

OSCE 4

You are an Emergency Physician on-call in a tertiary hospital when you are phoned by a trainee ED junior registrar doing a locum in a rural ED 3 hrs away with a limited surgical service and very small HDU. They have a driver from a high-speed MVA in their Emergency Department resuscitation room. The junior registrar has conducted a primary survey and EFAST. The patient is an 19 y.o. male who was the driver of the car which was struck on the driver's side by a 4WD. The junior registrar tells you the patient has an intact airway but is having difficulty breathing. They have inserted one large bore IV in the left antecubital fossa. There is a large bruise to the right costal margin and abdomen.

The patient's vital signs are:

HR 116/min , BP 94/51 mmHg

RR 30 SaO₂ 91% on 6L/min via Hudson mask

GCS 14 PEARL

Tasks:

1. Describe the priorities in assessment and management for this patient
2. Describe and interpret the results of any investigations to the registrar
3. Communicate clearly to the registrar the step-by-step resuscitation and disposition of this patient

Domains assessed:

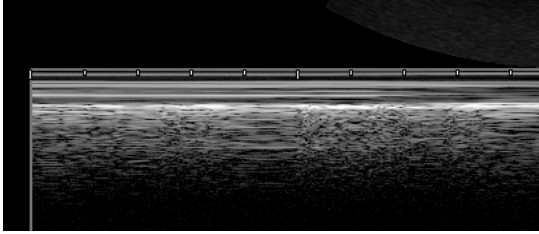
1. Medical expertise 40%
2. Communication 30%
3. Prioritisation & Decision making 30%

OSCE 4 Props

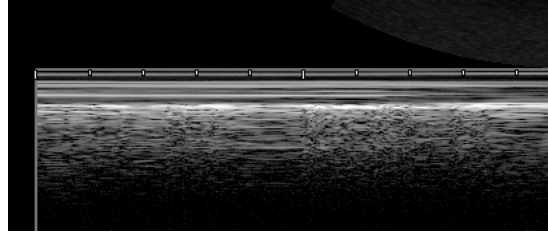
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**LOOK AT PROPS ONLY WHEN EXAMINER /
CONFEDERATE PROMPTS YOU**

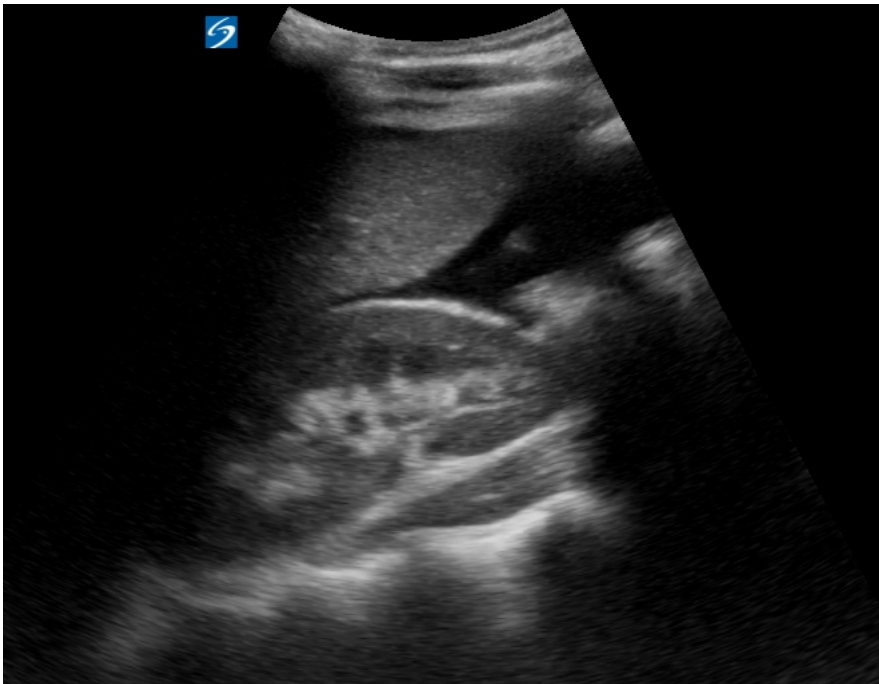
Left Anterior Chest



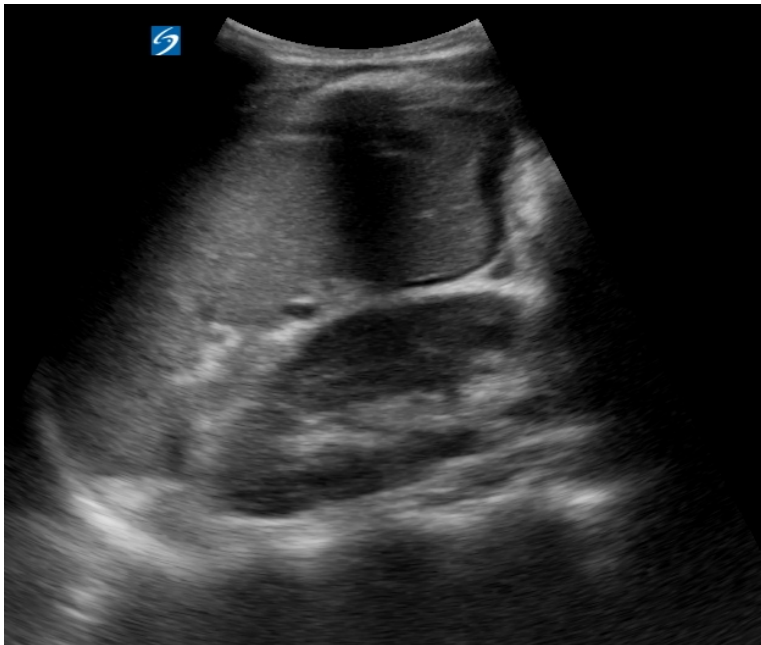
Right Anterior Chest



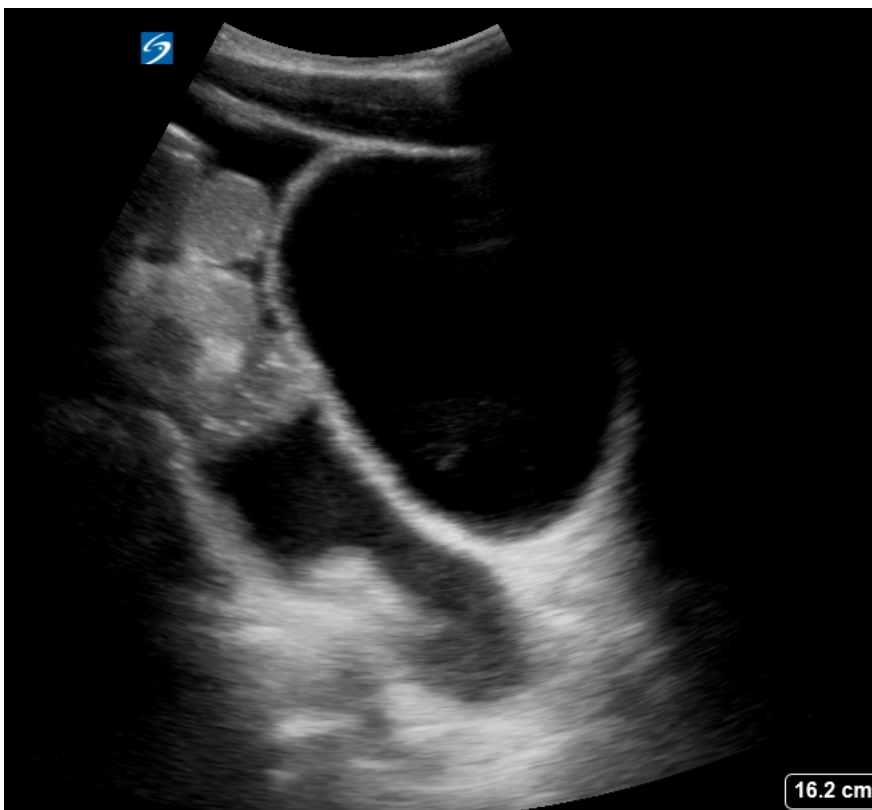
RUQ



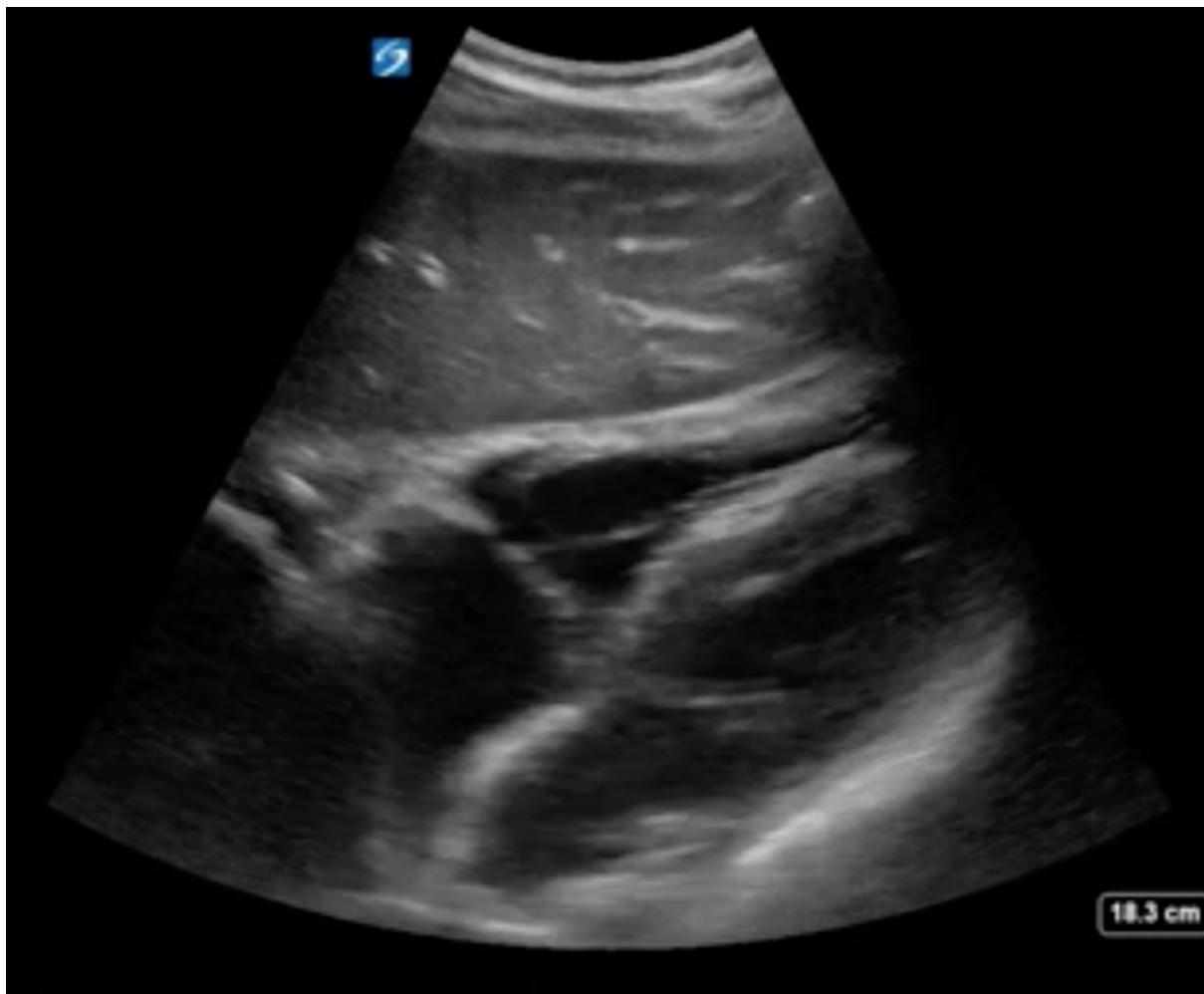
LUQ



Pelvis Long



Subxiphoid



Examiner / Confederate Script

Part 1 (0-3 Mins)

“Hi, my name is I’m a locum registrar at Pine Lodge. I need some help and guidance in investigating and managing a trauma patient.”

The patient is an 19 y.o. male who was the driver of the car which was struck on the driver’s side by a 4WD.

Airbags deployed, Wearing seatbelt.

Difficult extrication from vehicle.

He has an intact airway but is having difficulty breathing. I’ve inserted one large bore IV in the left antecubital fossa and done some formal bloods only. There is a large bruise to the right costal margin and abdomen.

Following info if candidate asks again for current vitals

The patient’s vital signs are:

GCS 15 PEARL

HR 116/min , BP 94/51 mmHg

RR 30 , SaO2 91% on 6L/min via Hudson mask

“I’ve got a portable US that I’ve done some an EFAST with, I’ve just texted you the images. It looks pretty abnormal, I’ve only just done a course and on a couple of images I can’t quite make up my mind. Can you please have a look and advise accordingly?”

Part 2 (3 – 7 mins)

“How should I proceed with further assessment and management of this patient?”

Further prompts if candidate not mentioning points

- **Can you guide me with what blood products I should use?**
- **We have Xray and CT, What scans should I get?**
- **Are there any medications I should consider?**

Domain Criteria for High Rating

Medical Expertise : Assessment and Management

EFAST findings

- Seashore sign on anterior chest so NO PTX
- Right pleural fluid /effusion suggesting haemothorax, free fluid in Morison's pouch and caudal tip of liver.
- Free fluid/Blood LUQ view, Free fluid/Blood in rectovesical pouch
- No pericardial effusion

Impression = Haemothorax likely accounting for respiratory distress. Abdominal free fluid secondary to liver or splenic injury and given this picture will likely have assoc trauma (fractures including pelvic injury)

Check that collar, spinal precautions and Pelvic binder is on.

A: Patent

B: Increase FiO₂, escalate gradually but not for ETT immediately, **Insert right ICC / Perform Finger thoracostomy** if registrar capable or get surgeon if available.

C: 2nd large bore IV, urgent VBG (for Hb, acidosis, lactate, Formal bloods FBE UEC LFT Lipase Coags), damage control resuscitation, TXA 1gm, Transfuse PRBC and being a rural ED may not have expertise re MTP or specific pack but candidate expected to mention prepare/consider MTP if ongoing losses and will need to liaise with blood bank/pathology.

D: Exclude Head Injury, Monitor GCS, Pupils

E: Expose and Check for other injuries esp spine, upper and lower limbs

Urgent surgical consult (check who is available and if they can attend) – consider damage control surgery / OT on-site if possible.

Portable CXR / Pelvis and CT brain Spine Chest & Abdo/pelvis (site will have CT facility)

Analgesia with drug doses and end points.

Principles

- Permissive hypotension
- early transfusion to maintain circulating volume
- minimisation of crystalloid use
- reduce coagulopathy
- keep warm
- prevent acidaemia

Will need to be transferred out to Tertiary trauma centre, so liaise with retrieval service directly.

(candidate expected to arrange this rather than asking registrar who already has several priorities to handle)

Communication

Communicate effectively with registrar, Explain transfer process and advise on preparation, Offer to Guide with ICC if needed or discuss getting on-site surgeons to perform

Prioritisation & Decision making

Prioritise management in structured ABCD manner esp decision to ICC, situational awareness in calling for extra assistance early, early referral initiated (retrieval service etc)

Arrange for rest of department to be looked after by other staff.

Mobilise other resources in hospital (inpatient doctors, surgeons, anaesthetist, HDU staff)