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## AFRICAN TICK BITE FEVER

- For more information, see [Arizona Administrative Code R9-6-304](#) (Codes Section, pg 9)
- Complete [Tick-Borne Rickettsial Disease Case Report Form](#) (Forms Section)

### **Clinical Description**

A tick-borne illness caused by *Rickettsia africae*, a pathogen endemic to several countries in sub-Saharan Africa, and to Guadeloupe in the Caribbean. Clinic disease generally occurs within 1-15 days median, 4 days) following the bite of an infecting tick. The illness is characterized by acute onset of fever, and is accompanied by single or multiple eschars. Regional lymphadenopathy and a maculopapular rash also occur in about half of all patients.

### **Laboratory Criteria for Diagnosis**

#### Confirmed

- A four-fold or greater change in IgG antibody titer to spotted fever group rickettsia antigen in paired serum specimens; or
- Demonstration of spotted fever group rickettsiae in a biopsy specimen by using an immunohistochemical stain; or
- Detection of DNA of *R. africae* in a clinical specimen by using PCR; or
- Isolation of *R. africae* from a clinical specimen cell culture

#### Probable

- A single supportive IgG antibody titer to spotted fever group rickettsiae (cutoff titers are determined by individual laboratories)

### **Case Classification**

A clinically compatible illness in a person with travel to an *R. africae*-endemic region within three weeks of illness onset.

## AMEBIASIS

- For more information, see [Arizona Administrative Code R9-6-302](#) (Codes Section, pg 8)

### ***Clinical Description***

Infection of the large intestine by *Entamoeba histolytica* may result in an illness of variable severity ranging from mild, chronic diarrhea to fulminant dysentery. Infection may also be asymptomatic.

Extraintestinal infection may also occur. The most common is hepatic abscess.

### ***Laboratory Criteria for Diagnosis***

Intestinal amebiasis:

- Demonstration of cysts or trophozoites of *E. histolytica* in stool, or
- Demonstration of trophozoites in tissue biopsy or ulcer scrapings by culture or histopathology

Extraintestinal amebiasis

- Demonstration of *E. histolytica* trophozoites in extraintestinal tissue

### ***Case Classification***

*Confirmed, intestinal amebiasis:* A clinically compatible illness that is laboratory confirmed.

*Confirmed, extraintestinal amebiasis:* A parasitologically confirmed infection of extraintestinal tissue or among symptomatic persons (with clinical or radiographic findings consistent with extraintestinal infection) demonstration of specific antibody against *E. histolytica* as measured by IHA (indirect hemagglutination), or other reliable immunodiagnostic test such as ELISA (enzyme-linked immunosorbent assay).

### ***Comment***

Asymptomatic intestinal carriage of *E. histolytica* should not be reported. Among asymptomatic persons, a positive serologic test does not necessarily indicate extraintestinal amebiasis.

Report immediately to Arizona Dept of Health Services



## ANTHRAX

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see [Arizona Administrative Code R9-6-303](#) (Codes Section, pg 8)

### ***Clinical Description***

An illness with acute onset characterized by several distinct clinical forms including:

Cutaneous -- a skin lesion evolving within 2 to 6 days from a papule, to vesicular stage, to a depressed black eschar

Inhalation -- a brief prodrome resembling a viral respiratory illness followed by development of hypoxia and dyspnea, with x-ray evidence of mediastinal widening

Intestinal -- severe abdominal distress followed by fever and signs of septicemia

Oropharyngeal -- mucosal lesion in the oral cavity or oropharynx, cervical adenopathy and edema, and fever

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Bacillus anthracis* from a clinical specimen. or
- Fourfold or greater rise in either the anthrax ELISA (enzyme-linked immunosorbent assay) or EITB (electrophoretic immunotransblot) titer between acute- and convalescent- phase serum specimens obtained **≥2 weeks apart**, OR
- Anthrax ELISA titer  $\geq 64$  or an **EITB** reaction to the protective antigen and/or lethal factor bands in one or more serum samples obtained after onset of symptoms, OR
- Demonstration of *B. anthracis* in a clinical specimen by immunofluorescence

### **Case Classification**

*Confirmed:* A clinically compatible illness that is laboratory confirmed.

## **ASEPTIC MENINGITIS**

- For more information, see [Arizona Administrative Code R9-6-304](#) (Codes Section, pg 9)

### ***Clinical Description***

A syndrome characterized by acute onset of meningeal symptoms, fever, and cerebrospinal fluid pleocytosis, with bacteriologically sterile cultures.

### ***Laboratory Criteria for Diagnosis***

- No evidence of bacterial or fungal meningitis.

### ***Case Classification***

*Confirmed:* A clinically compatible illness diagnosed by a physician as aseptic meningitis with no laboratory evidence of bacterial or fungal meningitis.

### ***Comment:***

Aseptic meningitis is a syndrome of multiple etiologies, but many cases are caused by a viral agent.

## BACTERIAL MENINGITIS, OTHER

- Complete *Bacterial Meningitis and Bacteremia Case Report Form* (Forms Section)

### **Clinical description**

Bacterial meningitis manifests most commonly with fever, headache, and a stiff neck; the disease may progress rapidly to shock and death. However, other manifestations may be observed.

### **Laboratory criteria for diagnosis**

- Isolation of a bacterial species from the cerebrospinal fluid

### **Case classification**

*Confirmed:* a clinically compatible case that is either laboratory confirmed or is accompanied by a positive blood culture

### **Comment**

Cases of bacterial meningitis caused by *Haemophilus influenzae*, *Neisseria meningitidis*, group A *Streptococcus*, and *Listeria monocytogenes* should be reported to [CDC's National Notifiable Diseases Surveillance System](#) under the disease codes specific for these organisms. Only cases of bacterial meningitis caused by organisms other than those specified should be reported as cases of "bacterial meningitis, other."

## BOTULISM, FOODBORNE



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see [Arizona Ad](#)
- Complete [Suspected Botulism Report](#)



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

### ***Clinical Description***

Ingestion of botulinal toxin results in an illness of variable severity. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly. See ("[Botulism in the United States](#) in Appendix B")

### ***Laboratory Criteria for Diagnosis***

- Detection of botulinal toxin in serum, stool, or patient's food, or
- Isolation of *Clostridium botulinum* from stool or from the food of a patient with a compatible illness

### ***Case Classification***

***Confirmed:*** A clinically compatible illness that is laboratory confirmed or that occurs among persons who ate the same food as persons with laboratory confirmed botulism.

### ***Comment:***

Botulism may be diagnosed without laboratory confirmation if the clinical and epidemiologic evidence is overwhelming.



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932

After Hours: 602-920-3772

## **BOTULISM, INFANT**

- For more information, see [Arizona Administrative Code R9-6-305](#) (Codes Section, pg 9)
- Complete [Infant Botulism Form](#) (Forms Section)

### ***Clinical Description***

An illness among infants characterized by constipation, poor feeding, and "failure to thrive" that may be followed by progressive weakness, impaired respiration, and death. (See "[Botulism in the United States](#)" in Appendix B")

### ***Laboratory Criteria for Diagnosis***

- Detection of botulinal toxin in stool, serum, or
- Isolation of *Clostridium botulinum* from stool

### ***Case Classification***

**Confirmed:** A clinically compatible, laboratory confirmed illness usually occurring among children <1 year of age.

Report immediately to Arizona Dept of Health Services



During Business Hours: 602-230-5932

After Hours: 602-920-3772

## **BOTULISM, WOUND**

- For more information, see [Arizona Administrative Code R9-6-305](#) (Codes Section, pg 9)
- Complete [Suspected Botulism Reporting Form](#) (Forms Section)

### ***Clinical Description***

An illness resulting from toxin produced by *Clostridium botulinum* that has infected a wound. (See "[Botulism in the United States](#) in Appendix B")

### ***Laboratory Criteria for Diagnosis***

- Detection of botulinal toxin in serum, or
- Isolation of *Clostridium botulinum* from wound

### ***Case Classification***

***Confirmed:*** A clinically compatible illness that is laboratory confirmed among patients with no suspect food exposure and with a history of fresh, contaminated wound in the 2 weeks before onset of symptoms.

## BOTULISM, OTHER



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932

After Hours: 602-920-3772

- For more information, see [Arizona](#)
- Complete [Suspected Botulism Re](#)



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932

After Hours: 602-920-3772

### ***Clinical Description***

Ingestion of botulinal toxin results in an illness of variable severity. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.

### ***Laboratory Criteria for Diagnosis:***

- Detection of botulinal toxin in clinical specimen, or
- Isolation of *Clostridium botulinum* from clinical specimen

### ***Case Classification***

***Confirmed:*** An illness clinically compatible with botulism that is laboratory confirmed among patients >11 months of age without histories of ingestion of suspect food and without wounds.

## BRUCELLOSIS

- For more information, see [Arizona Administrative Code R9-6-306](#) (Codes Section, pg 9)
- Complete [Brucellosis Case Surveillance Report Form](#) (Forms Section)

### ***Clinical description***

An illness characterized by acute or insidious onset of fever, night sweats, undue fatigue, anorexia, weight loss, headache, and arthralgia

### ***Laboratory criteria for diagnosis***

- Isolation of *Brucella* sp. from a clinical specimen, or
- Fourfold or greater rise in *Brucella* agglutination titer between acute- and convalescent-phase serum specimens obtained greater than or equal to 2 weeks apart and studied at the same laboratory, or
- Demonstration by immunofluorescence of *Brucella* sp. in a clinical specimen

### ***Case classification***

*Confirmed:* a clinically compatible illness that is laboratory confirmed

*Probable:* a clinically compatible case that is epidemiologically linked to a confirmed case or that has supportive serology (i.e., *Brucella* agglutination titer of greater than or equal to 160 in one or more serum specimens obtained after onset of symptoms)

## **CAMPYLOBACTERIOSIS**

- For more information, see [Arizona Administrative Code R9-6-307](#) (Codes Section, pg 9)
- Complete [Campylobacter Investigation Form](#)

### ***Clinical Description***

An infection that may result in diarrheal illness of variable severity.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Campylobacter* from any clinical specimen

### ***Case Classification***

*Confirmed:* A case that is laboratory confirmed.

*Probable:* A clinically compatible illness that is epidemiologically linked to a confirmed case.

## CHANCROID

- For more information, see [Arizona Administrative Code R9-6-308](#) (Codes Section, pg 9)
- Complete [Field Record \(CDC 73.2936S\) Form](#) (Forms Section)

### ***Clinical Description***

A sexually transmitted disease characterized by painful genital ulceration and inflammatory inguinal adenopathy. The disease is caused by infection with *Haemophilus ducreyi*.

### ***Case Classification***

*Confirmed:* A case that is laboratory confirmed.

*Probable:* A clinically compatible case with one or more painful genital ulcers in which:

- a) There is no evidence of *Treponema pallidum* infection by darkfield examination of ulcer exudate or by a serologic test for syphilis performed at least 7 days after onset of ulcers,

**and**

- b) The clinical presentation of the ulcer(s) is not typical disease caused by HSV (herpes simplex virus) or HSV culture is negative.

## CHLAMYDIA TRACHOMATIS INFECTION

- For more information, see [Arizona Administrative Code R9-6-309](#) (Codes Section, pg 9)
- Complete [Field Record \(CDC 73.2936S\) Form](#) (Forms Section)

### ***Clinical Description***

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted. Perinatal infections may result in inclusion conjunctivitis and pneumonia among newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum and trachoma.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *C. trachomatis* by culture, or
- Demonstration of *C. trachomatis* in a clinical specimen by antigen detection methods

### ***Case Classification***

**Confirmed:** A case that is laboratory confirmed.

## CHOLERA



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see
- Complete *Cholera and O1*



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

### **Clinical Description**

An illness characterized by diarrhea and/or vomiting. Severity is variable.

### **Laboratory Criteria for Diagnosis**

- Isolation of toxigenic (cholera toxin-producing) *Vibrio cholerae* 01 or 0139 from stool or vomitus, or
- Significant rise in vibriocidal or antitoxic antibodies in acute-and early convalescent-phase sera, or
- Significant fall in vibriocidal antibodies in early-and late convalescent-phase sera among persons not recently vaccinated.

### **Case Classification**

**Confirmation:** A clinically compatible illness that is laboratory confirmed.

#### **Comment:**

When other cases are known to be occurring, a less than four-fold rise in titer between acute-and convalescent-phase serum may be considered significant. Likewise, a less than four-fold fall may be important in these circumstances. Only confirmed cases should be reported nationally. Illnesses due to strains of *V. Cholerae* other than toxigenic *V. cholerae* 01 or 0139 should not be reported as cases of cholerae. The etiologic agent of a case of cholera should be reported as either *V. cholerae* 01 or *V. cholerae* 0139.

# COCCIDIOIDOMYCOSIS

- For more information, see [Arizona Administrative Code R9-6-311](#) (Codes Section, pg 9)

## ***Clinical Description***

Infection may be asymptomatic or may produce an acute or chronic disease. While the disease initially resembles an influenza-like febrile illness primarily involving the bronchopulmonary system, dissemination can occur to virtually any organ system. Confirmation of coccidioidomycosis requires the demonstrated presence of *Coccidioides* histopathologic, cultural or molecular means and/or demonstration of a specific immunologic response: skin test conversion or demonstration of presence of coccidioidal antibody. The results of these immunologic tests must be interpreted in the context of the varied clinical presentations and duration and clinical type of coccidioidomycosis.

## ***Clinical Case Definition***

An illness characterized by at least one of the following:

- Influenza-like signs and symptoms, including fever, chest pain, cough, myalgia, arthralgia, headache
- Pneumonia or other pulmonary lesion, by chest X-ray
- Rashes, including erythema nodosum or erythema multiforme
- Involvement of bones, joints, or skin by dissemination
- Meningitis
- Involvement of viscera and lymph nodes

## ***Laboratory Criteria for Diagnosis***

Laboratory-confirmed coccidioidomycosis requires at least one of the following:

- Cultural, histopathologic, or molecular evidence of presence of *C. immitis*, or
- Immunologic evidence of infection (**All titers must be  $\geq 1:4$** )
  1. Serologic (testing of serum, cerebrospinal fluid, or other body fluid):
    - a. Detection of coccidioidal IgM by immunodiffusion, enzyme immunoassay (EIA), latex agglutination, or tube precipitin, or
    - b. Detection of any titer of coccidioidal IgG by immunodiffusion, enzyme immunoassay (EIA), or complement fixation.
  2. Coccidioidal skin test conversion from negative to positive after the onset of clinical signs and symptoms.

## ***Case Classification***

**Confirmed:** A case that meets the clinical case definition and is laboratory confirmed.

## COLORADO TICK FEVER

- For more information, see [Arizona Administrative Code R9-6-312](#) (Codes Section, pg 9)

### ***Clinical Description***

An acute viral disease characterized by fever, chills, lethargy, headache and myalgias with infrequent macular or maculopapular rash. After initial onset, a remission is usual, followed by a second bout of fever lasting 2-3 days.

### ***Laboratory Criteria for Diagnosis***

- Isolation of CTF virus from blood or CSF, or
- Fourfold or greater change in serum antibody

### ***Case Classification***

*Probable:* a compatible history of tick or outdoor exposure, plus clinical symptoms with supportive laboratory results (demonstration of single serological test result suggestive of recent infection with no history of previous infection, by use of hemagglutination, IFA or ELISA).

*Confirmed:* A case that is laboratory confirmed with symptoms and history as above.

## **CRYPTOSPORIDIOSIS (*Cryptosporidium parvum*) (crypto)**

- For more information, see [Arizona Administrative Code R9-6-314](#) (Codes Section, pg 10)
- Complete [Cryptosporidiosis Investigational Form](#) (Forms Section)

### ***Clinical description***

An illness caused by the protozoan *Cryptosporidium parvum* and characterized by diarrhea, abdominal cramps, loss of appetite, low-grade fever, nausea, and vomiting. Infected persons may be asymptomatic. The disease can be prolonged and life-threatening in severely immunocompromised persons.

### ***Laboratory criteria for diagnosis***

Laboratory-confirmed cryptosporidiosis shall be defined as the detection—in symptomatic or asymptomatic persons—of *Cryptosporidium*

- Oocysts in stool by microscopic examination, or
- In intestinal fluid or small-bowel biopsy specimens, or
- Oocysts or sporozoite antigens by immunodiagnostic methods, e.g., ELISA, or
- By PCR techniques when routinely available, or
- Demonstration of reproductive stages in tissue preparations.

### ***Case classification***

*Confirmed, symptomatic:* a laboratory-confirmed case associated with one of the symptoms described above

*Confirmed, asymptomatic:* a laboratory-confirmed case associated with none of the above symptoms

## CYCLOSPORIASIS (*Cyclospora cayetanensis*)

- A [Cyclosporiasis Surveillance Case Report Form](#) is available.

### **Clinical description**

An illness of variable severity caused by the protozoan *Cyclospora cayetanensis* and commonly characterized by watery diarrhea, loss of appetite, weight loss, abdominal bloating and cramping, increased flatus, nausea, fatigue, and low-grade fever. Vomiting also may be noted. Relapses and asymptomatic infections can occur.

### **Laboratory criteria for diagnosis**

Laboratory-confirmed cyclosporiasis shall be defined as the detection—in symptomatic or asymptomatic persons—of *Cyclospora*

- Oocysts in stool by microscopic examination, or
- In intestinal fluid or small bowel biopsy specimens, or
- Demonstration of sporulation, or
- DNA (by polymerase chain reaction) in stool, duodenal/jejunal aspirates or small bowel biopsy specimens.

### **Case classification**

*Confirmed, symptomatic:* a laboratory-confirmed case associated with one of the symptoms described above

*Confirmed, asymptomatic:* a laboratory-confirmed case associated with none of the above symptoms

## DENGUE FEVER

- For more information, see [Arizona Administrative Code R9-6-315](#) (Codes Section, pg 10)

### ***Clinical Description***

An acute febrile illness characterized by frontal headache, retro-ocular pain, muscle and joint pain, and rash. Dengue is transmitted through mosquito bites from specific *Aedes* species, primarily *Aedes aegypti* and *Aedes albopictus* mosquitos in the Americas. *Aedes aegypti* mosquitos have been found in southern Arizona. Dengue fever cases are more common in tropical countries, and outbreaks have been reported in recent years in the Caribbean Countries, Mexico, and Central and South America. Severe manifestations (dengue hemorrhagic fever and dengue shock syndrome) are rare, but may be fatal.

### ***Laboratory Criteria for Diagnosis***

- Isolation of dengue virus from serum and/or autopsy tissue samples, or
- Demonstration of a fourfold or greater rise or fall in reciprocal IgG or IgM (ELISA ONLY) antibody titers in paired serum samples to one or more dengue virus antigens, or
- Demonstration of dengue virus antigen in autopsy tissue samples by immunofluorescence or by hybridization probe

### ***Case Classification***

*Probable:* a clinically compatible illness with supportive serology (a reciprocal IgG antibody titer of >1280 or a positive IgM antibody test on a single convalescent-phase serum specimen to one or more dengue virus antigens)

*Confirmed:* a case that is laboratory confirmed

### ***Comment***

Dengue hemorrhagic fever is defined as acute onset of fever with nonspecific symptoms. This is followed by hemorrhagic manifestations and/or minor or major bleeding phenomena, thrombocytopenia ( $<1000,000/\text{mm}^3$ ), and hemoconcentration (hematocrit increased by  $>20\%$ ), or other objective evidence of increasing capillary permeability; or decreasing hematocrit after severe frank hemorrhage, such as upper gastrointestinal bleeding.

The definition for dengue shock syndrome follows all of the above criteria for dengue hemorrhagic fever and also includes hypotension or narrow pulse pressure ( $<20$  mm Hg.)

## DIPHTHERIA



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see
- Complete [CDC Diphtheria](#)



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

0)

### **Clinical Description**

An upper respiratory tract illness typically characterized by sore throat, low grade fever, and an adherent membrane of the tonsil(s), pharynx, and/or nose.

### **Laboratory Criteria for Diagnosis**

- Isolation of *Corynebacterium diphtheriae* from a clinical specimen.
- Histopathologic diagnosis of diphtheria.

### **Case Classification**

**Confirmed:** A clinically compatible case that is laboratory confirmed, or is epidemiologically linked to a laboratory-confirmed case.

**Probable:** A clinically compatible case that is not laboratory confirmed, and is not epidemiologically linked to a laboratory-confirmed case.

### **Comment:**

Cutaneous diphtheria should not be reported. Disease due to nontoxigenic *C. diphtheria* should be reported as diphtheria. All diphtheria isolates, whether associated with disease or not should be forwarded to the Arizona State Laboratory.

## EHRlichiosis (HGE, HME, other or unspecified)

- For more information, see [Arizona Administrative Code R9-6-318](#) (Codes Section, pg 10)
- Complete [Tick-Borne Rickettsial Disease Case Report Form](#) (Forms Section)

### **Clinical description**

A tick-borne illness characterized by acute onset of fever, headache, myalgia, and/or malaise. Nausea, vomiting, or rash may be present in some cases. Clinical laboratory findings may include thrombocytopenia, leukopenia, and/or elevated liver enzymes. Intracytoplasmic bacterial aggregates (morulae) may be visible in the leukocytes of some patients.

Three categories of confirmed or probable ehrlichiosis should be reported:

- 1) Human ehrlichiosis caused by *E. chaffeensis* (HME)
- 2) Human ehrlichiosis caused by *E. phagocytophila* (HGE), and
- 3) Human ehrlichiosis (other or unspecified agent), which includes cases that cannot be easily classified by available laboratory techniques, and cases caused by novel *Ehrlichia* species such as *E. ewingii*.

### **Laboratory criteria for diagnosis**

#### **HME:**

- Demonstration of a four-fold change in antibody titer to *E. chaffeensis* antigen by indirect immunofluorescence assay (IFA) in paired serum samples, or
- Positive polymerase chain reaction (PCR) assay and confirmation of *E. chaffeensis* DNA, or
- Identification of morulae in leukocytes, and a positive IFA titer to *E. chaffeensis* antigen (based on cutoff titers established by the laboratory performing the assay), or
- Immunostaining of *E. chaffeensis* antigen in a biopsy or autopsy sample, or
- Culture of *E. chaffeensis* from a clinical specimen.

#### **HGE:**

- Demonstration of a four-fold change in antibody titer to *E. phagocytophila* antigen by IFA in paired serum samples, or
- Positive PCR assay and confirmation of *E. phagocytophila* DNA, or
- Identification of morulae in leukocytes, and a positive IFA titer to *E. phagocytophila* antigen (based on cutoff titers established by the laboratory performing the assay), or
- Immunostaining of *E. phagocytophila* antigen in a biopsy or autopsy sample, or
- Culture of *E. phagocytophila* from a clinical specimen.

#### **EHRlichiosis, HUMAN, OTHER OR UNSPECIFIED AGENT:**

- Demonstration of a four-fold change in antibody titer to more than one *Ehrlichia* species by IFA in paired serum samples, in which a dominant reactivity cannot be established, or
- Identification of an *Ehrlichia* species other than *E. chaffeensis* or *E. phagocytophila* by PCR, immunostaining, or culture.

### **Case classification**

**Probable:** a clinically compatible illness with either a single positive IFA titer (based on cutoff titers established by the laboratory performing the test) or the visualization of morulae in leukocytes.

**Confirmed:** a clinically compatible illness that is laboratory-confirmed.

## **ENCEPHALITIS or MENINGITIS, ARBOVIRAL (includes California serogroup, eastern equine, St. Louis, western equine, West Nile, Powassan)**

- For more information, see [Arizona Administrative Code R9-6-319](#) (Codes Section, pg 10)
- Complete [West Nile Encephalitis Case Investigation Form](#) (Forms Section)

### ***Clinical description***

Arboviral infections may be asymptomatic or may result in illnesses of variable severity sometimes associated with central nervous system (CNS) involvement. When the CNS is affected, clinical syndromes ranging from febrile headache to aseptic meningitis to encephalitis may occur, and these are usually indistinguishable from similar syndromes caused by other viruses. Arboviral meningitis is characterized by fever, headache, stiff neck, and pleocytosis. Arboviral encephalitis is characterized by fever, headache, and altered mental status ranging from confusion to coma with or without additional signs of brain dysfunction (e.g., paresis or paralysis, cranial nerve palsies, sensory deficits, abnormal reflexes, generalized convulsions, and abnormal movements).

### ***Laboratory criteria for diagnosis***

- Fourfold or greater change in virus-specific serum antibody titer, or
- Isolation of virus from or demonstration of specific viral antigen or genomic sequences in tissue, blood, cerebrospinal fluid (CSF), or other body fluid, or
- Virus-specific immunoglobulin M (IgM) antibodies demonstrated in CSF by antibody-capture enzyme immunoassay (EIA), or
- Virus-specific IgM antibodies demonstrated in serum by antibody-capture EIA and confirmed by demonstration of virus-specific serum immunoglobulin G (IgG) antibodies in the same or a later specimen by another serologic assay (e.g., neutralization or hemagglutination inhibition).

### ***Case classification***

*Probable:* an encephalitis or meningitis case occurring during a period when arboviral transmission is likely, and with the following supportive serology: 1) a single or stable (less than or equal to twofold change) but elevated titer of virus-specific serum antibodies; or 2) serum IgM antibodies detected by antibody-capture EIA but with no available results of a confirmatory test for virus-specific serum IgG antibodies in the same or a later specimen.

*Confirmed:* an encephalitis or meningitis case that is laboratory confirmed

### ***Comment***

Because closely related arboviruses exhibit serologic cross-reactivity, positive results of serologic tests using antigens from a single arbovirus can be misleading. In some circumstances (e.g., in areas where two or more closely related arboviruses occur, or in imported arboviral disease cases), it may be epidemiologically important to attempt to pinpoint the infecting virus by conducting cross-neutralization tests using an appropriate battery of closely related viruses. This is essential, for example, in determining that antibodies detected against St. Louis encephalitis virus are not the result of an infection with West Nile (or dengue) virus, or vice versa, in areas where both of these viruses occur.

The seasonality of arboviral transmission is variable and depends on the geographic location of exposure, the specific cycles of viral transmission, and local climatic conditions. Reporting should be etiology-specific (see below; the six encephalitides/meningitides printed in bold are nationally reportable to CDC):

**St. Louis encephalitis/meningitis**

**West Nile encephalitis/meningitis**

**Powassan encephalitis/meningitis**

**Eastern equine encephalitis/meningitis**

**Western equine encephalitis/meningitis**

**California serogroup viral encephalitis/meningitis** (includes infections with the following viruses: La Crosse, Jamestown Canyon, snowshoe hare, trivittatus, Keystone, and California encephalitis viruses)

Other viral CNS infections transmitted by mosquitos, ticks, or midges (e.g., Venezuelan equine encephalitis/meningitis and Cache Valley encephalitis/meningitis)

## **ENTEROHEMORRHAGIC *ESCHERICHIA COLI* (*E. coli* O157 or Shiga toxin-producing *E. coli*)**

- For more information, see [Arizona Administrative Code R9-6-320](#) (Codes Section, pg 10)
- Complete [E. coli O157:H7 Investigation Form](#) (Forms Section)

### ***Clinical description***

An infection of variable severity characterized by diarrhea (often bloody) and abdominal cramps. Illness may be complicated by [hemolytic uremic syndrome](#) (HUS) or thrombotic thrombocytopenic purpura (TTP); asymptomatic infections also may occur.

### ***Laboratory criteria for diagnosis***

- Isolation of *Escherichia coli* O157:H7 from a specimen, or
- Isolation of Shiga toxin-producing *E. coli* from a clinical specimen\*

### ***Case classification***

*Suspect:* A case of postdiarrheal HUS or TTP (see HUS case definition)

*Probable:*

- A case with isolation of *E. coli* O157 from a clinical specimen, pending confirmation of H7 or Shiga toxin production, or
- A clinically compatible case that is epidemiologically linked to a confirmed or probable case, or
- Identification of Shiga toxin in a specimen from a clinically compatible case, or
- Definitive evidence of an elevated antibody titer to a known EHEC serotype from a clinically compatible case

*Confirmed:* A case that meets the laboratory criteria for diagnosis.

### ***Comment***

Laboratory-confirmed isolates are reported via the Public Health Laboratory Information System (PHLIS), which is managed by the Foodborne and Diarrheal Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC. Both probable and confirmed cases are reported to the [National Notifiable Diseases Surveillance System](#) (NNDSS), but only confirmed cases are reported to PHLIS. Confirmation is based primarily on laboratory findings.

Report immediately to Arizona Dept of Health Services



During Business Hours: 602-230-5932  
After Hours: 602-920-3772

## FOODBORNE DISEASE



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see [Investigation of a Foodborne Outbreak Form](#) (Forms Section)
- Complete [Investigation of a Foodborne Outbreak Form](#) (Forms Section)
- **If Suspected Norovirus:** Complete [Suspected Viral Gastroenteritis Outbreak Form](#)

### ***Clinical description***

Symptoms of illness depend upon etiologic agent. Please see Appendix B, "[Guidelines for Confirmation of Foodborne-Disease Outbreaks](#)" in the MMWR 2000; 49(No. SS-1).

### ***Laboratory criteria for diagnosis***

Depends upon etiologic agent. Please see Appendix B, "[Guidelines for Confirmation of Foodborne-Disease Outbreaks](#)" in the MMWR 2000; 49(No. SS-1).

### ***Definition***

An incident in which two or more persons experience a similar illness after ingestion of a common food, and epidemiologic analysis implicates the food as the source of the illness.

### ***Comment***

There are two exceptions: one case of botulism or chemical poisoning constitutes an outbreak.

## GENITAL WARTS

### ***Clinical Description***

An infection characterized by the presence of visible, exophytic (raised) growths on the internal or external genitalia, perineum, or perianal region

### ***Laboratory criteria for diagnosis***

- Histopathologic changes characteristic of human papillomavirus infection in specimens obtained by biopsy or exfoliative cytology or
- Demonstration of virus by antigen or nucleic acid detection in a lesion biopsy

### ***Case classification***

*Probable:* a clinically compatible case without histopathologic diagnosis and without microscopic or serologic evidence that the growth is the result of secondary syphilis

*Confirmed:* a clinically compatible case that is laboratory confirmed

### ***Comment***

Genital warts should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

## GIARDIASIS

- For more information, see [Arizona Administrative Code R9-6-322](#) (Codes Section, pg 10)
- Complete [Giardia Investigation Form](#) (Forms Section)

### ***Clinical Description***

An illness caused by the protozoan *Giardia lamblia* and characterized by diarrhea, abdominal cramps, bloating, weight loss, or malabsorption. Infected persons may be asymptomatic.

### ***Laboratory Criteria for Diagnosis***

- Demonstration of *G. lamblia* cysts in stool, or
- Demonstration of *G. lamblia* trophozoites in stool, duodenal fluid, or small bowel biopsy, or
- Demonstration of *G. lamblia* antigen in stool by a specific immunodiagnostic test such as enzyme-linked immunosorbent assay (ELISA)

### ***Case Classification***

***Confirmed, Symptomatic:*** a laboratory-confirmed case associated with one or more of the symptoms described above

***Confirmed, Asymptomatic:*** a laboratory-confirmed case associated with none of the above symptoms

## GONORRHEA

- For more information, see [Arizona Administrative Code R9-6-323](#) (Codes Section, pg 11)
- Complete [Field Record \(CDC 73.2936S\) Form](#) (Forms Section)

### ***Clinical Description***

A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. Infection may be asymptomatic.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Neisseria gonorrhoeae* from a clinical specimen, or
- Observation of gram-negative intracellular diplococci in a urethral smear obtained from a man

### ***Case Classification***

*Probable:* Demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a woman or a written (morbidity) report of gonorrhea submitted by a physician.

*Confirmed:* A case that is laboratory confirmed.

## **GRANULOMA INGUINALE (*Calymmatobacterium granulomatis*) (GI)**

### ***Clinical Description***

A slowly progressive ulcerative disease of the skin and lymphatics of the genital and perianal area caused by infection with *Calymmatobacterium granulomatis*. A clinically compatible case would have one or more painless or minimally painful granulomatous lesions in the anogenital area.

### ***Laboratory Criteria for Diagnosis***

- Demonstration of intracytoplasmic Donovan bodies in Wright or Giemsa-stained smears or biopsies of granulation tissue

### ***Case classification***

*Confirmed*: a clinically compatible case that is laboratory confirmed

## **HAEMOPHILUS INFLUENZAE (Invasive Disease)**

- For more information, see [Arizona Administrative Code R9-6-324](#) (Codes Section, pg 11)
- Complete [Bacterial Meningitis and Bacteremia Case Report Form](#) (Forms Section)
- **If < 5 yrs of age:** Complete [Expanded Case Report: Haemophilus influenzae Type B Form](#) (Forms Section)

### **Clinical Description**

Invasive disease due to *Haemophilus influenzae* may produce any of several clinical syndromes, including meningitis, bacteremia, epiglottitis, or pneumonia.

### **Laboratory Criteria for Diagnosis**

- Isolation of *H. influenzae* from a normally sterile site

### **Case Classification**

**Confirmed:** A clinically compatible illness that is culture confirmed.

**Probable:** A clinically compatible illness with detection of *H. influenzae* type b antigen in cerebrospinal fluid.

### **Comment:**

Antigen test results in urine or serum are unreliable for diagnosis of *H. influenzae* disease.

## HANTAVIRUS DISEASE

- For more information, see [Arizona Administrative Code R9-6-325](#) (Codes Section, pg 11)
- Complete [Hantavirus Pulmonary Syndrome Case Report Form and Questionnaire](#) (Forms Section)

### ***Clinical Description***

Hantavirus pulmonary syndrome, commonly referred to as Hantavirus disease, is a febrile illness characterized by bilateral interstitial pulmonary infiltrates and respiratory compromise requiring supplemental oxygen and simulating adult respiratory distress syndrome (ARDS). The typical prodrome consists of fever, chills, myalgias, headaches, and gastrointestinal symptoms. Typical clinical laboratory findings include hemoconcentration, left shift, neutrophilic leucocytosis, thrombocytopenia, and circulating immunoblasts.

### ***Clinical Case Definition***

An illness characterized by at least one of the following clinical features:

- A febrile illness (temperature  $>101^{\circ}\text{F}$  [ $38.30^{\circ}\text{C}$ ]) occurring in a previously healthy person characterized by unexplained adult respiratory distress syndrome, or bilateral interstitial pulmonary infiltrates with respiratory compromise requiring supplemental oxygen, developing within 72 hours of hospitalization.
- An unexplained respiratory illness resulting in death with an autopsy examination demonstrating non-cardiogenic pulmonary edema without an identifiable cause.

### ***Laboratory criteria for diagnosis***

- Detection of hantavirus-specific immunoglobulin M or rising titers of hantavirus-specific immunoglobulin G, or
- Detection of hantavirus-specific ribonucleic acid sequence by polymerase chain reaction in clinical specimens, or
- Detection of hantavirus antigen by immunohistochemistry.

### ***Case Classification***

*Confirmed:* A clinically compatible case with laboratory criteria for diagnosis.

### ***Comment:***

Laboratory testing must be performed or confirmed at the Arizona State Laboratory. Because the clinical illness is non-specific and adult respiratory distress syndrome is common, a screening case definition should be used to determine which patients to test. In general, a predisposing medical condition (e.g. chronic pulmonary disease, malignancy, trauma, burn, surgery, etc.) is a much more likely cause of ARDS than Hantavirus and patients with the underlying conditions and ARDS should not be tested for Hantavirus.

## HEMOLYTIC UREMIC SYNDROME, POST-DIARRHEAL (HUS, TTP)

- Complete *E. coli* O157:H7 Investigation Form (Forms Section)

### **Clinical description**

Hemolytic uremic syndrome (HUS) is characterized by the acute onset of microangiopathic hemolytic anemia, renal injury, and low platelet count. Thrombotic thrombocytopenic purpura (TTP) also is characterized by these features but can include central nervous system (CNS) involvement and fever and may have a more gradual onset. Most cases of HUS (but few cases of TTP) occur after an acute gastrointestinal illness (usually diarrheal).

### **Laboratory criteria for diagnosis**

The following are both present at some time during the illness:

- Anemia (acute onset) with microangiopathic changes (i.e., schistocytes, burr cells, or helmet cells) on peripheral blood smear and
- Renal injury (acute onset) evidenced by either hematuria, proteinuria, or elevated creatinine level (i.e., greater than or equal to 1.0 mg/dL in a child aged less than 13 years or greater than or equal to 1.5 mg/dL in a person aged greater than or equal to 13 years, or greater than or equal to 50% increase over baseline)

Note: A low platelet count can usually, but not always, be detected early in the illness, but it may then become normal or even high. If a platelet count obtained within 7 days after onset of the acute gastrointestinal illness is not less than 150,000/mm<sup>3</sup>, other diagnoses should be considered.

### **Case classification**

*Probable:*

- An acute illness diagnosed as HUS or TTP that meets the laboratory criteria in a patient who does not have a clear history of acute or bloody diarrhea in preceding 3 weeks or
- An acute illness diagnosed as HUS or TTP, that a) has onset within 3 weeks after onset of an acute or bloody diarrhea and b) meets the laboratory criteria except that microangiopathic changes are not confirmed

*Confirmed:* an acute illness diagnosed as HUS or TTP that both meets the laboratory criteria and began within 3 weeks after onset of an episode of acute or bloody diarrhea

### **Comment**

Some investigators consider HUS and TTP to be part of a continuum of disease. Therefore, criteria for diagnosing TTP on the basis of CNS involvement and fever are not provided because cases diagnosed clinically as postdiarrheal TTP also should meet the criteria for HUS. These cases are reported as postdiarrheal HUS.

## HEPATITIS, VIRAL, ACUTE

- For more information, see [Arizona Administrative Code R9-6-304](#) (Codes Section, pg 9)
- Complete [Acute Hepatitis A Case Report](#); [Acute Hepatitis B and D Report](#); [Acute Hepatitis C Case Report Form](#) (Forms Section)

### **Clinical case definition**

An acute illness with a) discrete onset of symptoms and b) jaundice or elevated serum aminotransferase levels

### **Laboratory criteria for diagnosis:**

- **Hepatitis A:** immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive
- **Hepatitis B:**
  - IgM antibody to hepatitis B core antigen (anti-HBc) positive or hepatitis B surface antigen (HBsAg) positive
  - IgM anti-HAV negative (if done)
- **Hepatitis C:**  
Revised 2000
  - Serum alanine aminotransferase levels greater than 7 times the upper limit of normal, and
  - IgM anti-HAV negative, and
  - IgM anti-HBc negative (if done) or HBsAg negative, and
  - Antibody to hepatitis C virus (anti-HCV) positive, verified by a n additional more specific assay
- **Non-A, Non-B hepatitis:**
  - Serum aminotransferase levels greater than 2.5 times the upper limit of normal, and
  - IgM anti-HAV negative, and
  - IgM anti-HBc negative (if done) or HBsAg negative, and
  - Anti-HCV negative (if done) *Delta hepatitis\**: HBsAg or IgM anti-HBc positive and antibody to hepatitis delta virus positive

### **Case classification**

*Confirmed:* a case that meets the clinical case definition and is laboratory confirmed or, for hepatitis A, a case that meets the clinical case definition and occurs in a person who has an epidemiologic link with a person who has laboratory-confirmed hepatitis A (i.e., household or sexual contact with an infected person during the 15-50 days before the onset of symptoms)

### **Comment**

- Persons who have chronic hepatitis or persons identified as HBsAg positive or anti-HCV positive should not be reported as having acute viral hepatitis unless they have evidence of an acute illness compatible with viral hepatitis (with the exception of perinatal hepatitis B infection). (See

Hepatitis, Viral, Perinatal Hepatitis B Virus Infection Acquired in the United States or U.S. Territories.)

- Up to 20% of acute hepatitis C cases will be anti-HCV negative when reported and will be classified as non-A, non-B hepatitis because some (5%-10%) have not yet seroconverted and others (5%-10%) remain negative even with prolonged follow-up (6).
- Available serologic tests for anti-HCV do not distinguish between acute and chronic or past infection. Thus, other causes of acute hepatitis should be excluded for anti-HCV positive patients who have an acute illness compatible with viral hepatitis.
- Delta Hepatitis is not a nationally notifiable disease.

## HEPATITIS B VIRUS INFECTION, CHRONIC

- For more information, see [Arizona Administrative Code R9-6-304](#) (Codes Section, pg 9)
- Complete [Chronic Hepatitis B and D Case Report Form](#) (Forms Section)

### ***Clinical case definition***

Persons with chronic HBV infection may have no evidence of liver disease or may have a spectrum of disease ranging from chronic hepatitis to cirrhosis or liver cancer. Persons with chronic infection may be asymptomatic.

### ***Laboratory criteria for diagnosis:***

- Hepatitis B surface antigen (HBsAg) positive, total anti-HBc positive (if done), and IgM anti-HBc negative, OR
- HbsAg positive two times at least 6 months apart

### ***Case classification***

A case that is laboratory confirmed

### ***Comment***

An estimated 1.25 million persons have chronic hepatitis B virus (HBV) infection. Persons with chronic HBV infection are a major reservoir for transmission of HBV infections. Any person testing positive for hepatitis B surface antigen (HbsAg) is potentially infectious to both household, sexual and needle-sharing contacts and vaccination should be provided. With widespread screening for HBV infection, and the advent of laboratory reporting, an increasing number of persons testing HbsAg are being identified to state health departments. States and counties are increasingly interested in using these data to monitor the disease burden due to chronic infection and to develop prevention programs.

## HEPATITIS C VIRUS INFECTION, CHRONIC or past infection

- For more information, see [Arizona Administrative Code R9-6-304](#) (Codes Section, pg 9)
- Complete [Hepatitis C Chronic Case Report Form](#) (Forms Section)

### ***Clinical case definition***

Most HCV-infected persons are asymptomatic. However, many have chronic liver disease, which can range from mild to severe including cirrhosis and liver cancer.

### ***Laboratory criteria for diagnosis:***

- Anti-HCV positive (repeat reactive) by EIA, verified by an additional more specific assay (e.g. RIBA for anti-HCV or nucleic acid testing for HCV RNA); or
- HCV RIBA Positive; or
- Nucleic acid test for HCV RNA Positive; or
- Anti-HCV positive (repeat reactive) by EIA with a signal to cut-off ratio  $\geq 3.8$  (as this becomes available).

### ***Case classification***

*Probable:* A case that is anti-HCV positive (repeat reactive) by EIA and has alanine aminotransferase (ALT or SGPT) values above the upper limit of normal, but the anti-HCV EIA result has not been verified by an additional more specific assay or the signal to cutoff ratio is unknown.

*Confirmed:* A case that is laboratory confirmed and that does not meet the case definition for acute hepatitis C.

### ***Comment***

Only 25-30% of acutely infected persons are asymptomatic. Regardless of whether symptoms are present, the vast majority of persons who are infected with HCV become chronically infected ( $\geq 85\%$ ). Chronic liver disease develops in most ( $\geq 70\%$ ) of those infected, including cirrhosis and hepatocellular carcinoma. Persons with chronic HCV infection are a major reservoir for transmission of HCV infections. Most people do not know that they are infected. It is essential that infected persons are counseled regarding ways to prevent transmission of HCV to others and to avoid hepatotoxic substances, especially alcohol, which may worsen the course of liver disease. Infected persons need to be evaluated for the presence of liver disease and referred for treatment if indicated. The  $<15\%$  of acutely infected persons who clear the virus and persons who clear the virus due to treatment may show evidence of past infection by testing positive for antibodies to HCV (EIA or RIBA) even if they are not chronically infected.

### ***See also:***

Case definition for [Hepatitis, Viral, Acute](#)

## HEPATITIS, VIRAL, PERINATAL HEPATITIS B VIRUS INFECTION Acquired in the United States or U.S. Territories

- For more information, see [Arizona Administrative Code R9-6-327](#) (Codes Section, pg 11)
- Complete [Perinatal Hepatitis B Form](#) (Forms Section)

### ***Clinical case definition***

Perinatal hepatitis B in the newborn may range from asymptomatic to fulminant hepatitis.

### ***Laboratory criteria for diagnosis:***

- Hepatitis B surface antigen (HBsAg) positive

### ***Case classification***

HBsAg positivity in any infant aged >1-24 months who was born in the United States or in U.S. territories to an HBsAg-positive mother

### ***Comment***

Infants born to HBsAg-positive mothers should receive hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine within 24 hours of birth, followed by the second and third doses of vaccine at 1 and 6 months of age, respectively. Postvaccination testing for antibody to HBsAg and HBsAg is recommended from 3 to 6 months following completion of the vaccine series. If HBIG and the initial dose of vaccine are delayed for >1 month after birth, testing for HBsAg may determine if the infant is already infected.

## HERPES GENITALIS

- For more information, see [Arizona Administrative Code R9-6-330](#) (Codes Section, pg 12)
- Complete [Field Record \(CDC 73.2936S\) Form](#) (Forms Section)

### ***Clinical Description***

An illness characterized by visible, painful genital or anogenital lesions

### ***Laboratory Criteria for Diagnosis***

- Isolation of herpes simplex virus from cervix, urethra, or anogenital lesion, or
- Demonstration of virus by antigen detection technique in clinical specimens from cervix, urethra, or anogenital lesion, or
- Demonstration of multinucleated giant cells on a Tzanck smear of scrapings from an anogenital lesions

### ***Case Classification***

*Probable:* A clinically compatible case (in which primary and secondary syphilis have been ruled out by serology and darkfield microscopy, when available) with either a diagnosis of genital herpes based on clinical presentation (without laboratory confirmation) or a history of one or more previous episodes of similar genital lesions.

*Confirmed:* A clinically compatible case that is laboratory confirmed

### ***Comment***

Herpes should be reported only once per patient. The first diagnosis for a patient with no previous diagnosis should be reported.

## HIV (Human Immunodeficiency Virus)

- I. In adults, adolescents, or children aged **greater than or equal to 18 months\*\***, a reportable case of HIV infection must meet at least one of the following criteria:

### **Laboratory Criteria**

Positive result on a screening test for HIV antibody (e.g., repeatedly reactive enzyme immunoassay), followed by a positive result on a confirmatory (sensitive and more specific) test for HIV antibody (e.g., Western blot or immunofluorescence antibody test)

OR

Positive result or report of a detectable quantity on any of the following HIV virologic (nonantibody) tests:

- HIV nucleic acid (DNA or RNA) detection (e.g., DNA polymerase chain reaction [PCR] or plasma HIV-1 RNA)\*\*\*
- HIV p24 antigen test, including neutralization assay
- HIV isolation (viral culture)

OR

### **Clinical or Other Criteria (if the above laboratory criteria are not met)**

Diagnosis of HIV infection, based on the laboratory criteria above, that is documented in a medical record by a physician

OR

Conditions that meet criteria included in the case definition for AIDS (17-19)

- II. In a child **aged less than 18 months**, a reportable case of HIV infection must meet at least one of the following criteria:

### **Laboratory Criteria**

#### Definitive

Positive results on two separate specimens (excluding cord blood) using one or more of the following HIV virologic (nonantibody) tests:

- HIV nucleic acid (DNA or RNA) detection
- HIV p24 antigen test, including neutralization assay, in a child greater than or equal to 1 month of age
- HIV isolation (viral culture)

OR

Presumptive

A child who does not meet the criteria for definitive HIV infection but who has:

- Positive results on only one specimen (excluding cord blood) using the above HIV virologic tests and no subsequent negative HIV virologic or negative HIV antibody tests

**OR**

***Clinical or Other Criteria (if the above definitive or presumptive laboratory criteria are not met)***

Diagnosis of HIV infection, based on the laboratory criteria above, that is documented in a medical record by a physician

**OR**

Conditions that meet criteria included in the 1987 pediatric surveillance case definition for AIDS (17,19)

- III.** A child aged **less than 18 months** born to an HIV-infected mother will be categorized for surveillance purposes as "**not infected with HIV**" if the child does not meet the criteria for HIV infection but meets the following criteria:

***Laboratory Criteria***

Definitive

At least two negative HIV antibody tests from separate specimens obtained at greater than or equal to 6 months of age

**OR**

At least two negative HIV virologic tests\* from separate specimens, both of which were performed at greater than or equal to 1 month of age and one of which was performed at greater than or equal to 4 months of age

**AND**

No other laboratory or clinical evidence of HIV infection (i.e., has not had any positive virologic tests, if performed, and has not had an AIDS-defining condition)

**OR**

Presumptive

A child who does not meet the above criteria for definitive "not infected" status but who has:

- One negative EIA HIV antibody test performed at greater than or equal to 6 months of age and NO positive HIV virologic tests, if performed
- OR**
- One negative HIV virologic test\* performed at greater than or equal to 4 months of age and NO positive HIV virologic tests, if performed
- OR**
- One positive HIV virologic test with at least two subsequent negative virologic tests\*\*\*\*, at least one of which is at greater than or equal to 4 months of age; or negative HIV antibody test results, at least one of which is at greater than or equal to 6 months of age

**AND**

No other laboratory or clinical evidence of HIV infection (i.e., has not had any positive virologic tests, if performed, and has not had an AIDS-defining condition).

**OR**

***Clinical or Other Criteria (if the above definitive or presumptive laboratory criteria are not met)***

Determined by a physician to be "not infected", and a physician has noted the results of the preceding HIV diagnostic tests in the medical record

**AND**

NO other laboratory or clinical evidence of HIV infection (i.e., has not had any positive virologic tests, if performed, and has not had an AIDS-defining condition)

**IV.** A child aged **less than 18 months** born to an HIV-infected mother will be categorized as having **perinatal** exposure to HIV infection if the child does not meet the criteria for HIV infection (II) or the criteria for "not infected with HIV" (III).

\* Draft revised surveillance criteria for HIV infection were approved and recommended by the membership of the Council of State and Territorial Epidemiologists (CSTE) at the 1998 annual meeting (11).

\*\* Children aged greater than or equal to 18 months but less than 13 years are categorized as "not infected with HIV" if they meet the criteria in **III**.

\*\*\* In adults, adolescents, and children infected by other than perinatal exposure, plasma viral RNA nucleic acid tests should **NOT** be used in lieu of licensed HIV screening tests (e.g., repeatedly reactive enzyme immunoassay). In addition, a negative (i.e., undetectable) plasma HIV-1 RNA test result does not rule out the diagnosis of HIV infection.

\*\*\*\* HIV nucleic acid (DNA or RNA) detection tests are the virologic methods of choice to exclude infection in children aged less than 18 months. Although HIV culture can be used for this purpose, it is more complex and expensive to perform and is less well standardized than nucleic acid detection tests. The use of p24 antigen testing to exclude infection in children aged less than 18 months is not recommended because of its lack of sensitivity

## KAWASAKI SYNDROME

- Complete *Kawasaki Syndrome Case Reporting Form* (Forms Section) ([Click here for a fillable form.](#))

### ***Clinical Case Definition***

A febrile illness of greater than or equal to 5 days' duration, with at least four of the five following physical findings and no other more reasonable explanation for the observed clinical findings:

- Bilateral conjunctival injection
- Oral changes (erythema of lips or oropharynx, strawberry tongue, or fissuring of the lips)
- Peripheral extremity changes (edema, erythema, or generalized or periungual desquamation)
- Rash
- Cervical lymphadenopathy (at least one lymph node greater than or equal to 1.5 cm in diameter)

### ***Laboratory criteria for diagnosis***

None

### ***Case classification***

*Confirmed:* a case that meets the clinical case definition

### ***Comment***

If fever disappears after intravenous gamma globulin therapy is started, fever may be of less than 5 days' duration, and the clinical case definition may still be met.

## **LEAD POISONING**

### ***Clinical Description***

Symptoms include decreased intelligence, impaired neurobehavioral development, decreased stature or growth, and decreased hearing acuity. Severe lead exposure can cause coma, convulsions, and death. Most lead poisoned children have no symptoms.

### ***Laboratory Criteria***

- Venous or Capillary Blood Lead Level  $\geq 10$  micrograms per deciliter of whole blood

### ***Case Classification:***

*Confirmed:* A case that is laboratory confirmed.

## LEGIONELLOSIS (Legionnaires' Disease)

- For more information, see [Arizona Administrative Code R9-6-333](#) (Codes Section, pg 13)
- Complete [Legionellosis Case Report Form](#) (Forms Section)

### ***Clinical Description***

An illness with acute onset commonly characterized by fever, cough, and pneumonia that is confirmed by chest radiograph. Encephalopathy and diarrhea may also be included.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Legionella* from lung tissue, respiratory secretions, pleural fluid, blood, or other normally sterile sites, or
- Demonstration of a fourfold or greater rise in the reciprocal IF (immunofluorescence) antibody titer to  $\geq 128$  against *Legionella pneumophila* serogroup 1, or
- Demonstration of *L. pneumophila* serogroup 1 in lung tissue, respiratory secretions, or pleural fluid by direct fluorescence antibody testing, or
- Demonstration of *L. pneumophila* serogroup 1 antigens in urine by radioimmunoassay

### ***Case Classification***

**Confirmed:** A case that is laboratory confirmed

## LEPROSY (Hansen's Disease)

- For more information, see [Arizona Administrative Code R9-6-334](#) (Codes Section, pg 13)
- Complete [Leprosy Surveillance Form](#) (Forms Section)

### ***Clinical Description***

A chronic bacterial disease characterized by the involvement of skin, peripheral nerves, and the mucosa of the upper airway. Clinical forms of Hansen disease represent a spectrum reflecting the cellular immune response to *Mycobacterium leprae*. Typical of the major forms of the disease are the following characteristics:

- Tuberculoid. One or a few well-demarcated, hypopigmented, and anesthetic skin lesions, frequently with active, spreading edges and a clearing center: peripheral nerve swelling or thickening may also occur.
- Lepromatous. A number of erythematous papules and nodules or an infiltration of the face, hands, and feet with lesions in a bilateral and symmetrical distribution that progress to thickening of the skin.
- Borderline (demorphous). Skin lesions characteristic of both the tuberculoid and lepromatous forms.
- Indeterminate. Early lesions, usually hypopigmented macules without developed tuberculoid or lepromatous features.

### ***Laboratory Criteria for Diagnosis***

Demonstration of acid-fast bacilli in skin or dermal nerve obtained from the full-thickness skin biopsy of a lepromatous lesion.

### ***Case Classification***

*Confirmed:* A clinically compatible case that is laboratory confirmed.

## LEPTOSPIROSIS

- For more information, see [Arizona Administrative Code R9-6-335](#) (Codes Section, pg 13)
- Complete [Leptospirosis Case Investigation Report Form](#) (Forms Section)

### ***Clinical Description***

An illness characterized by fever, headache, chills, myalgia, conjunctival suffusion, and less frequently by meningitis, rash, jaundice, or renal insufficiency. Symptoms may be biphasic.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Leptospira* from a clinical specimen, or
- Fourfold or greater increase in *Leptospira* agglutination titer between acute and convalescent-phase serum specimens obtained  $\geq 2$  weeks apart and studied at the same laboratory, or
- Demonstration of *Leptospira* in a clinical specimen by immunofluorescence

### ***Case Classification***

***Confirmed:*** A clinically compatible case that is laboratory confirmed.

***Probable:*** A clinically compatible case with supportive serology (i.e., a *Leptospira* agglutination titer of  $\geq 200$  in one or more serum specimens).

## **LISTERIOSIS (*Listeria monocytogenes*)**

- For more information, see [Arizona Administrative Code R9-6-336](#) (Codes Section, pg 13)
- Complete [Bacterial Meningitis and Bacteremia Case Report Form](#) (Forms Section)

### ***Clinical Description***

In adults, invasive disease caused by *Listeria monocytogenes* manifests most commonly as meningitis or bacteremia; infection during pregnancy may result in fetal loss through miscarriage or stillbirth, or neonatal meningitis or bacteremia. Other manifestations can also be observed.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *L. monocytogenes* from a normally sterile site (e.g., blood or cerebrospinal fluid [CSF] or, less commonly, joint, pleural, or pericardial fluid)
- In the setting of miscarriage or stillbirth, isolation of *L. monocytogenes* from placental or fetal tissue

### ***Case Classification***

*Confirmed:* A clinically compatible case that is laboratory-confirmed

### ***Comment:***

The usefulness of other laboratory methods such fluorescent antibody testing or polymerase chain reaction to diagnose invasive listeriosis has not been established.

## LYME DISEASE

- For more information, see [Arizona Administrative Code R9-6-337](#) (Codes Section, pg 14)
- Complete [Lyme Disease Report Form](#) (Forms Section)

### **Clinical Description**

A systematic, tick-borne disease with protean manifestations, including dermatologic, rheumatologic, neurologic, and cardiac abnormalities. The best clinical marker for the disease is the initial skin lesion, erythema migrans, that occurs among 60%-80% of patients.

### **Clinical Case Definition**

- Erythema migrans, **or**
- At least one late manifestation, as defined below, and laboratory confirmation of infection

### **Laboratory Criteria for Diagnosis**

- Isolation of *Borrelia burgdorferi* from clinical specimen, or
- Two step process:
  - 1) Positive or equivocal EIA or IFA test followed by,
  - 2) Positive Western blot test (IgM and IgG if within the first four weeks of disease onset. After four weeks of disease onset, only IgG immunoblot.)
- Significant change in IgM or IgG antibody response to *B. burgdorferi* in paired acute- and convalescent-phase serum samples

### **Case Classification**

**Confirmed:** A case that meets one of the clinical case definitions above.

#### **Comment:**

This surveillance case definition was developed for national reporting of Lyme disease; it is **NOT** appropriate for clinical diagnosis.

The definition of terms in the clinical description and case definition are as follows:

#### A. Erythema migrans (EM)

For purpose of surveillance, EM is defined as skin lesion that typically begins as a red macule or papule and expands over a period of days to weeks to form a large round lesion, often with partial central clearing. A solitary lesion must reach at least 5 cm in size. Secondary lesions may also occur. Annular erythematous lesions occurring within several hours of a tick bite represent hypersensitivity reactions and do not qualify as EM. For most patients, the expanding EM lesion is accompanied by other acute symptoms; particularly fatigue, fever, headache, mild stiff neck, arthralgia, or myalgia. These symptoms are typically intermittent. The diagnosis of EM must be made by a physician. Laboratory confirmation is recommended for persons with no known exposure.

#### B. Late Manifestations

Late manifestations include any of the following when an alternate explanation is not found:

- Musculoskeletal system.  
Recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints, **sometimes** followed by chronic arthritis in one or a few joints. Manifestation not considered as criteria for diagnosis include chronic progressive arthritis not preceded by brief attacks and chronic symmetrical polyarthritis. Additionally, arthralgia, myalgia, or fibromyalgia syndromes alone are not criteria for musculoskeletal involvement.
- Nervous system.  
Any one of the following, alone or in combination: lymphocytic meningitis; cranial neuritis, particularly facial palsy (may be bilateral); radiculoneuropathy; or, rarely, encephalomyelitis. Encephalomyelitis must be confirmed by showing antibody production against *B. burgdorferi* in the CSF (cerebrospinal fluid) demonstrated by a higher titer of antibody in CSF than in serum. Headache, fatigue, paresthesia, or mild stiff necks alone are not criteria for neurologic involvement.
- Cardiovascular system.  
Acute onset, high-grade (2° or 3°) atrioventricular conduction defects that resolve in days to weeks and are sometimes associated with myocarditis. Palpitations, bradycardia, bundle branch block, or myocarditis alone are not criteria for cardiovascular involvement.

#### C. Exposure

Exposure is defined as having been in wooded, brushy, or grassy areas (potential tick habitats) in a county in which Lyme disease is endemic  $\leq 30$  days before onset of EM. A history of tick bite is NOT required.

#### D. Disease Endemic to County

A county in which Lyme disease is endemic is one where at least two definite cases have been previously identified, or in which a known tick vector has been shown to be infected with *B. burgdorferi*.

#### E. Laboratory Confirmation

Laboratory confirmation of infection with *B. burgdorferi* is established when a laboratory isolates the spirochete from tissue or body fluid, detects diagnostic levels of IgM or IgG antibodies to the spirochete in serum or CSF using the two-step process (EIA or IFA followed by Western blot), or detects a significant change in antibody levels in paired acute-and convalescent-phase serum samples. Syphilis and other known causes of biologic false-positive serologic test results should be excluded when laboratory confirmation has been based on serologic testing alone.

## **LYMPHOGRANULOMA VENEREUM INFECTION (*Chlamydia trachomatis*) (LGV)**

### ***Clinical Description***

Infection with L<sub>1</sub>, L<sub>2</sub>, or L<sub>3</sub> serovars of *Chlamydia trachomatis* may result in a disease characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis. The infection is usually sexually transmitted.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *C. trachomatis*, serotype L<sub>1</sub>, L<sub>2</sub>, or L<sub>3</sub>, from clinical specimen, or
- Demonstration of inclusion bodies by immunofluorescence in leukocytes of an inguinal lymph node (bubo) aspirate, or
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis* (in a clinically compatible case)

### ***Case Classification***

*Probable:* a clinically compatible case with one or more tender fluctuant inguinal lymph nodes or characteristic proctogenital lesions with supportive laboratory findings of a single *C. trachomatis* complement fixation (CF) titer of greater than 64

*Confirmed:* a case that is laboratory confirmed

## MALARIA

- For more information, see [Arizona Administrative Code R9-6-338](#) (Codes Section, pg 14)
- Complete [Malaria Case Surveillance Report Form](#) (Forms Section)

### ***Clinical Description***

Signs and symptoms are variable, but most patients will experience fever. In addition to fever, common associated symptoms include headache, back pain, chills, sweats, myalgias, nausea, vomiting, diarrhea, and cough. Untreated *Plasmodium falciparum* infection may lead to coma, renal failure, pulmonary edema, and death. The diagnosis should be considered for any person with these symptoms who has traveled to an area with malaria transmission. Asymptomatic parasitemia may occur among persons who have been long-term residents of malaria endemic areas.

### ***Laboratory Criteria for Diagnosis***

- Demonstration of malaria parasites in blood films.

### ***Case Classification***

**Confirmed:** Any person (symptomatic or asymptomatic) with microscopically-confirmed malaria parasitemia that occurs in the United States, regardless of whether the person has experienced previous attacks of malaria while outside the country.

### ***Comment***

A subsequent attack experienced by the same person but caused by a different *Plasmodium* species is counted as an additional case. A subsequent attack experienced by the same person and caused by the same species in the United States may indicate a relapsing infection or treatment failure due to drug resistance.

Blood smears from doubtful cases should be referred to the National Malaria Repository, CDC, for confirmation of the diagnosis.

In addition, cases are classified according to the following World Health Organization categories:

Autochthonous:

- o Indigenous. Malaria acquired by mosquito transmission in an area where malaria is a regular occurrence.
- o Introduced. Malaria acquired by mosquito transmission from an imported case in an area where malaria is not a regular occurrence.
- o Imported. Malaria acquired outside a specific area (the United States and its territories).
- o Induced. Malaria acquired through artificial means (e.g., blood transfusion, common syringes, or malariotherapy).
- o Relapsing. Renewed manifestation (of clinical symptoms and or/parasitemia) of malaria infection that is separated from previous manifestations of the same infection by an interval greater than any interval due to the normal periodicity of the paroxysms.
- o Cryptic. An isolated case of malaria not associated with secondary cases, as determined by appropriate epidemiologic investigations.



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

## MEASLES



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see
- Complete *Measles Survei*
- Complete *Rash Illness Investigation Form* (FORM 360001)

### **Case Definition**

An *Imported* case has its source outside the state. Rash onset occurs within 18 days of entering the state and illness cannot be linked to local transmission. Imported cases are to be classified as:

- International. Importation from another country.
- Out-of-State. Rule out carefully any chance of exposure within the home state. Therefore, the patient either must have been out-of-state continuously for the entire period of possible exposure (at least 7 to 18 days prior to rash onset) or have had one of the following types of exposure while out-of-state:
  - o Face-to-face contact with a probable or confirmed case: or
  - o Present in the same institution as a case of measles (e.g., school, classroom, or day-care center.)

An *Indigenous* case is defined as a case of measles within a state unrelated to an imported case or with onset occurring more than two generations after an imported case to which it is epidemiologically linked. Any case that cannot be proven as imported or spread from an imported case should be classified as indigenous.

### **Clinical Case Definition**

An illness characterized by all the following:

- A generalized rash lasting  $\geq 3$  days
- A temperature  $\geq 38.3^{\circ}\text{C}$  ( $101^{\circ}\text{F}$ )
- Cough, or coryza, or conjunctivitis

### **Laboratory Criteria for Diagnosis**

- Isolation of measles virus from a clinical specimen, or
- Significant rise in measles antibody level by any standard serologic assay, or
- Positive serologic test for measles IgM antibody

### **Case Classification**

**Confirmed:** A case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a confirmed or probable case. A laboratory-confirmed case does not need to meet the clinical case definition.

**Probable:** Meets the clinical case definition, has noncontributory or no serologic or virologic testing, and is not epidemiologically linked to a probable or confirmed case.

**Suspect:** Any rash illness with fever.

### **Comment**

Two probable cases that are epidemiologically linked would be considered confirmed even in the absence

of laboratory confirmation. Only confirmed cases should be reported to the NNDSS.

## **MENINGOCOCCAL DISEASE**

- For more information, see [Arizona Administrative Code R9-6-340](#) (Codes Section, pg 14)
- Complete [Bacterial Meningitis and Bacteremia Case Report Form](#) (Forms Section)

### ***Clinical Description***

Meningococcal disease presents most commonly as meningitis and/or meningococemia that may progress rapidly to purpura fulminans, shock, and death. However, other manifestations may be observed.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Neisseria meningitidis* from a normally sterile site

### ***Case Classification***

*Confirmed:* A clinically compatible case that is culture confirmed.

*Probable:* A positive antigen test in cerebrospinal fluid or clinical purpura fulminans in the absence of a positive blood culture.

### ***Comment***

Antigen test results in urine or serum are unreliable for diagnosing meningococcal disease.

## MUCOPURULENT CERVICITIS (MPC)

### **Clinical description**

Cervical inflammation that is not the result of infection with *Neisseria gonorrhoeae* or *Trichomonas vaginalis*. Cervical inflammation is defined by the presence of one of the following criteria:

- Mucopurulent secretion (from the endocervix) that is yellow or green when viewed on a white, cotton-tipped swab (positive swab test)
- Induced endocervical bleeding (bleeding when the first swab is placed in the endocervix)

### **Laboratory Criteria for Diagnosis**

- No evidence of *N. gonorrhoeae* by culture, Gram stain, or antigen or nucleic acid detection, and no evidence of *T. vaginalis* on wet mount

### **Case classification**

*Confirmed:* a clinically compatible case in a female who does not have either gonorrhea or trichomoniasis

### **Comment**

Mucopurulent cervicitis (MPC) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see *Chlamydia trachomatis*, Genital Infections). If gonorrhea, trichomoniasis, and chlamydia are excluded, a clinically compatible illness should be classified as MPC. An illness in a female that meets the case definition of MPC and *C. trachomatis* infection should be classified as chlamydia.

## MUMPS

- For more information, see [Arizona Administrative Code R9-6-341](#) (Codes Section, pg 14)
- Complete [Mumps Surveillance Worksheet Form](#) (Forms Section)

### ***Clinical case definition***

An illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting greater than or equal to 2 days, and without other apparent cause

### ***Laboratory criteria for diagnosis***

- Isolation of mumps virus from clinical specimen, or
- Significant rise between acute- and convalescent-phase titers in serum mumps immunoglobulin G (IgG) antibody level by any standard serologic assay, or
- Positive serologic test for mumps immunoglobulin M (IgM) antibody

### ***Case Classification***

*Probable:* a case that meets the clinical case definition, has noncontributory or no serologic or virologic testing, and is not epidemiologically linked to a confirmed or probable case.

*Confirmed:* a case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a confirmed or probable case. A laboratory-confirmed case does not need to meet the clinical case definition.

## NONGONOCOCCAL URETHRITIS (NGU)

### **Clinical Description**

Urethral inflammation that is not the result of infection with *Neisseria gonorrhoeae*. Urethral inflammation may be diagnosed by the presence of one of the following criteria:

- A visible abnormal urethral discharge, or
- A positive leukocyte esterase test from a male aged less than 60 years who does not have a history of kidney disease or bladder infection, prostate enlargement, urogenital anatomic anomaly, or recent urinary tract instrumentation, or
- Microscopic evidence of urethritis (greater than or equal to 5 white blood cells per high-power field) on a Gram stain of a urethral smear

### **Laboratory Criteria for Diagnosis**

- No evidence of *N. gonorrhoeae* infection by culture, Gram stain, or antigen or nucleic acid detection

### **Case Classification**

*Confirmed:* a clinically compatible case in a male in whom gonorrhea is not found, either by culture, Gram stain, or antigen or nucleic acid detection

### **Comment**

Nongonococcal urethritis (NGU) is a clinical diagnosis of exclusion. The syndrome may result from infection with any of several agents (see [Chlamydia trachomatis, Genital Infection](#)). If gonorrhea and chlamydia are excluded, a clinically compatible illness should be classified as NGU. An illness in a male that meets the case definition of NGU and *C. trachomatis* infection should be classified as chlamydia.

## **PEDICULOSIS**

- For more information, see [Arizona Administrative Code R9-6-342](#) (Codes Section, pg 15)

### ***Clinical Description***

Infestation of the hairy parts of the body with adult or larval lice or their eggs.

### ***Criteria for Diagnosis***

Recovery of crawling lice, or eggs (nits) on hair within 1/2 inch of scalp for head lice.

## PELVIC INFLAMMATORY DISEASE (PID)

### ***Clinical Case Definition***

A clinical syndrome resulting from the ascending spread of microorganisms from the vagina and endocervix to the endometrium, fallopian tubes, and/or contiguous structures. In a female who has lower abdominal pain and who has not been diagnosed as having an established cause other than pelvic inflammatory disease (PID) (e.g., ectopic pregnancy, acute appendicitis, and functional pain), all the following clinical criteria must be present:

- Lower abdominal tenderness, and
- Tenderness with motion of the cervix, and
- Adnexal tenderness

In addition to the preceding criteria, at least one of the following findings must also be present:

- Meets the surveillance case definition of *C. trachomatis* infection or gonorrhea
- Temperature greater than 100.4 F (greater than 38.0 C)
- Leukocytosis greater than 10,000 white blood cells/mm<sup>3</sup>
- Purulent material in the peritoneal cavity obtained by culdocentesis or laparoscopy
- Pelvic abscess or inflammatory complex detected by bimanual examination or by sonography
- Patient is a sexual contact of a person known to have gonorrhea, chlamydia, or nongonococcal urethritis

### ***Case classification***

*Confirmed:* a case that meets the clinical case definition

### ***Comment***

For reporting purposes, a clinician's report of PID should be counted as a case.

## PERTUSSIS (WHOOPIING COUGH)

- For more information, see [Arizona Administrative Code R9-6-343](#) (Codes Section, pg 15)
- Complete [Active Laboratory-Based Surveillance Pertussis Form](#) (Forms Section)

### ***Clinical Case Definition***

A cough illness lasting at least 2 weeks with one of the following: paroxysms of coughing, inspiratory "whoop," or post-tussive vomiting, without other apparent cause (as reported by a health professional)

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Bordetella pertussis* from clinical specimen
- Positive polymerase chain reaction (PCR) for *B. pertussis*

### ***Case classification***

*Probable*: meets the clinical case definition, is not laboratory confirmed, and is not epidemiologically linked to a laboratory-confirmed case

*Confirmed*: a case that is culture positive and in which an acute cough illness of any duration is present; or a case that meets the clinical case definition and is confirmed by positive PCR; or a case that meets the clinical case definition and is epidemiologically linked directly to a case confirmed by either culture or PCR

### ***Comment***

The clinical case definition above is appropriate for endemic or sporadic cases. In outbreak settings, a case may be defined as a cough illness lasting at least 2 weeks (as reported by a health professional). Because direct fluorescent antibody testing of nasopharyngeal secretions has been demonstrated in some studies to have low sensitivity and variable specificity (5, 6), such testing should not be relied on as a criterion for laboratory confirmation. Serologic testing for pertussis is available in some areas but is not standardized and, therefore, should not be relied on as a criterion for laboratory confirmation.

Both probable and confirmed cases should be reported nationally.

## PLAGUE



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see
- Complete *Plague Case*



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During Business Hours: 602-230-5932  
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5)

### ***Clinical Description***

A disease characterized by fever and leukocytosis that presents in one or more of the following principal clinical forms:

- Regional lymphadenitis (bubonic plague)
- Septicemia without an evident bubo (septicemic plague)
- Plague pneumonia resulting from hematogenous spread in bubonic or septicemic cases (secondary plague pneumonia) or inhalation of infectious droplets (primary plague pneumonia)
- Pharyngitis and cervical lymphadenitis resulting from exposure to larger infectious droplets or ingestion of infected tissues (pharyngeal plague)
- Plague is transmitted to humans by fleas or by direct exposure to infected tissues or respiratory droplets.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Yersinia pestis* from a clinical specimen, or
- Fourfold or greater change in serum antibody titers to *Y. pestis*

### ***Case Classification***

***Confirmed:*** A case that is laboratory confirmed.

***Probable:*** A clinically compatible illness with supportive laboratory results (demonstration of a single test result suggestive of recent infection with no history of immunization, or demonstration of a Fraction I antigen in blood, bubo aspirate, or tissue by antigen detection - ELISA (enzyme-linked immunosorbent assay) or FA (Fluorescent assay)).



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## **POLIOMYELITIS (Paralytic)**



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see [Arizona Department of Health Services](#)
- Complete [Suspected Polio Case Worksheet Form](#) (Forms Section)

### ***Clinical Case Definition***

Acute onset of a flaccid paralysis of one or more limbs with decreased or absent tendon reflexes in the affected limbs, without other apparent cause, and without sensory or cognitive loss (as reported by a physician).

### ***Laboratory Criteria***

None

### ***Case Classification***

*Confirmed:* A case that meets the clinical case definition and in which the patient has a neurologic deficit 60 days after onset of initial symptoms, has died, or has unknown follow-up status.

*Probable:* A case that meets the clinical case definition.

### ***Comment***

All suspected cases of paralytic poliomyelitis are reviewed by a panel of expert consultants before final classification occurs.

## PSITTACOSIS

- For more information, see [Arizona Administrative Code R9-6-346](#) (Codes Section, pg 15)
- Complete [Psittacosis Case Surveillance Report Form](#) (Forms Section)

### **Clinical Description**

An illness characterized by fever, chills, headache, photophobia, lower or upper respiratory disease, and myalgia.

### **Laboratory Criteria for Diagnosis**

- Isolation of *Chlamydia psittaci* from a clinical specimen, or
- Fourfold or greater increase in psittacosis CF (complement-fixing) antibody titer ( $\geq 32$ ) between two serum specimens obtained  $\geq 2$  weeks apart and studied at the same laboratory

### **Case Classification**

**Confirmed:** A clinically compatible illness that is laboratory confirmed.

**Probable:** A clinically compatible illness that is epidemiologically linked to a confirmed case or with supportive serology (i.e., a psittacosis CF titer  $\geq 32$  in one or more serum specimens obtained after onset of symptoms).

### **Comment**

The serologic findings noted above may also occur as a result of infection with *Chlamydia trachomatis* or *Chlamydia pneumoniae*.

## Q FEVER (*Coxiella burnetii*)

- For more information, see [Arizona Administrative Code R9-6-347](#) (Codes Section, pg 15)
- Complete [Q Fever Case Report Form](#) (Forms Section)

### **Clinical Description**

*Acute infection:* A febrile illness usually accompanied by rigors, myalgia, malaise, and retrobulbar headache. Severe disease can include acute hepatitis, pneumonia, and meningoencephalitis. Clinical laboratory findings may include elevated liver enzyme levels and abnormal chest film findings. Asymptomatic infections may also occur.

*Chronic infection:* Potentially fatal endocarditis may evolve months to years after acute infection, particularly in persons with underlying valvular disease. A chronic fatigue-like syndrome has been reported in some Q fever patients.

### **Laboratory criteria for diagnosis**

- Fourfold or greater change in antibody titer to *C. burnetii* phase II or phase I antigen in paired serum specimens ideally taken 3-6 weeks apart, or
- Isolation of *C. burnetii* from a clinical specimen by culture, or
- Demonstration of *C. burnetii* in a clinical specimen by detection of antigen or nucleic acid.

### **Case classification**

*Probable:* a clinically compatible or epidemiologically linked case with a single supportive Immunoglobulin G (IgG) or Immunoglobulin M (IgM) titer. Cutoff titers are determined by individual laboratories. CDC tests for IgG antibodies with an indirect immunofluorescence assay (IFA), and uses a titer of 1:128 as the cutoff for significant antibody.

*Confirmed:* a clinically compatible or epidemiologically linked case that is laboratory confirmed.

## **RABIES, ANIMAL**

### ***Laboratory criteria for diagnosis***

- A positive direct fluorescent antibody test (preferably performed on central nervous system tissue)
- Isolation of rabies virus (in cell culture or in a laboratory animal)

### ***Case Classification***

*Confirmed:* a case that is laboratory confirmed

## RABIES, HUMAN



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During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see .



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

### ***Clinical Description***

Rabies is an acute encephalomyelitis that almost always progresses to coma or death within 10 days of the first symptom.

### ***Laboratory Criteria for Diagnosis***

- Detection by direct fluorescent antibody of viral antigens in a clinical specimen (preferably the brain or the nerves surrounding hair follicles in the nape of the neck), or
- Isolation (in cell culture or in a laboratory animal) of rabies virus from saliva, CSF (cerebrospinal fluid) or central nervous system tissue, or
- Identification of a rabies-neutralizing antibody titer  $\geq 5$  (complete neutralization) in the serum or CSF of an unvaccinated person.

### ***Case Classification***

***Confirmed:*** A clinically compatible illness that is laboratory confirmed.

### ***Comment***

Laboratory confirmation by all of the above methods is strongly recommended.

## RELAPSING FEVER

- For more information, see [Arizona Administrative Code R9-6-349](#) (Codes Section, pg 16)

### ***Clinical Description***

An acute febrile disease with headache, fever, shaking chills, and myalgia. Symptoms may relapse after a febrile periods of 2-4 days.

### ***Laboratory Criteria for Diagnosis***

- Demonstration of visible spirochetes in a peripheral blood smear, or
- Demonstration of spirochetemia in inoculated swiss mice, or
- Serological evidence of non-treponemal spirochetes in persons not visiting endemic Lyme disease area.

### ***Case Classification***

*Probable:* a compatible history of exposure to soft ticks in rustic cabins, caves, or firewood, and at least three of the major symptoms.

*Confirmed:* a case that is laboratory confirmed with a consistent history of exposure or epidemiologically linked to confirmed case.

## REYE SYNDROME

- For more information, see [Arizona Administrative Code R9-6-350](#) (Codes Section, pg 16)
- Complete *CDC Reye Syndrome Case Investigation Report Form* (Forms Section)

### ***Clinical Case Definition***

An illness that meets all of the following criteria:

- Acute, noninflammatory encephalopathy that is documented clinically by:
  - a) An alteration in consciousness and, if available
  - b) A record of the CSF containing  $\geq 8$  leukocytes/mm<sup>3</sup> or a histologic specimen demonstrating cerebral edema without perivascular or meningeal inflammation.
- Hepatopathy documented by either:
  - a) A liver biopsy or an autopsy considered to be diagnostic of Reye syndrome or
  - b) A threefold or greater increase in the levels of the serum glutamic- oxaloacetic transaminase (SGOT), serum glutamic-pyruvic transaminase (SGPT), or serum ammonia.
- No more reasonable explanation for the cerebral and hepatic abnormalities.

### ***Case Classification***

*Confirmed:* A case that meets the clinical case definition.

## RHEUMATIC FEVER

### ***Clinical Description***

An inflammatory illness that occurs as a delayed sequela of group A streptococcal infection

*Major criteria:* carditis, polyarthritis, chorea, subcutaneous nodules, and erythema marginatum

*Minor criteria:* a) previous rheumatic fever or rheumatic heart disease; b) arthralgia; c) fever; d) elevated erythrocyte sedimentation rate, positive C-reactive protein, or leukocytosis; and e) prolonged PR interval on an electrocardiogram

### ***Laboratory Criteria for Diagnosis***

- No specific laboratory test exists for the diagnosis of rheumatic fever

### ***Case Classification***

*Confirmed:* an illness characterized by a) two major criteria or one major and two minor criteria (as described in Clinical Description) and b) supporting evidence of preceding group A streptococcal infection (14).

### ***Comment***

Supporting evidence to confirm streptococcal infection includes increased antistreptolysin-O or other streptococcal antibodies, throat culture positive for group A streptococcus, or recent scarlet fever. The absence of supporting evidence of preceding streptococcal infection should make the diagnosis doubtful, except in Sydenham chorea or low-grade carditis when rheumatic fever is first discovered after a long latent period from the antecedent infection.

## ROCKY MOUNTAIN SPOTTED FEVER

- For more information, see [Arizona Administrative Code R9-6-351](#) (Codes Section, pg 16)
- Complete [Tick-Borne Rickettsial Disease Case Report Form](#) (Forms Section)

### ***Clinical Description***

An illness most commonly characterized by acute onset and fever, usually accompanied by myalgia, headache, and petechial rash (on the palms and soles in two-thirds of the cases).

### ***Laboratory Criteria for Diagnosis***

- Fourfold or greater rise in antibody titer to the spotted fever group antigen by IFA (immunofluorescent antibody), CF (complement fixation), LA (latex agglutination), MA (microagglutination), or IHA (indirect hemagglutination) test, or a single titer  $\geq 64$  by IFA or  $\geq 16$  by CF.
- Demonstration of positive immunofluorescence of skin lesion (biopsy) or organ tissue (autopsy).
- Isolation of *Rickettsia rickettsii* from clinical specimen.

### ***Case Classification***

***Confirmed:*** A case that is laboratory confirmed.

***Probable:*** A clinically compatible case with supportive serology (fourfold rise in titer or a single titer  $\geq 320$  by *Proteus* OX-19 or X-2, or a single titer  $\geq 128$  by LA, IHA, or MA test).

## RUBELLA



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see
- Complete *Rubella Surve*



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

6)

### ***Clinical Case Definition***

An illness with all of the following characteristics

- Acute onset of generalized maculopapular rash
- Temperature  $>37.2^{\circ}\text{C}$  ( $>99^{\circ}\text{F}$ ), if measured
- Arthralgia/arthritis, or lymphadenopathy, or conjunctivitis

Cases meeting the measles case definition are excluded. Also excluded are cases with serology that is compatible with recent measles virus infection.

### ***Laboratory Criteria for Diagnosis***

- Isolation of rubella virus, or
- Significant rise in rubella antibody level by any standard serologic assay, or
- Positive serologic test for rubella IgM antibody

### ***Case Classification***

***Confirmed:*** A case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a laboratory-confirmed case.

***Probable:*** A case that meets the clinical case definition, has noncontributory or no serologic or virologic testing, and is not epidemiologically linked to a laboratory-confirmed case.

***Suspect:*** Any generalized rash illness of acute onset.

## RUBELLA, Congenital Syndrome

- For more information, see [Arizona Administrative Code R9-6-353](#) (Codes Section, pg 16)
- Complete [Congenital Rubella Syndrome Case Report Form](#) (Forms Section)

### **Clinical description**

Presence of any defect(s) or laboratory data consistent with congenital rubella infection. Infants with congenital rubella syndrome usually present with more than one sign or symptom consistent with congenital rubella infection. However, infants may present with a single defect. Deafness is most common single defect.

### **Laboratory criteria for diagnosis**

- Isolation of rubella virus, or
- Demonstration of rubella-specific immunoglobulin M (IgM) antibody, or
- Infant rubella antibody level that persists at a higher level and for a longer period than expected from passive transfer of maternal antibody (i.e., rubella titer that does not drop at the expected rate of a twofold dilution per month).
- PCR positive rubella virus

### **Clinical case definition**

An illness, usually manifesting in infancy, resulting from rubella infection *in utero* and characterized by signs or symptoms from the following categories:

- a) Cataracts/congenital glaucoma, congenital heart disease (most commonly patent ductus arteriosus or peripheral pulmonary artery stenosis), hearing impairment, pigmentary retinopathy.
- b) Purpura, hepatosplenomegaly, jaundice, microcephaly, developmental delay, meningoencephalitis, radiolucent bone disease.

### **Case classification**

**Suspected:** A case with some compatible clinical findings but not meeting the criteria for a probable case.

**Probable:** A case that is not laboratory confirmed and that has any two complications listed in paragraph "a" of the clinical case definition or one complication from paragraph "a" and one from paragraph "b", and lacks evidence of any other etiology.

**Confirmed:** A clinically consistent case that is laboratory confirmed.

**Infection only:** A case that demonstrates laboratory evidence of infection, but without any clinical symptoms or signs.

### **Note**

In probable cases, either or both of the eye-related findings (cataracts and congenital glaucoma) count as a single complication. In cases classified as infection only, if any compatible signs or symptoms (e.g., hearing loss) are identified later, the case is reclassified as confirmed.

## SALMONELLOSIS

- For more information, see [Arizona Administrative Code R9-6-354](#) (Codes Section, pg 16)
- Complete [Salmonellosis/Yersiniosis Investigation Form](#) (Forms Section)

### ***Clinical Description***

An illness of variable severity commonly manifested by diarrhea, abdominal pain, nausea, and sometimes vomiting. Asymptomatic infections may occur and the organism may cause extraintestinal infections.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Salmonella* from a clinical specimen

### ***Case Classification***

*Confirmed:* A case that is laboratory confirmed.

*Probable:* A clinically compatible illness that is epidemiologically linked to a confirmed case.

## SCABIES

- For more information, see [Arizona Administrative Code R9-6-355](#) (Codes Section, pg 16)

### ***Clinical Description***

A parasitic disease of the skin caused by a mite whose penetration is visible as papules, vesicles, or tiny linear burrows containing the mites and their eggs. Lesions are prominent around finger webs, anterior surfaces of wrists and elbows, anterior axillary folds, belt line, thighs, and external genitalia in men, nipples, buttocks, and abdomen in women.

### ***Laboratory Criteria for Diagnosis***

- Recovery of *Sarcoptes scabiei* mite or parts of the mite or eggs by scraping.

### ***Case Classification***

*Probable:* An infested individual with rash occurring as above.

*Confirmed:* A laboratory confirmed case

### ***Comment***

Report outbreaks only

## SHIGELLOSIS

- For more information, see [Arizona Administrative Code R9-6-356](#) (Codes Section, pg 17)
- Complete [Shigella Disease Investigation Form](#) (Forms Section)

### ***Clinical Description***

An illness of variable severity characterized by diarrhea, fever, nausea, cramps, and tenesmus. Asymptomatic infections occur.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *Shigella* species from a clinical specimen

### ***Case Classification***

*Confirmed:* A case that is laboratory confirmed.

*Probable:* A clinically compatible illness that is epidemiologically linked to a confirmed case.

## GROUP A STREPTOCOCCAL INVASIVE DISEASE

- For more information, see [Arizona Administrative Code R9-6-358](#) (Codes Section, pg 17)

### ***Clinical Description***

Invasive group A streptococcal infections may present with any of several clinical syndromes including pneumonia, bacteremia in association with cutaneous infection (cellulitis, erysipelas, or infection of a surgical or nonsurgical wound), deep soft tissue infection (myositis or necrotizing fasciitis), meningitis, peritonitis, osteomyelitis, septic arthritis, postpartum sepsis (puerperal fever), neonatal sepsis, and non-focal bacteremia.

The streptococcal toxic shock syndrome is a severe illness associated with invasive or noninvasive group A streptococcal (*Streptococcus pyogenes*) infection. STSS may occur with infection at any site, but most often occurs in association with infection of a cutaneous lesion. Signs of toxicity and a rapidly progressive clinical course are characteristic, and the case fatality rate may exceed 50 percent.

### ***Laboratory Criteria for Diagnosis***

- Isolation of group A *Streptococcus* (*Streptococcus pyogenes*) by culture from a normally sterile site.

### ***Case Classification***

**Confirmed:** A clinically compatible case that is laboratory confirmed.

## **STREPTOCOCCUS PNEUMONIAE, Invasive**

### ***Clinical Description***

*Streptococcus pneumoniae* causes many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis). Starting in 2000, a conjugate pneumococcal vaccine is recommended for prevention of pneumococcal disease in the pediatric population.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *S. pneumoniae* from a normally sterile site (e.g., blood, cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid)

### ***Case Classification***

Confirmed: a clinically compatible case caused by laboratory-confirmed culture of *S. pneumoniae* from a normally sterile site

## STREPTOCOCCAL TOXIC SHOCK SYNDROME (STSS)

The streptococcal toxic shock syndrome is a severe illness associated with invasive or noninvasive group A streptococcal (*Streptococcus pyogenes*) infection. STSS may occur with infection at any site, but most often occurs in association with infection of a cutaneous lesion. Signs of toxicity and a rapidly progressive clinical course are characteristic, and the case fatality rate may exceed 50 percent.

### **Clinical Case Definition**

An illness with the following clinical manifestations occurring within the first 48 hours of hospitalization or, for a nosocomial case, within the first 48 hours of illness.

- Hypotension defined by a systolic blood pressure  $\leq 90$  mm Hg for adults or less than the fifth percentile by age for children <16 years of age.
- Multiorgan involvement - two or more of the following:
  - o Renal impairment: Creatinine  $\geq$  two mg/dl ( $\geq 177$   $\mu$ mol/L) for adults or greater than or equal to twice the upper limit of normal for age. In patients with pre-existing renal disease, a  $\geq$  two-fold elevation over the baseline level.
  - o Coagulopathy: Platelets  $\leq 100,000/\text{mm}^3$  ( $\leq 100 \times 10^6/\text{L}$ ) or disseminated intravascular coagulation defined by prolonged clotting times, low fibrinogen level, and the presence of fibrin degradation products.
  - o Liver involvement: Alanine aminotransferase (SGOT) aspartate aminotransferase (SGPT), or total bilirubin levels greater than or equal to twice the upper limit of normal for age. In patients with pre-existing liver disease, a  $\geq$  2-fold increase over the baseline level.
  - o Adult respiratory distress syndrome (ARDS) defined by acute onset of diffuse pulmonary infiltrates and hypoxemia in the absence of cardiac failure; or evidence of diffuse capillary leak manifested by acute onset of generalized edema, or pleural or peritoneal effusions with hypoalbuminemia.
  - o A generalized erythematous macular rash that may desquamate.
  - o Soft-tissue necrosis, including necrotizing fasciitis or myositis, or gangrene.

### **Laboratory Criteria for Diagnosis**

- Diagnosis is based on laboratory isolation of group A *Streptococcus*.

### **Case Classification**

**Definite:** Isolation of group A *Streptococcus* from a normally sterile site in a case that meets the clinical case definition.

**Probable:** Isolation of group A *Streptococcus* from a nonsterile site in a case that meets the clinical case definition in the absence of another identified etiology for the illness.

## **SYPHILIS (Primary, Secondary, Latent, Early Latent, Late Latent, Unknown Latent, & Neurosyphilis)**

- For more information, see [Arizona Administrative Code R9-6-360](#) (Codes Section, pg 17)
- Complete [Field Record \(CDC 73.2936S\) Form](#) (Forms Section)

### **Case Definition**

Syphilis is a complex, sexually transmitted disease with a highly variable clinical course. Classification by a clinician with expertise in syphilis may take precedence over the following case definitions developed for surveillance purposes.

### **PRIMARY SYPHILIS**

#### **Clinical Description**

The characteristic lesion of primary syphilis is the chancre, but atypical primary lesions may occur.

#### **Laboratory Criteria for Diagnosis**

- Demonstration of *Treponema pallidum* in clinical specimens by darkfield, fluorescent antibody, or equivalent microscopic methods

#### **Case Classification**

*Confirmed:* A clinically compatible case that is laboratory confirmed.

*Probable:* A clinically compatible case with one or more ulcers (chancres) consistent with primary syphilis and a reactive serologic test.

### **SECONDARY SYPHILIS**

#### **Clinical Description**

A stage of infection due to *T. pallidum*, characterized by localized or diffuse mucocutaneous lesions and generalized lymphadenopathy. Constitutional symptoms are common and clinical manifestations are protean. The primary chancre may still be present.

#### **Laboratory Criteria for Diagnosis**

- Demonstration of *T. pallidum* in clinical specimens by darkfield, fluorescent antibody, or equivalent microscopic methods

#### **Case Classification**

*Confirmed:* A clinically compatible case that is laboratory confirmed.

*Probable:* A clinically compatible case with a reactive nontreponemal (VDRL, RPR) test titer  $\geq 4$ .

### **LATENT SYPHILIS**

#### **Clinical Description**

A stage of infection due to *T. pallidum* in which organisms persist in the body of the infected person without causing signs or symptoms. Latent syphilis is subdivided into early, late, and unknown, syphilis categories based upon the length of elapsed time from initial infection.

### **Case Classification**

*Presumptive.* No clinical signs or symptoms of syphilis and the presence of one of the following:

- A non reactive serologic test for syphilis or a nontreponemal titer that has dropped fourfold within the past 12 months
- A history of symptoms consistent with primary or secondary syphilis without history of subsequent treatment in the past 12 months
- A history of sexual exposure to a partner with confirmed or presumptive primary or secondary syphilis, or presumptive early latent syphilis, and no history of treatment in the past 12 months
- Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the preceding 12 months.

## **LATE LATENT SYPHILIS**

### **Clinical Description**

A subcategory of latent syphilis. When initial infection has occurred >1 year previously, latent syphilis is classified as late.

### **Case Classification**

*Presumptive:* Latent syphilis of a patient who shows no evidence of having acquired the disease within the past 12 months and whose age and titer do not meet the criteria specified for **Unknown Latent Syphilis**.

## **UNKNOWN LATENT SYPHILIS**

### **Clinical Description**

A subcategory of latent syphilis. When the date of initial infection cannot be established as occurring within the previous year, and the patient's age and titer meet the criteria described below, latent syphilis is classified as unknown latent.

### **Case Classification**

*Presumptive:* Latent syphilis that does not meet the criteria for early latent syphilis, where the patient is 13-35 years of age with a nontreponemal test serologic titer  $\geq 32$ .

## **NEUROSYPHILIS**

### **Clinical Description**

Evidence of CNS infection with *T. pallidum*.

### **Laboratory Criteria for Diagnosis**

- A reactive serologic test for syphilis and reactive VDRL in CSF (cerebrospinal fluid)

## **Case Classification**

*Presumptive:* Syphilis of any stage, a negative VDRL in CSF, and both of the following:

- Elevated CSF protein or leukocyte count in the absence of other known causes of these abnormalities
- Clinical symptoms or signs consistent with neurosyphilis without other known causes for these clinical abnormalities

*Confirmed:* Syphilis of any stage that meets the laboratory criteria for neurosyphilis

## SYPHILIS, CONGENITAL

- For more information, see [Arizona Administrative Code R9-6-360](#) (Codes Section, pg 17)
- Complete [Congenital Syphilis Case Investigation and Report Form](#) (Forms Section)

### **Clinical Description**

A condition caused by infection *in utero* with *Treponema pallidum*. A wide spectrum of severity exists and only severe cases are clinically apparent at birth. An infant (<2 years) may have signs such as hepatosplenomegaly, characteristic skin rash, condyloma lata, snuffles, jaundice (non-viral hepatitis), pseudoparalysis, anemia, or edema (nephrotic syndrome or malnutrition). An older child may have stigmata such as interstitial keratitis, nerve deafness, anterior bowing of shins, frontal bossing, mulberry molars, Hutchinson teeth, saddle nose, rhagades, or Clutton joints.

### **Laboratory Criteria for Diagnosis**

Demonstration of *T. pallidum* by darkfield microscopy, fluorescent antibody, or other specific stains in specimens from lesions, placenta, umbilical cord, or autopsy material.

### **Case Classification**

**Confirmed:** A case (among infants) that is laboratory confirmed.

**Presumptive:** The infection of an infant whose mother had untreated or inadequately treated\* syphilis at delivery, regardless of signs in the infant; or the infection of an infant or child who has a reactive treponemal test for syphilis and any one of the following:

- Any evidence of congenital syphilis on physical examination
- Any evidence of congenital syphilis on long bone x-ray
- A reactive CSF (cerebrospinal fluid) VDRL
- An elevated CSF cell count or protein (without other cause)
- A reactive test for fluorescent treponemal antibody absorbed-19S-IgM antibody

### **Comment**

Congenital and acquired syphilis may be difficult to distinguish when a child is seropositive after infancy. Signs of congenital syphilis may not be obvious and stigmata may not yet have developed.

Abnormal values for CSF VDRL, cell count, and protein, as well as IgM antibodies, may be found in either congenital or acquired syphilis. Findings on long bone x-rays may help since x-ray changes in the metaphysis and epiphysis are considered classic for congenitally acquired disease. The decision may ultimately be based on maternal history and clinical judgement. The possibility of sexual abuse should be considered.

For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

\* ANY NON-PENICILLIN THERAPY OR PENICILLIN GIVEN <30 DAYS BEFORE DELIVERY\*

## TAENIASIS

- For more information, see [Arizona Administrative Code R9-6-361](#) (Codes Section, pg 18)

### ***Clinical Description***

A parasitic disease characterized by an intestinal infection with the adult stage of large tapeworms. Clinical manifestations are variable and may include nervousness, insomnia, anorexia, weight loss abdominal pain and digestive disturbances. Many cases are asymptomatic.

### ***Laboratory Criteria for Diagnosis***

Recovery of *Taenia* scolex, proglottids or eggs from the stool.

### ***Case Classification***

*Confirmed:* A case that is laboratory confirmed.

## TETANUS

- For more information, see [Arizona Administrative Code R9-6-362](#) (Codes Section, pg 18)
- Complete [Tetanus Surveillance Worksheet Form](#) (Forms Section)

### ***Clinical Case Definition***

Acute onset of hypertonia and/or painful muscular contractions (usually of the muscles of the jaw and neck) and generalized muscle spasms without other apparent medical cause (as reported by a health professional).

### ***Laboratory Criteria:***

None

### ***Case Classification***

*Confirmed:* A case that meets the clinical case definition.

## TOXIC-SHOCK SYNDROME

- For more information, see [Arizona Administrative Code R9-6-363](#) (Codes Section, pg 18)
- Complete [Toxic-Shock Syndrome Case Report Form](#) (Forms Section)

### **Clinical Case Definition**

An illness with the following clinical manifestations:

- Fever: Temperature  $\geq 38.9^{\circ}\text{C}$  ( $102^{\circ}\text{F}$ )
- Rash: diffuse macular erythroderma
- Desquamation: 1-2 weeks after onset of illness, particularly palms and soles
- Hypotension: systolic blood pressure  $\geq 90$  mm Hg for adults or  $\geq 5$ th percentile by age for children  $< 16$  years of age; orthostatic drop in diastolic blood pressure  $\geq 15$  mm Hg from lying to sitting, orthostatic syncope, or orthostatic dizziness
- Multisystem involvement - three or more of the following:
  - o Gastrointestinal (vomiting or diarrhea at onset of illness)
  - o Muscular (severe myalgia or creatine phosphokinase level at least twice the upper limit of normal for laboratory):
  - o Mucous membrane (vaginal, oropharyngeal, or conjunctival hyperemia);
  - o Renal (blood urea nitrogen or creatinine at least twice the upper limit of normal for laboratory or urinary sediment with pyuria [ $\geq 5$  leukocytes per high-power field] in the absence of urinary tract infection):
  - o Hepatic (total bilirubin, .SGOT [serum glutamic-oxaloacetic transaminase], or SGPT [serum glutamic - pyruvic transaminase] at least twice the upper limit of normal for laboratory):
  - o Hematologic (platelets  $< 100,000/\text{cu mm}$ ):
  - o Central nervous system (disorientation or alterations in consciousness without focal neurologic signs when fever and hypotension are absent)

### **Laboratory Criteria:**

- Negative results on the following tests, if obtained: blood, throat, or cerebrospinal fluid cultures (blood culture may be positive for *Staphylococcus aureus*);
- rise in titer to Rocky Mountain spotted fever, leptospirosis, or measles

### **Case Classification**

**Confirmed:** A case with all six of the clinical findings described above, including desquamation, unless the patient dies before desquamation occurs.

**Probable:** A case with five of the six clinical findings described above.

## TRICHINOSIS

- For more information, see [Arizona Administrative Code R9-6-364](#) (Codes Section, pg 18)
- Complete [Trichinosis Surveillance Case Report Form](#) (Forms Section)

### **Clinical Description**

A disease caused by ingestion of larvae *Trichinella spiralis* that has variable clinical manifestations. Common signs and symptoms among symptomatic persons include eosinophilia, fever, myalgia, and periorbital edema.

### **Laboratory Criteria for Diagnosis**

- Demonstration of larvae of cysts of *T. spiralis* on muscle biopsy, or
- Positive serology for *T. spiralis*

### **Case Classification**

**Confirmed:** A clinically compatible illness that is laboratory confirmed.

### **Comment**

In an outbreak setting, at least one of case must be laboratory confirmed. Associated cases should be reported as confirmed if the patient shared an epidemiologically implicated meal or ate an epidemiologically implicated meat product and has either a positive serology for trichinosis or a clinically compatible illness.

## TUBERCULOSIS



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772



Report immediately to Arizona Dept of Health Services

- For more information, see [Arizona Department of Health Services](#)
- Complete [Report of Verified Case of Tuberculosis](#)
- Complete [Report of Verified Case of Tuberculosis Addendum Form](#) (Forms Section)
- Complete [ADHS TB Prevention Registry Form](#) (Forms Section)
- **If Interjurisdictional:** Complete [Interjurisdictional Tuberculosis Notification Form](#) and [Interjurisdictional Tuberculosis Notification Follow-up Form](#) (Forms Section)

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

### **Clinical Description**

A chronic bacterial infection due to *Mycobacterium tuberculosis*, characterized pathologically by the formation of granulomas. The most common site infection is the lung, but other organs may be involved.

### **Clinical Case Definition**

A case must meet all the following criteria:

- Evidence of tuberculosis infection indicated by a positive tuberculin skin test:
- Other signs and/or symptoms compatible with tuberculosis, such as an abnormal, unstable (worsening or improving) chest radiographs, or clinical evidence of current disease;
- Treatment with two or more antituberculosis medications: and
- Completed diagnostic evaluation

### **Laboratory Criteria for Diagnosis**

- Isolation of *M. tuberculosis* complex from a clinical specimen, **or**
- Demonstration of *M. tuberculosis* complex from a clinical specimen by DNA probe or mycolic acid pattern on high-pressure liquid chromatography

### **Case Classification**

**Confirmed:** A case that is laboratory confirmed or, in the absence of laboratory confirmation, a case that meets the clinical case definition.

### **Comment**

A case should not be counted twice within any consecutive 12-month period. Cases in which the patients had verified disease in the past should be reported again if the patients were discharged or lost from supervision more than 12 months before.

Mycobacterial diseases other than those caused by *M. tuberculosis* complex should not be counted in tuberculosis morbidity statistics unless there is also concurrent verified tuberculosis.

## TULAREMIA

- For more information, see [Arizona Administrative Code R9-6-366](#) (Codes Section, pg 18)

### ***Clinical Description***

An illness characterized by several distinct forms, including:

- Ulceroglandular (cutaneous ulcer with regional lymphadenopathy)
- Glandular (regional lymphadenopathy with no ulcer)
- Oculoglandular (conjunctivitis with preauricular lymphadenopathy)
- Intestinal (pharyngitis, intestinal pain, vomiting, and diarrhea)
- Pneumonic (primary pleuropulmonary disease)
- Typhoidal (febrile illness without early localizing signs and symptoms)
- Clinical diagnosis is supported by evidence or history of a tick or deerfly bite, exposure to tissues of a mammalian host of *Francisella tularensis*, or exposure to potentially contaminated water.

### ***Laboratory Criteria for Diagnosis***

- Isolation of *F. tularensis* from a clinical specimen, or
- Demonstration of *F. tularensis* in a clinical specimen by immunofluorescence, or
- Fourfold or greater rise in agglutination titer between acute-and convalescent-phase serum specimens obtained  $\geq 2$  weeks apart, analyzed at the same time, and in the same laboratory

### ***Case Classification***

***Confirmed:*** A case that is laboratory confirmed.

***Probable:*** A clinically compatible case with supportive serologic results (tularemia agglutination titer of  $\geq 160$  in one or more serum specimens obtained after onset of symptoms).

## TYPHOID FEVER (*Salmonella typhi*)

- For more information, see [Arizona Administrative Code R9-6-367](#) (Codes Section, pg 18)
- Complete [Typhoid Fever Surveillance Report Form](#) (Forms Section)

### **Clinical description**

An illness caused by *Salmonella typhi* that is often characterized by insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, constipation or diarrhea, and nonproductive cough. However, many mild and atypical infections occur. Carriage of *S. typhi* may be prolonged.

### **Laboratory criteria for diagnosis**

- Isolation of *S. typhi* from blood, stool, or other clinical specimen

### **Case classification**

*Probable*: a clinically compatible case that is epidemiologically linked to a confirmed case in an outbreak

*Confirmed*: a clinically compatible case that is laboratory confirmed

### **Comment**

Isolation of the organism is required for confirmation. Serologic evidence alone is not sufficient for diagnosis. Asymptomatic carriage should not be reported as typhoid fever. Isolates of *S. typhi* are reported to the Foodborne and Diarrheal Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, CDC, through the Public Health Laboratory Information System. (See [Salmonella](#).)

## TYPHUS, FLEA-BORNE

- For more information, see [Arizona Administrative Code R9-6-368](#) (Codes Section, pg 19)

### ***Clinical Description***

An acute febrile disease characterized by fever, headache, myalgia, and a maculopapular rash. The rash is distributed over the trunk, with minimal involvement of the extremities, palms, soles and face.

### ***Laboratory Criteria for Diagnosis***

- Single titer  $\geq 64$  by Indirect Fluorescent Antibody (IFA) test using differentially absorbed sera with the respective rickettsial antigen prior to testing, or
- Single titer  $\geq 16$  by Complement-Fixation (CF) test with group-specific rickettsial antigen. Antibody tests usually become positive in the second week.

### ***Case Classification***

*Probable:* A compatible history of exposure to domestic rats and their fleas, plus rash and symptoms of typhus.

*Confirmed:* A case that is laboratory confirmed with symptoms and history as above.

## VARICELLA (Chickenpox)

- For more information, see [Arizona Administrative Code R9-6-372](#) (Codes Section, pg 19)
- Complete [Varicella Surveillance Worksheet Form](#) (Forms Section)
- **If case died:** Complete [Varicella Death Investigation Worksheet Form](#) (Forms Section)

### ***Clinical Case Definition***

An illness with acute onset of diffuse (generalized) maculo-papulovesicular rash without other apparent cause (as reported by a health professional).

### ***Laboratory Criteria for Diagnosis***

- Isolation of varicella virus from a clinical specimen, **or**
- Direct fluorescent antibody (DFA), **or**
- Polymerase chain reaction (PCR), **or**
- Significant rise in serum varicella immunoglobulin G (IgG) antibody level by any standard serologic assay

### ***Case Classification***

*Probable:* A case that meets the clinical case definition, is not laboratory confirmed, and is not epidemiologically linked to another probable or confirmed case.

*Confirmed:* A case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a confirmed or probable case.

### ***Comment***

Two probable cases that are epidemiologically linked would be considered confirmed, even in the absence of laboratory confirmation.

In vaccinated persons who develop Varicella more than 42 days after vaccination (breakthrough disease), the disease is almost always mild with fewer than 50 skin lesions and shorter duration of illness. The rash may also be atypical in appearance (maculopapular with few vesicles).

Laboratory confirmation of cases of Varicella is not routinely recommended; laboratory confirmation is recommended for fatal cases and in other special circumstances.



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

## WATERBORNE DISI



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information, see
- Complete [Waterborne Diseases Outbreak Report Form](#) (Forms Section)
- **If Suspected Norovirus:** Complete [Suspected Viral Gastroenteritis Outbreak Form](#)

### **Clinical Description**

Symptoms of illness depend upon etiologic agent.

### **Laboratory Criteria for Diagnosis**

Depends upon etiologic agent.

### **Definition**

An incident in which two or more persons experience a similar illness after consumption or use of water intended for drinking, and epidemiologic evidence implicates the water as the source of the illness.

### **Comment**

In addition, a single case of chemical poisoning constitutes an outbreak if laboratory studies indicate that the water has been contaminated by the chemical.

Other outbreaks that should be reported include:

- a) Epidemiologic investigations of outbreaks of gastroenteritis (even if not waterborne) on ocean-going passenger vessels that call on U.S. ports, and
- b) Outbreaks of illness associated with exposure to recreational water. Disease outbreaks associated with water used for recreational purposes should meet the same criteria used for waterborne outbreaks associated with drinking water. However, outbreaks associated with recreational water involve exposure to or unintentional ingestion of fresh or marine water, excluding wound infections caused by water-related organisms.



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

## WEST NILE FEV



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932  
After Hours: 602-920-3772

- For more information
- Complete [West Nile Encephalitis Case Investigation Form](#) (Forms Section)

pg 9)

### **Clinical Description**

Anon-specific, self-limited, febrile illness caused by infection with West Nile virus, a mosquito-borne flavivirus. Clinical disease generally occurs 2-6 days (range, 2-15 days) following the bite of an infected mosquito. Typical cases are characterized by the acute onset of fever, headache, arthralgias, myalgias, and fatigue. Maculopapular rash and lymphadenopathy generally are observed in less than 20% of cases. Illness typically lasts 2-7 days.

### **Laboratory Criteria for Diagnosis**

- Fourfold or greater change in West Nile virus-specific serum antibody titer;
- Isolation of West Nile virus from or demonstration of specific West Nile viral antigen or genomic sequences in tissue, blood, CSF, or other bodily fluid; or
- West Nile virus-specific IgM antibodies demonstrated in serum by antibody-capture enzyme immunoassay and confirmed by demonstration of West Nile virus-specific serum neutralizing antibodies in the same or later specimen.

### **Case Classification**

**Confirmed:** A clinically compatible illness that is laboratory confirmed.

**Probable:** A clinically compatible illness with West Nile virus-specific serum IgM antibodies detected by antibody-capture enzyme immunoassay but with no available results of a confirmatory test for West Nile virus-specific serum neutralizing antibodies in the same or later specimen.

Note: Some West Nile fever cases progress to West Nile meningitis or encephalitis. Cases meeting more restrictive case definition of West Nile encephalitis/meningitis should be reported as such and only once.

### **Comment**

The seasonality of arbovirus transmission is variable and depends on the geographic location of exposure, the specific cycles of viral transmission, and local climatic conditions. Because closely related arboviruses exhibit serologic cross-reactivity, positive results of serologic tests using antigens from a single arbovirus can be misleading. In some circumstances (e.g., areas where two or more closely related arboviruses occur, or, in imported arboviral disease cases), it may be epidemiologically important to attempt to identify the infecting virus by conducting cross neutralization tests using an appropriate battery of closely related viruses. This is essential, for example, in determining that antibodies detected against West Nile virus are not the result of an infection with St. Louis encephalitis or dengue virus, or vice versa. Because dengue fever and West Nile fever can be clinically indistinguishable, the importance of a recent travel history and appropriate serologic testing cannot be overemphasized. In some persons, West Nile virus-specific serum IgM antibody can wane slowly and be detectable for more than one year following infection. Therefore, in areas where West Nile virus has circulated in the recent past, the co-existence of West Nile virus-specific IgM antibody and illness in a given case may be coincidental and unrelated. In those areas, the testing of serially collected serum specimens assumes added importance.

## YELLOW FEVER



Report immediately to Arizona Dept of Health Services

During Business Hours: 602-230-5932

After Hours: 602-920-3772

- For more information, see [Ar](#)



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### ***Clinical Description***

A mosquito-borne, viral illness characterized by acute onset and constitutional symptoms followed by a brief remission and a recurrence of fever, hepatitis, albuminuria, and symptoms and, in some cases, renal failure, shock, and generalized hemorrhages.

### ***Laboratory Criteria for Diagnosis***

- Fourfold or greater rise in yellow fever antibody titer with no history of recent yellow fever immunization and cross-reactions to other flaviviruses ruled out, or
- Demonstration of yellow fever virus, antigen, or genome in tissue, blood, or other body fluid

### ***Case Classification***

***Confirmed:*** A clinically compatible illness that is laboratory confirmed.

***Probable:*** A clinically compatible illness with supportive serology (stable elevated antibody titer to yellow fever virus, e.g.,  $\geq 32$  by complement fixation,  $\geq 256$  by immunofluorescence assay,  $\geq 320$  by hemagglutination inhibition,  $\geq 160$  by neutralization, or a positive serologic result by IgM-capture enzyme immunoassay. Cross-reactive serologic reactions to other flaviviruses must be ruled out, and there must be no history of yellow fever immunization).