

Blunt Abdominal Trauma

Date	Version
May 2015	V2

Purpose

Following the national introduction of Regional Trauma Networks, Major Trauma Networks (MTN's) are required to have a policy for Blunt Abdominal Trauma.

The purpose of this policy is to provide direction and guidance for actions from key individuals and organisations within The Peninsula Trauma Network to improve the patient pathway and ensure that patients are transferred to the definitive point of care as quickly and safely as possible.

Who should read this document?

PTN and Severn Trauma Network Clinical and Governance Directors
TU and MTC Clinical Leads for Major Trauma
Trauma Team Leaders
Acute Trust Lead Nurses

Key messages

Accountabilities

Production	Dr Mark Jadav
Review and approval	PTN Clinical Advisory Group
Ratification	PTN Executive Board
Dissemination	All PTN acute Trusts,
Compliance	All Parties

Links to other policies and procedures

PTN Trauma Team Activation Policy
PTN Safe Transfer of the Critically Ill Patient
PTN Secondary Transfer Policy

Version History

V1	Dr Mark Jadav	Clinical Director, Peninsula Trauma Network
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Last Approval	Due for Review

PTN Clinical Policy - Blunt Abdominal Trauma

Evaluation

FAST and CT are the main adjuncts for the evaluation of blunt torso trauma in adults. Formal ultrasound is usually first line investigation in children – discuss with the surgeon and the trauma team radiologist should be able to facilitate.

1) Clinical abdominal assessment is difficult.

- a) Peritonitis requires a laparotomy.
- b) Equivocal or negative findings with other injuries or confounding factors require further investigations.
- c) Patients with head/chest injuries and lower limb/pelvis injuries require formal exclusion of abdominal injury regardless of absent physical signs as the risk of abdominal injury is significant.

2) FAST

- a) Focussed assessment with sonography for trauma is a rule-in investigation only and cannot be used to rule out an injury.
- b) A negative FAST means nothing.
- c) FAST only looks for fluid in the perihepatic, perisplenic, pericardiac and pelvic region.
- d) An unstable patient with fluid on FAST should have a laparotomy or CT with a view to interventional radiology.
- e) A stable patient with a positive FAST should have a CT to determine the source of bleeding.
- f) Repeat the FAST as the situation evolves.

3) CT

- a) Free fluid (blood) in the abdomen on a trauma CT without solid organ injury requires a laparotomy.
- b) Solid organ injury on CT in a stable patient may be managed conservatively in a critical care area with frequent (2-3 hourly) reassessment by the General Surgical Registrar or Consultant.
- c) Development of peritonitis requires a laparotomy
- d) Development of cardiovascular instability requires haemorrhage control laparotomy or interventional radiology.
- e) There is a 2-15% incidence of missed hollow viscus injury in patients with solid organ injury – BEWARE.
- f) The lack of free air on an abdominal CT does NOT rule out hollow viscus injury.

Management

Indications for emergency laparotomy (this list is not exhaustive)

The General Surgical Consultant should be present for all trauma laparotomies.

1. Clinical peritonitis
2. Evidence of hollow viscus injury on imaging
3. Retained weapon
4. Gunshot wound abdomen
5. Evisceration
6. Shocked patient with abdominal trauma unable to perform CT
7. Shocked patient with positive FAST unable to perform CT
8. Shocked patient with free abdominal (peritoneal, retroperitoneal, pelvic) fluid on CT but no active contrast extravasation

Solid viscus injury – non-operative management

Active extravasation on CT

Patients with active contrast extravasation on CT may be suitable for interventional radiography (IR) and angioembolisation. Discuss such cases with local IR service if available immediately or Major Trauma Centre (MTC) Trauma Team Leader (TTL) if considering emergency transfer.

The most unstable patients will always require individual decisions based on all known factors:

1. time to IR vs time to surgery,
2. likelihood of success with IR vs surgery,
3. other injuries requiring IR or laparotomy,
4. trauma experience of available IR and surgical staff.

A frank discussion should be held by all consultants with recognition that if the first choice of management is unsatisfactory, the alternative modality may be required.

Haemodynamically normal

Low-grade hepatic, splenic and pancreatic lacerations in a haemodynamically normal patient may be best managed conservatively. This decision is made by the treating consultant general surgeon, with advice if required from the regional hepatobiliary surgical centre in Derriford (Adults) or Bristol Children's Hospital (Paediatrics). Always contact the MTC TTL first at the appropriate centre to discuss management of a trauma patient: they will coordinate a timely response to your queries.

High-risk of failure of conservative management

- High grade injury
- Exceeding one unit of blood and / or increasing transfusion requirements
- Presence of other abdominal injuries

References

Royal Melbourne Hospital Trauma Service guideline for blunt abdominal trauma.

American College of Emergency Physicians clinical policy: Critical issues in the evaluation of adult patients presenting to the emergency department with acute blunt abdominal trauma.

East Midlands Trauma Guidelines: abdominal trauma.