

Prenatal Hemorrhage

Hemorrhage may occur early or late in pregnancy, owing to certain physiological problems, each with its own signs and symptoms, which help in establishing a differential diagnosis and in creating the plan of care. This general guide for care is meant to treat hemorrhage in the antepartal client. Where appropriate, interventions specific to each physiological problem are identified.

CLIENT ASSESSMENT DATA BASE: GENERAL FINDINGS

Circulation

Hypertension or hypotension may be present.
Pallor.
Dizziness.

Ego Integrity

Anxious, fearful, apprehensive

Food/Fluid

Nausea/vomiting

Safety

Pelvic inflammatory disease; repeated episodes of gonorrhea

Sexuality

Multiparity and advanced maternal age (>35).
Previous cesarean sections.
Repeated second- or third-trimester abortions.
Cervical scarring from lacerations, cervical conization, elective abortions, or dilation and curettage (D & C).
Specific conditions with appropriate signs and symptoms are listed in the prenatal time sequence in which they might appear.

Ectopic Pregnancy

Timing of rupture depends on location of fetus; i.e., isthmus of fallopian tube may rupture after 4–5 wk; an interstitial implantation may not rupture until the beginning of the second trimester. (Note: Enhanced diagnostic techniques are helping to identify the anomaly prior to tubal rupture.)

Circulation

Hypotension
Tachycardia
Delayed capillary refill
Cold, clammy skin
Faintness, syncope

Food/Fluid

Abdomen may be tender.

Pain/Discomfort

Colicky abdominal pain.
Referred shoulder pain may be noted as abdomen fills with blood.
Severe one-sided pain may occur in presence of tubal rupture.

Safety

Normal or subnormal temperature

Sexuality

Abdominal tenderness.
Uterine enlargement may be noted.
Adnexal mass is palpable on pelvic examination.
History of infertility/assisted reproductive techniques; use of progestin as only contraceptive/intrauterine device; prior tubal surgery.
Abortion: can occur at any time prior to 20 weeks' gestation. (Refer to CP: Spontaneous Termination.)

Hydatidiform Mole (Gestational Trophoblastic Disease)

May occur as early as the 4th week or as late as the second trimester

Circulation

Hypertensive symptoms and/or edema may have developed before 20 weeks' gestation (PIH).

Food/Fluid

Severe nausea/vomiting (hyperemesis gravidarum).
Urine may be positive for protein.

Sexuality

Uterus may be enlarged out of proportion to gestation or may be smaller than anticipated; bilateral ovarian enlargement.
No FHTs or fetal outline palpable; no fetal activity noted.
Clear, grapelike vesicles passed vaginally.
Decrease in breast tissue.

Placenta Previa

Generally occurs after 20 weeks' gestation, usually third trimester; commonly the 8th mo (34 wk).

Circulation

Painless vaginal bleeding (amount dependent on whether previa is marginal, partial, or total); profuse bleeding may occur during labor.

Sexuality

Fundal height 28 cm or greater.
FHT within normal limits (WNL).
Fetus may be in transverse lie or unengaged.
Uterus soft.
Multiple gestation; increasing parity.
History of prior placenta previa, uterine surgery.

Abruptio Placentae

Premature separation of placenta usually occurs during third trimester, often during labor.

Circulation

Hypertension (predisposing factor).

Bleeding may be dark or bright; may be concealed.

Food/Fluid

Abdomen hard, boardlike; uterus tense with symmetric or asymmetric enlargement

Pain/Discomfort

May have pain with retroplacental hemorrhage; usually sudden onset, constant, marked tenderness to severe general or localized pain; low back pain

Sexuality

Rising uterine fundus, and tender to palpation.

Uterine tone may be increased; progressive decrease of relaxation between contractions.

Hyperactive fetus.

FHT may be WNL or may demonstrate bradycardia or tachycardia.

DIAGNOSTIC STUDIES

Culdocentesis: Positive for free blood.

Complete Blood Count (CBC): May reveal elevated WBC count, lowered Hb and Hct.

Human Chorionic Gonadotropin (HCG) Titers: Lowered with ectopic pregnancy, elevated with hydatidiform mole.

Activated Partial Thromboplastin Time (APTT), Partial Thromboplastin Time (PTT), Prothrombin Time (PT), and Platelet Count: May reveal prolonged coagulation, developing DIC.

Fibrinogen Levels: Decreased.

Fibrin Split Products and Fibrin Degradation Products: Present if DIC develops.

Estrogen and Progesterone Levels: Decline in spontaneous abortion.

Ultrasonography: Verifies the presence of a fetus, localizes the placenta, and reveals degree of separation; determines fetal age (based on measurement of biparietal diameter, length of femur, crown to rump).

Amniocentesis: Determines L/S ratio in cases of placenta previa.

Kleihauer-Betke Test on Maternal Serum, Vaginal Fluids, Amniotic Fluid, Gastric Lavage; or APT Test of Amniotic Fluid: Determines maternal versus fetal blood in amniotic fluid; estimates fetal blood loss.

NURSING PRIORITIES

1. Determine client/fetal status.
2. Maintain circulating fluid volume.
3. Assist with efforts to sustain the pregnancy, if possible.
4. Prevent complications.
5. Provide emotional support to the client/couple.
6. Provide information about possible short- and long-term implications of the hemorrhage.

DISCHARGE GOALS

1. Homeostasis achieved
2. Pregnancy maintained
3. Free of complications
4. Client/couple dealing constructively with situation
5. Condition, prognosis, and treatment needs understood

NURSING DIAGNOSIS:**May Be Related To:****Possibly Evidenced By:****DESIRED OUTCOMES/EVALUATION
CRITERIA—CLIENT WILL:****Fluid Volume deficit [isotonic]**

Excessive vascular loss

Hypotension, increased pulse rate, decreased pulse pressure, decreased/concentrated urine, decreased venous filling, change in mentation

Demonstrate stabilization/improvement in fluid balance as evidenced by stable vital signs, prompt capillary refill, appropriate sensorium, and individually adequate urine output and specific gravity.

ACTIONS/INTERVENTIONS

RATIONALE**Independent**

Evaluate, report, and record amount and nature of blood loss. Initiate pad count; weigh pads/underpad.

Institute bedrest. Instruct client to avoid Valsalva's maneuver and intercourse or any sexual activity that could lead to orgasm.

Position client appropriately, either supine with hips elevated or in semi-Fowler's position for placenta previa. Avoid Trendelenburg position.

Note vital signs, capillary refill of nailbeds, color of mucous membranes/skin, and temperature. Measure CVP, if available.

Monitor uterine activity, fetal status, and any abdominal tenderness.

Ascertain religious practices and preferences.

Avoid rectal or vaginal examination.

Record intake/output. Obtain hourly urine samples; measure specific gravity.

Auscultate breath sounds.

Save expelled tissue or products of conception.

Estimation of blood loss helps in differential diagnosis. Each gram of increased pad weight is equal to approximately 1 ml of blood loss.

Bleeding may stop with a reduction in activity. Increased abdominal pressure or orgasm (which increases uterine activity) may stimulate bleeding.

Ensures adequate blood available to the brain. Elevating hips avoids compression of the vena cava, while semi-Fowler's position allows the fetus to act as a tampon, controlling bleeding in placenta previa. Trendelenburg position may compromise maternal respiratory status.

Helps determine severity of blood loss, although cyanosis and changes in BP and pulse are late signs of circulatory loss and/or developing shock. Also monitors adequacy of fluid replacement.

Helps determine nature of the hemorrhage and possible outcome of hemorrhagic episode. Tenderness is usually present in ruptured ectopic pregnancy or abruptio placentae.

May prohibit use of blood products and establish need for alternative therapy.

May increase hemorrhage, especially if marginal or total placenta previa is present.

Determines extent of fluid losses and reflects adequacy of renal perfusion.

Adventitious breath sounds suggest excessive/inappropriate replacement. (Refer to ND: Fluid Volume risk for excess.)

Physician needs to evaluate for possible tissue/membrane retention; histologic examination may be necessary.

Collaborative

Obtain/review stat blood work: CBC, type and crossmatch, Rh titer, fibrinogen levels, platelet count, APTT, PT, and HCG levels.

Insert indwelling catheter.

Administer IV solutions, plasma expanders, whole blood, or packed cells, as indicated.

Prepare for laparotomy in the case of ruptured ectopic pregnancy.

Prepare for D & C in the presence of hydatidiform mole or incomplete abortion. (Refer to CP: Spontaneous Termination.)

Prepare for cesarean delivery if any of the following are diagnosed: severe abruptio placentae, DIC; or placenta previa when fetus is mature, vaginal delivery is not feasible, and bleeding is excessive or unresolved by bedrest.

Determines amount of blood loss and may provide information regarding cause. Hct should be maintained above 30% to support oxygen and nutrient transport.

Output of less than 30 ml/hr indicates decreased renal perfusion and possible development of tubular necrosis. Appropriate output is determined by individual degree of deficit and rate of replacement.

Increases circulating blood volume and reverses shock symptoms.

Removal of the ruptured fallopian tube, and possibly the ovary, stops the hemorrhage. Note: If tube is not ruptured, treatment with medication to lyse the products of conception may preserve the tube.

Removes any chorionic vessels or products of conception that may adhere to endometrium.

Hemorrhage stops once the placenta is removed and venous sinuses are closed.

NURSING DIAGNOSIS:

Tissue Perfusion, altered uteroplacental

May Be Related To:

Hypovolemia

Possibly Evidenced By:

Changes in FHR and/or activity

DESIRED OUTCOMES/EVALUATION CRITERIA—CLIENT WILL:

Demonstrate adequate perfusion, as evidenced by FHR and activity WNL and reactive NST.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Note maternal physiological circulatory status, and blood volume.

An episode of bleeding is potentially damaging to the outcome of the pregnancy, possibly causing uteroplacental hypovolemia or hypoxia.

Auscultate and report FHR; note bradycardia or tachycardia. Note change in fetal activity (hypoactivity or hyperactivity).

Assesses extent of fetal hypoxia. Initially, the fetus responds to decreased oxygen levels with tachycardia and increased movements. If deficit persists, bradycardia and decreased activity occurs.

Record maternal blood loss and any uterine contractions.

Excess maternal blood loss reduces placental perfusion. If uterine contractions are accompanied by cervical dilatation, bedrest and medications may not be effective in maintaining the pregnancy.

Note expected date of birth (EDB) and fundal height.

Encourage bedrest in lateral position.

Collaborative

Administer supplemental oxygen to client.

Carry out/repeat NST, as indicated.

Replace maternal fluid/blood losses.

Assist with ultrasonography and amniocentesis. Explain procedures.

Obtain vaginal specimen for APT test, or use Kleihauer-Betke test to evaluate maternal serum, vaginal blood, or products of gastric lavage.

Prepare client for appropriate surgical intervention as indicated.

Provides an estimate for determining fetal viability.

Relieves pressure on the inferior vena cava and promotes placental/fetal circulation and oxygen exchange.

Increases oxygen available for fetal uptake. The fetus has some inherent capacity to cope with hypoxia in that (1) fetal Hb dissociates (releases oxygen at the cellular level) more rapidly than adult Hb, and (2) the fetal red blood cell count is greater than that of the adult, so fetal oxygen-carrying capacity is increased.

Electronically evaluating the FHR response to fetal movements is useful in determining fetal well-being (reactive test) versus hypoxia (nonreactive).

Maintains adequate circulating volume for oxygen transport. Maternal hemorrhage negatively affects uteroplacental oxygen transfer, leading to possible loss of pregnancy or worsening fetal status. If oxygen deprivation persists, the fetus may exhaust coping mechanisms, and CNS damage/fetal demise can occur.

Determines fetal maturity and gestational age. Aids in determining viability and realistically predicting outcome.

When vaginal bleeding is present, differentiates maternal from fetal blood in amniotic fluid; provides rough quantitative estimate of fetal blood loss and indicates implications for fetal oxygen-carrying capacity, and maternal need for Rh immune globulin G (RhIgG) injections, once delivery occurs. The Kleihauer-Betke test is more sensitive and quantitatively accurate than the APT test, but is time consuming and may be impractical if the specimen is sent to an outside laboratory.

Surgery is necessary if placental separation is severe; or if bleeding is excessive, fetal oxygen deprivation is involved, and vaginal delivery is impossible, as in cases of total placenta previa (a low-lying placenta), where surgery may be indicated to save the life of the fetus.

NURSING DIAGNOSIS:

May Be Related To:

Possibly Evidenced By:

Fear

Threat of death (perceived or actual) to self, fetus

Verbalization of specific concerns, increased tension, sympathetic stimulation

**DESIRED OUTCOMES/EVALUATION
CRITERIA—CLIENT WILL:**

Discuss fears regarding self, fetus, and future pregnancies, recognizing healthy versus unhealthy fears.
Verbalize accurate knowledge of the situation.
Demonstrate problem solving and use resources effectively.
Report/display lessened fear and/or fear behaviors.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Discuss situation and understanding of situation with client and partner.

Provides information about individual reaction to what is happening.

Monitor client's/couple's verbal and nonverbal responses.

Indicates the degree of fear the client/couple is experiencing.

Listen and Active-Listen to client concerns for client to develop own solutions.

Promotes sense of control over situation and provides opportunity

Determine religious/cultural practices. (Refer to CP: Spontaneous Termination ND: Spiritual Distress.)

Client may desire, or refuse, baptism and burial of products of conception in event of inevitable abortion.

Provide information in verbal and written form, and make opportunity for client to ask questions. Answer questions honestly.

Knowledge will help client to cope more effectively with what is happening. Written information allows for review later because client may not be able to assimilate information due to level of anxiety. Honest answers promote better understanding and can reduce fear.

Involve client in planning and participating in care as much as possible.

Being able to do something to help control the situation can reduce the fear.

Explain procedures and what symptoms mean.

Knowledge can help to reduce fear and promote sense of control over situation.

Collaborative

Contact clergy/spiritual advisor, as appropriate.

May be helpful in addressing some fears.

NURSING DIAGNOSIS:

Injury, risk for maternal

Risk Factors May Include:

Tissue/organ hypoxia, abnormal blood profile, impaired immune system

Possibly Evidenced By:

[Not applicable; presence of signs/symptoms establishes an *actual* diagnosis]

**DESIRED OUTCOMES/EVALUATION
CRITERIA—CLIENT WILL:**

Remain afebrile.

Display normal blood profile with WBC count, Hb, and coagulation studies WNL.

Maintain urine output appropriate for individual situation.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Assess amount of blood loss. Monitor for signs/symptoms of shock. (Refer to ND: Fluid Volume deficit [isotonic].)

Persistent, excessive hemorrhage may be life-threatening to the client or may result in postpartal infection, postpartal anemia, DIC, renal failure, or pituitary necrosis attributable to tissue hypoxia and malnutrition.

Note temperature, WBC count, and odor and color of vaginal discharge, obtain culture if appropriate.

Excessive blood loss with decreased Hb increases the client's risk of developing an infection. (Refer to CP: Prenatal Infection.)

Record intake/output. Note urine specific gravity.

Reduced kidney perfusion results in reduced output. When hemorrhage occurs, the anterior pituitary lobe, which enlarges during pregnancy, is at risk for Sheehan's syndrome. (Refer to CP: Postpartal Hemorrhage; ND: Tissue Perfusion, altered.)

Monitor for adverse response to administration of blood products, such as allergic or hemolytic reaction; treat per protocol.

Early recognition and intervention may prevent life-threatening situation.

Inspect client for petechiae or for bleeding from gums/mucous membranes or IV site.

Indicates deficiencies or alterations in coagulation.

Provide information about risks of receiving blood products.

Complications such as hepatitis and HIV/AIDS may not be manifested during hospitalization, but may require treatment at a later date.

Collaborative

Obtain blood type and crossmatch.

Assures correct product will be available if blood replacement required.

Administer fluid replacement.

Maintains circulatory volume to counteract fluid losses/shock.

Monitor coagulation studies (e.g., APTT, platelet count, fibrinogen levels, FSP/FDP).

DIC with an associated drop in fibrinogen levels and a buildup of FSP may occur in response to the release of thromboplastin from placental tissue and/or dead fetus. In order for clot formation to occur, fibrinogen level must be at least 100 mg/dL.

Administer cryoprecipitate and fresh frozen plasma, as indicated. Avoid administration of platelets if consumption is still occurring (i.e., if platelet level is dropping).

In clients with DIC, cryoprecipitate replaces most clotting factors. Administration of platelets during period of continued consumption is controversial, because it may perpetuate the clotting cycle, resulting in further reduction of clotting factors and increasing venous congestion and stasis.

Administer heparin, if indicated.

Heparin may be used in DIC in cases of fetal death, or of death of one fetus in a multiple pregnancy, or to block the clotting cycle by preserving clotting factors and reducing hemorrhage until surgical correction occurs.

Administer antibiotic parenterally.

May be indicated to prevent or minimize infection.

Treat underlying problem (e.g., surgery for abruptio placentae or ectopic pregnancy, bedrest at home for placenta previa).

Stops hemorrhage; reduces likelihood of maternal injury.

NURSING DIAGNOSIS:**May Be Related To:****Possibly Evidenced By:****DESIRED OUTCOMES/EVALUATION CRITERIA—CLIENT WILL:****Pain [acute]**

Muscle contractions/cervical dilatation, tissue trauma (fallopian tube rupture)

Reports of pain, distraction behaviors, autonomic responses (changes in pulse/BP)

Report pain/discomfort relieved or controlled.

Demonstrate use of relaxation skills/diversional activities.

ACTIONS/INTERVENTIONS

RATIONALE**Independent**

Determine nature, severity (using 0–10 scale), location, and duration of pain. Assess for uterine contractions, retroplacental hemorrhage, or abdominal tenderness.

Aids in diagnosis and choice of treatment. Discomfort associated with spontaneous abortion and hydatidiform mole is due to uterine contractions, which may be augmented by oxytocin infusion. In ectopic pregnancy, rupture results in extreme pain, caused by concealed hemorrhage. The hemorrhage occurs when the fallopian tube ruptures into the abdominal cavity. Abruptio placentae is accompanied by severe pain, especially when concealed retroplacental hemorrhage occurs.

Assess client's/couple's psychological stress and emotional response to event.

Anxiety in response to the emergency situation may intensify the degree of discomfort owing to the fear-tension-pain syndrome.

Provide quiet environment and diversional activities. Instruct client in relaxation methods (e.g., deep breathing, visualization, distraction).

May lower stimuli, refocus attention, thereby contributing to the reduction of discomfort.

Explain procedures, answer questions honestly. Encourage expression of feelings/concerns.

Information, knowing what to expect can assist in lowering level of anxiety which can enhance perception of pain.

Collaborative

Administer narcotics or sedatives, as appropriate.

Promotes rest/alleviates pain.

Prepare for surgical procedure, administer preoperative medications if indicated.

Treatment of underlying disorder should alleviate pain.

NURSING DIAGNOSIS:**Risk Factors May Include:****Possibly Evidenced By:****DESIRED OUTCOMES/EVALUATION
CRITERIA—CLIENT WILL:****Fluid Volume risk for excess**

Excessive/rapid replacement of fluid losses

[Not applicable; presence of signs/symptoms establishes an *actual* diagnosis]

Display BP, pulse, urine specific gravity, and neurological signs WNL, without respiratory difficulties.

ACTIONS/INTERVENTIONS

RATIONALE**Independent**

Monitor for increasing BP and pulse; note respiratory signs such as dyspnea, crackles, or rhonchi.

If fluid replacement is excessive, symptoms of circulatory overload and respiratory difficulties may occur. In addition, the client with abruptio placentae who may already have hypertension is at risk for manifesting negative response to fluid replacement, as is the client with compromised cardiac function.

Carefully monitor infusion rate manually or electronically. Record intake/output. Measure urine specific gravity.

Intake and output should be approximately equal because circulating fluid volume is stabilizing. Urine output increases and specific gravity decreases as kidney perfusion and circulatory volume return to normal.

Assess neurological status, noting behavior changes or increasing irritability.

Behavior changes may be an early sign of cerebral edema owing to water retention.

Collaborative

Assess Hct level.

May indicate amount of blood loss and can be used to determine needs and adequacy of replacement.

NURSING DIAGNOSIS:**May Be Related To:****Possibly Evidenced By:****DESIRED OUTCOMES/EVALUATION
CRITERIA—CLIENT/COUPLE WILL:****Knowledge deficit [Learning Need], regarding reason for hemorrhage, prognosis, and treatment needs**

Lack of exposure to, and unfamiliarity with, information resources

Request for information, statement of misconceptions, inappropriate or exaggerated behaviors

Participate in learning process.

Verbalize, in simple terms, the pathophysiology and implications of the clinical situation.

ACTIONS/INTERVENTIONS

RATIONALE

Independent

Explain prescribed treatment and rationale for hemorrhagic condition. Reinforce information provided by other healthcare providers.

Allow client opportunity to ask questions and verbalize misconceptions.

Discuss possible short-term maternal/fetal implications of bleeding episode.

Review long-term implications for situations requiring follow-up and additional treatment; e.g., hydatidiform mole, dysfunctional cervix, or ectopic pregnancy. (Refer to CP: Premature Dilation of the Cervix.)

Provides information, clarifies misconceptions, and may aid in reducing associated stress.

Provides for clarification of misconceptions, identification of problems, and opportunity to begin to develop coping skills.

Provides information about possible complications, promotes realistic expectations, and enhances follow through with treatment regimen.

After expulsion of a hydatidiform mole, HCG levels must be monitored for 1 yr. If levels remain high, chemotherapy is indicated, owing to risk of choriocarcinoma. A client with repeated second-trimester spontaneous abortion may have a Shirodkar-Barter procedure performed. A client with an ectopic pregnancy may have difficulty conceiving after removal of the affected tube/ovary.