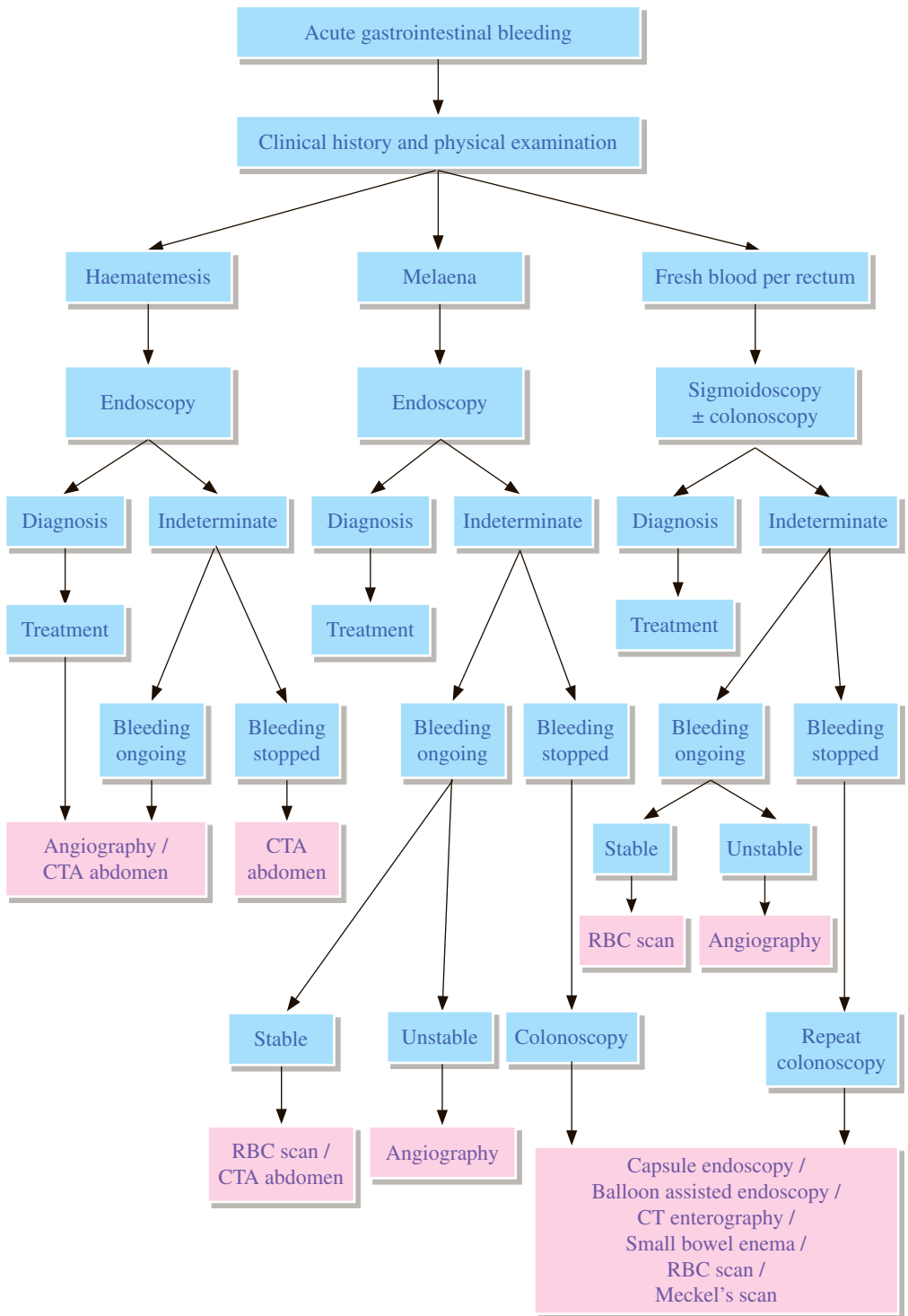


GI 5 Acute gastrointestinal bleeding



## REMARKS

### 1 Plain radiograph

- 1.1 Abdominal X-ray (AXR) is of no value in diagnosing acute gastrointestinal (GI) bleeding.

### 2 Small bowel study

- 2.1 Small bowel barium studies may detect Meckel's diverticulum or small bowel tumours. If both small bowel study and angiography are required for investigation of acute GI bleeding, angiography should be performed first.

### 3 Nuclear medicine

- 3.1 Technetium-99m (Tc-99m) labelled red blood cell (RBC) scan
  - 3.1.1 It is indicated primarily for overt mid or lower GI bleeding.
  - 3.1.2 It is also helpful in identifying the source of obscure GI bleeding.
  - 3.1.3 It can detect a bleeding rate as low as 0.05-0.1ml/min and can help to localize the bleeding site, but errors in localization occur in cases of gastric or duodenal source.
  - 3.1.4 It can localize intermittent bleeding.
- 3.2 Meckel's scan
  - 3.2.1 In a young patient with lower GI bleeding, Meckel's diverticulum has to be considered.

### 4 CT abdomen (CT angiography & CT enterography)

- 4.1 In upper gastrointestinal bleeding (UGIB), it is useful for localizing obscure UGIB, and for work-up in patients with UGIB with prior history of aortic reconstruction or pancreaticobiliary procedure.
- 4.2 In lower gastrointestinal bleeding (LGIB), it can be used to localize LGIB, identify the pathological causes and direct treatment, as well as provide arterial anatomy for treatment planning.
- 4.3 CT enterography or CT enteroclysis is the choice in obscure LGIB when capsule endoscopy is contraindicated, e.g. suspected obstruction or suspected stricture.

### 5 Angiography

- 5.1 For bleeding to be detected on angiography, it must be active arterial or capillary bleeding, with rate greater than 0.5 ml/min. It is usually not useful in venous bleeding.
- 5.2 The bleeding site can be localized on angiography, and in selected cases, vasopressin infusion or embolization can be used to arrest the bleeding.
- 5.3 Roles in UGIB
  - 5.3.1 In active UGIB when upper endoscopy is unable to control or localize the bleeding source, or when re-bleeding occurs, or when the patient is haemodynamically unstable.
- 5.4 Roles in LGIB
  - 5.4.1 In massive LGIB with haemodynamic instability or heavy transfusion need;
  - 5.4.2 Also allows treatment by means of embolization.

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