



## Case: Subfertility

### Candidate brief

You are the FY2 on your GP placement

Please take a focused history from Sally Locke, a 28-year-old female who you have not met before.

Please make sure candidate brief, patient brief and examiner brief are on **separate page**  
 Try and proposed two different formats: 1) specific to your medical school and 2) general ones

15 mins	<ol style="list-style-type: none"> <li>1. Please take a full history (7 mins)</li> <li>2. Counsel her with an appropriate management plan (4 mins)</li> <li>3. Viva with the examiner afterwards (4 mins)</li> </ol>
10 mins	<ol style="list-style-type: none"> <li>1. Please take a full history (7 mins)</li> <li>2. Viva with the examiner afterwards (3 mins)</li> </ol>

Author: Elena Ctori, Final year medical student, University of Birmingham  
 Reviewers: Priyanka Iyer, Foundation Year 1 Doctor, Newham University Hospital

## Patient Brief

(Do not volunteer information unless asked)

**Name:** Sally Locke

**DOB:** 08/10/1987 (28 years old)

**Job:** Accountant

**Opening statement:** *"I've been trying to get pregnant with my partner, but I have not been successful"*

### HPC:

#### Coitus

- Started trying to conceive **11 months ago**. You and your partner decided to **come off the implant**.
- For first **7 months or so** you were having sex **2-3 times a week**.
  - There was no expectation or pressure at the start, you were just going to see how it went.
- As you were unsuccessful, you downloaded an app on your phone to help work out your fertile period. You've found this hard to do, **but for the last few months** you are trying to **have sex around ovulation**.
  - Has taken the enjoyment out of sex as it has become very stressful for you and your partner
- No difficulties during sex

#### Partner

- Josh, been together 5 years.
- He is aged 34
- He works as a chef.
- Non smoker.
- He has **one child from a previous relationship**, aged 7.

### Associated symptoms

- No dyspareunia.
- No post coital bleeding.
- No dysmenorrhea or pelvic pain.
- No nipple discharge or breast changes.
- **Some acne in the past**, this cleared when you went on the COCP.
- **No hirsutism**.
- Struggle a bit with **weight**- don't eat as healthily as you should.

### Obs Hx

- 0 pregnancies in the past - **no miscarriages, no terminations or ectopic pregnancies**

### Gynae Hx

**Period: Last menstrual period:** Just over one month ago

- Started periods at **14**.

- They were **quite light**, lasted about 4-5 days
- They were **not quite every month**, maybe every 1 to 2 months from what you can remember.
- Periods became regular when you went on the COCP at around age 18.
- Periods stopped when went on the implant.
- Since coming off the implant, have had some periods, around **every 1-2 months/36-40 days**.

**Smears:** Up to date, all normal.

**STIs:** Chlamydia in the past - [completed a course of antibiotics for this](#)

**Contraception:** Not currently on any contraception. Was on the **implant** for 4 years before you came off. Prior to this you were on the **combined oral contraceptive pill** for a few years

#### **PMHx**

- **Anxiety** since age 23.
- No previous pelvic operations.

**DHx - NKDA,** Sertraline 50mg.

**FHx –** Mother has T2DM.

**SHx –** Live with partner, Josh, who is aged 34 and works as a chef.

- **Occasional smoker.** Find work quite stressful and use cigarettes as a method of relaxation.
- Do not exercise much
- Diet is not very healthy, do snack on **unhealthy food** when stressed.

#### **Other information:**

- Other systems review - normal

**Ideas:** Think the problem could be due to the fact you were on the implant. Maybe it interfered with your cycle as it stopped your periods completely.

**Concerns:** Concerned you are the problem as Josh has had a child previously.

**Expectations:** Wants to find out what may be preventing pregnancy.

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

**INVESTIGATIONS:**

General examination- normal secondary sexual characteristics

BMI – 32.5kg/m<sup>2</sup>

Abdominal examination – normal. No masses identified.

Speculum Examination – normal speculum examination.

Bimanual Examination – Normal, no uterine or ovarian enlargement, cervical motion or adnexal tenderness.

# Examiner Brief

**Candidate Brief:**

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10 mins	<ol style="list-style-type: none"> <li>1. Please take a full history (7 mins)</li> <li>2. Viva with the examiner afterwards (3 mins)</li> </ol>

- **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                | 3. Discussion of management                             |
| 2. Formulation of clinical issues | 4. Professional behaviours and patient centred approach |

**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.**

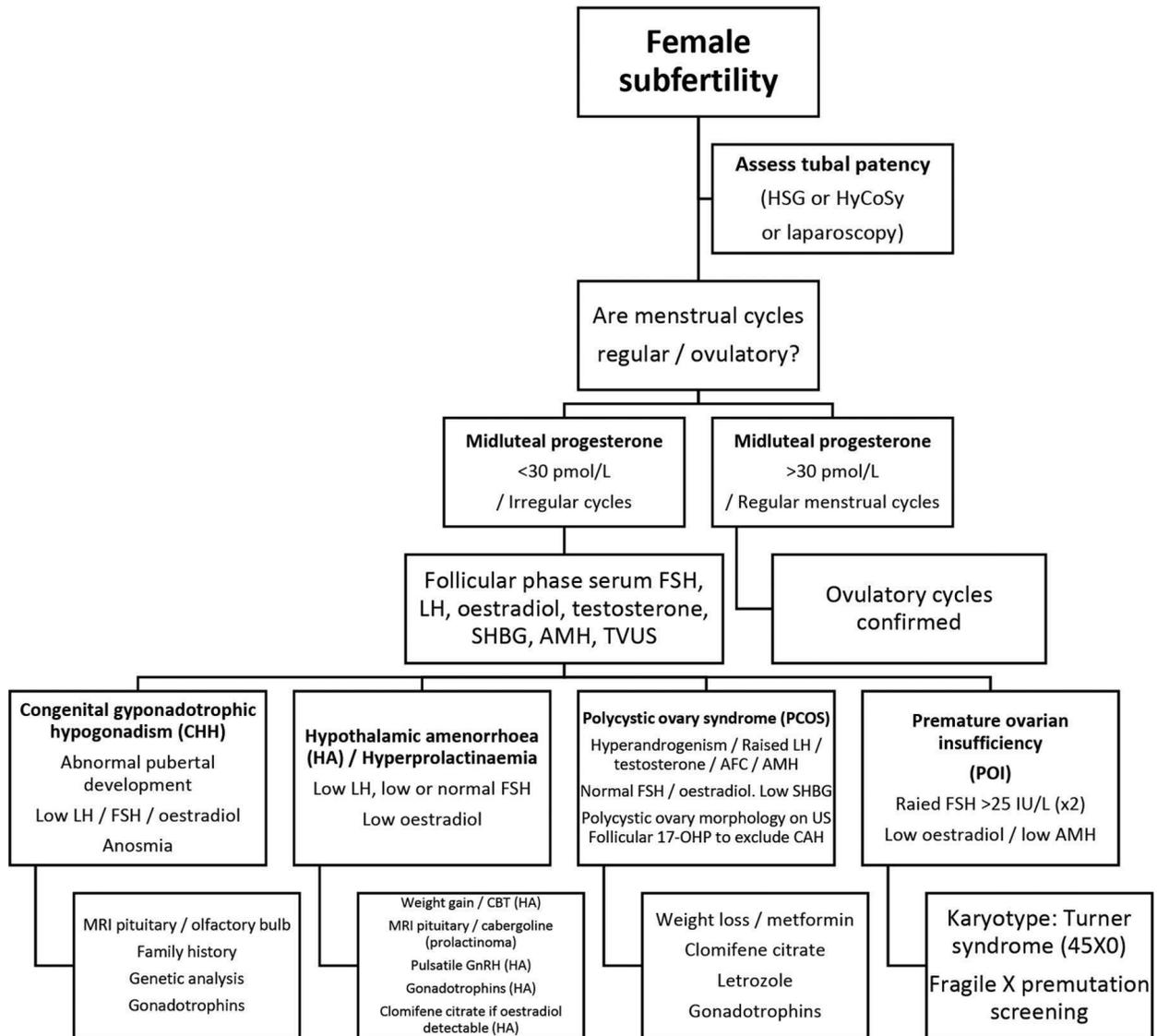
**Resources:**

- Thurston L, Abbara A, Dhillon W. Investigation and management of subfertility. Journal of Clinical Pathology. 2019;72(9):579-587
- NICE Clinical Knowledge Summary: Infertility (2018).

1. Differential diagnosis	<p><b>PCOS-</b> history of oligomenorrhea, acne and obesity.</p> <p><b>PID-</b> history of STIs</p> <p>Hypothalamic amenorrhea- anxiety/stress induced</p> <p>Premature ovarian insufficiency</p> <p>Tubal failure</p>
2. What is the definition of <ul style="list-style-type: none"> <li>- Subfertility</li> <li>- Infertility (<b>Primary vs Secondary Infertility</b>)</li> </ul>	<p>Subfertility describes any form of reduced fertility resulting in a prolonged duration of unwanted lack of conception.</p> <p>Infertility is defined as a failure to conceive after frequent unprotected sexual intercourse for one or two years. <b>Primary infertility is in a couple without a prior pregnancy and Secondary is used when a couple have previously succeeded in at least one pregnancy, including abortion and ectopic pregnancy.</b></p>
3. If a patient presents with subfertility, how often would you	2-3 times a week.

<p>recommend that they have sex to improve the chances of conception?</p>	
<p>4. What are the diagnostic criteria for PCOS?</p>	<ol style="list-style-type: none"> <li>1. Hyperandrogenism (clinical or biochemical)</li> <li>2. Oligomenorrhea</li> <li>3. Polycystic ovaries on USS</li> </ol> <p>Rotterdam Criteria: need 2 out of the above 3</p>
<p>5. When would you consider investigating for infertility? What initial investigations may you do for female subfertility presenting in primary care?</p>	<p>Investigated after 1 year of regular unprotected sexual intercourse</p> <ul style="list-style-type: none"> <li>• Mid-luteal phase <b>progesterone</b> (seven days prior to menstruation e.g. Day 21 of a 28 Day cycle) to confirm ovulation</li> <li>• GnRH: <b>FSH, LH</b></li> <li>• Oestrogen + testosterone</li> <li>• Chlamydia screen</li> <li>• Could consider prolactin, TFTs,</li> </ul> <p>Semen analysis in the male partner</p>
<p>6. What investigations may be performed for female subfertility in secondary care?</p>	<ul style="list-style-type: none"> <li>• Tubal patency tests- HSG or HyCoSy or laparoscopy</li> <li>• Genetic testing- cause of premature ovarian failure</li> <li>• Antral follicle count</li> <li>• AMH</li> <li>• Transvaginal USS to assess for uterine abnormalities - fibroids</li> </ul>
<p>7. Management options for female subfertility?</p>	<ul style="list-style-type: none"> <li>• Conservative: smoking cessation, weight loss for PCOS, anxiety and stress management techniques</li> <li>• Medical: Ovulation induction Agents e.g. clomifene and metformin</li> <li>• Surgical: E.g. Laparoscopy for ablation of endometriosis</li> <li>• Assisted Reproduction: Intrauterine insemination, IVF, Intracytoplasmic sperm injection (ICSI), oocyte donation</li> </ul>

**Figure 1: Investigation and management of female subfertility.** Taken from Thurston, Abbara and Dhillon (2019).



Positive descriptors		Marks
History/Clinical skills (18)		
Appropriate introduction, elicit patient details and invite consultation		2

<b>Coitus:</b> When started trying, frequency of intercourse, relation to fertile days, <b>any previous investigations/medical treatments/ivf for fertility</b>		2
<b>Partner:</b> Age, fathered any children previously from another relationship, smoking status, <b>any other medical conditions and drug history</b>		2
<b>Rule out</b> pelvic pain, dyspareunia, <b>vaginal discharge, dysmenorrhea or abnormal PV bleeding,</b> nipple discharge		1
<b>Menstrual history</b> – age at time of menarche, LMP, regularity of periods and characteristics		2
Enquire about <b>risk factors:</b> Establish PCOS symptoms/history- acne, weight, diabetes, hirtuism		2
<b>Gynaecological</b> history – <b>contraception,</b> STIs, cervical screening		2
<b>Obstetric</b> history – Gravity, Parity, outcome of pregnancies		2
Past medical (surgical) history; drug history+ allergies, family history,		2
<b>Social history-</b> job and stress, diet, exercise, smoking status		1
Formulation of clinical issue (5)		
Summary and <b>interpretation</b> of clinical findings <b>accurately</b>		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 – appropriate referral		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