

SCENARIO

Maternal Medicine Sickle Cells Crisis

LEARNING OBJECTIVES

Recognition and management of sickle cell crisis and acute chest syndrome in pregnancy

Demonstrate team work within the MDT

Discuss mode of delivery

EQUIPMENT LIST

Noelle/ SimMom
Fluids / giving sets
Fake hand held notes
O2 Mask
Blood forms/bottles
Antibiotics

IVC packs/Blood Bottles
Monitor for manikin
CTG
Analgesia (simple/opiates)
ABG syringe

PERSONNEL

MINIMUM: 5
ROLES:
Obstetric Junior/Reg
Midwife
Anaesthetic Reg/Cons
Obstetric Consultant

FACULTY

MINIMUM: 3
Facilitator
Observer
Debrief Lead

TIME REQUIRMENTS

TOTAL 1.5hours

Set up: 30 mins
Pre Brief: 10 mins

Simulation: 20mins
Debrief: 30mins

INFORMATION TO CANDIDATE

PATIENT DETAILS

Name: Ayana Gabra

Phx: Sickle Cell Crisis aged 12

Age: 22

Allergies: Nil

Weight/BMI: 63kg/25

G1P0 37+5 weeks gestation

SCENARIO BACKGROUND

Location: Labour Ward

Situation: Ayana has recently arrived from Ethiopia and is unbooked, having had minimal antenatal care back home. She presents with a 3 day history of worsening joint pain and dry cough. She says the pain is similar to her usual sickle cell pain. This pregnancy she has had two episodes of sickling at 20 and 28 weeks each responded to pain relief and fluids.

She looks breathless sitting in bed and is clearly in pain.

Task: You are the obstetric registrar oncall
Please assess and manage Ayana

RCOG CURRICULUM MAPPING

Module 9 Maternal Medicine:
Sickle cell and other haemoglobinopathies
Advanced Training Skills Module:
Maternal Medicine
12 Haematological Disease

INFORMATION FOR ROLEPLAYERS**BACKGROUND**

Your name is Ayana Gabra. This is your first pregnancy and you are currently 37+5 weeks gestation. You have recently arrived from Ethiopia and have not yet been to your GP to see a midwife. You had a small amount of contact with the hospital back home when you had to be admitted twice with you sickle cell disease. You have had three days of worsening joint pain and a dry cough. You think the pain is similar to your usual sickle cell pain. This pregnancy you had two episodes of sickling at 20 and 28 weeks each responded to pain relief and fluids. You can feel the baby moving and on top of your severe joint pain you think you may be starting to have contractions but you are not sure having never given birth before. You are beginning to feel breathless and quite anxious.

RESPONSES TO QUESTIONS

You and partner are both anxious
Ask repeatedly for pain relief
Ask about effect on baby of medication and your sickle cell

INFORMATION TO FACILITATOR**SCENARIO DIRECTION**

ABCDE Assessment (BASELINE obs)

Call for assistance (Junior/ Anaesthetic Reg/coordinator)

A: Patent

B: Tachypneic, left lower lobe creps, equal air entry

C: Warm peripheries, flushed

D: Alert

E: Contractions 4/10, CTG 140bpm, variability 5 no accelerations
no decelerations, PA- 4/5 palpable ceph, VE 4cm dilated PP
@spines membranes intact

Patient looks anxious, breathless and distressed with pain

O2 Face Mask,

IV access, bloods (FBE/film, U&E, CRP, Cultures, Coags)

Fluid bolus (STAGE 1 obs)

Simple analgesia consider antibiotics (STAGE 2 obs)

Simple analgesia is ineffective, but pain responds to diamorphine

ABG (STAGE 3 Obs)

Request CXR- portable lower lobe consolidation

Consideration for requirement for delivery (timing and mode)

Suitable to continue with labour with supportive measures likely
augmentation

Discuss analgesia requirements with anaesthetist? suitable for
epidural

Involve haematology SBAR handover – thromboprophylaxis
postnatal

Need for critical care postnatally

END

SCENARIO OBSERVATIONS/ RESULTS

	BASELINE	STAGE 1 O2 Fluid Bolus	STAGE 2 Simple Analgesia Abx	STAGE 3 Opioid	
RR	25	25	28	20	
chest sound	LLL Creps	LLL Creps	LLL Creps	LLL Creps	
SpO2	90%	94%	94%	95%	
HR	115	110	110	100	
Heart sound	normal	normal	normal	normal	
BP	120/70	125/70	125/70	110/70	
Temp	37.8	37.5	37.4	37.4	
Central CRT	3 secs	2 secs	2 secs	2 secs	
GCS/AVPU	A	A	A	A	

Arterial Gas: pH 7.45 pCO2 3.1 pO2 8.5 BE 3
 FBC: Hb 72 WCC 25 PLT 170
 U&E: Na 135 K 4.2 Ur 9.0 Cr 90

Blood Film: Haemolysis

SCENARIO DEBRIEF

TOPICS TO DISCUSS

Triggers for sickle cell crisis

- Cold, hypoxia, stress/overexertion, infection

Differential Diagnosis

- Acute Chest Syndrome vs PE vs Pneumonia

Management Aims

- Oxygenation: Optimise O2 sats and Hb
- Hydration
- Temperature –keep warm!
- Analgesia- should be effective within one hour

Mode of delivery in a sickle cell crisis

REFERENCES

Management of Sickle Cell Disease in Pregnancy. Green Top Guideline No. 61. RCOG press July 2011