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Case: Bleeding in early pregnancy

Candidate brief

You are a F2 in the Early Pregnancy Assessment Unit.

Please take a focused history from Amelia Shepherd, a 27-year-old female who has been referred by her GP.

20 mins	1. Please take a full history and perform a relevant examination (15 mins) 2. Present the case and differential diagnoses to the examination, and discuss appropriate investigations and management (6 mins)
10 mins	1. Please take a full history (7 mins) 2. Viva with the examiner afterwards (3 mins)

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Patient Brief

(Do not volunteer information unless asked)

Name: Amelia Shepherd
DOB: 13/06/1993 (27 years old)
Job: HR assistant
Opening statement: "*My GP has referred me here because I have pain and bleeding*"

HPC:

- **10 day history** of PV bleeding **– small** amounts of brownish, watery blood, not enough to fill a sanitary towel. Thought this was her withdrawal bleed.
    - **No clots**
    - No post-coital bleeding or intermenstrual bleeding in the past
- **Abdominal pain**
    - **Lower right side**, started **two days** ago, dull ache, no radiation, no exacerbating or alleviating factors previously came and went but more persistent now, **6/10 severity**
- LMP 7 weeks ago, but periods are usually irregular due to use of progesterone only pill. Thought this current bleeding was her period.

Associated symptoms

- **Nausea** with loss of appetite as a result
- Has had a couple of episodes of diarrhoea
- Dysuria since the onset of abdominal pain
- Has felt fatigued for the last couple of weeks
- No vomiting
- No other urinary symptoms.
- No fever
- No other abnormal discharge

Obs Hx

- No previous pregnancies

Gynae Hx

Period: LMP 7 weeks ago. Usually has a bleed every 2-3 months (irregular due to contraception), lasts about 6 days. Thought current bleed was withdrawal bleed.
Smears: Up to date
STIs: Previous chlamydia infection (treated)
Contraception: Cerelle (progesterone only pill), mostly compliant but does rarely forget to take
Previous gynae problems/surgery: None

PMHx – asthma, appendicectomy (**only volunteer if asked about previous surgery**)

DHx - Beclomethasone inhaler, salbutamol inhaler. No known drug allergies.

FHx – asthma (father), nil else.

SHx – Works as an HR manager. Lives with partner. Non-smoker, drinks about 10 units of alcohol per week. No recreational drug use.

Other information:

- Other systems review - normal

Ideas: thought this was withdrawal bleed before pregnancy confirmed by GP.
Concerns: Worried about pain – could this be a miscarriage?
Expectations: hopes they will quickly find the source of the pain, and that she will have a scan

Investigations findings (Provide it after history talking or to enquire candidate about differential diagnosis)

INVESTIGATIONS:
BMI – 23 kg/m2

Abdo exam: soft, tenderness right iliac fossa

Vital signs: HR 102bpm, BP 118/75, RR 19, O2 sats 98%, Temp 36.9

Urinalysis: No abnormality detected.

Speculum Examination – cervix appears normal, closed os, brown watery discharge visualised.

Bimanual Examination – cervical excitation + adnexal tenderness

β-HCG blood test: 3640 iU

TVUSS: - No gestational sac visualised within the uterus. Extrauterine gestational sac visualised in the right fallopian tube.

Examiner Brief

Candidate Brief

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20 mins	1. Please take a full history and perform a relevant examination (15 mins) 2. Present the case and differential diagnoses to the examination, and discuss appropriate investigations and management (6 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: **(20 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 (20)		
Appropriate introduction, elicit patient details and initiation of consultation		2
Bleeding: Onset, Volume, Colour and Progression		2
Presence of clots, dysuria, dyspareunia or discharge		2
Pain – with SOCRATES as appropriate		2
Associated symptoms		2
Menstrual history – LMP, regularity of periods and characteristics		2
Gynaecological history – **contraception**, menopause, **STIs**, cervical screening		2
Obstetric history – Gravity, Parity, outcome of pregnancies		2
Enquire about **risk factors**: contraception, previous STI / PID risk factors		2
Past medical (surgical) history; drug history, family history, social history		2
Formulation of clinical issue (8)		
Summary and **interpretation** of clinical findings **accurately**		2
Good range of differential diagnoses		2
Discussion of risk factors		1
Appropriate investigations *Bedside – urine dip, urine pregnancy test, vital signs, abdominal examination, speculum/bimanual* *Bloods – serum β-HCG* *Imaging – Pelvic/transvaginal ultrasound*		3
Discussion of management (5)		
Build patient concerns into plan and Justify choice of investigations		2

Discussion of most appropriate management plan for this patient, discussing conservative, medical and surgical options		3
Professionalism and patient centred 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);

1) Elson, C.J., Salim, R., Potdar, N., Chetty, M., Ross, J.A., Kirk, E.J., on behalf of the Royal College of Obstetricians and Gynaecologists (2016) Diagnosis and Management of Ectopic pregnancy (Green-top Guideline No. 21) BJOG 2016.
2) National Institute of Health and Care Excellence (2018) Ectopic Pregnancy. Available at: https://cks.nice.org.uk/topics/ectopic-pregnancy/
3) TeachMe ObGyn (2016) *Ectopic Pregnancy*. Available at: https://teachmeobgyn.com/pregnancy/early/ectopic-pregnancy/

1. What would your differential diagnoses be?	Ectopic pregnancy Appendicitis ovarian cyst accident acute pelvic inflammatory disease UTI diverticulitis
2. What are the risk factors for an ectopic pregnancy?	Previous ectopic pregnancy PID Endometriosis IUD/IUS POP or implant Tubal ligation/occlusion Previous pelvic surgery
3. What investigations would be appropriate?	*Bedside* – urine dip, urine pregnancy test, vital signs, abdominal examination *Bloods* – serum β-HCG *Imaging* – Pelvic/transvaginal ultrasound
4. How would you manage this patient?	Conservative: Expectant management – not appropriate in this case Medical: Intramuscular methotrexate 50mg/m^2, anti-D prophylaxis if appropriate Surgical: Laparoscopy +/- salpingotomy +/- salpingectomy (consider PID – risk of contralateral tube damage)
5. What features would suggest an ectopic pregnancy has ruptured?	Increased abdominal pain (with rebound tenderness and guarding), referred shoulder tip pain. Signs of haemodynamic instability – pallor, tachycardia, hypotension, peripheral shutdown (i.e. prolonged cap refill time).

Ectopic pregnancy- The incidence of ectopic pregnancy is 11.1/1000 pregnancies and in the EPAU population the incidence is 3%. The fallopian tube is the most common site accounting for nearly 95% of ectopic pregnancies. Other possible sites of an ectopic pregnancy are, interstitial (2%), cervical (0.1%), ovarian (0.01%), caesarean section scar or abdominal (rare). An abdominal ectopic pregnancy may be primary or secondary resulting from a tubal miscarriage.

TYPES OF ECTOPIC PREGNANCIES