



Candidate Instructions:

You are the consultant in charge of a mixed Adult/Paediatric Regional ED. You have onsite general surgery but no trauma unit or interventional radiology.

You are called into the resuscitation bay to assist your team manage a trauma patient:

A 6 year old male pedestrian who has been hit by a car at around 40km/hr.

He has injuries to his trunk.

His weight is 20kg

Your team consists of an ED Registrar and 2 resuscitation nurses.

Your ED Registrar has completed a primary survey with the following findings:

- A- Clear, Cervical collar applied
- B- Reduced Air entry to R side, chest wall bruising, Respiratory rate 40, O2 Sats 93% on 15L O2
- C- HR 170 BP 80/40, pale, reduced cap refill, no external bleeding
- D- GCS 15 PEARL
- E- Temperature 36.2

Your Task:

1. Lead your team to assess and manage the patient

Domains

Medical Expertise:

Assessment	20%
Management	40%

Prioritization and Decision Making	40%
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Role Player instructions:

You are a competent Registrar managing a 6 yo trauma patient named Tom.

He was a pedestrian hit by a car at 40km/hr.

He has injuries to his right chest and R abdo/pelvis.

You have just taken the handover from the Ambulance and have called your consultant for assistance.

His Initial Vital signs:

Temperature	36.2
Heart Rate	170
Blood Pressure	80/40
Respiratory Rate	40
O2 saturations	93% on 15L O2

His weight is 20kg

Your handover when the candidate enters:

"This is Tom, he is 6 and has been hit by a car."

The candidate is expected to introduce themselves, allocate roles and lead the resuscitation.

0-2:30 mins Stage 1: Initial assessment and resuscitation:

Primary Survey and expected initial management:

A - clear Cx collar on

B – reduced AE R side, chest wall bruising– *apply high flow O2 eg 15L/min non-rebreather/Bag-valve-mask at FiO2 of 1.0*

C – HR 170 BP 80/40, pale, reduced cap refill, no external bleeding – *bilat IV access 20 gauge or larger, bloods- VBG, Group and Xmatch, FBE, UEC, LFT, Coags, IV Fluid bolus 10-20ml/kg crystalloid eg Normal saline/Hartman's*

Tranexamic acid (no evidence in paedrs for dose or efficacy) eg dose 15mg/kg tranexamic acid loading dose (max 1g) over 10 minutes followed by 2mg/kg per hour

D- GCS 15 PEARL

E Temperature 36.2 – *maintain normo-thermia*

Adjuncts to Primary survey:

-Bloods only Group and Xmatch 2-4 units, may call for Massive Transfusion Pack but report that blood will be 5 mins and other products 15 mins

-CXR, PXR – hand to candidate when asked for

CXR shows R pulmonary contusions, no other findings,

PXR shows pubic symphysis disruption and widening of the Left SI-joint in combination with bilateral acetabular fractures - expected response- pelvic binder



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-eFAST(accept as part of C) – Registrar reports +ve FAST with free fluid in Morrison's pouch–
candidate to consider liver laceration

-analgesia- eg iv fentanyl 0.5 mcg/kg = 10mcg

2:30-5:00 mins Stage 2 Deterioration: BP drops due to haemorrhagic shock from intra-abdominal bleeding, O2 sats low/normal on high flow O2 due to pulmonary contusions-

New vital signs:

Heart Rate	190
Blood Pressure	60/30
Respiratory Rate	45
O2 saturations	92% on 15L O2

Secondary Survey Findings –

R chest wall bruising no crepitus, subcutaneous emphysema or paradoxical movements

R abdominal bruising, no open wounds

Pelvis unstable and tender on spring

No other injuries head/neck/spine/limbs/back

Expected actions-

Aggressive resuscitation for haemorrhagic shock-

Repeat IV Fluid bolus 10-20ml/kg crystalloid eg Normal saline/Hartman's or O negative blood at least 2 units stat (ideally at same time through bilat cannulae) call for FFP/Platelets

Ask for aims of resus eg BP and if mentioned ask about hypotensive resuscitation

Urgent Surgical Referral

5-7mins Stage 3 Disposition:

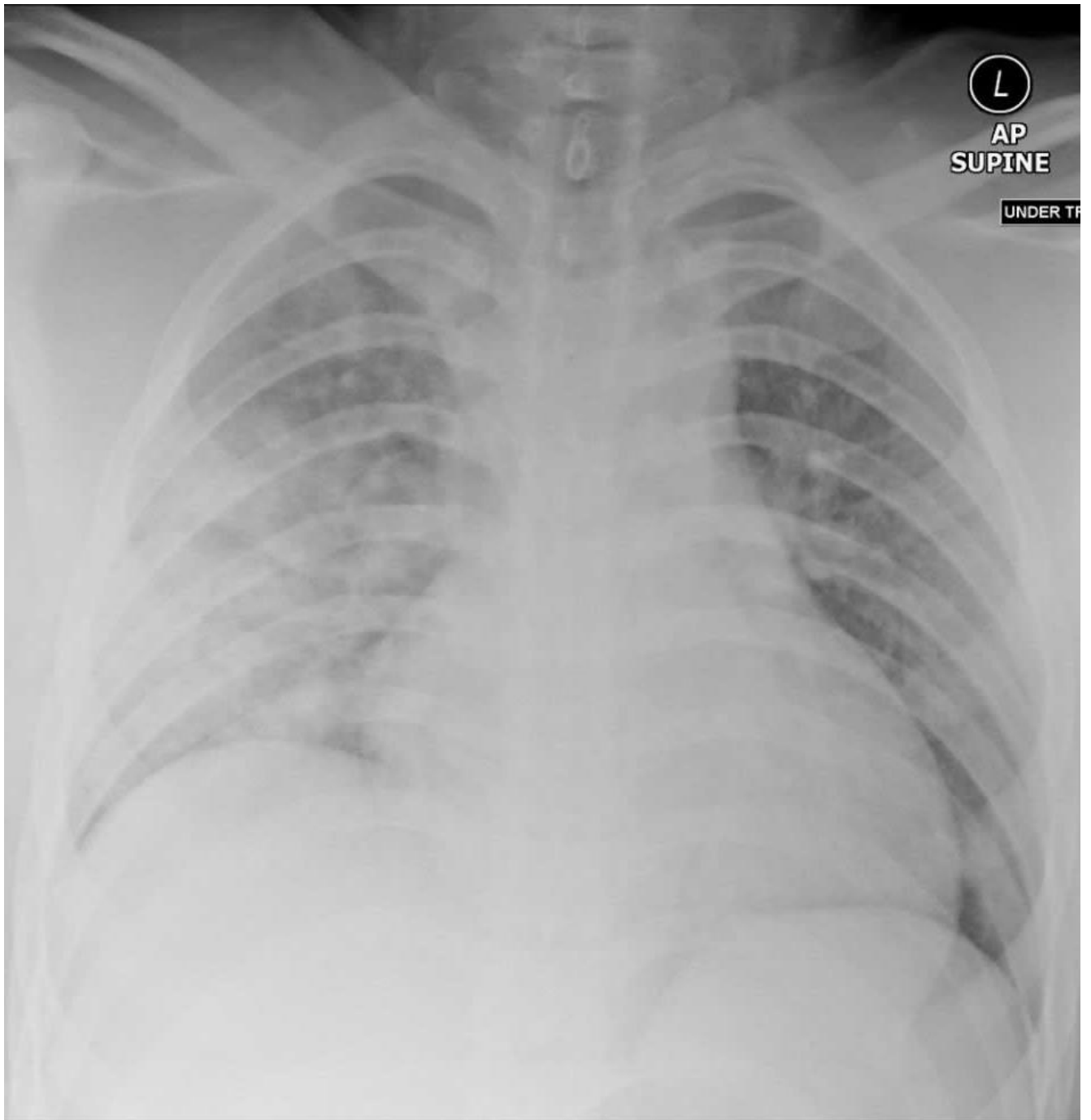
Surgeon arrives(played by Examiner)- asks for summary

Surgeon is reluctant to take directly to theatre – is concerned about pelvic # causing shock- requests Ortho referral. Also requests CT scan before transfer to theatre

Expected response is – pelvis may be causing bleeding (binder applied) but Tom needs an urgent laparotomy since proven intra-abdominal haemorrhage and can pack pelvis. Can arrange orthopaedic surgeon to attend theatre also. No Interventional radiology available.

Will need transfer to trauma centre post op once stabilized.

Surgeon agrees to take Tom directly to theatre





Equipment List (for each OSCE):

Paediatric mannequin 6 year old
CXR, PXR
White Board + markers
Cervical collar
Pelvic binder
Mock Ultrasound probe eg white board eraser
Simulation Monitor and remote control
Hudson mask and tubing
Bag/Valve/Mask and tubing
NPA/Guedel/ETT airways for 6 year old
Laryngoscopy Mac 2 and 3
Suction
IV cannulas
Normal saline and giving set
Blood transfusion and giving set
Blood tubes
Mock drug ampoules
Bed Sheets
Trolley



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Examiner Marking Sheet

COMPONENT ASSESSMENT

For each Domain below, select the ONE best option that best represents the candidate's level of performance. The option "**minimum level of competency displayed**" represents the level of safe independent practice as a **junior FACEM** in Australasia

Very poor level of competency displayed	Well below minimum level of competency displayed	Below minimum level of competency displayed	Minimum level of competency displayed	Above minimum level of competency displayed	High level of competency displayed	Very high level of competency displayed
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Please rate ALL of the following domains:

Medical Expertise:

Assessment	☐	☐	☐	☐	☐	☐	☐
Management	☐	☐	☐	☐	☐	☐	☐
Prioritization and decision making	☐	☐	☐	☐	☐	☐	☐

[Detailed assessment criteria](#)

Please use the following criteria to inform your ratings above (mandatory items in ***bold italics***)

Medical Expertise:

Assessment:

- structured approach to **primary and secondary** survey
- identified **haemorrhagic shock** from **intra-abdominal haemorrhage** and **pelvic fracture**
- identify CXR right **pulmonary contusions** no rib #s, PXR open book **pubic symphysis disruption** + Left Sacroiliac joint disruption and bilateral acetabular fractures

Management

- aggressive resuscitation with volume (**crystalloid and early blood**)
- pelvic binder**
- tranexamic acid
- hypotensive resuscitation**
- arrange urgent **laparotomy**
- manages pulmonary contusions with increased FiO2

Prioritization and decision making

- Performs/confirmations introductions of team members
- Establishes/takes on the team leadership role
- Allocates/confirmations team roles
- sequential/systematic management of multi-trauma



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-liaises with surgeon and arranges urgent transfer for **laparotomy**

Station Summary: Paediatric trauma haemorrhagic shock from intraperitoneal haemorrhage and pelvic fracture, pulmonary contusions

INFORMATION

EXAMINER NOTES (For examiner reference only)

OSCE 'incident reporting' notes: Please provide details if an issue occurs which may influence the candidate's

exam outcome e.g. protocol breach, candidate illness, etc

GLOBAL RATING FOR STANDARD SETTING:

This scale is used in the standard setting process for the OSCE. Please rate the candidate's OVERALL performance in this OSCE. The rating should take into account the entirety of the OSCE, rather than just a sum average of the individual domain scores. This element MUST be completed for the standard of the examination to be set.

	Well Below Standard	Below Standard	Just at Standard	Above Standard	Well Above Standard
In terms of a safely practicing junior emergency physician , select the ONE option that best reflects the candidate's performance in this station:	☐	☐	☐	☐	☐

EXAMINER SIGNATURE: