


# Heavy Menstrual Bleeding - An Update of Management Options

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### Conflicts of interest

DB has attended advisory committees and received support to attend conferences by Bayer Healthcare as part of her role at Family Planning NSW

KB has no conflicts

### What is HMB?

**What is HMB?**

- Excessive menstrual blood loss which interferes with the woman's physical, emotional, social and material quality of life, and which can occur alone or in combination with other symptoms



**How common is it?**

- Most common presentation of abnormal uterine bleeding in pre-menopausal women affecting 25% of women of reproductive age<sup>1</sup>

1. Royal College of Obstetricians and Gynaecologists. *National heavy menstrual bleeding audit*. London: RCOG, 2014

### Federation of International Gynaecology and Obstetrics classification of abnormal uterine bleeding (including HMB)




Structural lesions	Non-structural conditions
Polyp	Coagulopathy
Adenomyosis	Ovulatory disorders
Leiomyoma (fibroids)	Endometrium
Malignancy and hyperplasia	Iatrogenic
	Not otherwise classified

Munro MG, Critchley HO, Broder MS, Fraser IS and FIGO Working Group on Menstrual Disorders. *Int J Gynaecol Obstetrics*. 2011; 113: 3-13.

### What are the management approaches once malignancy is excluded?



- Pharmaceutical treatment of which the LNG-IUS is the most effective<sup>1</sup>
- Uterine-preserving surgical alternatives to hysterectomy
- Hysterectomy

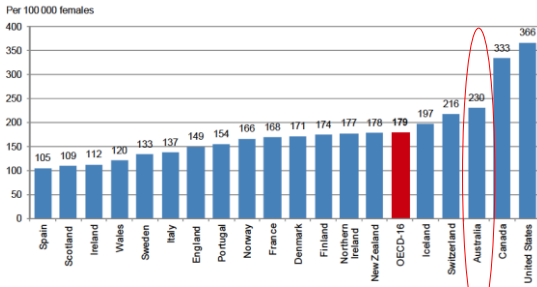
<sup>1</sup>Lethaby et al Cochrane Database Syst rev 2015

### Key considerations in management

- Patient preference
- Likely cause and severity of bleeding
- Age
- Clx to pharmaceutical management
- Desire for future fertility

**Age standardised rates of hysterectomy per 100,000 women 2008 or latest year available**



McPherson et al Organisation for Economic Cooperation and Development Working Paper No 61, 2013

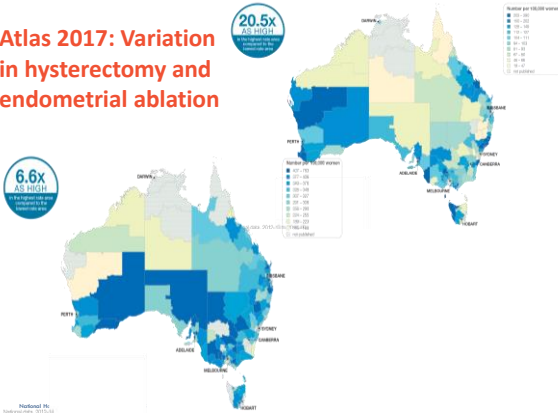
AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

**The Second Australian Atlas of Healthcare Variation**



www.safetyandquality.gov.au/atlas

**Atlas 2017: Variation in hysterectomy and endometrial ablation**



**Variation in management**



**Patient**

- education & awareness
- QoL impact
- preferences, values & social factors
- private health insurance, costs
- Service access

**GP**

- training in IUD insertion
- awareness of HMB guidelines
- referral pathways

**Specialist**

- training in endometrial ablation
- surgical intervention thresholds
- awareness of HMB guidelines

**Health systems**

- number of clinicians providing services
- practice variation (rural vs regional)
- patients may need to travel outside local area for care

**The Heavy Menstrual Bleeding Clinical Care Standard:**

8 quality statements and a set of recommended indicators for voluntary monitoring for quality improvement

- Assessment and diagnosis**
- Intra-uterine hormonal devices**
- Informed choice and shared decision making**
- Specialist referral**
- Initial treatment is pharmaceutical**
- Uterine-preserving alternatives to hysterectomy**
- Quality ultrasound**
- Hysterectomy**

<https://www.safetyandquality.gov.au/our-work/clinical-care-standards/heavy-menstrual-bleeding/>

**HMB Case Study**



- Sarah 36 years G2P2 de-facto partnership
- Condoms for contraception
- Presents for routine cervical screening
- Increasing HMB for 12 months with clots and flooding
- Thought 'it was normal'
- Feels tired a lot of the time
- Impacting on relationship and work

**What else do we need to know?**

## HMB history

Medical history (thyroid, bleeding disorders), symptoms of anaemia medications

Sexual and Reproductive history contraceptive history fertility plans

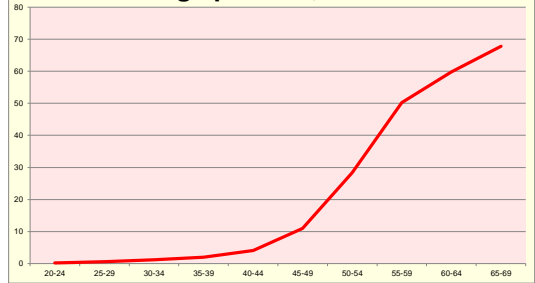
Risk factors for endometrial cancer (age, PCOS, obesity, family history)



Menstrual history (sanitary protection, impact on quality of life) Associated symptoms (pain, IMB, PCB)

## Age as a risk factor for endometrial cancer

### Endometrial cancer incidence by age per 100,000



## HMB: examination, investigations and initiation of treatment

### Examination

- BMI 31 Kg/m<sup>2</sup>
- Clinical anaemia
- Speculum: normal cervix
- Bimanual: anteverted bulky uterus



### Investigations

- Exclude pregnancy
- FBC (Hb 101 g/dL)
- Ferritin (30 mcg/L)
- Other bloods eg coagulation profile, thyroid tests, STI tests based on assessment
- Ultrasound

**Initiation of treatment:** Sarah starts tranexamic acid and iron

## HMB: timing and reporting of ultrasound

### Timing:

Day 5-10 of menstrual cycle



### Reporting:

Transvaginal plus transabdominal US on day 7 of cycle

Uterus anteverted and measures 80mmx 60mm x 50mm.

Endometrial thickness 5mm consistent with the proliferative stage of the cycle. No polyps seen. Myometrium is normal.

Both ovaries are seen and are normal size and appearance



## Overview of pharmaceutical treatments for HMB

Medication	Reduction in mean blood loss (%)	Comments
LNG-IUS	71-96%	Provides contraception
Combined Oral Contraceptive Pill	43%	Provides contraception and cycle control
Tranexamic acid	29-58%	No additional benefits
NSAIDs (mefenamic acid or naproxen)	20-49%	Benefits for dysmenorrhoea
Oral progestogen (norethisterone 5 mg tds PO day 5-26 of cycle)	83%	Limited by side-effects
Depo Provera (DMPA)	N/A	No studies for HMB but up to 47% amenorrhoea at 12m

Adapted from Reproductive and Sexual Health, an Australian Clinical Practice Handbook, 3<sup>rd</sup> edition. Family Planning NSW

## HMB Case Study



- Tried pill in past but felt moody
- Decides on LNG-IUS
- Insertion in primary care following exclusion of malignancy/serious pathology
- Referral pathways if no practice inserter
- Review at 6 months (earlier if needed)
- Refer if no response

## HMB Case Study

### History:

- Lin 40, G3P3 with increasingly prolonged and heavy cycles
- Cycle 10/28 days with clots and mild pain; nil IMB/PCB
- Tired
- Impacting on QOL

### Examination:

- unremarkable

### Investigation:

- Iron deficient

### What to do next?



## Ultrasound findings - endometrial polyp



Transvaginal scan



Sonohysterogram

### Specialist referral:

- Hysteroscopy and polyp removal
- LNG-IUS for contraception



## HMB Case study

### History:

- Maria 42 years same sex relationship
- Heavy and painful periods, 7/28 cycles
- Impacting on QOL

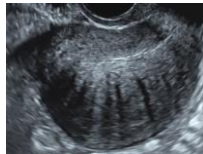
### Examination:

- Tender globular uterus

### Investigation:

- Ultrasound

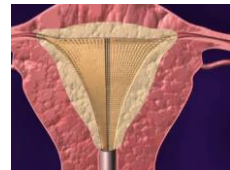
The uterine outline is bulbous and the myometrial echotexture is heterogeneous consistent with diffuse adenomyosis



## Endometrial ablation

1<sup>st</sup> generation under hysteroscopic guidance-rollerball resection

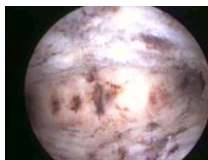
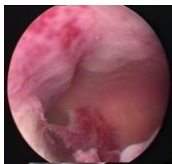
2<sup>nd</sup> generation techniques use radiofrequency or thermal balloon



## Endometrial ablation

2<sup>nd</sup> generation preferred

- reduce operating time
- can be used more often with local anaesthesia
- have fewer complications



Kroft et al JOGC Nov 2013.

## Endometrial ablation

### Suits

- Women with no future fertility plans
- Normal endometrial cavity
- Cases of benign aetiology of HMB

### Risks

- Significant cavity scarring of the cavity;
- Perforation, bleeding
- Procedure can sometimes be ineffective

## Endometrial Ablation versus Intrauterine system

- More likely to have bleeding control with endometrial ablation than an IUS
- No difference in satisfaction rates at 12 months
- More adverse events (bleeding, spotting) with IUS



Surgery versus medical therapy for heavy menstrual bleeding (Review)

Marjoribanks J, Lethaby A, Farquhar C

## Endometrial ablation versus hysterectomy

- Less bleeding in the hysterectomy group
- Hysterectomy longer operating time, recovery period and higher rates of postoperative complications
- Endometrial ablation costs less initially
- Retreatment is often necessary with endometrial ablation so the cost difference narrows over time.



Endometrial resection and ablation versus hysterectomy for heavy menstrual bleeding (Review)

Fergusson RJ, Lethaby A, Sheppard S, Farquhar C

## HMB Case Study

- Sahba 38 years, children 10 and 8, no further planned
- Married; withdrawal for contraception
- Worsening HMB for 3 years with clots and flooding
- Unable to go outside the house on first few days
- 30 day cycle, lasts for 6-7 days
- No IMB or PCB



## HMB Case Study

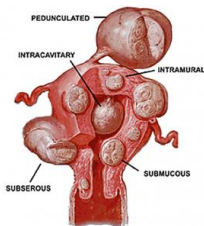
### Examination



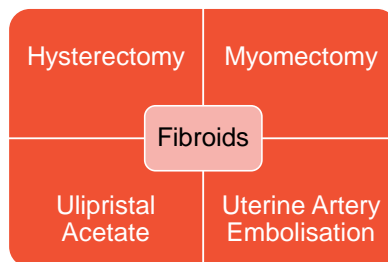
### Investigations



## Ultrasound findings – intramural fibroids



## HMB Case Study



## Ulipristal acetate: a selective progesterone receptor modulator

Note currently unavailable because of recent warning from EMA Pharmacovigilance Risk Assessment Committee about liver disease.

### Suits women seeking

- Uterus and/or fertility preservation
- Pre-surgery fibroid shrinkage (21-36%)

### Risks

- Short term use only -3m period license
- Not always contraceptive – non-hormonal contraception recommended

Dose of 5mg daily reversibly blocks P receptor at endometrium and myometrium



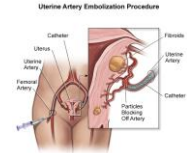
## Uterine artery embolisation (UAE)

### Suits

- Women with no future fertility plans (may affect ovarian function)
- Single or few large fibroids
- Desire to retain uterus or avoid hysterectomy

### Risks

- Fever, pain and discharge
- Perforation, bleeding
- Procedure ineffective



## Myomectomy



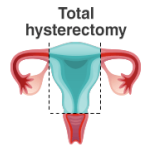
### Suits

- Women seeking uterus and/or fertility preservation
- Removal of one/a few fibroids

### Risks

- Often large volume of blood loss
- Uterine rupture in a subsequent pregnancy

## Hysterectomy



### Suits

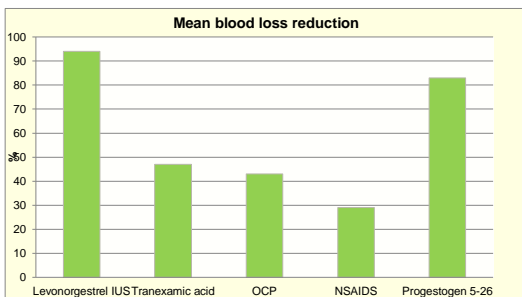
- Women not seeking uterus and/or fertility preservation
- Definitive and cost effective

### Risks

- Irreversibility and consequences for childbearing
- Infection, organ damage and blood loss
- Time in hospital/recovery period depends on procedure

## GP options: Which treatment for which patient?

Pharmaceutical eg LNG-IUS, OCP, tranexamic acid



## Specialist options: Which treatment for which patient?

### Uterine preserving procedures

#### Future fertility NOT desired

Endometrial ablation  
Uterine artery embolisation

#### Future fertility desired

IUS  
Myomectomy  
Polypectomy  
Ulipristal acetate

### Hysterectomy

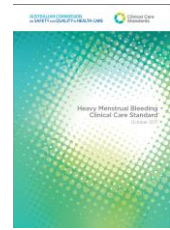
## HMB take-home messages

- Affects around 25% reproductive age women
- Determine likely cause & impact of bleeding; exclude **malignancy**, masses, iron deficiency and anaemia
- HMB of benign causes can often be GP managed with pharmaceutical treatments including the LNG-IUS
- Review at 6m or earlier essential
- Uterine-preserving specialist management includes UPA, UAE and endometrial ablation
- Hysterectomy offers definitive treatment where other treatment options have been ineffective, are unsuitable or it is the woman's informed choice
- Shared decision-making is key.....



## Thank you

The staff at the Australian  
Commission on Safety and Quality  
in Health Care and the topic working  
Group.  
In particular Alice Bhasale and  
Abel MacDonald



 Clinical Care  
Standards

Heavy Menstrual Bleeding  
Clinical Care Standard  
Resources for consumers, clinicians  
and health services  
AVAILABLE NOW!



## Sexual and Reproductive Health

### Masters program at the University of Sydney

#### Enquiries and how to apply

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