

## Upper GI Bleeding

### Resuscitation and initial management

- Transfuse massive bleeding with blood, platelets and clotting factors in line with local protocols
- Platelet transfusion- actively bleeding and plt count  $< 50 \times 10^9/L$
- FFP- Actively bleeding and PT/INR/aPTT  $> 1.5$  normal
- Fibrinogen  $< 1.5$  g/L despite FFP- cryoprecipitate
- PCC- patients on warfarin and actively bleeding

### Timing of Endoscopy

- Unstable patients with severe acute UGI bleeding- Endoscopy immediately after resuscitation.
- All other patients- Endoscopy within 24 hours of admission.

### Non-variceal bleeding

- Medical Management
  - PPI increases gastric pH and stabilize clot, use omeprazole/ pantoprazole loading dose with the infusion
  - Tranexamic acid, no proven benefit
- Endoscopic treatment
  - Mechanical method e.g. clips with or without adrenaline
  - Thermal coagulation with adrenaline
  - Fibrin or thrombin with adrenaline.
  - Endoscopic injection of N-butyl-2-cyanoacrylate to patients with upper gastrointestinal bleeding from gastric varices.
- Offer TIPS if bleeding from gastric varices is not controlled by endoscopic injection of N-butyl-2- cyanoacrylate.
- Offer a repeat endoscopy to patients who re-bleed with a view to further endoscopic treatment or emergency surgery.
- Offer interventional radiology to unstable patients who re-bleed after endoscopic treatment.
- Refer urgently for surgery if interventional radiology is not promptly available.

### Variceal bleeding

- Medical Management
  - Vasopressin/ terlipressin- significant relative Risk reduction and mortality benefit
  - Stop treatment after definitive haemostasis has been achieved, or after 5 days.
  - Prophylactic antibiotic therapy at presentation, proven mortality benefit- ceftriaxone or ciprofloxacin
- Endoscopic treatment
  - Band ligation
  - Consider transjugular intrahepatic portosystemic shunts (TIPS) if bleeding not controlled by band ligation.
- Life-threatening bleeding may be controlled with a Sengstaken-Blakemore tube or a Linton-Nachlas tube until haemostasis can be achieved endoscopically, or with TIPS.

### patients on NSAIDs, aspirin or clopidogrel

#### Control of bleeding and prevention of re-bleeding

- Continue low-dose aspirin for secondary prevention of vascular events in patients with UGI bleeding in whom haemostasis has been achieved.
- Stop other non-steroidal anti-inflammatory drugs (including cyclooxygenase-2 [COX-2] inhibitors) during the acute phase
- Discuss the risks and benefits of continuing clopidogrel (or any other thienopyridine antiplatelet agents) in patients with upper gastrointestinal bleeding with the appropriate specialist (for example, a cardiologist or a stroke specialist) and with the patient.