitoring efforts.

Management of patients with severe bleeding and hemodynamic derangements must focus on the ABCs (airway, breathing, and circulation) of resuscitation. During this stage, the ability of the patient to maintain adequate ventilation should be quickly assessed. Endotracheal intubation should be considered in patients with active hematemesis, altered mentation, other risks for aspiration (eg, prior stroke), or potentially difficult airways. Peripheral or central venous access is necessary to ensure adequate administration of intravenous crystaloids, colloids, and blood products. Optimally, venous access with at least two 16-gauge to 18-gauge needles should be secured and the need for central venous access considered.

Patients with massive bleeding require blood, platelets, and clotting factors. It is imperative that blood transfusions be performed judiciously. Although it is obviously important not to under-resuscitate, a recent study showed that over-resuscitation with blood products led to increased rebleeding rates and decreased survival in patients with a liberal threshold (maintaining hemoglobin level >9 g/dL) compared with a restrictive threshold (maintaining hemoglobin level >7 g/dL).[1] The survival benefit was profoundly seen in patients with Child-Pugh class A or B cirrhosis. In a subgroup analysis, the benefit from the restrictive threshold cohort without cirrhosis only trended toward significance. Note that these thresholds were established in a patient population that excluded patients with massive GI bleeding, acute coronary syndrome, stroke, transient ischemic attack, systemic peripheral vasculopathy, or recent trauma or surgery. Although these results are applicable to most patients with GI bleeding, they therefore should not be universally generalized, and lower transfusion thresholds may not be ideal in patients with massive bleeding or ischemia. Basing transfusions on laboratory values in patients with brisk blood loss and hypotension can be misguided because hemoglobin levels may misinform.

Patients with coexisting cardiovascular, renal, or liver disease have increased overall mortality from GI bleeding. These individuals require individualized care in order to optimize resuscitation efforts. In patients with a severe bleeding and cardiovascular