



# Clinical Practice Guidelines: Medical/Upper gastrointestinal bleeding

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<b>Scope</b>	Applies to Queensland Ambulance Service (QAS) clinical staff.
<b>Health care setting</b>	Pre-hospital assessment and treatment.
<b>Population</b>	Applies to all ages unless stated otherwise.
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# Upper gastrointestinal bleeding

September, 2024

Upper gastrointestinal bleeding (UGIB) is a life-threatening emergency characterised by haemorrhaging that originates in the oesophagus, stomach, or duodenum (proximal to the ligament of Trietz).<sup>[1]</sup> In clinical practice, patients typically present with haematemesis (which can be frank or 'coffee ground' in appearance), and/or melena. UGIB can be caused by a number of different aetiologies which are categorised as being non-variceal or variceal in origin.

## Non-variceal

In Queensland, approximately 85% of UGIB are attributed to a non-variceal aetiology with this umbrella classification encompassing the following conditions:<sup>[2-4]</sup>

- (i) Peptic ulcer (an erosive lesion in the mucosa lining of the stomach or small intestine often caused by a *Helicobacter pylori* infection and/or excessive consumption of non-steroidal anti-inflammatory drugs).
- (ii) Gastritis/duodenitis (generalised inflammation in the stomach or small intestine).
- (iii) Esophagitis (generalised inflammation in the oesophagus).
- (iv) Mallory-Weiss Tear (a laceration in the mucosa at the gastroesophageal junction commonly caused by emesis or coughing).

## Variceal

Varices are abnormally distended veins that form in the oesophagus or stomach typically as a complication of portal hypertension.<sup>[4]</sup> In patients with liver cirrhosis, varices develop as an auxiliary circulation pathway to compensate for increased pressure in the hepatic portal vein. As the disease progresses, varices enlarge and eventually rupture resulting in catastrophic bleeding.<sup>[5]</sup>

## Clinical features



- Abdominal pain
- Syncope
- Dyspnoea
- Hypovolaemic shock (in instances of severe blood loss)
- Fatigue
- Haematemesis
- Melena

## Risk assessment



- All patients must receive a thorough clinical assessment that determines the following pertinent information:
  - history of liver or renal disease
  - chronic alcohol consumption
  - recent use of aspirin, ibuprofen or other non-steroidal anti-inflammatory drugs
  - previous *Helicobacter pylori* infection
  - previous endoscopy or surgical investigation
  - past history of gastric or duodenal ulcers or previous episodes of variceal bleeding
- All patients that present with evidence of a suspected UGIB must be transported to hospital for further examination. This includes instances where the patient is not actively bleeding on examination.

## + Additional information

- All patients that present with a suspected UGIB must remain nil by mouth.
- As these patients often require emergency review by a gastroenterologist, ambulance clinicians should have a low threshold for pre-notifying the receiving hospital facility.
- Where practical, patients should be positioned upright to avoid aspiration.
- Acute variceal haemorrhage is associated with high rates of infection due bacterial translocation. The prophylactic administration of antibiotics to these patients has been shown to reduce infection-related mortality.<sup>[6-7]</sup>

