MANAGEMENT OF HEAVY MENSTRUAL BLEEDING - FULL CLINICAL GUIDELINE

Reference No. UHDB/Gynae/06:21/H7

Contents

1. Introduction

Heavy menstrual bleeding is a common condition affecting 25% women in reproductive age group and is estimated to be the fourth most common reason for referral to gynaecology[1]. HMB can disrupt a woman's quality of life as well as cause both physical and mental health symptoms. Every year 30,000 women undergo surgical treatment for HMB in England and Wales[1]

2. Purpose and Objectives

This guideline covers assessing and managing heavy menstrual bleeding (menorrhagia). It aims to help healthcare professionals investigate the cause of heavy periods that are affecting a woman's quality of life and to offer the right treatment options, taking into account the woman's priorities and preferences.

- To provide a basis for investigation and management of heavy menstrual bleeding
- To ensure appropriate treatment for patients using the best available evidence
- To guide clinicians in their approach to heavy menstrual bleeding

3. Definitions/ Abbreviations Used

- Heavy Menstrual Bleeding
  Excessive menstrual blood loss which interferes with a women's physical, social, emotional and/or material quality of life.[2]

  The amount of blood loss is more of a subjective assessment rather than quantification of blood loss. It is aided by clues such as soaking a pad or tampon more than every 2 hours during peak flow, large clots, and interference with daily activities.

- Abnormal uterine bleeding (AUB)
  Any bleeding from the uterus that is either excessive (e.g. >7 days) or scanty (e.g. <2 days) or delayed (menstrual interval >35 days) or unexpectedly early (menstrual interval <21 days) or

non-menstrual e.g. intermenstrual bleeding (IMB), post coital (PCB), and post menopausal bleeding (PMB).

- Intermenstrual Bleeding (IMB)
  Unprovoked vaginal bleeding that occurs outside of normal menstrual cycle.

- FIGO (International federation of Gynaecology and Obstetrics) Classification system for HMB (PALM-COEIN)

PALM	COEIN
Polyps	**C**oagulopathy
Adenomyosis	**O**vulatory dysfunction
Leiomyoma/ Fibroid	**E**ndometrial
Malignancy/Hyperplasia	**I**atrogenic
	Not-classified

- OPH- Outpatient hysteroscopy

4. Key Responsibilities and Duties

All medical and nursing staff who are involved in management of patients with heavy menstrual bleeding should use these guidelines to base their investigation and management.

5. Process for Assessment and Management of HMB

5.1 History and Examination

At initial presentation a thorough history should be taken from the woman including:

- Nature and extent of the bleeding
- Impact of the bleeding upon the quality of life
- Risk factors for endometrial hyperplasia
- Previous failed medical treatments

If there is no evidence of histological or structural abnormality it is appropriate for initial pharmaceutical treatment to be given in primary care without examination.

Any evidence of histological or structural abnormality (such as history of persistent intermenstrual bleeding, pelvic pain and/or pressure symptoms) warrants pelvic examination.

Examination should include abdominal palpation, speculum examination with visualisation of the cervix and bimanual examination.

Women with palpable fibroids should be referred to secondary care- general gynaecology clinic or Menstrual Disorder Clinic (RDH site).

Criteria for triaging/ directing referrals to **1-stop Menstrual Disorder Clinic (*For RDH site only)**

- Severe menorrhagia with significant anaemia (Haemoglobin below 80g/dl)
- Women with known submucosal fibroid/ polyp warranting urgent hysteroscopic intervention

5.2 Investigation

- Consider starting pharmacological treatment for HMB **without investigating** the cause if the woman's history and/or examination suggests a low risk of fibroids, uterine cavity abnormality, histological abnormality or adenomyosis. [NICE 2018]

- A full blood count should be considered for all women with HMB. Ferritin levels not routinely required for investigating HMB.

- Testing for coagulation / bleeding disorders (for example, von Willebrand's disease) should be considered for women who:
  - have had HMB since their periods started and

- have a personal or family history suggesting a bleeding disorder such as bleeding gums, frequent nose bleeds, easy bruising etc.

➢ Thyroid function tests are only appropriate if there is evidence of co-existing thyroid symptoms.

➢ Take into account the woman's history and examination when deciding whether to offer hysteroscopy or ultrasound as the first-line investigation. [NICE 2018]

- **Offer outpatient hysteroscopy with directed or pipelle endometrial biopsy (and see-and-treat treatment option where possible)** to women with HMB if their history suggests submucosal fibroids, polyps or endometrial pathology and **at least two of the following indications:**
    - Persistent intermenstrual bleeding for over 3 months
    - Risk factors for endometrial pathology, such as obesity, polycystic ovary syndrome, tamoxifen use.
    - Previous treatment for HMB has been unsuccessful.
- **Pelvic ultrasound** (both transabdominal and trans-vaginal) should be requested and performed on all women who have HMB and any of the following:
    - A bulky tender uterus (with severe dysmenorrhoea suggest adenomyosis);
    - A palpable pelvic mass (large fibroid uterus)
    - Had previous failed medical treatment
    - Obesity with inconclusive/ difficult clinical examination

➢ Other modalities, such as MRI, should only be considered only after ultrasound has been performed.

➢ **A pipelle endometrial biopsy** (in absence of an indication for hysteroscopy) is appropriate if:

- history and examination suggests low risk of fibroids, uterine cavity abnormality, endometrial pathology, adenomyosis and
- prior to offering endometrial ablation as a treatment option
- perimenopausal women without any risk factors for endometrial hyperplasia

➢ If a woman declines outpatient hysteroscopy, offer hysteroscopy under general or regional anaesthesia. [2018]

6. Management of HMB (see appendix A)

When agreeing treatment options for HMB with women, offer appropriate choice after taking into account:

- The woman's preferences
- Any comorbidities
- The presence or absence of structural causes (PALM: Polyps, Adenomyosis, Fibroids-size, number, location; Malignancy/ Hyperplasia)
- Other symptoms such as pressure and pain

7. Role of Outpatient Hysteroscopy Service in Managing HMB[5]:

This is the mainstay of managing structural causes of HMB such as endometrial polyps.

Outpatient hysteroscopy not only offers accurate diagnosis when structural abnormality of uterine cavity is suspected in women with intractable HMB but also offers an opportunity to treat at same setting (see-and-treat approach).

OPH should be performed according to best practice including advising women to take oral analgesia before the procedure (patient information leaflet) and using vaginoscopy as the default entry technique.

Consider offering see-and-treat hysteroscopy in a single setting where appropriate equipment is available such as hysteroscopic grasper/ hysteroscopic scissors/ truclear tissue retrieval system to treat endometrial polyps/ small intracavitary fibroids safely under direct vision.

Choice of hysteroscope to be used is at the discretion of the hysteroscopist based on anticipated findings and one should take into account the individual patient characteristics.

In case of failure to gain entry with 5mm hysteroscope (truclear), consider using smaller diameter hysteroscope to improve the chance of successful entry into the uterine cavity (provided the woman is compliant and remains comfortable) before listing for the procedure under general anaesthetic.

8. Information for Women about HMB and Treatments

Provide women with information about HMB and its management including information about all possible treatment options for HMB and discuss these with the woman covering the following:

- the benefits and risks of the various options
- suitable treatments if she is trying to conceive
- whether she wants to retain her fertility and/or her uterus.

Be aware that pain associated with HMB may be caused by endometriosis (refer to endometriosis guideline)

9. Pharmacological Treatment (see Table 1 & Table 2)

1 **Levonorgestrel-releasing intrauterine system[4] (LNG-IUS) e.g. Mirena or Levosert**
Women should be advised that at least 12 months treatment is needed for the full effect to be ascertained.
Women should be advised that there is the need to persevere for a minimum of six cycles

2 **Tranexamic acid and/or non-steroidal anti-inflammatory drugs (NSAIDs):**
These provide a good non-contraceptive option if the woman does not wish to use hormonal treatment options.
Treatment can be initiated whilst investigation or referral is ongoing.
The addition of NSAIDs can be helpful for co-existing dysmenorrhoea.
These may take up to three cycles to be effective.
Advise to start Tranexamic acid right at the start of the period (as soon as signs of start of a period seen) to be effective

3 **Combined oral contraceptive pill**

4 **Norethisterone**

5 **Long acting injected progestogen**

6 **Esmya (Ulipristal acetate is only indicated for some premenopausal women)**
Only think about ulipristal acetate for the intermittent treatment of moderate to severe symptoms of uterine fibroids in premenopausal women if:
- surgery and uterine artery embolisation for fibroids are not suitable, for example, because the risks to a woman outweigh the possible benefits, or
- surgery and uterine artery embolisation for fibroids have failed, or
- the woman declines surgery and uterine artery embolisation for fibroids.

Discuss with the woman the risks and possible benefits of intermittent treatment with ulipristal acetate.
- Advise that ulipristal acetate can be associated with serious liver injury leading to liver failure, and the signs and symptoms to look out for.
- Measure liver function before starting ulipristal acetate, monthly for the first 2 courses and once before each new treatment course when clinically indicated.
- If there is no underlying liver injury, and surgery and uterine artery embolisation for fibroids are unsuitable or have failed, consider ulipristal acetate 5 mg (up to 4 courses) for premenopausal women with heavy

menstrual bleeding and fibroids of 3 cm or more in diameter, particularly if the haemoglobin level is 102 g per litre or below.

- If a woman shows signs and symptoms of liver failure, stop ulipristal acetate and perform liver function tests urgently.
  (See the MHRA drug safety update on ulipristal acetate).

The effectiveness of pharmacological treatments for HMB may be limited in women with fibroids that are substantially greater than 3 cm in diameter. [2018, amended 2020]

If first line treatment is unsuccessful, the woman declines pharmacological treatment or symptoms are severe, consider referral to secondary care for specialist input to discuss alternative treatment choices including endometrial ablation or hysterectomy.

Treatment for HMB in women without significant fibroids (<3cm and not distorting the cavity)

Table 1:

TREATMENT HIERARCHY	Women not wishing to conceive	Women wishing to conceive
FIRST LINE	LNG-IUS	Tranexamic acid
	Tranexamic acid NSAIDs COCP or POP	NSAIDs (if severe dysmenorrhoea)
Other First Line	Norethisterone (5mg three times daily D5-D25 for cycle regulation)	-
Second Line	Endometrial Ablation (Thermablate Balloon Ablation/ Novasure Radiofrequency Ablation)	-

Treatment for HMB in women with fibroids≥3cm

Table 2:

Treatment Hierarchy	Women not wishing to conceive	Women wishing to conceive
First line	LNG-IUS, COCP, Cyclical oral progestogens	Tranexamic acid
	Injectable progestogens (Depo provera 150mg 3 monthly) Short course of GnRH analogue injections (upto 6 months) prior to Hysterectomy	NSAIDs (if severe dysmenorrhoea)
	-	TCRF- hysteroscopic resection of submucous fibroids (Outpatient/ inpatient)
	Uterine artery embolization (UAE)	Myomectomy (Laparoscopic/ Open)
	-	Uterine artery embolization (UAE)
First or second line	Hysterectomy + Bilateral salpiongectomy +/- Bilateral oophorectomy (Open, laparoscopic or vaginal	-

	route at discretion of the surgeon) TLH preferred if feasible.	

10. Surgical Management (see Table 1 & Table 2)

Endometrial ablation (also available in outpatient setting)- refer to endometrial ablation guideline/ protocol

- This modality is appropriate where there is no evidence of structural or histologicalabnormality and the patient has completed their family.
- Consider second-generation endometrial ablation as a treatment option for women with HMB and fibroids of 3 cm or more in diameter who meet the criteria specified in the manufacturers' instructions
- Patient should be advised that there is still a need for contraception after this technique.
- Ablation can be offered as a first line treatment before pharmacological options where appropriate.
- Second generation ablation techniques should be used:
  - Novasure Radiofrequency Ablation
  - Thermal Balloon Endometrial Ablation

Uterine artery embolization (UAE)

- This should be considered where fibroids greater than 3cm in size are present and MRI should be considered for further information (refer to UAE guideline)
- Discussion of these options should include discussion of hysterectomy.
- UAE may preserve fertility.
- UAE is recommended where patients wish to avoid surgery or are unsuitable for surgery.
- GnRH analogues should not routinely be used before UAE is performed.

Myomectomy (Laparoscopic/ Open/ Hysteroscopic)
For women with submucosal fibroids, consider hysteroscopic removal. This is offered either in outpatient setting (for small intracavitary fibroids upto 3 cm diameter) using tissue retrieval system or as a daycase transcervical resection of fibroid using resectoscope (for larger submucosal fibroids) with or without pre-treatment with GnRH analogue injections.

Laparoscopic or open Myomectomy is considered as treatment for menorrhagia only if women want to preserve fertility.

Hysterectomy (Vaginal, Laparoscopic, Abdominal) – (see appendix B)
Hysterectomy should not be first line management for HMB.
Hysterectomy can be considered when:

- Medical treatment options have failed, are contraindicated or declined.
- Amenorrhoea is required/desired.
- There is a patient request.
- The woman's family is complete

Discuss the options of total hysterectomy and subtotal hysterectomy with the woman. Ovaries should only be removed at hysterectomy with the express wish and informed consent of the woman, after discussion of all associated risks and benefits.

*PCLV form should be completed when listing for hysterectomy.

11. Special Scenarios in Management of HMB

Special scenarios in management of HMB such as HMB in adolescent girls, girls with learning difficulties, severe dysmenorrhoea, uterine anomalies.

It is outside the scope of this generic guideline, although the principles of pharmacological management are similar as discussed here and should aim to achieve

good cycle control, reduce blood loss or achieve amenorrhoea depending on the circumstances.

12. Monitoring Compliance and Effectiveness

As per agreed business unit audit forward programme

13. References

1. RCOG. National Heavy Menstrual Bleeding Audit, UK Final Report 2014.

2. National Institute of Clinical Excellence. Heavy Menstrual Bleeding: assessment and management: NG88 published 14 March 2018.

3. Munro M, Critchley H, Broder M et al. FIGO classification system (PALM-COEIN) for causes of abnormal uterine bleeding in nongravid women of reproductive age IJOG. 2011 (13) 3-13

3. Lethaby A, Hussain M, RIsworth J et al. Progesterone or progestogen-releasing intrauterine systems for heavy menstrual bleeding. Cochrane Database Syst Rev. 2015. 30:4.

5. Kolhe S, Management of abnormal uterine bleeding- focus on ambulatory hysteroscopy. In J Women's Health, March 2018, 10;127-136.

6. RCOG Green-top Guideline No 59) Hysteroscopy, Best Practice in Outpatient. April 2011.

Woman presenting with heavy menstrual bleeding—Examination and investigations

- History : duration, severity, QOL, associated IMB/PCB
- Physical examination before any investigations (abdominal palpation, speculum examination, bimanual examination)
- FBC for all women (if severe anaemia—Hb less than 80g/dl*)
- Testing for coagulation/bleeding disorders if:
  - HMB since start of periods
  - Personal / family history suggestive of bleeding disorder (bleeding gums, frequent nose bleeds, easy bruising etc.)
- Thyroid function test if there is evidence of co-existing thyroid symptoms

Further investigations for structural/histological causes

HMB without additional symptoms or signs (no suspected pathology)

Commence pharmacological treatment

Medical Treatment:
- Tranexamic acid
- Hormonal preparations
- LNG IUS

Successful → Discharge to GP with a management plan

Unsuccessful → Outpatient Hysteroscopy + Endometrial Biopsy

HMB with additional symptoms or signs and/or women at high risk of endometrial pathology

Yes → Suspected intracavity pathology *with at least **2** of the following:*
- Persistent IMB (for 3 months)
- Risk factors (obesity, PCOS, tamoxifen, age >45)
- Previous unsuccessful medical treatment for HMB (including expulsion of IUS)

→ Outpatient Hysteroscopy + Endometrial Biopsy

No → Offer Pelvic ultrasound (trans vaginal)

HMB with pelvic mass or inconclusive exam

→ Offer Pelvic ultrasound (trans vaginal)

HMB with significant dysmenorrhoea or tender bulky uterus

→ Offer Pelvic ultrasound (trans vaginal)

Offer Pelvic ultrasound (trans vaginal)

Intracavity polyp / fibroid or distorted uterine cavity → Outpatient Hysteroscopy + Endometrial Biopsy

Normal cavity (ET is irrelevant in pre-menopausal women) → Medical Treatment:
- Tranexamic acid
- Hormonal / LNG IUS
- NSAIDs
- Consider alternative pharmacological treatment not tried before
- Consider Pipelle EB in clinic if planning to offer endometrial ablation

Fibroid >5cm or adenomyosis → Medical Treatment:
- Tranexamic acid
- Hormonal / LNG IUS
- NSAIDs
- Consider alternative pharmacological treatment not tried before
- Consider Pipelle EB in clinic if planning to offer endometrial ablation

If failed or unsuitable → Consider surgical management:
- Procedure for fibroids as per guideline eg Uterine Artery Embolisation / Myomectomy
- Second generation endometrial ablation (UCL <12cm). Not suitable for adenomyosis.
- Hysterectomy **Route at clinician's discretion (TLH preferred when possible)

Outpatient Hysteroscopy + Endometrial Biopsy

Endometrial polyps

NO → Discharge to GP with a management plan

YES →
- See & Treat OPH + Polypectomy (same visit)
- Discuss management plan for ongoing HMB in future + advise for GP

Submucosal fibroids
- Consider hysteroscopic removal (Trans Cervical Resection of Fibroid)
- OP/ IP setting (OP offered in type 0/1 intracavitary SMF upto 3cm diameter-at clinician's discretion)

*if Hb <80g/dl—fast track to one stop menstrual disorder clinic (RDH site)

** Pre-treatment with GnRha before surgery should be considered if uterine fibroids causing enlarged or distorted uterus.

Hysterectomy for Menorrhagia The CCGs will only fund hysterectomy for menorrhagia when **ALL** of are met.	Please tick
1. A minimum 6 month trial with a levonorgestrel intrautine system e.g Mirena® and it has failed to relieve symptoms unless it is medically inappropriate or contra-indicated.	Yes ☐ No ☐
2. At least two of the following treatments have failed, are not tolerated or are contra-indicated in line with the National Institute for Health and Clinical Excellence (NICE) guidelines CG44 Heavy menstrual bleeding) • Non-steroidal anti-inflammatory agents (such as naproxen) ☐ • Tranexamic acid ☐ • Oral Contraceptives – cyclical oral progesterones /combined pill ☐	Yes ☐ No ☐
3. There is evidence of severe impact on quality of life	Yes ☐ No ☐
4. Secondary care criterion only The patient has been trialled on and failed to respond to gonadotrophin-releasing hormone (GnRH) agonist following consultation and management by a consultant OR Use of GnRH agonist would not be considered appropriate in this case	☐ ☐
Any additional clinical information	

Signed……... Print name:……

Title:……...

Date:……

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