South East of Scotland
Major Trauma Centre Training and Education

SCOTTISH TRAUMA NETWORK SOUTH EAST

ICU Trauma
Abdominal and Pelvic Trauma

Circulation assessment during the primary survey can indicate if a trauma patient has a possible intra-abdominal and/or pelvic bleeding following blunt trauma

Any person who has sustained a blunt or penetrating injury to the torso must be assumed to have an abdominal visceral, vascular or pelvic injury until proven otherwise

Penetrating abdominal trauma:

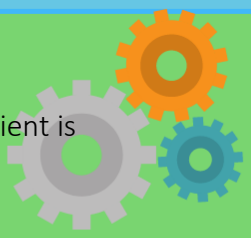
- Stab wounds – commonly injure liver, small bowel, diaphragm and colon
- Gunshot wounds – commonly injure small bowel, colon, liver and abdominal vessels

Blunt Abdominal Trauma:

- Direct blow injuries – steering wheel in RTC can cause rupture of organs with associated haemorrhage
- Shearing injuries – seatbelt injury
- Deceleration injuries – caused by rapid deceleration e.g. in RTC or fall from great height

MOST FREQUENT INJURED ORGANS – SPLEEN, LIVER and SMALL BOWEL

Management:



Rapid identification of an abdomino-pelvic injury in a hypotensive patient is VITAL in early HAEMORRHAGE CONTROL!

Factors to consider when managing the patient:

Detailed history

Thorough and extensive abdominal and pelvic examination

Pelvic binder if suspicion of pelvic fracture

Surgical referral

IR for haemorrhage control

Prevent hypothermia

Close monitoring

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There can be significant blood loss into the peritoneum without any obvious change to the abdominal appearance

Image credit: ***Prometheus Medical***

- Major pelvic haemorrhage can occur rapidly and a quick diagnosis is essential to initiate appropriate resuscitative treatment.
- Mechanical instability of the pelvic ring should be assumed in patients who have pelvic fractures associated with hypotension and no other source of blood loss.
- **Placing a pelvic binder is a priority and may be a lifesaving measure.**

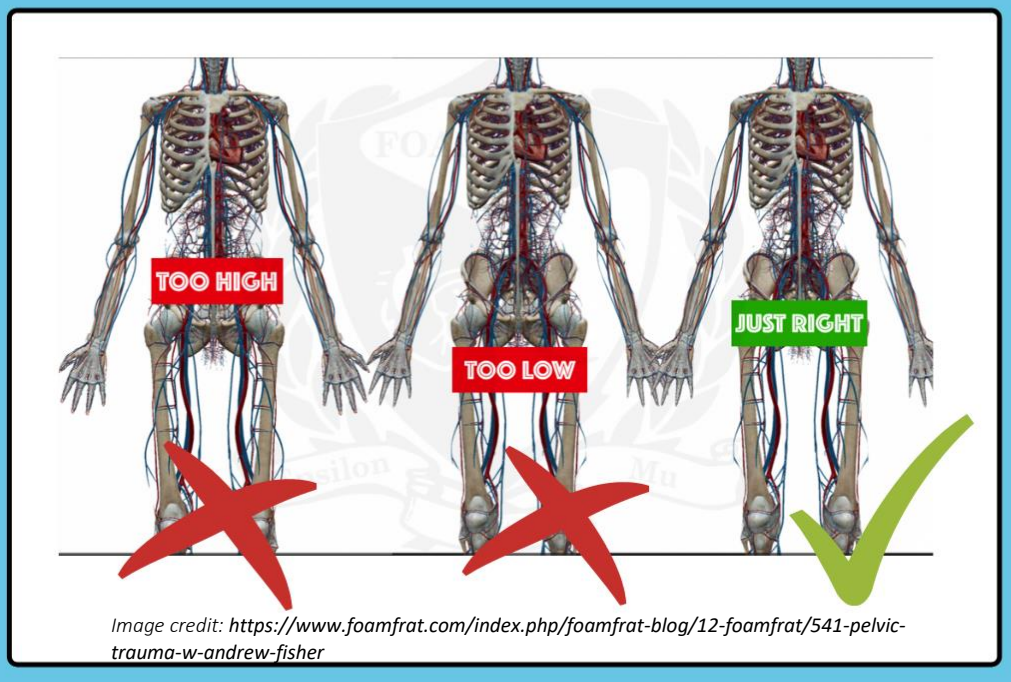

Image credit: ***https://www.foamfrat.com/index.php/foamfrat-blog/12-foamfrat/541-pelvic-trauma-w-andrew-fisher***

- Pelvic binders should not be kept for more than 24 hours – 48 hours as skin necrosis and pressure sores can occur.
- There is also potential risk of soft tissue complications from prolonged compression from the pelvic binder.
- Pelvic binders should be removed once resuscitation is complete, in patients who are normothermic, with no further haemorrhage and normal coagulation – this is usually within 24 hours of admission.

Internal fixation should be performed within 24 hours in stable patients without deranged physiology.

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