

Trauma Scenario 4 Refresher Course

This is a Teaching Scenario. Some flexibility in how it progresses is possible according to individual learner needs

History {initial candidate briefing prior to arrival of child}

A 5 year old boy was playing on his father's trailer. He fell off when his father started driving. Dad stopped the car and found that one of the wheels of the trailer was on the boy's chest – so that Dad had to reverse the car to get it off. Dad told the ambulance officers that his son was initially not responsive but by the time they arrived he was crying and talking.
Estimated weight 20kg

Initial impression {provide information as candidate assesses child and applies monitoring}

Cervical Collar in place. Eyes closed but obeying commands, cooperative but complaining of nausea. There were significant petechiae above clavicles. He has abrasions on the right side of forehead, chest, lower abdomen and pelvic area. Pelvic binder in situ. HR 125, SpO₂ 92% in air, RR 25, decreased R chest movement, BP 97/63, CRT 2.

Clinical Course {to be given to candidate as they progress}

Increased work of breathing, pain on inspiration, decreased chest movement and decreased breath sounds right side. Tenderness when palpating right side of the chest. No surgical emphysema. Saturation improves to 96% once oxygen applied. Analgesia reduces splinting and improves chest movement. Abdomen soft. Pelvis stable
Conscious state deteriorates- becomes irritable, then only responding to painful stimuli.
Airway is at risk. SpO₂ falls to 90%. Chest X-ray shows significant R lung contusion.

INSTRUCTORS INFORMATION

Key Treatment Points



< C >	Assess for and control external bleeding	
Airway & C-spine	Establish airway patency Protect cervical spine High flow O ₂ via face mask commenced early Titrate O ₂ therapy to SpO ₂ 94-98% when stable	
Breathing	BVM ventilation with 100% O ₂	
	Intubate or arrange for urgent intubation and ventilation	
Circulation	Early IV access x 2 large bore cannula	
	Cross match & Blood tests	
General Therapy	Arrange CXR & X-ray of injured limbs Analgesia & sedation ICU / Retrieval service / Surgical /Neurosurgical consultation	

Diagnosis: Traumatic Brain Injury, Severe lung contusion

Learning objectives

At the end of this session participants should be able to:

- Apply the structured approach to assessment, management and diagnosis of blunt trauma involving head and chest injuries
- Recall and apply the principles of management regarding hypoxemia and lung contusion
- Recall and consider the application of management of traumatic brain injury in their own practice

Potential Issues to be Discussed

Advanced airway/ventilation management/RSI **in trauma, head injury- MILS**

- Analgesia in initially alert patient to improve ventilation
- Fluid resuscitation in hemodynamically normal patient with lung and head injury
- Use of team members for MILS
- Need for CO₂ control once conscious level drops
- Short and medium term implications of lung contusion

