RCOG Supported

British Undergraduate Society of Obstetrics & Gynaecology

Inspiring the next generation of Obstetricians and Gynaecologists

Case: Pre-eclampsia

Candidate brief

You are an FY2 on Labour ward.

Please take a focused history from Emily Croft, a 30-year-old female at 38 weeks gestation, who is admitted to labour ward following discussion with her GP.

15 mins	1. Please take a full history (7 mins) 2. Counsel her with an appropriate management plan (4 mins) 3. Viva with the examiner afterwards (4 mins)
10 mins	1. Please take a full history (7 mins) 2. Viva with the examiner afterwards (3 mins)

Author: Jack Hamer, FY2 Russell's Hall Hospital

Reviewers: Dr Agata Zielinska, FY2 Imperial College NHS Trust

Dr Jack Teh, FY1 Hillingdon Hospitals NHS Trust

Patient Brief

(Do not volunteer information unless asked)

Name: Emily Croft
DOB: 12/05/1991 (39 years old)
Job: Estate Agent
Opening statement: "*My GP referred me here because my face has started to swell, and I have a headache."*

HPC:

- Today I saw my community midwife at my local GP practice.
- I mentioned to her that my **face has started to swell today.**
- I also have a **severe** headache mainly at the front of my head, which has worsening since this morning. I suffer from headaches, but nothing like this.
- My vision is now starting to get **blurry**.
- I have vomiting twice since today, and I am still feeling nauseous
- Occasionally pain in my chest and tummy area as well, mainly the upper part of my tummy.

Associated symptoms

- No fever
- No shortness of breath
- Eating and drinking fine
- Opening bowels
- No bleeding
- No dysuria

Past obstetrics history:

- 1 pregnancy in the past at **age of 18**
- Normal vaginal delivery
- **Had mild hypertension in last pregnancy, not hypertensive normally**
- No miscarriages

Gynae Hx
Period: Last menstrual period: About 38 weeks ago

- Tend to be **irregular periods**
- Not heavy or painful however
- No clots
- First period at age 16

Smears:

- Up to date
- No concern

STIs: No history of STIs

Contraception: Previously had the Mirena coil from age 23 – 27 years old.

PMHx:

- **Type 2 diabetes mellitus**

DHx:

- **Metformin 500mg BD**
- **NKDA**

FHx:

- **My mother** said she had similar symptoms when delivering me, but I am not too sure

SHx:

- Doesn't smoke
- Doesn't drink
- No illicit drugs
- Lives with husband

Other information:

- Other systems review - normal

Ideas:

- My mother said my symptoms are similar to what I am having, could it be related?

Concerns:

- I am worried that my baby could be in danger as I'm in a lot of pain!

Expectations:

- I just want to sort this out!

INVESTIGATIONS:
BMI – 42kg/m^2

Observations:

- Reparatory rate 18
- Blood pressure 174/105 (last pre-pregnancy recording: 128/72)
- Heart rate: 99
- Temperature 37.1
- Saturations 98% on air

Urinalysis
No leukocytes
No nitrites
+2 Protein
+1 Blood

Bloods:
Hb 110, Platelets 80, WCC 5.8, eGFR >90, Sodium 138 , Potassium 4.6, Calcium 2.42, Phosphate 0.98, Urea 7.2, ALT 40, ALP 90, Bilirubin 4, CRP 12

Speculum Examination: closed os with no discharge or bleeding

Bimanual Examination: not relevant to the history

TVUSS: not relevant to the history

Examiner Brief

Candidate Brief: You are an FY2 on Labour ward.
Please take a focused history from Emily Croft, a 30-year-old female at 38 weeks gestation, who is admitted to labour ward following discussion with her GP.

15 mins	1. Please take a full history (7 mins) 2. Counsel her with an appropriate management plan (4 mins) 3. Viva with the examiner afterwards (4 mins)
10 mins	1. Please take a full history (7 mins) 2. Viva with the examiner afterwards (3 mins)

- **Please do not** provide **any verbal or non-verbal feedback** for the candidate. This includes nodding to correct answers and shaking head to wrong answers - particularly during the viva.
- **Please provide positive and negative feedback** (both verbal and written) at the end of the session once the examination is complete.
- The questions below are provided as a guide for discussion only. For viva, please ask questions surrounding the case and challenge the candidate where appropriate

Examiners will grade the performance across four domains: **(15 minute station)**

1. Clinical skills
2. Formulation of clinical issues
3. Discussion of management
4. Professional behaviours and patient centred approach

Positive descriptors		**Marks**
History/Clinical skills (18)		
Appropriate introduction, elicit patient details and invite consultation		2
Symptom presentation: Headache and facial oedema: onset, location, severity		2
Presence of **epigastric pain, blurred vision, nausea and vomiting**		2
Pain – with SOCRATES as appropriate		2
Menstrual history – age at time of menarche, LMP, regularity of periods and characteristics		2
Gynaecological history – **contraception**, STIs, cervical screening		2
Obstetric history – gravity, parity, outcome of pregnancies		2
Enquire about **risk factors**: Diabetes, previous or established hypertension, 10 years since previous pregnancy, high BMI.		2
Past medical (surgical) history; drug history, family history, social history		1
Formulation of clinical issue (5)		
Summary and **interpretation** of clinical findings **accurately** – including observations (grading severity) and urinalysis.		2
Good range of differential diagnoses		1
Viva		2
Discussion of management (4)		

Build patient concerns into plan and justify choice of investigations		2
Demonstrate MDT approach		1
Viva (Management)		1
Professionalism and patient centered approach (3)		
Able to elicit patient ideas, concerns, expectations		1
Use empathic behaviour and language Explain accurately, uses everyday language and check for understanding		1
Professional communication to examiner as colleague		1

Viva Questions: please ask questions surrounding the case and challenge the candidate where appropriate; **the questions below are provided as a guide for discussion only.**

Resource: NICE guideline (NG133) – Hypertension in pregnancy

1. Differential diagnosis	- Pre-eclampsia with early onset HELLP (Low platelets) - Pre-existing hypertension - Gestational hypertension
2. What is the cause of Pre-eclampsia	• Uretero-placental insufficiency
3. What are the risk factors for developing Pre-eclampsia?	High Risk: • Previous pre-eclampsia • Pre-existing hypertension • CKD • Diabetes mellitus • Autoimmune disease -SLE and antiphospholipid syndrome Moderate Risk • 10 years or more since last pregnancy • First Pregnancy • Age ≥ 40 • BMI ≥ 35 • Family history of pre-eclampsia • Multiple pregnancy
4. How do you diagnose severe pre-eclampsia?	• BP measurement ≥160mmHg systolic (in the absence of pre-existing HTN) • BP measurement ≥110mmHg diastolic (in the absence of pre-existing HTN) • Symptoms • Biochemical changes (PIGF test or sFlt/PIGF ratio) • Haematological changes
5. How would you manage a patient with severe Pre-eclampsia?	• ADMIT! • Monitor BP more than 4 times a day • Blood tests 3 times per week • Commence Labetalol (providing no contraindications) • Perform ultrasound examination to assess foetal growth with umbilical artery doppler • CTG of foetus

	• If unstable proceed to C-section if not improving. • Magnesium sulphate if concerned of eclampsia, depending on gestation.

6. How is pre-eclampsia graded?	• Mild: BP140-149/90-99 mmHg
	• Moderate 150-159/100-109 mmHg
	• Severe ≥160/110 mmHg
	• Additionally presence of proteinuria
	  o Either 0.3g in 24hr Urine
	  o Or +1 protein on urine dipstick

7. What biochemical markers are associated with a poor prognosis?	• HELLP syndrome
	  o First biochemical marker to change is a drop in platelets (<150 x 10^9/L).
	  o Abnormal LFTs: ALT or AST >70 IU/L
	  o Rise in creatinine >90 micromol/litre
	• Progression to seizures
	• Signs of pulmonary oedema

8. What medications can you give to prevent future attacks of pre-eclampsia?	• 75mg Aspirin OD from 12 weeks gestation.