

## REVIEW: NONVARICEAL HAEMORRHAGE IN UPPER GI TRACT.

### ACG PRACTICE GUIDELINES:

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### RECOMMENDATIONS ADAPTED TO CHILDREN.

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Hemodynamic status should be assessed immediately upon presentation and resuscitative measures begun as needed (Strong recommendation)

Blood transfusions should target hemoglobin  $\geq 7$  g / dl, with higher hemoglobins targeted in patients with clinical evidence of intravascular volume depletion or comorbidities, (Conditional recommendation).

Intravenous infusion of erythromycin should be considered to improve diagnostic yield and decrease the need for repeat endoscopy. However, erythromycin has not consistently been shown to improve clinical outcomes (Conditional recommendation).

Pre-endoscopic intravenous PPI may be considered to decrease the proportion of patients who have higher risk stigmata of hemorrhage at endoscopy and who receive endoscopic therapy. However, PPIs do not improve clinical outcomes such as further bleeding, surgery, or death (Conditional recommendation).

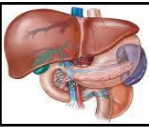
If endoscopy will be delayed or cannot be performed, intravenous PPI is recommended to reduce further bleeding (Conditional recommendation).

Nasogastric or orogastric lavage is not required in patients with UGIB for diagnosis, prognosis, visualization, or therapeutic effect (Conditional recommendation)

Patients with UGIB should generally undergo endoscopy within 24 h of admission, following resuscitative efforts to optimize hemodynamic parameters and other medical problems (Conditional recommendation).

In patients who are hemodynamically stable and without serious comorbidities endoscopy should be performed as soon as possible in a non-emergent setting to identify the substantial proportion of patients with low-risk endoscopic findings who can be safely discharged (Conditional recommendation).

In patients with higher risk clinical features (e.g., tachycardia, hypotension, bloody emesis or nasogastric aspirate in hospital) endoscopy within 12 h may be considered to potentially improve clinical outcomes (Conditional recommendation).



Stigmata of recent hemorrhage should be recorded as they predict risk of further bleeding and guide management decisions. The stigmata, in descending risk of further bleeding, are active spurting, non-bleeding visible vessel, active oozing, adherent clot, fl at pigmented spot, and clean base (Strong recommendation).

Endoscopic therapy should be provided to patients with active spurting or oozing bleeding or a non-bleeding visible vessel (Strong recommendation).

Endoscopic therapy may be considered for patients with an adherent clot resistant to vigorous irrigation. Benefit may be greater in patients with clinical features potentially associated with a higher risk of rebleeding (Conditional recommendation).

Endoscopic therapy should not be provided to patients who have an ulcer with a clean base or a fl at pigmented spot (Strong recommendation)

Epinephrine therapy should not be used alone. If used, it should be combined with a second modality (Strong recommendation)

Thermal therapy with bipolar electrocoagulation or heater probe and injection of sclerosant (e.g., absolute alcohol) are recommended because they reduce further bleeding, need for surgery, and mortality (Strong recommendation).

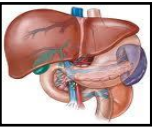
Clips are recommended because they appear to decrease further bleeding and need for surgery. However, comparisons of clips vs. other therapies yield variable results and currently used clips have not been well studied (Conditional recommendation).

For the subset of patients with actively bleeding ulcers, thermal therapy or epinephrine plus a second modality may be preferred over clips or sclerosant alone to achieve initial hemostasis (Conditional recommendation).

After successful endoscopic hemostasis, intravenous PPI therapy with continuous infusion for 72 h should be given to patients who have an ulcer with active bleeding, a non-bleeding visible vessel, or an adherent clot (Strong recommendation).

Patients with ulcers that have fl at pigmented spots or clean bases can receive standard PPI therapy (e.g., oral PPI once daily) (Strong recommendation)

Routine second-look endoscopy, in which repeat endoscopy is performed 24 h after initial endoscopic hemostatic therapy, is not recommended



Repeat endoscopy should be performed in patients with clinical evidence of recurrent bleeding and hemostatic therapy should be applied in those with higher risk stigmata of hemorrhage (Strong recommendation).

If further bleeding occurs after a second endoscopic therapeutic session, surgery or interventional radiology with transcatheter arterial embolization is generally employed (Conditional recommendation).

Patients with *H. pylori*-associated bleeding ulcers should receive *H. pylori* therapy. After documentation of eradication, maintenance antisecretory therapy is not needed unless the patient also requires NSAIDs or antithrombotics (Strong recommendation).

In patients with NSAID-associated bleeding ulcers, the need for NSAIDs should be carefully assessed and NSAIDs should not be resumed if possible. In patients who must resume NSAIDs, a COX-2 selective NSAID at the lowest effective dose plus daily PPI is recommended (Strong recommendation).

In patients with idiopathic (non- *H. pylori*, non-NSAID) ulcers, long-term antiulcer therapy (e.g., daily PPI) is recommended (Conditional recommendation)