Montana Code Annotated (MCA)

CDEPI 406-444-0273

Duty to Report Cases	37-2-301
Minor's Right to Consent for Health Services	41-1-402
Definitions (ex: Health Officer, Board of Health, etc.)	50-1-101
Boards of Health – powers and duties	50-2-116
Local Health Officers – powers and duties	50-2-118
Assistance from Law Enforcement	50-2-120
Removal of Diseased Prisoner	50-2-121
Obstruction of a Health Officer	50-2-122
Authorize a compliance order	50-2-123
General Powers and Duties of DPHHS	50-1-202
Government Health Care Information Act	50-16-603
Uniform Health Care Information Act (refers to providers)	50-16-530
Enforcement of public law	50-1-103

SCAN ME

Local Board Rules	37.114.102
Incorporation by Reference	37.114.105
Reporters	37.114.201
Reportable Diseases and Conditions	37.114.203
Reports and Report Deadlines	37.114.204
Report Contents	37.114.205
Confirmation of Disease	37.114.313
Investigation of a Case	37.114.314
Potential Outbreaks	37.114.315
Minimal Control Measures	37.114.501

SCAN ME

Hepatitis C (HCV) Screening Recommendations

CDC recommends universal, one time HCV screening.

- Hepatitis C screening should be completed at least once in a lifetime for all adults aged 18 years and older
- Hepatitis C screening should be completed for all pregnant women during each pregnancy

Hepatitis C (HCV) Screening Recommendations

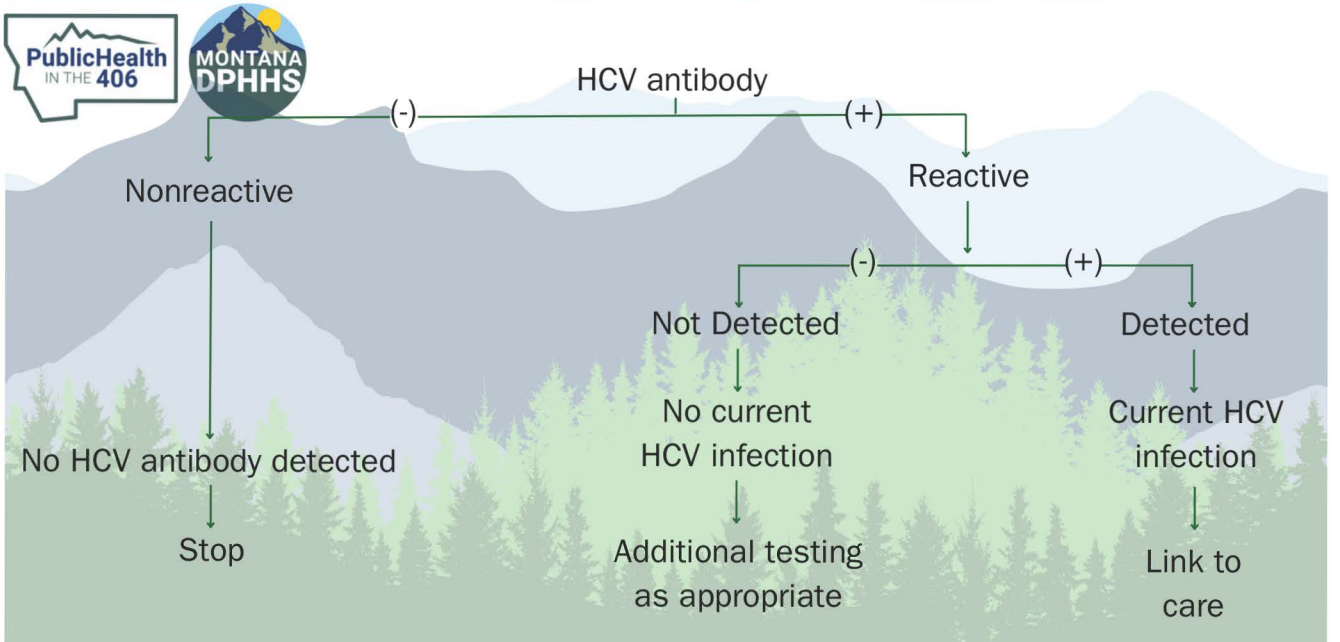
CDEPI 406-444-0273

Hepatitis C testing regardless of age or setting is recommended for people with recognized conditions or exposures.

- People with HIV
- People who have ever injected drugs/shared needles at any time
- People with select medical conditions (e.g., hemodialysis)
- People with prior transfusion or organ transplant recipients
- Healthcare personnel with needlestick injuries or mucosal exposure to HCV+ blood
- Children born to mothers with HCV infection
- Routine periodic testing for people with ongoing risk factors, while risk factors persist
- Any person who requests hepatitis C testing should receive it, regardless of disclosure of risk, because many persons may be reluctant to disclose stigmatizing risks

Hepatitis C Testing Algorithm

CDEPI 406-444-0273



* For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA can be considered.

† To differentiate past, resolved HCV infection from biologic false positivity for HCV antibody, testing with another HCV antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Interpretation of Results of Tests for Hepatitis C Virus (HCV)

CDEPI 406-444-0273

Test Outcome	Interpretation	Further Actions
HCV antibody nonreactive	No HCV antibody detected	Sample can be reported as nonreactive for HCV antibody. No further action required. If is a recent exposure is suspected, test for HCV RNA.*
HCV antibody reactive	Probable HCV infection	A reactive result is consistent with current HCV infection, or past HCV infection that has resolved. Determine if this an acute or chronic case and test for HCV RNA to identify current infection.
HCV antibody reactive, HCV RNA detected	Confirmed HCV infection	Determine if this an acute or chronic HCV case. Conduct appropriate control measures and provide the person with appropriate counseling and link person tested to care and treatment.
HCV antibody reactive, HCV RNA not detected	No current HCV infection	No further action required in most cases. If distinction between true positivity and biologic false positivity for HCV antibody is desired, and if sample is repeatedly reactive in the initial test, test with another HCV antibody assay. In certain situations, follow up with HCV RNA testing and appropriate counseling.

* If HCV RNA testing is not feasible and person tested is not immunocompromised, do follow-up testing for HCV antibody to demonstrate seroconversion. If the person tested is immunocompromised, consider testing for HCV RNA.

Determining Hepatitis C Virus (HCV) Case Status

CDEPI 406-444-0273

PublicHealth IN THE 406

MONTANA DPHHS

ACUTE HEPATITIS C

- Clinical criteria and positive antibody only = **Probable case**
- Clinical criteria AND positive RNA test = **Confirmed case**
- Documented test conversion = **Confirmed case**

CHRONIC HEPATITIS C

- No test conversion or clinical criteria
- Positive antibody and no RNA = **Probable case**
- Positive antibody and positive RNA = **Confirmed case**
- Positive RNA only = **Confirmed case**

AND

An absence of a more likely diangosis

REMEMBER: Positive antibody and negative RNA is not a case

Hepatitis C Virus (HCV) Surveillance Case Definition Terms

CDEPI 406-444-0273

CLINICAL CRITERIA

One or more of the following:

- Jaundice OR
- Peak elevated serum alanine aminotransferase (ALT) level >200 IU/mL OR
- Peak elevated total bilirubin levels > 3.0 mg/dL

AND

The absence of a more likely diagnosis (i.e., acute or advanced liver disease due to other causes such as alcohol exposure, other viral hepatitis, hemochromatosis, pre-existing chronic HCV infection, etc.)

TEST CONVERSION

Refers to a person who has had a negative HCV antibody or RNA lab within the past 12 months followed by a positive lab result.

REINFECTION

individuals who have cleared a previous infection either spontaneously or after treatment remain at risk for reinfection. Reinfection is defined as the reoccurrence of detectable HCV RNA after a previously cleared infection.

- Confirm the diagnosis and determine if it is a new or old case using:
  - Montana Infectious Disease Information System (MIDIS) laboratory results
  - Provider notes or patient history
- For an acute HCV case, local health jurisdictions (LHJ) *must* contact and interview the patient to determine source, risk factors, and transmission settings and provide patient and partner counseling.
- For a chronic HCV case, the LHJ *may* contact and interview the patient to determine source, risk factors, transmission risk, provide patient counseling, and treatment referral. They may also work through the provider to accomplish this step.
- Exposure information should include:
  - For an acute HCV case, ask about possible exposures within the past 2 weeks to 6 months. For a chronic HCV case, exposures beyond 6 months may be determined
  - History of intravenous drug use or needle sharing
  - History of receipt of donated blood, blood products, and organs prior to 1992
  - Determine if there is an occupational exposure in a health care setting
  - Birth to an HCV infected mother
  - Are there other exposures within 6 months of symptom onset (e.g., medical or dental exposures, unlicensed tattoo or piercing)
  - History of high-risk sexual contact (e.g., multiple partners, history of STDs, etc.)

Hepatitis C (HCV) Education and Counseling

CDEPI 406-444-0273

EDUCATION AND PREVENTION

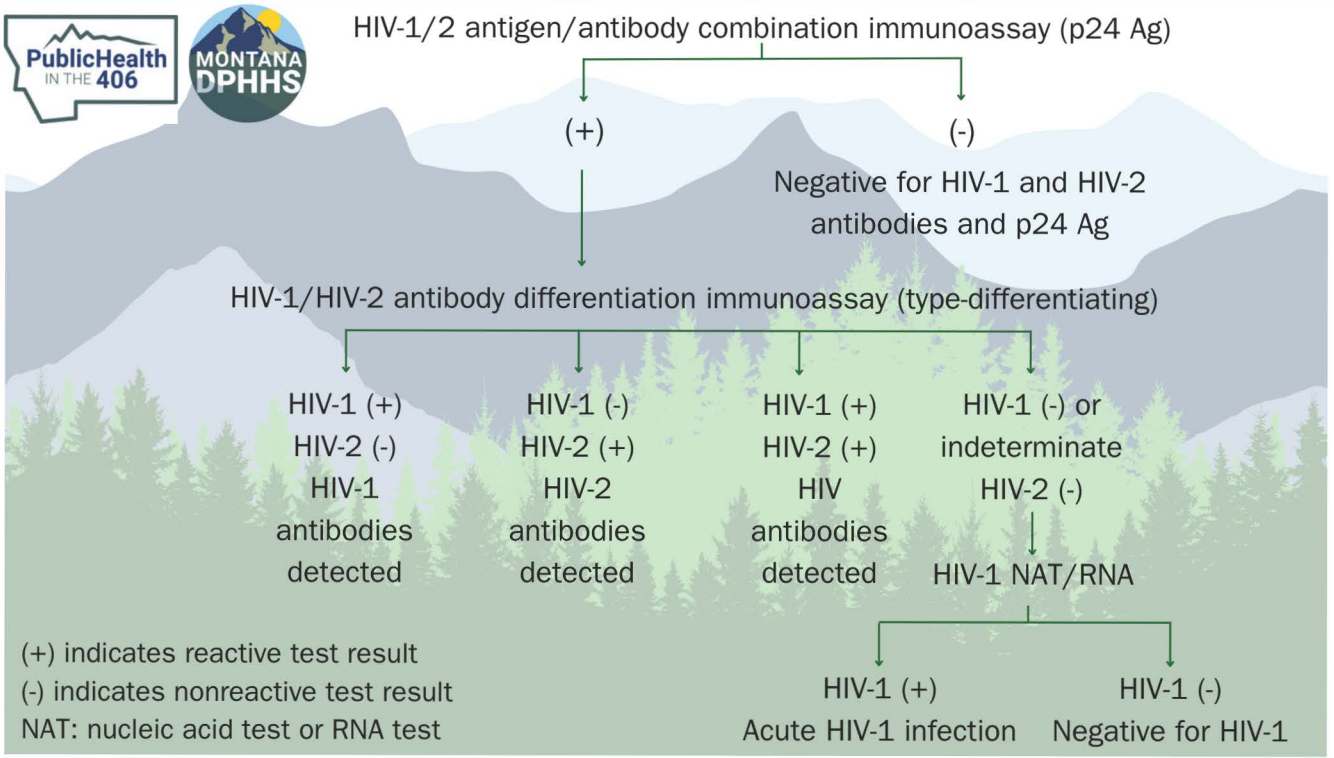
- Discuss with the patient the benefits of stopping or reducing the use of injecting drugs.
- The patient should be counseled to never reuse or “share” syringes, needles, water, or drug preparation equipment. Refer the patient to syringe services program if possible.
- The risk of sexual transmission is low, but is greater for persons with multiple partners, men who have sex with men or a history of STDs.

COUNSELING

- Treatment can cure most people with chronic hepatitis C in 8 to 12 weeks.
- Avoid alcohol because it can accelerate cirrhosis and end-stage liver disease.
- Consult with a health professional before taking any new prescription pills, over-the counter drugs (such as non-aspirin pain relievers), or supplements, as these can potentially damage the liver.
- Avoid sharing personal items that might have blood on them, such as toothbrushes or razors. Cuts and sores on the skin should be covered.
- Donating blood, organs, tissue, or semen can spread HCV to others.
- HCV is not spread by sneezing, hugging, holding hands, or coughing.
- Refer for hepatitis B vaccination, as appropriate.

HIV Testing Algorithm

CDEPI 406-444-0273



HIV Window Period

CDEPI 406-444-0273

WHAT IS THE HIV WINDOW PERIOD?

- The window period for an HIV test is the time between HIV exposure and when a test can detect HIV.
- The window period depends on the type of HIV test used.

WHAT IS THE HIV WINDOW PERIOD BY TEST?

- Antibody tests can usually detect HIV 23 to 90 days after exposure. Most rapid tests, point of care and self-tests are antibody tests that screen for HIV. This is not a diagnostic test and not part of the testing algorithm.
- An antigen/antibody combination (p24 Ag) test using blood from a vein can usually detect HIV 18 to 45 days after exposure.
- HIV-1/HIV-2 type-differentiating test using blood from a vein can usually detect HIV 18 to 90 days after exposure.
  - 95% of people will develop positive antibodies by day 28.
  - 99.9% of people will test positive for antibodies by day 90.
- A nucleic acid (NAT) or RNA test can usually detect HIV 10 to 33 days after exposure.

NAT (RNA)	Antigen/Antibody (P24 Ag)	HIV-1/HIV-2 type differentiating	Rapid Antibody
10-33 DAYS	18-45 DAYS	18-90 DAYS	23-90 DAYS
Performed by a lab on blood from a vein.	Performed by a lab on blood from a vein.	Performed by a lab on blood from a vein.	Performed on blood from a needle stick

ADULT SYPHILIS SURVEILLANCE STAGING

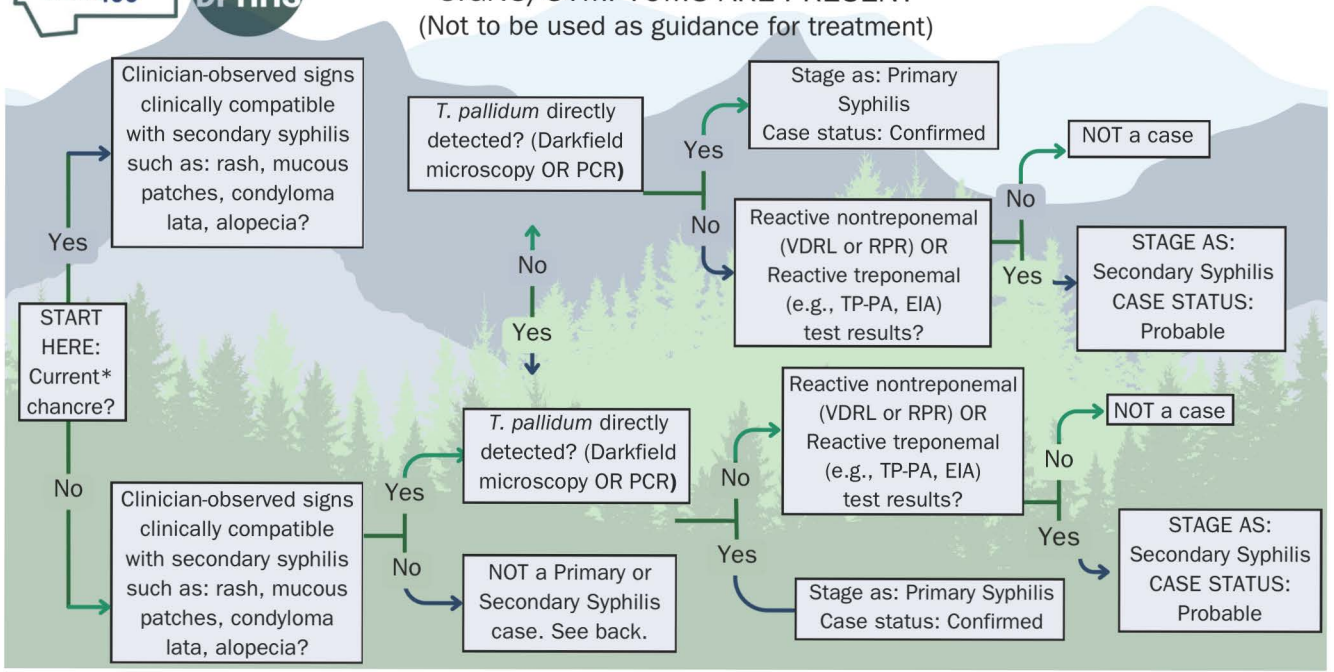
STD/HIV 406-444-9033

PublicHealth IN THE 406

MONTANA DPHHS

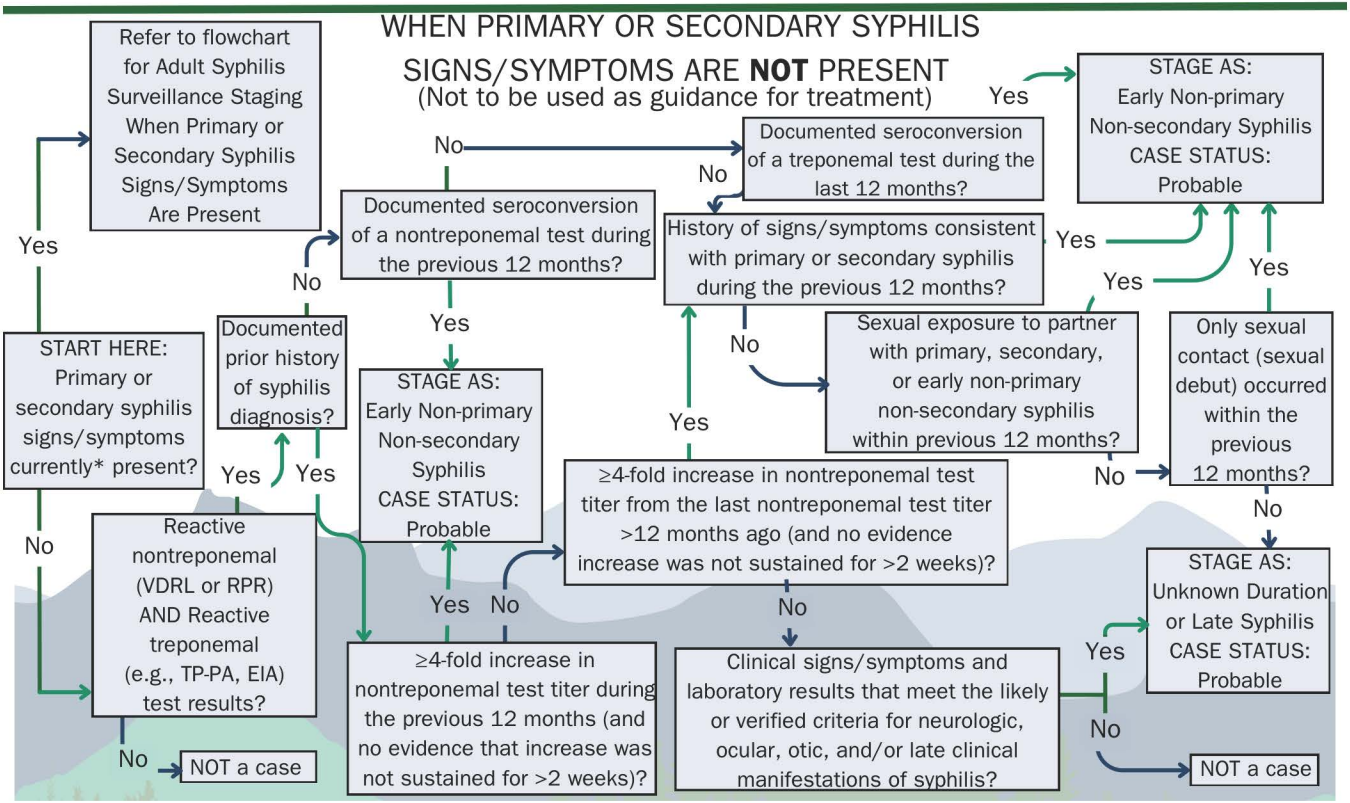
WHEN PRIMARY OR SECONDARY SYPHILIS SIGNS/SYMPTOMS ARE PRESENT

(Not to be used as guidance for treatment)

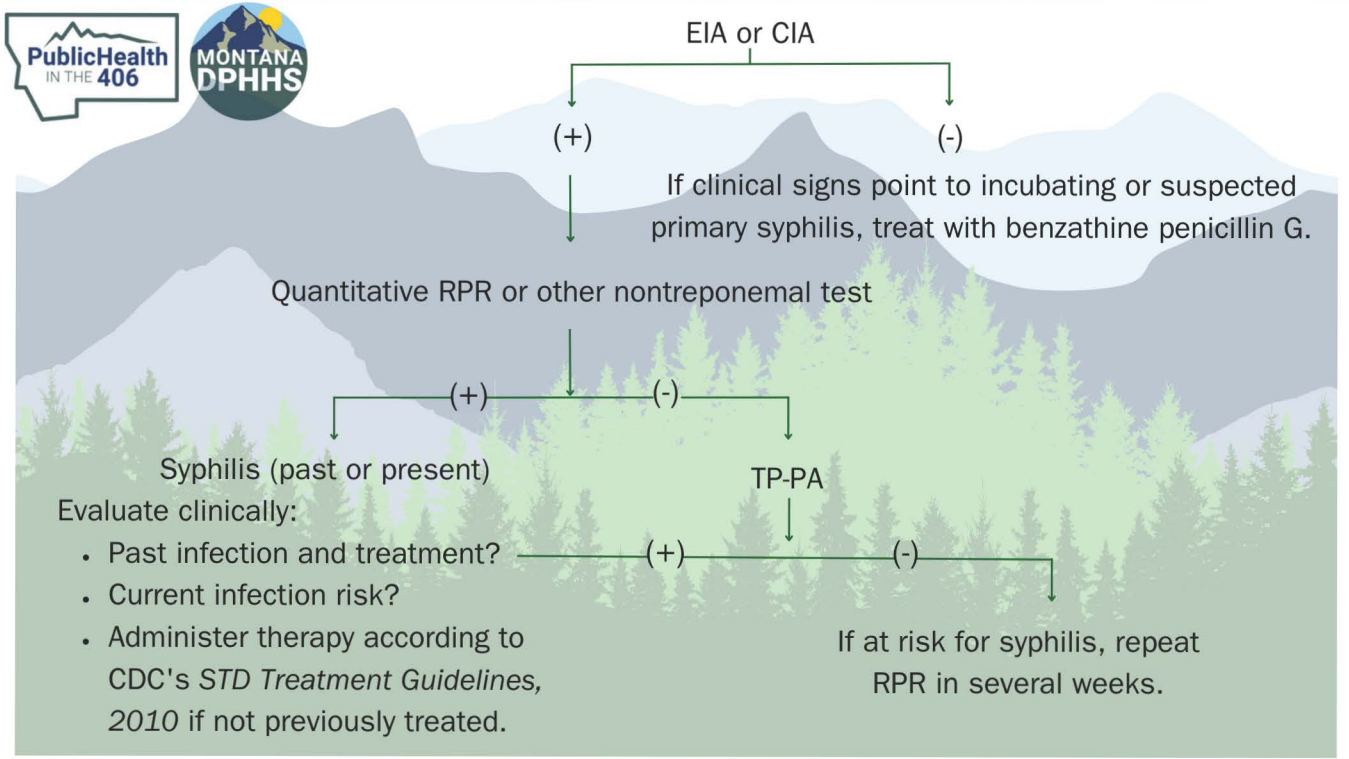


ADULT SYPHILIS SURVEILLANCE STAGING

STD/HIV 406-444-9033

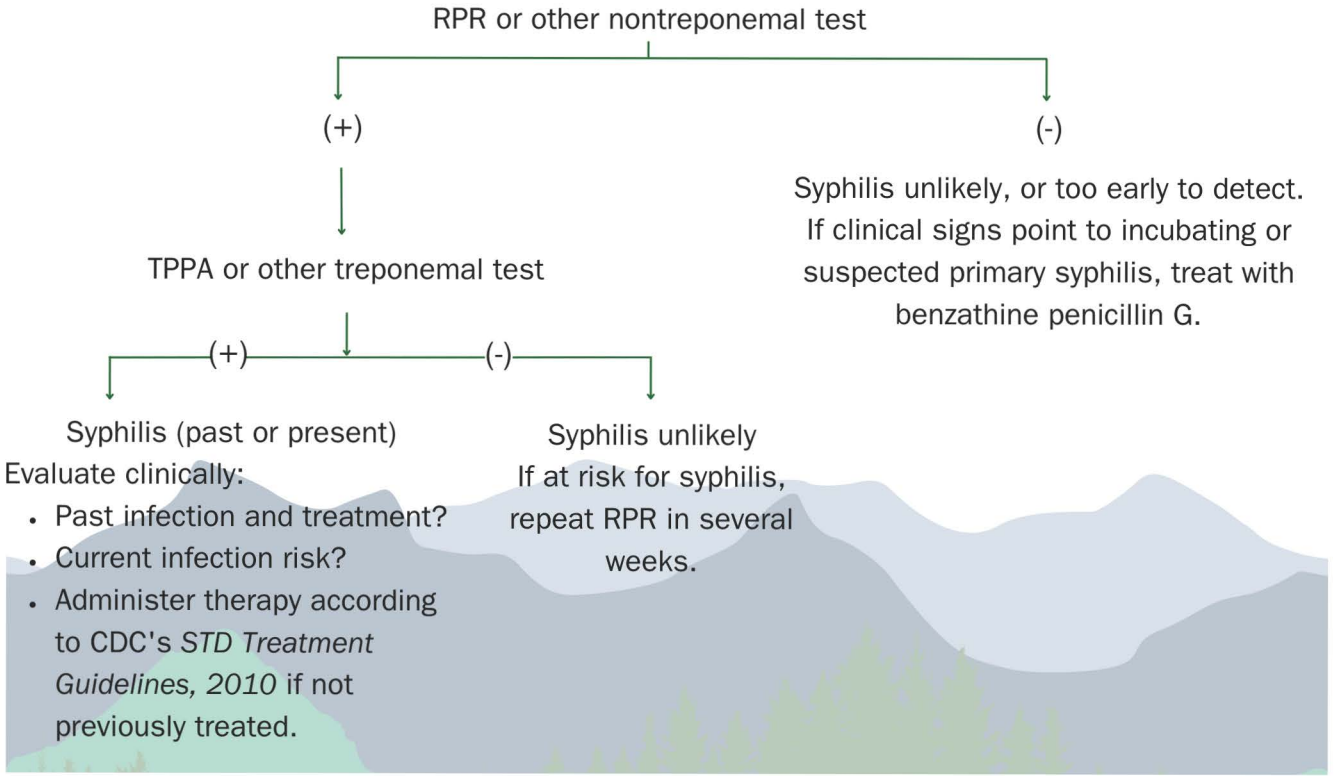


Syphilis Testing Algorithm



Syphilis Testing Algorithm

STD/HIV 406-444-9033



CDC Syphilis Treatment Guidelines

RECOMMENDED REGIMEN FOR PRIMARY AND SECONDARY SYPHILIS AMONG ADULTS**

Benzathine penicillin G 2.4 million units intramuscularly (IM) in a single dose

RECOMMENDED REGIMENS FOR LATENT SYPHILIS AMONG ADULTS**

- Early Latent Syphilis: Benzathine penicillin G 2.4 million units IM in a single dose
- Late Latent Syphilis: Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals

RECOMMENDED REGIMEN FOR SYPHILIS AMONG INFANTS AND CHILDREN

Benzathine penicillin G 50,000 units/kg body weight IM, up to the adult dose of 2.4 million units in a single dose

RECOMMENDED REGIMEN FOR TERTIARY SYPHILIS AMONG ADULTS

Tertiary Syphilis with normal cerebrospinal fluid (CSF) Examination: Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals

RECOMMENDED REGIMEN FOR NEUROSYPHILIS, OCULAR SYPHILIS, OR OTOSYPHILIS AMONG ADULTS

- Aqueous crystalline penicillin G 18–24 million units per day, administered as 3–4 million units IV every 4 hours or continuous infusion for 10–14 days
- Alternative Regimen:Procaine penicillin G 2.4 million units IM once daily PLUSProbenecid 500 mg orally 4 times/day, both for 10–14 days

RECOMMENDED REGIMENS, CONFIRMED OR HIGHLY PROBABLE CONGENITAL SYPHILIS**

- Aqueous crystalline penicillin G 100,000–150,000 units/kg body weight/day, administered as 50,000 units/kg body weight/dose by IV every 12 hours during the first 7 days of life and every 8 hours thereafter for a total of 10 days

OR

- Procaine penicillin G 50,000 units/kg body weight/dose IM in a single daily dose for 10 days

**Pregnancy or HIV Positive: Benzathine Penicillin is the only recommended treatment in pregnancy and for people who are HIV positive, both should be treated with the recommended penicillin regimen appropriate for their stage of infection. Please see the full CDC STI Treatment Guideline for information on treating penicillin allergic patients.

**Please see the full CDC STI Treatment Guideline for treatment options for possible congenital syphilis or situations in which congenital syphilis is less likely. The full guidance also provides treatment options when the availability of aqueous crystalline penicillin G is compromised.

Case Definition Summary for Bacterial Enteric Pathogens

CDEPI 406-444-0273

Pathogen	Reportable Specimens	Culture-independent positive results (PCR or EIA)	Specimen required to send to MTPHL?	Culture methods positive	Culture not confirmed	Case Definition Year
Campylobacteriosis	Clinical specimen (urine, blood, stool)	Probable	No	Confirmed	Probable	2015
Salmonellosis	Clinical specimen (urine, blood, stool)	Probable	Yes	Confirmed	Probable	2017

Case Definition Summary for Bacterial Enteric Pathogens

CDEPI 406-444-0273

Pathogen	Reportable Specimens	Culture-independent positive results (PCR or EIA)	Specimen required to send to MTPHL?	Culture methods positive	Culture not confirmed	Case Definition Year
Shiga toxin-producing *E. coli*	Clinical specimen (urine, blood, stool)	Probable*	Yes	Confirmed	Probable*	2018
Shigellosis	Clinical specimen (urine, blood, stool)	Probable	Yes	Confirmed	Probable	2017

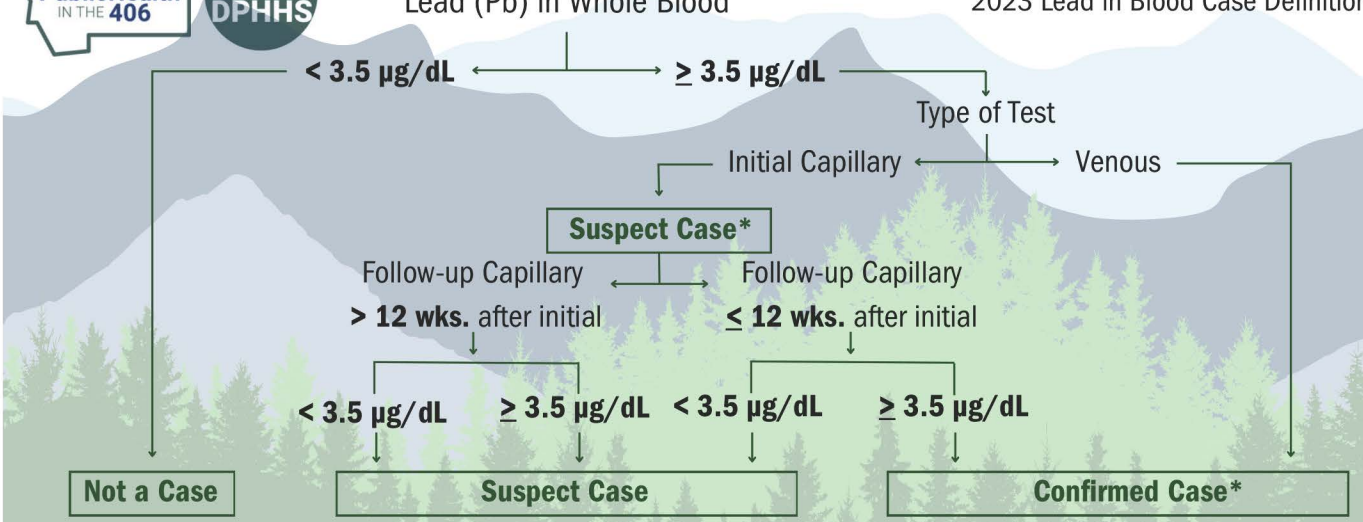
*probable if clinically compatible; suspect if no known clinical compatibility

Blood Lead Decision Matrix

MEHEA 406-444-0057

CHILD, UNDER 16 YEARS OF AGE

2023 Lead in Blood Case Definition



*Create a new investigation in MIDIS if there is not a confirmed lead poisoning case in the current or prior calendar year.

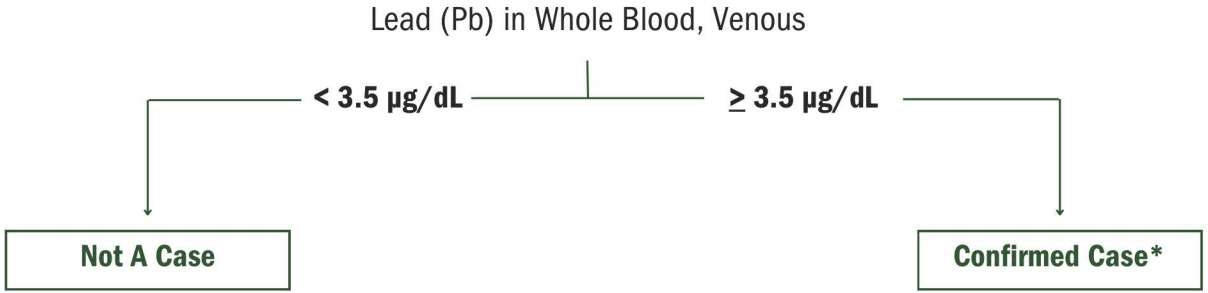
The American Academy of Pediatrics provides a pediatric lead screening schedule in **Recommendations for Preventive Pediatric Health Care**. Guidelines for medical management are provided by Pediatric Environmental Health Specialty Units in **Recommendations on Management of Childhood Lead Exposure: A Resource for Health Professionals**. Priority Groups for testing include children with at least 1 risk factor; Medicaid-enrolled children; children participating in WIC and Head Start; children in Foster Care; and international adoptees and refugees. The recommended testing interval for most children is at 12 months and again at 24 months of age, or tested at least once by 72 months if not previously tested.

Blood Lead Decision Matrix

MEHEA 406-444-0057

ADULT, 16 YEARS OF AGE AND OLDER

2023 Lead in Blood Case Definition

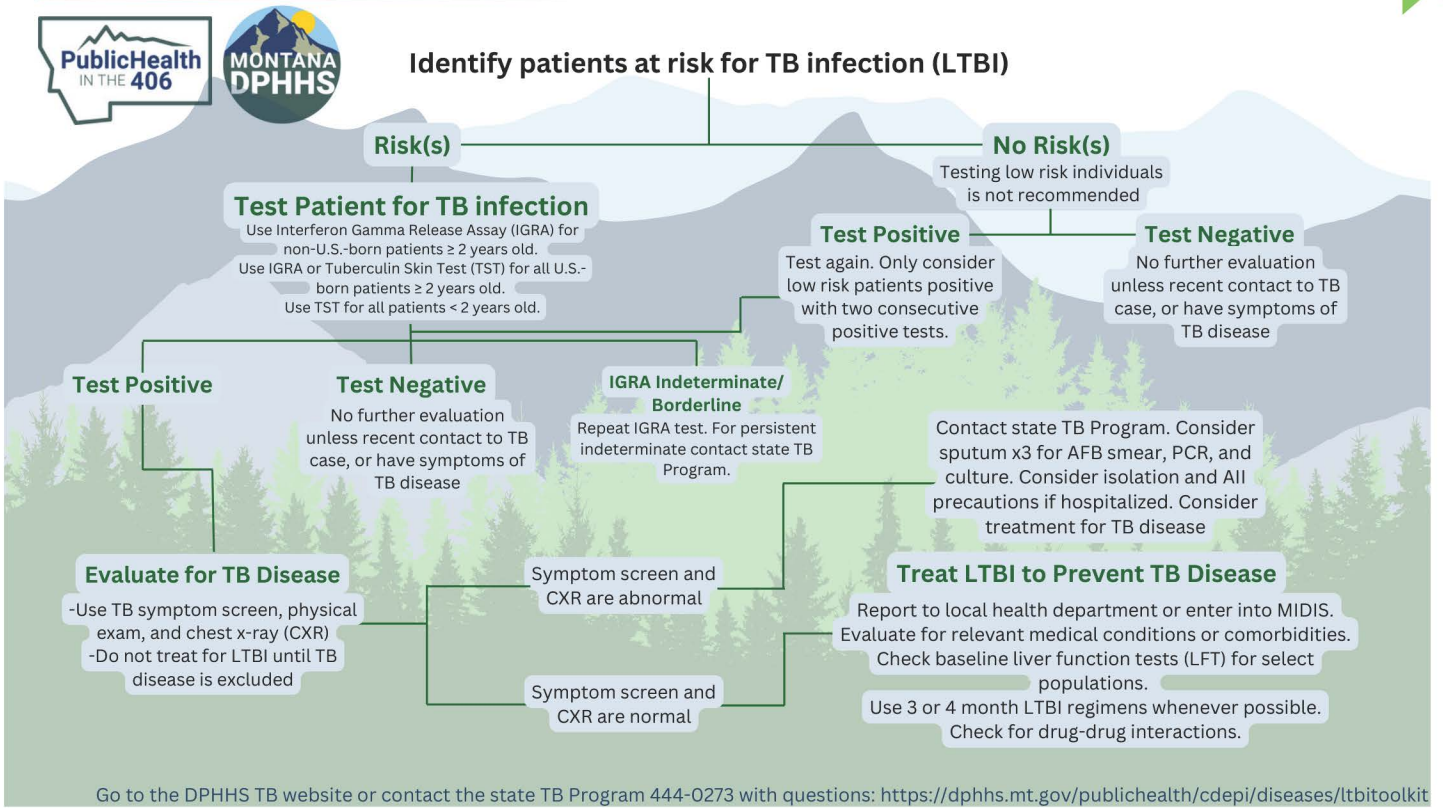


*Create a new investigation in MIDIS if there is not a confirmed lead poisoning case in the current or prior calendar year.

The Council of State and Territorial Epidemiologist's Occupational Subcommittee provides **Management Guidelines for Blood Lead Levels in Adults**. The United States Occupational Safety and Health Administration (OSHA) sets and enforces lead standards for workers in general industry (Occupational Safety and Health Standards, Toxic and Hazardous Substances 1910.1025) and construction (Safety and Health Regulations for Construction Standard 1926.62).

Tuberculosis Infection (LTBI) Flowchart

CDEpi 406-444-0273

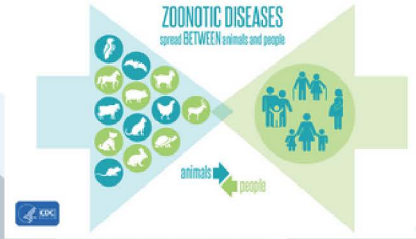


Go to the DPHHS TB website or contact the state TB Program 444-0273 with questions: https://dphhs.mt.gov/publichealth/cdepi/diseases/ltbitoolkit

- **Risk factors prompting testing include:** · Birth, travel or residence in a country with elevated TB rate for at least 1 month; · Immunosuppression, current or planned, consult risk assessment for details; · Close contact to someone with infectious TB disease.
- **TB symptom screen:** Patients should be asked about any of these symptoms: cough >2-3 weeks; hemoptysis; fever or chills; night sweats; unintended weight loss; loss of appetite; fatigue; chest pain. Other symptoms or signs of extrapulmonary TB should be considered, depending upon the site affected.
- **Chest X-Ray:** All patients with TB infection should undergo a chest radiograph (CXR) as part of the evaluation. All patients should receive a posterior-anterior CXR. Patients <5 years should receive a lateral CXR in addition to the posterior-anterior. Alert the radiologist that the purpose is to check for TB disease, and to interpret with a high index of suspicion for TB.
- **Baseline liver function tests (LFTs):** Baseline LFTs are recommended for patients with any of the following: HIV infection; daily or heavy alcohol use, liver disease, or chronic hepatitis; pregnant and postpartum (up to 2-3 months after delivery); currently infecting drugs; taking other potentially hepatotoxic medications; prior elevated serum transaminase concentrations; hematologic conditions.
- **Resources:** Resources for LTBI can be found on the DPHHS TB webpage, including the LTBI Toolkit. https://dphhs.mt.gov/publichealth/cdepi/diseases/ltbitoolkit

Zoonotics Resource Card

CDEPI 406-444-0273



WHAT ARE ZOONOTIC DISEASES?

- Zoonotic diseases are infections that spread between people and animals. Zoonotic diseases can be caused by viruses, bacteria, parasites, and fungi.

HOW DO GERMS SPREAD BETWEEN ANIMALS AND PEOPLE?

- Direct Contact: when someone comes into contact with the saliva, blood, urine, mucous, feces, or other body fluids of an infected animal. This can happen when someone pets or touches an animal or is bit or scratched by an animal.
- Indirect Contact: when someone comes into contact with areas where animals live and roam or objects or surfaces that have been contaminated with germs. Examples include aquarium tank water, pet habitats, chicken coops, barns, plants, and soil, as well as pet food and water dishes.
- Vector-Borne: when someone is bitten by a tick or an insect such as a mosquito or flea.
- Foodborne: when someone eats or drinks something that is unsafe or contaminated (e.g., unpasteurized or raw milk, undercooked meat or eggs, or raw fruits and vegetables).
- Waterborne: when someone drinks or comes into contact with water that has been contaminated.

*Note: Vector-borne and foodborne (enteric) conditions are grouped separately from zoonotics.

Zoonotics Resource Card

CDEPI 406-444-0273

Condition	LHJ Report to DPHHS Requirements	Confirmatory Testing Required at MTPHL?	Investigation Form (Located on Secret Site)
Brucellosis	24 Hours	Yes	DPHHS Brucellosis Form
Hantavirus Infection/Hantavirus Pulmonary Syndrome	7 Days	Yes	CDC Hantavirus Form
Melioidosis	24 Hours	Yes	DPHHS General Reporting Form
Q fever	7 Days	No	CDC Q Fever Form
Psittacosis	7 Days	No	DPHHS Psittacosis Form

General Steps for Response/Notification to a Positive Lab Report or if a Patient Calls and Says They Have Symptoms/Were Exposed

1. Collect basic information for the patient
   a. Name
   b. Date of birth
   c. County of residence
   d. Symptoms and symptom onset
   e. Any other tests conducted to rule out other conditions
   f. Hospital course and any treatments started
   g. History of notable exposures related to the suspected disease
2. Complete an investigation form for the condition. It does not need to be completed fully, just enough that we can determine our next steps.
3. Reach out to CDEpi at 406-444-0273 to consult with the Zoonotics epidemiologist on what to do next. Depending on the condition and the type of test performed, we may need to arrange additional specimens to be collected for confirmatory testing.

Testing for Q Fever

CDEPI 406-444-0273

Type of Test Performed	Test Result	Case Status	Classification
Immunofluorescence Assay (IFA) to Detect Antibodies to *C. burnetii* antigens	IgG antibody to phase I antigen ≥ 1:800 (phase II IgG titer may be elevated, but phase I is higher)	Confirmed	Chronic
	IgG antibody to phase I antigen ≥ 1:128 and < 1:800	Probable	Chronic
	Serological evidence of a fourfold change in IgG antibody to phase II antigen between paired serum samples (first sample taken during the first week of illness and then a second sample taken 3-6 weeks later)	Confirmed	Acute
	Single IgG titer of ≥ 1:128 to phase II antigen (phase I titers may be elevated as well)	Probable	Acute
Enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination	Elevated phase II IgG or IgM antibody reactive with *C. burnetii* antigen	Probable	Acute
Polymerase Chain Reaction (PCR) Assay	Detection of *C. burnetii* DNA in a clinical specimen via amplification of a specific target by PCR assay	Confirmed	Chronic if patient has evidence of endocarditis Acute if no evidence of endocarditis
Immunohistochemistry (IHC) Methods	Demonstration of *C. burnetii* antigen in a clinical specimen by IHC		
Culture	Isolation of *C. burnetii* from a clinical specimen by culture		

Recommendations

Condition	Testing Recommendations
Hantavirus	• The first step for testing for hantavirus is sending a serum specimen to MTPHL or a reference lab (e.g., Mayo, ARUP, Quest) for antibody testing. Positive test results at MTPHL will not enter MIDIS until confirmatory testing at CDC confirms the positive result. ◦ MTPHL will call and notify CDEpi if there is a positive, and we will notify your LHJ and begin the process for confirmatory testing. • CDEpi will help coordinate confirmatory testing with the CDC (and reference lab if applicable).
Brucellosis	• *Brucella* species are classified as select agents. They are easily aerosolized and most (this excludes the *Brucella* species responsible for brucellosis in dogs, *B. canis*) species have a low infectious dose (between 10-100 microorganisms). If you or a provider believe a patient may have brucellosis or has compatible symptoms after a possible exposure and you submit a specimen for testing to MTPHL, please indicate on the specimen submission form that brucellosis is on the differential so our lab personnel can follow the proper protocol. If your county or the facility where the patient is seen go through an alternate reference lab, verify the reference lab's select agent protocol. • Call CDEpi if you are submitting a specimen to MTPHL and we can help confirm everything is correct. • Testing is not recommended for asymptomatic individuals.

Condition	Cleaning and Prevention Recommendations

Hantavirus	• Seal Up: Instruct individuals to seal any holes inside and outside of their residence that may be larger than a dime. Store any food items in sealable containers to prevent rodent entry.
	• Trap Up: Trap rodents around residences to help reduce rodent populations and consult with an exterminator if there is a serious rodent infestation.
	• Clean Up: It is VERY IMPORTANT with hantavirus that you do not sweep or vacuum areas with potential rodent infestations.
	  ◦ Buildings that have been left abandoned for an extended period should be opened up and aired out for at least 30 minutes before entering.
	  ◦ Wear rubber, latex, or vinyl gloves when cleaning areas potentially infested or contaminated with rodents.
	  ◦ Spray potentially contaminated surfaces with a disinfectant such as a 1% (1:100 dilution) bleach solution and wipe the area clean with disposable rags.
	  ◦ Soak heavily infested or contaminated areas with a disinfectant such as a 10% (1:10 dilution) bleach solution and clean the area with disposable rags.

Brucellosis (Specifically *B. canis*)	• Any newly acquired dog should be placed in quarantine or an isolated facility until *B. canis* testing is completed.
	• Use latex or rubber gloves when working with breeding dogs, newborn puppies, or aborted fetuses. Consider using eye protection and covering scratched skin and open wounds to prevent splash exposures.
	• Wash hands for at least 20 seconds with soap and water after interacting with an animal.
	• Use face masks, eye protection, and gloves when disinfecting kennel areas and runs to prevent any material from entering the mouth, nose, or eyes.
	• Disinfect potentially contaminated areas with one of the following options:
	  ◦ Household bleach (1:32 dilution for routine disinfection, 1:10 dilution following brucellosis diagnosis)
	  ◦ Phenolic disinfectants (e.g., Lysol)