Guidelines for management of Haemodynamically Unstable Pelvic fracture - JCUH

- This document assumes that the scope of patients discussed are managed in Trauma Resuscitation environment, by multidisciplinary trauma team, in line with ATLS and local protocols.
- All patients with high index of suspicion of pelvic fracture should have pelvic binder applied, ideally pre-hospital.
- **First line of management:**
  Pelvic Binder (PB)+ Haemostatic resuscitation (Major Transfusion Protocol + prevent hypothermia) are always the first line of management of trauma patients presenting with hypovolaemic shock.
- There is no indication for application of pelvic External Fixator (ExFix) in the emergency department. Pelvic binder will provide similar, if not superior, control.

**Dual Phase Trauma CT**

Any patient with:
- Blunt injury + haemodynamic instability, at any stage of management, including responders.
- OR
- High index of suspicion of bleeding pelvic fracture

Should have a **Dual Phase Trauma CT** (arterial and venous) for chest, abdomen and pelvis as soon as possible.

- If the CT demonstrates arterial bleeder (blush / extravasation), discuss with the Interventional Radiologist and orthopaedic team/pelvic surgeon oncall for possible need for embolisation.
- If the CT demonstrates pelvic haematoma, with no arterial bleeder + patient is non- (or transient) responder + no abdominal or thoracic source of bleeding.....proceed to ExFix + Pelvic Packing (PP).

**Other indications for ExFix + PP:**
- Failure of embolization to control haemorrhage + no other source of bleeding identifiable
- Patient needs to go to theatre for emergency laparotomy / thoracotomy, in the presence of pelvic fracture + high index of suspicion of pelvic bleeding.
- Interventional radiologist unavailable or significant delay before angiography is expected.

- **Management of PB during angiography:**
  If the binder is obstructing access for angiography, one of the following can be followed:
  - An access can be cut in the binder without compromising the PB function. This is the preferred protocol.
  - A new PB can be applied at a higher, or lower, level before removing the obstructing PB. This is to be supplemented with a sheet/bandage to bind both ankles together, supporting hip internal rotation.
  - Open the binder temporarily until the access is established, then re-apply the binder.

- **ExFix/PB before laparatomy or pelvic packing:**
  In the presence of unstable pelvic fracture, laparatomy and/or pelvic packing should always be performed with a pelvic stabilisation insitu (external fixator, or, in extreme cases, binder)

- **Failed packing:** if the patient continues to bleed, consider angiography and other sources of bleeding.

- **Failed embolisation:** consider packing, repeat angiography, and other sources of bleeding.

- **After interventional resuscitation:**
  - Admission to ITU
  - Keep binder / ExFix on
  - No prophylactic anticoagulation within first 24 hours
  - Monitor for re-bleeding

- **In Trauma Units (non-MTC):**
  - Apply binder + initiate haemostatic resuscitation ASAP (Major Haemorrhage Protocol).
  - Contact the nearest MTC Emergency Department for Emergency Transfer.