Chest Wall Trauma (Blunt) – Summary Guideline For Emergency Department use

Algorithm for Assessment & Initial Management of Blunt Chest Wall Trauma

Initial assessment	 History & Examination Respiratory Rate Pulse-oximetry Functional Pain Assessment Consider Arterial Blood Gas analysis if patie guided by pulse oximtry Check INR (if on Warfarin) Check FBC, UE's & Clotting 	ent being considered for ITU, and as			
Intial Investigations	 CXR/CT CHEST/TRAUMACT as clinically indicated Please refer to trauma frailty guideline for appropriate patients available on Net-i 	Assess for signs of deterioration ↓ PaO2 and/or↑ PaCO2 ↓cardio-vascular stability ↓ conscious level			
Initial Management	 Oxygen administration Provision of opioid bolus iv unless contraindicated Provision of multi-modal analgesia Consider need for regional block analgesia techniques Nurse patient in position of comfort (ideally sitting up) 				
Ongoing Observations/ Monitoring	 ↑ or ↓ respiratory rate ↑ work of breathing Ability to effectively cough Ability to deep breathe 	Caution: a FAST scan undertaken in a patient with lower rib fractures does <u>not</u> exclude intra- abdominal bleeding			

Once patient is clinically stable, apply the Chest Wall Trauma Scoring system (see appendix 2) to determine most appropriate destination for inpatient admission



Pathway for the patient presenting with isolated chest wall trauma or patients with chest wall trauma associated with other traumatic injuries who have NOT been transferred to the MTC:

Age	points	Pulmonary Contusion	points	No of rib fractures	points	Bilateral rib fracture	points
< 45	1	None	0	<3	1	No	0
45-65	2	Mild	1	3-5	2	Yes	2
>65	3	Severe	2	>5	3		
1		Bilateral	3	The second second	FERST STREET	A REAL PROPERTY OF	
						Total Score =	

1. Obtain a Chest Wall Trauma Score

Minimum score: 2 Maximum Score: 11

A score of \geq 7 predict increased risk of mortality. Assess the need for intubation and IPPV, and consider admission to ICU.

2. Use score obtained to score to guide admission and referral

- Score of <u>< 4</u>: Patient maybe transferred for care in ward 308 under the admitting surgical team with initiation of the NEWS/MEWS score unless need for epidural takes precedence as below when a referral to SDU will be required
- Score of 5-6: Patient to be considered for SDU unless additional head injury or cardiovascular instability as below; they are under the care of the admitting surgical team
- Score > 7: Patient to be considered for ICU/HDU as they are at high risk of deterioration and likely will require NIV or IPPV; they are under the care of the admitting surgical team

Irrespective of the score:

- All patients with a significantly altered GCS should go to ICU/HDU after their trauma CT scan
- All patients who are cardiovascularly unstable should go to ICU/HDU
- All patients who went to theatre for a significant visceral injury and blunt chest wall trauma should go to ICU/HDU
- All patients with significant hypoxaemia likely to require advanced respiratory support (eg CPAP, Optiflow, Intermittent NIV) or hypercarbia should be admitted to ICU/HDU

Any patient not being directly admitted to SDU or ICU/HDU will likely be transferred to SAU pending inpatient transfer to Ward 308 where possible. Ward 308 will act as a cohorting ward for all blunt chest wall injury patients to consolidate on going care.