

PRIMARY TRAUMA CARE

Trauma Scenarios

2021 Edition

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SCENARIO 1 (used as Demonstration Scenario)

A 35 year-old man has fallen off his motorbike. At the scene he was yelling in pain. On arrival in hospital, he is now having difficulty in breathing.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Upper airway obstruction signs relieved by simple airway management Respiratory rate 28/min	Cervical spine Oxygen Airway
B	Air entry L chest much less than R Percussion note L hyper-resonant Percussion on R is normal Trachea deviated to R Tension pneumothorax	Urgent needle decompression brings some relief
C	BP 120/80 Heart rate 100 bpm	IV line x 2 Blood sample Fluid bolus
	During the assessment of the circulation, the airway becomes obstructed. The patient is now quiet, not yelling.	bag mask ventilation +/- intubation

Diagnosis: Tension pneumothorax
 Obstructed airway – possible head injury as a cause

Learning Objectives

- Confident use of the ABC structure in the Primary Survey
- Recognition of an obstructed airway and a graded approach to treatment (beginning with simple things first)
- Cervical spine and airway management at the same time
- Clinical assessment, correct diagnosis and correct treatment of a tension pneumothorax
- Recognition of shock and appropriate treatment
- Starting the ABC again if the patient deteriorates

SCENARIO 2

A 45 year-old woman is involved in a head-on collision in a car accident. She was not wearing a seatbelt. She arrives in hospital with rapid breathing, difficulty in talking and complaining of right-sided chest pain.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Obstructed airway (gurgling, snoring) Respiratory rate 30x	Cervical spine care Jaw thrust Suction Oxygen
B	No air entry on right side Trachea deviated to left Tension pneumothorax	Needle decompression +/- chest tubes results in RR 16, able to talk again
C	BP 100/70 HR 110 bpm	Fluid bolus x2 Blood test IV line x2 Results in BP 120/80, HR90

Diagnosis: Obstructed airway
 Fractured ribs + right tension pneumothorax
 Likely Cervical spine injury and head injury
 Shock

Learning Objectives

- Confident use of the ABC structure in the Primary Survey
- Recognise an obstructed airway and use of simple methods to open and clear it
- Combined management of cervical spine and airway
- Clinical assessment, correct diagnosis and correct treatment of a tension pneumothorax, including recognition of the need for a chest tube
- Recognition of shock and appropriate treatment

SCENARIO 3

A 25 year-old man was hit by a speeding van as he was cycling to the market. He was not wearing a helmet. He arrives in hospital with gurgling, noisy, shallow breathing, and is unconscious. Left thigh is swollen.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Stops breathing during assessment	Cervical spine care Airway support Bag mask Ventilation or intubate Oxygen
B	Chest is clear Air entry equal Percussion equal	No chest injury
C	HR 110 BP 120/80	IV line 2x Blood test Fluid bolus
D	Pupils initially fixed + dilated Back to normal with Oxygen	Consult Neurosurgeon
E	Closed femur fracture loss	Replace blood Immobilise/splint

Diagnosis: Obstructed airway, then respiratory arrest
 Shock
 Severe head injury
 (Fractured femur)

Learning Objectives

- Confident use of the ABC structure in the Primary Survey
- Recognise obstructed airway and respiratory arrest, requiring full airway support with BVM or intubation
- Combined management of cervical spine and airway
- Recognition of shock and appropriate treatment
- Recognition of severe head injury
- Prevention of secondary injury by ABC management
- (Optional: recognition of femoral fracture as site of blood loss and appropriate immediate treatment)

SCENARIO 4

A 19 year-old man has been stabbed in the abdomen. On arrival in hospital, he is clutching his abdomen, complaining of severe abdominal pain.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Airway clear Cervical spine OK	Oxygen
B	Air entry diminished on the right Percussion note dull on the right (Haemothorax) Respiratory rate 30	Chest drain blood ++
C	BP 80/40, HR 120 Pale and sweaty No response to fluid still hypotensive	IV line 2x Blood test Fluid bolus x2 Transfusion Call surgeon Prepare operating theatre

Diagnosis: Penetrating chest and abdominal trauma with life threatening haemorrhage:
Haemothorax and Intra-abdominal bleeding

Learning Objectives

- Confident use of ABC in the Primary Survey
- Importance of oxygen even when airway is stable. Sensible approach to Cervical Spine
- Correct clinical assessment, diagnosis and treatment of a large haemothorax
- Recognition of severe shock and appropriate treatment with rapid fluid resuscitation and early blood transfusion
- Importance of re-assessment
- Recognition of “hidden bleeding” and need for urgent surgical referral and operating theatre treatment

SCENARIO 5

A 26 year-old woman has been shot in the neck. She arrives in hospital, conscious but with stridor and respiratory distress.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Stridor Difficulty in talking Hoarse voice	Oxygen Simple airway management
B	Air entry equal but soft Chest clear	No chest injury
C	BP 120/80 HR 110	IV x 2 blood test Fluid bolus
	During assessment of her circulation you notice the neck has become more swollen. There is increasing stridor and she now is unable to talk	Surgical consultation for tracheostomy Consider cricothyroidotomy Do not attempt intubation

Diagnosis: Obstructed airway from gunshot wound to larynx

Learning Objectives

- Confident use of the ABC in the primary survey
- Early recognition of airway obstruction and high risk injury
- Anticipation and preparation for advanced airway management / difficult airway.
- Recognition of shock and appropriate treatment. Consideration of other causes for high heart rate
- Importance of re-assessment

Note: this scenario may trigger a discussion about difficult airways and how to manage these when skilled staff and other airway resources are limited.

SCENARIO 6

A 60 year-old woman is involved in a high speed car accident. She was wearing a seatbelt. On arrival in hospital she is groaning in pain.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Soft snoring breathing Spits out oral airway if put in	Cervical spine care Oxygen Basic airway management
B	Chest clear Respiratory rate 28	no chest injuries
C	BP 80/60, HR 140 Cold hands and feet After 1 L fluid --> BP 110/70 HR 110 After 2 L --> BP 120/80 HR 80 Patient responds well to fluid bolus.	Iv line x2 Blood for tests Fluid bolus 2 L:
D	Now consciousness becomes normal	
Secondary Survey	Tender pelvis with crepitus on palpation	Apply pelvic binder

Diagnosis: Severe shock from likely abdominal / pelvic injuries

Learning Objectives

- Confident use of the ABC in the primary survey
- Recognition of mild airway obstruction and use of simple methods
- Combined management of cervical spine and airway
- Clinical assessment and recognition of severe shock and appropriate treatment with rapid fluid resuscitation and early blood transfusion
- Importance of re-assessment
- Altered conscious state (and obstructed airway) not always the result of head injury
- Need to look for sites of bleeding and recognition of “hidden bleeding” from abdomen and pelvis

SCENARIO 7

A 15 year-old boy fell to the ground from a tree, landing on his head. According to his family, he was initially conscious and complained of neck pain. Over the next 30 minutes he became unconscious. On arrival in hospital he had a right-side seizure.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Obstructed breathing (snoring, some distress)	Cervical spine care Oxygen Simple airway management but may need intubation
B	Shallow breaths	Patient needs ventilatory assistance with a bag and mask
C	BP 130/90 HR 100	IV access 2x Blood tests
D	Left pupil fixed + dilated Flexing to pain only	Call neurosurgeon Prepare burr-hole

Diagnosis: Obstructed airway
 Severe head injury, (Left extradural hematoma)

Learning Objectives

- Confident use of the ABC structure in the Primary Survey
- Recognition of an obstructed airway and a graded approach to treatment. Understanding that a completely unconscious patient will require advanced airway management
- Combined management of cervical spine and airway
- Recognition of poor ventilation requiring assistance with bag and mask
- Recognition of severe head injury and prevention of secondary injury by ABC t (optional: recognition of likely intracranial bleeding requiring urgent surgery)

SCENARIO 8

A 45 year-old factory worker is crushed by a container truck at work. He is brought into hospital with severe breathing difficulties.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Respiratory rate 40 Shallow breathing Cyanosed	Cervical spine care Simple airway management Oxygen
B	Bilateral wheeze and crepitation Air entry much reduced on right side Paradoxical movement on right anterior chest (flail chest) Percussion note dull on right side	Needs intubation for flail chest Analgesia Drain blood from the right chest
C	BP 100/60 HR 140 Good response to fluid	IV access 2x Blood tests Fluid bolus x2

Diagnosis: Respiratory distress with severe chest injuries
 Crush injury with right-sided flail chest and haemothorax
 Shock

Learning Objectives

- Confident use of the ABC structure in the Primary Survey
- Combined cervical spine and airway management. Importance of oxygen
- Correct clinical assessment, diagnosis and treatment of fractured ribs, a flail segment and large haemothorax
- Understanding that advanced airway management can be required for severe breathing problems
- Recognition of shock and appropriate treatment
- Importance of reassessment
- Understanding that a fast heart rate is not always or only caused by shock.
- Importance of analgesia

SCENARIO 9

A 25 year old woman has been assaulted with a large heavy stick. On arrival in hospital she has extensive facial injuries, stridor and respiratory distress. She is cyanosed and is making groaning sounds.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Basic airway management does not relieve the airway obstruction Bag mask ventilation is difficult	Suction, jaw thrust, Chin lift Bag mask ventilation Must intubate
B	Chest: air entry normal Breathing sounds OK	no chest injuries
C	BP 130/90 HR 110	IV line Blood tests Fluid bolus
D	Pupils equal and normal response to light Opens eyes to voice Localizes to pain	
Secondary Survey	Swollen right femur	Log roll, analgesia

Diagnosis: Obstructed and difficult airway from facial fractures,
 Moderate blood loss and shock
 Fractured femur

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary surveys
- Early recognition of airway obstruction and high-risk injury. Graded approach to management, moving from basic to advanced airway techniques
- Recognition of shock and appropriate treatment.
- Clinical assessment of neurological state
- Importance of Secondary Survey to detect other injuries, including log roll
- Don't forget analgesia!

SCENARIO 10

A 70 year old man was burnt in a house fire. It took 4 hours for him to reach hospital. On arrival, still dressed, he has a burnt area covering his chest and abdomen. He is groaning in pain, appears to be in respiratory distress and is confused.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	No facial or airway burns on inspection Voice not hoarse Respiratory rate 30 SpO2 88% on air	Oxygen Basic airway management
B	Air entry normal R = L	SpO2 94% with oxygen
C	BP 90/70 HR 130 Cold periphery Good response to fluid bolus	IV access 2x Blood tests Fluid bolus
D	Alert, oriented after oxygen	
E + Secondary Survey	30-40% burns front of chest, abdomen, both thighs and some of right arm	Burns care Resuscitation Tetanus prophylaxis Supportive treatment

Diagnosis: Burns 30-40% with inhalation injury to the lungs.

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys Assessment of airway in burns patients and understanding of airway risks
- Clinical assessment of breathing and consideration of further support
- Recognition of shock and appropriate treatment
- Importance of exposure (including log roll & remove clothes) and secondary survey to detect other injuries,
- Specific burns management; assessment of area burnt, use of formula to calculate fluid requirements and rate of fluid resuscitation, analgesia, temperature control, tetanus prophylaxis

SCENARIO 11

A 26 year-old woman, 30 weeks pregnant, suffers a road accident. On arrival in hospital, she complains of abdominal pain and is very distressed about her baby.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Respiratory rate 20 Able to talk Complaining of dyspnoea and pain	Oxygen Cervical spine care
B	Air entry normal Percussion normal	No chest injuries
C	BP 90/60 HR 140 Blood pressure remains low if not resuscitated in left lateral position. Good response to fluid	Left lateral position IV line 2x Blood for tests Fluid bolus 2x
D	Normal	
Secondary Survey	Tender abdomen Fundal height at xiphisternum (too high) Foetal heart sounds are not heard	

Diagnosis: Shock and uterine trauma with placental abruption and separation

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary surveys
- Assessment of combined Airway and Cervical Spine management
- Importance of left tilt when supine during resuscitation of pregnant women
- Recognition of shock and appropriate treatment. Understanding of the different physiology and vital signs in pregnant women
- Importance of Secondary Survey to detect other injuries, including log roll
- Specific pregnancy management; assessment of pregnant uterus, assessment of foetus, recognition of severe uterine injuries, analgesia in pregnancy, importance of reassurance

SCENARIO 12

An 8 year-old boy is riding a bicycle and is hit by a car. He is brought to the hospital and is complaining of abdominal pain.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Airway clear, Respiratory rate 24	Cervical spine care Oxygen
B	Air entry R = L Percussion note R = L Expansion R = L Chest sounds normal	No chest injury
C	BP 70/40 HR 140 Periphery cold Capillary return 4 seconds BP 80/60 HR 120 after first 20 ml/kg After next 20ml/kg 100/70 HR 90	IV line 2x Blood for tests Fluid bolus 20ml/kg
	Develops obstructed breathing and becomes drowsy while you are assessing Circulation Obstruction relieved by airway, bag and mask ventilation.	Open airway, bag and mask
D	Fixed dilated pupil right side. Not responding to pain	

Diagnosis: Severe shock. Blood loss from an unknown site
 Head injury with deterioration and obstructed airway
 Likely right sided intra-cranial haemorrhage

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys Assessment and recognition of severe shock and appropriate treatment.
- Understanding of the different anatomy, physiology and vital signs in children and how this influences treatment
- Importance of re-assessment. Rapid recognition of deterioration and re-starting the ABC structured approach
- Neurological assessment and recognition of severe injury
- Importance of Secondary survey and looking for a site of hidden bleeding

SCENARIO 13

A 25 year-old man has been injured in an explosion and fire at a factory. He is on his way to hospital with facial burns and a chest injury.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Hoarse voice Burns around and in his mouth Black sputum No stridor, RR 30	Cervical spine care Oxygen Prepare for intubation
B	Air entry: reduced on right Percussion dull on right Tender to palpation right chest	Chest drain Rib fractures Haemothorax
C	BP 90/60 HR 120	IV access 2x Blood for tests IV Fluid
During assessment of circulation, he develops increasing stridor. If he has not been intubated, return to A.		
A	Unable to talk, stridor Respiratory distress	Intubate if not already done
Secondary survey	Loss of hearing, swollen and deformed R arm, burns over face and upper chest (around 15%)	

Diagnosis: Early airway obstruction and high risk threat to airway from burns
Blast injury with possible cervical spine injury
Right rib fractures and right haemothorax.

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys Assessment of Airway in burns patients and understanding of airway risks. Anticipation of advanced airway management and difficult airway
- Clinical assessment and recognition of fractured ribs and haemothorax, and appropriate management
- Recognition of shock and appropriate treatment
- Importance of Secondary Survey to detect other injuries, including log roll
- Specific burns and blast management; assessment of area burnt, fluid resuscitation, analgesia, temperature control, tetanus prophylaxis, recognition of typical blast injuries

SCENARIO 14

A 45 year-old male prisoner is stabbed in the back in a fight. He is unable to move his legs and is having problems breathing. He complains of pain in the right chest.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Able to talk with difficulty Airway is clear	Oxygen No cervical spine injury
B	Air entry absent on R Percussion note hyper-resonant Trachea deviated to left	Decompress right side Tension pneumothorax
C	BP 90/60 HR 120 BP remains 90/60 HR 100	IV access 2x Blood for tests Fluid bolus x2
D	Alert	
Secondary survey	Reflexes absent in lower limbs Sensory level loss up to T8	Must include log roll

Diagnosis: Spinal injury of T7-T8
 Tension pneumothorax
 Mild spinal shock

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys Clinical assessment and recognition of tension pneumothorax with appropriate management
- Recognition of shock and appropriate treatment
- Importance of Secondary Survey to detect other injuries, including log roll
- Clinical assessment of neurological system and recognition of spinal injury

SCENARIO 15

A 32 year-old woman has fallen from a cliff on a remote island. It has taken 4 days for her to reach hospital. She has an obvious compound fracture of her left femur and a swollen left calf. The leg smells. She appears very confused.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Airway clear. Respiratory rate 30	Oxygen Cervical spine care
B	Chest normal	
C	BP 100/40 HR 120 Bounding pulse Temperature 39 Celsius Good response to fluid	IV access Blood tests Fluid bolus x2
D	Confused	
Secondary survey	Pulseless, cold left foot	Fasciotomy Antibiotics

Diagnosis: Septic shock from compound fracture
 Compartment syndrome left calf

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys Care of cervical spine in a high risk injury, even with delayed presentation
- Clinical assessment and recognition of septic shock
- Treatment of septic shock
- Importance of Secondary Survey to detect other injuries, including log roll
- Clinical assessment of limb injury, recognition of compartment syndrome and appropriate treatment

SCENARIO 16

A 4 year-old girl has been run over by a car. She is brought into the Emergency department straight away. She is not breathing.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	No breath sounds No chest movement Unable to ventilate	Cervical spine care Open airway Bag mask ventilation Intubation (ETT size 5)
B	After intubation, notice no chest movement on right side Percussion note resonant on right Trachea deviated to left	Urgent needle Decompression Chest drain for haemopneumothorax
C	BP 60/50 HR 130 Capillary return slow Good response BP 90/60 HR 100	Unable to put in IV line on 2 attempts Intraosseous needle Fluid bolus 2x20ml/kg (weight 16kg)
D	Now open eyes and biting ETT	
Secondary survey	Rigid abdomen Crepitus / unstable pelvis	Pelvic binder

Diagnosis: Respiratory arrest
 Right tension haemopneumothorax
 Shock with likely intra-abdominal bleeding and fractured pelvis
 Possible head injury

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys
- Recognition of respiratory arrest and immediate treatment with basic, then advanced airway management. Cervical spine care at the same time.
- Clinical assessment, recognition and treatment of tension haemopneumothorax
- Clinical assessment and recognition of shock. Appropriate use of intraosseous needle for urgent fluid resuscitation
- Understanding of the different anatomy, physiology and vital signs in children and how this influences treatment. Correct calculation of weight and ETT size.
- Importance of Secondary survey and looking for sites of hidden bleeding

Extra Scenarios

We have provided some extra scenarios here for you to use if required. Some of them may suit your local context more than the first 16 scenarios.

Also, you may use scenarios based on your own experience.

SCENARIO 17

A 40 year-old man is the driver in a car accident. He was ejected from the car and was found 20 metres away. On arrival in hospital

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Stridor and respiratory distress Loose teeth and blood on oral suction Airway management is not effective Ventilation with bag mask not effective Attempted intubation failed 2x Now patient is cyanosed	Cervical spine care Oxygen Basic airway management Bag mask ventilation Attempt intubation Cricothyroidotomy (surgical airway)
B	Continue Primary Survey (ABCD)	
C	Heart rate 120, BP 120/70 Capillary refill 2 seconds	
D	Unconscious	
Secondary Survey		

Plan: Follow with tracheostomy

Learning Objectives

- Confident use of the ABC structure in the Primary Survey
- Recognition of an obstructed airway and using a graded management approach from basic to advanced airway techniques
- Cervical spine and airway management at the same time
- Recognition of need for surgical airway (failed intubation) and knowledge of surgical airway technique

SCENARIO 18

An 18-month child is rushed to hospital after falling off a balcony onto hard ground. He is unconscious in his mother's arms. The parents are crying and distressed.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Unconscious infant Soft snoring Slight cyanosis Paradoxical chest / abdomen movement	Oxygen Cervical Spine care Basic airway Bag Mask ventilation Possible intubation
B	Bruising of chest wall Crepitus over R chest Poor respiratory effort Soft crackles both lung fields	Ventilatory support required: Bag Mask or Intubation (preferred) (ETT size 4, 4.5)
C	Heart rate 160 Capillary refill 4 seconds Cold peripheries	IV attempt: only tiny cannula in back of hand Intraosseous access Fluid bolus 20ml/kg (weight 11kg) Reassess, second bolus
Secondary Survey	Bruising over chest wall Large swelling over occipital area, bruising around eyes Swollen, deformed R thigh	

Diagnosis: Obstructed airway and respiratory failure
 Severe head injury (possible base of skull fracture), fractured ribs
 Right femoral fracture. Possibility of non-accidental injury (NAI)?

Learning Objectives

- Confident use of the ABCDE structure in Primary and Secondary Surveys
- Recognition of an obstructed airway and using a graded management approach from basic to advanced airway techniques
- Clinical assessment and recognition of respiratory failure and appropriate management
- Clinical assessment, recognition and appropriate treatment of shock
- Paediatric specific: understanding anatomical and physiological differences, use of IO access, prevent hypothermia, parental involvement, consideration of Non Accidental Injury

SCENARIO 19

A woman with a 38-week pregnancy is brought in to the clinic by her husband. She has had boiling hot cooking oil tipped over her face, neck and upper body in an argument. She is now screaming in pain, with the oil still all over her clothes, hair and skin.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Screaming Respiratory rate 28 Oil on lips, face and neck	Stop the burning: remove all clothes and use cold water to cool Oxygen
B	Full thickness burns all over front of chest and neck Chest clear Poor respiratory effort (pain)	
C	Heart rate 130, BP 110/90 Difficult IV access (arms and hands burnt)	IV access - ?Lower limbs, intraosseous or central access Left tilt, Fluid Bolus
Secondary survey	Burns over 25 – 30% body (face, neck, front chest, arms) Abdomen non-tender. Fundal height appropriate Foetal movements active and foetal heart heard	
Next steps	Analgesia Referral for urgent Caesarean Section / delivery Depth of burns: consideration of antibiotics? Family violence	

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys
- Importance of left tilt when supine during resuscitation of pregnant women
- Recognition of shock and appropriate treatment. Understanding of the different physiology and vital signs in pregnant women
- Burns management; first aid, airway risk assessment, depth of burns, size of burns and fluid resuscitation, analgesia
- Specific pregnancy management; assessment of pregnant uterus and foetus, analgesia in pregnancy, importance of reassurance, recognition of risks.

SCENARIO 20

A 25 year-old woman was working in her shop when an explosion occurred in the street (perhaps a land mine, perhaps a bomb – no-one is sure). The window shattered, and shards of glass flew into her body. She has multiple cuts and is covered with blood when a taxi delivers her to your hospital.

ASSESSMENT	FURTHER INFORMATION	KEY POINTS
A	Speaking softly Respiratory rate 32 Large shard of glass in L neck	Oxygen Care with cervical spine Do not remove glass
B	Multiple cuts over chest Large open wound R lateral chest wall. Sucking noise Reduced breath sounds on R	Three way dressing over sucking chest wound R chest tube (blood and air drain out)
C	Heart rate 130, BP 80/60 Pale, cool peripheries No improvement after 3 rd bolus	IV line x 2, blood taken Fluid bolus x 2 Fluid bolus, get blood Massive transfusion
Secondary Survey	Penetrating wounds over R lateral abdomen (only seen on log roll) Distended, tender abdomen Partially amputated L leg at knee, heavy bleeding	
Next steps	Massive transfusion required Urgent Surgical referral (penetrating neck and abdomen injuries) Direct pressure, splinting of leg	

Learning Objectives

- Confident use of the ABCDE structure in the Primary and Secondary Surveys
- Early recognition of airway risk (penetrating injury) and specific management. Care for cervical spine in complicated injury
- Clinical assessment, recognition and appropriate management of sucking chest wound
- Recognition of severe shock and appropriate treatment. Recognition of ongoing bleeding and need for massive transfusion. Knowledge of massive transfusion.
- Importance of Secondary Survey to detect other injuries, including log roll
- Care of limb threatening injury
- Don't forget analgesia!