

# Demonstration – trauma simulation

## Key Teaching Objectives

To demonstrate a serious injury simulation and emphasise the following:

- <C>ABCDE /primary survey approach to injury
- Teamwork and preparing for the child
- Supportive critiquing
- Non-technical skills (NTS) feedback

## ENVIRONMENT FOR DEMONSTRATION

### Equipment required

See generic equipment list

### Environment

The room should be large enough to accommodate the instructors and equipment and ensure that all the candidates have a good view.

The equipment should be placed at an angle to the audience to facilitate their view. The instructors should not obstruct the view.

### Personnel required

6 x instructors to carry out the demonstrations in the following roles:

- Instructor to lead simulation
- Instructor to lead human factors feedback
- Team leader
- Team members x 3

## SET FOR DEMONSTRATION

### 1. Instructor

Introduces the format (including roles) and objectives of the demonstration then plays the role of the instructor.

## 2. Instructor describes the simulation to the instructor who is the team leader

### SIMULATION DEMONSTRATION

#### Learning outcomes:

By the end of this simulation the candidates will:

- Understand the structured, team approach to trauma management
- Recognise life-threatening head injury
- Implement resuscitation of the child with a head injury

**Simulation focus:** Base of skull fracture with severe frontal contusion, closed fracture left shaft of femur

**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*

An eight year old boy collided with a bus when he rode straight out of a side road into a main road. He was knocked out at the scene for about **10** minutes. On route to the hospital, he was drowsy and responded to voice by opening his eyes.

*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 Paramedic SBAR to Team Leader}

<b>Situation</b>	8 year old cyclist RTC	
<b>Background</b>	An eight year old boy collided with a bus when he rode straight out of a side road into a main road. He was knocked out at the scene for about <b>10</b> minutes. On route to the hospital, he was drowsy and responded to voice by opening his eyes.	
<b>Assessment</b>	A<C>	
	B	RR 25
	C	110/75, HR 125, CR <2s
	D	Responding to voice by groaning incomprehensibly
	E	Bruising around both eyes and bleeding from nose; deformity of left thigh
<b>Recommendation</b>	Needs emergency management	

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

There is progressive deterioration in his conscious level from GCS 10 to 3. The pupils become sluggish but are still equal. If not intubated and ventilated promptly he becomes more hypertensive and bradycardic.

## Key Treatment Points



<b>&lt;C&gt;Airway &amp; C-spine</b>	Establish airway patency		
	Protect cervical spine		
<b>Breathing</b>	High flow O <sub>2</sub> via face mask		
	Intubate and ventilate		
<b>Circulation</b>	Early IV access with wide-bore cannulae		
	Apply splint to left leg		
	Blood for cross-match, FBC, U&Es, Glucose, LFTs, Amylase		
<b>Specific Therapy</b>	Neurosurgery consultation		
	Consider pain relief – femoral nerve block		
	Trauma imaging		
<b>Handover to PICU team</b>	S		
	B		
	A		
	R		

### 3. Instructor terminates demonstration and ...

#### [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

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

### CLOSURE OF DEMONSTRATION

#### 4. Instructor then invites the course participants to ask questions, answer these and then summarise the key points