

Infections

Maternal infections during pregnancy require prompt identification and treatment by a provider. These include human immunodeficiency virus (HIV), acquired immune deficiency syndrome (AIDS), TORCH infections, group B streptococcus (GBS), chlamydia, gonorrhea, syphilis, human papilloma virus (HPV), trichomoniasis, bacterial vaginosis (BV), and candidiasis.

HIV/AIDS

HIV is a retrovirus that attacks and causes destruction of T lymphocytes. It causes immunosuppression in a client. HIV is transmitted from the mother to a neonate perinatally through the placenta and postnatally through the breast milk.

- Routine laboratory testing in the early prenatal period includes testing for HIV. Early identification and treatment significantly decreases the incidence of perinatal transmission.
- Testing is recommended in the third trimester for clients who are at an increased risk. Rapid HIV testing should be done if a client is in labor and her HIV status is unknown.
- Procedures such as amniocentesis and episiotomy should be avoided due to the risk of maternal blood exposure.
- Use of internal fetal monitors, vacuum extraction, and forceps during labor should be avoided due to the risk of fetal bleeding. **Qs**
- Administration of injections and blood testing should not take place until the first bath is given to the newborn.

ASSESSMENT**RISK FACTORS**

- IV drug use
- Multiple sexual partners
- Maternal history of multiple STIs
- Blood transfusion (rare occurrence)
- Men who have sex with men

EXPECTED FINDINGS

Fatigue and influenza-like findings

PHYSICAL ASSESSMENT FINDINGS

- Fever
- Diarrhea and weight loss
- Lymphadenopathy and rash
- Anemia

LABORATORY TESTS

- Obtain informed maternal consent prior to testing.
- Testing begins with an antibody screening test, such as enzyme immunoassay. Confirmation of positive results is confirmed by Western blot test or immunofluorescence assay.
- Use rapid HIV antibody test (blood or urine sample) for a client in labor.
- Screen clients for STIs such as gonorrhea, chlamydia, syphilis, and hepatitis B.
- Obtain frequent viral load levels and CD4 cell counts throughout pregnancy.

PATIENT-CENTERED CARE**NURSING CARE**

- Provide counseling prior to and after testing.
- Refer the client for mental health consultation, legal assistance, and financial resources.
- Use standard precautions.
- Administer antiviral prophylaxis, triple-medication antiviral, or highly active antiretroviral therapy as prescribed.
- Obtain prescribed laboratory testing.
- Encourage immunization against hepatitis B, pneumococcal infection, *Haemophilus influenzae* type B, and viral influenza.
- Encourage use of condoms to minimize exposure if partner is the source of infection.
- Review plan for scheduled cesarean birth at 38 weeks for maternal viral load of more than 1,000 copies/mL.
- Infant should be bathed after birth before remaining with the mother.

MEDICATIONS*Retrovir*

- Antiretroviral agent
- Nucleoside reverse transcriptase inhibitor

NURSING CONSIDERATIONS

- Administer retrovir at 14 weeks of gestation, throughout the pregnancy, and before the onset of labor or cesarean birth.
- Administer retrovir to the infant at delivery and for 6 weeks following birth.

CLIENT EDUCATION**DISCHARGE INSTRUCTIONS** **Qpcc**

- Instruct the client not to breastfeed.
- Discuss HIV and safe sexual relations with the client.
- Refer the client and infant to providers specializing in care of clients who have HIV.
- All states have a reportable diseases list. HIV/AIDS is a commonly reported condition. It is the responsibility of the provider to report cases of these diseases to their local health department.

TORCH infections

Toxoplasmosis, other infections (e.g., hepatitis), rubella virus, cytomegalovirus, and herpes simplex virus are known collectively as TORCH, which is a group of infections that can negatively affect a woman who is pregnant. These infections can cross the placenta and have teratogenic effects on the fetus. TORCH does not include all the major infections that present risks to the mother and fetus.

ASSESSMENT

RISK FACTORS

- Toxoplasmosis is caused by consumption of raw or undercooked meat or handling cat feces. Manifestations are similar to influenza or lymphadenopathy.
- Other infections can include hepatitis A and B, syphilis, mumps, parvovirus B19, and varicella-zoster. These are some of the most common and can be associated with congenital anomalies.
- Rubella (German measles) is contracted through children who have rashes or neonates who are born to women who had rubella during pregnancy.
- Cytomegalovirus (member of herpes virus family) is transmitted by droplet infection from person to person, a virus found in semen, cervical and vaginal secretions, breast milk, placental tissue, urine, feces, and blood. Latent virus can be reactivated and cause disease to the fetus in utero or during passage through the birth canal.
- Herpes simplex virus (HSV) is spread by direct contact with oral or genital lesions. Transmission to the fetus is greatest during vaginal birth if the woman has active lesions.

EXPECTED FINDINGS

- Toxoplasmosis findings similar to influenza or lymphadenopathy (malaise, muscle aches flu-like symptoms)
- Rubella: symptoms of joint and muscle pain
- Cytomegalovirus: asymptomatic or mononucleosis-like manifestations
- Herpes simplex infection: symptoms consisting of painful blisters and tender lymph nodes

PHYSICAL ASSESSMENT FINDINGS

- Manifestations of toxoplasmosis include fever and tender lymph nodes.
- Manifestations of rubella include rash, mild lymphedema, fever, and fetal consequences, which include miscarriage, congenital anomalies, and death.
- HSV initially presents with lesions and tender lymph nodes. Fetal consequences include miscarriage, preterm labor, and intrauterine growth restriction. A cesarean section is recommended for all women in labor who have active genital herpes lesions or early symptoms of impending outbreak, such as vulvar pain and itching.

LABORATORY TESTS

For herpes simplex, obtain cultures from women who have HSV or are at or near term.

DIAGNOSTIC PROCEDURES

- TORCH screen: immunologic survey used to identify existence of these infections in the mother (to identify fetal risks) or newborn (detection of antibodies against infections)
- Prenatal screenings

PATIENT-CENTERED CARE

NURSING CARE

- Monitor fetal well-being.
- For rubella, immunization of women who are pregnant is contraindicated because rubella infection can develop. These women should avoid crowds of young children. Women who have low titers prior to pregnancy should receive immunizations.

MEDICATIONS

- Administer antibiotics as prescribed.
- Treatment of toxoplasmosis includes sulfonamides or a combination of pyrimethamine and sulfadiazine (potentially harmful to the fetus, but parasitic treatment is essential).

CLIENT EDUCATION

- Educate the client on prevention practices, including correct hand hygiene and cooking meat properly. Instruct clients to avoid contact with contaminated cat litter.
- Because no treatment for cytomegalovirus exists, tell the client to prevent exposure by frequent hand hygiene before eating, and after handling infant diapers and toys.
- Emphasize to the client the importance of compliance with prescribed treatment.
- Discuss safe sexual relations with client.
- Provide client with emotional support.

Group B streptococcus

GBS is a bacterial infection that can be passed to a fetus during labor and delivery.

ASSESSMENT

RISK FACTORS

History of positive culture with previous pregnancy

RISK FACTORS FOR EARLY-ONSET NEONATAL GBS

- Maternal age less than 20 years
- African American or Hispanic ethnicity
- Positive culture with pregnancy
- Prolonged rupture of membranes
- Preterm delivery
- Low birth weight
- Use of intrauterine fetal monitoring
- Intrapartum maternal fever (38° C [100.4° F] or greater)

EXPECTED FINDINGS

PHYSICAL ASSESSMENT FINDINGS: Positive GBS can have maternal and fetal effects.

- Premature rupture of membranes
- Preterm labor and delivery
- Chorioamnionitis
- Infections of the urinary tract
- Maternal sepsis

LABORATORY TESTS

Vaginal and rectal cultures are performed at 35 to 37 weeks of gestation.

PATIENT-CENTERED CARE

NURSING CARE

Administer intrapartum antibiotic prophylaxis to the following clients.

- Client who has GBS bacteriuria during current pregnancy
- Client who has a GBS–positive screening during current pregnancy
- Client who has unknown GBS status who is delivering at less than 37 weeks of gestation
- Client who has maternal fever of 38° C (100.4° F)
- Client who has rupture of membranes for 18 hr or longer

MEDICATIONS

Penicillin G or ampicillin are most commonly prescribed for GBS.

- Administer penicillin 5 million units initially IV bolus, followed by 2.5 million units intermittent IV bolus every 4 hr. The client may receive ampicillin 2 g IV initially, followed by 1 g every 4 hr.
- Bactericidal antibiotic is used to destroy the GBS.

CLIENT EDUCATION

Instruct the client to notify the labor and delivery nurse of GBS status.

Chlamydia

Chlamydia is a bacterial infection caused by *Chlamydia trachomatis* and is the most commonly reported STI in American women.

- The infection can be difficult to diagnose because it is often asymptomatic. If chlamydia is left untreated in women, it can lead to pelvic inflammatory disease (PID), which can cause infertility.
- The Centers for Disease Control and Prevention (CDC) recommends yearly screening of all sexually active women younger than 25 years, as well as older women who have risk factors (e.g., new or multiple partners). All pregnant women should be screened at the first prenatal visit and rescreened in the third trimester if younger than 25 years and/or at high risk.

ASSESSMENT

RISK FACTORS

- Multiple sexual partners
- Unprotected sex

EXPECTED FINDINGS

Male

- Urethral discharge
- Dysuria

PHYSICAL ASSESSMENT FINDINGS: Mucoid or watery urethral discharge

Female

- Dysuria
- Urinary frequency
- Spotting or postcoital bleeding

PHYSICAL ASSESSMENT FINDINGS

- Mucopurulent endocervical discharge
- Easily induced endocervical bleeding

LABORATORY TESTS

- Urine culture preferred for male clients
- Endocervical culture preferred for female clients

PATIENT-CENTERED CARE

NURSING CARE

- Instruct the client to take the entire prescription as prescribed.
- Identify and treat all sexual partners.
- Clients who are pregnant should be retested 3 weeks after completing the prescribed regimen.

MEDICATIONS

Azithromycin or amoxicillin

- Prescribed during pregnancy
- Broad-spectrum antibiotic
- Bactericidal action

NURSING CONSIDERATIONS: Administer erythromycin to all infants following delivery. This is the medication of choice for ophthalmia neonatorum. This antibiotic is both bacteriostatic and bactericidal, and thus provides prophylaxis against *Neisseria gonorrhoeae* and *Chlamydia trachomatis*.

CLIENT EDUCATION

- Instruct the client to take all medication as prescribed.
- Educate the client about the possibility of decreasing effectiveness of oral contraceptives. **Qccc**
- Educate the client regarding safe sex practices (e.g., mutual monogamy and correct, consistent condom use).
- All states have a reportable diseases list. Chlamydia is a commonly reported condition. It is the responsibility of the provider to report cases of these diseases to the local health department.

Gonorrhea

Neisseria gonorrhoeae is the causative agent of gonorrhea. Gonorrhea is a bacterial infection that is primarily spread by genital-to-genital contact. However, it also can be spread by anal-to-genital or oral-to-genital contact. It can also be transmitted to a newborn during delivery.

- Women are frequently asymptomatic. If gonorrhea is left untreated in women, it can lead to PID, which can cause infertility.
- The CDC recommends yearly screening for all sexually active women younger than 25 years as well as older women who have risk factors (e.g., new or multiple sex partners). All pregnant women at risk should be screened at the first prenatal visit and rescreened in the third trimester if at continued high risk.

ASSESSMENT

RISK FACTORS

- Multiple sexual partners
- Unprotected sexual practices

EXPECTED FINDINGS

Male

- Dysuria
- Urethral discharge

Female

- Dysuria
- Vaginal bleeding between periods and dysmenorrhea

PHYSICAL ASSESSMENT FINDINGS

- Yellowish-green vaginal discharge
- Easily induced endocervical bleeding

LABORATORY TESTS

- Urine culture preferred for male clients
- Endocervical culture preferred for female clients

PATIENT-CENTERED CARE

NURSING CARE

- Provide client education regarding disease transmission.
- Identify and treat all sexual partners.
- Administer erythromycin to all infants following delivery. This is the medication of choice for ophthalmia neonatorum. This antibiotic is both bacteriostatic and bactericidal, and thus provides prophylaxis against *Neisseria gonorrhoeae* and *Chlamydia trachomatis*.

MEDICATIONS

Ceftriaxone IM and azithromycin PO: Broad-spectrum antibiotic; bactericidal action

CLIENT EDUCATION

- Instruct the client to take all medications as prescribed.
- Instruct the client to repeat the culture to assess for medication effectiveness.
- Educate the client about the possibility of decreasing effectiveness of oral contraceptives.
- Educate the client regarding safe sex practices (e.g., mutual monogamy and correct, consistent condom use).
- All states have a reportable diseases list. Gonorrhea is a commonly reported condition. It is the responsibility of the provider to report cases of these diseases to the local health department.

Syphilis

Syphilis is an STI caused by the bacterium *Treponema pallidum*. It can have long-term complications if not adequately treated.

- Syphilis has three stages.
 - **Primary:** Characterized by presence of a chancre
 - **Secondary:** Characterized by skin rashes, such as a rash on the palms of hands and soles of feet
 - **Tertiary:** Characterized by damage to internal organs
- Black, Hispanic, and other racial/ethnic minority groups are disproportionately affected by syphilis in the U.S.
- It can be transmitted through oral, vaginal, or anal sex, as well as transmitted to an unborn child. Though the rate of congenital syphilis has recently decreased, more cases of congenital syphilis are reported in the U.S. than cases of perinatal HIV infection.
- All pregnant women should be screened at the first prenatal visit and rescreened in the third trimester if at high risk (live in areas with high numbers of syphilis cases; not previously tested; or had positive test in the first trimester).

ASSESSMENT

RISK FACTORS

- Multiple partners
- Unprotected sexual practices

EXPECTED FINDINGS

Primary stage: The client can notice a chancre or sore in the genital area.

Secondary stage: The client can notice skin rashes, such as a rash on the palmar surface of the hands and the soles of the feet.

Tertiary stage: Damage to internal organs can occur for which clients can notice the manifestations including difficulty coordinating muscle movements and blindness.

PHYSICAL ASSESSMENT FINDINGS

- **Primary stage:** Provider can observe a chancre in the genital area.
- **Secondary stage:** Provider can observe skin rashes, such as rough, red or reddish brown spots on the palms of the hands and soles of the feet.

LABORATORY TESTS

Serology tests: Nontreponemal (VDRL and rapid plasma reagin) and treponemal (enzyme immunoassay, immunoassays)

- Nontreponemal tests are often used for screening then treponemal tests to detect antibodies specific for syphilis to confirm the diagnosis.
- This sequence of nontreponemal then treponemal tests is considered the standard for testing.

PATIENT-CENTERED CARE

MEDICATIONS

Penicillin G IM in a single dose

CLIENT EDUCATION

- Instruct the client to abstain from sexual contact until sores have completely healed.
- Advise the client that partners need to be tested and treated.
- Educate the client regarding safe sex practices (e.g., mutual monogamy and correct, consistent condom use.)
- All states have a reportable diseases list. Syphilis is a commonly reported condition. It is the responsibility of the provider to report cases of these diseases to the local health department.

Human papilloma virus

HPV is the most common STI. Some types can cause genital warts (also known as *Condyloma acuminata*) and cancers.

- It is spread through oral, vaginal, and anal sex (most commonly vaginal or anal routes). When large, widespread, or occluding the birth canal, genital warts can complicate a vaginal delivery. Therefore, a cesarean section can be recommended.
- Routine screening for women 21 to 65 years old can provide early detection. Screening should occur, even during pregnancy.

ASSESSMENT

RISK FACTORS

- Multiple partners
- Unprotected sexual practices

EXPECTED FINDINGS

Client reports bumps in the genital area that might not itch or hurt.

PHYSICAL ASSESSMENT FINDINGS

- Small warts or a group of warts in the genital area that can have a cauliflower-like appearance
- Abnormal changes to the cervix that can be detected by a Pap test

LABORATORY TESTS

Pap test with or without HPV co-testing per American Cancer Society and American Congress of Obstetricians and Gynecologists guidelines.

- Women 21 to 29 years old should have a Pap test every 3 years.
- Women 30 to 65 years old should have both a Pap test and an HPV test every 5 years (preferred). It is also acceptable to have a Pap test alone every 3 years.
- Women older than 65 years who have had regular screenings with normal results should not be screened for cervical cancer, unless they have cervical precancer, in which they should continue to be screened for 20 years after the precancer diagnosis.

DIAGNOSTIC PROCEDURES

- Genital warts are diagnosed by the provider based on appearance.
- Based on the Pap test result, colposcopy and biopsy can be performed to diagnose cervical precancer and cancer.

PATIENT-CENTERED CARE

MEDICATIONS

For genital warts and *Condyloma acuminata*, options include a client-applied cream, such as imiquimod, or a provider-administered therapy, such as trichloroacetic acid application.

THERAPEUTIC PROCEDURES

For precancerous changes on the cervix, the provider can perform treatments including laser therapy or cone biopsy; for a pregnant woman with an abnormal Pap that requires further follow-up, further evaluation and treatment are usually deferred until after birth.

CLIENT EDUCATION

- Vaccines are recommended to protect against low-risk types of HPV that cause genital warts and high-risk types of HPV that cause cancer. The vaccine is indicated for clients 9 to 26 years of age, though ideally given at age 11 to 12 years.
- Educate clients regarding safe sex practices (e.g., mutual monogamy and correct, consistent condom use).

Trichomoniasis

Trichomoniasis is a STI caused by the protozoan parasite *Trichomonas vaginalis*. It can be spread penis-to-vagina or vagina-to-vagina.

- If trichomoniasis is left untreated in women, it can lead to PID, which can cause infertility. All women who have clinical findings should be tested.
- Pregnant women who have trichomoniasis are more likely to have preterm delivery and babies with low birth weight (less than 5.5 lb).

ASSESSMENT

RISK FACTORS

- Multiple partners
- Unprotected sexual practices

EXPECTED FINDINGS

Male

- Penile itching or irritation
- Dysuria

PHYSICAL ASSESSMENT FINDINGS: Urethral discharge, which can be swabbed for microscopy

Female

- Yellow-green, frothy vaginal discharge with foul odor
- Dyspareunia and itching
- Dysuria

PHYSICAL ASSESSMENT FINDINGS

- Discharge in the vaginal vault, which can be sampled for microscopy
- Strawberry spots on the cervix (tiny petechiae)
- A cervix that bleeds easily

LABORATORY TESTS

A sample of the discharge is used for application to pH paper, and wet mount and whiff test performed

DIAGNOSTIC PROCEDURES

- pH greater than 4.5
- Wet mount saline prep indicates the presence of trichomonad(s).
- Whiff test can be positive or negative.

PATIENT-CENTERED CARE

MEDICATIONS

Metronidazole or tinidazole: Orally in a single dose; anti-infective

CLIENT EDUCATION

- Counsel the client to avoid alcohol while taking this medication due to the disulfiram-like reaction that occurs (severe nausea and vomiting).
- Instruct the client to take all medication as prescribed.
- Educate the client about the possibility of decreasing effectiveness of oral contraceptives.
- Identify and treat all sexual partners.
- Educate the client regarding safe sex practices (e.g., mutual monogamy and correct, consistent condom use).

Bacterial vaginosis

A bacterial infection most commonly caused by *Haemophilus vaginalis* or *Gardnerella vaginalis*. It is the most common vaginal infection in women 15 to 44 years of age. It cannot be related to sexual activity.

- If BV is left untreated, it can increase a woman's chances of developing PID, which can lead to infertility. All women who have manifestations should be tested.
- Treatment is especially important for pregnant women. BV is associated with preterm labor and babies with low birth weight (less than 5.5 lb).

ASSESSMENT

RISK FACTORS

- New or multiple sex partners
- Unprotected sexual practices
- Altered pH balance of vagina, such as caused by douching

EXPECTED FINDINGS

Thin, white or gray discharge with a fish-like odor, especially after sex

PHYSICAL ASSESSMENT FINDINGS: Discharge in the vaginal vault, which can be sampled for microscopy

LABORATORY TESTS

- Sample of the discharge used for application to pH paper
- Wet mount and whiff test performed

DIAGNOSTIC PROCEDURES

- pH greater than 4.5
- Wet mount saline prep indicates presence of clue cells
- Positive whiff test

PATIENT-CENTERED CARE

MEDICATIONS

Metronidazole: Anti-infective

CLIENT EDUCATION

- Counsel the client to avoid alcohol while taking this medication due to a disulfiram-like reaction (severe nausea and vomiting).
- Instruct the client to take all medications as prescribed.
- Educate the client about the possibility of decreasing effectiveness of oral contraceptives.
- Treatment is not usually indicated for male partners.
- Educate the client regarding safe sex practices (e.g., mutual monogamy and correct, consistent condom use).
- Instruct the client to avoid tight-fitting clothing.
- Instruct the client to wear cotton-lined underpants.
- Advise the client to avoid douching.

Candidiasis

Candidiasis, also known as vulvovaginal candidiasis or yeast infection, is a fungal infection caused by *Candida albicans*.

- It is the second most common type of vaginal infection in the U.S.
- All women who have symptoms should be tested.

ASSESSMENT

RISK FACTORS

- Pregnancy
- Diabetes mellitus
- Oral contraceptives
- Recent antibiotic treatment
- Obesity
- Diet high in refined sugars

EXPECTED FINDINGS

Vulvar and vaginal pruritus

PHYSICAL ASSESSMENT FINDINGS

- Thick, creamy, white, cottage cheese-like vaginal-discharge
- Vulvar and vaginal erythema and inflammation
- White patches on vaginal walls
- Gray-white patches on the tongue and gums (neonate)

LABORATORY TESTS

- Sample of discharge used for application to pH paper
- Wet mount and whiff test performed

DIAGNOSTIC PROCEDURES

- pH less than 4.5 (normal pH)
- Wet mount potassium hydroxide prep indicates presence of yeast buds, hyphae, and pseudohyphae.
- Negative whiff test

PATIENT-CENTERED CARE

MEDICATIONS

Fluconazole

- Can be prescribed as a single low dose
- Topical therapies recommended for use in pregnant-women
- Antifungal agent
- Fungicidal action

Over-the-counter treatments

OTC treatments, such as clotrimazole, are available to treat candidiasis. However, it is important for the provider to diagnose candidiasis initially.

CLIENT EDUCATION

- Instruct the client to avoid tight-fitting clothing.
- Instruct the client to wear cotton-lined underpants.
- Instruct the client to limit wearing damp clothing.
- Advise client to avoid douching.
- Instruct the client to increase dietary intake of yogurt with active cultures.

Application Exercises

1. A nurse is admitting a client who is in labor and has HIV. Which of the following interventions should the nurse identify as contraindicated for this client? (Select all that apply.)
 - A. Episiotomy
 - B. Oxytocin infusion
 - C. Forceps
 - D. Cesarean birth
 - E. Internal fetal monitoring
2. A nurse in an antepartum clinic is assessing a client who has a TORCH infection. Which of the following findings should the nurse expect? (Select all that apply.)
 - A. Joint pain
 - B. Malaise
 - C. Rash
 - D. Urinary frequency
 - E. Tender lymph nodes
3. A nurse is caring for a client who has gonorrhea. Which of the following medications should the nurse anticipate the provider will prescribe?
 - A. Ceftriaxone
 - B. Fluconazole
 - C. Metronidazole
 - D. Zidovudine
4. A nurse is caring for a client who is in labor. The nurse should identify that which of the following infections can be treated during labor or immediately following birth? (Select all that apply.)
 - A. Gonorrhea
 - B. Chlamydia
 - C. HIV
 - D. Group B streptococcus beta-hemolytic
 - E. TORCH infection
5. A nurse manager is reviewing ways to prevent a TORCH infection during pregnancy with a group of newly licensed nurses. Which of the following statements by a nurse indicates understanding of the teaching?
 - A. "Obtain an immunization against rubella early in pregnancy."
 - B. "Seek prophylactic treatment if cytomegalovirus is detected during pregnancy."
 - C. "A woman should avoid crowded places during pregnancy."
 - D. "A woman should avoid consuming undercooked meat while pregnant."

PRACTICE Active Learning Scenario

A nurse is planning care for a client who is pregnant and positive for group B streptococcus beta-hemolytic. Use the ATI Active Learning Template: System Disorder to complete this item.

LABORATORY TESTS: Describe the test and when it is performed.

RISK FACTORS: Describe two maternal risk factors and three fetal risk factors.

MEDICATIONS: Describe three clients who should receive intrapartum antibiotic prophylaxis.

Application Exercises Key

1. A. **CORRECT:** An episiotomy should be avoided for a client who is HIV-positive due to the risk of maternal blood exposure.
 B. Oxytocin infusion is not contraindicated for this client.
 C. **CORRECT:** The use of forceps during delivery should be avoided due to the risk of fetal bleeding.
 D. Cesarean birth is not contraindicated for this client.
 E. **CORRECT:** Internal fetal monitoring should be avoided due to the risk of fetal bleeding.
 N NCLEX® Connection: Reduction of Risk Potential, Potential for Complications from Surgical Procedures and Health Alterations
2. A. **CORRECT:** TORCH infections are flu-like in presentation, such as joint pain.
 B. **CORRECT:** TORCH infections are flu-like in presentation, such as malaise.
 C. **CORRECT:** TORCH infections can include findings such as a rash.
 D. Urinary frequency is not a clinical finding associated with a TORCH infection.
 E. **CORRECT:** TORCH infections are flu-like in presentation, such as tender lymph nodes.
 N NCLEX® Connection: Reduction of Risk Potential, Potential for Complications from Surgical Procedures and Health Alterations
3. A. **CORRECT:** Ceftriaxone IM or doxycycline orally for 7 days is prescribed for the treatment of gonorrhea.
 B. Fluconazole is used to treat candidiasis.
 C. Metronidazole is used in the treatment of bacterial vaginosis and trichomoniasis.
 D. Zidovudine is used to treat HIV/AIDS.
 N NCLEX® Connection: Pharmacological and Parenteral Therapies, Medication Administration
4. A. **CORRECT:** Erythromycin is administered to the infant immediately following delivery to prevent *Neisseria gonorrhoeae*.
 B. **CORRECT:** Erythromycin is administered to the infant immediately following delivery to prevent *Chlamydia trachomatis*.
 C. **CORRECT:** Retrovir is prescribed to a client in labor who is HIV-positive.
 D. **CORRECT:** Penicillin G or ampicillin may be prescribed to treat positive GBS.
 E. A TORCH infection can be treated during pregnancy depending upon the infection.
 N NCLEX® Connection: Health Promotion and Maintenance, Ante/Intra/Postpartum and Newborn Care
5. A. Immunization against rubella is contraindicated during pregnancy due to the risk of fetal congenital anomalies.
 B. There is no treatment for cytomegalovirus.
 C. A TORCH infection cannot be transmitted by being in areas where large crowds are present.
 D. **CORRECT:** Toxoplasmosis, a TORCH infection, is contracted by consuming undercooked meat.
 N NCLEX® Connection: Reduction of Risk Potential, Potential for Complications from Surgical Procedures and Health Alterations

PRACTICE Answer

Using the ATI Active Learning Template: System Disorder

LABORATORY TESTS: Vaginal and rectal cultures performed at 36 to 37 weeks of gestation

RISK FACTORS

- Maternal**
- History of positive culture with previous pregnancy
 - Maternal age less than 20 years
 - African American or Hispanic ethnicity
- Fetal**
- Positive during pregnancy
 - Prolonged rupture of membranes
 - Preterm delivery
 - Low birth weight
 - Use of intrauterine fetal monitoring
 - Intrapartum maternal fever (38° C [100.4° F])

N NCLEX® Connection: Reduction of Risk Potential, Potential for Complications from Surgical Procedures and Health Alterations

MEDICATIONS

- Client who has GBS bacteriuria during current pregnancy
- Client who has a GBS-positive screen during current pregnancy
- Client who has unknown GBS status who is delivering at less than 37 weeks of gestation
- Client who has maternal fever of 38° C (100.4° F)
- Client who has rupture of membranes for 18 hr or longer