



Healthcare Education Research

**Heavy menstrual bleeding:
investigation, diagnosis & management**
An update for health professionals



**Assessment of heavy menstrual bleeding
in primary care**

Dr Amanda Newman

MBBS, FRACGP

Women's Health General Practitioner

Jean Hailes Medical Centre

The big issues for the GP or primary care health practitioner

1. Is there a problem?
2. How urgent is it?
3. What can I as a GP do about it?
4. What must I not miss?



Jean Hailes
FOR WOMEN'S HEALTH

1. Is there a problem?

- Is it a nuisance?
- Are there consequences to health?
- Is it a sign of something else going on?



Jean Hailes
FOR WOMEN'S HEALTH

2. How urgent is it?

- Do I need to stop the bleeding now?
- Do I need to refer now?



Jean Hailes
FOR WOMEN'S HEALTH

3. What can I do about it?

- Investigation & examination
 - Vaginal (or abdominal) examination
- Management options
- When to refer



Jean Hailes
FOR WOMEN'S HEALTH

4. Don't miss

- Ectopic pregnancy
- Cancer
- Something fixable e.g. polyps



Jean Hailes
FOR WOMEN'S HEALTH



Normal menstrual cycle & classification of bleeding

Dr Janine Manwaring

MBBS (Hons), FRANZCOG

Gynaecologist & Laparoscopic Surgeon
Jean Hailes Medical Centre
Mercy Hospital
& Royal Women's Hospital, Victoria

Heavy Menstrual Bleeding (HMB)

- 40-60% has no pathological cause
- The commonest cause of iron deficiency in the western world and chronic illness in the developing world
- Major costs to health system & productivity world wide
- Most common cause of **abnormal** uterine bleeding during a woman's reproductive years, affecting one in five women....
- But what is **normal**??



Normal menstruation

- Frequency 24 - 38 days
- Regularity - variation ≤ 7 days
- Duration ≤ 8 days
- Volume 5 - 80ml or that which does not interfere with the woman's physical, social or emotional quality of life.

Fraser et al. Human Reproduction 2007



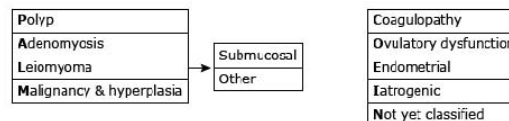
Frequently used terms

Dysfunctional uterine bleeding:

- **Menorrhagia** – prolonged (>8/7) or excessive (>80ml) periods;
- **Metrorrhagia** – irregular & more frequent periods than normal;
- **Menometrorrhagia** – prolonged or excessive periods occurring more frequently than normal.
- These terms have been inconsistently used and are poorly defined - enter the PALM-COEIN revised terminology for abnormal uterine bleeding (AUB).

Jean Hailes
FOR WOMEN'S HEALTH

PALM-COEIN classification system for abnormal uterine bleeding in nongravid reproductive-age women



Basic classification system. The basic system comprises four categories that are defined by visually objective structural criteria (PALM: polyp; adenomyosis; leiomyoma; and malignancy and hyperplasia), four that are unrelated to structural anomalies (COEI: coagulopathy; ovulatory dysfunction; endometrial; iatrogenic), and one reserved for entities that are not yet classified (N). The leiomyoma category (L) is subdivided into patients with at least one submucosa myoma (LSM) and those with myomas that do not impact the endometria cavity (LO).
 Reproduced from: Munro ML, Litchley HU, Broder MS, Fraser IS, FIGO Working Group on Menstrual Disorders. FIGO classification system (PALM-COEIN) for causes of abnormal uterine bleeding in nongravid women of reproductive age. *Int J Gynaecol Obstet* 2011; 113:3. Illustration used with the permission of Elsevier Inc. All rights reserved.

Terminology

- HMB is a subset of AUB
- *Dysfunctional uterine bleeding* is encompassed by three main categories:
 - ovulatory disorders (AUB-O)
 - disorders of haemostasis (AUB-C)
 - primary disorders of endometrial function (AUB-E).



The consultation

Dr Elizabeth Farrell AM

MBBS, Hon LLD, FRCOG, FRACOG

Gynaecologist & Medical Director
Jean Hailes for Women's Health

The consultation

- Clinical presentation and assessment
- Careful history and examination
 - To exclude organic disease
 - Extent of lifestyle impairment
 - Previous treatments
 - Determine expectations from treatment
 - General, abdominal and pelvic examinations (if age appropriate)
 - Give up to date management options



Jean Hailes
FOR WOMEN'S HEALTH

The consultation

- Reproductive history
 - Age at menarche
 - Menstrual cycles
 - Bleeding and pain pattern
 - Past obstetric history
 - Contraceptive use
 - Desire for pregnancy
 - STI history



Jean Hailes
FOR WOMEN'S HEALTH

The consultation

- Diagnosis on history:
 - Unusual increase in blood loss
 - > 8 days of bleeding
 - Flooding or bleeding not contained within pads or tampons
 - What size pad+/-tampon
 - Frequency of changing
 - Large clots > 3cm
 - Iron deficiency

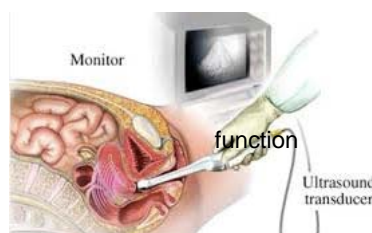


Jean Hailes
FOR WOMEN'S HEALTH

The consultation

Investigations to be ordered

- Routine cervical screening at time of examination
- Chlamydia PCR
- FBE +/- iron studies
- If systemic disease suspected:
 - Coagulation screen or platelet function tests (especially in adolescent)
 - Thyroid function
 - Renal function
 - SLE – ANA, DNA binding, lupus anticoagulant
- Transvaginal ultrasound except in adolescent
 - Menstrual/postmenstrual for endometrial thickness
 - Premenstrual for ovulation
 - Rural and remote areas may not have adequate access



Jean Hailes
FOR WOMEN'S HEALTH

The consultation

Investigations if appropriate

- Endometrial biopsy
- Hysteroscopy with D&C
- **These may be diagnostic and not curative**
- Laparoscopy if associated with pain



Case study 1: Jenna

Jenna is a 16yo girl attending the GP for advice regarding heavy periods



Initial consultation

- Menstrual history
 - menarche
 - frequency & regularity
 - symptoms
 - affect on QoL
- Sexual history
- Family history
- Medical history
- What would she like to do next?
 - Is her mother involved in the decision making?



Jean Hailes
FOR WOMEN'S HEALTH

Investigations

- **Anovulation** due to immature HPO axis - up to 85% of cycles in the first year after menarche are anovulatory.
- **PCOS** - difficult diagnosis in teenager (anovulatory cycles and PCO common)
 - ?hormone levels - if hyperandrogenism, or sustained symptoms for >2 years.

Jean Hailes
FOR WOMEN'S HEALTH

Investigations

- **Need to establish whether Jenna is sexually active**
 - if yes, then consider b-hCG, 1st pass urine for chlamydia
- **Bleeding disorders** e.g. vWD, ITP, platelet dysfunction are present in 20-50% with HMB from menarche.
 - Check FBE, platelet function analysis, coagulation (aPTT, PT), vWF, iron studies, TSH.

Investigations

- **Pelvic ultrasound usually not needed as a first-line investigation**
 - Endometrial hyperplasia, fibroids and polyps are very rare in adolescents
 - Congenital malformation isn't going to cause HMB
 - PCO common
 - Limited information from TA scan

Management

Depends on:

- Cause
- Contraceptive needs
- Iron deficiency or anaemia treat with iron infusion or oral iron
- Possible treatments are:
 - NSAIDs or Tranexamic Acid
 - Progestogens
 - Oral/LNG IUS/etonogestrel implant
 - COCP/vaginal ring



Case study 2: Thuy

Thuy, a 35 year old presents with heavy menstrual bleeding, particularly following a recent miscarriage



Initial consultation

- Is the HMB related to recent miscarriage?
 - If so – refer
- Is she acutely unwell?
 - If so- assess and refer



Jean Hailes
FOR WOMEN'S HEALTH

Investigations

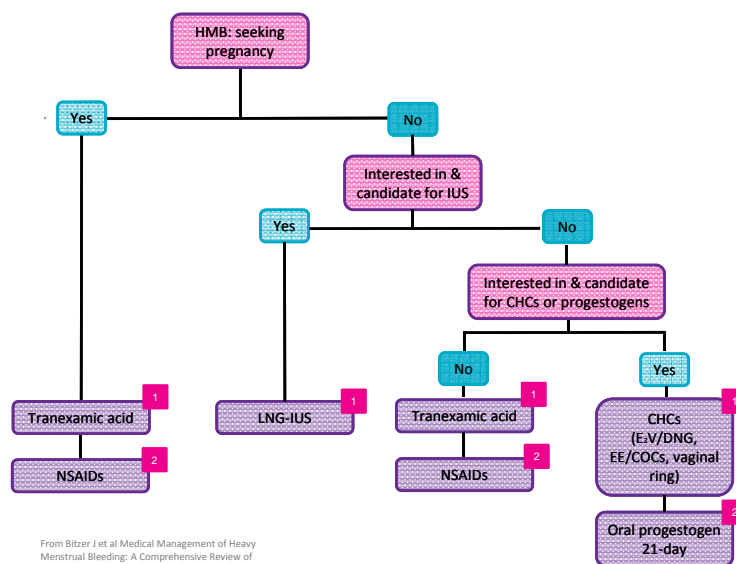
- bHCG, FBE, iron studies, TSH (clotting studies not 1st line)
- Pelvic ultrasound (preferable trans vaginal)
 - retained products of conception
 - fibroids
 - polyps
 - adenomyosis
 - endometrial thickness not a good marker in women in reproductive years (unless very thick early in cycle ?hyperplasia ?polyp)

Jean Hailes
FOR WOMEN'S HEALTH

A note about fibroids and polyps

- Both common (fibroids 30-40% of women by 45yo; polyps 10-24% pre-menopausal women)
- Fibroids are commonly asymptomatic esp if small, often not implicated in menorrhagia unless submucosal component
- Polyps - 95% benign; 25% <1cm regress
 - if symptomatic, remove
 - if asymptomatic, remove if increased risks for hyperplasia/malignancy, large, multiple, or infertility

Management



From Bitzer J et al Medical Management of Heavy Menstrual Bleeding: A Comprehensive Review of the Literature Obstet Gynecol Surv. 2015 Volume 70, Number 2

Case study 3: Ayesha

Ayesha a 47 year old woman presents with flooding periods, feeling exhausted



Jean Hailes
FOR WOMEN'S HEALTH

Initial consultation

- Is she anaemic?
 - Diet, supplements
- Is she pregnant?
 - Contraception
- Is she perimenopausal?
 - Symptoms
- Could it be cancer?
 - Screening
 - Risk factors



Jean Hailes
FOR WOMEN'S HEALTH

Investigations

- bHCG, FBE, iron studies, TSH (clotting studies not 1st line)
- Pelvic ultrasound (preferable TV)
- Hormone levels are not helpful
- Office endometrial sampling if >45yo, persistent AUB despite treatment or increased risk of hyperplasia (eg obesity, PCOS, family history). Can be combined with hysteroscopy



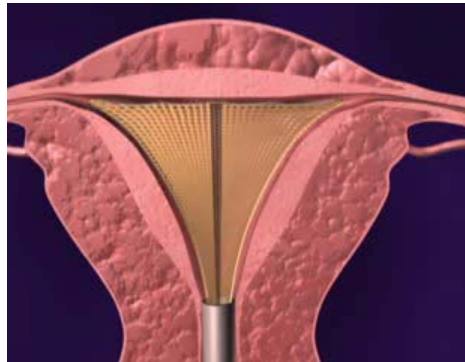
Endometrial assessment

- Hysteroscopy involves a small diameter fibre optic scope being inserted through the cervix to visualise the uterine cavity. An endometrial sample can be taken at the same time
- Outpatient hysteroscopy successful in 90-96%, false negative rate combined with endometrial sample 1-2%
- Can progress to GA hysteroscopy/D&C if concerned.
- Need to ensure no endometrial pathology if considering endometrial ablation as management option for HMB

Endometrial ablation

- Destruction of endometrium to reduce HMB
- First generation (hysteroscopic endometrial ablation/resection), newer non-hysteroscopic (global) techniques include thermal balloons (Thermachoice) and radiofrequency (Novasure). Provide comparable results - 85% women either light periods or amenorrhoea.

- About 15% progress to hysterectomy - ongoing bleeding and/or pain. This rate increases with time - women having ablation <40yo have 40% hysterectomy rate.
- Not contraceptive and not recommended if future pregnancy desired.



Management

Depends on cause

- Exclude endometrial hyperplasia
- Management iron deficiency
 - » iron infusion (FCM-20 minutes)
 - » oral iron
- Treatment systemic disease
 - » e.g. thyroid dysfunction
- If surgical intervention required
 - » refer to gynaecologist



Management

- Tranexamic acid (TA)
 - 500mg 2 tablets 3-4 times per day on the heavy days of period up to 5 days.
- NSAIDs use similarly as TA
- Oral progestogens use for 21 days each cycle
- COCP cyclic or continuous (if monophasic pill)
- LNG IUS 20mcg per day – 5 years



Questions



Practice points #1

- **Acute bleeding: what do I do now?**
 - Norethisterone (5mg)
 - 10mg up to 4 x per day
 - Tranexamic acid 500mg
 - 1000mg up to 4 x per day

Practice points #2

- **Heavy bleeding: what can I prescribe before referring?**
 - Tranexamic acid and/or NSAID or COC/vaginal ring
 - Oral progestogens
 - Norethisterone 5mg tds, days 5-26 or depot MPA
 - LNG-IUS or etonogestrel implant



Practice points #3

- Heavy Menstrual Bleeding is a cause of diminished quality of life and physical functioning
- Treat iron deficiency appropriately
 - Iron infusion fastest way to improve ferritin
- In the perimenopause even a small change in bleeding and pain pattern may indicate pathology

