

# SIMULATION CASE PT-8

## Learning outcomes:

By the end of this simulation the candidates will:

- Apply the structured approach to trauma management
- Manage a patient with multiple trauma

**Simulation focus:** Haemorrhagic shock from liver laceration and leg injury. Pulmonary contusion on the right lung with no rib fracture. There is a 50% degloving injury of the right thigh with a compound fracture of the right distal tibia and fibula

**Timing:** 0-3 minutes: introduction; remaining time: split equally between simulation and debrief

## Introduction [Environment and Set]

Prior to the start of the simulation: one instructor to:

### 1. [Environment] Brief candidate group to *check the Environment*:

Room	Candidates to set up the room appropriately	
Equipment	Candidates to check required equipment present and accessible	

## Equipment list:

In addition to generic equipment list:

- Appropriate size manikin to be ready for simulation in room and covered until simulation commences

### 2. [Set] Give *History*

You have received a pre-alert from the non- paramedic crew bringing in a 9 year old boy who fell beneath the wheels of a lorry.

*Then leave the room for candidate group to prepare and after 2 minutes, return with instructor team and commence simulation*

## [Dialogue] Simulation

**Initial handover** *{to tell candidate on your arrival with the child as a Non-Paramedic SBAR to Team Leader}*

<b>Situation</b>	A 9 year old boy who fell beneath the wheels of a lorry	
<b>Background</b>	A 9 year old boy ran out into the road and fell beneath the wheels of a lorry which dragged him 20 yards before stopping. He has been on the scene for 30 minutes before he could be extricated. There is a major degloving injury of the right thigh with fractures of the right ankle and foot.	
<b>Assessment</b>	A	Patent, hypoxic on air
	B	RR 60/min with shallow respirations
	C	Pulse 160/min; CRT 6 secs
	D	Agitated
	E	Pale; in severe pain
<b>Recommendation</b>	Needs resuscitation and emergency management	

**Clinical course** *{to be given as the simulation progresses}*

Airways patent but he is hypoxic on air and is too distressed to allow a face mask to give oxygen. His pulse rate remains rapid although he has no hypotension. After a further dose of morphine he is hypoventilating and requires intubation and ventilation. This also allows more adequate analgesia to be given. Shock responds to massive haemorrhage protocol.

### Key treatment points



Preparation	Call trauma team		
	Briefing and allocation of roles		
Airway	Establish airway patency		
	Protect cervical spine		
Breathing	Assess and consider intubation early		
	High flow oxygen via face mask		
	Ventilate with 100% oxygen		
Circulation	Early IV access with wide-bore cannulae		
	Trauma bloods including blood for cross-match		
	Instigated the massive hemorrhage protocol		
Specific therapy	Pain relief		
	IV antibiotics		
<b>Handover to PICU Consultant</b>	S		
	B		
	A		
	R		

## [Closure] Debrief

Using the learning conversation, carry out the debrief of both the technical and non-technical elements of the simulation.

The debrief will be for the team as a whole and should focus on some or all of the following:

- Technical skills in an A, B, C, D, E format and guided by the KTPs; in particular the safe and effective demonstration of all continuously assessed skills:
  - BLS
  - Defibrillation
  - Airway management
- Non-technical skills, including qualities of team membership and leadership:

Team members	<ul style="list-style-type: none"> <li>• Clear communication</li> <li>• Respect</li> <li>• Flexibility</li> <li>• Assertiveness</li> <li>• Ability to listen</li> </ul>
Team leaders	All of the above, plus <ul style="list-style-type: none"> <li>• Full overview of all aspects associated with child, parents and team</li> <li>• Prioritises according to KTPs</li> <li>• Summarises and re-evaluates</li> </ul>

- Feedback on Environment, where required

### Potential issues that may be raised for this specific simulation

- Massive haemorrhage protocol. Trauma team approach. Early surgical intervention

At the end of the debrief, give the opportunity for candidates to ask questions, answer these and then summarise the key points

### Assessment

Refer to the *Instructor guidance on simulations* document for a guide to the assessment of the simulation station. These assessments should be documented on the paper-based or electronic system for the final faculty meeting. Any scores of *serious concern* should be reported immediately to the course director.