

Investigations:

- **Pelvic US (rule out structural causes/contributors, e.g. fibroids, polyps)**
- **Labs**
 - **CBC, ferritin** (to assess for iron deficiency anemia)
 - **Serum hcg** (always rule out pregnancy)
 - **Day 3 FSH/LH/estradiol** (rule out primary ovarian insufficiency, assess for LH:FSH ratio- classically >2 in PCOS)
 - **TSH** (rule out hypothyroidism)
 - **Prolactin** (rule out hyperprolactinemia)
 - **Total and free testosterone, DHEA, androstenedione, HbA1c OR fasting insulin/glucose, 17-OH-P** (if suspect PCOS/CAH)
- **Endometrial biopsy** based on risk factors (Age >40, >6 months of irregular bleeding, obesity, PCOS, lack of response to treatment, family history of relevant malignancies (uterine, colon for Lynch Syndrome))

Hormonal medical options

- **Combined OCP/patch/ring (cyclic or extended cycle)**
 - Dominant progestin therapy
 - Oral estrogen has side benefit of improving hirsutism/acne in PCOS (via ↑ SHBG)
 - Consider VTE risk factors (age, obesity), and counsel on risk (RR ~3, AR ~1/1000)
- **Continuous oral progestins**
 - E.g. Dienogest 2 mg po daily (off label), new drospirenone-only POP (Slynd)
 - Inhibit ovulation and provide cycle control in patients with C/O oral estrogen
 - ****Norethindrone 0.35 mg (Movisse) is not potent enough progestin to improve heavy AUB in most patients**
- **Mirena IUD**
 - 80% reduction in menstrual blood loss, ~20% will achieve amenorrhea after 1 year of use, 50% infrequent or no bleeding
 - Potent endometrial protection
 - FDA approved for 8 years for contraception, 5 years for bleeding control
 - ****Important to counsel on irregular bleeding in first 3-6 months of initiation of any progestin therapy****
- **Cyclic progestins**
 - Good option for patients seeking pregnancy, or with preference for intermittent therapy/cycle tracking
 - Recommend baseline pregnancy test before each cycle
 - **Medroxyprogesterone acetate (Provera)** 5-30 mg po (start at 5 or 10 mg dose)
 - **Norethindrone acetate (NETA)** 5-15 mg po (start at 5 mg dose)
 - **Micronized progesterone** 200 mg po at HS [“natural” progesterone appeals to many, some may tolerate better if side effects with synthetic progestins, but note less potent endometrial effects than synthetic]
 - **Take for 10-14 days every 1-2 months, expect withdrawal bleed within 3-5 days of stopping**

Non-hormonal medical options to consider

- **Tranexamic acid**
 - 1g po QID during days of heavy bleeding, up to 5 days consecutive
 - Can reduce menstrual blood loss by ~40%
 - Generally well tolerated
 - Theoretical risk of VTE but studies of intermittent prn dosing above have not confirmed this (safer than oral estrogen!)
- **Iron supplementation (po or IV)**
- **Metformin (in PCOS)**
 - Second line to OCP for cycle control/hirsutism, but can be used +/- hormonal therapy; may help improve menstrual cyclicity for women with PCOS with metabolic syndrome
- **Inositol** (in PCOS- OTC natural supplement with some small RCT data that suggests some benefit in cycle regulation)