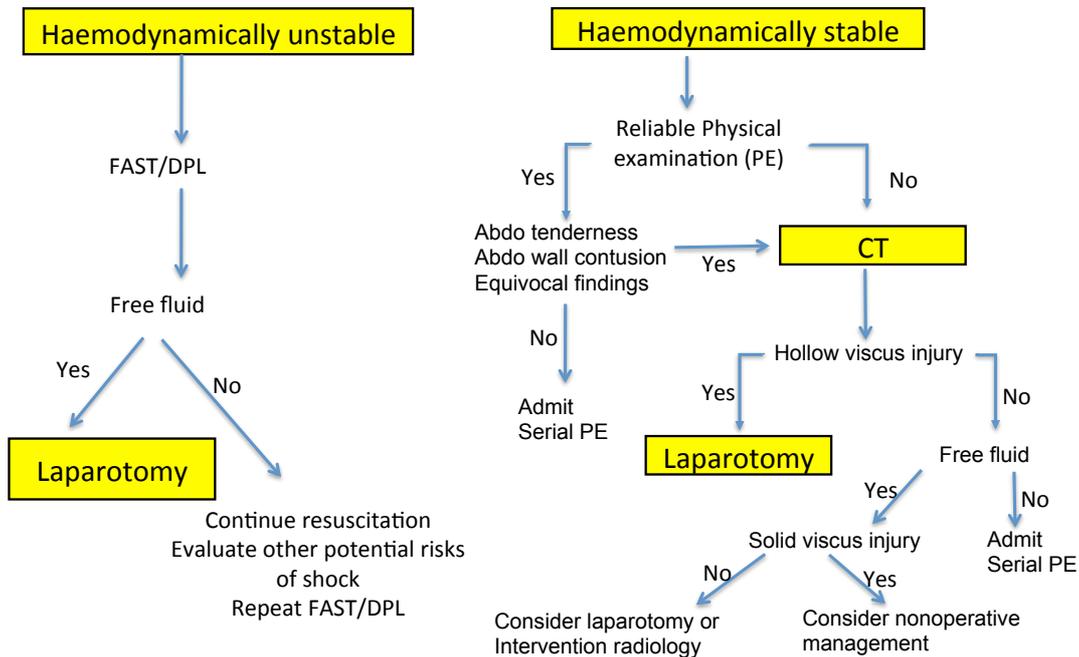


Blunt Abdominal trauma

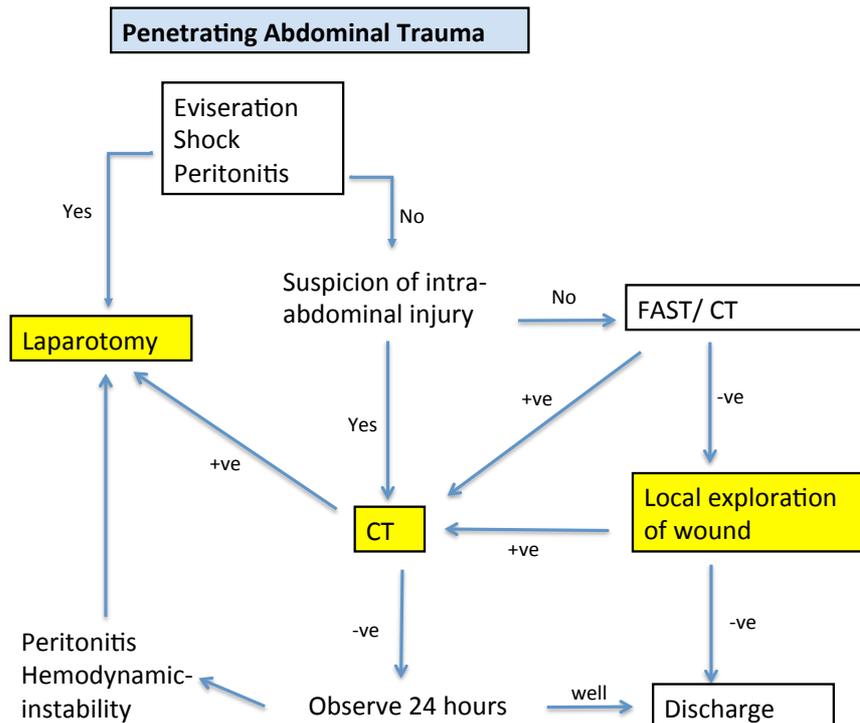
- In haemodynamically unstable patients (systolic blood pressure < 90 mm Hg) with blunt abdominal trauma, bedside ultrasound, when available, should be the initial diagnostic modality performed to identify the need for emergent laparotomy.
- A negative ultrasound result in haemodynamically unstable patients does not preclude the need for further diagnostic testing. In addition, diagnostic accuracy of bedside ultrasound may vary depending on sonographer skill and equipment
- CT has the advantage of being very sensitive and specific for solid-organ blunt abdominal trauma injuries and provides information not supplied by other diagnostic modalities; however, it is expensive, time consuming, and requires that the unstable patient leave the resuscitation room to be transported to the radiology suite. Additionally, the patient is at risk for complications from ionising radiation and contrast-induced nephropathy. Ultrasound can be performed rapidly at the bedside, is inexpensive, and has no known associated risks, in addition to having favorable test characteristics.
- When evaluating blunt abdominal trauma, the initial CT may be performed with IV contrast only, even if there is suspicion of bowel injury.
- Patients with isolated abdominal trauma, for whom occult abdominal injury is being considered, are at low risk for adverse outcome and may not need abdominal CT scanning if the following are absent: abdominal tenderness, hypotension, altered mental status (Glasgow Coma Scale score < 14), costal margin tenderness, abnormal chest radiograph, hematocrit $< 30\%$ and hematuria.
- Clinically stable patients with isolated blunt abdominal trauma can be safely discharged after a negative result for abdominal CT with IV contrast (with or without oral contrast). Further observation, close follow-up, and/or imaging may be warranted in select patients based on clinical judgement.

Blunt Abdominal Injury



Penetrating Abdominal trauma

- Some penetrating abdominal injuries can be successfully managed non-operatively – “selective conservatism
- The majority of gun shot injuries are best served by laparotomy.
- DPL (diagnostic peritoneal lavage) has a very limited role.
- Laparoscopy in expert hands can be considered an option in a
- haemodynamically stable and low risk patient.



Antibiotics

- A single preoperative dose of prophylactic antibiotics with broad-spectrum aerobic and anaerobic coverage should be administered to all patients sustaining penetrating abdominal wounds.
- Absence of a hollow viscus injury requires no further administration of antibiotics.
- In patients admitted with hemorrhagic shock, the administered dose of antibiotics may be increased twofold or threefold and repeated after transfusion of every 10 units of blood until there is no further blood loss.
- Prompt antimicrobial administration before laparotomy for trauma or as soon as feasible following gross contamination should be the goal.
- Prophylactic antibiotic use in penetrating abdominal trauma: An Eastern Association for the Surgery of Trauma practice management guideline

References

Practice management guidelines for the evaluation of blunt abdominal trauma: The EAST practice management Guidelines Work Group. Hoff et al. J Trauma. 2002;53:602-615

Management guidelines for penetrating abdominal trauma. Biffl et al. Current Opinion in Critical Care 2010,16:609-617

Prophylactic antibiotic use in penetrating abdominal trauma: An Eastern Association for the Surgery of Trauma practice management guideline. Goldberg et al. J Trauma Acute Care Surg. Volume 73, Number 5, Supplement 4

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