SCENARIO
Maternal Collapse – Local Anaesthetic Toxicity

LEARNING OBJECTIVES
Effective team working and communication between multidisciplinary teams
SBAR to communicate
Coordinating resuscitation and preparation for theatre
Recognition and treatment of local anaesthetic toxicity

EQUIPMENT LIST
Noelle/ SimMom/Baby Hal
Fluids / giving sets
Fake hand held notes
ODP grab bag
Peri-mortem LSCS kit / arrest trolley
GA drug box for T/F to theatre
Intra lipid from Epidural trolley
Monitor for manikin

PERSONNEL
MINIMUM: 6
Obstetricians Reg/Cons
Anaesthetist Reg/Cons
Paediatricians Reg/Cons
Midwife
ODP

FACULTY
MINIMUM: 3
Facilitator
Observer (patient/partner)
Debrief Lead

TIME REQUIREMENTS
TOTAL 1.5 hours
Set up: 30 mins
Pre Brief: 10 mins
Simulation: 20mins
Debrief: 30mins
INFORMATION TO CANDIDATE

PATIENT DETAILS

Name: Martha Scott  Phx: Generally Well
Age: 29  Allergies: Nil
Weight/BMI: 75Kg/27
Gestation: 40+14

SCENARIO BACKGROUND

Location: Labour Ward
Situation: G1P0 Induction for post dates
Large OP baby
5cm dilated on Syntocinon for 4hours after ARM
Epidural inserted one hour ago, was initially effective
Midwife just given epidural top up 10mls 0.25% Bupivacaine
Had ranitidine 2 hours ago
She now feels unwell and dizzy

Task: Midwife has asked both anaesthetic team and obstetric team to review

RCOG CURRICULUM MAPPING

Module 10 Management of Labour:
- Manage Obstetric Collapse
- Liaise with other staff

Advanced Training Skills Module:
- Advanced Labour Ward Practice
INFORMATION FOR ROLEPLAYERS

BACKGROUND
Your name is Martha Scott you are 29 years old having your first baby. You are two weeks over due and have been induced. You are normally well with no allergies. Your waters were broken this morning and you have been started on the hormone drip. You are 5 cm dilated. About an hour ago you had an epidural inserted for pain relief. It was initially working well but now it is less effective. Your midwife has just given you some more pain relief through the epidural.
You begin to feel unwell and dizzy.
You feel like something bad is going to happen.
You become agitated and confused.

RESPONSES TO QUESTIONS
What’s happening to me?
Am I going to die?
You become upset and angry /agitated asking for someone to help?
Then become confused, don’t know where you are.
On prompt commence fitting/ move mannequin
SCENARIO DIRECTION

Identification deteriorating mother

Initiate ABCDE assessment and management of seizures in the labour ward room

(STAGE 1)

Consider differential diagnoses

Obstetric Emergency call request consultant anaesthetist and obstetrician.

Patient has PEA arrest, start CPR with Uterine displacement

(STAGE 2)

Call arrest team AND NEONATAL team, arrange for peri-mortem LSCS IN THE ROOM, run through 4H and 4 T’s to include specifically INTRALIPID to treat LA toxicity.

Baby delivered pale and flat no breathing, pulse < 60, CPR commenced post assessment.

(STAGE 3)

Arrange for transfer to theatre once return of spontaneous circulation occurs (post intralipid) for completion of peri-mortem LSCS.

(STAGE 4)

Safe transfer to theatre: Ensure 2 IV lines, continue resus, VBG from blood from second cannula.

Intubate (radically reduced induction drug doses if tone / movement), continued resus with fluid / vasopressors / inotropes establish consultant anaesthetic and obstetric presence, SBAR handover.

Completion of peri-mortem LSCS and haemorrhage control, establish invasive monitoring, stabilise patient including continued intralipid infusion.

Arrange for post arrest management: critical care admission, cooling, bloods, ABG. Set up sedation and arrange for transport team.
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<tr>
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<th>BASELINE</th>
<th>STAGE 1 Initial</th>
<th>STAGE 2 PEA arrest</th>
<th>STAGE 3 Post-PeriMortem CS</th>
<th>STAGE 4 Transfer to OT&gt; GA finish CS</th>
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CTG Findings: Initially 140bpm, variability 10, reassuring variable decelerations <50% contractions
As patient feels unwell /fitting: fetal bradycardia 60bpm

ABG:  Stage 2 pH 6.97 PaCO2 11.2 PaO2 70.4 HCO3 14.1 BE -13.3 Lactate 12.1
Stage 3 pH 7.09 PaCO2 8.7 PaO2 51.4 HCO3 16.1 BE -13.3 Lactate 9.1
Stage 4 pH 7.36 PaCO2 5.2 PaO2 10.4 HCO3 20.8 BE -4.5 Lactate 8.3
SCENARIO DEBRIEF

TOPICS TO DISCUSS

Effectiveness of communication and team working
Senior personnel
Ensuring neonatal team included
Use of SBAR in handover.
Coordination of initial resuscitation
Recognition of PEA arrest
Differential diagnosis- clinical differences between pathology (focal neurology, hyper/hypotension, prior PET, hypovolemia 4Ts 4Hs)
Understand the nature of Local anaesthetic toxicity management –intralipid
Peri-mortem LSCS and then transfer to theatre to complete LSCS.

REFERENCES

Maternal Collapse in Pregnancy and the Puerperium, Green Top Guideline No.56 Jan 2011 RCOG Press