GI 1  Blunt abdominal trauma in adult

Blunt abdominal trauma in adult (excluding penetrating trauma and paediatric trauma)

Unstable

FAST +/- CXR, KUB

Stable

High suspicion of intra-abdominal injury

Low suspicion of intra-abdominal injury

CT abdomen and pelvis +/- thorax

Clinical management

No intra-abdominal fluid

Free intra-abdominal fluid

Surgery

No intra-abdominal fluid

Surgery

Intra-abdominal injury (except renal or urinary tract injury)

Clinical management

No intra-abdominal injury

Look for other causes of hypoperfusion

Stabilize

Failure

Follow the “stable” pathway

Observe

Angiogram ± embolization

Failure

Surgery

Renal or urinary tract injury

Please refer to guidelines on renal trauma (UR1) and lower urinary tract injury (UR2)
REMARKS

1 General
   1.1 Penetrating trauma and paediatric trauma are excluded in this guideline.
   1.2 The extent and choice of imaging is influenced by the haemodynamic stability of the patient together with the severity of trauma, site of trauma, and other associated injuries.

2 Plain radiograph
   2.1 Plain radiographs including chest X-ray (CXR) and kidney, ureter and bladder radiograph (KUB) can evaluate fracture, pneumothorax, pneumomediastinum, and abnormal intra-abdominal gas collection, but they are frequently negative.
   2.2 CXR, KUB and focused assessment with sonography for trauma (FAST) are complementary examinations if patient condition permits.

3 US
   3.1 US is not an appropriate modality to evaluate organ injury in a patient with blunt abdominal trauma. A negative US does not rule out visceral injury.
   3.2 FAST is to check for intra-abdominal free fluid that can guide decisions on further management.
   3.3 A negative FAST does not completely rule out haemoperitoneum. There is a false negative rate of >15%.

4 CT
   4.1 In stable patients with blunt abdominal trauma, CT abdomen and pelvis is the primary imaging modality for deciding whether the patient needs urgent surgery, angiography +/- therapeutic embolization, or close observation.
   4.2 CT is excellent for identifying active haemorrhage, or hepatobiliary, splenic, pancreatic, genitourinary, intestinal, or diaphragmatic injury.
   4.3 CT evaluation of abdomen and pelvis for blunt trauma does not require the use of oral contrast. Scanning should include the lower thorax through to the floor of the pelvis with administration of intravenous (IV) contrast.

5 Angiography
   5.1 Not appropriate as an initial imaging modality. It is appropriate if additional clinical information or imaging suggests possibility of active haemorrhage or pseudoaneurysm in haemodynamically stable patients.

REFERENCES