

# Abnormal uterine bleeding

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Reproductive system (Phase II)

## Learning outcomes

- Be able to
  - Define what is “Abnormal uterine bleeding”
  - Discuss the causes of abnormal uterine bleeding.
  - Work out a differential diagnosis for a patient with AUB.
  - Develop an investigation plan in AUB.
  - Decide on a treatment plan for a patient with AUB



# Abnormal uterine bleeding

- Any variation from the normal menstrual cycle.
- Described using
  - Volume
  - Regularity
  - Frequency
  - Duration
  - Other

# Abnormal uterine bleeding

**Table 1.1 Terminology for AUB**

Terminology for variations in menstrual bleeding

Volume	Regularity	Frequency	Duration	Other
Heavy	Irregular	Frequent	Prolonged	Intermenstrual
Normal	Regular	Normal	Normal	Premenstrual
Light	Absent	Infrequent	Shortened	Breakthrough

# Abnormal uterine bleeding

- **Volume**

- Only subjective measurement
- Use of indirect evidence
  - Deviations from the usual, effect on the daily living

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Heavy menstrual  
bleeding

Excessive menstrual blood loss which interferes with the woman's physical, emotional, social, and material quality of life, and which can occur alone or in combination with other symptoms.



# Abnormal uterine bleeding

- **Regularity**

- The length of the bleeding free interval
- (Normal variation  $\pm 2$  to 20 days)

Irregular menstrual  
bleeding

A range of varying lengths of bleeding-free intervals  
exceeding 20 days within one 90-day reference  
period

Absent menstrual  
bleeding (amenorrhea)

No bleeding in a 90-day period

# Abnormal uterine bleeding

- **Frequency**

- The frequency of menstrual bleeding
- Every 24-38 days considered as normal

Infrequent menstrual bleeding

Bleeding at intervals  $> 38$  days apart (1 or 2 episodes in a 90-day period)

Frequent menstrual bleeding

Bleeding at intervals  $< 24$  days apart. (More than 4 episodes in a 90-day period)

# Abnormal uterine bleeding

- **Duration**

- The duration of bleeding in a menstrual period
- 3-8 days considered as normal

Prolonged menstrual  
bleeding

Describes menstrual blood loss which exceeds  
8 days in duration

Shortened menstrual  
bleeding

Menstrual bleeding less than 3 days in duration.



# Abnormal uterine bleeding

- **Other associated abnormalities**

- Non-menstrual bleeding that is present
- May be in association with abnormal or normal menstrual bleeding

Intermenstrual

Irregular episodes of bleeding, often light and short, occurring between otherwise fairly normal menstrual periods

Post-coital

Bleeding post-intercourse.

Premenstrual and post-menstrual spotting

Bleeding that may occur on a regular basis for one or more days before or after the recognized menstrual period.

## Other terminologies used

Post-menopausal  
bleeding

Bleeding occurring more than one year after the  
acknowledged menopause.

Precocious  
menstruation

Bleeding occurring before the age of 9 years.

Acute AUB

An episode of bleeding in a woman of reproductive  
age, who is not pregnant, that is of sufficient quantity  
to require immediate intervention to prevent further  
blood loss

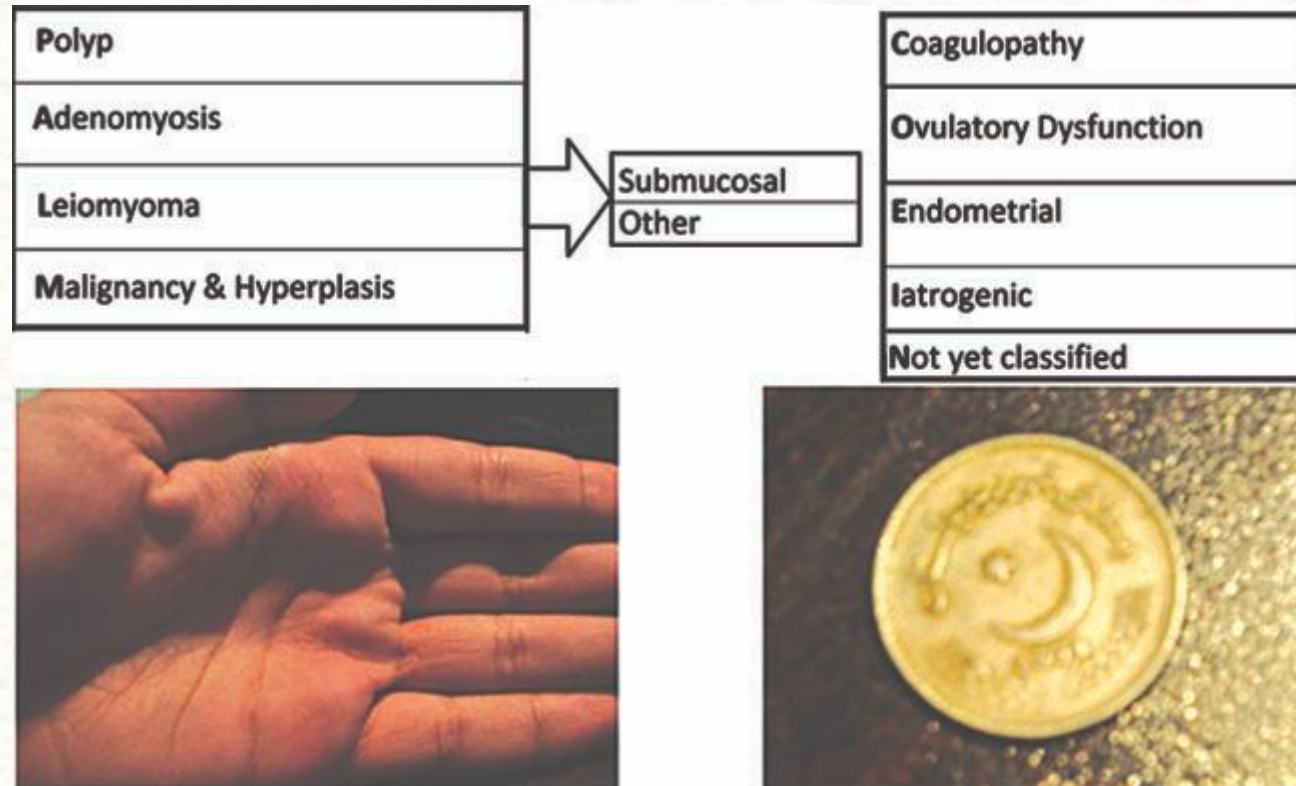
Chronic AUB

Bleeding that is abnormal in duration, volume, and/or  
frequency and has been present for most of the last  
6 months



# Causes of Abnormal uterine bleeding

- Structural or Non-structural (PALM COEIN classification)



**Figure-1:** Adopted from Munro et al.[5] FIGO classification system (PALM-COEIN) for causes of abnormal uterine bleeding in non-gravid women of reproductive age.

# Clinical evaluation

- Symptom analysis
  - Ovulatory AUB – regular, dysmenorrhea, PMS
  - Anovulatory AUB – irregular, infrequent
    - Heavy (normal E2.) Light (low E2)
  - Intermenstrual bleeding – polyp, malignancy or hyperplasia



# Clinical evaluation

- Symptoms suggestive of anemia
- Sexual and reproductive history
  - (contraception, risk of STI, fertility wishes)
- Impact on social and sexual functioning and quality of life
- Symptoms suggestive of systemic causes
  - hypothyroidism, hyperprolactinemia, coagulation disorders, polycystic ovary syndrome, adrenal or hypothalamic disorders
- Associated symptoms such as vaginal discharge or odour
- Pelvic pain or pressure – pelvic masses

# Clinical evaluation

- Vital signs and Weight/BMI
- Thyroid exam
- Skin exam (pallor, bruising, striae, hirsutism, petechiae)
- Abdominal exam (mass, hepatosplenomegaly)

## Gynaecological examination:

- Inspection: vulva, vagina, cervix, Bimanual examination of uterus and adnexal structures
- Testing: Pap smear, cervical cultures if risk for sexually transmitted infection



# Investigations

- Full blood count
- Coagulation profile – only if from menarche or there is positive family history.
- Thyroid profile – only if sym & signs suggestive
- Imaging – Ultrasound
  - Premenopausal endometrium 4-16mm.
  - Focal lesions
- Saline infusion sonohystrography
  - Good in detection of masses like polyp, fibroids

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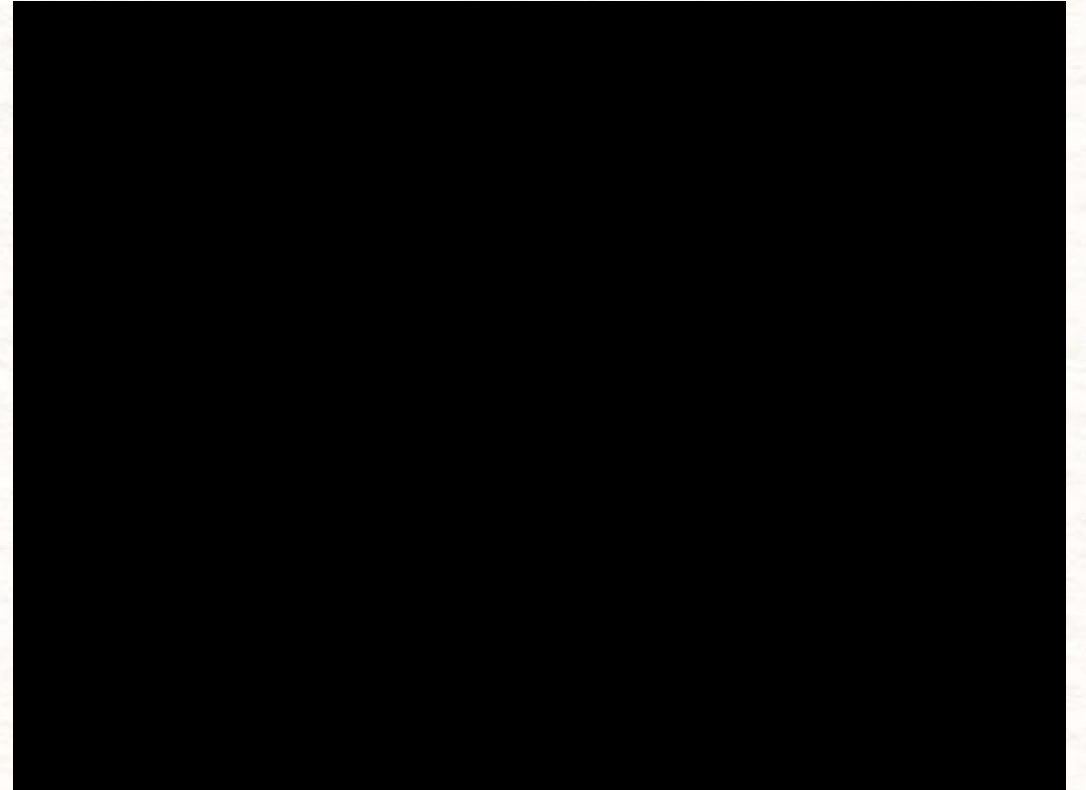
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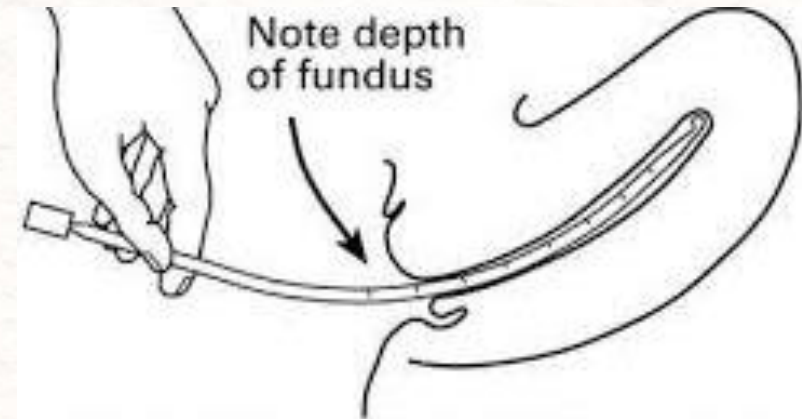
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- Hysteroscopy



# Endometrial assessment and biopsy

- Endometrial aspiration
  - Good pick up rate for Endometrial cancer (>90%)
- Hysteroscopy guided biopsy
  - When focal lesions are detected on USS



We thank Genesis Medical Ltd for permission to reproduce the diagram



# Endometrial assessment and biopsy

## Indications for endometrial biopsy

- Age > 40
- Risk factors for endometrial cancer
- Failure of medical treatment
- Significant intermenstrual bleeding
- Risk of endometrial malignancy or premalignant conditions
  - Age, Obesity (BMI > 30 kg/m<sup>2</sup>), Nulliparity, PCOS, Diabetes
  - HNPCC (Hereditary nonpolyposis colorectal cancer)



# Treatment of AUB

## Medical

- Non-hormonal
  - Non-steroidal anti-inflammatory drugs
  - Antifibrinolytics
- Hormonal
  - Combined hormonal contraceptives
  - Levonorgestrel-releasing intrauterine system
  - Oral progestins (long phase, days 5 to 26)
  - Depot-medroxyprogesterone acetate
  - Danazol
  - GnRH-agonists

# Treatment of AUB

## Surgical

- Specific
  - Hysteroscopic polypectomy
  - Myomectomy
- Non-specific
  - endometrial ablation
  - hysterectomy



# Treatment of AUB

## Indications for surgical treatment

- failure to respond to medical therapy,
- inability to utilize medical therapies (i.e. side effects, contraindications)
- significant anaemia
- impact on quality of life
- concomitant uterine pathology (large uterine fibroids, endometrial hyperplasia).