

POLICY:

Flowchart for the management of pelvic fractures:

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graph TD
    Start([PELVIC FRACTURE]) --> SBP{SBP < 100mm Hg}
    SBP -- Y --> Binder1[BINDER]
    SBP -- N --> Age{AGE < 55}
    Binder1 --> FAST1{FAST +}
    FAST1 -- Y --> LC1{LC-1 FRACTURE?}
    FAST1 -- N --> ConsiderAngio1[CONSIDER PELVIC ANGIOGRAM]
    LC1 -- Y --> Expl1[EXPLORATORY LAPAROTOMY]
    LC1 -- N --> ConsiderAngio1
    Age -- Y --> Binder2[BINDER]
    Age -- N --> Complex{COMPLEX FRACTURE APC 2, APC 3, LC 3, VS}
    Binder2 --> FAST2{FAST +}
    Binder3[BINDER] --> FAST2
    FAST2 -- Y --> FAST2
    FAST2 -- N --> DevelopShock{DEVELOP SHOCK?}
    DevelopShock -- Y --> OtherBleed{OTHER SOURCE BLEEDING? CHEST, OPEN WOUND, ETC.}
    DevelopShock -- N --> RoutineWorkup1[ROUTINE WORK-UP]
    OtherBleed -- Y --> TreatBleed[TREAT OTHER SOURCE OF BLEEDING]
    OtherBleed -- N --> PelvicAngio2[PELVIC ANGIOGRAM]
    FAST2 --> AbdominalCT{ABDOMINAL/PELVIC CT SCAN}
    AbdominalCT --> IntraAbdominal{INTRA ABDOMINAL INJURY?}
    IntraAbdominal -- Y --> Expl2[EXPLORATORY LAPAROTOMY OBSERVE]
    IntraAbdominal -- N --> PelvicHematoma{PELVIC HEMATOMA?}
    PelvicHematoma -- Y --> PelvicAngio3[PELVIC ANGIOGRAM]
    PelvicHematoma -- N --> RoutineWorkup2[ROUTINE WORK-UP]
  
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Anatomical Diagram: A diagram of a human pelvis showing the placement of a pelvic binder. The binder is represented by a yellow and black striped band around the pelvic region. Red dashed lines indicate the internal pelvic structures and the path of the binder. A red arrow points to the binder, indicating its application.

Legend:

- FLUID RESUSCITATION IS ASSUMED
- ORDER ANGIOGRAM AS "LEVEL 1"

These guidelines are designed for the general use of most patients, but may need to be adapted to meet the special needs of a specific patient as determined by the patient's care giver.

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General Guidelines:

1. After primary surgery (and application of binder), contact orthopaedic surgeon for additional questions; ie, need for skeletal traction placement in the emergency department.
2. Patient should be left in binder for additional procedures including but not limited to: transfers, celiotomy and arteriography.
3. Orthopaedic surgeon should perform skin check within 12 hours of binder application and evaluate for soft tissue problems. Binder may be gently loosened within the first 12 to 24 hours to minimize soft tissue problems.
4. While binder is in place orthopaedic surgeon should perform daily skin check to evaluate for pressure wounds over greater trochanters.
5. Consider surgery in the first 48 to 72 hours after injury. Otherwise, formal surgery may need to be postponed until post injury day 6, 7 or longer depending on patient's inflammatory response to initial trauma.
6. All pelvis and acetabular fractures can be cared for at this institution. Potential transfers would include patients > 14 years of age or patients with other injuries for which appropriate care cannot be provided.

References:

Langford JR, Burgess AR, Liporace FA and Haidukewych GJ. Pelvic Fractures Part 1: Evaluation, classification and resuscitation. J Am Acad Orthop Surg. 2013;21: 448-457.

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Prasarn ML, Horodyski MB, Conrad B, et al. Comparison of external fixation versus the trauma pelvic orthotic device on unstable pelvic injuries: a cadaveric study of stability. J Trauma Acute Care Surg. 2012; 72: 1671-1675.

Cullinane DC, Schiller HJ, Zielinski MD, et al. Eastern association for the surgery of trauma practice guidelines for hemorrhage in pelvic fracture: update and systematic review. J Trauma. 2011; 71: 1850-1868.

Eastridge BJ, Starr AJ, Minei JP and O'Keefe GE. The importance of fracture pattern in guiding therapeutic decision-making in patients with hemorrhagic shock and pelvic ring disruptions. J Trauma. 2002; 53: 446-451.



The Medical Center of Plano

Approved by: P&P, Trauma Services Committee

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