Management of upper gastrointestinal bleeding

This visual summary presents a practical approach to initial management of patients with upper gastrointestinal bleeding. Peptic ulcers are the most common cause of serious bleeding from the oesophagus, stomach, and duodenum, and can be identified with simple diagnostic tests.

### Initial assessment
Check circulatory status to assess need for immediate interventions

- Blood pressure may remain normal initially, so increased heart rate is a more sensitive measure of circulatory status.

### Initial resuscitation

**Actions in parallel**
- Obtain blood chemistry
- Obtain medical history

**2 x Large bore intravenous access**
- Intravenous fluids
- Pharmacological treatment (proton pump inhibitor)
- Urinary catheter (if required)

### Haemodynamically stable

**Signs of current bleeding**
- Hematochezia
- Haematemesis

### Haemodynamically unstable

**Urgent intensive care involvement required for:**
- Airway compromise
- Hypoxia
- Reduced level of consciousness

### Risk stratification

#### Glasgow-Blatchford Score (GBS)

**Systolic blood pressure** (mmHg)
- 100–109
- 90–99
- < 90

**Blood urea** (mmol/L)
- 6.5–7.9
- 8.0–9.9
- 10.0–24.9
- ≥ 25.0

**Haemoglobin** (g/dL)
- Men: 12.0–12.9
- Women: 10.0–11.9
- Men: 10.0–11.9
- Women: < 10.0
- Women: < 10.0

**Pulse ≥ 100**

#### Total score

- 0 – 1: Low risk of death. Can be considered for outpatient management.
- 1: Increased risk of 30-day mortality
- 2+: Predicts need for endoscopic haemostatic intervention, but needs individual evaluation

### Risk stratification outcomes

- **Total score 0 – 1**
  - Early discharge
  - Endoscopy in outpatient clinic

- **Total score 2+**
  - Haemodynamically stable
    - Endoscopy within 24 hours
  - Haemodynamically unstable
    - Emergency endoscopy

#### Proton pump inhibitor
- Eradication of any Helicobacter pylori infection

#### Embolisation therapy
- Transcatheter arterial embolisation should be considered as the next alternative after unsuccessful endoscopy, because it is effective and associated with less risk of major complications than surgery

#### Successful haemostasis

#### Not successful haemostasis

#### Surgery
- If transcatheter arterial embolisation is unsuccessful or not available, surgery is the only remaining treatment to stop peptic ulcer bleeding. A minimal surgical approach with over-sewing of the ulcer is preferable, but depending on size and location of ulcer, open surgery may be required.

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