# Flowchart: Blunt Chest Trauma

Follow ATLS/EMST guidelines for initial assessment and management of all trauma patients

#### For specific blunt chest trauma: Assessment and Management

If the patient is unable to cough, take a deep breath or mobilise – an inpatient admission is required.

Consider an ICU review when any clinical deterioration is detected (e.g.  $\uparrow$  02 or flow demand,  $\uparrow$ WOB,  $\uparrow$ ADDS score,  $\checkmark$ SpO2 or multiple red flags present). Escalate care as per local guidelines.

Arrange a review by the appropriate clinical team

Consider transfer to a major trauma centre and ensure early activation of the retrieval process<sup>35</sup> through **RSQ (1300 799 127)** where applicable

#### **Red flags for potential deterioration** Age >55years

Uncontrolled pain

Previous lung disease: Smoker, COPD, asthma Morbid obesity

## Respiratory compromise:

↑WOB, ↑RR, ↓SpO2≥3 fractured ribsShallow breathingInability to cough

#### Associated injuries: Pneumothorax or haemothorax Pulmonary contusion Flail chest

#### Admission

Intensive Care/High Dependency Unit: Respiratory management above ward-level care

Haemodynamic monitoring requirement Inotrope requirement And/or other injuries requiring ICU management

#### Ward Admission

Admission to either a surgical or medical ward bed will be dependent on local patient admission procedures. The patient management should be supported by the appropriate treating team/s.

#### **Telemetry Bed**

If there is clinical concern for cardiac contusion or a new ECG change and/or elevated troponin: Continuous cardiac monitoring (telemetry) is indicated for 24 to 48hrs<sup>1,2</sup> Cardiology review/admission for consideration of echo

### Transfer to Major Trauma Centre

Consider transfer to a major trauma centre for the following patients, as per local guidelines.

Ensure early activation of retrieval with RSQ Significant major trauma involving more than one body region

Patients requiring ventilatory support Haemothorax with significant ICC drainage Large tracheobronchial injury, cardiac tamponade, clinical flail chest Sternal fracture with cardiac contusion Mediastinal or great vessel injury<sup>3</sup>

Consideration of surgical rib fixation<sup>4</sup>



#### Consideration for special patient groups

**Elderly frail patients aged >65** - Early recognition, low threshold for CT, GP/Geriatrician/medical input, and opioid sparing analgesia strategies i.e. regional blocks.

**Obstetric trauma patients** Refer to Maternity and Neonatal Clinical Guideline *Trauma in Pregnancy*<sup>5</sup> **Paediatric trauma patients** Refer to Paediatric Trauma Service: *Trauma Guidelines* 11<sup>th</sup> Edition<sup>6</sup>



Pelvic xray







# PIC Score

1 2 3 4 5 6 7 8 9 10

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Pain Patient-reported, 0-10 scale	<b>Inspiration</b> Inspiratory spirometer; goal and alert levels set by respiratory therapist	Cough Assessed by bedside nurse
3 - Controlled (Pain intensity scale 0-4)	4 – Above goal volume	3 - Strong
0.16.1	3 – Goal to alert volume	0 147 1
2 - Moderate		2 - Weak
(Pain intensity scale 5-7)	2 – Below alert volume	
1 - Severe (Pain intensity scale 8-10)	1 – Unable to perform incentive spirometry	1 - Absent
Patient name:	Date:	IS Goal: