

OUTLINE OF MANAGEMENT PLAN

Consider:

Mechanism of blunt chest wall trauma and any of the following:

- +/- Clinical symptoms (chest pain / SOB)
- +/- Clinical signs (RR / SATS / air entry)
- +/- Chest wall bruising

Clinical decision based on the above: (NB: Have a lower threshold for imaging in patients aged >65 years)

Clinical signs of tension pneumothorax

YES

Decompress and insert definitive chest drain

No, but simple pneumothorax and / or haemothorax

CXR

YES

Simple pneumo / haemothorax

Suspected flail segment

NO

Insert chest drain, if not already done

YES

3D CT Scan trunk

YES

Consider 3D CT scan trunk before / after chest drain

NO

Triage using STUMBL Blunt Chest Trauma risk tool

Patients with the following should be referred directly to general surgery / cardiothoracic / ICU team:

Pneumothorax, flail chest, 1st Rib fractures / Bilateral rib fractures, high impact injuries (such as scapular fractures, major vascular injuries)


STUMBL Adult Blunt Chest Trauma Risk Tool¹



Add patient ID sticker

Age	Suspected Rib Fractures	Chronic Lung Disease	Anticoagulated Pre-injury	O2 Sats on Room Air	Total Score
Score 1 point for every complete decade e.g. 63 = 6 points	Score 3 points for every suspected rib fracture. Score 6 for each segmental rib fracture in the flail segment	5 points for COPD or productive chest disease (not smokers)	If yes score 4	<94% = 2 <89% = 4 <85% = 6	Add each separate score to give a total risk score

Risk Score	≤10	11-15	16-20	21-25	26-30	≥31
Patient destination	Consider discharge home with analgesia / advice sheet	D/W senior doctor in ED re admission OR discharge home	Recommend admission to ward	Recommend admission to ward	Recommend admission to Critical Care	Recommend admission to Critical Care
Oxygen delivery		If admitted: • Titrate to SATS • Nebulisers	• Titrate to SATS • Nebulisers	*Humidified oxygen titrated to SATS *Nebulisers	• Nasal high flow oxygen • Nebulisers	• Advanced ventilation support • Nebulisers
Team involvement		• Admitting team • Chest trauma support team (see below for contacts) If discharged: Give analgesia and advice sheet	• Admitting team • Chest trauma support team (see below for contacts)	• Admitting team • Chest trauma support team (see below for contacts)	*Admitting team *Chest trauma support team (see below for contacts) *ICU	• Admitting team • Chest trauma support team (see below for contacts) • ICU Consider surgical fixation

ANALGESIC LADDER: 

In ED: Regular paracetamol or Cocodamol* +/- NSAIDS** prn	If admitted: MST 5-10mg BD +/- Gabapentin 300mg +/- oramorph as needed	Strong opioid bolus iv titrated to pain IV morphine / Fentanyl PCA	Contact anaesthetist to discuss regional technique
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Serratus anterior / erector spinae plane block / paravertebral block / thoracic epidural

* If giving co-codamol 30/500 x 2 tablets qds: this gives an equivalent morphine dose of 24mg over 24 hours.
 **Contraindications: renal disease, hypersensitivity, anti-coagulation, gastric irritation, asthma, Refer to BNF. *Precautions: haemothorax

Chest trauma support team:

Theatre general anaesthetic reg.	23488
Cardiac anaesthetic reg:	23615
Ceri Battle / ITU physio team:	23920 / switch out of hours
Acute pain team:	23997 / 34612 out of hours
Consultant anaesthetist:	23808

NB: Additional guidance on whom to contact re regional analgesia techniques can be found in the anaesthetics dept

1) Battle CE, et al Predicting outcomes after blunt chest wall trauma: development and external validation of a new prognostic model. Crit Care. 2014, 18:R98 DOI: 10.1186/cc13873



Swansea Bay University Health Board

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PLEASE ENSURE THAT ALL QUESTIONS ARE ANSWERED – IF NOT APPLICABLE PLEASE PUT N/A

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