CLINICAL GUIDELINE

This document is intended to guide clinical care without changing the responsibility of the health care team or the patient.
It never replaces clinical judgment and individualized care.

Developed and endorsed by SASOG as part of the BetterGYN® programme

GUIDELINE FOR THE MANAGEMENT OF ABNORMAL UTERINE BLEEDING (AUB)

Definition:

Excessive menstrual blood loss which interferes with a woman's physical, social, emotional and material quality of life. FIGO AUB System 1 defines the types of AUB parameters including frequency, regularity, duration, volume [Heavy menstrual bleeding (HMB)] and intermenstrual bleeding.

Chronic non-gestational AUB in the reproductive years is defined as bleeding from the uterine corpus that is abnormal in duration, volume, frequency, and/or regularity, and has been present for the majority of the preceding 6 months. Acute AUB is defined as an episode of heavy bleeding that, in the opinion of the clinician, is of sufficient quantity to require immediate intervention in order to minimize or prevent further blood loss. Acute heavy menstrual bleeding may occur in the context of existing chronic AUB, or in the absence of such a background history.

Impact:

The prevalence is approximately 3%–30% among reproductive aged women. Approximately one third of women are affected at some point in their lives. It may impact on physical, emotional, sexual and professional aspects of the women's lives, and impair quality of life. Iron deficiency and anemia may follow, with all its medical consequences.

Clinical assessment:

The FIGO System 2 acronym PALM-COEIN systematically defines the most common aetiologies for AUB with structural (PALM) and non-structural (COEIN) causes of AUB. The acronym stands for polyp[s], adenomyosis, leiomyoma, malignancy, coagulopathy, ovulatory dysfunction, endometrial disorders, iatrogenic, and not yet classified.

After excluding pregnancy, the initial evaluation includes a detailed history of menstrual bleeding and medical conditions, focusing on risk factors for coagulopathies, endometrial cancer, medications in use, concomitant diseases. The evaluation also includes a complete physical examination focusing on signs of polycystic ovarian syndrome, insulin resistance, thyroid diseases, petechiae, bruises, vagina or cervix lesions, and uterine size.

Once the bleeding has been confirmed to originate in the cervical canal or endometrial cavity, the patient is systematically evaluated for each of the components of FIGO AUB System 2, the PALM-COEIN classification.

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Special tests:

At the time of examination, **cervical cytology** is done, as well as a **biopsy of any visible lesions** (cervix, vagina). An **endometrial biopsy** is done if possible and appropriate.

Pelvic ultrasound is done to evaluate the myometrium (fibroids, adenomyosis), endometrial thickness (hyperplasia, malignancy), and cavity (endometrial polyps, submucosal fibroids). This is best performed transvaginally, but should be performed transabdominally in women who have not been sexually active, or in the presence of large pelvic mass. Saline infusion sonography (SIS) may help to define polyps and fibroids.

Endometrial histology and further evaluation is indicated if ultrasound findings do not exclude anomalies, or if bleeding persists. This is done using hysteroscopy with biopsy, or an office endometrial biopsy is performed.

Blood tests include a beta-HCG during the reproductive ages, FBC, platelets and ferritin. TSH and T4 is done if thyroid disease is suspected, mid-luteal progesterone if there is uncertainty about the ovulatory status, or if bleeding is irregular. Assays for von Willebrand factor, Ristocetin cofactor, and partial thromboplastin time (PTT) if the patient screens positive on history for a systemic disorder of haemostasis.

Further tests, including imaging, depend on the findings of the initial evaluation.

Treatment options:

Management of chronic AUB:

1. Use FIGO AUB system 1 to classify the symptoms of bleeding.
2. Determine the extent of bleeding and the clinical impact of symptoms on the patient – lifestyle, anaemia.
3. Evaluate underlying cause using the FIGO System 2 acronym PALM-COEIN and treat accordingly.

Management for acute AUB:

1. Resuscitate
2. Establish the most likely cause after excluding pregnancy (see above).
3. Try to promptly stop the bleeding. Options include:
    - Tranexamic acid 10mg/kg IVI or 1.5g TDS po for 5 days
    - High dose of intravenous conjugated equine estrogen -25 mg 6 hrly IVI for 24 hrs with antiemetic
    - Monophasic 30-35ug COCP TDS for 7 days and then daily thereafter with antiemetic
    - Medroxyprogesterone acetate 20mg tds po for 7 days and then 20mg dly for 3 weeks
    - An Intrauterine tamponade with a 26F Foley catheter infused with 30 mL of fluid may be used to control acute bleeding.

Choice of treatment for structural causes:

Polyps are usually treated by hysteroscopic resection or polypectomy.

Adenomyosis can be treated medically by continuous contraceptive hormones, high-dose progestins, selective oestrogen receptor modulators (SERMs), selective progesterone receptor modulators (SPRMs), the 52-mg LNG IUS, aromatase inhibitors, danazol, or by temporary use of gonadotropin receptor hormone

(GnRH) agonists. Surgical treatment by hysterectomy is offered when medical therapy fails, or is not acceptable to the patient.

Uterine leiomyoma as a cause of AUB can also be treated medically by tranexamic acid, nonsteroidal anti-inflammatory drugs (NSAIDs), contraceptive hormones, danazol, GnRH agonists, aromatase inhibitors, SERMs, SPRMs and LNG IUS (if uterine cavity normal). Physical or radiological treatment options include uterine artery embolization (UAE), MRI-guided focused ultrasound (MgFUS), and laparoscopic radiofrequency ablation. Surgical treatment options are myomectomy (via hysteroscopy, laparoscopy, or laparotomy) and hysterectomy. The option for treatment depends on the patient's choice and fertility wishes, the availability of the methods, as well as the size, number and position of uterine tumours.

Malignant or possibly malignant tumours are managed by confirming the diagnosis, stage and extent of the disease and planning urgent and appropriate surgical, medical and/or radiotherapy by a qualified specialist or centre.

Choice of treatment for non-structural causes:

The main aims are to gain endometrial stabilization, control the factors involved in desquamation and endometrial healing, and to reduce bleeding volume.

Hormonal treatment options:

- Combined oestrogen and progestogen pill (COCP)
- Cyclic or continuous oral progestogen
- Injectable progestogen
- LNG-IUS
- GnRh analog

Non-hormonal treatment options:

- NSAIDS
- Tranexamic acid

Surgical treatment options:

- Endometrial ablation
- Hysterectomy

Prognosis:

Most benign causes of AUB have a good prognosis. Prognosis for malignant causes is disease- and stage-dependent.

References:

1. Munro MG, Critchley HO, Fraser IS. The FIGO classification of causes of abnormal uterine bleeding in the reproductive years. *Fertil Steril*. 2011;95:2204–2208, 8.e1-3.

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3. Marnach ML, Laughlin-Tommaso SK. Evaluation and management of abnormal uterine bleeding. Mayo Clin Proc. 2019 Feb;94(2):326-335. doi: 10.1016/j.mayocp.2018.12.012. Review
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