POLICY STATEMENT
Abnormal uterine bleeding (AUB) is one of the most common concerns addressed by clinicians providing health care to women. This broad diagnosis encompasses all types of uterine bleeding that are outside the client’s accepted definition of normal. Clinicians must be knowledgeable about AUB and available treatment options and need to develop a mutually agreeable treatment plan in partnership with the woman.

BLOOD BORNE PATHOGEN
EXPOSURE CATEGORY: I (Involves exposure to blood, body fluids, or tissues)

FUNCTION: Care of Clients

EQUIPMENT:
1. Speculum exam and necessary supplies

POINTS OF EMPHASIS:
Abnormal uterine bleeding affects as many as one-third of reproductive-aged women. Indeed, women of reproductive age are much more frequently affected by AUB than premenarchal or menopausal women. Women with AUB may experience pain, embarrassment, inconvenience, and ritualistic behavior to avoid social embarrassment that can have a significant impact on their lives. Not surprisingly, women with AUB report a significantly poorer quality of life when compared to unaffected women of similar ages.

While there are a plethora of terms surround AUB, the Nurse Midwife might consider describing abnormalities of menstrual bleeding with four symptom-based dimensions: cycle regularity (irregular, regular, or absent), frequency of menstruation (frequent, normal, or infrequent), duration of menstrual flow (prolonged, normal, or shortened), and volume of menstrual flow (heavy, normal, or light).

Common etiologies include infection, polyps (cervical or endometrial), uterine fibroids, systemic illness, stress, an iatrogenic factors. In clients who present with AUB and pelvic or vaginal pain, consider sexual trauma early. Clinicians should always consider pregnancy first when a reproductive-aged women presents with AUB because scant bright red bleeding may be related to implantation of cervical vascularization. Other pregnancy-related causes of bleeding include spontaneous abortion, septic abortion, and ectopic pregnancy. In the presence of negative pregnancy test, ovulation should be assessed to determine whether the bleeding is ovulatory or anovulatory. This is accomplished through a careful evaluation of the woman’s menstrual history. Ovulatory bleeding is much more common than anovulatory bleeding and should be suspected with cyclic bleeding regardless of the presence or absence of dysmenorrhea, midcycle pelvic pain, or other common premenstrual symptoms. However, anovulatory bleeding is more common in adolescent, perimenopausal, and obese women. Women with clinical signs of hyperandrogenism, including hirsutism and acne, who present with anovulatory bleeding should be evaluated for polycystic ovary syndrome (PCOS). Clinicians should have a low threshold for suspecting infection as the etiology for underlying AUB.

Both endometrial and cervical polyps should be considered as potential causes of AUB. Endometrial polyps are typically asymptomatic but are capable of causing heavy menses, postcoital bleeding, and intermenstrual spotting. In most cases, endometrial polyps are not palpable during physical examination and usually require further testing for diagnosis. Pendunculated polyps are the exception due to their potential extension through the cervix, making them visible on examination. In such cases, many women experience pelvic pain and dyspareunia. Cervical polyps often are visible on speculum examination and may be palpable on bimanual examination. They often are associated with postcoital bleeding. Endometrial polyps most commonly present after menopause but may occur in women of childbearing age and
are more likely to cause AUB in the younger woman, in contrast to cervical polyps, which are common in parous women aged over 20 years.

Uterine fibroids are prevalent in as many as 20% of reproductive-aged women and most commonly occur after age 30. Client presentation commonly includes intermenstrual bleeding and menorrhagia (hypermenorrhea). Other symptoms may include pelvic or abdominal fullness, dyspareunia, and/or menstrual cramps.

Systemic illnesses linked to AUB include diabetes mellitus, PCOS, hypertyroidism, and liver disease. In the absence of systemic illness, excessive physical or psychological stress, body mass index less than 18.5 or greater than 30, and history of an eating disorder are all associated with AUB. Coagulopathies can result in menorrhagia and should be considered as a possible etiology in the client who presents with a history of easy bruising or excessive bleeding following procedures.

Contraceptives including COC, POP, and the IUDs are all iatrogenic contributors to AUB. Other causative pharmacologic agents include anticoagulants, certain antiepileptic drugs, selective estrogen receptor modifiers, levothyroxine, hormone therapy, corticosteroids, selective serotonin reuptake inhibitors, and antipsychotics. Ginseng, ginkgo biloba, and soy use also may result in AUB.

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### Dysfunctional Uterine Bleeding

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
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<tbody>
<tr>
<td>Abnormal uterine bleeding in the absence of anatomic or systemic disease</td>
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<tr>
<td>Amenorrhea</td>
<td>Absence of menses for an interval of time equivalent to a total of three or more previous cycles or six months</td>
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<tr>
<td>Menometrorrhagia</td>
<td>Prolonged/excessive menses and bleeding at irregular intervals</td>
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<tr>
<td>Menorrhagia</td>
<td>Prolonged/excessive menses at regular intervals in excess of 80mL or lasting longer than 7 days (synonymous with hypermenorrhea)</td>
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<tr>
<td>Metrorrhagia</td>
<td>Bleeding at irregular intervals</td>
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<tr>
<td>Oligomenorrhea</td>
<td>Infrequent menses; menstrual cycles lasting longer than 35 days</td>
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<tr>
<td>Polymenorrhea</td>
<td>Frequent menses; menstrual cycles lasting less than 21 days</td>
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### PROCEDURE:

*Abnormal uterine bleeding in the absence of anatomic or systemic disease*

A detailed menstrual, medical, and family history is vital in evaluating AUB.

1. The menstrual history should include age at menarche; date of problem onset, last menstrual periods, and last normal menstrual period; a description of the bleeding pattern; and associated symptoms.
2. Quantifiable sanitary item use (both daily and monthly total) and the passage of clots larger than 1 cm should be assessed.
3. The medical history should include all current and previous medications, sexually transmitted infections, and vaginal infections.
4. Psychological, sexual, obstetric, and gynecologic history should be assessed.
5. Personal stress, fatigue, exercise patterns, dietary intake, and family history of endocrine disorders should be assessed.
6. The Bleeding Assessment Tool, a questionnaire that reviews bleeding characteristics, may be helpful in evaluating bleeding patterns in symptomatic clients. Unfortunately, pictorial blood assessment charts have conflicting predictive values for diagnosing menorrhagia, with sensitivities ranging from 58% to 89%. However, a 8-question survey combined with a pictorial chart has 92% sensitivity (95% confidence interval) for detecting von Willebrand disease and 94% sensitivity for detecting coagulation defects (95% CI). Evaluation for a coagulation abnormality should be conducted in women with prolonged bleeding following dental work, those who bruise easily, or those who have a family history of clotting disorders. Bleeding disorders should be considered especially in cases of menorrhagia refractory to hormonal treatment.
Special diagnostic considerations for adolescents with AUB include:
7. evaluating the maturity of the hypothalamic-pituitary-ovarian axis and inquiring about sexual activity and practices when ruling out potential infection.
8. Irregular bleeding within the first two years of menarche in the absence of decreased quality of life often can be attributed to anovulation and may not require treatment.
9. ACOG recommends a coagulopathy evaluation for AUB in women aged under 18 years. Despite this recommendation, Kulp et al found in a chart review that only 37% of providers screened for bleeding disorders in adolescents with AUB, while only 15% ordered laboratory testing. Among adolescents with heavy menstrual bleeding since menarche, 65% had underlying bleeding disorders.

The physical exam of a reproductive-aged woman presenting with AUB should include:
10. a speculum exam to assess for obvious cervical lesions, cervicitis, polyps, bleeding or other abnormal discharge, and signs of pregnancy (Hegar sign and/or Goodell sign).
11. Clinicians might also provide a bimanual examination to assess for uterine fibroids, cervical motion tenderness, an enlarged uterus, enlarged ovaries, or other structural abnormalities.
12. Additionally, the physical exam should include careful observation for clinical signs of PCOS, thyroid dysfunction, elevated body mass index, or galactorrhea.

The laboratory evaluation of AUB should begin with:
13. a pregnancy test.
14. A complete blood count with differential will inform the clinician about potential platelet-related coagulopathies or anemias.
15. Serum ferritin levels may be useful in evaluating long-term iron depletion.
16. For clients with normal platelet counts, further diagnostic laboratory tests include prothrombin time, activated partial thromboplastin time, factor VIII, and von Willebrand factor ristocetin cofactor and antigen. Testing for von Willebrand disease should be done prior to hormonal therapy due to the potential for elevation of von Willebrand factor from exogenous estrogen. Testing for von Willebrand disease has proven to be cost-effective as part of the initial evaluation, especially for adolescents with menorrhagia.

Endometrial assessment can be accomplished via:
17. transvaginal ultrasound measurement of the endometrial stripe and structural landscape. This is preferably done between days 4 and 6 of the menstrual cycle. While the diagnostic value of transvaginal sonography remains in question, its capacity to visualize the entire uterus, endometrium, and adnexa makes it a good tool for tailoring subsequent investigation. The sensitivity and specificity in detecting endometrial pathology in premenopausal women is 67% and 75%, respectively, when an endometrial thickness cutoff of greater than 8 mm is used.
18. Polyps, fibroids, intrauterine adhesions, and the presence of cul-de-sac fluid all can be identified via ultrasound.
19. If a thickened endometrium is observed, a biopsy should be performed to evaluate for hyperplasia or chronic endometritis.
20. ACOG recommends endometrial biopsy for adolescents aged 13 to 18 years with 2 to 3 years of untreated anovulatory bleeding (especially if obese), women who do not respond to medical therapy or have periods or prolonged unopposed estrogen second to chronic anovulation, and women aged over 25 years with anovulatory uterine bleeding.
21. Hysteroscopy permits directed biopsy through visualization of the uterine cavity and is regarded as the criterion standard for endometrial evaluation.

Treatment options for AUB include pharmacologic preparations and surgery. Pharmacologic therapy is the first-line treatment, with the goal of restoring the predictability of menses or stopping it entirely, as well as correcting anemia. Surgical treatments aim to eliminate menses altogether but are invasive and carry greater risk than pharmacologic therapies. Therefore, treatment must be individualized based on the underlying etiology, bleeding pattern, client age, contraceptive needs, quality of life effects, and client preference. In addition, desire for future fertility is an important component of individualization treatment for reproductive-aged women.

Pharmacologic Treatments
22. Combined contraceptives, including oral, transdermal patch, and vaginal ring options, are often the first-line treatments for AUB and are the treatment of choice for adolescents.

23. For acute heavy bleeding, monophasic oral preparations may be given 3 to 4 times per day until the bleeding ceases, followed by tapering to once per day.

24. For long-term therapy, low-dose combined contraceptives may be given continuously for 3 months to stabilize the endometrium.

25. Oral cyclic progestogens, including Provera, Aygestin, and Prometrium, also are effective in treating AUB through the prevention of endometrial growth and facilitation of organized endometrial sloughing. Provera is commonly used for AUB treatment; however, it reduces mean menstrual blood loss by only 22% and is successful in treating only 22% of women with AUB.

26. A recent Cochrane review concluded that oral progestogen therapy during the luteal phase significantly reduces menstrual blood loss; however, it is significantly less effective in treating heavy bleeding compared to tranexamic acid, danazol, and the Mirena and offers no advantage over other pharmacologic therapies.

27. Levels of prostaglandins have been found to be higher in women with heavy menstrual bleeding. NSAIDS can reduce intrauterine bleeding. NSAIDS can be taken safely in combination with COC and are useful for the treatment of dysmenorrhea.

28. The Mirena is highly effective at treating AUB. Kaunitz et al report that this system decreases mean menstrual blood loss by 71% and successfully treats 85% of women with AUB. Clinicians should be aware that some women experience irregular bleeding while using the LNG-IUS, a leading reason for discontinuation.

Approximately half of all women who receive pharmacologic treatment for AUB eventually choose surgical treatment.

29. Certainly these options should be saved for those who do not desire future fertility.

30. Surgical treatments for AUB include endometrial ablation, hysterectomy, and therapies for underlying uterine abnormalities (eg. uterine artery embolization, polypectomy).

31. The Nurse Midwife would need to consult/refer to an obstetrician for such options as appropriate for her client.

REFERENCES:


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