



## Case: Menstrual Disorders

### Candidate brief

You are a F2 currently working in General Practice

Please take a focused history from Anne Greene, a 50-year-old female, who is attending the practice today with a history of heavy periods

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: Kay McCubbin, University of Glasgow

Reviewers: Hannah Saunders, Foundation Year 2 Doctor, Trent

Deanery Sivarajini Inparaj, Foundation Doctor , Peninsula Deanary



Disclaimer: All contents are contributed by medical students and/or junior doctors on behalf of BUSOG, although every effort has been made to ensure the information is correct and robust; however, authors accept no liability for errors.



## Patient Brief

(Do not volunteer information unless asked)

**Name:** Anne Greene

**DOB:** 09/02/1970 (50 years old)

**Job:** Health Care Assistant

**Opening statement:** *"I have come to see you today, doctor, as I have noticed my periods have been heavier and longer than usual"*

### HPC:

- Over the past 4 months have noticed periods have been heavier
  - o Bleeding so heavy that you are having to wear a tampon and a sanitary towel as you can **worried out leakage**
  - o Having to **change pad every hour**
  - o **Flood** through pad a night
  - o Worried out leaving the house when on your period due to fear of leakage whilst out
- **Periods lasting longer** than usual, used to last 2-3 days, now bleeding can last a week
- Last period was 10 days ago
- Periods have not been more painful than usual
- No bleeding in between periods
- No bleeding after sexual intercourse
- No pain during sex
- No abnormal vaginal discharge
- No change to bowel habits
- Have noticed that you're having to **go to the toilet more frequently** and experiencing **urgency** when going to the toilet
  - o No pain/ burning when passing urine (dysuria)
  - o Have previously been to GP with this and urine was dipped and was reported as clear
- No feeling of fullness in pelvis

### Associated symptoms

- Feeling of **light headedness**
- Feeling **tired** all the time
- Feeling short of breath on exertion
- Has noticed her hair thinning
- Her husband commented that she was looking more pale than usual
- Feeling low in mood due to impact of the heavier bleeding on her quality of life
- No syncope/ pre-syncope
- No fever
- No nausea/ vomiting
- No weight loss

### Obstetrics Hx



- Been pregnant two times – both were delivered by caesarean section
  - o One was an emergency caesarean section due to failure to progress in labour
  - o One was a planned section due to previous caesarean delivery

### **Gynaecological Hx**

**Period: Last menstrual period:** 10 days ago

**Smears:** Up to date with smears – all normal

**STIs:** Previously checked – all normal

**Contraception:** Husband has vasectomy – no other method of contraception used

**Menopause:** Has experienced menopausal symptoms (hot flushes, mood changes and reduced libido) but still having a monthly period (?peri-menopausal)

### **PMHx –**

- Hypothyroidism

### **DHx -**

- Levothyroxine
- NKDA
- Allergy to latex – makes skin itchy and come out in a red rash

### **FHx –**

- No family history of menstrual disorders
- No family history of gynaecological cancers
- No family history of familial cancers
- No family history of coagulopathy

### **SHx –**

- Works as a health care assistant on busy care of the elderly ward
- Lives with husband (30 years married)
- Both children have moved out of family home
- Drinks socially (~10 units per week)
- Ex-smoker – 10 cigarettes a day (gave up 5 years ago – smoked from the age of 15)

### **Other information:**

- Systemic enquiry all normal
  - o No headache
  - o No blurred vision
  - o No ulcers or painful tongue
  - o No swallowing difficulties
  - o No nausea/ vomiting
  - o No change to bowel habits
  - o No paraesthesia or loss of power in limbs

**Ideas:**

- Your friend, Karen, had something similar in which she got a Mirena coil inserted for and you're thinking it may be the same thing

**Concerns:**

- Bleeding affecting quality of life as unable to leave the house whilst on period due to fear of flooding
- Affecting work as tired all the time and it is a busy job
- Also affecting work as having to take days off due to heavy bleeding whilst on period

**Expectations:**

- You would like to know what is going on – what tests can be done to see what is wrong with me
- You would like something to make you less tired all the time



## **INVESTIGATIONS:**

BMI – 28kg/m<sup>2</sup>

### **Full Blood Count**

- Haemoglobin – 85 g/L
- White Cell Count – 4.1 x10<sup>9</sup>/L
- Platelets – 215x10<sup>9</sup>/L

**Speculum Examination**  External genitalia unremarkable. No evidence of cervical erosion or pathology. No active bleeding seen. Smear up to date so no need to be repeated

**Dual swabs**  No infection detected

**Ultrasound of Pelvis**  Evidence of two 6cm fibroids

**TVUSS**  Evidence of two 6cm fibroids

# Examiner Brief



**Candidate Brief:** You are a F2 currently working in General Practice. Please take a focused history from Anne Greene, a 50-year-old female, who is attending the practice today with a history of heavy periods

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>

- **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 (28)	
Appropriate introduction (full name and role) [1], elicit patient details (full name and DOB) [1] and gain consent and invite consultation [1]	3
Establishes onset, duration [1] and nature of the presenting complaint [1]	2
Establishes how much bleeding [1] and frequency of bleeding [1]	2
Establishes passage of clots, dysmenorrhoea [1], pelvic pain [1]	2
Establishes if any other abnormal menstrual disorders – inter menstrual bleeding [1] and post coital bleeding [1]	2
Asks about the presence of abnormal vaginal discharge	1
Asks about changes in bowel habit [1] and urinary symptoms [1]	2
<b>Menstrual history</b> – age at time of menarche [1], LMP [1], regularity of periods and characteristics [1]	3
<b>Gynaecological</b> history – contraception [1], menopause [1], STIs [1], cervical screening [1]	4
<b>Obstetric</b> history – Gravity, Parity, outcome of pregnancies	2



Past medical (surgical) history [1]; drug history [1] and allergies,		2
Family history [1] specifically bleeding disorders [1]		2
Social history (including smoking and alcohol) [1]		1
Formulation of clinical issue (6)		
Closure of consultation and summary [1]		1
Able to formulate list of differential diagnoses for this case [1] (see below)		1
What are the risk factors from the history for heavy menstrual bleeding [1] (see below) [1]		1
What investigations do you recommend for this woman [2]? (see below questions)		2
From the investigations (listed above) what is most concerning? [1]		1
Should this woman be referred to gynaecology? If so, why? [1]		1
Discussion of management (4)		
What medical management options are available for this patient? [2]		2
What surgical options are available for this patient? [2]		1
Professionalism and patient centred approach (6)		
Able to elicit patient ideas, concerns, expectations [1]		1
Use empathic behaviour and language [1] Explain accurately, uses everyday language and check for understanding [1]		2
Professional communication to examiner as colleague [1]		1
Simulated patient score [2 – very good, 1 – good, 0 – poorly]		2

**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.**

Question 1 - Differential Diagnoses of HMB □

- Uterine fibroids
  - o History of pressure symptoms or urinary symptoms e.g. frequency
- Adenomyosis
  - o Also associated with dysmenorrhoea
- Endometrial polyp
  - o Can also cause intermenstrual bleeding
- Cervical polyp



- o Can also cause intermenstrual bleeding and post-coital bleeding
- Endometrial hyperplasia
- Endometrial cancer
- Coagulopathy
  - o Most commonly Von Willebrand Disease
  - o Will present with HMB from menarche, history of bleeding e.g. easy bruising, epistaxis or dental related bleeding
  - o May have a family history of a bleeding disorder
- Ovarian dysfunction e.g. polycystic ovarian syndrome
  - o Also have irregular and/ or infrequent periods
- Hormone dysfunction
  - o Hypothyroidism – heavy periods
- Sexual health related
  - o Pelvic inflammatory disease
  - o Copper IUD

Question 2 – Information from history which are risk factors HMB □ <sup>[1]</sup>

- Approaching menopause
  - o HMB more common at extremes of ages (at menarche and when approaching menopause)
- Pressure symptoms e.g. urinary frequency
  - o Indicates uterine pathology such as fibroids cause pressure on the bladder
- Past medical history of hypothyroidism (although managed with levothyroxine)
- Previous caesarean section
  - o Increased risk of adenomyosis

Question 3 - Investigations for HMB □ <sup>[2]</sup>

- Investigations can be tailored to the specific clinical features
  - o Full blood count (should be carried out on all women)
    - Assess for anaemia due to blood loss
  - o Thyroid function tests
    - Only carried out if there are other symptoms suggestive of hypothyroidism
  - o Coagulation screen and testing for Von Willebrand disease
    - Only indicated if there has been HMB since menarche
    - Or have a personal or family history of coagulation disorder
  - o Ultrasound of the pelvis
    - Transvaginal USS to assess the endometrium for thickness and pathology, can also assess the ovaries for signs of PCOS or pathology
  - o Cervical smear
    - Indicated only if the patient is not up to date with cervical screening
  - o High vaginal swabs for infection (BV, thrush, trichomoniasis)
  - o Pipelle endometrial biopsy
    - Persistent intermenstrual bleeding
    - >45 years



- Failure of pharmacological treatment
- o Hysteroscopy +/- endometrial biopsy
  - If ultrasound scan indicates pathology
  - Ultrasound is inconclusive

#### Question 4 – Interpretation of Investigations

- Low Hb – anaemic
- Fibroids seen on USS
- All other investigations normal
- Suggesting that the cause of HMB is uterine fibroids

#### Question 5 - Referral to gynaecology for HMB, PCB and IMB [2]

- Yes, she should be referred as
  - o Over 35 years
  - o Persistent HMB
  - o Identified pathology on TVUSS

#### *Current Guidelines on Referral for Menstrual Disorders*

- Urgent Gynaecology referral
  - o Women OVER 35 with persistent (over 4 weeks) post-coital or intermenstrual bleeding
- Routine Gynaecology referral
  - o Women UNDER 35 with postcoital or intermenstrual bleeding persisting for over 12 weeks
  - o A single heavy episode of post-coital or intermenstrual bleeding at any age
- Reassurance
  - o Women UNDER 35 with normal findings and results
  - o Most will resolve within 6 months
  - o If on hormonal contraception or mirena consider changing or stopping

#### Question 6 - Management of heavy menstrual bleeding [2]

- **Medical Management** 
  - o First line – Mirena coil – levonorgestrel IUS
    - Most effective medical management of HMB
    - Thins endometrium and can shrink fibroids
    - Can stay in place for 5 years before needing changed
  - o Second line 
    - Tranexamic acid
      - Anti-fibrinolytic drug which can be taken for 5 days around the time of menstruation to reduce the breakdown of clots and hence reduce bleeding
    - Norethisterone
      - Oral progesterone which helps thin endometrium and hence reduce bleeding
    - NSAIDs e.g. mefenamic acid
      - Antagonise the prostaglandin receptors
      - Can be used in conjunction with tranexamic acid
      - Also offers pain relief if they have dysmenorrhoea
      - Only taken during menses



- COCP
  - Continued oestrogen levels stop the HPO axis, stopping ovulation and stopping endometrial proliferation, resulting in lighter menstruation
- o Third line 
  - Progesterone only treatments e.g. POP, Depo progesterone injection or implant
  - Act to induce amenorrhoea by inhibiting the HPO axis, progesterone maintains the endometrium and, hence preventing menstruation.
- **Surgical Management** 
  - o Endometrial ablation
    - Diathermy, direct heat or microwaves are used to destroy the endometrium and is successful in ~70% of cases at controlling symptoms
    - In use in patients who no longer want to conceive
  - o Hysterectomy
    - Definitive management option for ongoing HMB when all other management options have been exhausted
- Specific treatments for fibroids or structural cases
  - o Myomectomy
  - o Polypectomy
  - o Uterine artery embolisation
  - o GNRH analogues – switch off the HPO axis – reduce size of fibroids

#### References

1. Heavy Menstrual Bleeding - Causes - Management - TeachMeObGyn [Internet]. TeachMeObGyn. 2020 [cited 25 October 2020]. Available from: <https://teachmeobgyn.com/gynaecology/menstrual/heavy-bleeding/>
2. Heavy Menstrual Bleeding - NICE Pathways [Internet]. Pathways.nice.org.uk. 2020 [cited 25 October 2020]. Available from: <https://pathways.nice.org.uk/pathways/heavy-menstrual-bleeding#path=view%3A/pathways/heavy-menstrual-bleeding/managing-heavy-menstrual-bleeding.xml&content=view-index>