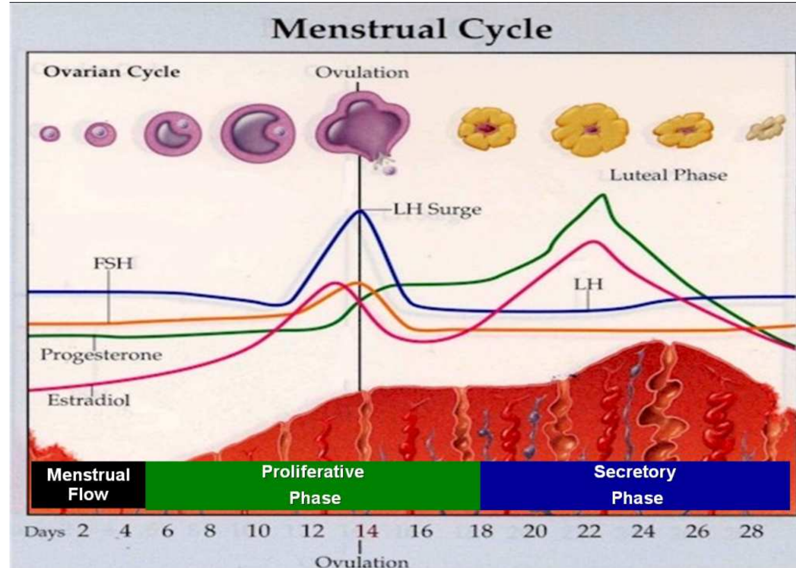
Abnormal Menstruation

Normal menstruation

- This is the monthly cycle of uterine lining shedding when implantation of a fertilized ovum does not occur. Doesn't require ovulation.
- Normal menstrual loss is about 35ml per day for 4-5 days per 25-30 day cycle.
- Menarche = First menstrual period. Ave: 13y (8-18y)
- Menopause = Cessation of menstrual cycles.



Range of problems

- Quantity; usually perceived as too great a loss – menorrhagia >80mls blood lost per menstruation.
- Timing; too frequent (polymenorrhoea - more than one period per calendar month) or infrequent (oligo-amenorrhoea)
- Duration of bleeding; normal range is 3-7 days
- Painful - dysmennorhoea
- Time of onset; precocious puberty (before 8-10y) or delayed (after 16-18y)

Organic causes of abnormal bleeding

Non-reproductive causes

- Coagulopathy e.g. vWD or prothrombin deficiency, leukaemia, ITP & hypersplenism, drugs.
- Hypothyroidism – often associated with menorrhagia or intermenstrual bleeding.
- Cirrhosis – associated with hypoprothrombinaemia & ↓metabolism of oestrogens.
- Trauma

Diseases of the reproductive tract

- Pregnancy - related bleeding (e.g. miscarriage, ectopic, abruption, post-partum)
- Malignancies – endometrial and cervical carcinoma most common, also ovarian carcinoma.
- Endometritis – usually presents as intermenstrual spotting.
- Fibroids, endometrial polyps and adenomyosis.
- Cervical lesions – erosions, polyps and cervicitis; presenting as post-coital spotting.
- Iatrogenic – hormonal Rx (e.g. contraception or HRT). Some psychotropic drugs.

Assessment

History: O&G history (menarche, cycle details, est. blood loss, sexual activity, obstetric Hx, contraception, vaginal d/c, post-coital bleeding, dyspareunia, menstrual diary), drugs, smoking.
Examination: Abdominal/vaginal examination indicated if sexually active. Imperforate hymen.
Investigations: Urine/serum β-hCG, G&H, FBC, coags, TFT, cervical swabs, USS

Dysfunctional uterine bleeding

Definition

Abnormal uterine bleeding without organic disease. Often menorrhagia. >90% anovulatory cycles with failure of follicle maturation. Dx of exclusion, more common at menarche & perimenopause.

Investigations

Bloods: β-hCG, FBC, iron studies/TFT/hormone profile/coags/LFT/G&H (if indicated)
Imaging: hysteroscopy, or transvaginal USS if ↑risk of carcinoma (e.g. FHx of endometrial or colonic Ca, nulliparity, obesity, tamoxifen or unopposed oestrogen Rx, abnormal smear, PCOS).
Special: Luteal phase serum progesterone to determine if ovulating.

Management

Acute severe bleeding: Resus. 2 x IVC, **Premarin** (conjugated oestrogens) 25mg IV q6h or **norethisterone** 10mg PO q2hr x4 then 5mg tds x 14d. May need **iron**.
Chronic Rx:

- First line: Levonorgestrel-releasing intrauterine system (**Mirena®**) (at least 12 months)
- Second line: **Tranexamic acid**, NSAIDs (**mefenamic acid**), or combined OCP.
- Third line: oral progesterone e.g. **norethisterone** 15mg od on day 5 to 26 of cycle or injected long-acting progestogens (**Depo-Provera®**).

Surgical (if sev, Rx failed, avoiding conception, normal uterus): D&C, endometrial ablation or hysterectomy

Dysmenorrhoea

Low anterior pelvic pain associated with periods. May be due to a release of PGs & LTs → vasoconstriction in the uterine vessels → uterine contractions → pain. May also → GIT upset.
Primary Dysmenorrhoea

- Young females with no pelvic pathology. Pain with period onset.

Secondary Dysmenorrhoea

- Associated with some form of pelvic pathology. Pain precedes period by several days.
- Causes: fibroids, adenomyosis, endometriosis, PID, adhesions, dev abnormalities.

Epidemiology

- Dysmenorrhoea is very common (>50% life time incidence)
- RF: Nulliparity, early menarche, smoking and lengthy periods, depression.

Assessment (As above)

Investigations

Urine: Urine for gonococcal & Chlamydia PCR.
Bloods: βhCG
Imaging: USS if masses felt incl enlarged uterus, laparoscopy±biopsy or CT/MRI
Other: HSV/Cervical swabs, cervical smear

Management

Supportive: Stop smoking, ↑exercise & ↓EtOH, tea, warmth to abdomen, massage, lying supine, supplements (some evidence for Ca and Mg, thiamine, fish oil), TENS, acupuncture, acupressure
Medical

- NSAIDs (e.g. **ibuprofen**, **mefenamic acid**) ± OCP are often first line
- **Mirena®** - levonorgestrel intrauterine device (for 12+ mo) or **Depo-Provera** – 2nd line
- **Danazol** or **leuprolide acetate** – rarely in the treatment of severe refractory cases.

Surgery (if sev & refractory): Laparoscopic uterine nerve ablation (LUNA), Hysterectomy