

## SCENARIO

Intrapartum Eclampsia

## LEARNING OBJECTIVES

- Recognition and management of Eclampsia
- Be aware of the effect of raised BMI on management
- Demonstrate effective teamwork
- Discuss timing of delivery within a multidisciplinary team

## EQUIPMENT LIST

|                                      |  |
|--------------------------------------|--|
| Mannequin Noelle/SimMom              | Resuscitation Trolley                    |
| Monitoring/Dinamap                   | Intubation Trolley (Guedel airways, LMA) |
| CTG                                  | Infusion pump/giving set x2              |
| IVC pack                             | Blood Bottles                            |
| Oxygen/mask                          | Suction                                  |
| Drugs- Magnesium Sulphate            | Gloves                                   |
| Labetalol                            |  |
| (thiopentone/suxamethonium/atropine) |  |
| Trust Policy –Eclampsia              |  |

## PERSONNEL

MINIMUM: 4  
 ROLES:  
 Midwife        Obstetric Trainee  
 Partner        Anaesthetic Trainee  
 ODP            Consultants x2

## FACULTY

MINIMUM: 3  
 Facilitator  
 Observer x 2  
 Debrief Lead

## TIME REQUIRMENTS

TOTAL 1.5hours

|                    |                    |
|--------------------|--------------------|
| Set up:    30 mins | Simulation: 20mins |
| Pre Brief: 10 mins | Debrief:    30mins |

## INFORMATION TO CANDIDATE

### PATIENT DETAILS

Name: Holly Fairweather  
Age: 21yrs  
Weight/BMI: 47

Phx: PE at 26 weeks gestation  
Allergies: nil

### SCENARIO BACKGROUND

Location: Labour Ward

Situation:

21-year-old primgravida admitted to labour ward for induction of labour for raised blood pressure. She has a one week history of borderline hypertension and proteinuria. Her booking BP was 120/65. She has been monitored in the community by her midwife. Holly had a pulmonary embolism at 26 weeks gestation and is on therapeutic low molecular weight heparin – her last dose was 24 hours ago.

She is now 37 weeks. She is not on any antihypertensive medication. She was seen in antenatal clinic yesterday and admitted for prostaglandin administration for induction of labour. She has now been assessed and an ARM is possible. Her latest blood pressure was 150/96.

Task:

You have been asked by the midwife looking after Holly to insert an IVC as she has been unsuccessful in her attempt. Please review Holly.

### RCOG CURRICULUM MAPPING

Module 9 Maternal Medicine  
*Eclampsia*

Module 10 Management of Delivery  
*Manage Eclampsia in Labour*

## INFORMATION FOR ROLEPLAYERS

### MIDWIFE

You are looking after Holly Fairweather. She is 21 years old and this is her first pregnancy. She has a BMI 47. She is 37 weeks pregnant and is being induced after one dose of prostaglandin for pre eclampsia. She has been admitted to LW and is awaiting an ARM. She is not on any antihypertensive medication. She had a pulmonary embolism at 26 weeks gestation and had been on therapeutic low molecular weight heparin. Her last dose was 24 hours ago.

Your initial assessment:

BP 145/98

Proteinuria +++

Oedema face/hands/feet

Difficult to locate fetal heart due to BMI- CTG now recording

CTG Normal

You have been unable to cannulate and have bleeped the obstetric team.

Whilst waiting the patient has a self-limiting seizure lasting 1-2 minutes

### PARTNER /MANNEQUIN

Emotional whilst trying to be supportive- wanting to know if baby is going to be alright

Whilst midwife is bleeping the obstetrician patient complains of headache and epigastric pain and then has a self limiting seizure lasting 1-2 minutes.

You ask what is happening, is your partner/baby alright?

Your partner doesn't regain consciousness and is making lots of gurgling noises.

Following the seizure your baby's heart rate becomes abnormal – if this is not noticed by the team comment your baby's heart rate is low.

Your partner is unable to tolerate any airway adjuncts (Guedel /nasal airway)

## INFORMATION TO FACILITATOR

### SCENARIO DIRECTION

Holly Fairweather is a 21 year old primigravida admitted to labour ward for IOL for preeclampsia. Holly had a pulmonary embolism at 26 weeks gestation and is on therapeutic low molecular weight heparin – her last dose was 24 hours ago. She is now 37 weeks. She is not on any antihypertensive medication. She has now been assessed and an ARM is possible. The midwife has been unsuccessful in inserting an IVC and called the obstetrician.

Whilst waiting Holly complains of headache and epigastric pain and has a self-limiting 1-2 minute seizure. She fails to regain consciousness and has signs of an airway obstruction.

This is followed by persistent desaturation that is unresponsive to simple airway manoeuvres and oxygen.

Airway adjuncts not tolerated and sats continue to decline

Expected actions of participants:

ABCDE Multidisciplinary Assessment

Adherence to local trust Eclampsia Policy

IV access – Ix: FBC, LFTs, U&E, G&S, Clotting

Requires simultaneous management of hypertension (labetalol IV) anticonvulsant therapy (4g loading dose Magnesium Sulphate and maintenance infusion) and airway management.

Requires intubation discussion regarding location room vs theatre

The CTG becomes abnormal after the seizure. Fetal tachycardia 190bpm and variability <5

Maternal stabilisation before consideration of delivery unless required for resuscitation

## SCENARIO OBSERVATIONS/ RESULTS

|             | BASELINE | STAGE 1<br>Headache/<br>epigastric<br>pain | STAGE 2<br>Post<br>Seizure | STAGE 3<br>Airway<br>adjuncts<br>No<br>labetalol | STAGE 4<br>Intubation<br>/MgSulphate/<br>Labetalol |
|-------------|----------|--|----------------------------|--|--|
| RR          | 14       | 17   | 19                         | 12   | 15   |
| chest sound | Normal   | Normal                                     | normal                     | reduced  | Normal/equal                                       |
| SpO2        | 98%      | 98%  | 89%                        | 84%  | 96%  |
| HR          | 109      | 114  | 120                        | 130  | 112  |
| Heart sound | Normal   | Normal                                     | Normal                     | tachy  | normal   |
| BP          | 145/98   | 180/100                                    | 180/100                    | 190/110  | 155/97   |
| Temp        | 36.4C    | 36.5C                                      | 36.7C                      | 37C  | 36.9C  |
| Central CRT | 2 secs   | 2 secs                                     | 3 secs                     | 3secs  | 2secs  |
| GCS/AVPU    | A        | A  | U                          | U  | U  |

Arterial Gas/Lactate:

## SCENARIO DEBRIEF

## TOPICS TO DISCUSS

Management of initial seizure ABCDE structure

Adherence to local Eclampsia protocol

Management of desaturation and airway obstruction

Recognition of potential airway obstruction in obese patients with pre-eclampsia

Decision as to where to intubate – room vs theatre

Decision regarding delivery of baby

Discuss ongoing management of woman ITU

## REFERENCES

NICE Clinical Guideline: Hypertension in pregnancy: the Management of hypertensive disorders during pregnancy. National Collaborating Centre for Women and Children's health. August 2010 (Revised January 2011)