

Topic Title: Trauma and Cardiac Arrest in Pregnancy

For on site tutorials as part of the remote simulation program
Obstetric Module 4

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Sponsor

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Introductions



General Aims

- Learn in a team setting
- Blend clinical skills with team skills
- Reflect critically on practice

Ground Rules

- Participation
- Privacy
- Confidentiality
- Disclaimer
- Debriefing
- Mobile phones

Session Objectives

- Moderate severity multi-trauma: assessment, recognition and management
- Principles of management of cardiac arrest in pregnancy

Maternal trauma

- Common causes
 - MVA
 - Self harm
 - Domestic violence
- High maternal and foetal mortality

Primary Survey

- Assessment with AcBCDE approach
- Management is affected by maternal changes
 - Airway challenges
 - Avoid aorto-caval compression
 - Circulatory response to pregnancy and bleeding
- There are 2 patients to be considered, both the mother and the foetus.

Secondary Survey and Investigations

- Head to Toe assessment for other injuries
- CTG monitoring for 4 hours minimum
- Ultrasound
- Blood tests
- Assessment of Rhesus status (Anti-D)

Cardiac Arrest

Obstetric

- Severe obstetric haemorrhage and hypovolaemic shock
- Hypertensive disease in pregnancy
- Amniotic fluid embolus
- Thromboembolism
- Anaphylaxis/overdose of tocolytics or anaesthetic drugs
- Anaesthetic complications such as failure to intubate or ventilate

Non-Obstetric

- Cardiac – AMI, myopathy
- Hypovolemia – septic shock or trauma
- Toxicologic
- Hypoxia
- Metabolic disorders
- Other co-morbidities

Cardiac Arrest Management

- Advanced Cardiac Life Support Algorithms
- Displace the uterus
- Manage the Airway
- Perimortem C-section at 4minutes

Scenario

- BAT CALL
- I – 22 year old woman 36 weeks pregnant.
- M – Single vehicle MVA 80 km/hr into a pole with 20 minute extrication.
- I – Closed head injury, sternal pain and right femoral fracture.
- S – Sats 96% on NRB, RR 25/min, BP 90/50, HR 125, GCS 13 and BSL of 4.5
- T – C spine collar, Oxygen via NRB, 2x IVC, 10mg morphine, 500ml saline.

Summary

- Trauma assessment is the AcBCDE approach
- The pregnancy should be assessed after the mother has had her primary survey
- Early involvement of obstetric services as part of the trauma team is ideal
- In cases of cardiac arrest consider causes and perimortem c-section.

Acknowledgments

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