


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 age¹

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)


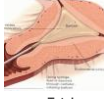

Structural lesions	Non-structural conditions
Polyp	Coagulopathy
Adenomyosis	Ovulatory disorders
Leiomyoma (fibroids)	Endometrium
Malignancy and hyperplasia	Iatrogenic
	Not otherwise classified

Munro MG, Critchley HD, 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 effective¹
- Uterine-preserving surgical alternatives to hysterectomy
- Hysterectomy

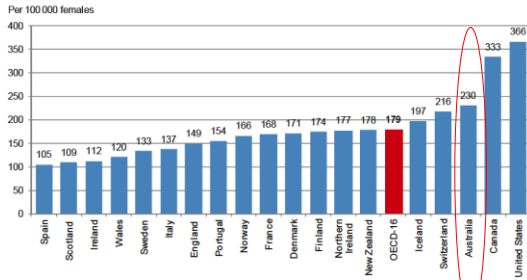
¹Lethaby et al Cochrane Database Syst rev 2015

Key considerations in management

- Patient preference
- Likely cause and severity of bleeding
- Age
- CLs 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

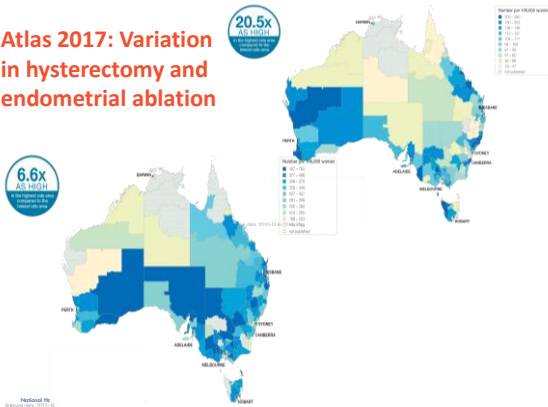
AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

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)



HMB: examination, investigations and initiation of treatment

Examination

- BMI 31 Kg/m²
- 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
Cyclic progestogen (norethisterone 15 mg PO daily for 10 days)	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, 3rd 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



Suits

- Women with no future fertility plans
- Normal endometrial cavity
- Cases of benign aetiology of HMB
- Desire to retain uterus or avoid hysterectomy

Risks

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

Endometrial ablation



- 1st generation under hysteroscopic guidance- rollerball resection
- 2nd generation aimed to make procedure simpler and faster- microwave, bipolar radio frequency ablation, heated balloon system

Figure 2 Comparison of anaesthetics for first- versus second-generation ablation

Study or author	1st generation	2nd generation	Relative risk (95% CI)	Relative risk (95% CI)
Chen et al 2007	20	20	0.25	0.25 (0.10-0.62)
Chen et al 2007	41	41	0.26	0.26 (0.19-0.35)
Chen et al 2007	16	16	0.26	0.26 (0.19-0.35)
Total (95% CI)	63	63	0.26	0.26 (0.19-0.35)
Total events	101	101		
Heterogeneity: $I^2=0.0$, $\tau^2=0.00$, $\tau=0.00$, $I^2=0.0$, $\tau^2=0.00$, $\tau=0.00$				
Test for heterogeneity: $\chi^2=0.00$, $P=0.99$, $I^2=0.00$				

Figure 3 Comparison of complications of first- versus second-generation ablation

Study or author	1st generation	2nd generation	Relative risk (95% CI)	Relative risk (95% CI)
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Chen et al 2007	16	16	0.10	0.10 (0.03-0.28)
Total (95% CI)	63	63	0.10	0.10 (0.03-0.28)
Total events	76	76		
Heterogeneity: $I^2=0.0$, $\tau^2=0.00$, $\tau=0.00$, $I^2=0.0$, $\tau^2=0.00$, $\tau=0.00$				
Test for heterogeneity: $\chi^2=0.00$, $P=0.99$, $I^2=0.00$				

Compared to 1st generation devices, 2nd generation are:

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

Kroft et al JOGC Nov 2013.

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

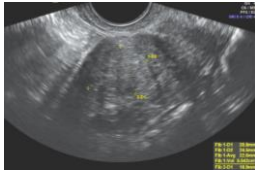
Examination



Investigations

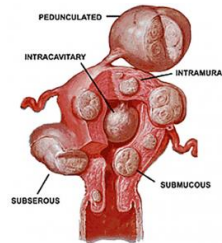


Ultrasound findings – intramural fibroids



What are the treatment options?

Options for fibroid management



Depends on

- Size
- Site
- Fertility plans

HMB Case Study

Shared decision making

- COC pill (continuous use)
- Ulipristal acetate
- Uterine artery embolisation
- Myomectomy
- Hysterectomy



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 -licensed for use for 3m period
- Not always contraceptive – non-hormonal contraception recommended

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



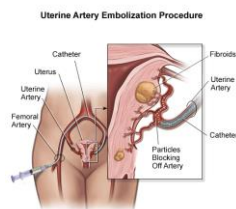
Uterine artery embolisation (UAE)

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 depending on site and extent of surgery

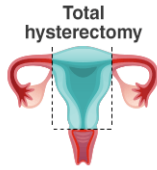
Hysterectomy

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 and recovery period depending on procedure



Which treatment for which patient?

Pharmaceutical eg LNG-IUS, COC, tranexamic acid

Uterine preserving alternatives

- Does not want to retain fertility
 - Endometrial ablation
 - Uterine artery embolisation
- Future fertility desired
 - Myomectomy
 - Polypectomy
 - Ulipristal acetate

Hysterectomy

Three key priorities for improving quality of care for women with HMB

Improving assessment and diagnosis of HMB

Ensuring women have effective and minimally invasive treatment options suitable to their situation and have the opportunity to share in decision-making

Ensuring clinicians and services are adequately skilled and organised to enable the above to occur



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
- 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
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