MENO – METRO – OLIGO

a simplified approach to abnormal uterine bleeding

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Disclaimers

Background: Family physician practicing in GMF-U, Obstetrics and Family Planning clinic (including some Gynecological consultations); completed 6 month fellowship in Family Medicine Enhanced Skills in Women's Health (Queen's University)

No conflicts of interests to declare

Learning objectives

At the conclusion of this session, participants will be able to:

1) Identify what constitutes abnormal uterine bleeding across the age groups

2) Use a simplified and systematic approach to abnormal uterine bleeding in order to clarify the possible causes

3) Propose an appropriate treatment for abnormal uterine bleeding according to the etiology

4) Troubleshoot specific situations of bleeding caused by exogenous hormones (such as hormonal contraception and hormone replacement therapy)

What is abnormal uterine bleeding?

First: define “normal” uterine bleeding/menstrual cycle

What is normal uterine bleeding?

Normal menstrual cycle:

- 24 to 38 days between cycles (first day to first day of menstruations)
- 8 days or less of bleeding

Median age menarche: 11.6 – 12.5 years old (variation in different ethnic groups)

- 2-2.5 years post-puberty onset
- Early menarche usually considered less than 12 years old

Median age menopause: 51.4 years old

- Early menopause: 40-45 years old
- Premature ovarian failure: less than 40 years old

What is abnormal uterine bleeding?

Basically everything else!

- Cycle longer 38 days or shorter than 24 days
- Menstrual bleeding lasting more than 8 days
- Heavy menstrual bleeding (different definitions – see following slides)
- Any bleeding outside of regular menstrual cycle (including intermenstrual bleeding, post-menopausal bleeding)
- Amenorrhea (defined as absence of menstruations x 3 consecutive months in a pre-menopausal woman or absence of menstruations as of 15 years old)

- Chronic AUB = at least 6 months duration

FIGO: AUB classification

Parameter	Normal	Abnormal	☑
Frequency	Absent (no bleeding) = amenorrhea		☐
	Infrequent (>38 days)		☐
	Normal (≥24 to ≤38 days)		☐
	Frequent (<24 days)		☐
Duration	Normal (≤8 days)		☐
	Prolonged (>8 days)		☐
Regularity	Normal or "Regular" (shortest to longest cycle variation: ≤7-9 days)*		☐
	Irregular (shortest to longest cycle variation: ≥8-10 days)*		☐
Flow Volume (patient determined)	Light		☐
	Normal		☐
	Heavy		☐

Heavy menstrual bleeding (NICE) = interferes with patient's quality of life
(in literature: arbitrary quantity of 80mL per cycle)

How is AUB affecting your patient?

Heavy menstrual bleeding is often subjective (impact on patient's QOL)

- Changing of sanitary pads every 2 hours or less
- Passing large clots
- Staining clothes or sheets
- Symptoms of anemia (fatigue, dizziness, hair loss, cold intolerance, restless leg syndrome)
- Missing activities/school/work

Importance of nomenclature

Ø DUB (dysfunctional uterine bleeding)

Ø menorrhagia Ø metrorrhagia Ø menometrorrhagia

Ø oligomenorrhea

Suggest to use “Abnormal uterine bleeding” + description:

Regular vs. irregular cycles?

Heavy?

Bleeding between menstruations?

→ Your differential diagnosis will change depending on the pattern

PALM – COEIN classification

POLYP	Intermenstrual; Post-coital (cervical polyp)
ADENOMYOSIS	Heavy + Regular + **Painful**
LEIOMYOMAS	Heavy + Regular +/- Painful
MALIGNANCY & HYPERPLASIA	Prolonged; Post-menopausal; (Heavy if RF)
COAGULOPATHY	Heavy + Regular; Other symptoms of bleeding
OVULATORY DYSFUNCTION	Irregular; Alternating heavy + light
ENDOMETRIAL	Heavy + Regular
IATROGENIC	Regular (coagulation) or Irregular (ovulation)
NOT OTHERWISE SPECIFIED	Regular or Irregular

Approach to management

Investigations:

- Ruling out the “bad things”
- Finding a probable cause
- Assessing for complications (anemia)

Treatment:

- Minimizing or stopping the bleeding
- Treating the consequences (anemia)
- Assessing for risk of hyperplasia/neoplasia (and prevent if necessary)
- Take into consideration desire for fertility

Important history elements

Good evaluation of pattern of bleeding (heavy, irregular vs. regular, intermenstrual, post-coital, post-menopausal, presence of pain, etc.)

Identifying risk factors for malignancy:

- Age (above 40-45 years old)
- Metabolic syndrome/diabetes/obesity
- Smoking
- Family history of cancers (including Lynch syndrome)
- Medications (unopposed estrogen/tamoxifen)
- Chronic anovulation (PCOS)

Investigations – for everyone (or most)

CBC

Transvaginal pelvic ultrasound – if suspect structural cause (done in most cases)

Non-uterine causes of bleeding:

- B-HCG for any risk of pregnancy
- Gonorrhea-Chlamydia for any risk of STI
- Ensure Pap test up to date

Investigations – targeted

Endometrial biopsy – if suspect malignancy (identify risk factors)

- Pipelle biopsy equivalent for detection of malignancy/hyperplasia as D+C

Contrast sonohysterogram – if suspect polyp on ultrasound or history

Extensive hormonal panel – if suspect ovulatory dysfunction (irregular bleeding)

- TSH (sx hypothyroidism – cold intolerance, hair loss, weight gain, dry skin, constipation)
- Prolactin (sx hyperprolactinemia – galactorrhea, headache, visual field loss)
- 17-OH-Progesterone, total and free testosterone, FSH, LH (sx PCOS – acne, hirsutism)

Coagulation studies – if suspect coagulopathy

- CBC, PT, PTT, vWF Ag, factor VIII, PLT aggregation studies
- When to suspect: easy bruising, frequent epistaxis, gum bleeding, bleeding during surgery/dentist/post-partum, family history bleeding dyscrasia, **since adolescence**

Endometrial biopsy indications

Patients who should undergo evaluation for endometrial hyperplasia or endometrial cancer

Abnormal uterine bleeding
▪ Postmenopausal patients – Any uterine bleeding, regardless of volume (including spotting or staining). Pelvic ultrasound to evaluate endometrial thickness is an alternative to endometrial sampling in appropriately selected patients. A thickened endometrium should be further evaluated with endometrial sampling.
▪ Age 45 years to menopause – In any patient, bleeding that is frequent (interval between the onset of bleeding episodes is <21 days), heavy, or prolonged (>8 days). In patients who are ovulatory, this includes intermenstrual bleeding.
▪ Younger than 45 years – Any abnormal uterine bleeding in patients with BMI ≥30 kg/m^2. In patients with BMI <30 kg/m^2, abnormal uterine bleeding that is persistent and occurs in the setting of one of the following: chronic ovulatory dysfunction, other exposure to estrogen unopposed by progesterone, failed medical management of the bleeding, or patients at high risk of endometrial cancer (eg, Lynch syndrome, Cowden syndrome).
▪ In addition, endometrial neoplasia should be suspected in premenopausal patients who are anovulatory and have prolonged periods of amenorrhea (six or more months).

Cervical cytology results
▪ Presence of AGC-endometrial.
▪ Presence of AGC-all subcategories other than endometrial – If ≥35 years of age **or** at risk for endometrial cancer (risk factors or symptoms).
▪ Presence of benign-appearing endometrial cells in patients ≥40 years of age who also have abnormal uterine bleeding or risk factors for endometrial cancer.
Other indications
▪ Monitoring of patients with endometrial pathology (eg, endometrial hyperplasia).
▪ Screening in patients at high risk of endometrial cancer (eg, Lynch syndrome).

Treatment: Heavy bleeding

1st line: LNG-IUD (Mirena 52mg – 20 mcg/24h; Kyleena 19.5mg not approved)

- Similar efficiency to endometrial ablation

Other forms of hormonal contraception: combined oral contraception, Medroxyprogesterone acetate (Depo Provera) injection

- Contraceptive implant (Nexplanon) not yet approved

Non-contraceptive options:

- Cyclical tranexamic acid (1.5g TID x 5 days)
- NSAIDs (Mefenamic acid 500mg BID x 5 days) – causes vasoconstriction
  - Avoid in coagulopathy
- Cyclic progesterone (Medroxyprogesterone 10mg DIE x 10-14 days per month) – lower evidence that reduces blood loss but good for patient wanting to conceive (anovulatory AUB)

Treatment: Irregular bleeding

Reducing risk of hyperplasia/neoplasia (chronic anovulation)

1st line: hormonal contraception (LNG-IUD or combined hormonal contraception)

- Combined-hormonal contraception also beneficial for hyperandrogenism (OCP with lower androgenic progestins – drospirenone, dienogest, desogestrel, norgestimate)
- Alternative: cyclic progestin (if wants to conceive) – to provoke withdrawal bleed (4x per year)

2nd line: Metformin (less evidence)

Encourage weight loss

Treatment: Surgical

Polypectomy (fertility-preserving)

Endometrial ablation

Uterine artery embolization (possible minimal to moderate effect on fertility)

Myomectomy (fertility-preserving)

Hysterectomy

Treatment: Anemia

Iron supplementation

- Previously 150mg of elemental iron suggested per day – evidence that lower dosing or alternate-day dosing has better absorption/tolerability
- Example of products: Ferrous sulfate 300mg (60mg elemental Fe), Ferrous gluconate 300mg (35mg elemental Fe), Ferrous fumarate 300mg (100mg elemental Fe), Polysaccharide iron complex 150mg (150mg elemental Fe)
- Return to normal hemoglobin 6 to 8 weeks (increase 2g/dL after 4 weeks)
  - Continue additional 3 months to build reserves
- Avoid calcium + PPIs (decreases absorption)
- Take with Vitamin C 250-500mg (increases absorption; limited evidence)
- If no response/severe anemia (but stable): IV iron

Treatment: Others

Leuprolide (GnRH agonist)

- Usually short-course pre-myomectomy
- Poorly tolerated (menopausal symptoms)

Danazol (androgen)

- Androgenic effects; also poorly tolerated

Chronic endometritis

- Doxycycline 100mg PO BID x 10-14 days (allergy: Azithromycin 500mg D1 + 250mg PO D2-5)

Associate pattern to probable diagnosis

30-day cycles, 7 days of heavy bleeding, severe dysmenorrhea	Adenomyosis Leiomyoma
20-to-60-day cycles, 2-10 days of bleeding (light to heavy)	Ovulatory dysfunction (PCOS) Consider hyperplasia/malignancy risk
26-day cycles, 8 days of heavy bleeding, since menarche, had PPH last delivery	Coagulopathy
28-day cycles, 5 days of normal bleeding, also experiencing post-coital bleeding, intermenstrual bleeding	Polyp

Case 1.1

BLEEDING ON THE ORAL CONTRACEPTIVE PILL

Case 1.1: Bleeding on OCP

Yasmine is a 19yo nulliparous patient coming to your unit's sexual health clinic. Her LMP was 2 weeks ago. She has been on the Alysena OCP (20mcg EE – 0.1mg LNG) since the age of 16 years old; she usually takes it continuously and skips the placebo week (21-pack). She has been complaining of on-off spotting for the last 2-3 months. She has a stable male partner for the last 6 months, they do not use condoms. Her last STI screening was 3 months ago. She drinks once a week with friends, smokes 3 cigarettes per day and does not use drugs. Her personal and family history is uneventful.

Case 1.1: Bleeding on OCP

What do you want to rule out?

- Sexually transmitted infection
- Pregnancy
- Poor compliance to OCP
- Evaluate for risk of malignancy (unlikely)

Case 1.1: Bleeding on OCP

You have ruled-out other causes. What strategy would you employ with this patient to reduce her spotting with her current OCP?

A) Offer another form of contraception such as the LNG-IUD, the vaginal ring or the Evra patch

B) Watchful waiting and reassurance since it has only been 3 months

C) Suggest taking a hormone-free interval 3-5 days

D) Encourage her to stop smoking

E) Change her type of OCP (increase the estrogen content or change the type of progestin)

F) Short course of NSAIDs

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Case 1.1: Bleeding on OCP

You have ruled-out other causes. What strategy would you employ with this patient to reduce her spotting with her current OCP?

A) Offer another form of contraception such as **the vaginal ring or the Evra patch** – less breakthrough bleeding

C) Suggest taking a hormone-free interval 3-5 days – ensure 21 days of OCP taken at least

D) Encourage her to stop smoking

E) Change her type of OCP (increase the estrogen content or change the type of progestin) – goal is to counter the endometrial atrophy caused by the progestin (30mcg EE)

Other less evidence based treatments: short course of NSAIDs or estrogen (Estrace 2mg PO x 7 days), changing the type of progestin (Drospirenone? Norethindrone?)

Case 1.2

BLEEDING ON PROGESTIN-ONLY CONTRACEPTION

Case 1.2: Bleeding on Pg-only BC

Kylie Na is a 25 year old young woman in whom you inserted a LNG-IUD (19.5mg) 2 months ago. She is coming today because she has been spotting every single day since insertion. This is affecting her ability to have intercourse with her partner and is very frustrating. She does not desire pregnancy but she is also wanting a solution to this very annoying bleeding.

Case 1.2: Bleeding on Pg-only BC

As with the previous patient, you have ruled-out pregnancy, sexual transmitted infection and cervical pathology.

What are your options?

A) Short course of NSAIDs 5-7 days

B) Short course of estrogen (either OCP with ethinyl estradiol or estradiol alone x 10-20 days)

C) Offer to change it for a Mirena IUD (52mg LNG)

D) Ask for a formal ultrasound to verify position

E) Watchful waiting

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C) Offer to change it for a Mirena IUD – **50-60% amenorrhea in the first year of use**

D) Ask for a formal ultrasound to verify position

E) Watchful waiting

= None of the above is inappropriate but most would be OK waiting 3 to 6 months since spotting is a common side effect due to the endometrial atrophy with progestin

Case 2

BLEEDING ON HORMONE REPLACEMENT THERAPY

Case 2: HRT and PMB

Mrs. Esther Rogen is a healthy 51 year old woman who has not had her period in 2 years. She comes to your clinic requesting hormone replacement therapy after seeing Veronique Cloutier's documentary on HRT (Loto-Meno). After a long discussion on the risks and benefits of HRT and verifying that she does not present any contraindications, you start her on a low dose of systemic estrogen and progesterone. She returns after 2 months a bit worried because she "restarted (her) period". Should she/you be worried? What can you do for her?

Case 2: HRT and PMB

Would you do an endometrial biopsy?

A) Yes

B) No

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Case 2: HRT and PMB

Would you do an endometrial biopsy?

A) Yes

B) No

- Bleeding on hormone-replacement therapy can be observed for the first 6 months (provided the patient does not have other risk factors for malignancy of course).

Case 2: HRT and PMB

The bleeding persists past 6 months. You offer a pipelle biopsy in office, but Mrs. Rogen is very reluctant. You offer a benzodiazepine, NSAIDs, a cervical block – she still refuses. She is asking whether there are other options.

Can you offer her a transvaginal ultrasound to evaluate her endometrium?

A) Yes

B) No

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Can you offer her a transvaginal ultrasound to evaluate her endometrium?

A) Yes

B) No

- TVUS can be done in postmenopausal patients
- Biopsy to be done if endometrial thickness more than 4mm, unable to visualise endometrium well or bleeding persists despite normal ultrasound
- Less reliable in pre-menopausal women or women on cyclic rather than continuous progestin

Case 2: HRT and PMB

You do the ultrasound and in the end, after a discussion, both you and Mrs. Rogen decide to proceed with an endometrial biopsy to be safe. The endometrial biopsy and ultrasound are both benign (atrophy on biopsy, endometrium 2mm homogeneous on ultrasound).

The bleeding persists in the following months. Are there any adjustments you can make to her hormone replacement therapy?

- Ensure compliance to Progestin PO (missed pill = nb 1 cause of AUB with HRT users)
- Adjustment of Estrogen dosage (↑ if atrophy; ↓ if proliferative), adjustment or change of Progestin dosage/formulation
- New molecules (Tibolone, Duavive) might have less bleeding

Case 3

MENSTRUAL SUPPRESSION IN TRANSGENDER PATIENTS

Case 3: Amenorrhea for trans patients

Kit is a 21 year old patient you have not seen in 5-6 years in your office. When asked for the reason of their consultation, they request something to “stop (their) periods”. After asking a few questions, you manage to elicit that Kit has been experiencing symptoms of gender dysphoria and is in the process of transitioning from female to male. They are still wanting to read more about hormonotherapy and surgical options for transitioning. However, they express that having their period every month is extremely distressing and triggering for them. What can you offer as their primary care physician for amenorrhea?

Case 3: Amenorrhea for trans patients

Contraceptive goal also?

- LNG-IUD
- Progestin-only pill
- Medroxyprogesterone injection or contraceptive implant (less rapid and reliable for complete amenorrhea)

Leuprolide rarely used in practice (expensive, painful)

Testosterone – usually stops period after 3 to 6 months (might need to increase dosage if not)

Surgical management: hysterectomy with bilateral salpingectomy-oophorectomy

Case 4

PERIMENOPAUSAL ABNORMAL UTERINE BLEEDING: TO BIOPSY OR NOT TO BIOPSY

Case 4: Perimenopausal AUB

Ms. Ollie Go, 43 years old, is coming to see you for a well-care visit. She is due for a Pap test but is otherwise in good health. Her BP and BMI are within normal limits. She does not smoke and drinks only occasionally. Her family history is non-contributory. On her review of system, she mentions that her periods have been becoming more erratic in the last 2-3 years. Her cycle is about 35-40 days now and she has bleeding for 8-9 days. Her cramping and flow have gotten much worse. You are wondering whether she requires endometrial evaluation to rule-out hyperplasia or malignancy.

Case 4: Perimenopausal AUB

Would you do an endometrial biopsy on Mrs. Ollie Go?

A) Yes

B) No

C) Maybe

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Endometrial biopsy indications

Patients who should undergo evaluation for endometrial hyperplasia or endometrial cancer

Abnormal uterine bleeding
▪ Postmenopausal patients – Any uterine bleeding, regardless of volume (including spotting or staining). Pelvic ultrasound to evaluate endometrial thickness is an alternative to endometrial sampling in appropriately selected patients. A thickened endometrium should be further evaluated with endometrial sampling.
▪ Age 45 years to menopause – In any patient, bleeding that is frequent (interval between the onset of bleeding episodes is <21 days), heavy, or prolonged (>8 days). In patients who are ovulatory, this includes intermenstrual bleeding.
▪ Younger than 45 years – Any abnormal uterine bleeding in patients with BMI ≥30 kg/m^2. In patients with BMI <30 kg/m^2, abnormal uterine bleeding that is persistent and occurs in the setting of one of the following: chronic ovulatory dysfunction, other exposure to estrogen unopposed by progesterone, failed medical management of the bleeding, or patients at high risk of endometrial cancer (eg, Lynch syndrome, Cowden syndrome).
▪ In addition, endometrial neoplasia should be suspected in premenopausal patients who are anovulatory and have prolonged periods of amenorrhea (six or more months).

Cervical cytology results
▪ Presence of AGC-endometrial.
▪ Presence of AGC-all subcategories other than endometrial – If ≥35 years of age **or** at risk for endometrial cancer (risk factors or symptoms).
▪ Presence of benign-appearing endometrial cells in patients ≥40 years of age who also have abnormal uterine bleeding or risk factors for endometrial cancer.
Other indications
▪ Monitoring of patients with endometrial pathology (eg, endometrial hyperplasia).
▪ Screening in patients at high risk of endometrial cancer (eg, Lynch syndrome).

Case 4: Perimenopausal AUB

Would you do an endometrial biopsy on Mrs. Ollie Go?

A) Yes

B) No

C) Maybe

She has the risk factor of age and heavy menstrual bleeding but otherwise no other risk factors (no signs of anovulation, no risk factors for malignancy). It would be reasonable to offer her a treatment (LNG-IUD or OCP if no CI) to see if her symptoms improve.

You could also do a pelvic ultrasound but the evaluation for malignancy is limited in premenopausal women (it would be to assess for other causes such as leiomyoma and adenomyosis).

Case 4: Perimenopausal AUB

Who would you want do an endometrial biopsy on?

A) 47 year old with heavy regular menstrual bleeding (for the last year, needs to stay home from work wearing adult diapers for the first 3 days of her cycle)

B) 42 year old with breast cancer 7 years ago, still on Tamoxifen; Pap test came back normal but with presence of endometrial cells

C) 35 year old with heavy menstrual bleeding (passes lots of clots, changes pads 4-5 times a day and once at night, some absenteeism at work); healthy but 4 family members diagnosed with colon cancer

D) 28 year old, BMI of 43, irregular menstrual cycles (20-60 days)

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Case 5

SECONDARY AMENORRHEA

Case 5: Secondary amenorrhea

Ama Nora is a 21 year old female patient presenting to your office. She is worried because she has not had her period in 7 months. Her menarche was at 13 years old. She usually would get her period every 30 to 35 days and has always bled very lightly (2-3 days of changing panty liners). She has not been sexually active in the last 2 years. Her BMI is 19. She would like to know why she hasn't had her period in such a long time and whether she is infertile.

Case 5: Secondary amenorrhea

What work-up would you order for this patient?

- B-HCG
- TSH
- Prolactin
- FSH, LH, Estradiol
- Consider 17-OH-Progesterone, DHEAS, testosterone if suspecting PCOS
- Consider Provera withdrawal challenge if suspecting outflow tract obstruction (Asherman syndrome post D+C for example)

Case 5: Secondary amenorrhea

What are some of the important complications to monitor/prevent in cases of secondary amenorrhea?

- Bone health (specifically in premature ovarian failure): vitamin D intake, smoking and alcohol cessation, regular physical exercise, BMD to do if menopausal status confirmed before age 40
  - Hormone replacement therapy/OCP for bone protection might be indicated
- Risk of endometrial hyperplasia/malignancy: endometrial biopsy to consider if suspecting amenorrhea/oligomenorrhea due to chronic anovulation (PCOS – long-term exposure to unopposed estrogen)
- Considerations for desire for fertility

Case 6

ABNORMAL UTERINE BLEEDING IN ADOLESCENTS

Case 6: AUB in adolescents

Polly Cos is a 15 year old girl who was brought to your office by her mother who is worried about her menstrual cycle. Her menarche was at 9 years old. Since then, she has had between 2 and 4 periods per year, sometimes skipping 6 months between 2 periods. The minimum interval between her periods has been 40 days. She usually bleeds very heavily, changing pads almost every hour for the first 3 days of bleeding and bleeds for 10 to 14 days. She denies any intermenstrual bleeding. She has severe menstrual cramps, which she has not tried anything for yet. She is not yet sexually active. She also has pretty severe acne. Her mother would like you to ensure “everything is normal”.

Case 6: AUB in adolescents

What is your primary diagnostic impression in this patient?

A) Polycystic ovarian syndrome

B) Normal menstrual cycle for an adolescent

C) Pituitary tumour

Case 6: AUB in adolescents

Types of Abnormal Uterine Bleeding Found in Adolescent PCOS

Descriptor	Definition
Primary amenorrhea	Lack of menarche by 15 y of age or by 3 years after the onset of breast development[a]
Secondary amenorrhea	Over 90 d without a menstrual period after initially menstruating
Oligomenorrhea (infrequent AUB)	Postmenarcheal year 1: average cycle length >90 d (<4 periods/y)
	Postmenarcheal year 2: average cycle length >60 d (<6 periods/y)
	Postmenarcheal years 3–5: average cycle length >45 d (<8 periods/y)
	Postmenarcheal years ≥6: cycle length >38–40 d (≤9 periods/y)
Excessive anovulatory AUB†	Menstrual bleeding that occurs more frequently than every 21 d (19 d in yr 1) or is excessive (lasts >7 d or soaks >1 pad or tampon every 1–2 h)

Case 6: AUB in adolescents

What is your primary diagnostic impression in this patient?

A) Polycystic ovarian syndrome

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C) Pituitary tumour

Case 6: AUB in adolescents

What is your primary diagnostic impression in this patient?

A) Polycystic ovarian syndrome

B) Normal menstrual cycle for an adolescent

C) Pituitary tumour

Year 6 post-menarche – minimal interval of 40 days (up to 6 months) between periods is considered irregular/oligomenorrhea

PCOS in adolescents dx criteria – AUB for age + signs of hyperandrogenism (acne)

Case 6: AUB in adolescents

After confirming a diagnosis of probably polycystic ovarian syndrome in Polly, you decide to start her on regular oral contraceptive for endometrial protection as well as treating her acne. She returns to you after 2-3 years. Her acne is better and she has a withdrawal bleed every month but she is wondering if she will have to take this treatment for life.

Can you stop the OCP at this time?

A) Yes

B) No

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A) Yes

B) No

CPS suggests stopping OCP x 3 months around end of puberty (high school graduation) to see if cycles have regularized.

Case 7

BLEEDING IN EARLY PREGNANCY

Case 7: Early pregnancy bleed

Piyul is a 27 year old woman, G2P0A1 (1 previous pregnancy termination via D+C 2 years ago), who you see in walk in for “abnormal vaginal bleeding”. She usually has very regular menstrual cycles, every 28 to 30 days. Her last real period was October 11th (8 weeks ago). She did not have her regular period November 11th but has been bleeding non-stop since November 21st (16 days). The bleeding is bright red but scant – she wears 2-3 pantyliners a day. She is experiencing mild pelvic cramping on-off. She is sexually active and uses the calendar + the pull-out method as contraception. She has a stable sexual partner. Her last Pap test was in 2021 and was normal. Her vital signs by the nurse are stable and her abdomen is benign on examination.

You ask the nurse to do a urine pregnancy test and it comes back frankly positive.

Case 7: Early pregnancy bleed

Important elements:

- Patient stable?
  - Yes. Non-acute abdomen. BP 120/60, HR 78, SpO2 99%. No cramping currently.
- Pregnancy desired?
  - She is mostly shocked by the news. She has to think about it but she does not think she wants to keep it.

Case 7: Early pregnancy bleed

Investigations:

- B-HCG
  - 151
- CBC
  - Hb 118
- Type and screen
  - B+, no antibodies
- Ultrasound?
  - Unlikely to show anything at less than 1500-2000 of B-HCG

Case 7: Early pregnancy bleed

Next steps?

- Repeat B-HCG in 48h (66% increase)

- B-HCG in 48h is 300 (appropriate increase)
- Diagnosis: PUL (pregnancy of unknown location): ectopic vs. miscarriage vs. viable pregnancy
- If patient stable, repeat in 1 week +/- ultrasound for viability and localization
- Clear return to care symptoms in case ectopic

Case 7: Early pregnancy bleed

Piyul is seen 1 week later – her B-HCG is now 500 (from 300 after 1 week – 40% increase). Her bleeding has stopped and she has no more cramping. The ultrasound shows possibly a thickened endometrium but no gestational sac and no free fluid or adnexal mass.

She wants to get this over with, deciding that she is not keeping this pregnancy. What are your options?

- Watchful waiting
- Methotrexate for possible ectopic
- Mifegymiso – new evidence that could be used for PUL

Last words…

Properly assessing the pattern of bleeding can help precise your differential diagnosis (Heavy? Regular? Irregular? Intermenstrual?)

The LNG-IUD is first line for heavy menstrual bleeding (AUB-A, AUB-L, AUB-E more specifically) and is as efficient as endometrial ablation without affecting long-term fertility

A pipelle biopsy can be easily done in office in patient with AUB and risk factors for malignancy or hyperplasia (suggest cervical block and proper documentation and consent with patient)

Intermenstrual spotting PEARLs:

- Think of increasing estrogen if suspect atrophy because of progestin in birth control
- Polyps can cause all kinds of AUB but more typically intermenstrual bleeding – removal is the most efficient solution
- Don’t forget your non-uterine causes of bleeding (STI)

Resources

The Accuracy of Endometrial Sampling in the Diagnosis of Patients with Endometrial Carcinoma and Hyperplasia: A Meta-Analysis – Dijkhuizen F et al. American Cancer Society, 2000.

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Abnormal uterine bleeding – Whitaker L and H Critchley. Best Practice & Research Clinical Obstetrics and Gynaecology, July 2016.

Abnormal Uterine Bleeding in Pre-Menopausal Women – SOGC Clinical Practice Guideline, May 2013.

Heavymenstrualbleeding.org

Resources

Anovulatory Bleeding – Jones K and S Sung. StatPearls, Jan 2022.

The current status of hormonal therapies for heavy menstrual bleeding – Heikinheimo O and I Fraser. Best Practice & Research Clinical Obstetrics and Gynaecology, 2017.

Recent advances in managing and understanding menstrual disorders – Bahamondes L and M Ali. F1000 Prime reports, March 2015.

The Diagnosis of Polycystic Ovary Syndrome in Adolescents – Rosenfeld R. Pediatrics, 2015.

Medical Management of Heavy Menstrual Bleeding: A Comprehensive Review of the Literature – Bitzer J and al. Obstetrical and Gynecological Survey: CME Review Article, 2015.

Amenorrhea: A Systematic Approach to Diagnosis and Management – Klein D and al. AAFP, July 2019.

Gender-affirming Care for Trans, Two-Spirit, and Gender Diverse Patients in BC: A Primary Care Toolkit – Trans Care BC: Provincial Health Services Authority, October 2017.

Questions?
Thank you!