

Monash Health Practice Exam

Questions 21

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Repetitive but Important to remember :

- YOU ARE A CONSULTANT NOW → Think as a CONSULTANT
- ANSWER as a CONSULTANT → Big picture first then add details (knowledge)
- Be precise → Description/anatomical locations /significance and practice changing/System issues etc
- Write something that doesn't need explanation and NO ONE can argue
- Spend 15-20 seconds scanning and understand the question first
- **READ** the question and ANSWER the question

Question 21

A 21 year old female G2P1, at **40 weeks gestation** is brought to your **rural** Emergency Department after a **high speed MVA**. She was an unrestrained front seat passenger in a car that struck a wall. On arrival she is complaining of lower abdominal **cramps** as well as a **painful, deformed right ankle**.

Her vital signs:

HR 100 bpm

BP 110/70 mmHg

RR 26 bpm

Sat 96% RA

Temp 35.8 °C

GCS 15 and **no C-spine tenderness**

Summary?

High Risk Criteria for Major Trauma

- Ejection from vehicle Motor / cyclist impact > 30 km/h
- Fall from height > 3 m
- Struck on head by object falling > 3 m
- Explosion
- High speed MCA > 60 km/h
- Pedestrian impact
- Prolonged extrication

AND:

- Age > 55 / Age < 16
- Pregnant
- Significant comorbidity

Management priorities ; BIG PICTURE

1. Mother / Trauma

Trauma approach / call : you might need other sub-specialties

C-spine / position / **keep warm** ; 1^o 2^o Survey ; bed side assessment/Ix + other Ix

2. Ankle

Analgesia / Reduce / Immobilise

3. Fetus wellbeing

CTG / POCUS / USS / doppler

4. Disposition → Transfer/Retrieval

Early activation of the retrieval network is vital

Trauma Guideline

<https://trauma.reach.vic.gov.au/guidelines/early-trauma-care/rapid-reference-guideline>

- Primary survey
- Optimising resuscitation in the emergency setting
- Early notification to the retrieval network
- Balanced approach to fluid resuscitation
- Adequate temperature control with avoidance of hypothermia
- Titrated narcotic analgesia

Make early contact with ARV for advice from the major trauma services and to initiate retrieval.

- The primary survey is designed to detect and treat actual or imminent life threats.
- Avoidance of hypovolaemia in trauma is a cornerstone of management.
- Trauma patients are at risk from complications due to hypothermia.

Early Activation

- Gather vital information
- Activate Trauma Team
- Designate roles
- Set up to receive patient
- Ensure safety using PPE

Primary Survey



AIRWAY / C-SPINE

- Assess airway stability & protect as needed
- Be prepared for a difficult intubation
- Maintain full spinal precautions



BREATHING

- Identify and treat life threats
- Assess RR, work of breathing, SpO₂ & symmetry
- Oxygen therapy to maintain SpO₂ 94-98%
- ETCO₂ monitoring if intubated, maintain 35-45mmHg



CIRCULATION

- Identify & control source of haemorrhage
- Insert x 2 large bore IV cannulas
- IO access if required
- Assess HR/BP/Cap refill
- Commence fluid resuscitation for hypovolaemia at 20ml/kg crystalloid



DISABILITY

- Assess consciousness level - AVPU
- Check pupils
- Test BSL



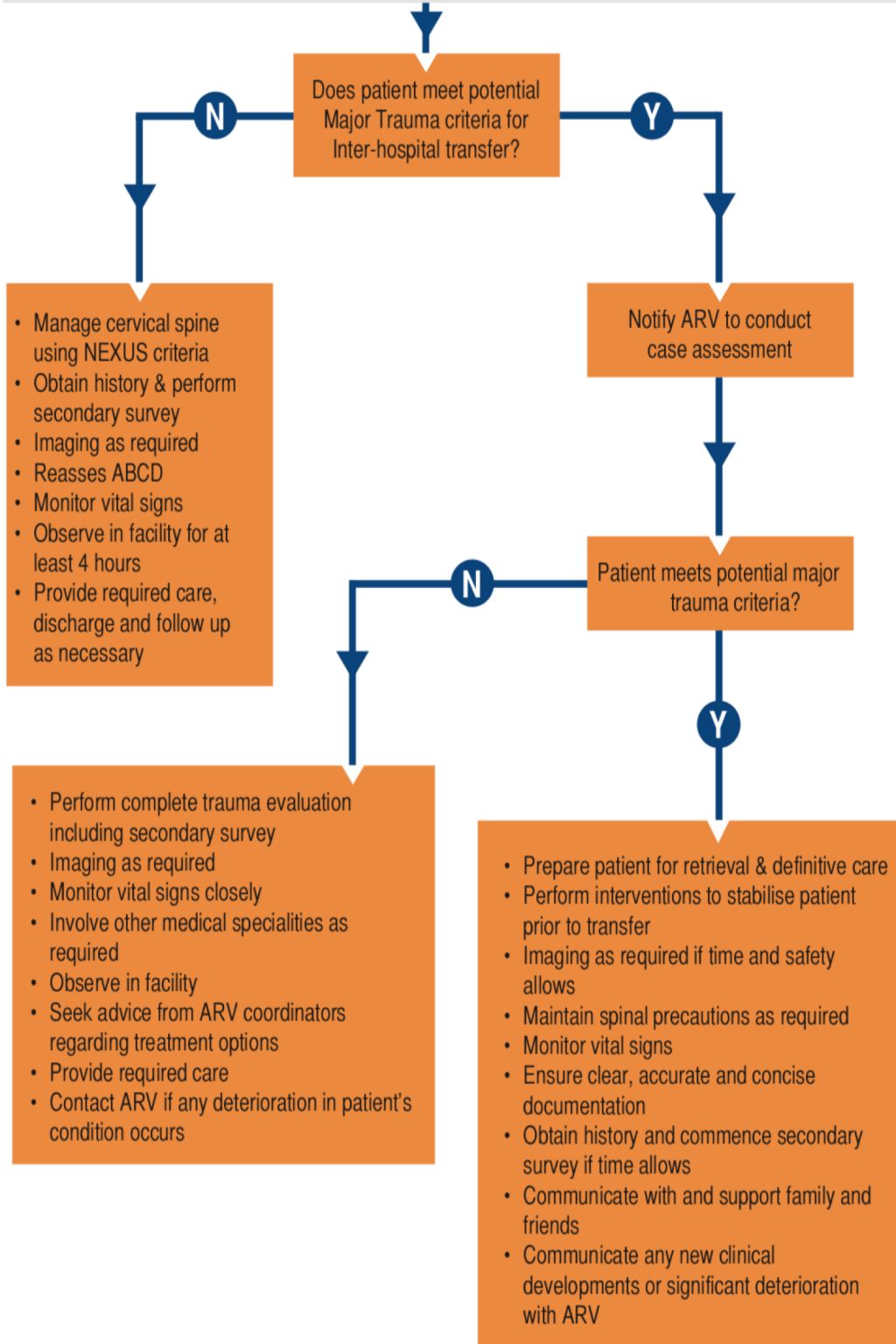
EXPOSURE / ENVIRONMENT

- Fully expose and inspect patient
- Prevent heat loss
- Log roll



ADJUNCTS

- FAST scan
- Analgesia
- X rays: Chest, Pelvis
- Bloods: FBE, X-match, U&E, Lactate, ABG
- 12 lead ECG
- Orogastric tube if intubated
- AMPLE mnemonic



Key Points

Primary survey

- A systematic approach using ABCDE should be used to treat actual or imminent life threats and prevent complications from these.
- Deterioration in a patients clinical condition can be swift and this will be evident in their vital signs and level of consciousness.
- If in doubt, repeat ABCDE.

Fluid resuscitation

- A balanced approach to fluid resuscitation in trauma leads to preservation of vital organ function until bleeding can be controlled.

- *Crystalloid fluids*: Initial treatment of hypovolaemia with Normal Saline is recommended, up to 20-30ml/kg.
- *Blood products*: if minimal response to crystalloid, blood products should be given at a 1:1:1 ratio if available.

Prevent heat loss

- Early recognition of hypothermia and aggressive management can help to avoid potentially lethal complications.
- Use warmed IV fluids; cover the patient with warm blankets as well as keeping the room warm, use a forced air warming machine if available.

Life Threats

Exsanguinating external haemorrhage

- Obvious large-volume external blood loss must be managed as an immediate priority in the pre-hospital environment and on arrival to the ED.
- The use of tourniquets, haemostatic dressings as well as direct pressure should be implemented to control bleeding until urgent surgery can be arranged.

Airway obstruction

- If there is potential that the patient's airway may deteriorate, early intubation should be considered.

- Always have emergency airway equipment available.

Chest Injuries

- The chest should be auscultated, fully exposed and inspected for any wounds, bruising or deformity.
- If any life threats are detected they should be managed in the primary survey before moving on.

Life Threats

- » **Tension / open pneumothorax**
- » **Massive haemothorax**
- » **Cardiac Tamponade**

Some **stress** related answers

Anti D : Is this your first priority in this case ?

Don't ruin a very good answer:

Regional nerve block for reduction → GA (risk of aspiration)

Random words: Tilt / collar / MTP / Urgent C-SECTION

Fluid bolus 500-1000 ml stat !!!

Analgesia → IV analgesia

No one Noticed **Temp 35.8 °C**

Almost all of you highlighted rural ED → Just 1/3 Mentioned Disposition/retrieval

Part b

- **Apart from trauma**, list 3 other leading causes of maternal death **in pregnancy**.
- Pulmonary embolism (thrombus)
- Haemorrhage (placental abruption/ placenta praevia)
- Maternal cardiac disease (AMI, peripartum cardiomyopathy, dysrhythmia)

Mark out of 11

- **Min 2**
- **Max 8**
- **Mean 5.5**

- **30% pass rate for pass mark : 7**
- **9% pass rate for pass mark : 8**

