بسمه تعالی

بیمار خانم ۳۸ ساله G2P2AB0L2 با شکایت اختلال سیکل ماهیانه به درمانگاه مراجعه کرده است.هر دو زایمان طبیعی بوده است.خونریزیهای پریود حجیم شده است. از ۸ ماه قبل بین سیکلهای قاعدگی لکه بینی دارد.فاصله سیکل ها کاهش یافته است و از ۲۸ به هر ۲۲ روز در ماه تغییر پیدا کرده است.جوش صورت یا موهای زاید ندارد.در ۲ سال اخیر مراجعه به مراکز سلامت جامع و یا متخصص زنان نداشته است.سابقه مصرف داروی خاصی نمی دهد.سابقه بستری یا جراحی هم ندارد.

در معاینه ملتحمه PALE می باشد.سمع قلب و ریه نرمال است.شکم نرم است وتندرنس ندارد.

در معاینات واژینال زخم سرویکس ندارد.ترشحات عفونی ندارد.از بیمار پاپ اسمیر گرفته شد.

W=60,L=160,BMI=23.43

.

- Lab test:
- Cbc
- WBC=8,000 , HB=9.5,MCV=78,FERRITIN=10,TSH=2.5,PROLACTIN=30ng/dl

سونوگرافی :

ضخامت اندومتر 13 میلی متر و دارای ضایعه فوکال با پایه عروقی 10*18 میلی متر در فوندوس رحم می باشد.

Problem list

-اختلالات قاعدگی بصورت کاهش سیکل از 28 به 22 روز

-لکه بینی بین سیکل های قاعدگی

-افزایش حجم خونریزی در هر پریود

-کم خونی

-عدم مراقبت سالیانه در مراکز جامع سلامت یا متخصص زنان

Abnormal uterine bleeding in nonpregnant reproductive-age patients: Terminology, evaluation, and approach to diagnosis

استاد راهنما

سرکار خانم دکتر زرین جویی

متخصص زنان زایمان-عضو هیأت علمی دانشگاه

ارایه دهنده

دکتر رسول اسمی

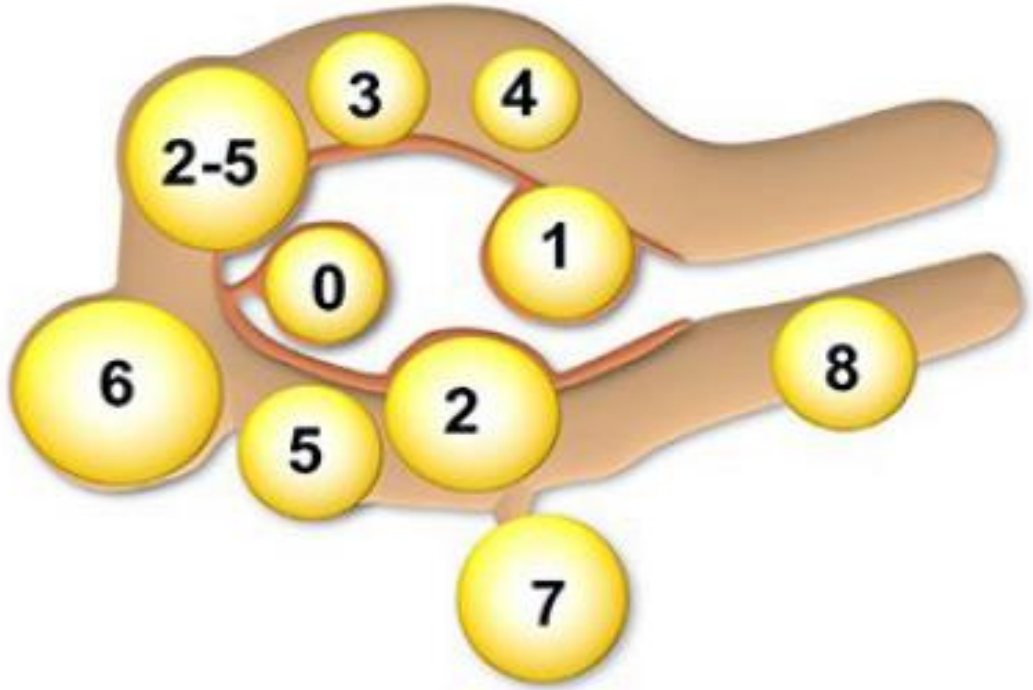
دستیار سال سوم پزشکی خانواده

Polyp
Adenomyosis
Leiomyoma
Malignancy and hyperplasia

Submucous
Other

Coagulopathy
Ovulatory dysfunction
Endometrial
Iatrogenic
Not otherwise classified

FIGO leiomyoma subclassification system



SM – submucous	0	Pedunculated intracavitary
	1	<50% intramural
	2	≥50% intramural
	3	Contacts endometrium; 100% intramural
O – Other	4	Intramural
	5	Subserous ≥50% intramural
	6	Subserous <50% intramural
	7	Subserous pedunculated
	8	Other (specify eg, cervical, parasitic)

Hybrid (contact both the endometrium and the serosal layer)	Two numbers are listed separated by a hyphen. By convention, the first refers to the relationship with the endometrium while the second refers to the relationship to the serosa. One example is below.	
	2-5	Submucous and subserous, each with less than half the diameter in the endometrial and peritoneal cavities, respectively.

DEFINITIONS

Abnormalities in frequency, Frequent, Infrequent, Absent

Irregular bleeding

18 to 25 years: cycle length variance >9 days

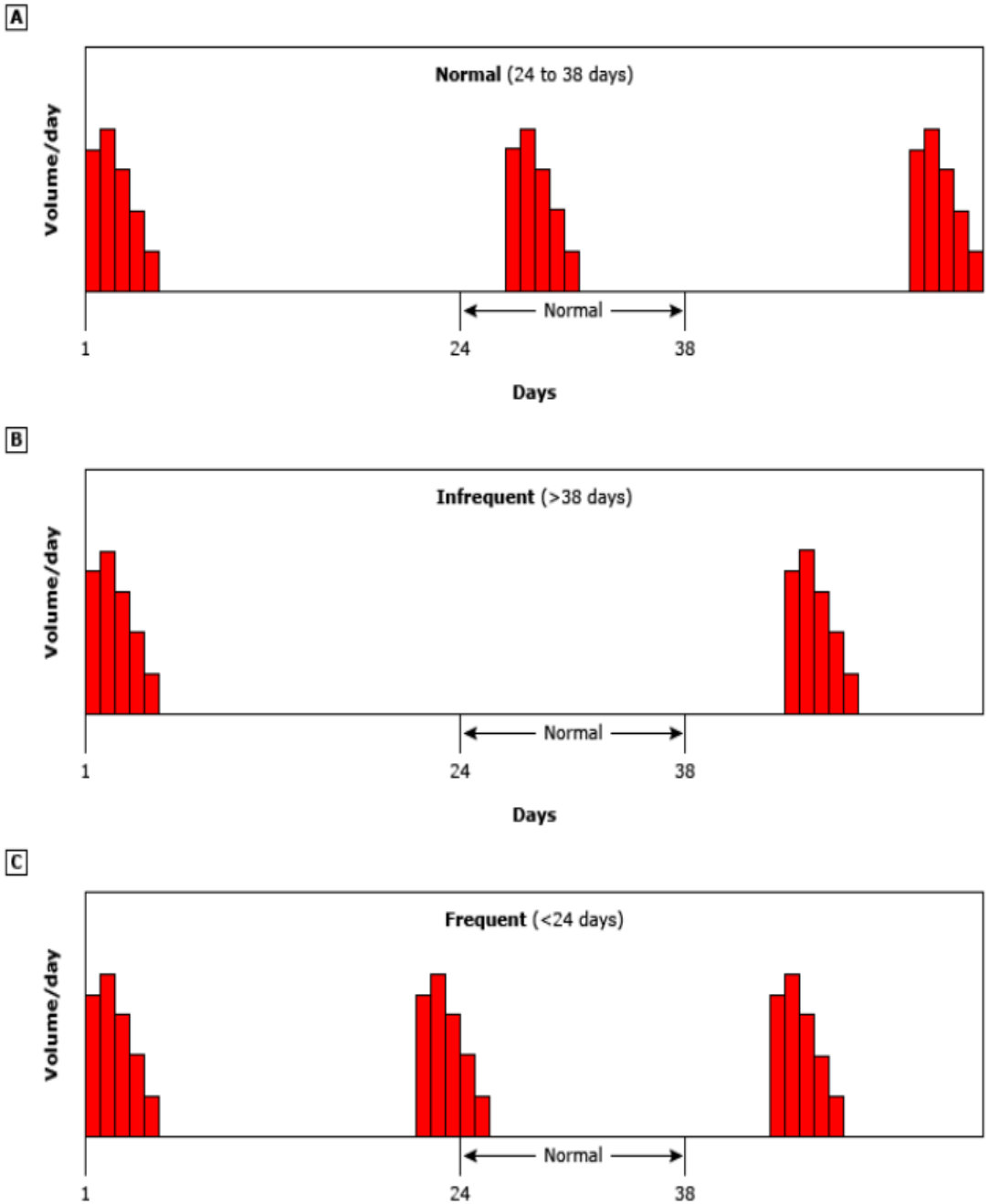
26 to 41 years: cycle length variance >7 days

42 to 45 years: cycle length variance >9 days

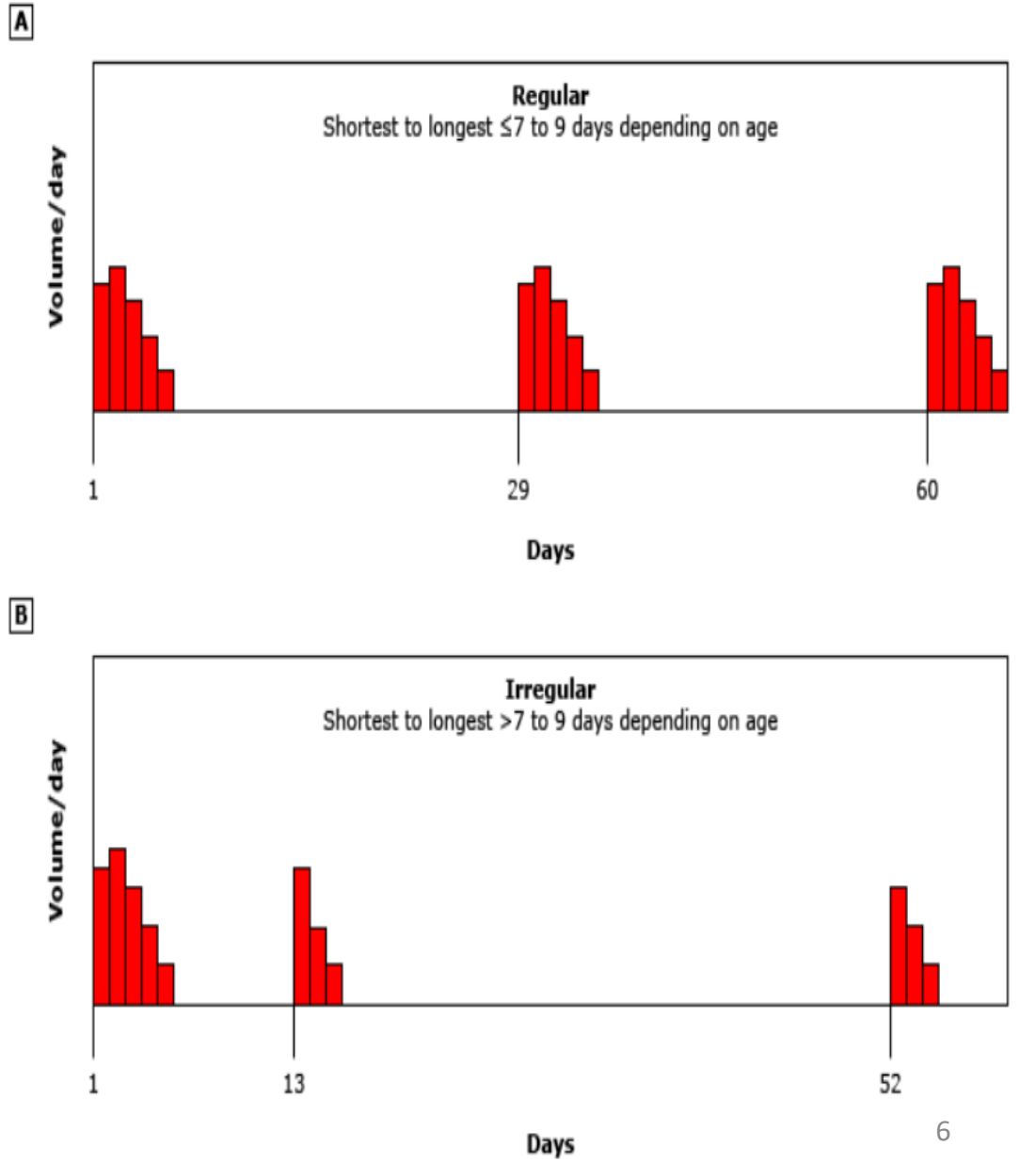
Prolonged menstrual bleeding

Abnormalities in volume – HEAVY OR LIGHT

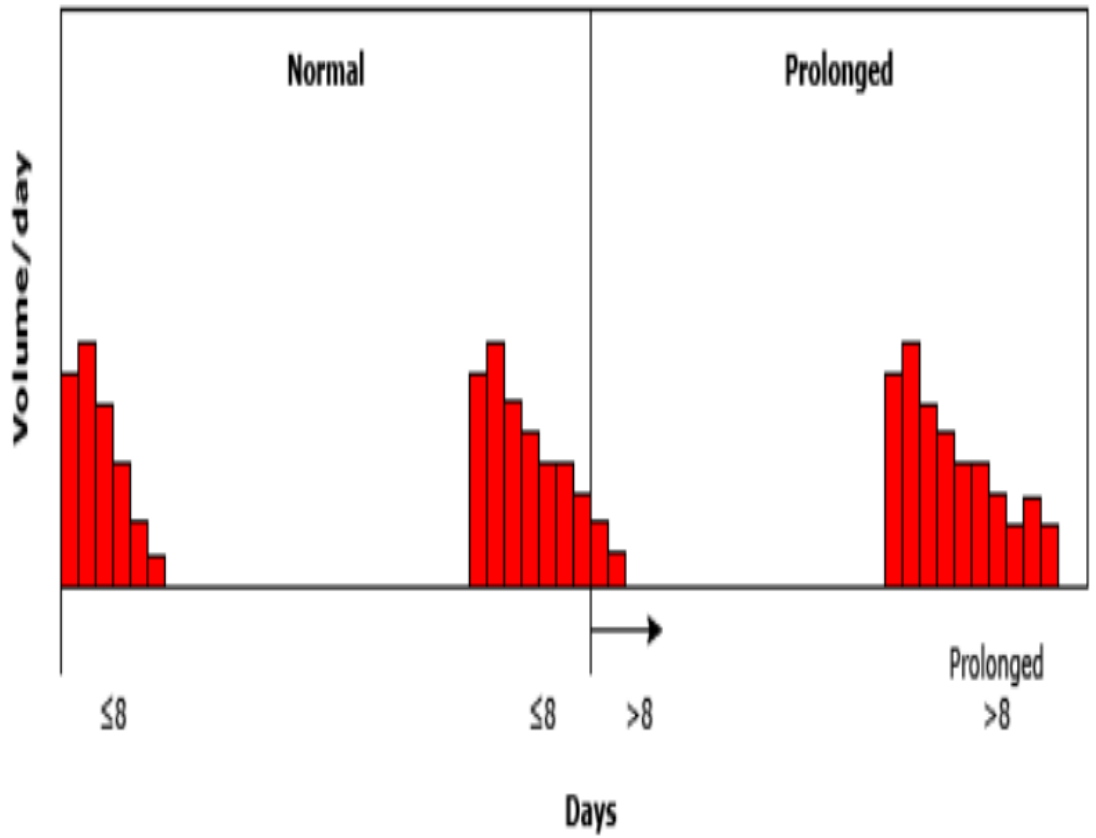
Frequency of menses



Regularity of menses

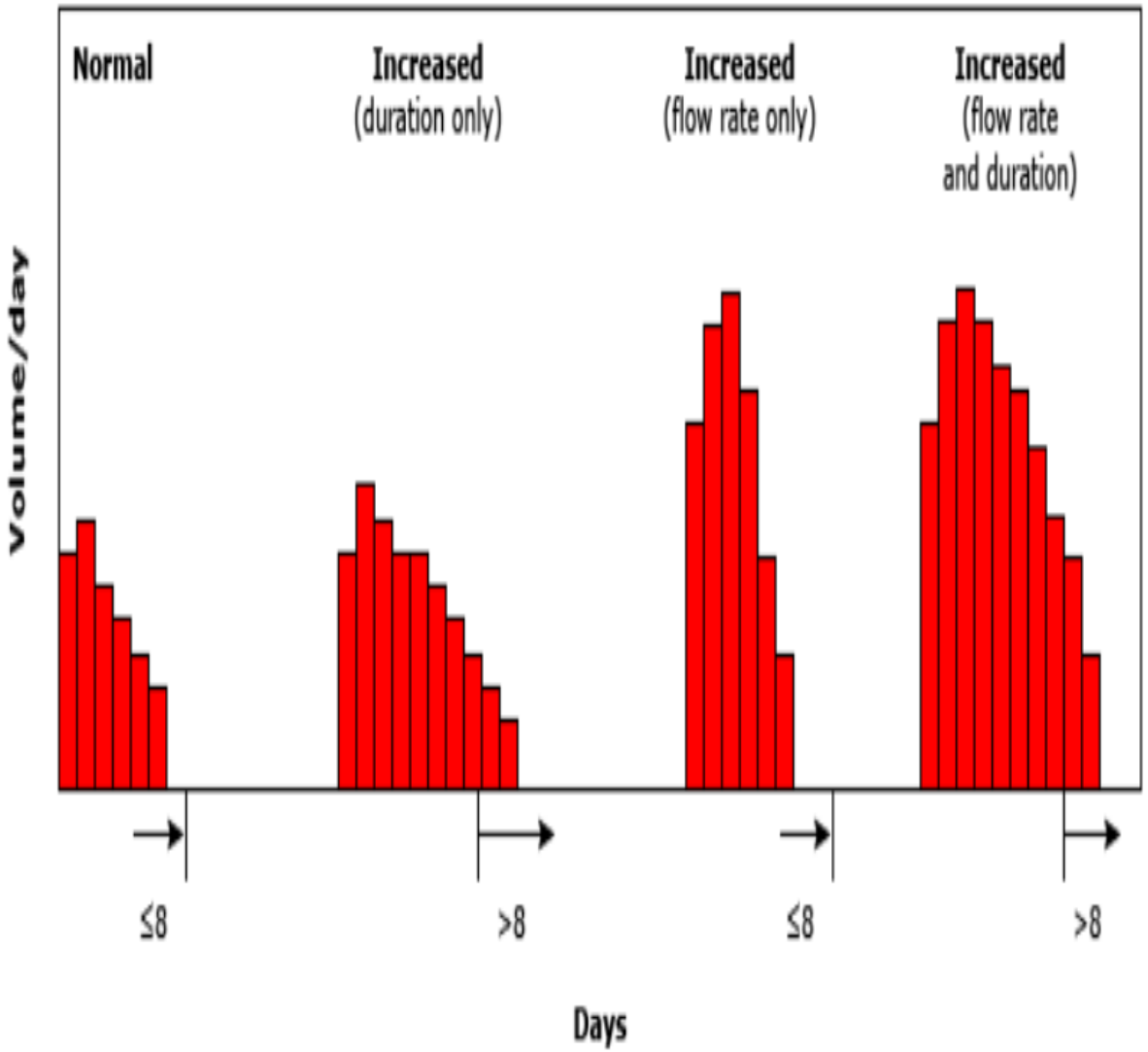


Duration of menses

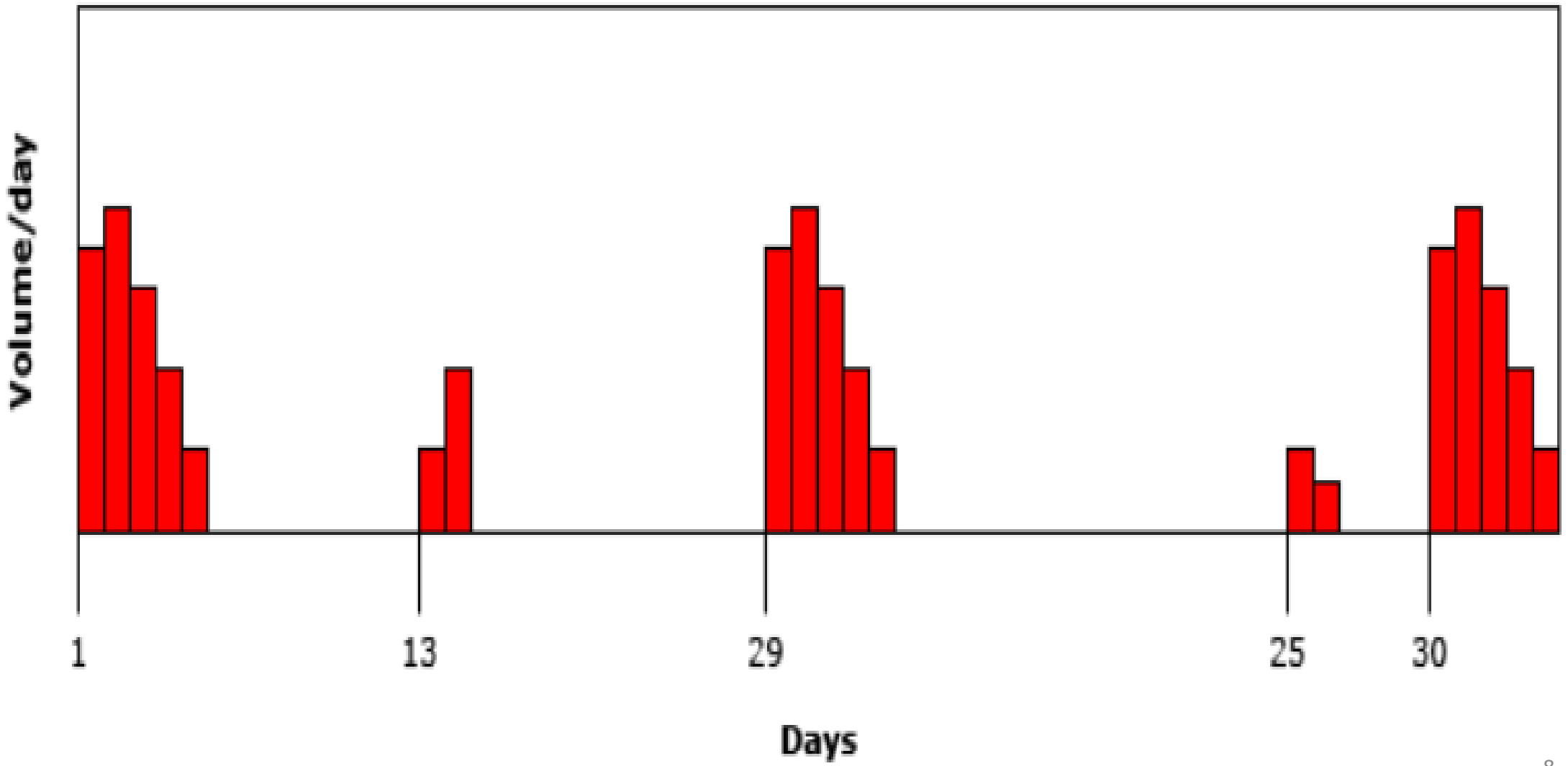


The panel above demonstrates the two definitions of duration of menses. When a menstrual period is present and lasts up to 8 days, it is considered "normal." If it is in excess of 8 days, regardless of volume, as depicted in the center and right cluster, it is deemed "prolonged."

Volume of menses



Intermenstrual bleeding



Intermenstrual bleeding

Cyclical midcycle intermenstrual bleeding

Acyclical intermenstrual bleeding

ETIOLOGY

(polyp, adenomyosis, leiomyoma, malignancy and hyperplasia,
coagulopathy, ovulatory dysfunction, endometrial

History

Gynecologic and obstetric history

Recent or current pregnancy

Menstrual history and bleeding pattern

Sexual history

History of obstetric or gynecologic surgery

Contraceptive history

Risk factors for endometrial cancer

Physical examination

Potential sites of bleeding

Current uterine bleeding

Size and contour of the uterus

Presence of an adnexal mass or tenderness

Pregnancy test

SECONDARY EVALUATION

Based on bleeding pattern

Heavy menstrual bleeding

Imaging

Uterine fibroids

-Adenomyosis-

Endometrial polyps

-Uterine arteriovenous malformation

Irregular bleeding

Laboratory tests

TSH , Prolactin level, Androgen levels, FSH, LH ,Estrogen levels

Endometrial sampling

Imaging

Based on risk factors for endometrial cancer

Age 45 years to menopause

Age < 45 years

SPECIAL CONSIDERATIONS

Pelvic ultrasound-intracavitary pathology(saline infusion sonohysterography or hysteroscopy.)

Saline infusion sonography (SIS)

Hysteroscopy

Other-MRI-CT

WHEN TO REFER

heavy bleeding, severe anemia, persistent bleeding despite treatment, suspicion of malignancy, surgery is required.

SUMMARY AND RECOMMENDATIONS

Definitions and etiology

Initial evaluation of all patients

SECONDARY evaluation,HMB

Intermenstrual bleeding

Irregular bleeding

Indications for endometrial sampling

Causes of iatrogenic bleeding

Imaging

Evaluation and differential diagnosis of abnormal uterine bleeding (AUB) in nonpregnant reproductive-age women

Bleeding pattern	Other associated clinical features	Differential diagnosis		Evaluation
		Common etiologies	Less common etiologies	
Regular menses that are heavy or prolonged	Enlarged uterus on examination, discrete masses may be noted	Uterine leiomyoma		- Pelvic ultrasound - Saline infusion sonography or hysteroscopy (if intracavitary pathology is suspected)
	- Dysmenorrhea - Enlarged, boggy uterus on examination	Adenomyosis		Pelvic ultrasound
	- Family history of bleeding disorder - Symptoms of bleeding diathesis - Anticoagulant therapy	Bleeding disorder		Testing for bleeding disorder
	Risk factors for uterine malignancy		Endometrial carcinoma or uterine sarcoma	Endometrial sampling
Regular menses with intermenstrual bleeding		Endometrial polyp		- Pelvic ultrasound - Saline infusion sonography or hysteroscopy (if available)
	Risk factors for uterine malignancy		Endometrial carcinoma or uterine sarcoma	Endometrial sampling
	Recent history of uterine or cervical procedure or childbirth, particularly if infection was present		Chronic endometritis	Endometrial sampling
Irregular bleeding, may be more or less frequent than normal menses and volume and duration may vary		Ovulatory dysfunction:		
	Hirsutism, acne, and/or obesity	PCOS		Total testosterone and/or other androgens (may not be increased in all women with PCOS)
	Galactorrhea	Hyperprolactinemia		Prolactin
	- Recent weight gain or loss - Heat or cold intolerance - Family history of thyroid dysfunction	Thyroid disease		Thyroid function tests
	Risk factors for uterine malignancy		Endometrial carcinoma or uterine sarcoma	Endometrial sampling
Secondary amenorrhea	History of irregular bleeding	Ovulatory dysfunction		Refer to ovulatory dysfunction above
	Poor nutrition or intense exercise	Hypothalamic amenorrhea		- Follicle-stimulating hormone - Luteinizing hormone - Estradiol
	Hot flushes	Premature ovarian insufficiency		Follicle-stimulating hormone
	Recent history of uterine or cervical		Cervical stenosis	On pelvic examination,

Normal menstruation parameters

Parameter	Normal	Abnormal
Frequency	≥24 and ≤38 days	Absent (no bleeding): amenorrhea
		Frequent (<24 days)
		Infrequent (>38 days)
Duration	≤8 days	Prolonged (>8 days)
Regularity	Regular: shortest to longest cycle variation: ≤7 to 9 days*	Irregular: shortest to longest cycle variation: ≥10 days
Flow volume (patient determined)	Patient considers normal	Patient considers light
		Patient considers heavy
Intermenstrual bleeding (bleeding between cyclically regular onset of menses)	None	Random
		Cyclic (predictable): ■ Early cycle ■ Mid cycle ■ Late cycle
Unscheduled bleeding on progestin ± estrogen gonadal steroids (contraceptive pills, rings, patches, IUDs, or injections)	Not applicable for patients not on gonadal steroid medication	Present
	None (for patients on gonadal steroid medication)	

Causes of abnormal genital tract bleeding in females

Genital tract disorders
Uterus
Benign conditions:
Endometrial polyps
Endometrial hyperplasia
Adenomyosis
Leiomyomas (fibroids)
Arteriovenous malformation (also referred to as enhanced myometrial vascularity)
Cancer:
Endometrial adenocarcinoma
Sarcoma
Infection:
Pelvic inflammatory disease
Endometritis
Ovulatory dysfunction
Cervix
Benign conditions:
Cervical polyps
Ectropion
Endometriosis
Cancer:
Invasive carcinoma
Metastatic (uterus, choriocarcinoma)
Infection:
Cervicitis
Vulva
Benign conditions:
Skin tags
Sebaceous cysts
Condylomata
Angiokeratoma
Cancer
Vagina
Benign conditions:
Gartner duct cysts
Polyps
Adenosis (aberrant glandular tissue)
Cancer
Vaginitis/infection:
Bacterial vaginosis
Sexually transmitted infections
Atrophic vaginitis
Upper genital tract disease
Pelvic inflammatory disease
Fallopian tube cancer
Ovarian cancer
Pregnancy complications

Trauma
Sexual intercourse
Sexual abuse
Foreign bodies (including intrauterine device)
Pelvic trauma (eg, motor vehicle accident)
Straddle injuries
Cesarean scar defect (prior cesarean delivery)
Drugs
Contraception:
Hormonal contraceptives
Intrauterine devices
Postmenopausal hormone therapy
Anticoagulants
Tamoxifen
Corticosteroids
Chemotherapy
Phenytoin
Antipsychotic drugs
Antibiotics (eg, due to toxic epidermal necrolysis or Stevens-Johnson syndrome)
Systemic disease
Diseases involving the vulva:
Crohn disease
Behçet syndrome
Pemphigoid
Pemphigus
Erosive lichen planus
Lymphoma
Bleeding disorders:
von Willebrand disease
Thrombocytopenia or platelet dysfunction
Acute leukemia
Some coagulation factor deficiencies
Advanced liver disease
Thyroid disease
Polycystic ovary syndrome
Cushing syndrome
Hormone-secreting adrenal and ovarian tumors
Renal disease
Emotional or physical stress
Smoking
Excessive exercise
Diseases not affecting the genital tract
Urethritis
Bladder cancer
Urinary tract infection
Colorectal cancer
Inflammatory bowel disease
Hemorrhoids
Other
Endometriosis

Uterine bleeding patterns

Bleeding pattern	Definition
Bleeding	▪ Any bloody vaginal discharge that requires the use of such protection as pads or tampons
Spotting	▪ Any bloody vaginal discharge that is not large enough to require sanitary protection
Bleeding/spotting episode	▪ One or more consecutive days on which bleeding or spotting has been entered on the diary card
Bleeding/spotting-free interval	▪ One or more consecutive days on which no bleeding or spotting has been entered on the diary card
Bleeding/spotting segment	▪ One bleeding/spotting episode and the immediately following bleeding/spotting-free interval
Reference period	▪ The number of consecutive days upon which the analysis is based (usually taken as 90 days for women using long-acting hormonal systems, and 28 or 30 days for women using once-a-month systems, including combined oral contraception)
Different types of analysis, which can be undertaken on bleeding patterns within a reference period	▪ Number of bleeding/spotting days ▪ Number of bleeding/spotting episodes ▪ Mean, range of lengths of bleeding/spotting episodes (or medians and centiles for box-whisker plot analysis) ▪ Mean, range (medians and centiles) of lengths of bleeding/spotting-free intervals ▪ Number of spotting days and spotting-only episodes

Causes of intermenstrual bleeding

Drugs
Oral contraceptives
Infection
Cervicitis*
Endometritis
Sexually transmitted ulcerations*
Vaginitis
Benign growths
Cervical polyps*
Endometrial polyps
Ectropion*
Uterine fibroids
Vulvar skin tags, sebaceous cysts, condylomata
Vaginal Gartner's duct cysts, polyps, adenosis
Cancer
Uterine
Cervical*
Vaginal
Vulvar
Rarely ovarian or fallopian tube
Trauma
Previous cesarean delivery (ie, cesarean scar defect)

* Often cause postcoital bleeding.

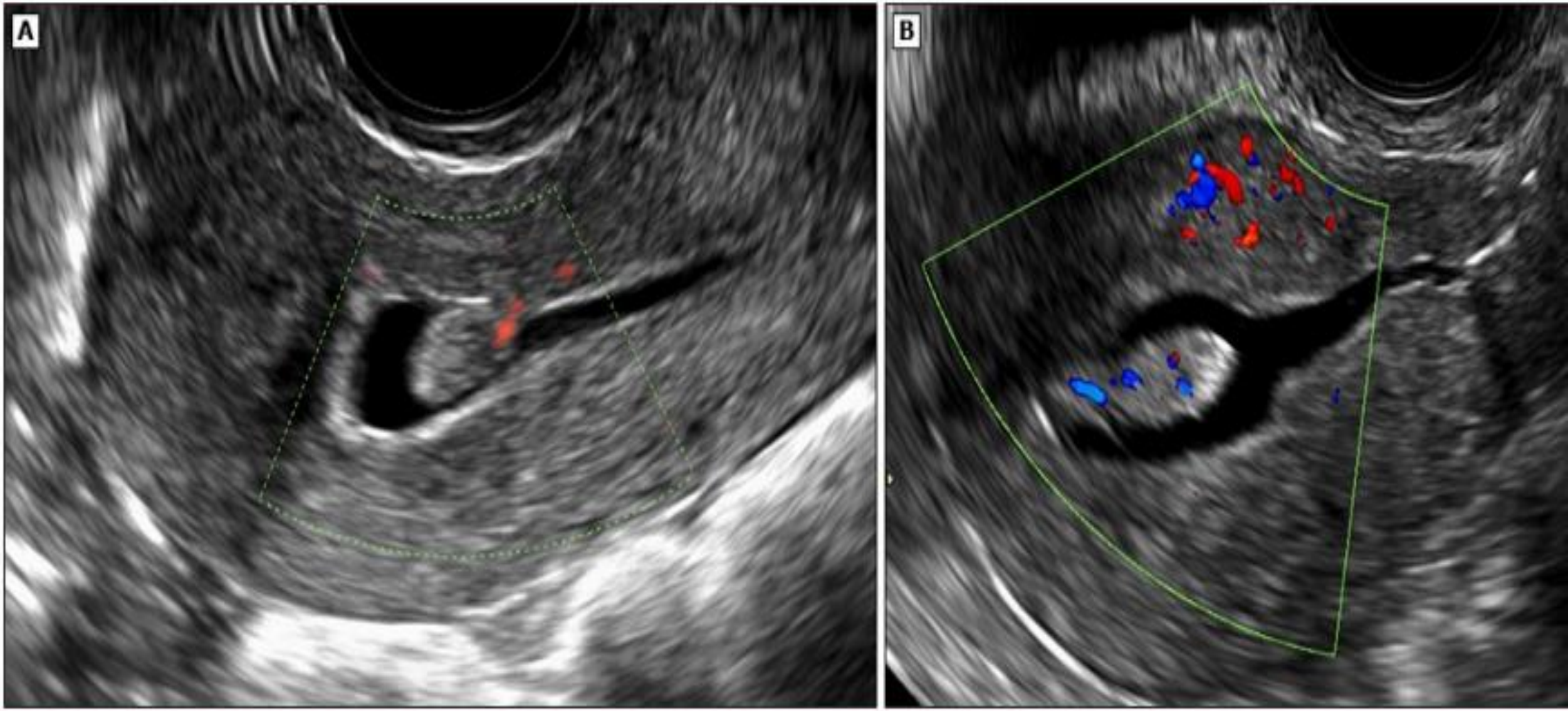
Risk factors for endometrial cancer

Risk factor	Relative risk (RR) (other statistics are noted when used)
Increasing age	1 to 2% cumulative incidence of endometrial cancer in females age 50 to 70 years
Unopposed estrogen therapy	2 to 10
Tamoxifen therapy	2
Early menarche	NA
Late menopause (after age 55)	2
Nulliparity	2
Polycystic ovary syndrome (chronic anovulation)	3
Obesity	For type I endometrial cancer: OR 1.5 for overweight (BMI 25.0 to <30 kg/m^2), 2.5 for class 1 obesity (30.0 to <35 kg/m^2), 4.5 for class 2 obesity (35.0 to 39.9 kg/m^2), and 7.1 for class 3 obesity (≥ 40.0 kg/m^2). For type II: OR 1.2 for overweight (BMI 25.0 to <30 kg/m^2), 1.7 for class 1 obesity (30.0 to <35 kg/m^2), 2.2 for class 2 obesity (35.0 to 39.9 kg/m^2), and 3.1 for class 3 obesity (≥ 40.0 kg/m^2).
Diabetes mellitus	2
Estrogen-secreting tumor	NA
Lynch syndrome (hereditary nonpolyposis colorectal cancer)	13 to 71% lifetime risk
Cowden syndrome	13 to 28% lifetime risk
Family history of endometrial, ovarian, breast, or colon cancer	NA

Medications that cause hyperprolactinemia

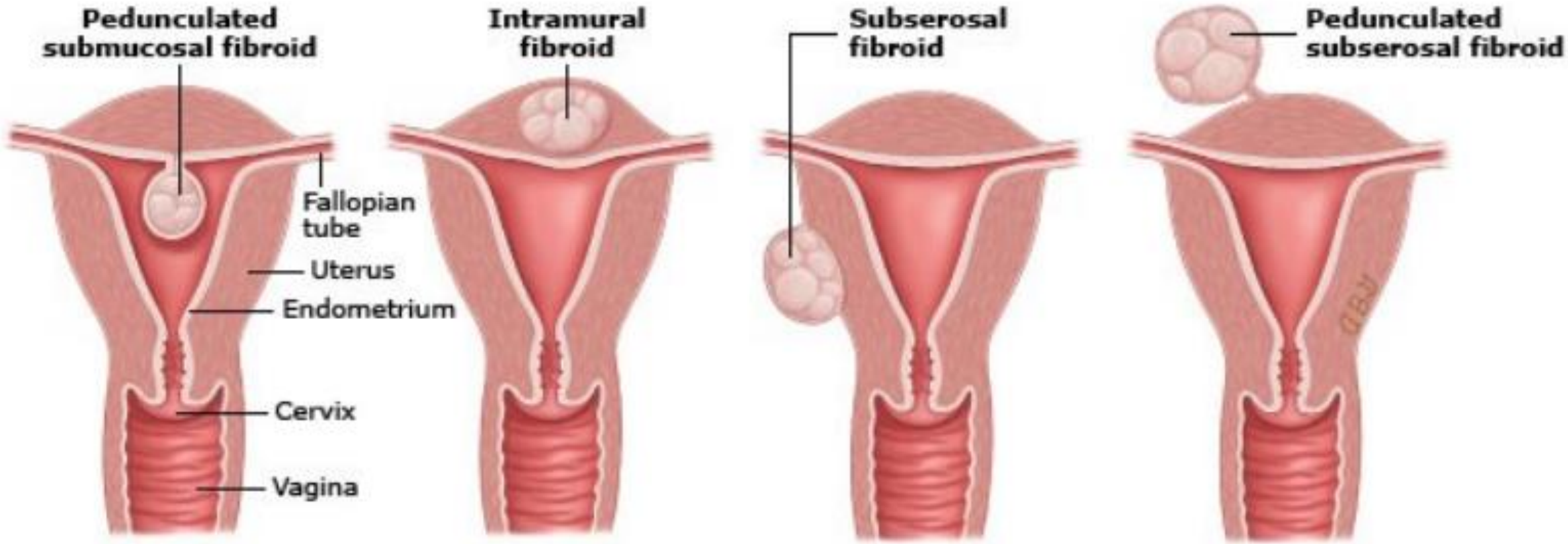
Medication class	Frequency of prolactin elevation*	Mechanism
Antipsychotics, first generation		
Chlorpromazine	Moderate	Dopamine D_2 receptor blockade within hypothalamic tuberoinfundibular system.
Fluphenazine	High	
Haloperidol	High	
Loxapine	Moderate	
Perphenazine	Moderate	
Pimozide	Moderate	
Thiothixene	Moderate	
Trifluoperazine	Moderate	
Antipsychotics, second generation		
Aripiprazole	None or low	Dopamine D_2 receptor blockade.
Asenapine	Moderate	
Clozapine	None or low	
Iloperidone	None or low	
Lurasidone	None or low	
Olanzapine	Low	
Paliperidone	High	
Quetiapine	None or low	
Risperidone	High	
Ziprasidone	Low	
Antidepressants, cyclic		
Amitriptyline	Low	Not well understood. Possibly by GABA stimulation and indirect modulation of prolactin release by serotonin.
Desipramine	Low	
Clomipramine	High	
Nortriptyline	None	
Antidepressants, SSRI		
Citalopram, fluoxetine, fluvoxamine, paroxetine, sertraline	None or low (rare reports)	Same as for cyclic antidepressants.
Antidepressants, other		
Bupropion, venlafaxine, mirtazapine, nefazodone, trazodone	None	Not applicable.
Antiemetic and gastrointestinal		
Metoclopramide	High	Dopamine D_2 receptor blockade.
Domperidone (not available in United States)	High	
Prochlorperazine	Low	
Antihypertensives		
Verapamil	Low	Not well understood. Specific to verapamil. May involve calcium influx inhibition within tuberoinfundibular dopaminergic neurons.
Methyldopa	Moderate	Decreased conversion of L-dopa to dopamine; suppression of dopamine synthesis.
Most other antihypertensives (including other calcium channel blockers)	None	Not applicable.
Opioid analgesics		
Methadone, morphine, others	Transient increase for several hours following dose	Potentially an indirect effect of mu opiate receptor activation.

Sonohysterogram of endometrial polyp



Sonohysterograms of two patients, both with an endometrial polyp; Doppler shows flow to the polyp via feeding vessels in both patients.

Fibroid locations in the uterus



These figures depict the various types and locations of fibroids. An individual may have one or more types of fibroids.

Causes of heavy or prolonged menses

Coagulopathy
von Willebrand disease
Thrombocytopenia (due to idiopathic thrombocytopenic purpura, hypersplenism, chronic renal failure)
Acute leukemia
Anticoagulants
Advanced liver disease
Neoplasm
Endometrial hyperplasia or carcinoma
Uterine sarcoma

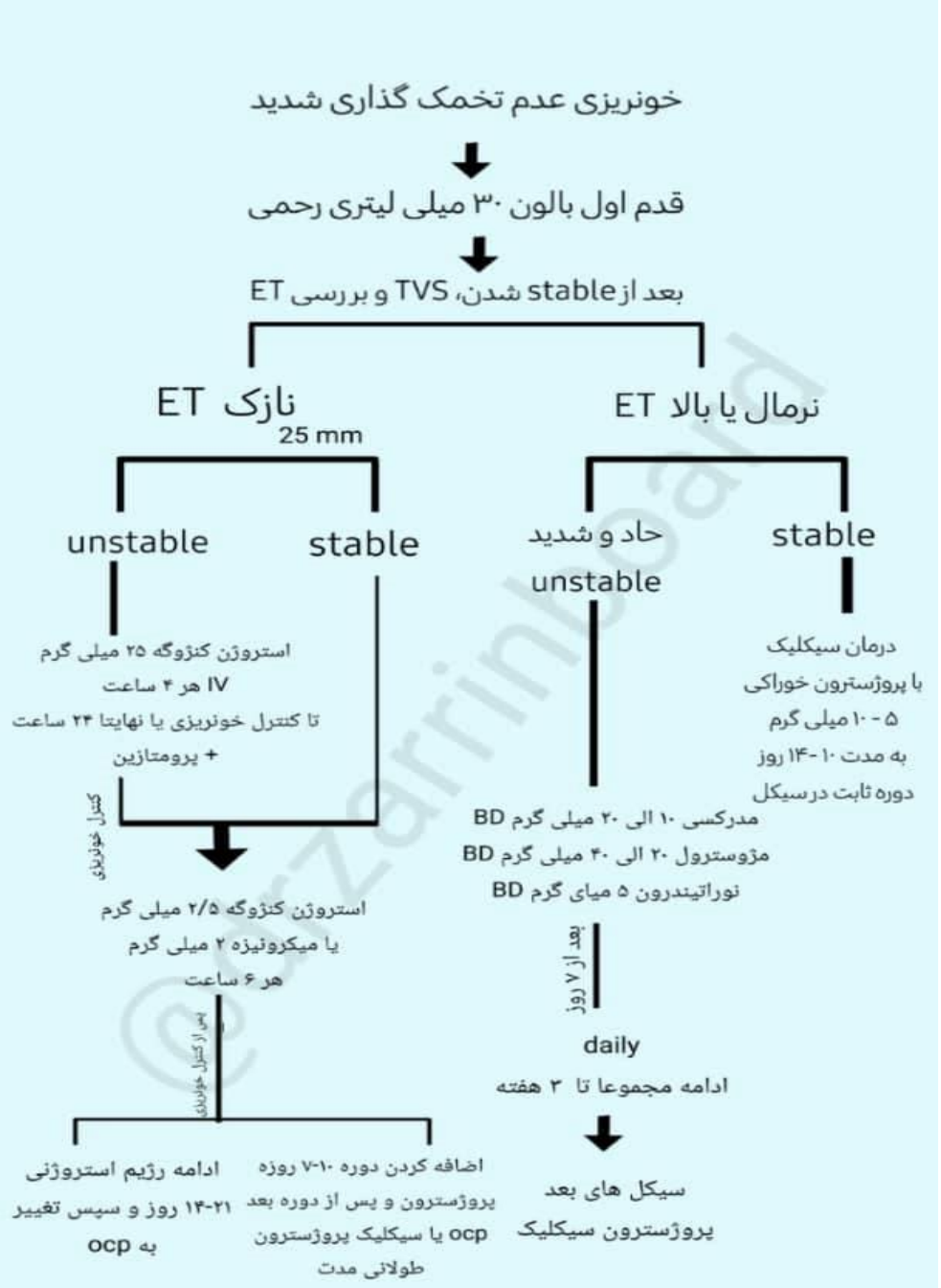
Structural lesion
Uterine leiomyomas (fibroids)
Adenomyosis
Endometrial polyps
Other
Endometritis
Hypothyroidism
Intrauterine device
Hyperestrogenism
Endometriosis

Causes of ovulatory dysfunction

Primary hypothalamic-pituitary dysfunction
Immaturity at onset of menarche or perimenopausal decline
Intense exercise
Eating disorders
Stress
Idiopathic hypogonadotropic hypogonadism
Hyperprolactinemia
Lactational amenorrhea
Pituitary adenoma or other pituitary tumors
Kallman syndrome
Tumors, trauma, or radiation of the hypothalamic or pituitary area
Sheehan's syndrome
Empty sella syndrome
Lymphocytic hypophysitis (autoimmune diseases)
Other disorders
Polycystic ovary syndrome
Hyperthyroidism or hypothyroidism
Hormone-producing tumors (adrenal, ovarian)
Chronic liver or renal disease
Cushing's disease
Congenital adrenal hyperplasia
Premature ovarian failure, which may be autoimmune, genetic, surgical idiopathic, or related to drugs or radiation
Turner syndrome
Androgen insensitivity syndrome
Medications
Estrogen-progestin contraceptives

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. An endometrial lining >4 mm or an endometrium that is not adequately visualized or shows diffuse or focal heterogeneity 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).



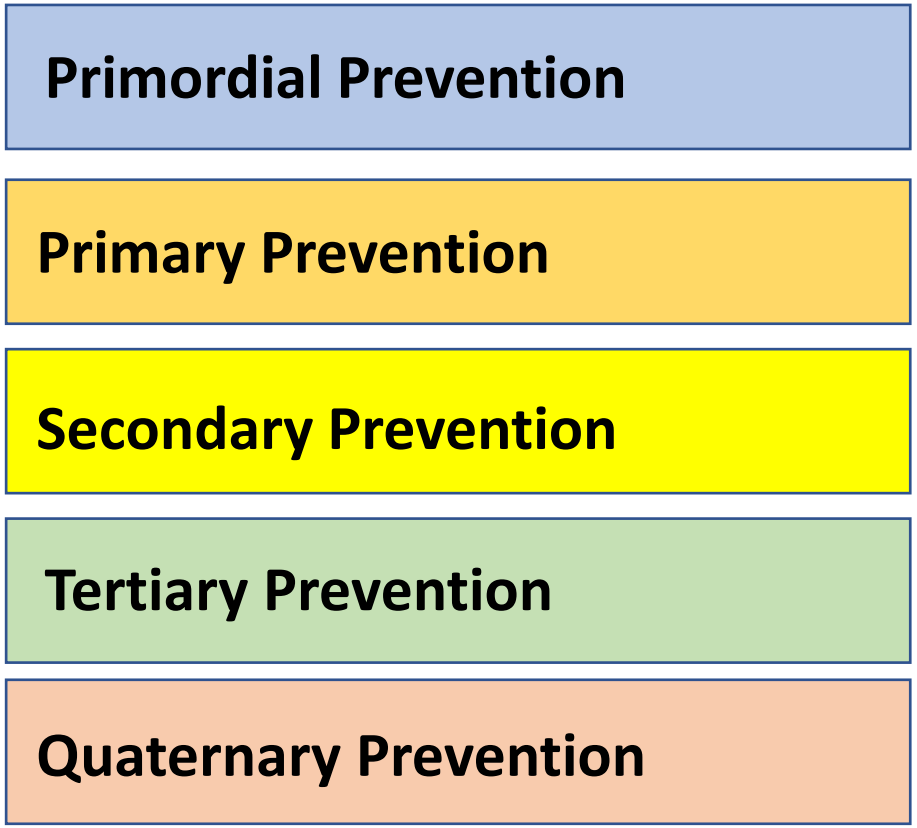
دستورات تجویز شده برای بیمار مورد نظر

1.سونوگرافی واژینال

2.توصیه به انجام هیستروسکوپی جهت برداشتن پولیپ و نمونه برداری از اندومتر با توجه به ET:11

3.تجویز قرص آهن با توجه به کم خونی بیمار

4.پیگیری جواب پاتولوژی و تجویز دارو بر حسب جواب


Primordial Prevention
Primary Prevention
Secondary Prevention
Tertiary Prevention
Quaternary Prevention

Primordial Prevention

- ۱- اقدام در خصوص ترویج سبک زندگی سالم
- ۲- آموزش در خصوص تشکیل پرونده الکترونیک سلامت جهت تمامی آحاد جمعیت کشور و ارزش و اهمیت انجام مراقبتهای لازم در هر گروه سنی
- ۳- آموزش های لازم در سطح ملی برای آشنایی با علایم بیماری ریسک فاکتورها
- ۴-برگزاری جلسات هماهنگی در سطح کابینه دولت و وزارت بهداشت جهت تامین شرایط لازم برای سلامت بانوان

Primary Prevention

۱- انجام مراقبتهای دوره ای در هرگروه سنی حسب مورد
۲- شناسایی افراد پر خطر و در معرض ریسک جهت توصیه های لازم بهداشتی در خصوص کنترل وزن انجام فعالیت بدنی و سبک زندگی سالم و ترک سیگار و الکل درمان بیماریهای همراهی که امکان و ریسک ایجاد موارد مثبت را میکند

۳- آموزش سبک زندگی سالم و افزایش فعالیت بدنی حداقل ۳۰ دقیقه در روز

۴-دعوت از خانمهای سنین باروری به مراکز جامع سلامت جهت معاینات دوره ای و انجام غربالگریها

Secondary Prevention

1- بیماریابی بموقع در جمعیت در معرض ریسک و انجام اقدامات تستهای بیمار یابی و تشخیصی

۲- غربالگری کوموربیدتی های زمینه ای

Tertiary Prevention

- 1- درمان به موقع و مقتضی براساس آخرین و جدیدترین مطالعات
- 2- درمان کوموربیدیتی های همراه واقدامات پیشگیرانه جهت کنترل بیماری
- 3-مراقبت و مونیتورینگ بموقع بیماران

Quaternary Prevention

- 1- مونیتورینگ و فالواپ بموقع بیماران و ارایه خدمات درمانی مقتضی
- 2- عدم انجام اقدامات پاراکلینیکی و دارویی که تاثیر خاصی بر پیش آگهی و عوارض بیماری ندارد