Heavy Menstrual Bleeding: Diagnosis and treatment options in 2017

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Clinical Care Standards

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[1]

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

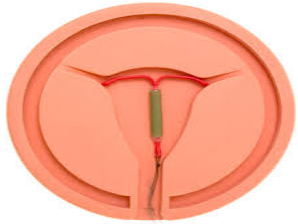
Causes of HMB

Categorised into structural and non-structural causes:

- PALM - polyp, adenomyosis, leiomyoma, malignancy (structural causes)
- COEIN - coagulopathy, ovulatory dysfunction, endometrial, iatrogenic and not yet classified (non-structural causes)

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 options once malignancy is excluded?

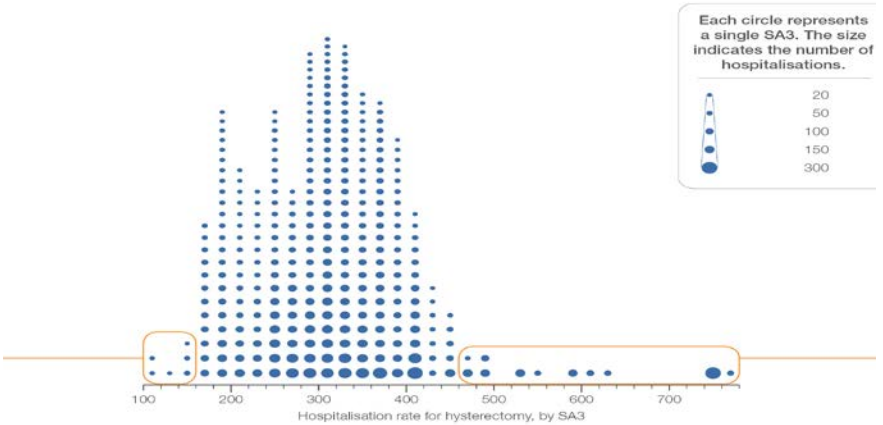


- Pharmaceutical options (effective for many women): LNG-IUS is the most effective pharmaceutical treatment[1]
- Uterine preserving alternatives to hysterectomy
- Hysterectomy
- Patient preference, severity of bleeding, age, contraindications to pharmaceutical management and desire for future fertility are key considerations

[1]Lethaby et al Cochrane Database Syst Rev 2015

Why do we need a Clinical Care Standard for HMB?

igure 3.3: Number of hospitalisations for hysterectomy per 100,000 women aged 15 years and over, ge standardised, by Statistical Area Level 3 (SA3), 2014–15



Lowest rate areas

SA3	State	Rate	Hospitalisations
Gungahlin	ACT	115	30
Melbourne City	Vic	119	34
Manly	NSW	134	24
North Canberra	ACT	144	26
Pittwater	NSW	150	47
Port Phillip	Vic	156	62

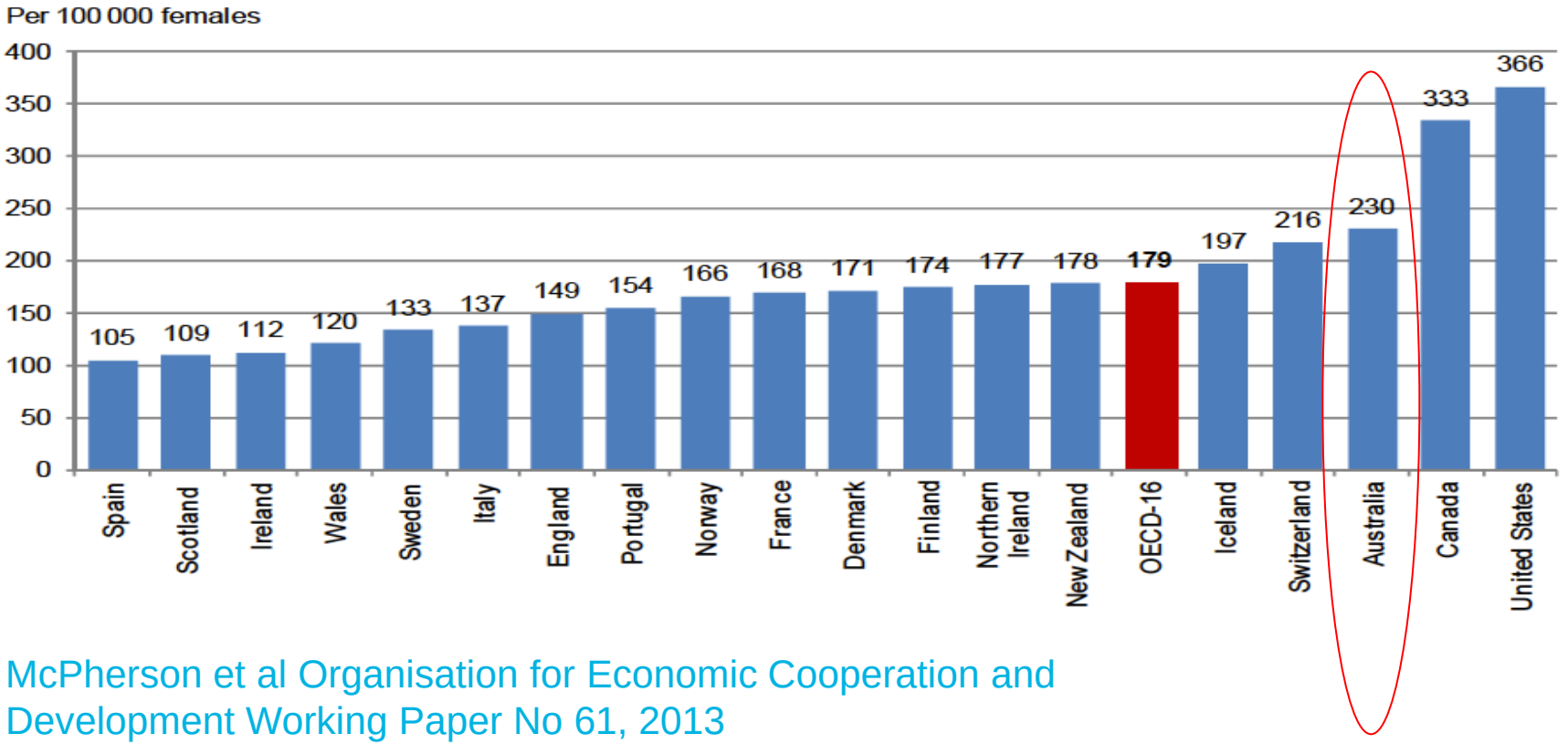
Highest rate areas

SA3	State	Rate	Hospitalisations
Maryborough - Pyrenees	Vic	763	70
Ballarat	Vic	744	298
Creswick - Daylesford - Ballan	Vic	639	79
Goldfields	WA	614	91
Grampians	Vic	597	135
Macedon Ranges	Vic	546	68
Richmond Valley - Hinterland	NSW	522	152
Lachlan Valley	NSW	495	102
Latrobe Valley	Vic	481	144
Broken Hill and Far West	NSW	476	36
Tamworth - Gunnedah	NSW	467	155

otes:
ates are age standardised to the Australian female population in 2001.
ates are based on the number of hospitalisations in public and private hospitals (numerator) and women in the geographic area (denominator).
alysis is based on the patient's area of usual residence, not the place of hospitalisation.
r further detail about the methods used, please refer to the Technical Supplement.
ources: AIHW analysis of National Hospital Morbidity Database 2014–15 and ABS Estimated Resident Population 30 June 2014.

Australian hysterectomy rate compared to OECD average

Figure 4.4. Age-standardised rates of hysterectomy per 100 000 females, 2008 or latest year available



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

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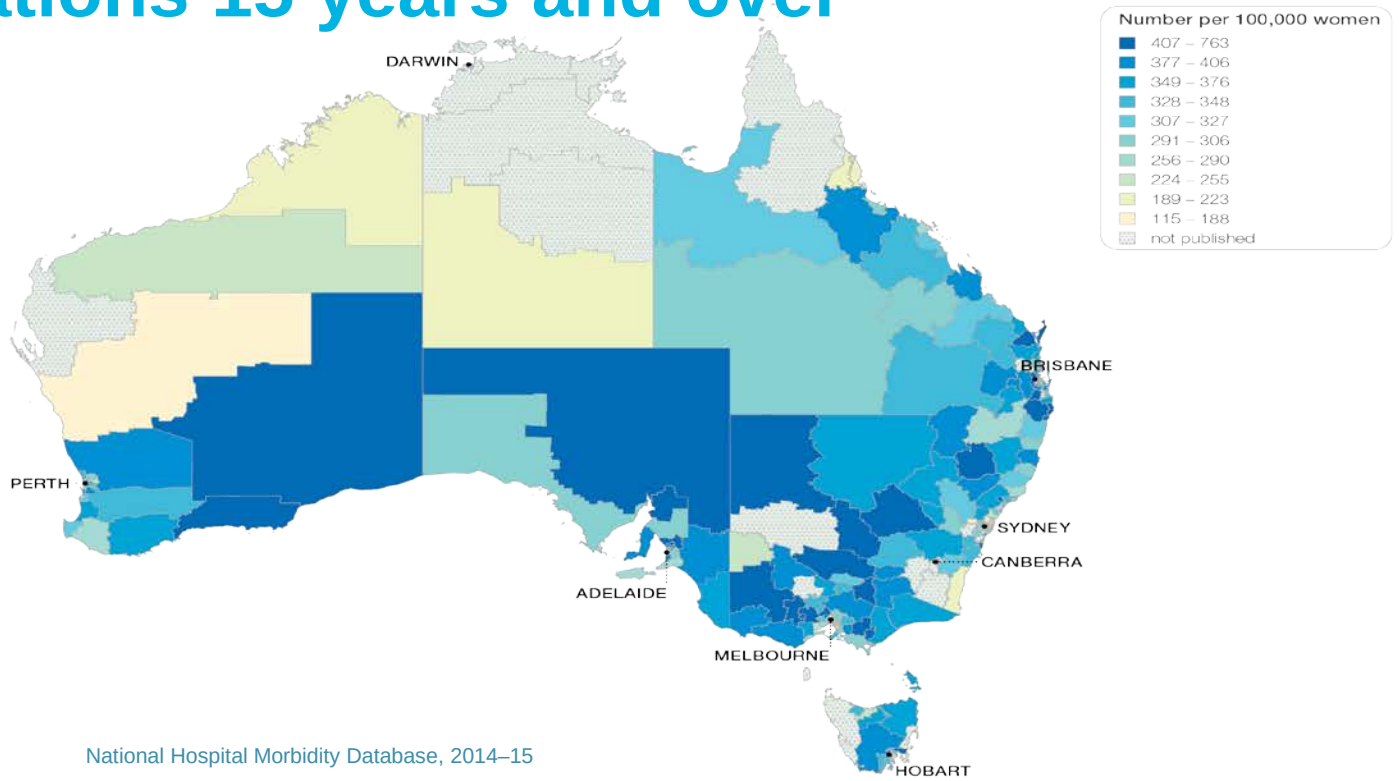
The Second Australian Atlas of Healthcare Variation

www.safetyandquality.gov.au/atlas

Atlas 2017: Non-malignant hysterectomy hospitalisations 15 years and over

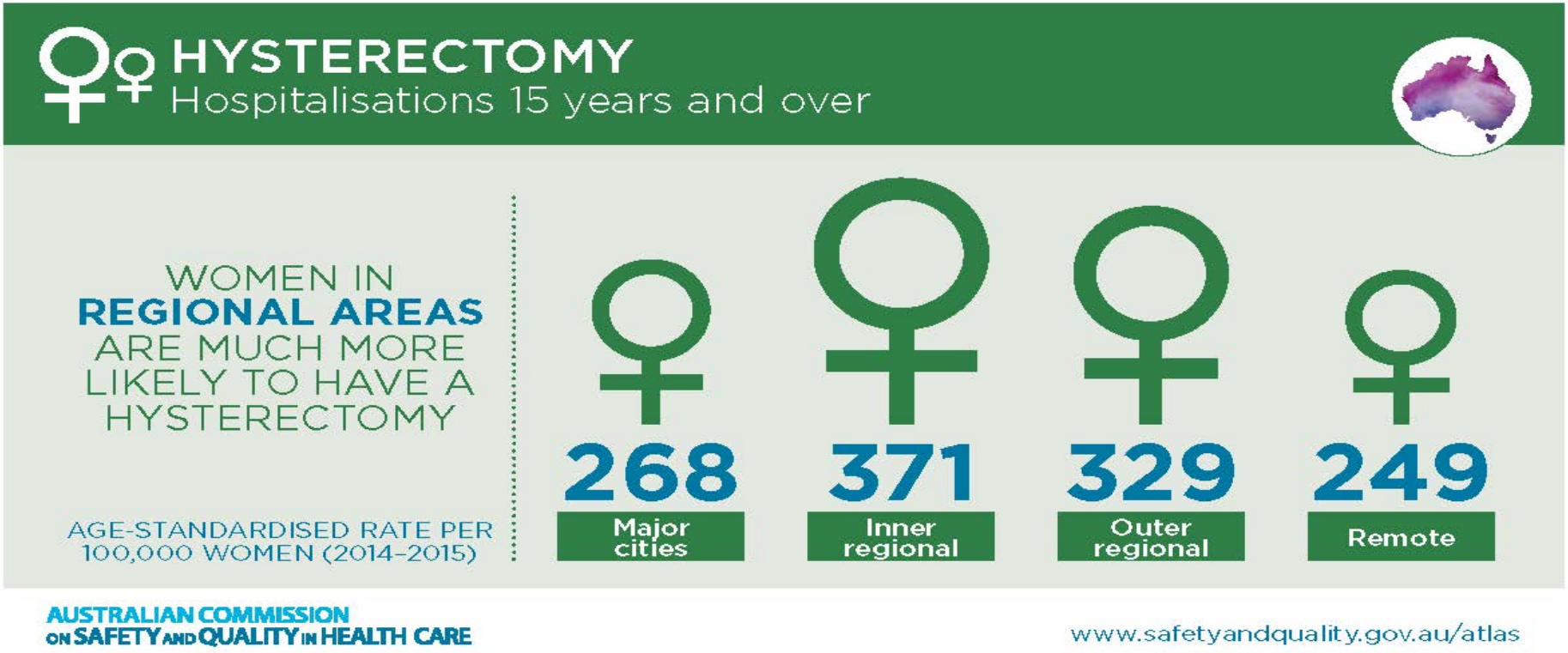
6.6x AS HIGH in the highest rate area compared to the lowest rate area



National Hospital Morbidity Database, 2014–15

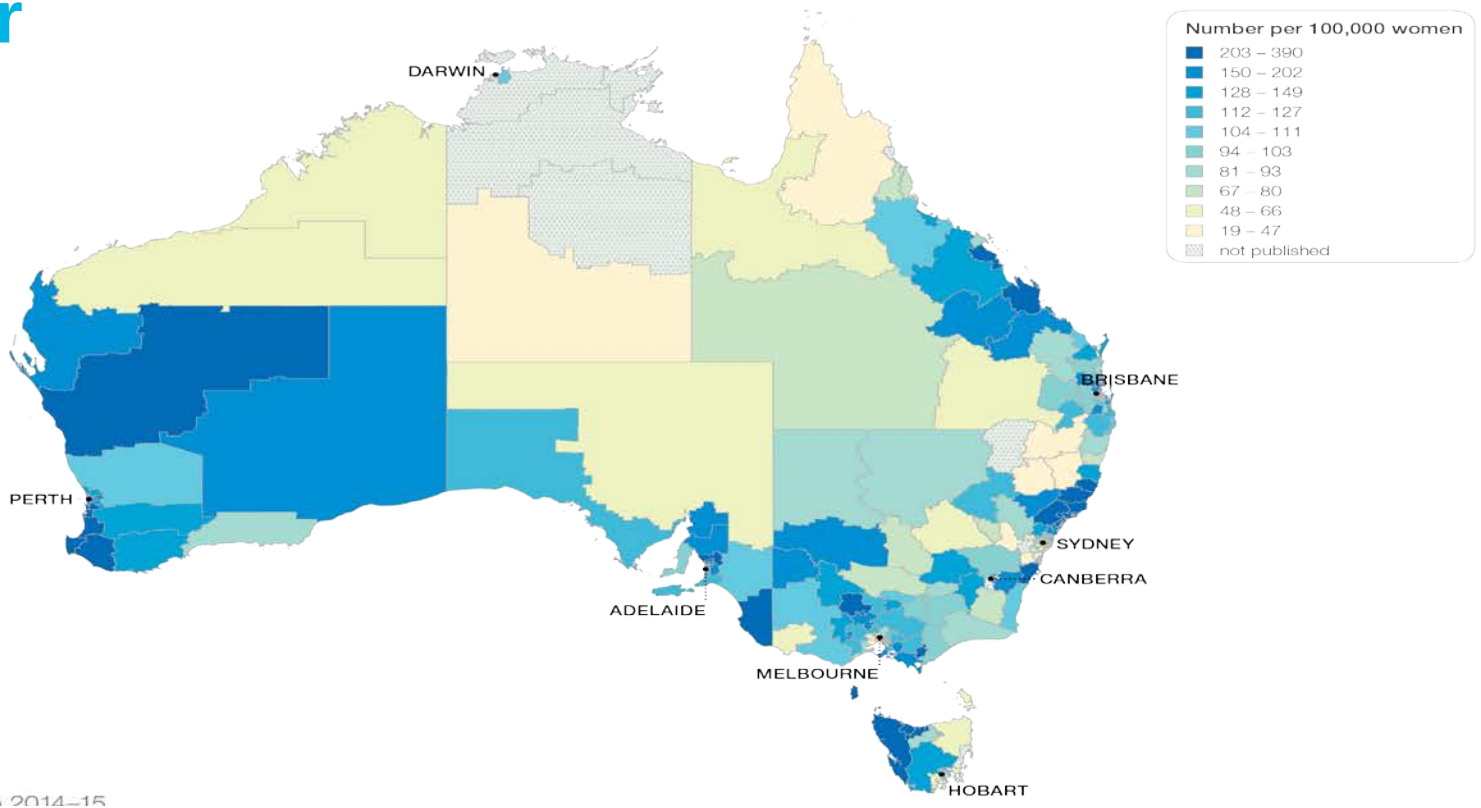
National data, 2012–14

Hysterectomy rates (non-malignant causes) across Australia



Endometrial ablation hospitalisations 15 years and over

20.5x AS HIGH
in the highest rate area compared to the lowest rate area



National Hospital Morbidity

National data, 2012–13 to 2014–15

Endometrial ablation rates across Australia

- highest in Burnie, Tas 390/100,000 and lowest in Fairfield, NSW 19/100,000

Variation in surgical interventions

- Variation expected and can reflect a responsive health system
- Higher rates of hysterectomy could be due, in part, to lower use of less invasive treatments for HMB
- Large differences suggest some women are missing out/not aware of available treatment options for HMB

Variation in management

Patient

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

GP

- training in IUS 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 travel outside local area for care

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www.safetyandquality.gov.au/ccs

Aims of Clinical Care Standard

"The goal is appropriate care - the right care for the right person, at the right time."

- Inform patients about the care they can expect to receive
- Ensure patients have the opportunity to make an informed choice from a range of options
- Provide guidance to health professionals, so they can deliver appropriate, high-quality care
- Identify systems that health services need in place to support and monitor appropriate care

The Heavy Menstrual Bleeding Clinical Care Standard

Assessment and diagnosis

Intra-uterine hormonal devices

Informed choice and shared decision making

Specialist referral

Initial treatment is pharmaceutical

Uterine-preserving alternatives to hysterectomy

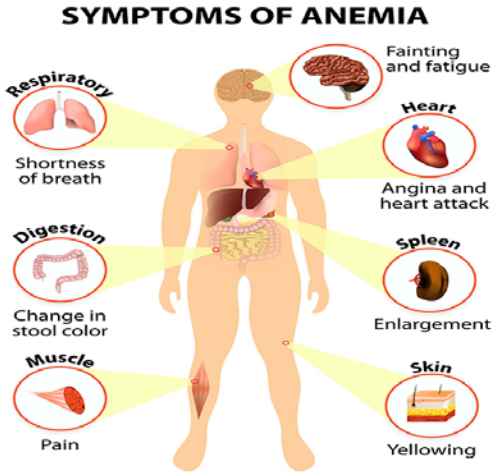
Quality ultrasound

Hysterectomy

1. Assessment and diagnosis

The initial assessment of a woman presenting with HMB includes a detailed medical history, assessment of impact on quality of life, a physical examination, and exclusion of pregnancy, iron deficiency and anaemia.

Further investigations are based on the initial assessment.

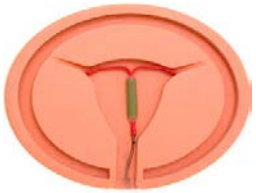


2. Informed choice and shared decision making

A woman with HMB is provided with consumer-focused information about her treatment options and their potential benefits and risks.

She is asked about her preferences in order to support shared decision making for her clinical situation.

3. Initial treatment is pharmaceutical

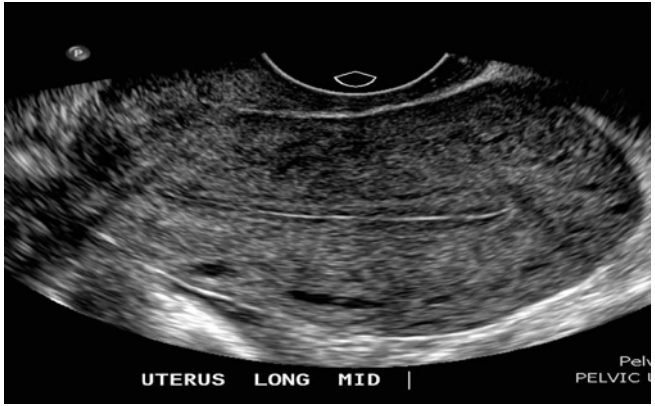


A woman with HMB is offered pharmaceutical treatment, taking into account evidence-based guidelines, her individual needs and any associated symptoms.

Initial treatment is provided to a woman who is undergoing further investigations to exclude malignancy and significant pathology.

4. Quality ultrasound

A woman having an ultrasound to investigate the cause of her HMB has a pelvic (preferably transvaginal) ultrasound, which assesses endometrial thickness and uterine morphology in days 5–10 of her menstrual cycle.



5. Intra-uterine hormonal devices

When pharmaceutical treatment is being considered, the woman is offered the LNG-IUS if clinically appropriate, as it is the most effective medical option for managing HMB.

6. Specialist referral

A woman with HMB is referred for early specialist review when there is a suspicion of malignancy or other significant pathology based on clinical assessment or ultrasound.

Referral is also arranged for a woman who has not responded after six months of medical treatment.

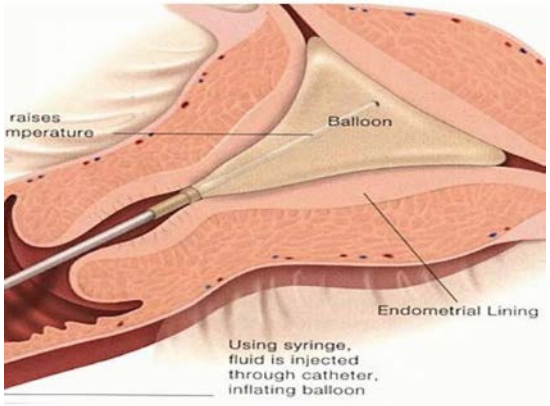
HealthPathways LOG IN

Clinical pathways and referral information

7. Uterine-preserving alternatives to hysterectomy

A woman who has HMB of benign causes and who is considering surgical management is offered a uterine-preserving procedure, if clinically appropriate.

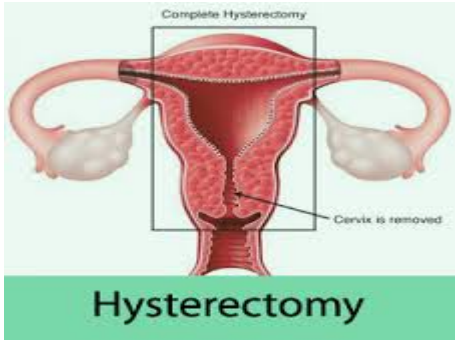
The woman receives information about procedures that may be suitable (such as endometrial ablation or removal of local pathology) and is referred appropriately.



8. Hysterectomy

Hysterectomy for management of HMB is discussed when other treatment options are ineffective or are unsuitable, or at the woman’s request.

A woman considering a hysterectomy is given balanced information about the risks and benefits of the procedure before making a decision.



HMB Clinical Care Standard: Lin's story

- 38 years old with heavy periods 'as long as she can remember'
- Affected schoolwork, studies and sport
- Thought her experience was 'normal' for many years
- Cost of sanitary products prompted visits to several doctors about period pain but questions about blood loss were never asked….

HMB Clinical Care Standard: Lin’s story

It could have been so much better…….

HMB Clinical Care Standard: Case 1

Sarah

- 34 years old lives in rural NSW
- Presents for cervical screening
- Mentions heavier periods and feeling ‘low energy’
- Periods are impacting on relationship and work

What else do we need to know?

HMB Clinical Care Standard: case 1

Sarah’s history

- Nil other medical problems; nil medications; non smoker
- New relationship last 2 years
- LMP 2 weeks ago; using condoms, not wanting pregnancy
- Regular menses; no IMB or PCB
- Periods last 8 days with clots ++ and flooding
- Associated pain day 1-2 of period
- Taking days off work

What examination?

HMB Clinical Care Standard: case 1

Examination

- BMI 31 Kg/m^2
- Speculum: normal cervix
- Bimanual: anteverted bulky uterus

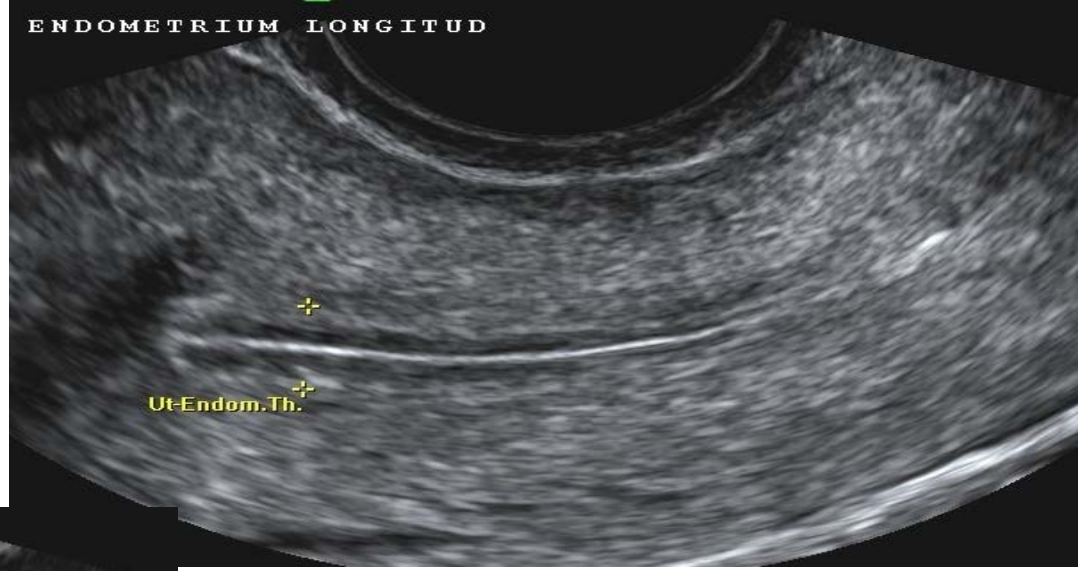
What is the DDx and what do you do next?

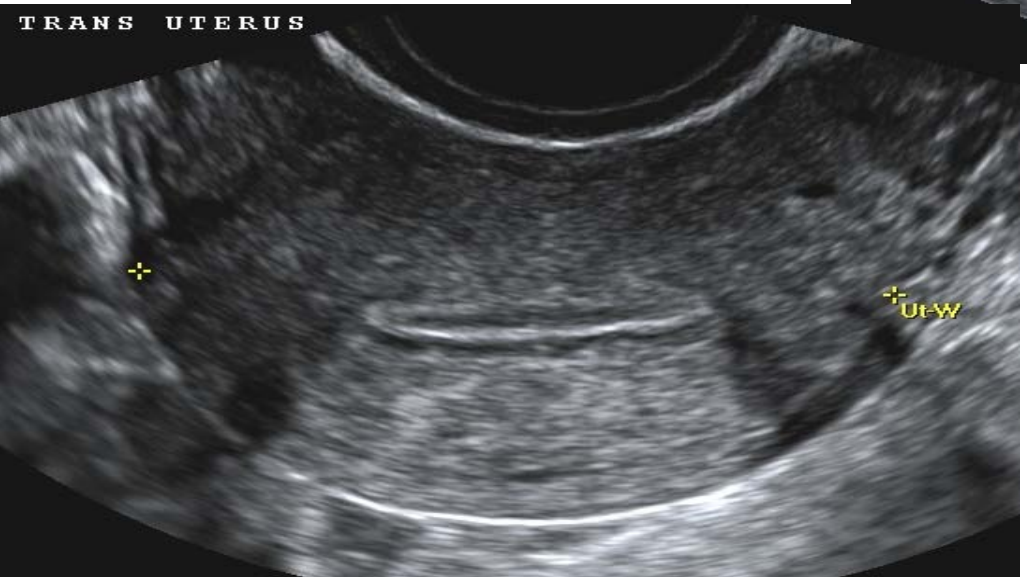
HMB Clinical Care Standard:
Case 1

Investigations and initial management

- FBC (Hb low normal range 110g/L) and ferritin (low < 30 mcg/L)
- Initiated on oral iron and tranexamic acid for her next period (1g 3-4 x daily from onset of bleeding)
- Referred for TVUS day 5-10 of the cycle

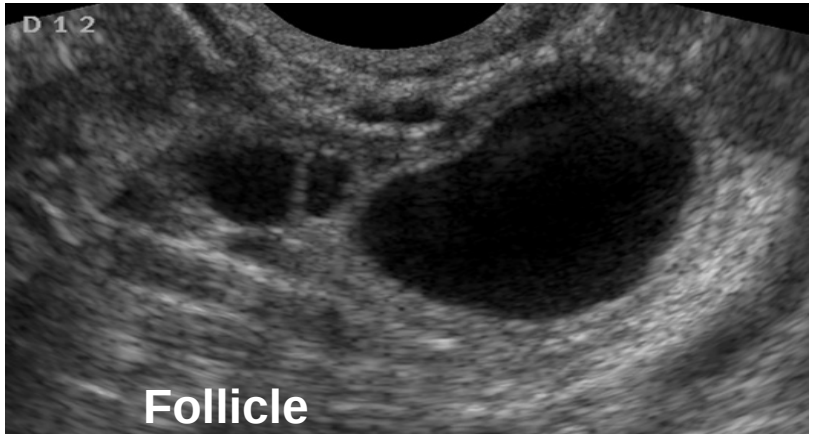
Normal Pelvic Ultrasound Scan



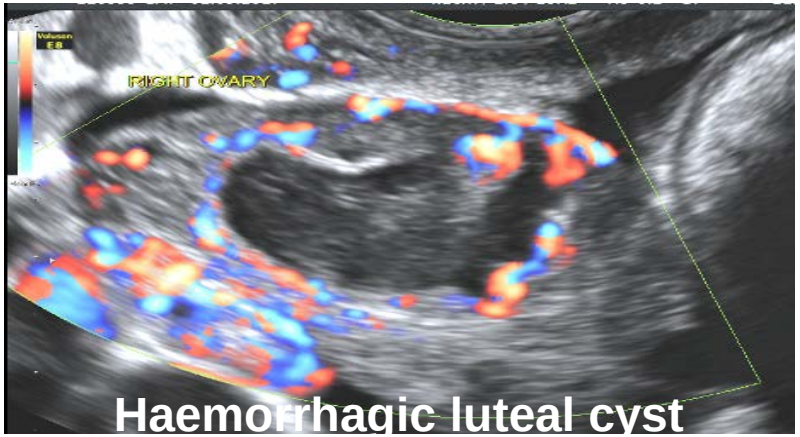


Normal uterine dimensions
Normal myometrium
Proliferative endometrium
Normal ovaries

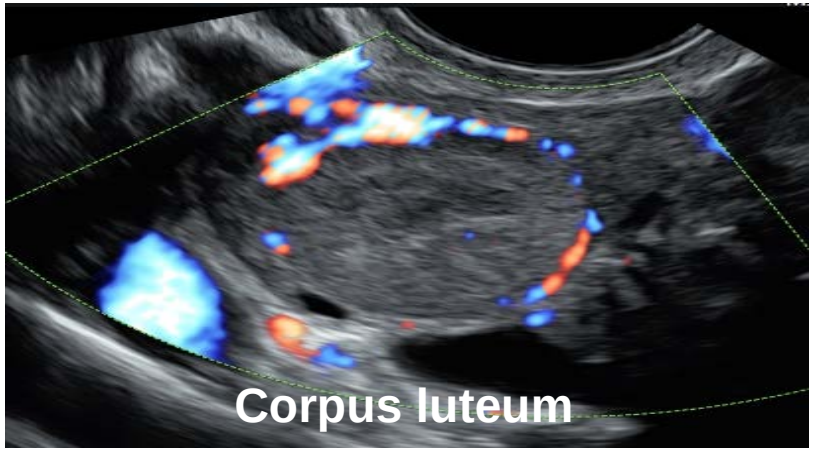
Normal ovaries

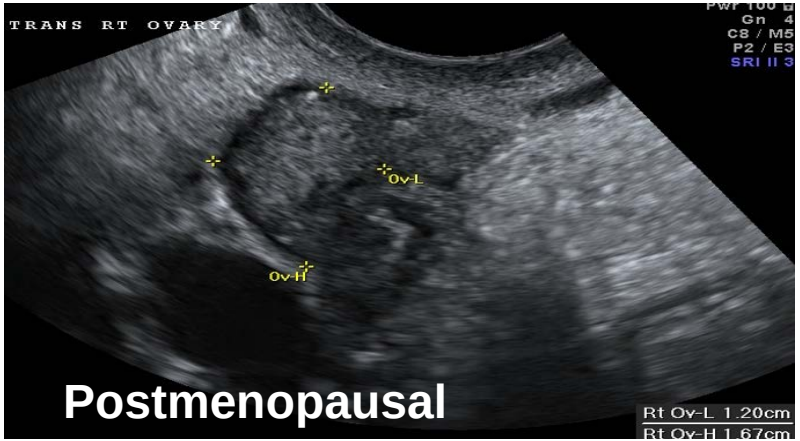


Follicle



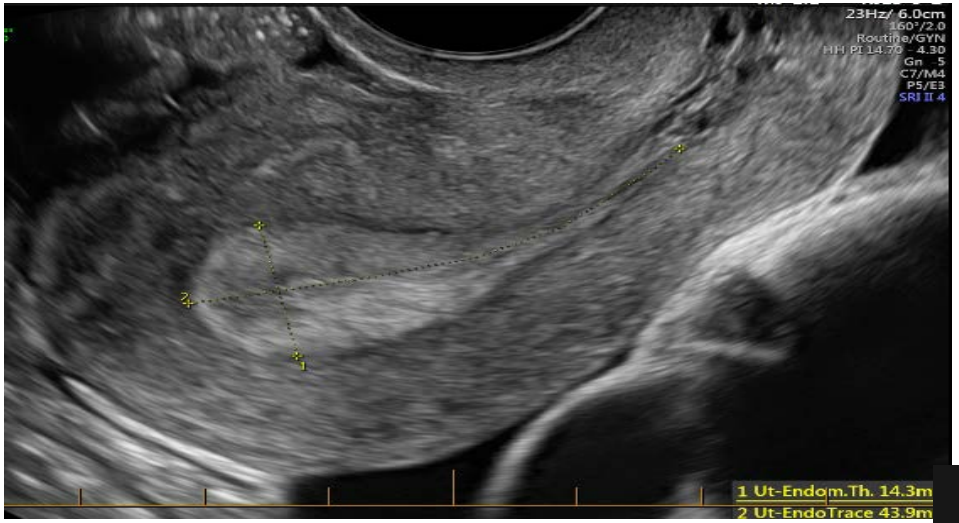
Haemorrhagic luteal cyst


Corpus luteum



Postmenopausal

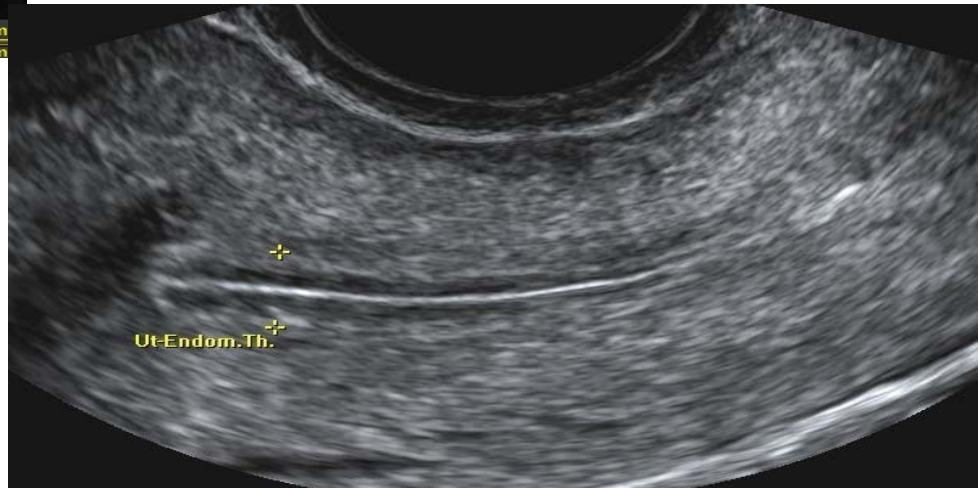
HMB Clinical Care Standard:



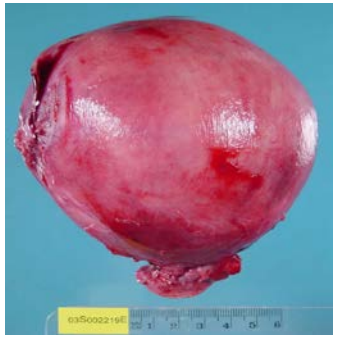
Secretory endometrium

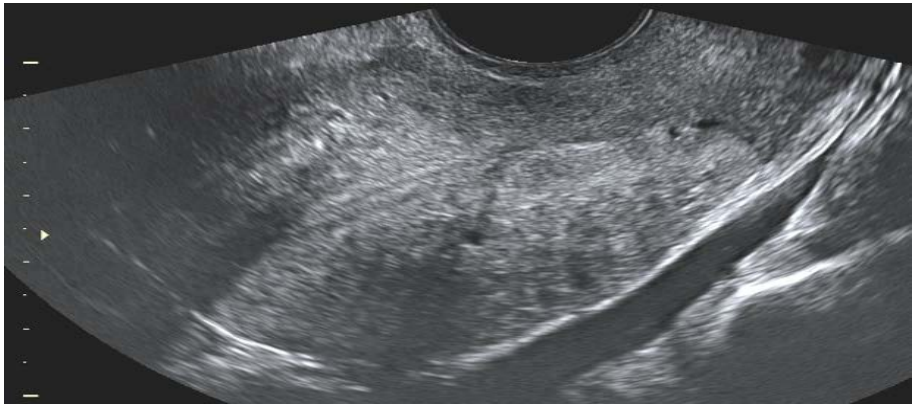
Why pelvic ultrasound scans are best performed in the proliferative phase – Day 5 to 10 of the cycle

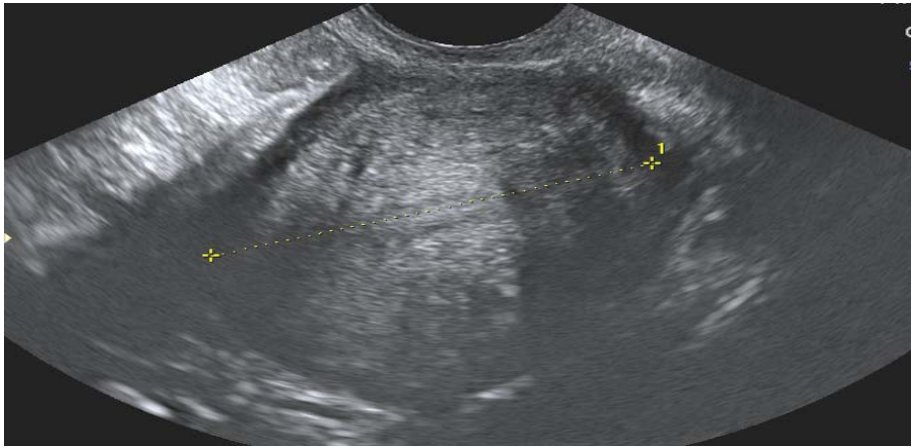
Proliferative endometrium

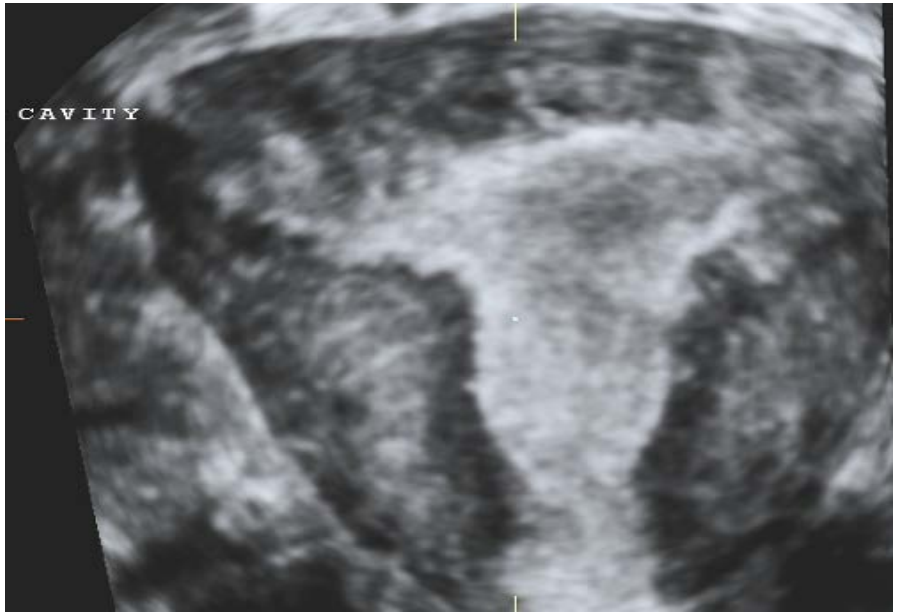


HMB Clinical Care Standard: Case 1

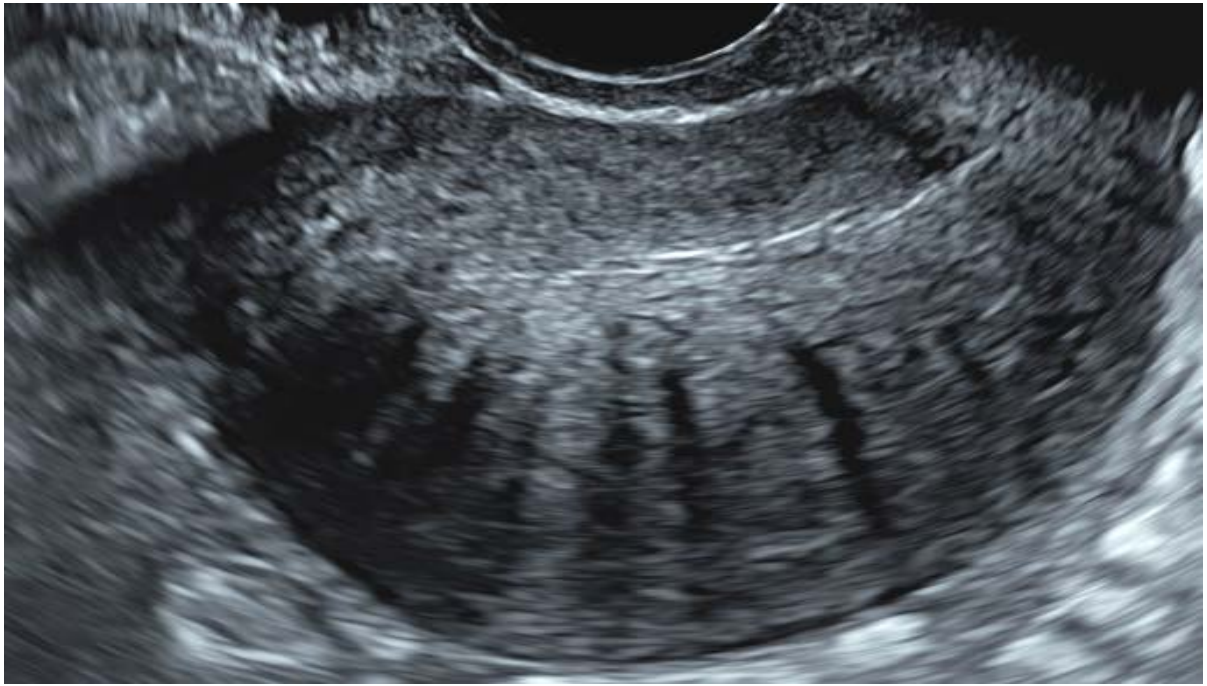








Adenomyosis



HMB Clinical Care Standard: Case 1 - Ultrasound report

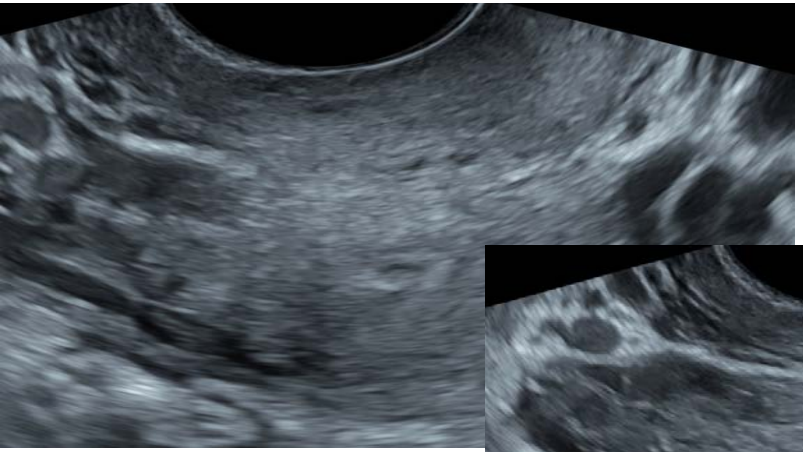
- Transabdominal and transvaginal scanning
- The uterus is anteverted, anteflexed and midline.
- It is of bulky non gravid size measuring 100 x 60 x 50 mm.
- The uterine outline is bulbous and the myometrial echotexture is heterogeneous consistent with diffuse adenomyosis
- The endometrium measures 5.0mm in thickness and is proliferative in nature, consistent with Day 7 of the cycle. The endometrium is regular with no evidence of a polyp.
- Both ovaries are normal in size, shape and echotexture.

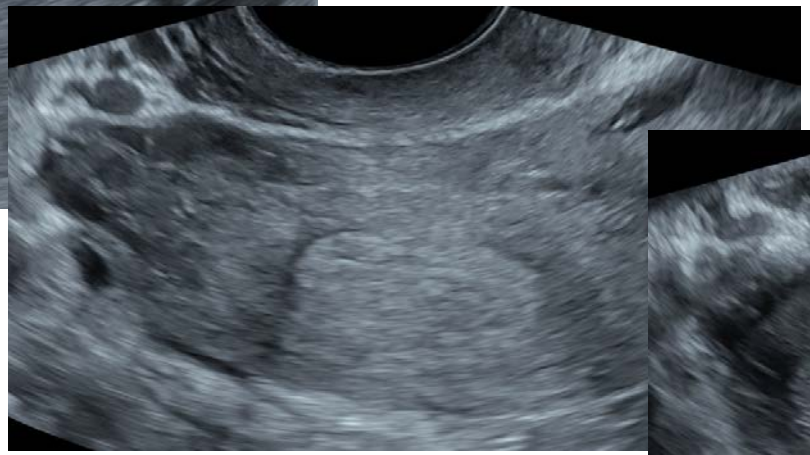
Conclusion: *The uterus is globally enlarged by diffuse adenomyosis and this may account for the heavy painful periods*

HMB Clinical Care Standard: case 1

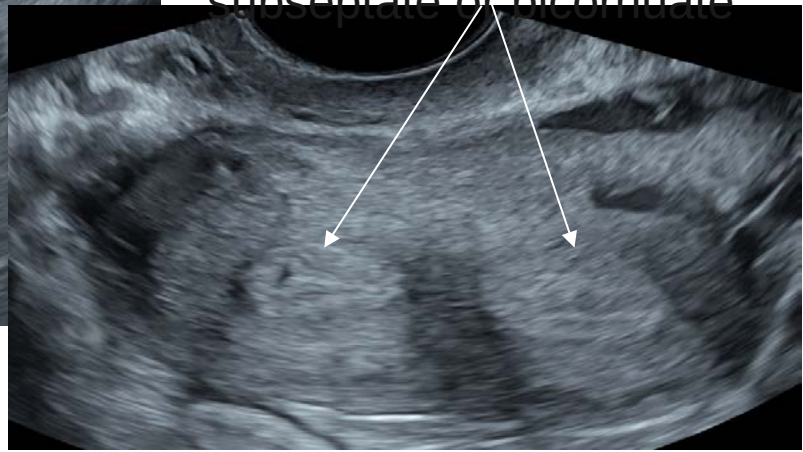
- Presents to discuss a longer term option
- Information provided on range of pharmaceutical options
  - LNG-IUS
  - Tranexamic acid or NSAIDs or COCs
  - Cyclic norethisterone or injected long acting progestogens
- Tried pill in the past but ‘felt moody’ and is not keen
- Decides on a LNG-IUS

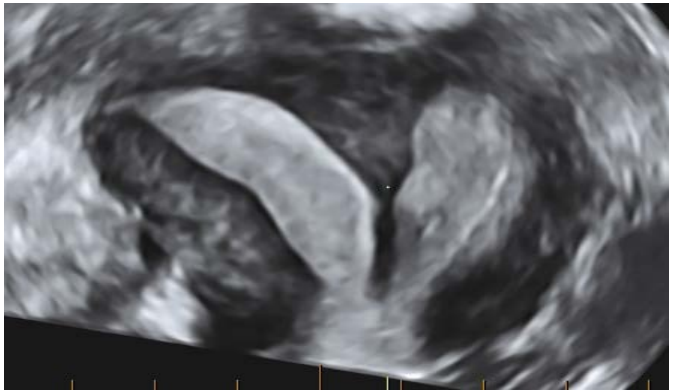
Assessing uterine shape needs sequential axial views

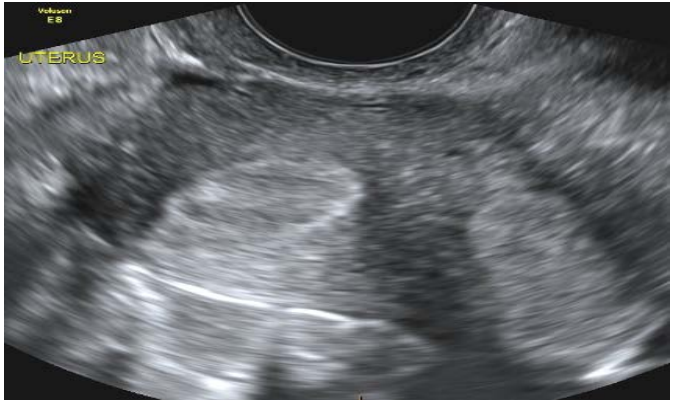




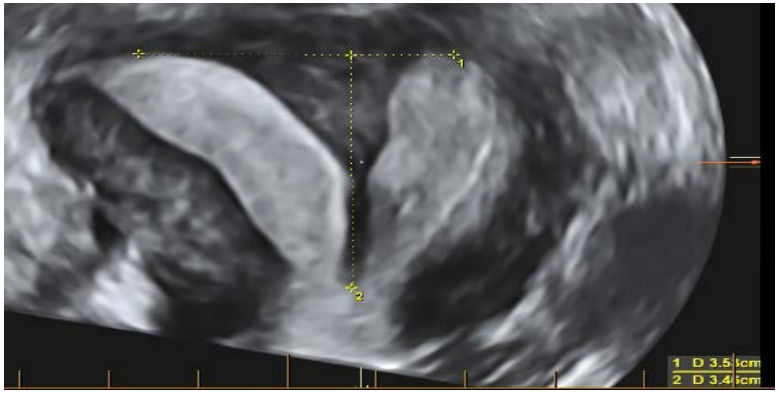
Endometrium separates so may be arcuate, subseptate or bicornuate

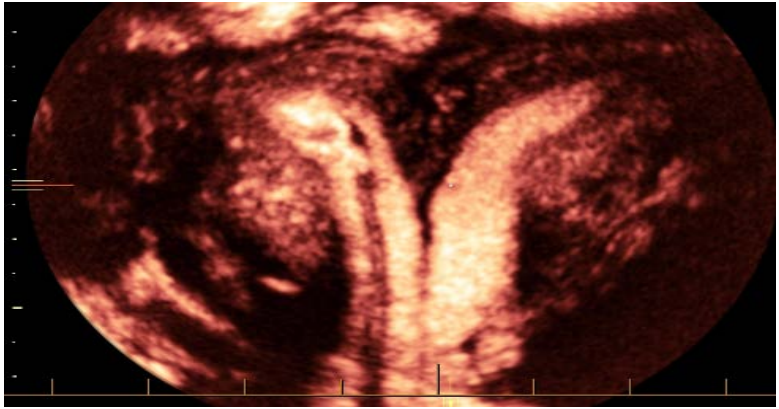




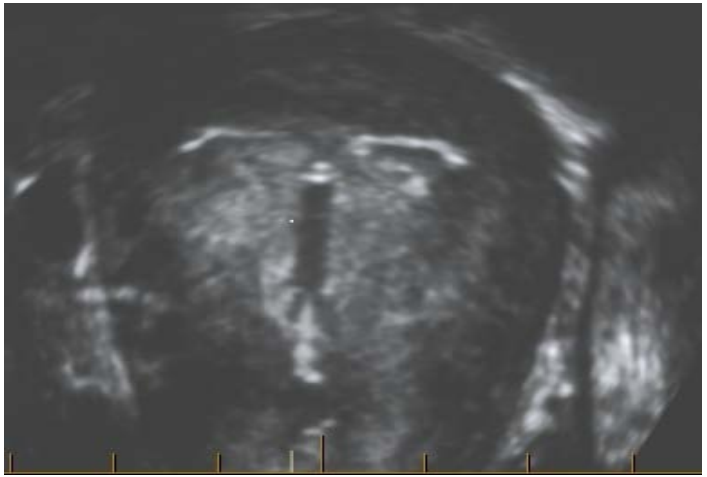


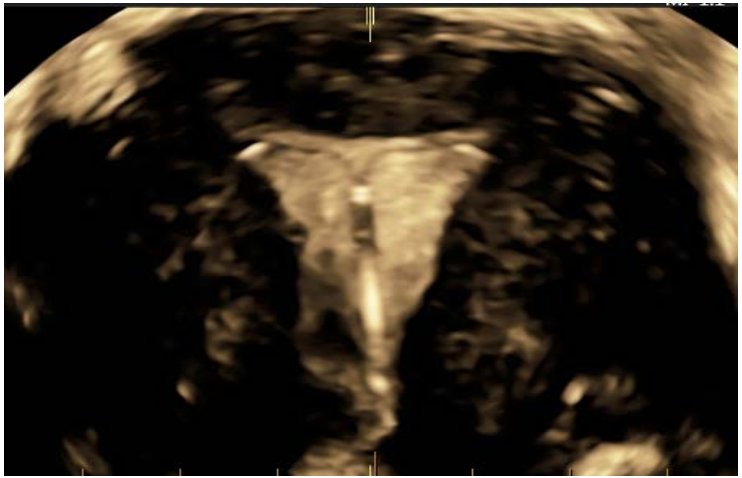
Septate uterus





Mirena IUS – 3D





HMB Clinical Care Standard: Case 1

LNG-IUS insertion

- Can be inserted in primary care following investigation to exclude malignancy/other serious pathology
- Referral pathways for rapid insertion if no practice inserter
- Advise review at 6 m post-insertion to assess response

HMB Clinical Care Standard: Case 2

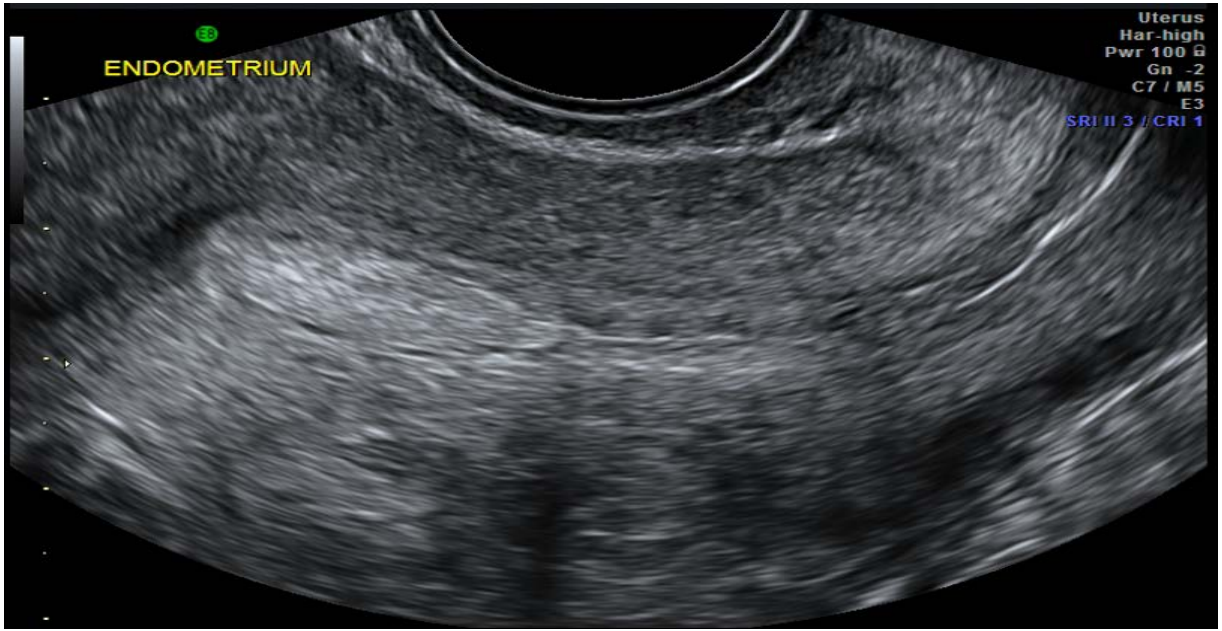
Lara

- Age 42, new relationship 4m
- G3P3 with 12 m increasing prolonged and heavy cycles
- Period 7/28 with clots and mild pain
- Feels tired

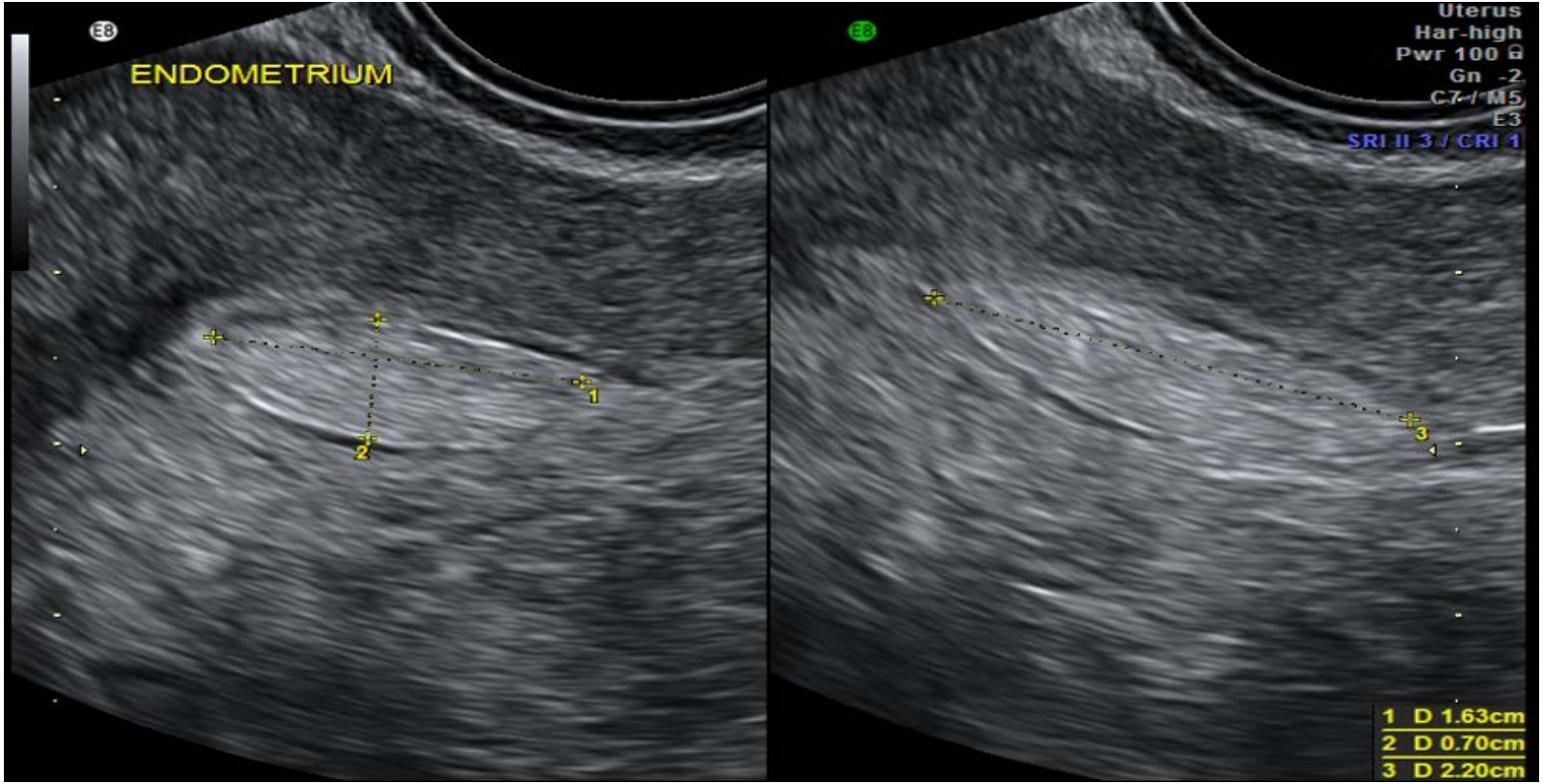
Examination: unremarkable

What do you do next?

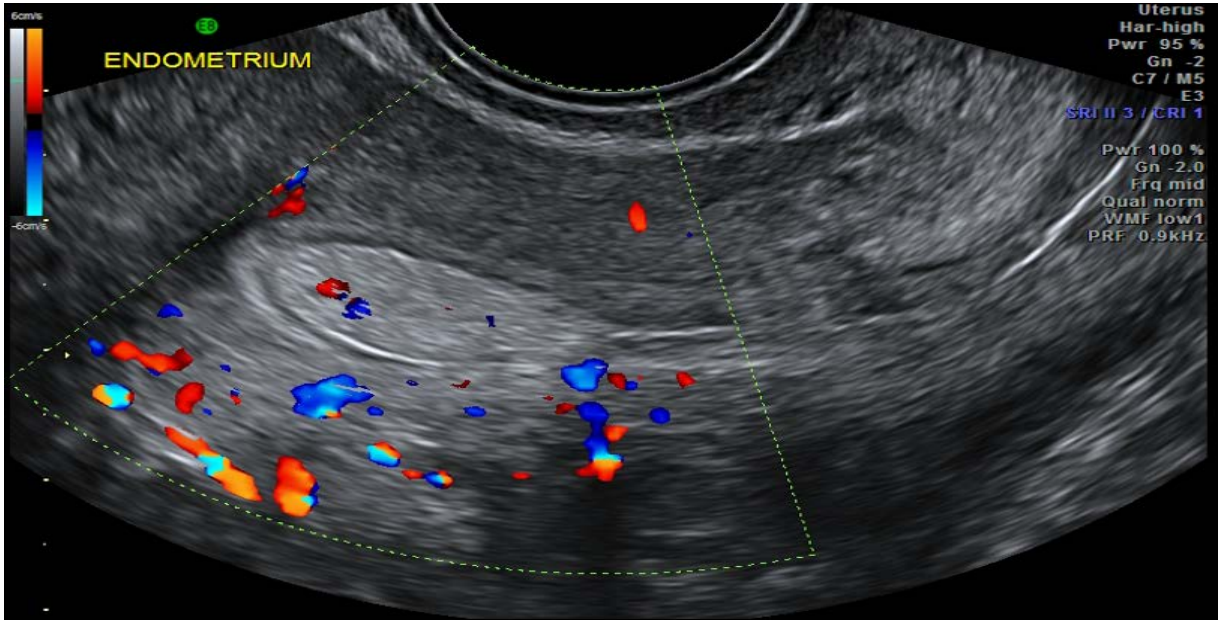
Endometrial polyp



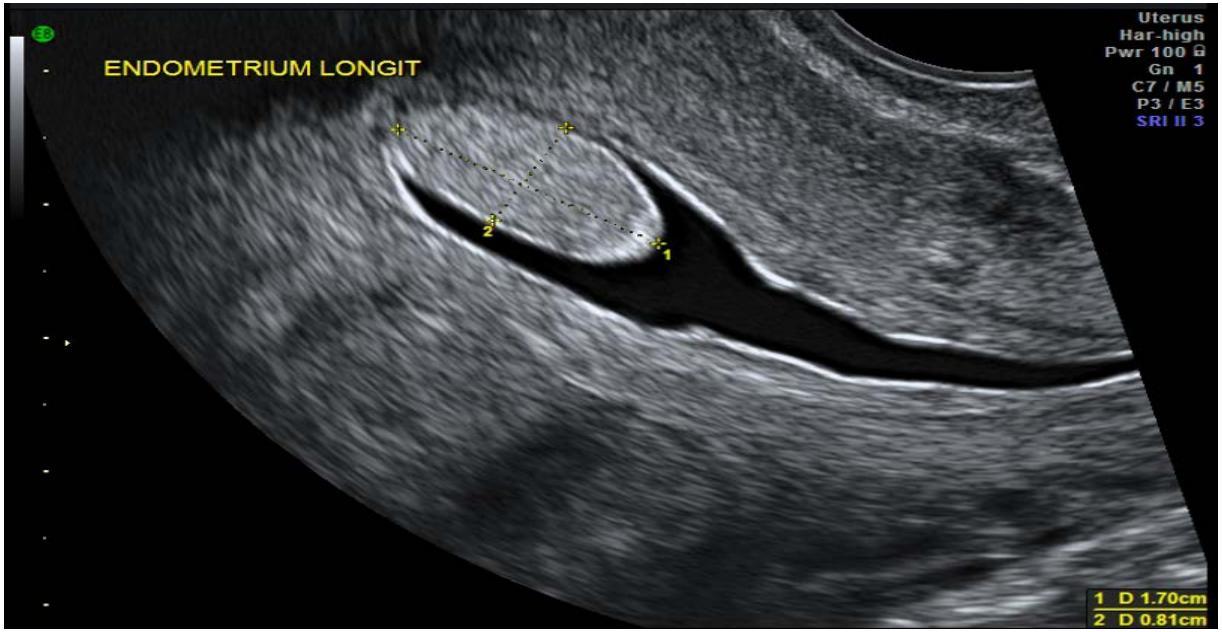
Endometrial polyp



Endometrial polyp



Appearance of the endometrial polyp following sterile saline instillation (Sonohysterogram)



Pelvic ultrasound scan and sonohysterogram report:

- The uterus is anteverted, anteflexed and midline.
- It is of normal non gravid size measuring 85 x 49 x 36 mm.
- The uterine outline is normal and the myometrial echotexture is normal 3D reconstruction of the coronal plane shows a normal cavity shape.
- With sterile saline instillation the endometrium measures 18.0 mm in thickness, and is proliferative in nature.
- It is regular in outline with evidence of a polyp.
- The endometrial cavity contains a homogeneously echogenic ovoid structure which measures 22 x 7 x 16 mm. There is a vascular supply. Appearances are those of an endometrial polyp.

- **Conclusion:** *The presence of the endometrial polyp would explain the prolonged, heavy periods*

HMB Clinical Care Standard: Case 2

- Ultrasound shows endometrial polyp
- Refer to specialist
- Hysteroscopy, dilatation and curettage and polyp removal
- LNG-IUS for contraception

HMB Clinical Care Standard: Case 3

Sabha

- Age 38 years
- G3P2 children aged 10 and 8, no further planned
- Married; uses 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

- **Examination**

Unremarkable

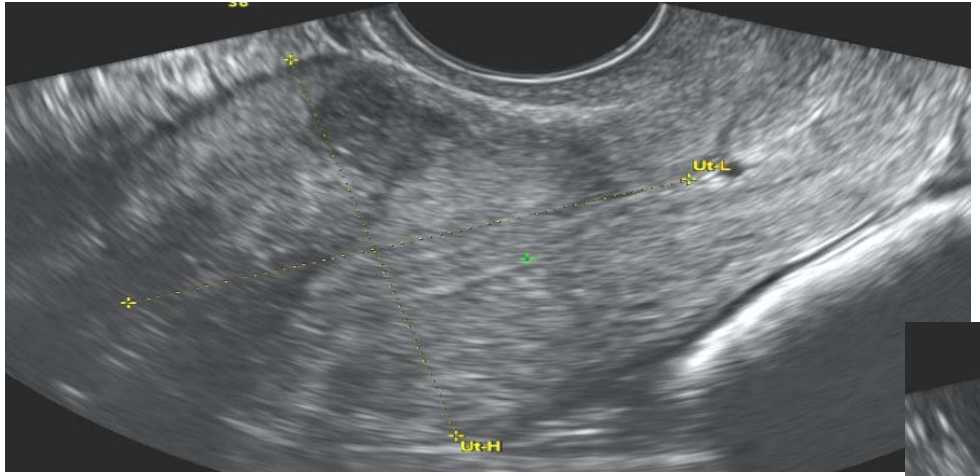
HMB Clinical Care Standard: Case 3

Iron deficiency anaemia

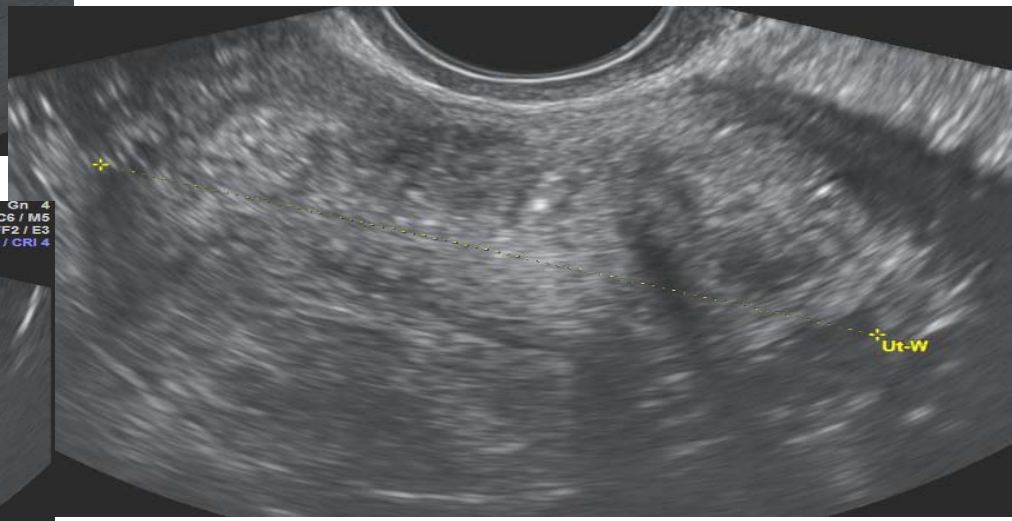
Ultrasound findings day 6 of cycle

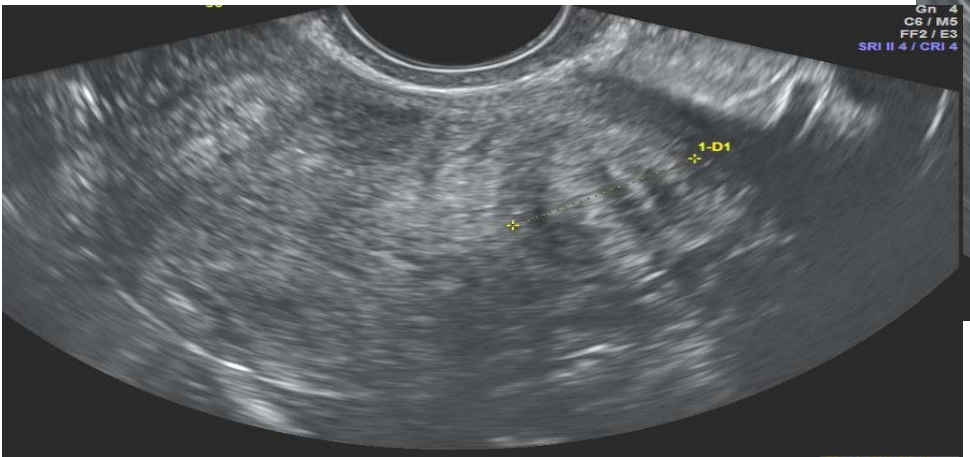
- The uterus is anteverted anteflexed and midline. It is of bulky non-gravid size measuring 90 x 60 x 45 mm.
- The uterine outline is normal and the myometrial echotexture is heterogeneous consistent with fibroids . There are multiple intramural uterine fibroids present. They measure 25 x 23 x 21 mm, 21 x 18 x 16 mm, 20 x 20 x 14 mm and 19 x 13 x 16 mm.
- The endometrium measures 6.0 mm in thickness and is proliferative in nature
- It is regular in outline with no polyps seen

Case 3: Ultrasound results



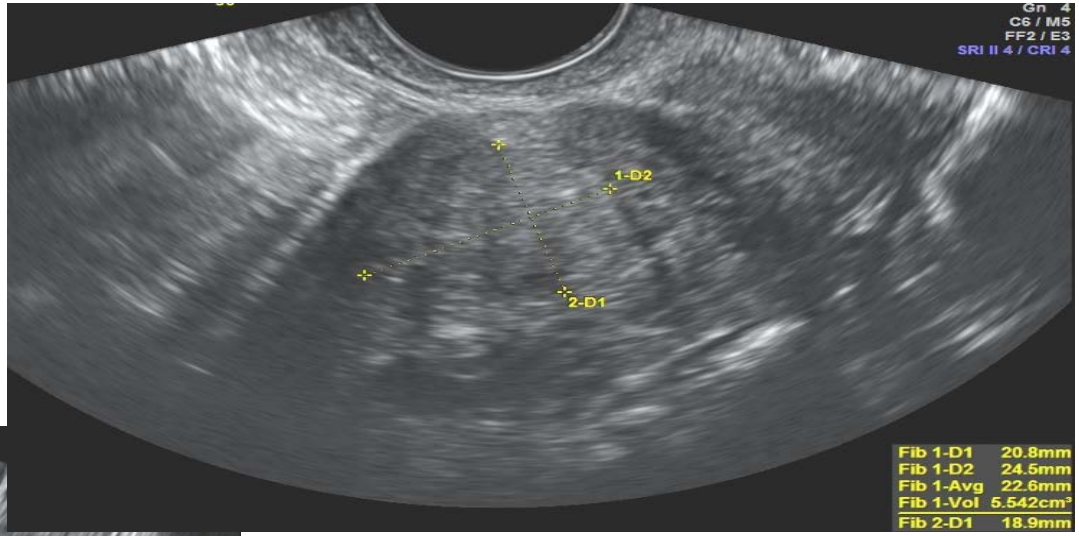
Intramural fibroids

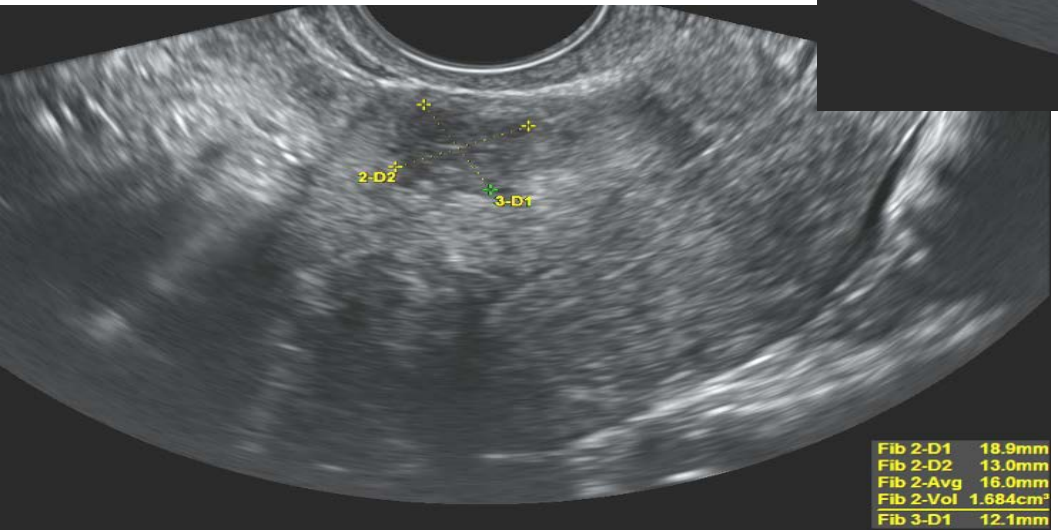




HMB Clinical Care Standard: Case 3 Ultrasound results

Intramural fibroids





HMB Clinical Care Standard: case 3

Sabha is keen on a hysterectomy as she does not want any hormones….

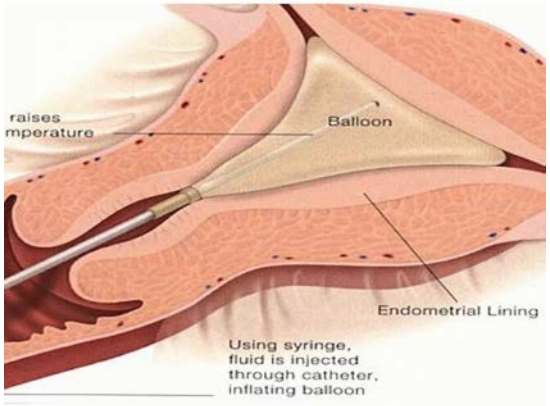
What do you advise?

HMB Clinical Care Standard: case 3

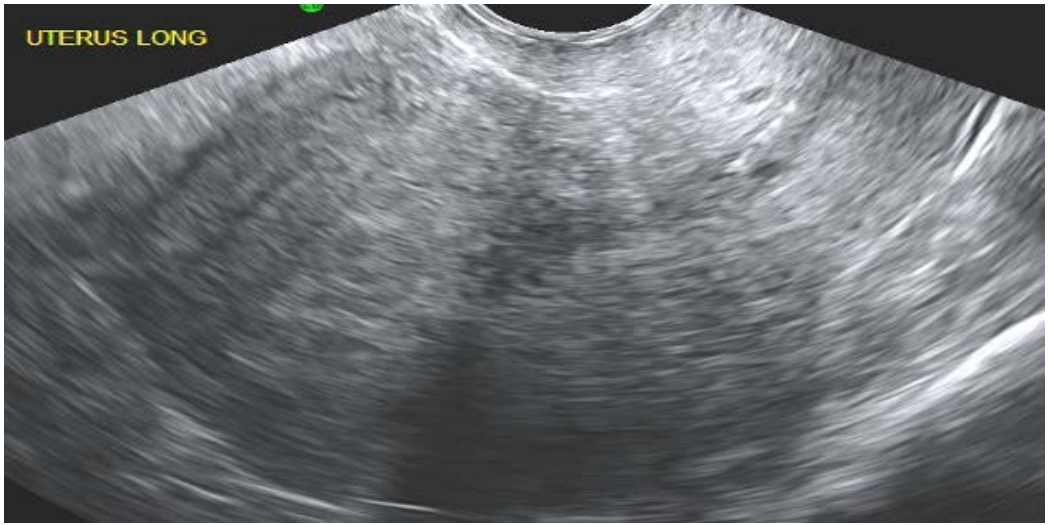
Sabha is referred to a specialist

- GP provides information pack about HMB and management options (including a decision aid)
- Specialist discusses uterine-preserving alternatives to hysterectomy
- Sabha is interested in endometrial ablation

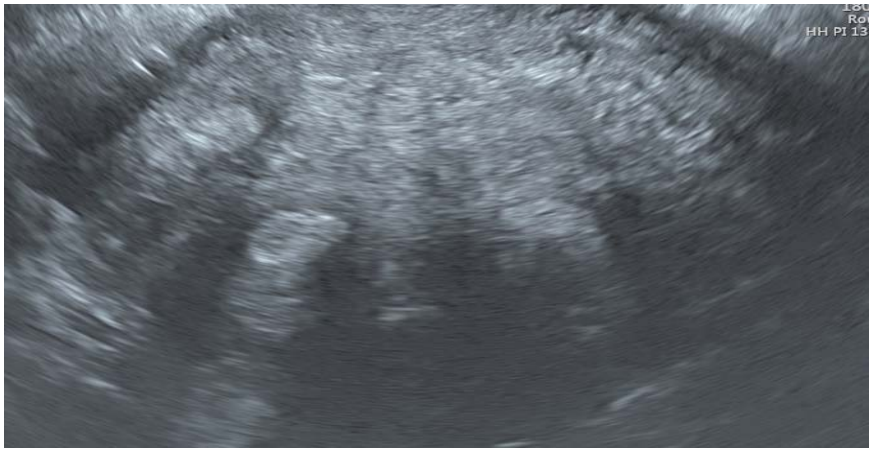
Uterine-preserving alternatives to hysterectomy: endometrial ablation

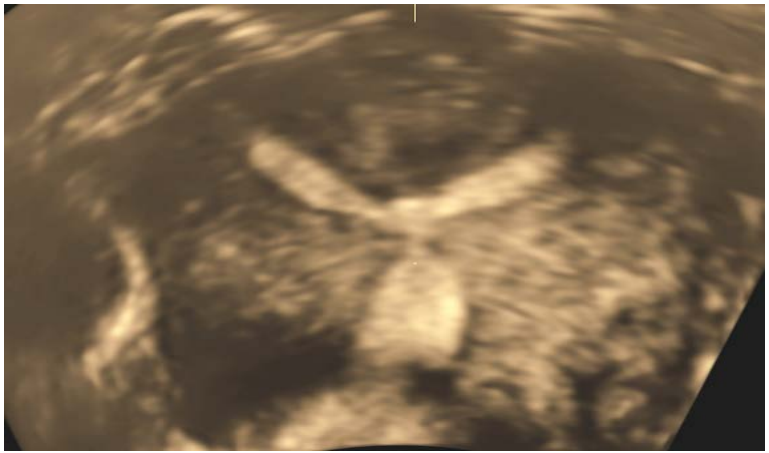


Post endometrial ablation



Post endometrial ablation





HMB Clinical Care Standard: Case 4

Suzanne

History

- Age 47 years
- G1P1 tubal ligation aged 35 (one child age12)
- No current partner
- 26 day cycle with up to 10 days of heavy bleeding++
- Pelvic ‘pressure’ including urinary frequency

Examination

- BMI 25kg/m^2
- Clinically mildly anaemic
- Bulky uterus (12 week size) with mild tenderness

HMB Clinical Care Standard: case 4

Investigations and initial management

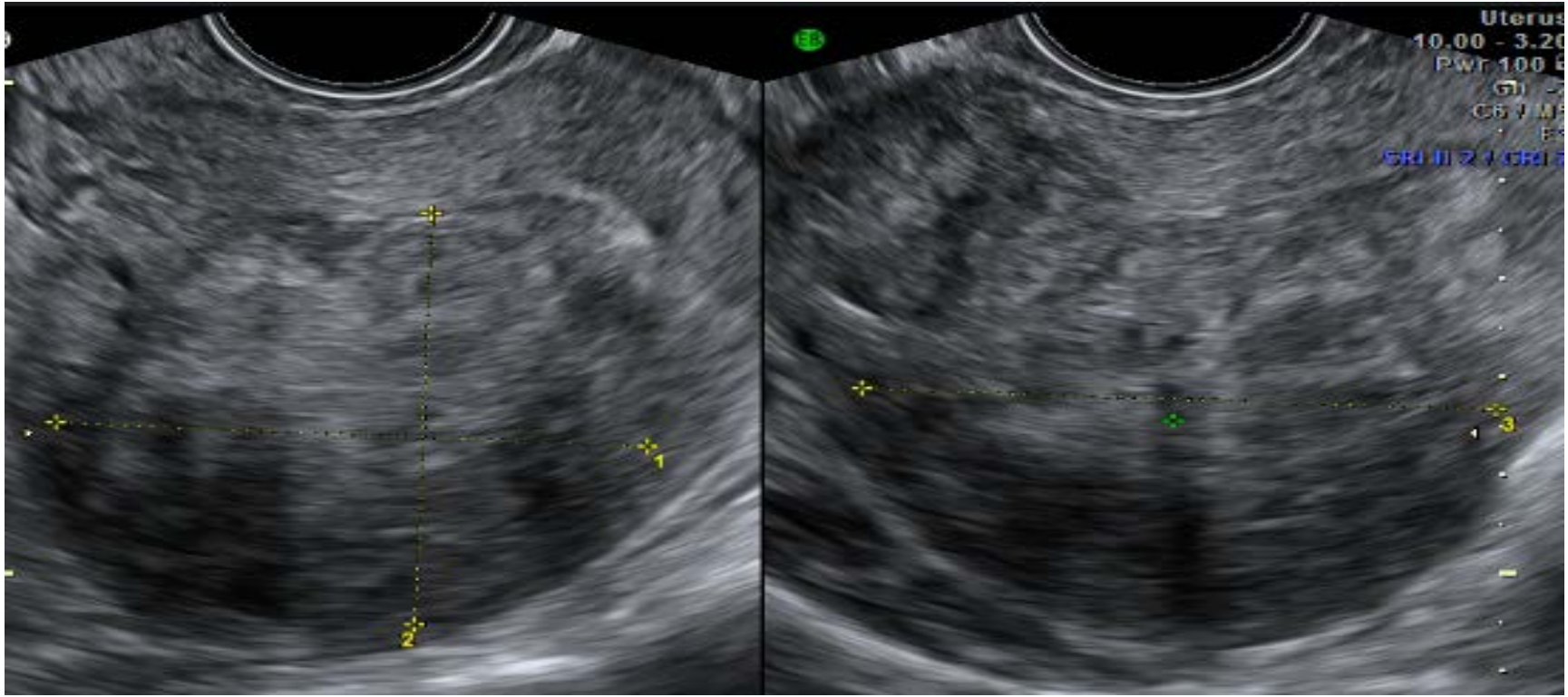
- Hb 108 g/L; ferritin 7 mcg/L
- Tranexamic acid initiated whilst waiting for an US
- TVUS on day 7 of the cycle shows multiple fibroids

HMB Clinical Care Standard: case 4, Pelvic US report

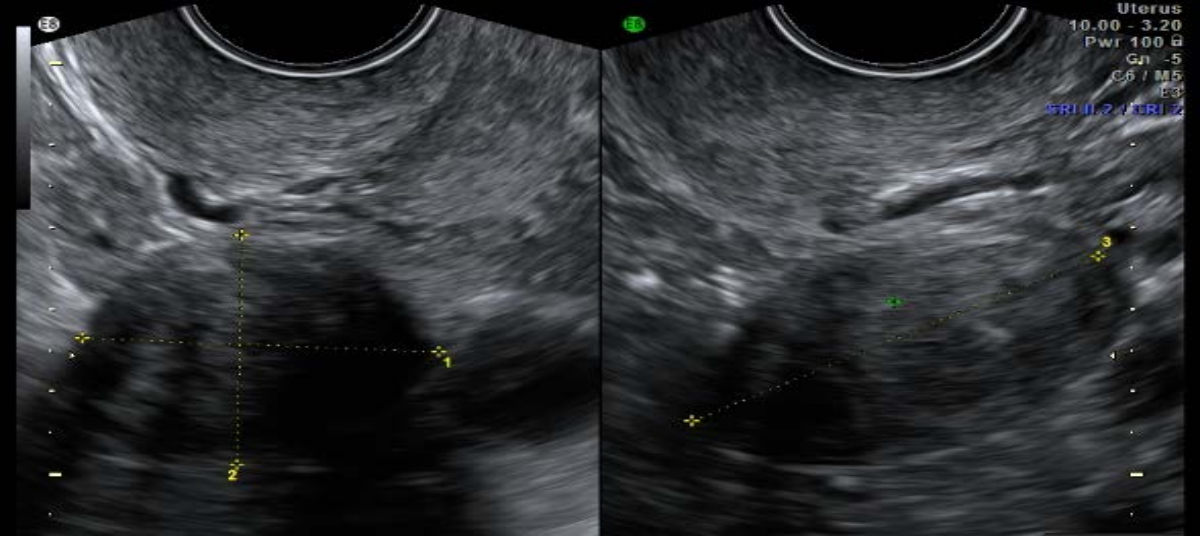
- The uterus is retroverted retroflexed and midline.
- It is of bulky non-gravid size measuring 120 x 55 x 80 mm.
- The uterine outline is distorted and the myometrial echotexture is heterogeneous consistent with fibroids .
- There are multiple uterine fibroids which measure and are positioned as follows:
  - 50 x 45 x 50 mm subserosal
  - 45 x 30 x 30 mm submucosal
  - 30 x 25 x 25 mm subserosal
  - 25 x 22 x 21 mm subserosal
  - 20 x 18 x 20 mm intramural
- The endometrium measures 9.0 mm and is late proliferative in nature. It is irregular in outline due to the submucosal fibroid. No endometrial polyps are seen.

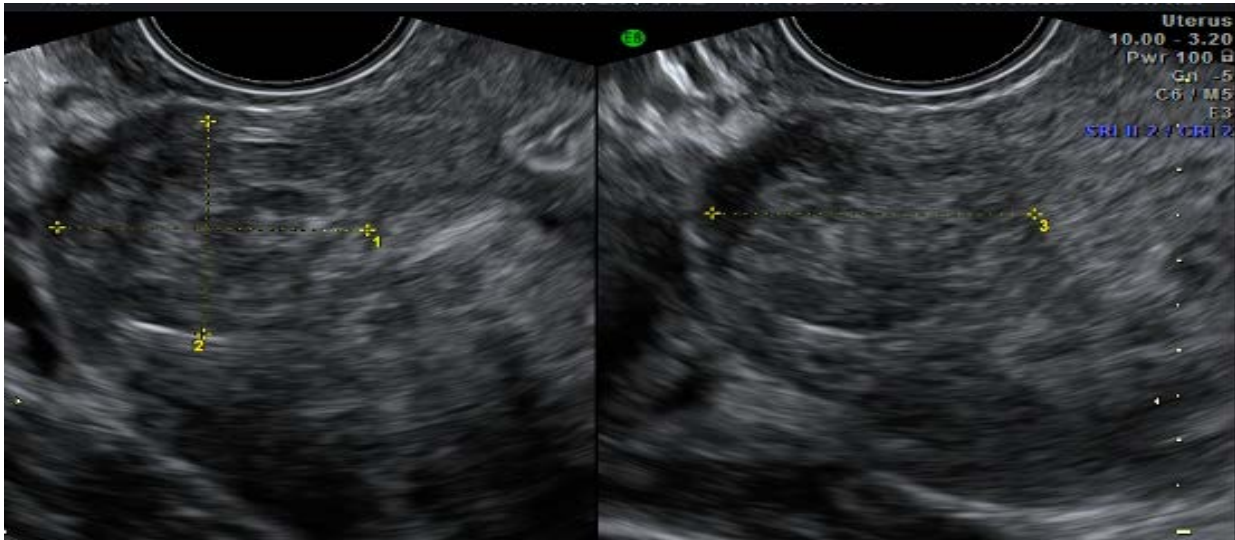
- **Conclusion:** *The uterus is enlarged by multiple fibroids. These may be contributing to her heavy menstrual bleeding.*

Ultrasound findings: Subserosal fibroids - 1

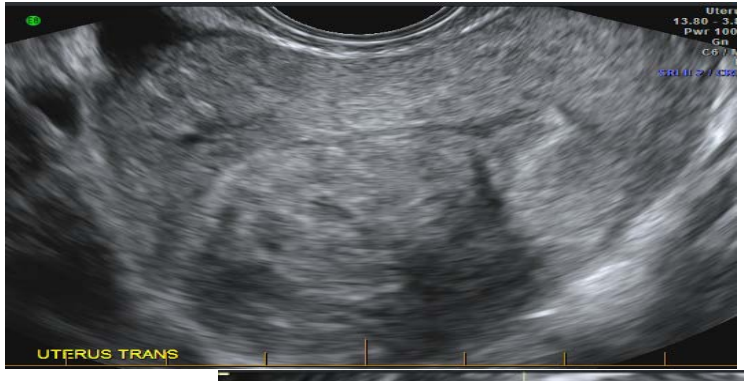


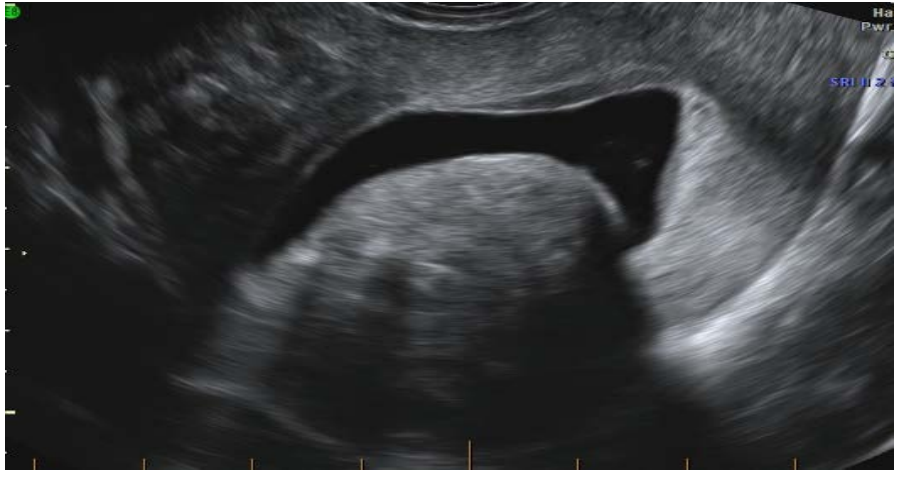
Subserosal fibroids 3 and 4

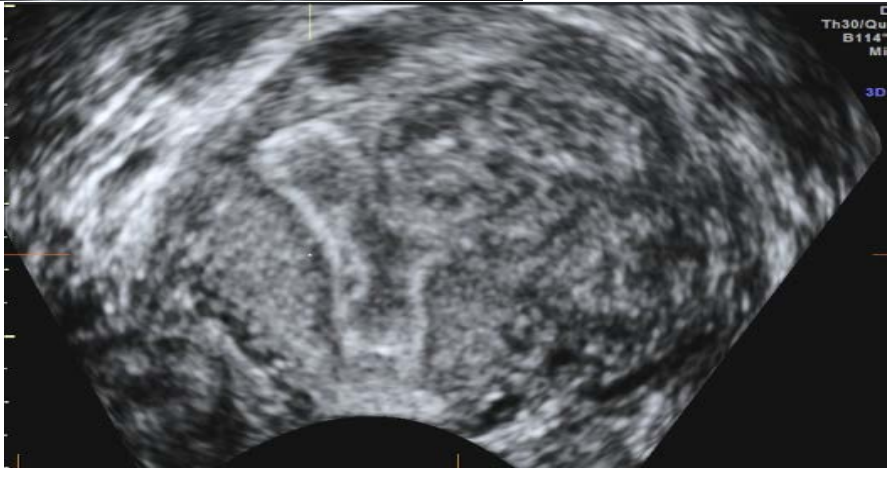


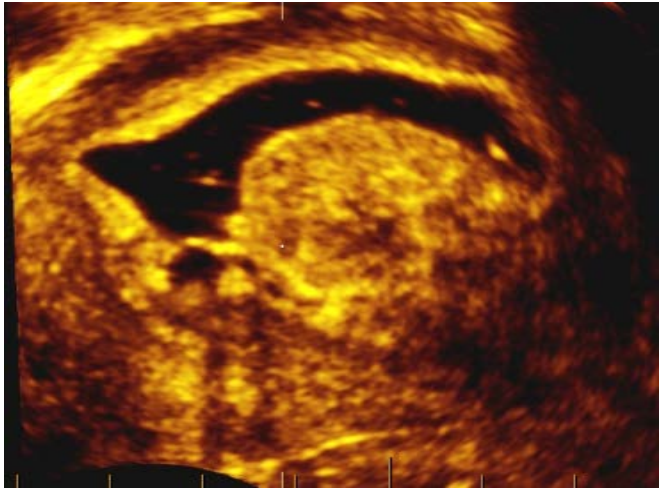


Ultrasound results: submucosal fibroid









HMB Clinical Care Standard: case 4

Suzanne is referred for specialist advice

What options will the specialist discuss with Suzanne?

HMB Clinical Care Standard: case 4

Specialist discussion

- Do nothing
- COC pill
- Ulipristal acetate (selective progesterone receptor modulator SPRM)
- Uterine artery embolisation
- Hysterectomy

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

www.safetyandquality.gov.au/ccs

Commission identified 3 key priorities for improving the quality of care:

- Improving the assessment and diagnosis of women with HMB
- Ensuring women are offered effective and minimally invasive treatment options suitable to their situation and have the opportunity to share in decision-making
- Ensuring that clinicians and services are adequately skilled and organised to enable the above to occur

How can the Clinical Care Standard be used?

- By clinicians to support improved diagnosis and management of HMB in their practices, local areas, professional organisations or PHN
- As a basis for developing HMB assessment tools, consumer information and decision aids, referral checklists, and current information about referral pathways
- To encourage upskilling in key areas, including the LNG-IUS insertion and endometrial ablation
- To assess and monitor quality improvement locally, by using the indicators.

THANK YOU and any questions?

- Thank you to the Australian Commission on Safety and Quality in Health Care