COMMON COMPLAINTS - DDx

Irregular Menstruation (abnormal uterine bleed)

Irregularities in ***menstrual cycle***, affecting **frequency**, **duration**, **regularity of the cycle length** and the **volume of menses**. Irregular menstrual periods indicate ***anovulation*** (a lack of ovulation) or irregular ovulation. This occurs due to disruption of normal hormonal levels in the menstrual cycle, or ovarian pathology caused by:

- Extremes of reproductive age (early periods or perimenopause)
- Polycystic ovarian syndrome
- Physiological stress (excessive exercise, low body weight, chronic disease and psychosocial factors)
- Medications, particularly progesterone only contraception, antidepressants and antipsychotics
- Hormonal imbalances, such as thyroid abnormalities, Cushing's syndrome and high prolactin

Abnormal Uterine Bleeding - AUB (PALM COEIN)

Intermenstrual bleeding (***IMB***) refers to any bleeding that occurs between menstrual periods. This is a ***red flag*** that should make you consider cervical and other cancers, although other causes are more common.

Structural causes

- Polyps /ectropion / cysts
- Adenomyosis – *dysmenorrhoea*
- **(> 30 yo) Leiomyomas (fibroids)**
- **(> 30 yo) Malignancy (endometrial, cervical, vaginal)**

Non-structural causes

- Coagulopathies
- **(<20yo) Ovulatory issue (PCOS, pregnancy, M/C, hypothyroidism)**
- Iatrogenic / infection (STI) / meds (SSRI, **anti-coags**, contraception)
- **(<20yo) Endometriosis**
- Unknown origin

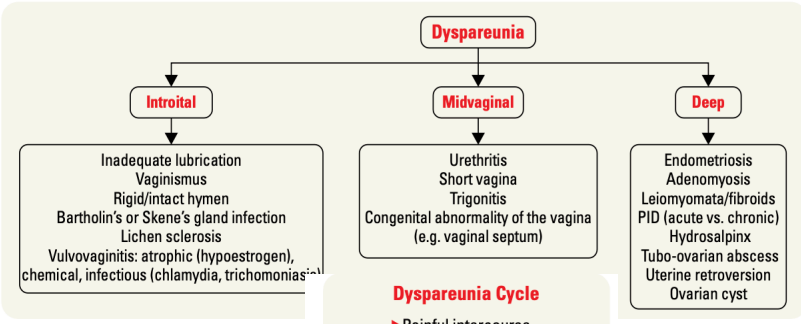


Figure 16. Approach to dyspareunia

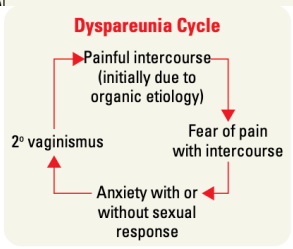


Figure 17. Dyspareunia cycle

Dysmenorrhoea (painful periods)

- **Primary dysmenorrhoea** (no underlying pathology)

Vs. Secondary Amenorrhoea

- Endometriosis or adenomyosis
- Fibroids (submucosal)
- Pelvic inflammatory disease
- Copper coil
- Cervical or ovarian cancer

Menorrhagia (HMB) - (PALM COEIN)

- ***Dysfunctional uterine bleeding*** (no identifiable cause)
- Extremes of reproductive age
- Fibroids
- Endometriosis and adenomyosis
- Pelvic inflammatory disease (infection)
- Contraceptives, particularly the copper coil
- Anticoagulant medications
- Bleeding disorders (e.g. ***Von Willebrand disease***)
- Endocrine disorders (diabetes and hypothyroidism)
- Connective tissue disorders
- Endometrial hyperplasia or cance
- Polycystic ovarian syndrome

Investigations for HMB

- Speculum + bimanual = fibroids, ascites and cancers
  - Any AUB → any POC ➔ REMOVE with D+ C
  - Any AUB → foetal body parts ➔ Remove in OT
- FBC (Hb and HCT) = Fe def. anaemia
- Swabs – M/C/S and NAAT (STI)
- Coag screen
- TFT
- Pelvic and TVUS
  - ?fibroids, adenomyosis,
  - Hysteroscopy declined or very abuse
- Outpatient hysteroscopy
  - Suspected fibroids, endometrial cancer, hyperplasia

↓

General Mx for HMB

Rx underlying cause

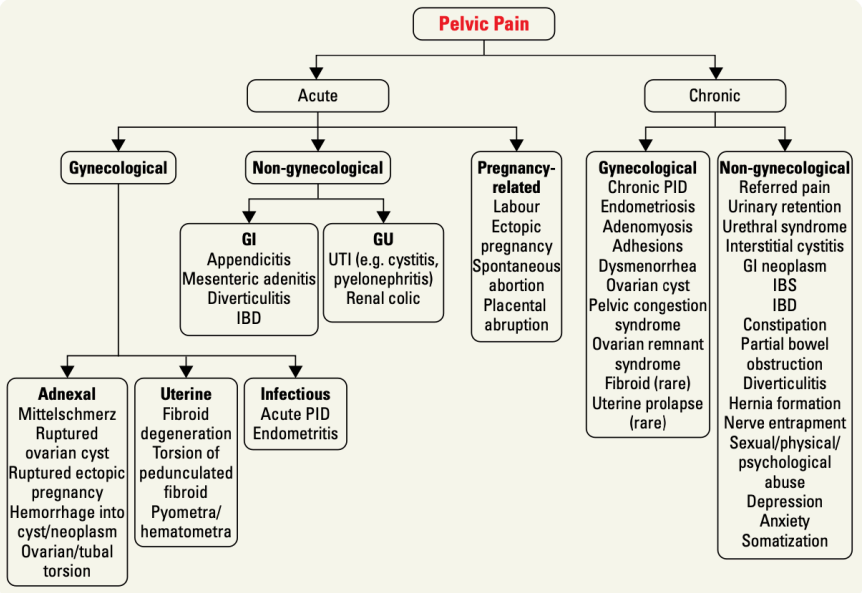
1) **IUD (mirena) = 1st line**
   a. **2nd line = cyclical oral progestogens** (e.g. 5mg norethirsterone tds from day 5-26) – esp. if risk factors for high E2 exposure (E.g. obesity, PCOS)
   b. **2nd line = cyclical estrogen (only if peri-menopausal)**
2) **If does not want OCP → ANTI-FIBRINOLYTICS**
   a. **TXA** (if not in pain) **+ NSAID/PPI** OR
   b. **Mefenamic acid** (if there is pain -NSAID component)
3) **Referral to secondary care if treatment unsuccessful**
   a. Endometrial ablation e.g. balloon thermal ablation
   b. Hysterectomy

Postcoital Bleeding

Postcoital bleeding (***PCB***) refers to bleeding after sexual intercourse. This is a ***red flag*** that should make you consider cervical and other cancers, although other causes are more common. Often ***no cause*** is found. The key causes are:

- Cervical cancer, ectropion or infection
- Trauma
- Atrophic vaginitis
- Polyps
- Endometrial cancer
- Vaginal cancer

Pelvic Pain



Complications of PID:

- Chronic pelvic pain – abscess, peritonitis
- Ectopic
- Infertility
- Septic arthritis, endocarditis

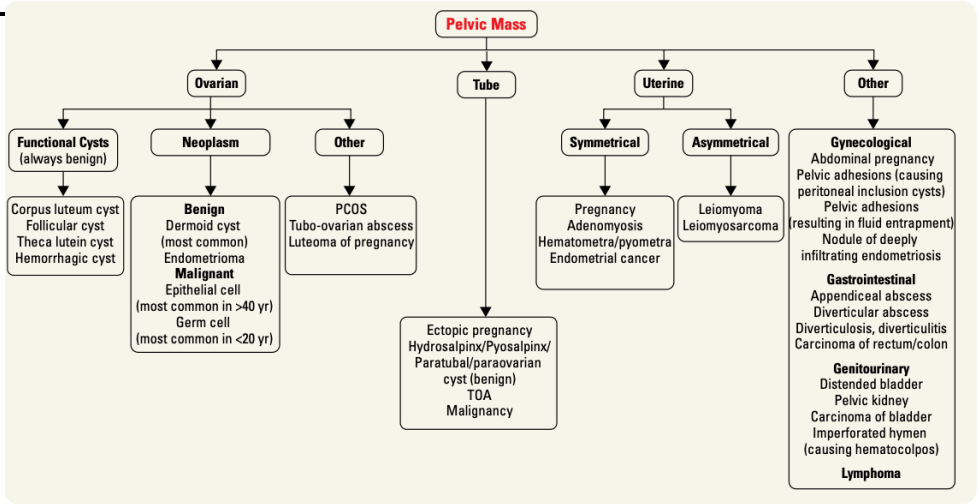
Toxic Shock Syndrome:

- MOF due to S. aureus exotoxin
- *RF:* tampon use, wound infections, post-partum infections
- *Sx:* high fever, sore throat, shock, skin peeling on palm and plantar surface
- *Rx:* Remove infective sources → debride necrotic tissue → B-lactamase ABx

Vaginal Discharge

- Bacterial vaginosis
- Candidiasis (thrush)
- Chlamydia
- Gonorrhoea
- Trichomonas vaginalis
- Foreign body
- Cervical ectropion
- Polyps
- Malignancy
- Pregnancy
- Ovulation (cyclical)
- Hormonal contraception

Pelvic Mass

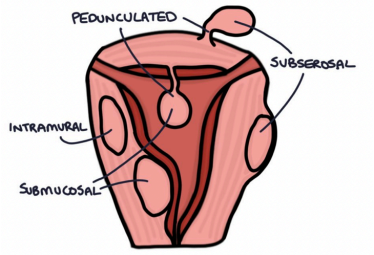
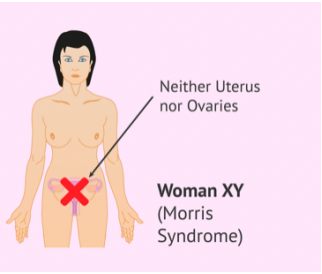


Pruritus Vulvae

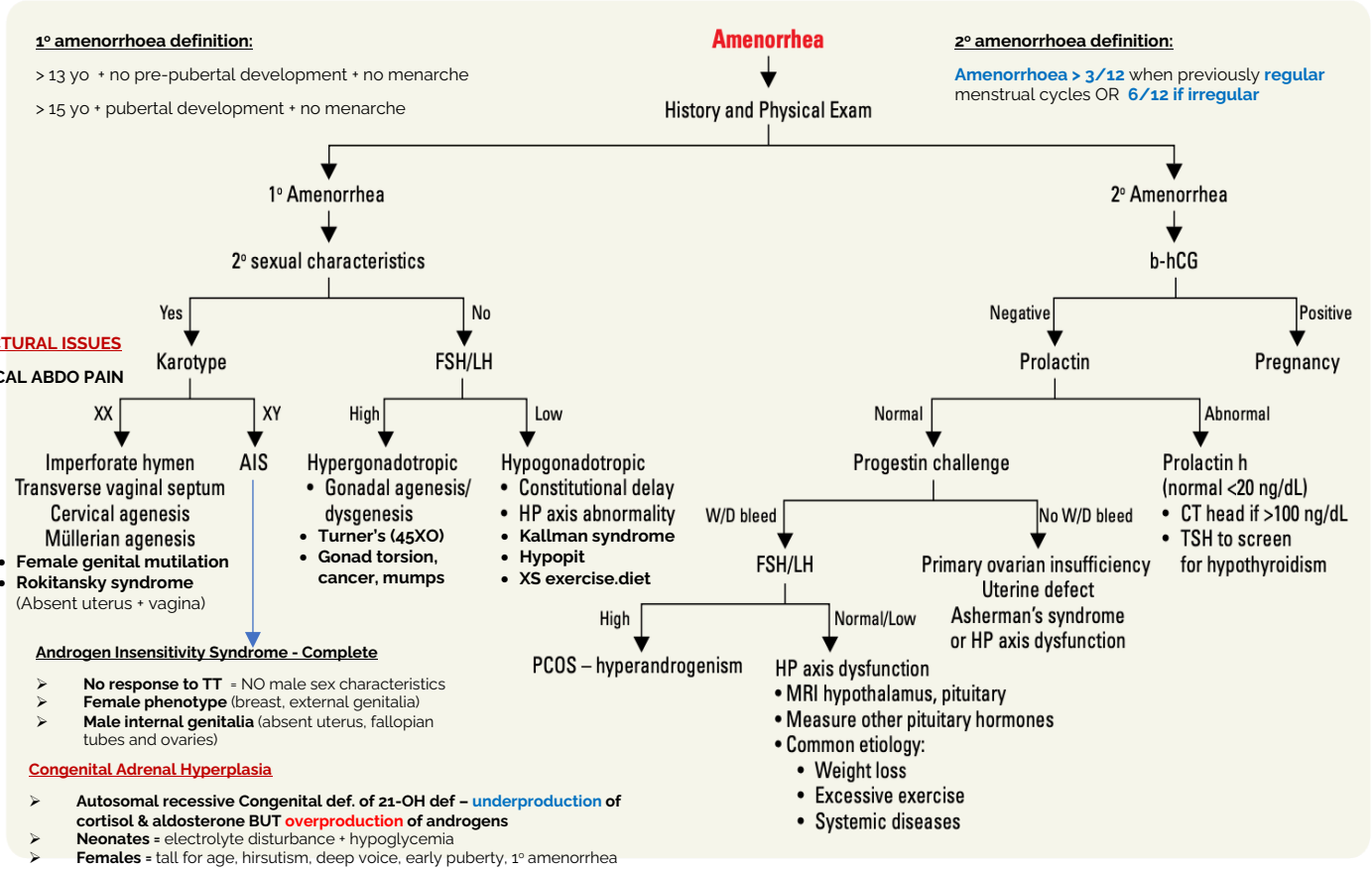
Pruritus vulvae refers to ***itching*** of the ***vulva*** and ***vagina***. There are a large number of causes:

- ***Irritants*** such as soaps, detergents and barrier contraception
- ***Atrophic vaginitis***
- ***Infections*** such as ***candidiasis*** (thrush) and pubic lice
- Skin conditions such as eczema
- Vulval malignancy
- Pregnancy-related vaginal discharge
- Urinary or faecal incontinence
- Stress

OFTEN MISSED

	PRE-MENSTRUAL SYNDROME	FIBROIDS	ANDROGEN INSENSITIVITY SYNDROME
Define	• Physical, emotional and psychological symptoms that occur during the **luteal phase of menstrual cycle (i.e. PRIOR TO ONSET OF MENSTRUATION)** • Assoc. w/ fluctuating E2/PG levels during menstrual cycle interacting with neurotransmitters w/ serotonin and GABA	Benign smooth muscle tumours in the uterus (uterine leiomyomas) • Very common = 40-60% of women • Estrogen sensitive 	**X-linked recessive genetic condition** where there is a lack of androgen receptors 
Sx	(1) affect and (1) somatic Sx in 5 days before menses: ***Affect Sx*** • Low mood, • Anxiety / irritable • Mood swings ***Somatic symptoms*** ➢ Fatigue ➢ Bloating ➢ Headaches ➢ Tender Breast pain ➢ Reduced libido	**Asymptomatic** ➢ Menorrhagia ➢ Abdo pain (worse on menstruation) ➢ Abdo fullness or bloating ➢ Urinary or bowel symptoms – pelvic pressure or fullness ➢ Deep dyspareunia **Exam** ➢ **Abdo and bimanual exam** Palpable large pelvic mass OR enlarged firm non-tender uterus	***Complete AIS (****testicular feminisation syndrome)* • ***46XY but phenotypically female*** • ***Male internal genitalia (testes)*** • ***NO female internal genitalia*** *– i.e. no uterus, fallopian tubes, ovaries, cervix or upper vagina* • ***Primary amenorrhoea*** • ***No secondary sexual characteristics*** ***Partial AIS*** ➢ ***Ambiguous genitalia (***micropenis or clitoromegaly) ➢ bifid scrotum, ➢ hypospadias ➢ diminished male characteristics.
DDx	• **Response to new COCP**	• Endometrial hyperplasia • Endometrial cancer	•
Ix	Symptom diary over 2 menstrual cycles ➢ Should demonstrate cyclical symptoms just before and resolve just afeter Definitive Dx: ➢ Specialist injection of GnRH to halt menstrual cycle to temporarily induce menopause and resolve symptoms	• Bimanual exam • Pelvic USS – esp. for larger fibroids • Hysterosocpy – best for **submucosal fibroids with HMB** • **MRI scanning – surgical planning (**i..e size, shape and blood supply of fibroids)	• Raised LH • Raised E2 (for male) • Normal FSH • Normal TT
Comp.	• Premenstrual dysphoric disorder (if PMS severely affects QoL)	• **Reduced fertility** • **Pregnancy issues** (PPROM, M/C, obstructive delivery) • **Red degeneration of fibroids** o Ischaemia, infarction and necrosis of fibroid o **Presents in pregnant women w/ hx of fibroids** → a fibroid rapidly grows causing severe abdo pain, low grade fever, tachycardia and vomiting • **Torsion of fibroids** (esp. pedunculated) • **Malignant change** (leiomyosarcoma -1%)	•
Mx	*Lifestyles* ➢ Healthy diet, PA, improve sleep ➢ Avoid smoking, alcohol, stress *Medications* ➢ **COCP** (Yasmin) or **cyclical progestogens** (if uterus present) ➢ **SSRI** (antidepressants) ➢ **Spironolactone** (Rx physical sx of PMS – e.g. breast swelling, water retention and bloating) ➢ **CBT** *Severe cases:* ➢ GnRH analogues (beware of OP) ➢ Hysterectomy or bilateral oophorectomy (induce menopause for definitive Rx) o **Cyclical HRT** = pre-menopausal o **PG only continuous** (if uterus) o **E2 only** (if no uterus)	*Fibroids < 3cm ➔ Medical management* ➢ *Mirena coil (1st line)* o *COCP* o *Cyclical oral progestogens* ➢ *Analgesia –NSAIDs* ➢ *Anaemia - TXA* *Fibroids > 3cm ➔ Surgical* ***Refer to gynaecology clinic*** ***1) Endometrial ablation (****balloon****)*** *2)* ***Uterine artery embolization*** *3)* ***Resection*** *(of submucosal fibroids during hysteroscopy)* ***4) Myomectomy vs Hysterectomy*** *a. Myomectomy (if fertility to be preserved)* *b. Hysterectomy (definitive mx for older patients)* **NB: consider use of GnRH agonists (e.g. goserelin – Zoladex to reduce size of fibroids* ***before*** *surgery* ➢ *Acts to temporarily reduce E2*	MDT approach ➢ Bilateral orchidectomy → remove testes to reduce risk of possible testicular cancer ➢ E2 therapy ➢ Vaginal lengthening /ballooning

AMENORRHEA (PRIMARY VS SECONDARY)



Investigations

Bloods
- FBC / Fe studies (anaemia)
- EUC (CKD)
- Anti-TTG, EMA (coeliac)

Hormonal
- B-HCG (exclude pregnancy_
- LH/FSH
- TFT
- PrL
- IGF-1 assay
- TT (?rasied in PCOS, AIS, CAH)

Genetic test
- Microarray test
- Chromosomal tests

Imaging
- XR wrist (constitutional delay)
- Pelvic USS (anatomical anomalies of ovaries and pelvic organs)
- MRI brain (pit tumour or olfactory bulb – Kallman)

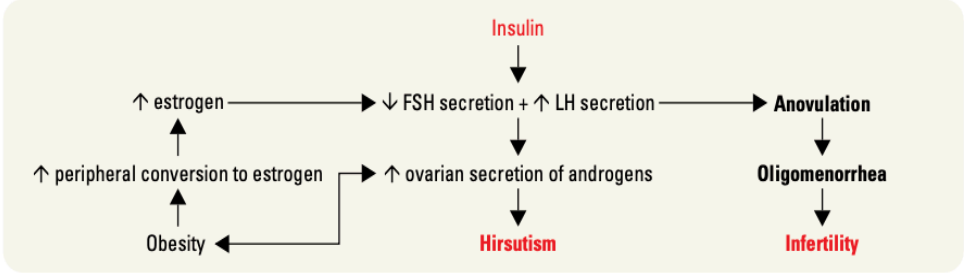
Management

Constitutional delay
- Conservative – watch and wait
- Reassure that child will also reach adult expected

Hormonal replacement
- PCOS ➔ Metformin + COCP (use anti-androgens – e.g. diane 35mg)
  - Allow for withdrawal bleed 3-4/12 to minimise risk of endometrial hyperplasia and cancer
- Hypogonadotropic hypogonadism ➔ pulsatile GnRH
- Endocrine issue ➔ thyroxine, octreotide

For XS stress, dieting
- Reduce stress
- CBT
- Healthy weight gain

Osteoporosis Prophylaxis (esp. if amenorrhoea > `12 mths)
- Adequate Vit D and Ca intake
- HRT or COCP



COMMON OVARY ISSUES

	PREMATURE OVARIAN INSUFFICIENCY	POLYCYSTIC OVARIAN SYNDROME	OVARIAN CYSTS	OVARIAN TORSION	MENOPAUSE
Define	Menopause before 40yo and decline of ovaries at an early age	**Disease of unknown origin = hormonal imbalance**	***Squamous epithelium of ectocervix **covers** mucus secreting columnar epithelium of endocervix ➢ mucus trapped to form cyst on cervix surface	Ovary twists in relation to surrounding CT, fallopian tube and blood supply (adnexa)	1. **True meno > 45 and amenorrhoea > 12 mth** 2. premature menopause < 40yo 3. early menopause < 45 yo
Causes/ DDx	• **Idiopathic (50%)** • **Iatrogenic** (Chemo, RT or surgery – oophorectomy) • **Autoimmune** (coeliac, T1DM, thyroid, adrenal insufficiency) • **Genetic** (Turner's, FHx)) • **Infections** (e.g. TB, mumps, CMV)	• Idiopathic (50%) DDx: ➢ Cushing's syndrome ➢ Hypothyroid ➢ Prolactinoma ➢ 21-0H def (CAH)	**Functional ovarian cysts** (assoc. to menstrual cycle) ➢ Follicular cysts ➢ Corpus luteum cysts ➢ Dermoid cysts ➢ Pre-meno cysts = benign ➢ Post-meno cysts = ovarian malignancy **Risk Factors:** High E2 (early menarche, late meno, nulliparious, COCP/HRT)	• **Ovarian mass > 5cm** (e.g cyst and tumour) • **Younger girls** (before menarche) – have longer infundibulopelvic ligaments can twist more easily	*1) Degenerating thecal cells → reduced E2* *2) NO -ve feedback* 3) ↑ *FSH/LH* **4)** *stromal cells produce androgen (LH stimulation)* **DDx:** ➢ **Endo** (hyperthyroid, pheo, carcinoid syndrome) ➢ **Chronic infection** ➢ **Malignancy**
Sx	• **Irregular menses** • **Secondary amenorrhoea** • **Menopausal sx** (hot flush, NS, vaginal dryness)	**Rotterdam Criteria (2 out of 3)** ➢ **Ovarian Hyperandrogenism** (HIGH FAI)→ **hyperinsulinemia** (male alopecia, acne, hirsutism, acanthosis nigricans) ➢ **Oligo/amenorrhea** (LH:FSH > 2) – w/ irregular periods ➢ **TVUS - Polycystic ovaries** (> 12 immature follicles or volume > 10cm³ without cysts)	• Pelvic pain • Abdo bloating • Abdo fullness • **Palpable pelvic mass** (e.g. large cysts such as mucinous cystadenomas) **Meig's syndrome** = ascites, effusion + ovarian mass	• **Ischaemic pain** (disproportionate to clinical findings) • **Sudden onset severe unilateral pelvic pain** • N/V • +/- localised tenderness and palpable mass in pelvis • **Peritonitis signs**	**Estrogen deficiency causes**: **Vasomotor** (↑*neurokinin B neurons*) – Hot flush, NS, sleep disturbance, skin formication **Urogenital atrophy** – Dyspareunia, post-coital bleed, pruritus, vaginal dryness, FUN **MSK** – myalgia, arthralgia OP **Skin** – Loss of elasticity **Psych** – A+D, reduced libido
Ix	**Hypergonadotropic hypogonadism (peripheral)** ➢ High FSH/LH ➢ Low E2/TT	**Bloods** ➢ FBC ➢ EUC ➢ SHBG (sex hormone binding globulin) ➢ LH/FSH > 2 ➢ TT/E2 (raised) ➢ PrL ➢ TFT ➢ **OGTT** **Imaging – TVUS –"string of pearls"** Best for young adults (not adolescents)	**Bloods** ➢ FBC ➢ LDH, A-FP, HCG **CA-125 (raised) – ddx** ➢ Endometriosis ➢ Fibroids ➢ Adenomyosis ➢ Pelvic infection ➢ Liver disease ➢ Pregnancy **USS findings** ➢ Cystic mass	**Bloods** ➢ FBC ➢ Coags ➢ Group + X-match ➢ ABG **Pelvic USS (TVUS = best)** "whirlpool sign", free fluid in pelvis and oedema in ovary **Laparoscopic surgery** (definitive dx)	**FSH blood test** to diagnose:: ➢ **Women < 40yo** w/ suspected premature menopause **OR POI** ➢ **Women 40-45** w/ menopausal symptoms **Other** ➢ FBC, EUC, LFT, Fasting lipids/BSL and HbA1C ➢ **TSH, Vit D, Fe, CMP** ➢ B-HCG ➢ Bone mineral density (DEXA) ➢ STI check ➢ CST, MMG and skin screening
Comp.	• CVD, stroke • OP • Cognitive impairment • Dementia • Parkinson's	• Infertility • Insulin resistance (T2DM) • CVD + dyslipidaemia • Endometrial hyperplasia and cancer • OSA • Depression + anxiety	• **Ovarian torsion** • **Haemorrhage cysts** • **Cyst rupture** → bleeding into peritoneum • **Ovarian malignancy**	**Necrotic ovary** ➢ Infected → abscess ➢ Sepsis **Ruptured ovary** ➢ Peritonitis ➢ adhesions	➢ **Osteoporosis = +++ risk of minimal trauma #** ➢ **CVD risks** ➢ **Breast, cervical and bowel Cancer** ➔ **CST, MMG, colonoscopy**
Mx	**HRT** ➢ **Cyclical PG** (if uterus or perimenopausal) ➢ **E2 only or COCP** (if no uterus OR post-meno) **CI for HRT** ➢ Active or hx of breast cancer ➢ VTE esp if < 50yo ➢ Pregnant	**Cycle control** • **Diet** (low fat), +++PA = ↓BMI • **Metformin** (↓BSL, regular periods) → GI upset • **Orlistat (lipase inhibitor)** → stop fat absorption = ↓ wt • **TXA** (if menorrhagia) **Hirsutism** • **↓BMI** • **OCP (Diane-35)** – anti-androgen or Yasmin (spironolactone analogue) • **Finasteride** (5a -reductase inhibitor) • **Laser hair** removal or mechanical plucking of hair **Infertility** • Induced ovulation (letrozole) • Bromocriptine (if hyperprolactinemia • Ovarian drilling (lap surgery) via diathermy or laser	**Refer to guidelines** < 5cm simple cyst ➢ No FU ➢ Pelvis US in 10 wks 5-10cm simple cyst ➢ Pelvis US in 10 wks 10cm simple cyst ➢ Gynae review **When gynae referral?** ➢ Pre-menopausal Cyst < 10cm ➢ Cannot cope with pain ➢ Cyst torsion **Rx: ovarian cystectomy +/- oopherectomy**	*ED admission* ➢ *ABCDE* ➢ *Urgent referral to O+G* ***Laparoscopic surgery*** ➢ *De-torsion = untwist ovary and fix it in place* ➢ *Oopherectomy – remove affected ovary*	**Lifestyle changes** i(diet, PA, smoking) ➢ Use a cooling fan ➢ Primrose oil **Vasomotor** ➢ **Avoid trigger** = spicy food, caffeine, stress, alcohol ➢ **1st line** = cyclical HRT ➢ **SSRI –** 10-20mg escitalopram od **Urogenital atrophy** • Cotton/natural underwear • Local E2 cream (Premarin) • Reduce BMI + bladder retrain • Vaginal lubrication + counsel ***MSK control*** • 1000mg vit D, 1000IU Ca • Bisphosphonates • Denosumab (prolia 3/12 SC) ***Psych symptoms control*** • Yoga, aerobics • **CBT + SSRI** (e.g. fluoxetine) **Contraception (prevent fertility)** ➢ Sexual counselling ➢ 2 years after LMP for < 50yo ➢ 1 year after LMP for > 50 Offer mirena IUD, POP, Depot, barrier methods and sterilisation

ALWAYS EDUCATE
- ➢ JeanHales
- ➢ NSW family planning
- ➢ F/U in 1-2 weeks to check for A/E in response

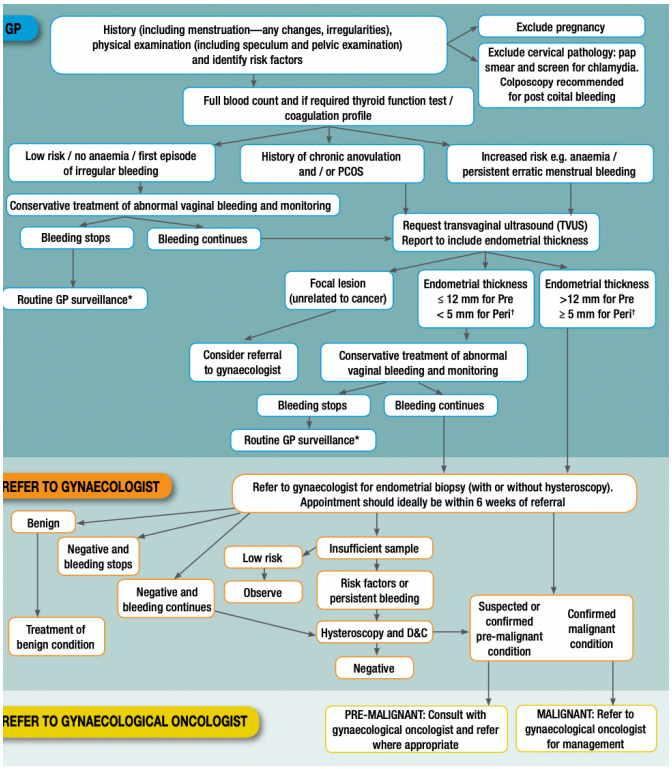
Diagnostic pathway for a patient presenting with post-menopausal PV bleeding.

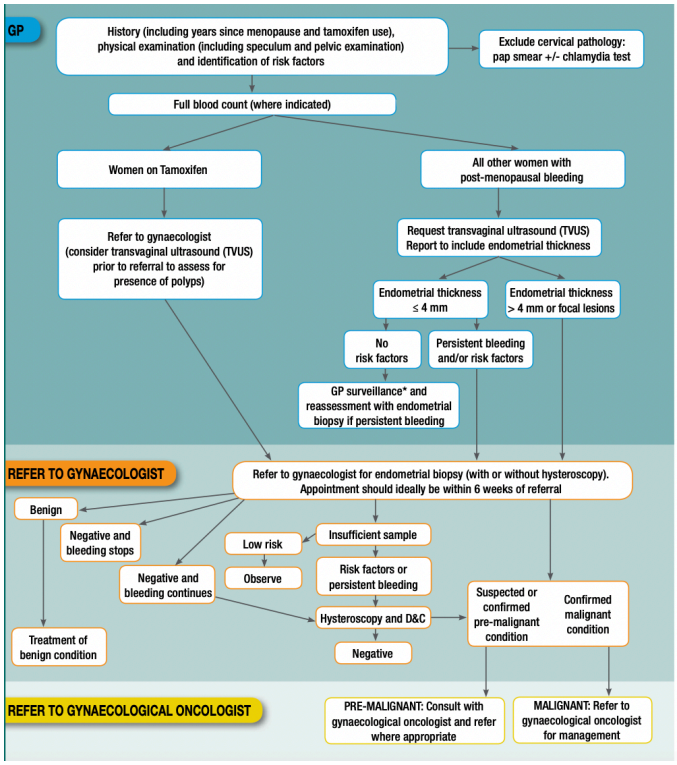
Vaginal Bleeding in Pre or peri-menopausal women

- ***Pre-menopause*** = continuation of regular menstrual cycles w/o changes in the Sx of menstruation transition or hormonal variability.
- ***Peri-menopause***: about or around the menopause. The average length of this stage is 5 years. Cyclic irregularities increase as women enter this stage with prolonged ovulatory and anovulatory cycles. Levels of FSH and oestradiol oscillate frequently with decreasing luteal function.

Vaginal Bleeding in POST-menopausal women

- *__Post-menopausal bleeding__ = spontaneous vaginal bleeding that occurs more than one year after the last episode of bleeding.





Risk factors for endometrial cancer include:

- History of chronic anovulation
- Exposure to unopposed oestrogen (COCP, HRT)
- Polycystic ovary syndrome (PCOS) associated with chronic anovulation
- Exposure to tamoxifen (SERM)
- Strong family history of endometrial or colon cancer (Lynch syndrome)
- Nulliparity
- Obesity (often with diabetes and hypertension)
- Endometrial thickness > 8mm (if post-menopausal)

Investigations include

- Pelvic exam mandatory
- Vaginal speculum exam mandatory
- FBC + ferritin levels Mandatory
- Only if indicated -TFT, coags,

Investigations include

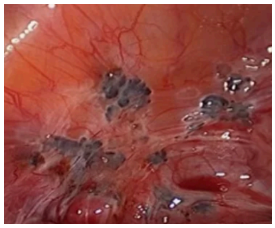
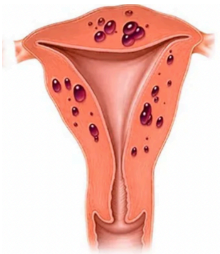
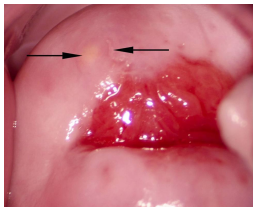
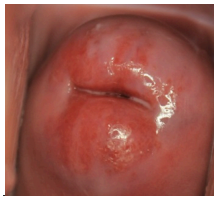
- Pelvic exam mandatory in all post-meno women w/ PV bleed
- TVUS should request endometrial thickness by GP
- Endometrial Biopsy = by specialist (if >4mm thickness = biopsy needed)

PRACTICE POINTS

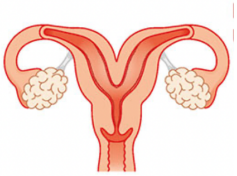
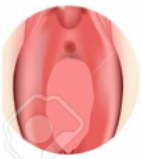
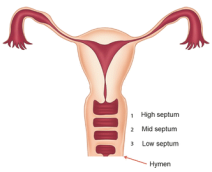
Tamoxifen	• **Hysteroscopy + Endometrial biopsy** required as TVUS has poor sensitivity and specificity for neoplasia in women taking tamoxifen
HRT	• Vag bleed or spotting may be normal A/E • Abnormal if bleeding persists **> 6/12 OR if bleeding occurs outside time of progestin withdrawal**
Yellow vaginal D/c	• Does NOT suggest malignancy

HRT indications & benefits	RISKS	Contraindications
➢ Replacing hormones in **POI** (even if asymptomatic) ➢ Reduce vasomotor sx in **menopause** ➢ **Improve sx** of low mood, reduced libido, poor sleep and jt pain ➢ **Reduce OP and fractures** risk in women < 60 and low BMD **Refer to guidelines for specific regimes** 1) E2 transdermal patch = best to minimise VTE 2) Mirena coil best to provide PG + contraception and HMB (less side effects of PG)	• **+Breast cancer (**esp. BRCA mutation) • **+ endometrial cancer** (esp. if on tamoxifen) → add cyclical PG to reduce risk given 10-14 days/mth • **+ VTE** → use transdermal patches NOT pills to reduce risk (local vs systemic effect) • **+ stroke and CAD (STEMI)**	• Unexplained PV bleeding • Endometrial hyperplasia • Breast cancer • Uncontrolled HTN • VTE /SLE • Acute Liver disease • Active angina or MI • Pregnancy • Stop 4 weeks before major surgery

STRUCTURAL GYNAECOLOGICAL ISSUES - UTERUS & CERVIX

	Endometriosis	Adenomyosis	Asherman's syndrome	Nabothian Cysts / follicles	Cervical Ectropion / erosion
Define	Ectopic Endometrial tissue **outside** of uterine cavity (*inside* = adenomyosis) 1. **Inflammation** = toxic to gametes and embryos 2. **Mechanical obstruction / adhesions** → occludes tubes and ovaries **Mostly ovaries affected (60%),** broad ligament, cul-de-sac, uterosacral ligaments	Endometrial tissue **within myometrium** of uterus ➢ 10% of all women ➢ Hormone dependent	Adhesions (synechiae) form within uterus secondary to uterus damage /trauma ➢ Damaged tissue heals abnormally creating adhesions that bind uterine walls together	Fluid filled cysts on surface of cervix …Squamous epithelium of ectocervix **covers** mucus secreting columnar epithelium of endocervix – mucus trapped to form cyst	When columnar epithelium in endocervix extends out into ectocervix ➢ Endocervix cells more fragile /prone to trauma
Rf	➢ **FHx, >25yo** ➢ **nulliparous** ➢ FHx of endometriosis	➢ Older maternal age ➢ Multiparious	➢ D+C for ectopic, retained POC (M/C) ➢ Post-op uterine surgery (e.g myomectomy) ➢ PID, endometritis	➢ Post-childbirth ➢ Minor cervix trauma ➢ Cervicitis (secondary to infection)	High E2 states • Young women • COCP • Pregnancy
Sx	• Irregular menses bleed (IMB, HMB) • **Cyclical abdo/ pelvic pain w/ N/V** o Deep Dyspareunia o Pain on defecation o Dysuria o Dysmenorrhea • **Bowel and urinary Sx**	➢ **Cyclical abdo pain** ➢ **Dysmenorrhea** ➢ **Menorrhagia** ➢ **Dyspareunia**	➢ **Secondary amenorrhoea** ➢ **Sig. lighter periods** ➢ **Dysmenorrhea**	**Asymptomatic – incidental finding** • Smooth rounded bumps on cervix (near os) • 2mm to 30mm	Most asymptomatic • Post-coital bleeding • PV discharge • Dyspareunia
Ix	**Speculum exam** ➢ Endometrial tissue on vagina ➢ Fixed cervix ➢ Tender adnexa **Pelvic USS** **Laparoscopic surgery** (gold-standard for dx and biopsy)	• **TVUS** (1st line) • **MRI or Trans abdo USS** (if TVUS not suitable • **Histological exam** (gold standard for dx)	• **Hysteroscopy** (hold-standard) • **HyCoSy** – visualise uterine anatomical changes • **MRI scan**	Speculum exam ➢ **Raised discoloured appearance**	Speculum exam **Redder columnar epithelium surrounded by Pale pink squamous epithelium of ectocervix**
Comp.	• Fe def. anaemia • Infertility - **Mechanical obstruction / adhesions** • Asherman's syndrome	• **Infertility** • **Pregnancy issues** (M/C, pre-term, SGA, PPROM, LSCS, PPH, malpresentation)	Infertility	None	None
Mx	**Medical Rx** • NSAID/panadol • **1st line** = cHRT (OCP) or **mirena** • **2nd line** = GnRH agonist (Lupron) – suppress pituitary (A/E = menopause Sx) **Surgical Rx:** Laparoscopic adhesiolysis and excise/ablate endometrial tissue OR Laparoscopic bilateral salpingo-oopherectomy +/- hysterectomy ➢ **Ovaries removed** = induced menopause to stop endometrial tissue response **NB: consider use of GnRH agonists (e.g. goserelin – Zoladex to reduce size of fibroids **before** surgery* ➢ *Acts to temporarily reduce E2* ➢ **Risk of OP, hot flush, NS**	**Similar to HMB** **IUD (mirena) = 1st line** ➢ COCP or cyclical oral progestoegns (e.g. 5mg norethirsterone tds from day 5-26) If does not want OCP → **ANTI-FIBRINOLYTICS** ➢ **TXA** (if not in pain) OR ➢ **Mefenamic acid** (if there is pain -NSAID component) **Referral to secondary care if treatment unsuccessful** ➢ Endometrial ablation e.g. balloon thermal ablation ➢ Uterine artery embolisaiton ➢ Hysterectomy	**Surgical adhesiolysis** ➢ Completed during hysteroscopy **Advise that adhesions often recur**	**Reassure** ➢ Refer to colposcopy clinic if uncertain ➢ May be excised or biopsied	*If asymptomatic* ➢ None ➢ *Self-resolves with age or after pregnancy* *If problematic bleeding* ➢ *Cauterisation w/ silver nitrate during colposcopy*
					

STRUCTURAL GYNAECOLOGICAL ISSUES -Vagina

	Atrophic Vaginitis	Bartholin's cyst	Lichen Sclerosis	Female Genital Mutilation	Structural abnormalities
Define	Dryness and atrophy of vaginal mucosa due to **lack of estrogen** ➢ Genitourinary syndrome of menopause	Blocked ducts of Bartholin's glands located on posterior part of **vaginal introitus (opening)** ➢ **Usu. mucus vag lubrication**	**Chronic inflammatory skin condition** affecting labia, perineum and perianal skin in women OR foreskin and glans of penis	*Surgically changing genital of females for **non-medical reasons*** ➢ *Occurs in girls before puberty* ➢ *Child abuse* ➢ *Safeguarding issue*	***Paramesonephric ducts** (Mullerian ducts) form the upper vagina, cervix, uterus and fallopian tubes [**due to absence of AMH**]*
RF	➢ Menopause ➢ Low E2	• Idiopathic	***Autoimmune associations*** *(e.g. T1DM, alopecia, hypothyroid and vitiligo)*	• *Pregnant women with FGM having female child* • *Sibiling/daughters of women or girls affected by FGM* • *Women declining examination or cervical screening* • *New patients from communities that practise FGM*	***Bicornuate uterus*** • *2 horned uterus on pelvic USS* • ***Comp:*** m/c, pre-term birth, malpresentation • ***Rx:*** none 
Sx	• Itchy • Dry vagina • Thinned skin – easy bleeding • Dyspareunia **Exam** ➢ Pale mucosa, thin skin ➢ Reduced skin folds ➢ Inflammation and dryness ➢ Sparse pubic hair	Tender swollen unilateral fluid filled cyst ➢ Fluctuant mass ➢ Trans-illuminable ➢ Posterior part of introitus	45-60yo women with: ➢ Vulva itching ➢ Skin changes (erosions, fissures) ➢ Dyspareunia ➢ Vulva soreness and pain esp. at night **Koebner phenomenon** (Sx worse by skin friction) ➢ "porcelain white" ➢ shiny tight thin ➢ slight raised skin	***4 TYPES*** • ***Type 1*** *= remove clitoris* • ***Type 2*** *= remove clitoris and labia minora /majora* • ***Type 3*** *= narrowing /closing vaginal orifice (**infibulation**)* • ***Type 4*** *= all other procedures on female genitalia*	***Imperforate Hymen*** • *Hymen (vagina entrance) not fully formed* • ***Comp:*** 1° amenorrhea – retrograde menstruation = endometriosis • ***Rx:*** surgical excision to open hymen  Imperforate
Ix	Clinical Dx	Clinical Dx ➢ ?Vulva biopsy (exc. SCC)	Clinical Dx ➢ ?Vulva biopsy (exc. SCC)	Clinical Dx	
Comp.	• Pelvic organ prolapse • Stress incontinence • Recurrent UTIs	Infected cysts ➢ Abscess (hot, tender, warm) ➢ E. coli most common cause	• 5% risk of vulva SCC • Sexual dysfn • Bleeding • Pain • Discomfort • Narrowed vaginal or urethral openings	• *Child abuse & Safeguarding* • ***Pain & PV Bleeding** – dysmenorrhoea & dyspareunia* • ***Infection** (pelvic. vaginosis)* • ***Urethral damage** – urinary incontinence , UTIs* • **Infertility** • **PTSD + depression**	***Transverse vaginal septae*** • *Congenital abnormality where septum forms transversely across vagina* • ***Septum** may be perforate (hole) or imperforate (sealed)* • ***Comp:*** infertility, M/C • ***Rx:*** surgical correction (beware vaginal stenosis and recurrence of septae) 
Mx	Vaginal lubricants ➢ e.g. sylk, Replens Topical estrogens ➢ estriol cream ➢ estriol pessaries (inserted bedtime) *CI = system HRT, breast cancer, angina or VTE	*Conservative* ➢ Self-resolve w/ analgesia, good hygiene and warm compresses *Abscesses* ➢ ABx ➢ Swab pus M/C/S (test for C+G, e coli) ➢ **Surgical excision and drain** (via word balloon catheter or marsupialisation)	**NO cure** ➢ Dermatologist refer (3-6/12 follow up) ➢ **Potent topical steroids** (e.g. clobetasol propioinate 0.05%) od for 4 weeks ➢ Regular emollients	**Mandatory reporting** ➢ Social services ➢ Paediatrics ➢ Specialist gynaecology or FGM services ➢ Psychological counselling *possible de-infibulation for type 3 FGM	***Vaginal hypoplasia / agenesis*** • *Small or absent vagina due to improper Mullerian duct development* • ***Comp:*** infertilty • ***Rx:*** Vaginal dilator long-*term to create adequate size vagina*