

SCOPE OF PRACTICE

TARGET POPULATION

- Clients presenting with a history of abnormal vaginal bleeding (PVB) including post-coital bleeding (PCB), intermenstrual bleeding (IMB) and other patterns of abnormal vaginal bleeding

EXCLUSION CRITERIA

- Clients with ongoing abnormal vaginal bleeding or irregular menses
- Clients with acute pain or frequent or prolonged bleeding
- Clients who are pregnant, breast feeding or immunocompromised

GUIDELINE OBJECTIVES AND ANTICIPATED OUTCOMES

- Identify aetiology of abnormal PV bleed
- Assess the risk of pregnancy, ectopic pregnancy, or miscarriage
- Assess the of acquisition of a sexually transmitted infection (STI)
- Referral to a Medical Officer(MO) or Gynaecologist or Emergency Department for further management where appropriate

BACKGROUND

CONDITION DESCRIPTION

The causes of abnormal per-vaginal bleeding (PVB) include a wide range of conditions of the reproductive system. Abnormal PVB is a common problem that affects one in five women during the pre-menopausal years.^{1,2} In women of child bearing age, abnormal bleeding includes any change in menstrual period frequency or duration, or amount of flow, as well as bleeding between cycles.^{2, 3,4} There are seven patterns in the standard classification of abnormal PV bleeding: menorrhagia, hypomenorrhoea, metrorrhagia, polymenorrhoea, menometrorrhagia, oligomenorrhoea and amenorrhoea.^{1,2,3} There are a number of causes for PVB, some of which are life threatening.

Dysfunctional bleeding may be anovulatory (which is characterised by irregular unpredictable bleeding or ovulatory), or ovulatory (which is characterised by heavy but regular periods).^{3,5} Structural causes of abnormal PVB include fibroids, polyps, and endometrial carcinoma and complications of pregnancy.^{2,3,4,6} Abnormal PVB can also result as a side effect related to contraceptive method.^{3,5,6}

A menstrual cycle of fewer than 21 days or more than 35 days or a menstrual flow of fewer than two days or more than seven days is considered abnormal and the average blood loss is considered to be 40mls \pm 20mls.^{1, 2, 3}

CLASSIFICATION	DEFINITION
Menorrhagia (hypermenorrhoea)	Heavy or prolonged menstrual flow; excessive amount (>80 ml / cycle) or prolonged duration (>7 days/cycle). Occurs at regular intervals.
Hypomenorrhoea (cryptomenorrhoea)	Light menstrual flow; spotting
Metrorrhagia (intermenstrual bleeding)	Bleeding or spotting occurring between normal periods
Polymenorrhoea	Periods that occur too frequently
Menometrorrhagia	Bleeding that occurs at irregular intervals
Oligomenorrhoea	Menstrual periods occurring more than 35 days apart Amenorrhoea is when there is no menses for than 6 months
Contact bleeding (postcoital bleeding)	Bleeding following sexual intercourse

Table F1.1: Classification and definition of abnormal vaginal bleeding ^{1,2,3}

Causes of abnormal PVB

Pregnancy

PVB in the pre/perimenopausal women is commonly pregnancy-related.^{3,6} It may be an indication of threatened, actual or incomplete miscarriage or ectopic pregnancy. If these complications occur before a woman is aware she is pregnant, she may not identify PVB as being pregnancy-related. Therefore, it is important that the possibility of pregnancy is discussed at the initial consultation.

PREGNANCY AND PREGNANCY RELATED CONDITIONS CAUSING PVB

- Ectopic pregnancy
- Miscarriage
- Placenta previa
- Abruptio placentae
- Trophoblastic disease
- Post natal infection

Table F1.2: Complications of pregnancy ^{3,6}

Side effects of oral hormonal medication

PVB is also a relatively common side effect of the oral contraceptive pill, particularly in the first three months of use. Withdrawal bleeding can occur if the hormone level is inadequate in keeping the lining of the uterus (endometrium) stable or if a woman misses some of the pills, or the absorption is affected by drug interactions or vomiting/diarrhoea.^{4,12,14} This type of bleeding is referred to as 'break-through-bleeding'. If break-through-bleeding continues and is not caused by missed pills a higher dose pill may be prescribed. PVB can also be a side effect of injectable contraceptives (eg. Depo-Provera) implants (eg. Implanon) or IUDs (eg. Mirena).^{4,12,14}

Endocrine causes

Endocrine abnormalities may also cause PVB. Women with hypothyroidism may experience heavy and/or long periods or, when more severe, a lack of periods (amenorrhoea).^{2,3} Women with hyperthyroidism may find their periods irregular, scanty, shorter or that they stop menstruating altogether.^{2,3} Type 1 diabetes and polycystic ovarian syndrome (PCOS) are other conditions that may contribute to changes in the normal menstrual cycle.^{2,3}

Medications including Over-the-counter (OTC) medicines

Anticoagulants, some antidepressants, antipsychotics, corticosteroids and hormonal medications can cause PVB.^{1,3} Iatrogenic causes of abnormal vaginal bleeding include steroids, hypothalamic depressants, digitalis, phenytoin, anticoagulants, and intravaginal contraceptive devices.^{1,3} OTC medicines with some herbal supplements have been associated with PVB such as ginseng and soy supplements which results in elevated levels of oestrogen.^{1,2,3} Similarly, ginkgo may also lead to PVB.²

MEDICATIONS THAT MAY CAUSE PVB

- Phenytoin
- Antipsychotics; olanzapine, risperidone
- Tricyclic antidepressants; amitriptyline, nortriptyline
- Corticosteroids; prednisone, dexamethasone

Table F1.3: Medication causing PVB²

Tumours and Infections

Malignant tumours such as endometrial, cervical, vaginal, vulvar malignancies are also causes of PVB.^{1,2} Severe vaginal infections, STIs and infections in the genital tract, endometritis and salpingitis may also result in PVB.^{1,2} Cancers of the genital tract, benign pelvic disorders, traumatic lesions of the vagina, ovarian cysts, polyps, fibroids, foreign bodies, cervical polyps, cervical erosion, cervicitis, adenomyosis, endometriosis, and endometrial polyps are all possible causes.^{1,2}

Risk factors for endometrial cancer include obesity, diabetes, no parity, family history, tamoxifen therapy and, most importantly, age. The incidence of endometrial cancer in those aged 30-34 is 1.6 cases per 100 000 compared to 27.6 and 47.8 cases per 100 000 in those aged 50-54 and 55-59 years respectively.² Systemic diseases that may cause abnormal vaginal bleeding include cirrhosis, hirsutism, hypertension, and coagulation disorders (eg. von Willebrand disease).^{2,3,4,6}

INVESTIGATIONS AND DIAGNOSIS

Determining the cause of abnormal bleeding requires a detailed gynaecological, sexual and menstrual history. Which diagnostic tests are performed will depend on symptoms, duration of symptoms and whether the client is premenopausal, perimenopausal or postmenopausal as well as risk factors for endometrial cancer. In order to determine whether bleeding is abnormal, and determine its cause, three important questions include^{13,14}:

- Is the woman pregnant?
- What is the pattern of the bleeding?
- Is she ovulating?

A pelvic examination may yield any obvious causes of PV bleeding (eg. lacerations, vaginal atrophy, polyps, and signs of infection). The clinician needs to consider the possibility that the origin of the bleeding may not be from the vagina but other sources such as the urethra, anus or haemorrhoids.^{6,8,10} If the woman is at risk of sexually transmitted infections a cervical swab should be collected for testing of the various STIs and for BV and candidiasis.^{12,13,14} A Pap test should also be taken at this time.

INVESTIGATIONS^{1,2,3,4}

- β HCG urine or serology to exclude pregnancy
- Physical Examination
- Cervical cytology; clients should have a repeat Pap test if previous test was > 3 months ago.
- Consider baseline STI / BBV screening including BV and candidiasis
- Complete blood count (FBE); Thyroid function test (TFT)
- Iron (Fe^{2+}) studies; to help determine the degree of anemia.
- Institute bleeding chart (see Appendix 1)
- Urine analysis/ MSU to exclude infective process if history suggestive of urinary symptoms

ASSESSMENT	
General History	<ul style="list-style-type: none"> • Age • Medications including hormonal contraceptive use • Cigarette smoking • Diet and exercise history, recent weight loss • Drug use (Over the counter, recreational and complimentary therapies) • Weight, height, Body Mass Index
Family History	<ul style="list-style-type: none"> • Diabetes screen and family history • History of breast, endometrial and bowel cancer and diabetes • History known dyscrasias, coagulation defects, haemorrhage or bruising.
Gynaecological History	<ul style="list-style-type: none"> • Previous episodes of abnormal PV bleeding and investigations • Pap test history • Gynaecological surgery • Pelvic pain • Known gynaecological conditions
Obstetric History	<ul style="list-style-type: none"> • Parity • Infertility or sub fertility • ? Post natal
Menstrual History	<ul style="list-style-type: none"> • Last normal menstrual period (LNMP); presence of pregnancy symptoms • Age at menarche, post menopausal bleeding • Intermenstrual bleeding (IMB) • Cycle length, duration; estimated amount of flow, dates and patterns of last three normal menstrual periods • Presence of clots • Premenstrual symptoms • Colour / character of flow and related signs and symptoms (pain, odour, discharge)
Contraceptive Use History	<ul style="list-style-type: none"> • Contraceptive use, type, • Length of time used • Side effects and missed pills
Sexual History	<ul style="list-style-type: none"> • Risk of STI / BBV • Post coital bleeding (PCI) • Pain on sex or general pelvic pain • Risk of pregnancy due to unprotected sexual contact

Table F1.4: PVB Assessment^{1,2,3,4}

MANAGEMENT

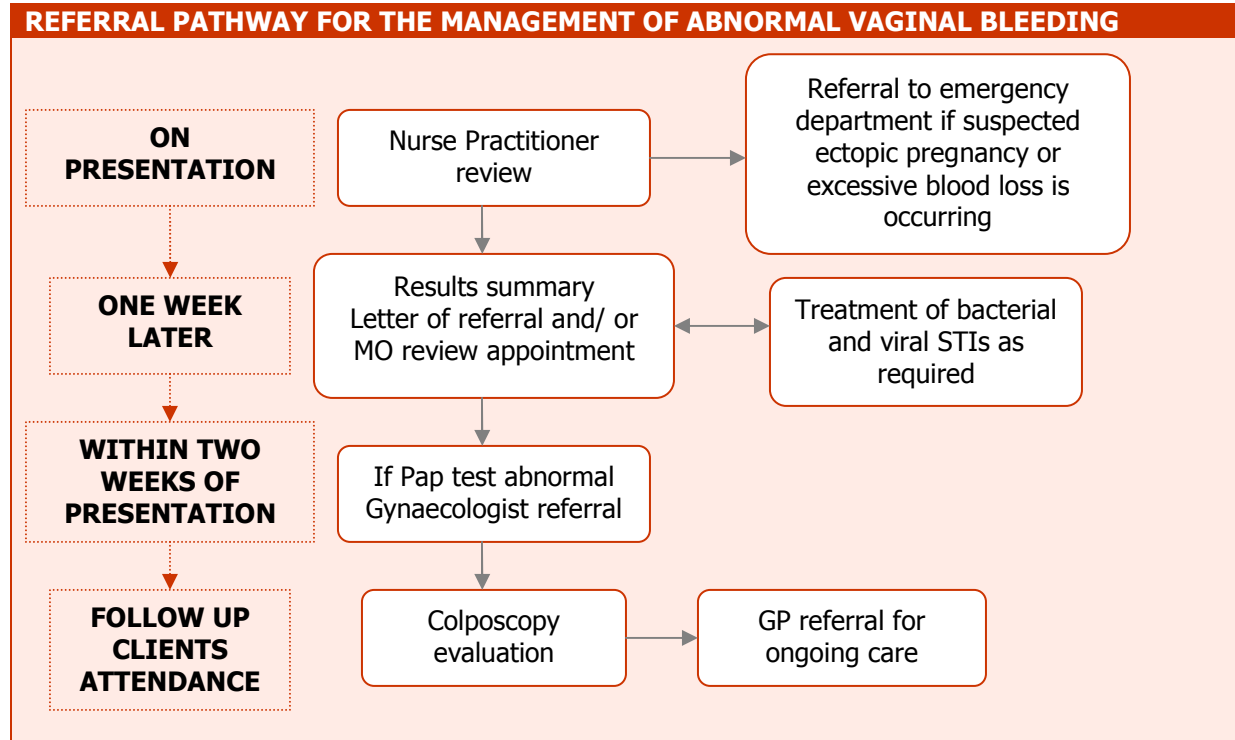
All clients with abnormal vaginal bleeding require an MO review in a timely manner after initial baseline investigations and assessments have been completed and earlier if symptoms exacerbate. Referral to Emergency Department should involve consultation with MO via phone or in person.

REFERRAL TO MEDICAL OFFICER

- Women with PVB after initial assessment by a Nurse Practitioner
- Persistent intermenstrual bleeding with or without Post coital bleeding (PCB)
- Women on hormonal therapy including COC, POP, DMPA, Implanon, Mirena and HRT

REFERRAL TO EMERGENCY DEPARTMENT

- Severe acute vaginal bleeding in non pregnant women
- Acute vaginal bleeding in a pregnant women
- Ectopic pregnancy (clinical suspicion/confirmed)
- Significant ongoing bleeding
- Acute pain
- Hemodynamically compromised clients









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Appendix 1: Bleeding Chart

BLEEDING CHART

NAME	DATE:								
PADS		DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
1									
5									
20									
TAMPONS		DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
1									
5									
20									
DAILY SCORE									

TOTAL SCORE:

IF SCORE OF >185 THEN LIKELIHOOD OF MENSTRUAL BLOOD LOSS = 80ML/CYCLE IS INCREASED.

Janssen, CA et al: A simple visual assessment technique to discriminate between menorrhagia and normal menstrual loss. *Obstetrics and Gynaecology* 85:977-982, 1995.