Arizona Department of Health Services

Case Definitions for Reportable Communicable Morbidities

2014

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Introduction

In the United States, requirements for reporting diseases are mandated by state or local laws or regulations, and the list of reportable diseases in each state differs. Since 1990, in collaboration with the Council of State and Territorial Epidemiologists (CSTE), the Centers for Disease Control and Prevention (CDC) has published case definitions for public health surveillance to provide uniform criteria for reporting cases to increase the specificity of reporting and improve the comparability of diseases reported from different geographic areas.

The CDC/CSTE surveillance case definitions included in this report differ in their use of clinical, laboratory, and epidemiologic criteria to define cases. Some clinical syndromes do not have confirmatory laboratory tests; however, laboratory evidence may be one component of a clinical definition (e.g., toxic-shock syndrome). Most case definitions include a brief clinical description; however, unless this description is explicitly cited in the case classification section, it is included only as background information. Some diseases require laboratory confirmation for diagnosis regardless of clinical symptoms, whereas others are diagnosed based on epidemiologic data. Many case definitions for the childhood vaccine-preventable diseases and foodborne diseases include epidemiologic criteria (e.g., exposure to probable or confirmed cases of disease or to a point source of infection [i.e., a single source of infection, such as an event resulting in a foodborne-disease outbreak, to which all confirmed case-patients were exposed]). In some instances, the anatomic site of infection may be important; for example, whether the organism was isolated from a normally sterile site (e.g., blood).

Since each state has the authority to make additional morbidities reportable, there are some morbidities reportable in Arizona that are not nationally notifiable. Case definitions for those morbidities are also included in this report to standardize surveillance within Arizona. Case definitions in this document for nationally notifiable conditions match the CDC case definitions for most morbidities, unless noted.

For more information see:

ADHS's Summary and Overview for Case Definitions for Public Health Surveillance at http://www.azdhs.gov/phs/oids/investigations/casedefinitions.htm;

CDC's National Notifiable Diseases Surveillance System at http://wwwn.cdc.gov/nndss/;

The introduction to any of the ADHS Infectious Disease annual reports posted at http://www.azdhs.gov/phs/oids/data/index.htm.

Definition of Terms Used in Case Classification

Confirmed case: A case that is classified as confirmed for reporting purposes.

Probable case: A case that is classified as probable for reporting purposes.

Suspected case: A case that is classified as suspected for reporting purposes.

Laboratory confirmed case: A case that is confirmed by one or more of the laboratory methods listed in the case definition under Laboratory Criteria for Diagnosis. Although other laboratory methods can be used in clinical diagnosis, only those listed are accepted as laboratory confirmation for national reporting purposes.

Epidemiologically linked case: A case in which a) the patient has had contact with one or more persons who either have/had the disease or have been exposed to a point source of infection (i.e., a single source of infection, such as an event leading to a foodborne-disease outbreak, to which all confirmed case-patients were exposed) and b) transmission of the agent by the usual modes of transmission is plausible. A case may be considered epidemiologically linked to a laboratory-confirmed case if at least one case in the chain of transmission is laboratory confirmed.

Supportive or presumptive laboratory results: Specified laboratory results that are consistent with the diagnosis, yet do not meet the criteria for laboratory confirmation.

Clinically compatible case: A clinical syndrome generally compatible with the disease, as described in the clinical description.

Definition of Bi-national Case

Communicable Disease of Bi-national Interest

The Mexican flag denotes a communicable disease that is classified as a bi-national case of interest for reporting and investigating by public health staff in Arizona and Sonora, Mexico.

A Bi-national case refers to an individual with a confirmed, probable or suspect case of a reportable communicable disease, AND:

- who has recently traveled or lived in the neighboring country or had recent contact with persons who lived or traveled in the neighboring country; OR
- who is thought to have acquired the infection in the neighboring country or have been in the neighboring country during the incubation period of the infection and was possibly contagious during this period; OR
- who is thought to have acquired the infection from a product from the other country; OR
- whose investigation requires the collaboration of both countries for the purposes of disease investigation and control.

Arizona and Sonora will utilize Arizona's Health Services Portal (HSP), Medical Electronic Disease Intelligence System (MEDSIS) and/or secure SIREN email accounts to share all confidential information.

All County, Tribal, State and International Health Departments will use the MEDSIS Bi-national User Guide for suspect, probable and confirmed cases of bi-national interest.

Diseases that are not classified as bi-national may still be shared between Arizona and Sonora as per the agreed upon bi-national information sharing guidelines.

During cross-border disease investigations of bi-national interest:

- Arizona health authorities will use Arizona's Communicable Disease Case Definition list for epidemiologic investigations.
- Sonora health authorities will use Communicable Disease Case Definitions based on the Guidelines established by the Mexican Official Norms for Epidemiologic Surveillance (http://www.cdc.gov/USMexicoHealth/pdf/us-mexico-guidelines.pdf).

Cross-border Investigations of bi-national cases will be determined on a case-by-case basis.

AMEBIASIS	REPORT WITHIN 24 HRS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 of 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.

CONTROL MEASURES

Arizona Administrative Code R9-6-305: Amebiasis

Case Control Measures
A local health agency shall:

1. Exclude an amebiasis case or suspect case from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until:
   a. Treatment with an amebicide is initiated, and

b. Two successive stool specimens negative for amoebae are obtained from specimens collected at least 24 hours apart;

2. Conduct an epidemiologic investigation of each reported amebiasis case or suspect case; and
3. For each amebiasis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/amebiasis_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

ANTHRAX (*Bacillus anthracis*)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

- Cutaneous Anthrax: An acute illness, or post-mortem examination revealing a painless skin lesion developing over 2 to 6 days from a papular through a vesicular stage into a depressed black eschar with surrounding edema. Fever, malaise and lymphadenopathy may accompany the lesion.
- Inhalation Anthrax: An acute illness, or post-mortem examination revealing a prodrome resembling a viral respiratory illness, followed by hypoxia, dyspnea or acute respiratory distress with resulting cyanosis and shock. Radiological evidence of mediastinal widening or pleural effusion is common.
- Gastrointestinal Anthrax: An acute illness, or post-mortem examination revealing severe abdominal pain and tenderness, nausea, vomiting, hematemesis, bloody diarrhea, anorexia, fever, abdominal swelling and septicemia.
- Oropharyngeal Anthrax: An acute illness, or post-mortem examination revealing a painless mucosal lesion in the oral cavity or oropharynx, with cervical adenopathy, edema, pharyngitis, fever, and possibly septicemia.
- Meningeal Anthrax: An acute illness, or post-mortem examination revealing fever, convulsions, coma, or meningeal signs. Signs of another form will likely be evident as this syndrome is usually secondary to the above syndromes.

Laboratory Criteria for Diagnosis

See information under Case Classification.

Case Classification

Confirmed

A clinically compatible illness with one of the following:

- Culture and identification of *B. anthracis* from clinical specimens by the Laboratory Response Network (LRN);
- Demonstration of *B. anthracis* antigens in tissues by immunohistochemical staining using both *B. anthracis* cell wall and capsule monoclonal antibodies;
- Evidence of a four-fold rise in antibodies to protective antigen between acute and convalescent sera or a fourfold change in antibodies to protective antigen in paired convalescent sera using Centers for Disease Control and Prevention (CDC) quantitative anti-PA IgG ELISA testing;
- Documented anthrax environmental exposure AND evidence of *B. anthracis* DNA (for example, by LRN-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or CSF) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal).

Probable
A clinically compatible illness that does not meet the confirmed case definition, but with one of the following:

- Epidemiological link to a documented anthrax environmental exposure;
- Evidence of *B. anthracis* DNA (for example, by LRN-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or CSF) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal);
- Positive result on testing of clinical serum specimens using the Quick ELISA Anthrax-PA kit;
- Detection of Lethal Factor (LF) in clinical serum specimens by LF mass spectrometry
- Positive result on testing of culture from clinical specimens with the RedLine Alert test.

Suspect
An illness suggestive of one of the known anthrax clinical forms. No definitive, presumptive, or suggestive laboratory evidence of *B. anthracis*, or epidemiologic evidence relating it to anthrax.

CONTROL MEASURES

Arizona Administrative Code R9-6-306: Anthrax

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of an anthrax case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported anthrax case or suspect case;
3. For each anthrax case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
4. Ensure that an isolate from each anthrax case is submitted to the Arizona State Laboratory.

Environmental Control Measures:
A local health agency shall:

1. Provide or arrange for sterilization by dry heating or incineration of objects contaminated by *Bacillus anthracis.*

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/anthrax.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

ARBOVIRAL DISEASES (including WEST NILE VIRUS)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Includes: California Serogroup Viruses, (i.e., California encephalitis, Jamestown Canyon, Keystone, La Crosse, Snowshoe hare, and Trivittatus viruses), Eastern Equine Encephalitis Virus, Powassan Virus, St. Louis Encephalitis Virus, West Nile Virus, Western Equine Encephalitis Virus

Background

Arthropod-borne viruses (arboviruses) are transmitted to humans primarily through the bites of infected mosquitoes, ticks, sand flies, or midges. Other modes of transmission for some arboviruses include blood transfusion, organ transplantation, perinatal transmission, consumption of unpasteurized dairy products, breast feeding, and laboratory exposures.

More than 130 arboviruses are known to cause human disease. Most arboviruses of public health importance belong to one of three virus genera: Flavivirus, Alphavirus, and Bunyavirus.

Clinical Description

Most arboviral infections are asymptomatic. Clinical disease ranges from mild febrile illness to severe encephalitis. For the purposes of surveillance and reporting, based on their clinical presentation, arboviral disease cases are often categorized into two primary groups: neuroinvasive disease and non-neuroinvasive disease.

Neuroinvasive disease: Many arboviruses cause neuroinvasive disease such as aseptic meningitis, encephalitis, or acute flaccid paralysis (AFP). These illnesses are usually characterized by the acute onset of fever with stiff neck, altered mental status, seizures, limb weakness, cerebrospinal fluid (CSF) pleocytosis, or abnormal neuroimaging. AFP may result from anterior ("polio") myelitis, peripheral neuritis, or post-infectious peripheral demyelinating neuropathy (i.e., Guillain-Barré syndrome). Less common neurological manifestations, such as cranial nerve palsies, also occur.

Non-neuroinvasive disease: Most arboviruses are capable of causing an acute systemic febrile illness (e.g., West Nile fever) that may include headache, myalgias, arthralgias, rash, or gastrointestinal symptoms. Rarely, myocarditis, pancreatitis, hepatitis, or ocular manifestations such as chorioretinitis and iridocyclitis can occur.

Clinical Criteria for Diagnosis

A clinically compatible case of arboviral disease is defined as follows:
Neuroinvasive disease:

- Meningitis, encephalitis, acute flaccid paralysis, or other acute signs of central or peripheral neurologic dysfunction, as documented by a physician, AND

- Absence of a more likely clinical explanation.

Non-neuroinvasive disease

- Fever or chills as reported by the patient or a health-care provider, AND
- Absence of neuroinvasive disease, AND
- Absence of a more likely clinical explanation.

Laboratory Criteria for Diagnosis

- Isolation of virus from, or demonstration of specific viral antigen or nucleic acid in, tissue, blood, CSF, or other body fluid, OR
- Four-fold or greater change in virus-specific quantitative antibody titers in paired sera, OR
- Virus-specific IgM antibodies in serum with confirmatory virus-specific neutralizing antibodies in the same or a later specimen, OR
- Virus-specific IgM antibodies in CSF or serum.

Case Classification

Confirmed

Neuroinvasive Disease

A case that meets the above clinical criteria for neuroinvasive disease and one or more the following laboratory criteria for a confirmed case:

- Isolation of virus from, or demonstration of specific viral antigen or nucleic acid in, tissue, blood, CSF, or other body fluid, OR
- Four-fold or greater change in virus-specific quantitative antibody titers in paired sera, OR
- Virus-specific IgM antibodies in serum with confirmatory virus-specific neutralizing antibodies in the same or a later specimen, OR
- Virus-specific IgM antibodies in CSF and a negative result for other IgM antibodies in CSF for arboviruses endemic to the region where exposure occurred.

Non-neuroinvasive Disease

A case that meets the above clinical criteria for non-neuroinvasive disease and one or more of the following laboratory criteria for a confirmed case:

- Isolation of virus from, or demonstration of specific viral antigen or nucleic acid in, tissue, blood, CSF, or other body fluid, OR
- Four-fold or greater change in virus-specific quantitative antibody titers in paired sera, OR
- Virus-specific IgM antibodies in serum with confirmatory virus-specific neutralizing antibodies in the same or a later specimen.

Probable

Neuroinvasive Disease

A case that meets the above clinical criteria for neuroinvasive disease and the following laboratory criteria:

- Virus-specific IgM antibodies in CSF or serum but with no other testing.

Non-neuroinvasive Disease

A case that meets the above clinical criteria for non-neuroinvasive disease and the laboratory criteria for a probable case:

- Virus-specific IgM antibodies in serum but with no other testing.

Comment

Interpreting Arboviral Laboratory Results

- **Serologic cross-reactivity**. In some instances, arboviruses from the same genus produce cross-reactive antibodies. In geographic areas where two or more closely-related arboviruses occur, serologic testing for more than one virus may be needed and results compared to determine the specific causative virus. For example, such testing might be needed to distinguish antibodies resulting from infections within genera, e.g., flaviviruses such as West Nile, St. Louis encephalitis, Powassan, Dengue, or Japanese encephalitis viruses.
- **Rise and fall of IgM antibodies**. For most arboviral infections, IgM antibodies are generally first detectable at 3 to 8 days after onset of illness and persist for 30 to 90 days, but longer persistence has been documented (e.g, up to 500 days for West Nile virus). Serum collected within 8 days of illness onset may not have detectable IgM and testing should be repeated on a convalescent-phase sample to rule out arboviral infection in those with a compatible clinical syndrome.
- **Persistence of IgM antibodies**. Arboviral IgM antibodies may be detected in some patients months or years after their acute infection. Therefore, the presence of these virus-specific IgM antibodies may signify a past infection and be unrelated to the current acute illness. Finding virus-specific IgM antibodies in CSF or a fourfold or greater change in virus-specific antibody titers between acute- and convalescent-phase serum specimens provides additional laboratory evidence that the arbovirus was the likely cause of the patient's recent illness. Clinical and epidemiologic history also should be carefully considered.
- **Persistence of IgG and neutralizing antibodies**. Arboviral IgG and neutralizing antibodies can persist for many years following a symptomatic or asymptomatic infection. Therefore, the presence of these antibodies alone is only evidence of previous infection and clinically compatible cases with the presence of IgG, but not IgM, should be evaluated for other etiologic agents.
- **Arboviral serologic assays**. Assays for the detection of IgM and IgG antibodies commonly include enzyme-linked immunosorbent assay (ELISA), microsphere immunoassay (MIA), or immunofluorescence assay (IFA). These assays provide a presumptive diagnosis and should have confirmatory testing performed. Confirmatory testing involves the detection of arboviral-specific neutralizing antibodies utilizing assays such as plaque reduction neutralization test (PRNT).
- **Other information to consider**. Vaccination history, detailed travel history, date of onset of symptoms, and knowledge of potentially cross-reactive arboviruses known to circulate in the geographic area should be considered when interpreting results.

Imported Arboviral Diseases

Human disease cases due to Dengue or Yellow fever viruses are nationally notifiable to CDC using specific case definitions. However, many other exotic arboviruses (e.g., Chikungunya, Japanese encephalitis, Tick-borne encephalitis, Venezuelan equine encephalitis, and Rift Valley fever viruses) are important public health risks for the United States as competent vectors exist that could allow for sustained transmission upon establishment of imported arboviral pathogens. Health-care providers and public health officials should maintain a high index of clinical suspicion for cases of potentially exotic or unusual arboviral etiology, particularly in international travelers. If a suspected case occurs, it should be reported to the appropriate local/state health agencies and CDC.

CONTROL MEASURES

Arizona Administrative Code R9-6-391 West Nile Virus-related Syndromes

Case Control Measures:
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported West Nile virus-related syndrome case or suspect case; and
2. For each case of West Nile virus-related syndrome, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.westnileaz.com/pdf/ArboviralCaseInvestigationForm.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	2014: Clinical criteria revised to accept subjective fever or chills in place of measured temperature; modification of laboratory criteria to exclude “Virus-specific IgM antibodies in CSF and a negative result for other IgM antibodies in CSF for arboviruses endemic to the region where exposure occurred” from the confirmed non-neuroinvasive definition and elimination of “IgM antibodies in CSF” from the probable non-neuroinvasive definition; changes were made to match the 2014 CDC/CSTE case definitions. 2013: Section moved from West Nile Virus to Arboviral Diseases. Material within the section is identical.
Most Recent CDC/CSTE Revision Year	2014

ASEPTIC MENINGITIS (viral)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 & evidence of pleocytosis.

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.

CONTROL MEASURES

Arizona Administrative Code R9-6-307: Aseptic Meningitis (Viral)

Outbreak Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported outbreak of aseptic meningitis; and
2. For each outbreak of aseptic meningitis, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-202(E).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

BASIDIOBOLOMYCOSIS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

A disease consistent with clinical presentation and/or:

- Subcutaneous nodules that are firm and painful;
- Nodules that involve the muscle;
- Nodules or inflammatory mass that involves the gastrointestinal tract or other organs

Laboratory Criteria for Diagnosis

- Biopsy with microscopic appearance consistent with *Basidiobolus ranarum* (septate hyphae with eosinophilic infiltration), OR
- Isolation of *B. ranarum* from culture of a mass, OR
- A positive serologic result for *Basidiobolus*

Case Classification

Confirmed
A clinically compatible illness that is laboratory confirmed.

CONTROL MEASURES

Arizona Administrative Code R9-6-308: Basidiobolomycosis

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported basidiobolomycosis case or suspect case; and
2. For each basidiobolomycosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/basidio_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

BOTULISM	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Subtypes

- Botulism, foodborne
- Botulism, wound
- Botulism, other

Botulism, Foodborne

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 botulinum toxin in serum, stool, or patient's food, OR
- Isolation of *Clostridium botulinum* from stool

Case Classification

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

Probable
A clinically compatible case with an epidemiologic link to a suspect food item (e.g. home-canned foods within the previous 48 hours)

Botulism, Wound

Clinical Description

An illness resulting from toxin produced *by Clostridium botulinum* that has infected a wound. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.

Laboratory Criteria for Diagnosis

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

Case Classification

Confirmed
A clinically compatible illness that is laboratory confirmed in a patient who has no suspected exposure to contaminated food and who has either a history of a fresh, contaminated wound during the 2 weeks before onset of symptoms, or a history of injection drug use within the 2 weeks before onset of symptoms.

Probable
A clinically compatible case in a patient who has no suspected exposure to contaminated food and who has either a history of a fresh, contaminated wound during the 2 weeks before onset of symptoms, or a history of injection drug use within the 2 weeks before onset of symptoms.

Botulism, Other

Clinical Description

Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.

Laboratory Criteria for Diagnosis:

- Detection of botulinum 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 ≥1 year of age without histories of ingestion of suspect food and without wounds.

Comment

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

CONTROL MEASURES

Arizona Administrative Code R9-6-309: Botulism, Foodborne, Wound, Other

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a botulism case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported botulism case or suspect case; and
3. For each botulism case:
    a. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D);
    b. Ensure that a specimen from each botulism case is submitted to the Arizona State Laboratory; and
    c. In consultation with the Department, determine if treatment of the botulism case is required.

Environmental Control Measures:
An individual in possession of:
1. Food known to be contaminated by *Clostridium botulinum* shall boil the contaminated food for 10 minutes and then discard it, and
2. Utensils known to be contaminated by *Clostridium botulinum* shall boil the contaminated utensils for 10 minutes before reuse or disposal.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/adultbotulism.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification:	ADHS case definition was edited in 2012 to match CDC/CSTE
Most Recent CDC/CSTE Revision Year	2011

BOTULISM, INFANT	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness of infants, characterized by constipation, poor feeding, and "failure to thrive" that may be followed by progressive weakness, impaired respiration, and death.

Laboratory Criteria for Diagnosis

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

Case Classification

Confirmed
A clinically compatible case that is laboratory-confirmed, occurring among children aged less than 1 year.

CONTROL MEASURES

Arizona Administrative Code R9-6-309: Botulism

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a botulism case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported botulism case or suspect case; and
3. For each botulism case:
    a. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D);
    b. Ensure that a specimen from each botulism case is submitted to the Arizona State Laboratory; and
    c. In consultation with the Department, determine if treatment of the botulism case is required.

Environmental Control Measures:
An individual in possession of:

1. Food known to be contaminated by *Clostridium botulinum* shall boil the contaminated food for 10 minutes and then discard it, and
2. Utensils known to be contaminated by *Clostridium botulinum* shall boil the contaminated utensils for 10 minutes before reuse or disposal

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/infantbotulism.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2011

BRUCELLOSIS	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness characterized by acute or insidious onset of fever and one or more of the following: night sweats, arthralgia, headache, fatigue, anorexia, myalgia, weight loss, arthritis/spondylitis, meningitis, or focal organ involvement (endocarditis, orchitis/epididymitis, hepatomegaly, splenomegaly).

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Culture and identification of *Brucella* spp. from clinical specimens
- Evidence of a fourfold or greater rise in *Brucella* antibody titer between acute- and convalescent-phase serum specimens obtained greater than or equal to 2 weeks apart .

Presumptive Testing

- *Brucella* total antibody titer of greater than or equal to 160 by standard tube agglutination test (SAT) or *Brucella* microagglutination test (BMAT) in one or more serum specimens obtained after onset of symptoms.
- Detection of *Brucella* DNA in a clinical specimen by PCR assay.

Case Classification

Confirmed

A clinically compatible illness with confirmatory laboratory evidence of *Brucella* infection

Probable

A clinically compatible illness with at least one of the following:

- Epidemiologically linked to a confirmed human or animal brucellosis case
- Presumptive laboratory evidence, but without definitive laboratory evidence, of *Brucella* infection

CONTROL MEASURES

Arizona Administrative Code R9-6-310: Brucellosis

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported brucellosis case or suspect case;
2. For each brucellosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
3. Ensure that an isolate from each brucellosis case is submitted to the Arizona State Laboratory

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/BrucellosisCaseInvestigation.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

***BURKHOLDERIA MALLEI* (GLANDERS)**	LABORATORIES MUST SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Please contact the Office of Infectious Disease Services at (602) 364-3676 to discuss the case definition if a suspected case of *Burkholderia mallei* is detected.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	Separated from *Burkholderia pseudomallei* in 2013 to reflect distinct clinical presentation.
Most Recent CDC/CSTE Revision Year	N/A

***BURKHOLDERIA PSEUDOMALLEI* (MELIOIDOSIS)**	LABORATORIES MUST SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Clinical presentation of the disease varies on a case by case basis. The following characteristics are typical of melioidosis.

- An acute or chronic localized infection which may or may not include symptoms of fever and muscle aches. Such infection often results in ulcer, nodule, or skin abscess.
- An acute pulmonary infection with symptoms of fever, headache, chest pain, anorexia, and general muscle soreness.
- A bloodstream infection with symptoms of fever, headache, respiratory distress, abdominal discomfort, joint pain, muscle tenderness, and/or disorientation.
- A disseminated infection with symptoms of fever, weight loss, stomach or chest pain, muscle or joint pain, and/or headache or seizure. Abscesses in the liver, lung, spleen, and prostate are often observed in patients diagnosed with disseminated infections; less frequently, brain abscesses may be seen.

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Isolation of *B. pseudomallei* from a clinical specimen of a case of severe febrile illness: Culture of the organism may be done by blood, sputum, urine, pus, throat swab, or swabs from organ abscesses or wounds.

Presumptive Testing

- Evidence of a fourfold or greater rise in *B. pseudomallei* antibody titer by IHA between acute- and convalescent-phase serum specimens obtained greater than or equal to 2 weeks apart.
- Evidence of *B. pseudomallei* DNA (for example, by LRN-validated polymerase chain reaction) in a clinical specimen collected from a normally sterile site (blood) or lesion of other affected tissue (abscesses, wound).

Case Classification

Confirmed

A case that meets the confirmatory laboratory criteria, with or without clinical evidence.

Probable

A case that meets the clinical case definition, one or more of the presumptive laboratory criteria, and one of the following epidemiologic findings:

- History of travel to melioidosis-endemic region OR
- Known exposure to *B. pseudomallei* as a result of intentional release or occupational risk (lab exposure)

CONTROL MEASURES

Arizona Administrative Code R9-6-351: Melioidosis

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported melioidosis case or suspect case;
2. For each melioidosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
3. Ensure that an isolate from each melioidosis case is submitted to the Arizona State Laboratory

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	ADHS 2013 edited content to match CDC/CSTE. Moved *B. mallei* to a separate case definition.
Most Recent CDC/CSTE Revision Year	2012

CAMPYLOBACTERIOSIS	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An infection that may result in diarrheal illness of variable severity

Laboratory Criteria for Diagnosis

Confirmatory Testing
Isolation of *Campylobacter* spp. from any clinical specimen

Supportive Testing
Detection of *Campylobacter* spp. in a clinical specimen using non-culture based laboratory methods

Case Classification

Confirmed
A case that meets the confirmatory laboratory criteria.

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

Suspect
A case that meets the supportive laboratory criteria.

CONTROL MEASURES

Arizona Administrative Code R9-6-311 Campylobacteriosis

Case Control Measures
A local health agency shall:

1. Exclude a campylobacteriosis case or suspect case from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until:
    a. A culture negative for Campylobacter spp. is obtained from a stool specimen, or
    b. Diarrhea has resolved;
2. Conduct an epidemiologic investigation of each reported campylobacteriosis case or suspect case; and
3. For each campylobacteriosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_campy.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	CDC/CSTE added suspect laboratory criteria for diagnosis and case classification, based on non-culture testing, in 2012; ADHS edited 2012 case definition to match CDC/CSTE
Most Recent CDC/CSTE Revision Year	2012

CHAGAS DISEASE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Please contact the Vector-Borne and Zoonotic Disease program at (602) 364-4562 to discuss the case definition.

CONTROL MEASURES

Arizona Administrative Code R9-6-312: Chagas Infection & Related Disease (American Trypanosomiasis)

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Chagas infection or disease case or suspect case; and
2. For each Chagas infection or disease case:
    a. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
    b. Provide to the Chagas infection or disease case or ensure that another person provides to the Chagas infection or disease case health education that includes:
        i. The treatment options for Chagas infection or disease,
        ii. ii. Where the Chagas infection or disease case may receive treatment for Chagas infection or disease, and
        iii. For women of childbearing age, the risks of transmission of Chagas infection or disease to a fetus.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/ChagasDiseaseCaseInvestigationForm.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

CHANCROID	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

Laboratory Criteria for Diagnosis

Isolation of *H. ducreyi* from a clinical specimen

Case Classification

Confirmed
A case that is laboratory confirmed.

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

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

CONTROL MEASURES

Arizona Administrative Code R9-6-313: Chancroid (*Haemophilus ducreyi*)

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported chancroid case or suspect case;
2. For each chancroid case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
3. Comply with the requirements specified in R9-6-1103 concerning treatment and health education for a chancroid case.

Contact control measures:

1. When a chancroid case has named a contact, a local health agency shall comply with the requirements specified in R9-6-1103 concerning notification, testing, treatment, and health education for the contact.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

***CHLAMYDIA TRACHOMATIS* INFECTION**	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 conjunctivitis and pneumonia among newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see separate case definition) 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.

CONTROL MEASURES

Arizona Administrative Code R9-6-314: Chlamydia Infection, Sexually Transmitted

Case Control Measures:

1. The Department shall review each chlamydia infection case report for completeness, accuracy, and need for follow-up.
2. A local health agency shall comply with the requirements specified in R9-6-1103 concerning treatment and health education for a chlamydia infection case that seeks treatment from the local health agency.

Contact Control Measures:

1. If an individual who may have been exposed to chlamydia through sexual contact with a chlamydia infection case seeks treatment for symptoms of chlamydia infection from a local health agency, the local health agency shall comply with the requirements specified in R9-6-1103 concerning treatment and health education for the individual.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

CHOLERA	REPORT WITHIN 24 HOURS IF CASE HAS A HIGH-RISK OCCUPATION OTHERWISE, SUBMIT A REPORT WITHIN 1 WORKING DAY.

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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* O1 or O139 from stool or vomitus, OR
- Serologic evidence of recent infection

Case Classification

Confirmed
A clinically compatible illness that is laboratory confirmed.

Comment

Only confirmed cases should be reported nationally. Illnesses due to strains of *V. cholerae* other than toxigenic *V. cholerae* O1 or O139 should be reported as Vibrio infection rather than cholera. The etiologic agent of a case of cholera should be reported as either *V. cholerae* O1 or *V. cholerae* O139.

CONTROL MEASURES

Arizona Administrative Code R9-6-315: Cholera

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a cholera case or suspect case, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
2. Exclude a cholera case or suspect case from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until two successive cultures negative for Vibrio cholerae are obtained from stool specimens collected at least 24 hours apart and at least 48 hours after discontinuing antibiotics;
3. Conduct an epidemiologic investigation of each reported cholera case or suspect case; and
4. For each cholera case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures:

1. A local health agency shall provide follow-up for each cholera contact for five calendar days after exposure.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/cholera_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013 change to ADHS laboratory criteria to match CDC/CSTE case definition.
Most Recent CDC/CSTE Revision Year	2010

COCCIDIOIDOMYCOSIS (Valley fever)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Infection may be asymptomatic or may produce an acute or chronic disease. Although the disease initially resembles an influenza-like illness or pneumonia-like febrile illness primarily involving the bronchopulmonary system, dissemination can occur to multiple organ systems. An illness is typically characterized by one or more of the following:

- Influenza-like signs and symptoms, including fever, chest pain, cough, myalgia, arthralgia, headache
- Pneumonia or other pulmonary lesion, diagnosed 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 *Coccidioides* species, OR
- Immunologic evidence of infection
    1. Serologic (testing of serum, cerebrospinal fluid (CSF), or other body fluid) by:
        a. Detection of coccidioidal IgM by immunodiffusion, enzyme immunoassay (EIA), latex agglutination, or tube precipitin, OR
        b. Detection of coccidioidal IgG by immunodiffusion, enzyme immunoassay (EIA), or complement fixation (for complement fixation, titers from blood must be ≥ 1:4; for immunodiffusion or when the specimen is CSF, any titer is considered positive).
    2. Coccidioidal skin test conversion from negative to positive after the onset of clinical signs and symptoms.

Case Classification

Confirmed
A case that is laboratory confirmed.

CONTROL MEASURES

Arizona Administrative Code R9-6-316 Coccidioidomycosis (Valley Fever)

Outbreak Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported outbreak of coccidioidomycosis; AND

2. For each outbreak of coccidioidomycosis, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-202(E).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	Coccidioidomycosis is endemic in Arizona, and previous study has shown that most reported cases that meet the laboratory criteria also meet the clinical case definition. Because of the high number of reported cases, lack of resources to investigate all reported cases, and very high rate of clinical symptoms among laboratory-reported cases, Arizona uses a laboratory-only case definition.
Most Recent CDC/CSTE Revision Year	2011

COLORADO TICK FEVER	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 Colorado tick fever virus from blood or CSF, OR
- Fourfold or greater change in serum antibody

Case Classification

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

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).

CONTROL MEASURES

Arizona Administrative Code R9-6-317 Colorado Tick Fever

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Colorado tick fever case or suspect case; and
2. For each Colorado tick fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.cdc.gov/ticks/forms/2010_tbrd_crf.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

CONJUNCTIVITIS, ACUTE	REPORT OUTBREAKS ONLY

CASE DEFINITION

Clinical Description

An acute inflammation of the conjunctiva involving redness and burning or itching of the eyes. Drainage from the eyes may be present as clear and watery fluid or white or yellowish pus.

Laboratory Criteria for Diagnosis

Cultures of purulent drainage or conjunctival swabs may be used to identify the specific infectious agent in cases of bacterial conjunctivitis.

Case Classification

Confirmed
A case that meets the clinical case description

Comment

Only outbreaks of acute conjunctivitis should be reported. An outbreak consists of:

- three or more cases,
- diagnosed or detected within a one-week period,
- all of whom have a common exposure AND
- not from the same household or family

CONTROL MEASURES

Arizona Administrative Code R9-6-318 Conjunctivitis

Case Control Measures
An administrator of a school or child care establishment, either personally or through a representative, shall exclude an acute conjunctivitis case from attending the school or child care establishment until the symptoms of acute conjunctivitis subside or treatment for acute conjunctivitis is initiated and maintained for 24 hours.

Outbreak control measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported conjunctivitis outbreak; AND
2. For each conjunctivitis outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F).

INVESTIGATION FORMS

- http://www.azdhs.gov/phs/oids/pdf/forms/outbreakreport.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

CREUTZFELDT-JAKOB DISEASE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Creutzfeldt-Jakob Disease (CJD) is a fatal disease characterized by progressive dementia and a variety of other neurological symptoms including:

- Myoclonus
- Visual or cerebellar signs
- Pyramidal/extrapyramidal signs
- Akinetic mutism

CJD is typified by development of spongy spaces in brain tissue where cells have died. Incubation periods range from 15 months to 30 years.

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Detection of characteristic lesions by examination of frozen brain tissue. This diagnosis can be made in the U.S. only by the National Prion Disease Pathology Surveillance Center (NPDPSC) in Cleveland, Ohio.
- Detection of abnormal prion protein by Western blot testing performed on frozen brain tissue, or by immunohistochemistry (IHC)/histology performed on fixed tissue.

Presumptive Testing

- Detection of 14-3-3 protein in CSF.
- Genetic analysis suggestive of the presence of the mutation associated with CJD.
- Detection of characteristic patterns by EEG or MRI

Case Classification

When possible, each case of CJD should be classified into one of the types according to the mode of transmission.

Confirmed

A case that meets at least one of the confirmatory laboratory criteria and only when performed by the NPDPSC.

- Iatrogenic CJD meets the above criteria PLUS
    - Progressive cerebellar syndrome in a recipient of human cadaveric-derived hormone or
    - A CJD recognized exposure risk (i.e. antecedent neurosurgery with dura mater implantation, corneal transplants, brain surgery).
- Familial CJD meets the above criteria PLUS
    - Confirmed or Probable CJD in a first degree relative
- Sporadic CJD meets the above criteria PLUS
    - No evidence of iatrogenic and familial CJD

Probable
A case that meets one of the presumptive laboratory criteria and in which three of the five clinical findings described above are present. Findings must include progressive dementia with clinical duration lasting < 2 years. Routine investigations should not suggest an alternative diagnosis.

- Iatrogenic CJD meets the above criteria PLUS
    - Progressive cerebellar syndrome in a recipient of human cadaveric-derived hormone or
    - A recognized CJD exposure risk (i.e. antecedent neurosurgery with dura mater implantation, corneal transplants, brain surgery).
- Familial CJD meets the above criteria PLUS
    - Confirmed or Probable CJD in a first degree relative
- Sporadic CJD meets the above criteria PLUS
    - No evidence of iatrogenic and familial CJD

Suspect
A case that meets one of the presumptive laboratory criteria and in which no clinical information is known and routine investigations should not suggest an alternative diagnosis.

Comments

Additional information and forms may be obtained by visiting the website for the National Prion Disease Pathology Surveillance Center at Case Western Reserve University in Cleveland, Ohio at www.cjdsurveillance.com. CJD is reportable in Arizona but is not a nationally notifiable condition. ADHS should be notified of all pending case investigations involving possible CJD and may coordinate shipment of specimens to the NPDPSC.

Additional information regarding the different CJD classifications based on mode of transmission is included below:

- Classical (Sporadic or Spontaneous) CJD: CJD of unexplained origin and presumably autochthonous. The prevalence of classical CJD is about one case per 1,000,000 population/year. This type of CJD typically strikes older individuals with the vast majority of cases occurring in those over 65 years of age (median = 68 years). Median duration of illness is 4-5 months.
- Iatrogenic CJD: Occurs as a result of exposure to infectious prions during a medical procedure. Corneal transplants, dura mater grafts, brain surgery, and growth or gonadotropic hormones made from human pituitary glands have all been implicated in iatrogenic CJD cases.
- Familial (Genetic) CJD: Same general characteristics as classical CJD, but a case may be given this classification when the patient has a known family history of rapid-onset dementia.
- (New) Variant CJD: Associated with consumption of Bovine Spongiform Encephalopathy- (BSE, aka “Mad Cow Disease”) infected beef. Only three cases with this form of CJD have been found in the U.S. and all cases had acquisition of the disease almost certainly in countries with BSE-contaminated cattle products (United Kingdom and Saudi Arabia). The typical age of onset of Variant CJD is much younger than Classical CJD (median = 28 years). Median duration of illness is 13-14 months.
- Human cases of CJD associated with consumption of venison contaminated with Chronic Wasting Disease (CWD) prions have not been documented. If such a situation were to occur, it would most likely be classified as a new type of CJD.

CONTROL MEASURES

Arizona Administrative Code R9-6-319 Creutzfeldt-Jakob Disease

Case Control Measures:
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Creutzfeldt-Jakob disease case or suspect case; and
2. For each Creutzfeldt-Jakob disease case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/cjdform.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

CRYPTOSPORIDIOSIS (*Cryptosporidium parvum*)	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

A gastrointestinal illness characterized by diarrhea with a duration of 72 hours or more, abdominal cramping, fever, nausea, vomiting or anorexia.

Laboratory Criteria for Diagnosis

Confirm*atory *Testing
The detection of *Cryptosporidium* organisms or DNA in stool, intestinal fluid, tissue samples, biopsy specimens, or other biological sample by certain laboratory methods with a high positive predictive value (PPV), e.g.,

- Direct fluorescent antibody [DFA] test,
- Polymerase chain reaction [PCR],
- Enzyme immunoassay [EIA], or
- Light microscopy of stained specimen.

Presumptive Testing
The detection of *Cryptosporidium* antigen by a screening method, such as immunochromatographic card/rapid card test; or laboratory test of unknown method.

Case Classification

Confirmed
A case that meets the clinical description and the respective criteria for laboratory-confirmation as described above.

Probable
A case that meets the clinical description and either meets the presumptive criteria for laboratory diagnosis or is epidemiologically linked to a confirmed case.

Comment

Test results known to be obtained with commercially-available immunochromatographic card tests are limited to meeting “probable” case criteria due to recent report of unacceptably high rates of false-positive results (Clin Infect Dis. 2010 Apr 15;50(8):e53-55)

CONTROL MEASURES

Arizona Administrative Code R9-6-320 Cryptosporidiosis (*Cryptosporidium parvum*)

Case Control Measures

A local health agency shall:

1. Exclude a cryptosporidiosis case or suspect case with diarrhea from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until diarrhea has resolved;
2. Conduct an epidemiologic investigation of each reported cryptosporidiosis case or suspect case; and
3. For each cryptosporidiosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

- http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_crypto.doc - Individual Case
- http://www.azdhs.gov/phs/oids/pdf/forms/outbreakreport.pdf - Outbreak Report

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	ADHS edited the case definition in 2012 to match CDC/CSTE but kept additional comments about laboratory tests.
Most Recent CDC/CSTE Revision Year	2012

CYCLOSPORAISIS (Cyclopora cayetanensis)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness of variable severity caused by the protozoan parasite *Cyclospora cayetanensis* and commonly characterized by watery diarrhea. Other common symptoms include 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

Detection of *Cyclospora* organisms or DNA in stool, intestinal fluid/aspirate, or intestinal biopsy specimens.

Case Classification

Confirmed
A case that meets the clinical description and at least one of the criteria for laboratory confirmation as described above.

Probable
A case that meets the clinical description and that is epidemiologically linked to a confirmed case.

CONTROL MEASURES

Arizona Administrative Code R9-6-321 *Cyclospora* Infection

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported *Cyclospora* infection case or suspect case; and
2. For each *Cyclospora* infection case submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

CYSTICERCOSIS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Cysticercosis is a tissue infection with the larval stage of the pork tapeworm, *Taenia solium*. When tapeworm eggs or proglottids are swallowed, the hatching eggs release larvae which can migrate from the intestine into tissues (including muscle, organs or central nervous system (CNS)) where they form cysts or cysticerci. The occurrence of cysticerci in the CNS (neurocysticercosis) can present with headache, epileptiform seizures, signs of intracranial hypertension, or psychiatric disturbances.

Laboratory Criteria for Diagnosis

Diagnosis can be made from:

- Microscopic examination of excised cysticerci from tissues, OR
- Recognition of cysticerci by CAT scan, MRI, or, when calcified, X-ray, OR
- Specific serologic tests.

Case Classification

Confirmed
A case with cysticerci in tissues or CNS identified by microscopy

Probable
A clinically compatible case with suspected cysticerci visualized in CAT scan, MRI, or X-ray, OR positive serologic tests.

CONTROL MEASURES

Arizona Administrative Code R9-6-322 Cysticercosis

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported cysticercosis case or suspect case; and
2. For each cysticercosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

DENGUE FEVER
(DENGUE HEMORRHAGIC FEVER)
(DENGUE SHOCK SYNDROME)

SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Dengue fever (DF) is most commonly an acute febrile illness defined by the presence of fever and two or more of the following: retro-orbital or ocular pain, headache, rash, myalgia, arthralgia, leukopenia, or hemorrhagic manifestations (e.g., positive tourniquet test, petechiae; purpura/ecchymosis; epistaxis; gum bleeding; blood in vomitus, urine, or stool; or vaginal bleeding) but not meeting the case definition of dengue hemorrhagic fever. Anorexia, nausea, abdominal pain, and persistent vomiting may also occur but are not case-defining criteria for DF.

Dengue hemorrhagic fever (DHF) is characterized by all of the following

- Fever lasting from 2-7 days
- Evidence of hemorrhagic manifestation or a positive tourniquet test
- Thrombocytopenia (≤100,000 cells per mm^3)
- Evidence of plasma leakage shown by hemoconcentration (an increase in hematocrit ≥20% above average for age or a decrease in hematocrit ≥20% of baseline following fluid replacement therapy), OR pleural effusion, or ascites or hypoproteinemia.

Dengue shock syndrome (DSS) has all of criteria for DHF plus circulatory failure as evidenced by

- Rapid and weak pulse and narrow pulse pressure (<20mm Hg), OR
- Age-specific hypotension and cold, clammy skin and restlessness

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Isolation of dengue virus from or demonstration of specific arboviral antigen or genomic sequences in tissue, blood, cerebrospinal fluid (CSF), or other body fluid by polymerase chain reaction (PCR) test, immunofluorescence or immunohistochemistry, OR
- Seroconversion from negative for dengue virus-specific serum Immunoglobulin M (IgM) antibody in an acute phase (≤ 5 days after symptom onset) specimen to positive for dengue-specific serum IgM antibodies in a convalescent-phase specimen collected ≥5 days after symptom onset, OR
- Demonstration of a ≥4-fold rise in reciprocal Immunoglobulin G (IgG) antibody titer or Hemagglutination inhibition titer to dengue virus antigens in paired acute and convalescent serum samples, OR
- Demonstration of a ≥4-fold rise in PRNT (plaque reduction neutralization test) end point titer (as expressed by the reciprocal of the last serum dilution showing a 90% reduction in plaque counts compared to the virus infected control) between dengue viruses and other flaviviruses tested in a convalescent serum sample, OR
- Virus-specific immunoglobulin M (IgM) antibodies demonstrated in CSF.

Presumptive Testing
Dengue-specific IgM antibodies present in serum with a P/N ratio ≥2.

Exposure

- Travel to a dengue endemic country or presence at location with ongoing outbreak within previous two weeks of dengue-like illness, OR
- Association in time and place with a confirmed or probable dengue case.

Case Classification

Confirmed
A clinically compatible case of DF, DHF, or DSS with confirmatory laboratory results

Probable
A clinically compatible case of DF, DHF, or DSS with laboratory results indicative of presumptive infection

Suspect
A clinically compatible case of DF, DHF or DSS that is epidemiologically linked to a confirmed case

Comment

Asymptomatic Blood or Tissue Donor: Dengue virus-specific viral antigen or genomic sequences demonstrated in donated blood or organs during screening and confirmatory testing in the absence of symptoms in the donor.

Dengue viruses are members of the Flaviviridae and have sufficient antigenic similarity to yellow fever virus, Japanese encephalitis virus, and West Nile virus that previous infection or vaccination may raise cross-reactive serum antibodies. After a primary infection with a heterologous flavivirus, subsequent antibody testing by ELISA may produce false positive results for a different flavivirus. PRNT can often resolve cross-reactive serum antibodies in this situation and identify the infecting virus. However, high-titered cross-reactive antibody levels produced from multiple previous flavivirus infections cannot be resolved by PRNT. This demonstrates the complexity inherent in serological diagnosis and differentiation in populations living in regions where more than one flavivirus co-circulates. However, only a small proportion of the U.S. population has evidence of previous flavivirus infection (or vaccination) so that cross-reactive flavivirus antibodies should not be a significant limitation to dengue diagnosis among most US travelers. Among U.S. residents, most testing for dengue is done through private clinical laboratories using IgM or IgG detection techniques.

Reference testing is available from CDC's Dengue Branch, Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, 1324 Calle Cañada, San Juan, PR 00920-3860, telephone 787-706-2399, fax 787-706-2496

CONTROL MEASURES

Arizona Administrative Code R9-6-323 Dengue

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported dengue case or suspect case; and
2. For each dengue case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/dengueform.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

DIARRHEA, NAUSEA, OR VOMITING	REPORT OUTBREAKS ONLY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Possible outbreaks of disease come to the attention of public health officials in various ways. Often, an astute clinician, infection control nurse, or clinical laboratory worker first notices an unusual disease or an unusual number of cases of a disease and alerts public health officials. Frequently, it is the patient (or someone close to the patient) who first suspects a problem, as is often the case in foodborne outbreaks after a shared meal.

Outbreak Definition for Diarrhea, Nausea, or Vomiting

An outbreak of D, N, V is defined as two or more people not from the same household or family diagnosed or detected within a one-week period with similar illness consisting of a new onset of diarrhea, nausea and/or vomiting all of whom have a common exposure (ingestion of common food, residence in common location, or other exposure or event common to those ill).

Case Definition of Gastroenteritis (D, N, V)

A case of gastroenteritis is defined as a person with new onset of nausea, diarrhea and/or vomiting. Diarrhea is defined as two or more loose stools per 24 hour period or an unexplained increase in the number of bowel movements.

CONTROL MEASURES

Arizona Administrative Code R9-6-324: Diarrhea, Nausea, or Vomiting

Environmental Control Measures

A local health agency shall:

1. Conduct a sanitary inspection or ensure that a sanitary inspection is conducted of each water, sewage, or food preparation facility associated with an outbreak of diarrhea, nausea, or vomiting.

Outbreak Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported outbreak of diarrhea, nausea, or vomiting;
2. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F) for:
    a. Each suspected foodborne illness outbreak,
    b. Each suspected waterborne illness outbreak, and
    c. Each outbreak of viral gastroenteritis

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/outbreakreport.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

DIPHTHERIA	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

Laboratory Criteria for Diagnosis

- Isolation of *Corynebacterium diphtheriae* from the nose or throat, or
- 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 without a more likely diagnosis that is not laboratory confirmed, and is not epidemiologically linked to a laboratory-confirmed case.

Comment

All diphtheria isolates, whether associated with disease or not, should be forwarded to the Arizona State Public Health Laboratory.

CONTROL MEASURES

Arizona Administrative Code R9-6-325 Diphtheria

Case control measures:

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall:
    a. Isolate and institute droplet precautions for a pharyngeal diphtheria case or suspect case until:
        i. Two successive sets of cultures negative for *Cornyebacterium diphtheriae* are obtained from nose and throat specimens collected from the case or suspect case at least 24 hours apart and at least 24 hours after cessation of treatment; or
        ii. Fourteen calendar days after initiation of treatment; and
    b. Isolate and institute contact precautions for a cutaneous diphtheria case or suspect case until:
        i. Two successive sets of cultures negative for *Cornyebacterium diphtheriae* are obtained from skin specimens collected from the case or suspect case at least 24 hours apart and at least 24 hours after cessation of treatment; or

ii. Fourteen calendar days after initiation of treatment.

2. A local health agency shall:
    a. Upon receiving a report under R9-6-202 of a diphtheria case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
    b. Conduct an epidemiologic investigation of each reported diphtheria case or suspect case; and
    c. For each diphtheria case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures:
A local health agency shall:

1. Exclude each diphtheria contact from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a school or child care establishment until a set of cultures negative for *Cornyebacterium diphtheriae* is obtained from the contact's nose and throat specimens;
2. In consultation with the Department, quarantine a contact of a diphtheria case, if indicated, until two successive sets of cultures negative for *Cornyebacterium diphtheriae* are obtained from nose and throat specimens collected from the contact at least 24 hours apart;
3. Offer each previously immunized diphtheria contact a vaccine containing diphtheria toxoid; and
4. Offer each unimmunized diphtheria contact the primary

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

EHRLICHIOSIS / ANAPLASMOSIS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

A tick-borne illness characterized by acute onset of fever and one or more of the following signs or symptoms: headache, myalgia, malaise, anemia, leukopenia, thrombocytopenia, or elevated liver enzymes. Nausea, vomiting, or rash may be present in some cases.

Intracytoplasmic bacterial aggregates (morulae) may be visible in the leukocytes of some patients. There are at least three species of bacteria responsible for ehrlichia/anaplasmosis in the U.S.: *Ehrlichia chaffeensis*, found primarily in monocytes, and *Anaplasma phagocytophilum* and *Ehrlichia ewingii*, found primarily in granulocytes*.

Four categories of confirmed or probable ehrlichiosis/anaplasmosis should be reported:

1. Human ehrlichiosis caused by *E. chaffeensis* (formerly Human Monocytic Ehrlichiosis or HME),
2. Human ehrlichiosis caused by *E. ewingii* (formerly unspecified or other agent),
3. Human anaplasmosis caused by *Anaplasma phagocytophilum* (formerly Human Granulocytic Ehrlichiosis or HGE), and
4. Human ehrlichiosis/anaplasmosis- undetermined. Cases in this category can only be reported as “probable” because the cases are only weakly supported by ambiguous lab test results.

*Note: The clinical signs of disease from infection with these agents are similar, and the range distributions overlap, so testing for one or more species may be indicated. Serologic cross-reactions may occur among tests for these agents.

Clinical evidence

Any reported fever and one or more of the following: headache, myalgia, anemia, leukopenia, thrombocytopenia, or any hepatic transaminase elevation.

Exposure

History of having been in potential tick habitat in the 14 days prior to the onset of illness or history of tick bite.

Laboratory Criteria for Surveillance

Ehrlichia chaffeensis infection (formerly HME):

Confirmatory Testing

- Serological evidence of a four-fold change in immunoglobulin G (IgG)-specific antibody titer to *E. chaffeensis* antigen by indirect immunofluorescence assay (IFA) in paired serum samples (one taken in first week of illness and a second 2-4 weeks later), OR
- Detection of *E. chaffeensis* DNA in a clinical specimen via PCR assay, OR

- Demonstration of ehrlichial antigen in a biopsy or autopsy sample by IHC, OR
- Isolation of *E. chaffeensis* from a clinical specimen in cell culture.

Supportive Testing

- Serological evidence of elevated IgG or IgM antibody reactive with *E. chaffeensis* antigen by IFA, ELISA, dot-ELISA, or assays in other acceptable formats, OR
- Identification of morulae in the cytoplasm of monocytes or macrophages by microscopic examination.

Ehrlichia ewingii infection (formerly unspecified or other agent):

Confirmatory Testing

Detection of *E. ewingii* DNA in a clinical specimen via PCR assay. *E. ewingii* has never been cultured; therefore, antigens are not available and this infection may only be diagnosed by molecular detection methods.

Anaplasma phagocytophilum infection (formerly HGE):

Confirmatory Testing

- Serological evidence of a four-fold change in IgG-specific antibody titer to *A. phagocytophilum* antigen by IFA in paired serum samples, OR
- Detection of *A. phagocytophilum* DNA in a clinical specimen via PCR assay, OR
- Demonstration of anaplasma antigen in a biopsy or autopsy sample by IHC, OR
- Isolation of *A. phagocytophilum* from a clinical specimen in cell culture.

Supportive Testing

- Serological evidence of elevated IgG or IgM antibody reactive with *A. phagocytophilum* antigen by IFA, ELISA, dot-ELISA, or assays in other acceptable formats, OR
- Identification of morulae in the cytoplasm of neutrophils or eosinophils by microscopic examination.

Human ehrlichiosis/anaplasmosis - undetermined:

See case classification

Case Classification

Confirmed

A clinically compatible case that meets the criteria for clinical evidence criteria and for confirmatory laboratory testing.

Probable

A clinically compatible case that meets clinical evidence criteria and has supportive laboratory results. For ehrlichiosis/anaplasmosis, an undetermined case can only be classified as probable. An undetermined case has compatible clinical criteria with lab evidence to support ehrlichia/anaplasma infection, but not with sufficient clarity to definitively place it in one of the categories described. This may include identification of morulae in white cells by microscopic examination in the absence of other supportive lab results.

Suspect
A case with lab evidence of past or present infection but no clinical information available (e.g., a lab report).

Comment

Problem cases for which sera demonstrate elevated antibody IFA responses to more than a single infectious agent are usually resolvable by comparing the levels of the antibody responses, the greater antibody response generally being that directed at the actual agent involved. Tests of additional sera and further evaluation using PCR, IHC, and isolation via cell culture may be needed for further clarification. Cases involving persons infected with more than a single agent, while possible, are extremely rare and every effort should be made to resolve cases that appear as such by other explanations.

Current commercially available ELISA tests are not quantitative, cannot be used to evaluate changes in antibody titer, and are not useful for serological confirmation. IgM tests are not always specific and the IgM response may be persistent. IgM tests are not strongly supported for use in serodiagnosis of acute disease.

CONTROL MEASURES

Arizona Administrative Code R9-6-326 Ehrlichioses (Ehrlichiosis and Anaplasmosis)

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported ehrlichiosis or anaplasmosis case or suspect case; and
2. For each ehrlichiosis or anaplasmosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	ADHS 2013 case definitions revised in 2012 to match CDC/CSTE.
Most Recent CDC/CSTE Revision Year	2008

EMERGING OR EXOTIC DISEASE	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Definition

Emerging or Exotic Diseases are defined as those meeting one of the following definitions:

- A disease which is newly appeared in the population, or
- A disease whose incidence in humans has increased in the past two decades or threatens to increase in the near future, or
- A disease with increasing incidence in a defined time period and location

Examples may include:

- New infections resulting from changes or evolution of existing organisms
- Known infections spreading to new geographic areas or populations
- Previously unrecognized infections appearing in areas undergoing ecologic transformation
- Old infections reemerging as a result of antimicrobial resistance in known agents or breakdown in public health measures

Case reports of emerging or exotic disease should specify the morbidity and etiological agent, if known, and may be subject to additional clinical or laboratory criteria for classification.

CONTROL MEASURES

Arizona Administrative Code R9-6-327 Emerging or Exotic Disease

Case Control Measures

A local health agency shall:

1. Upon receiving a report under R9-6-202 of an emerging or exotic disease case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. In consultation with the Department, isolate an emerging or exotic disease case or suspect case as necessary to prevent transmission;
3. Conduct an epidemiologic investigation of each reported emerging or exotic disease case or suspect case; and
4. For each emerging or exotic disease case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency, in consultation with the Department,

1. Shall quarantine an emerging or exotic disease contact as necessary to prevent transmission.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

ENCEPHALITIS, PARASITIC	SUBMIT A REPORT WITHIN 1 WORKING DAY

CASE DEFINITION

The definitions for encephalitis caused by free-living amebae infections are below. Cases of parasitic encephalitis caused by other organisms not represented here may also occur and be counted as cases.

Clinical Description

1. ***Naegleria fowleri* Causing Primary Amebic Meningoencephalitis (PAM)**

N. fowleri is a free-living ameboflagellate that invades the brain and meninges via the nasal mucosa and olfactory nerve to cause acute, fulminant hemorrhagic meningoencephalitis (primary amebic meningoencephalitis – PAM), primarily in healthy children and young adults with a recent history of exposure to warm fresh water. Initial signs and symptoms of PAM begin 1 to 14 days after infection and include sudden onset of headache, fever, nausea, vomiting, and stiff neck accompanied by positive Kernig's and Brudzinski's signs. In some cases, abnormalities in taste or smell, nasal obstruction and nasal discharge might be seen. Other symptoms might include photophobia, mental-state abnormalities, lethargy, dizziness, loss of balance, other visual disturbances, hallucinations, delirium, seizures, and coma. After the onset of symptoms, the disease progresses rapidly and usually results in death within 3 to 7 days. Although a variety of treatments have been shown to be active against amebae in vitro and have been used to treat infected persons, most infections have still been fatal.

Laboratory Criteria for Diagnosis

Confirmatory Testing
N. fowleri infection is defined as the detection of *N. fowleri*

- Organisms in CSF, biopsy, or tissue specimens, or
- Nucleic acid (e.g,. polymerase chain reaction) in CSF, biopsy, or tissue specimens, or
- Antigen (e.g., direct fluorescent antibody) in CSF, biopsy, or tissue specimens.

Comment

N. fowleri might cause clinically similar illness to bacterial meningitis, particularly in its early stages. Definitive diagnosis by a reference laboratory might be required. Unlike *Balamuthia mandrillaris* and *Acanthamoeba* spp., *Naegleria fowleri* is commonly found in CSF.

2. ***Balamuthia mandrillaris* Disease**

B. mandrillaris is an opportunistic free-living ameba that can invade the brain through the blood, probably from a primary infection in the skin (from ulcers or dermatitis), sinuses, or via organ transplantation. The incubation period is not well-characterized but has been observed to range from 2 weeks to months or possibly years. Once in the brain, the amebae can cause meningoencephalitis and/or granulomatous amebic encephalitis (GAE). *B. mandrillaris* GAE often has a slow, insidious onset and develops into a subacute or chronic disease lasting several weeks to months; however, *B. mandrillaris* infections associated with organ transplantation have an especially rapid clinical course. *B. mandrillaris* GAE affects both immunocompetent persons and persons who are immunosuppressed

from a variety of causes (e.g., HIV/AIDS, organ transplantation). Initial symptoms of *B. mandrillaris* GAE might include headache, photophobia, and stiff neck accompanied by positive Kernig's and Brudzinski's signs. Other symptoms might include nausea, vomiting, low-grade fever, muscle aches, weight loss, mental-state abnormalities, lethargy, dizziness, loss of balance, cranial nerve palsies, other visual disturbances, hemiparesis, seizures, and coma. Painless skin lesions appearing as plaques a few millimeters thick and one to several centimeters wide have been observed in some patients, especially patients outside the U.S., preceding the onset of neurologic symptoms by 1 month to approximately 2 years. Once the disease progresses to neurologic infection, it is generally fatal within weeks or months; however, a few patients have survived this infection.

Laboratory Criteria for Diagnosis

Laboratory-confirmed *B. mandrillaris* infection is defined as the detection of *B. mandrillaris*

- Organisms in CSF, biopsy, or tissue specimens, or
- Nucleic acid (e.g,. polymerase chain reaction) in CSF, biopsy, or tissue specimens, or
- Antigen (e.g., direct fluorescent antibody) in CSF, biopsy, or tissue specimens.

Comment

B. mandrillaris and *Acanthamoeba* spp. can cause clinically similar illnesses and might be difficult to differentiate using commonly available laboratory procedures. Definitive diagnosis by a reference laboratory might be required. A negative test on CSF does not rule out *B. mandrillaris* infection because the organism is not commonly present in the CSF.

3. *Acanthamoeba* Disease (excluding keratitis)

The genus *Acanthamoeba* includes several species of opportunistic free-living amebae that might invade the brain through the blood, probably from a primary infection in the skin (from ulcers or dermatitis) or sinuses. Once in the brain, the amebae cause granulomatous amebic encephalitis (GAE). *Acanthamoeba* GAE has a slow and insidious onset and develops into a subacute or chronic disease lasting several weeks to months. *Acanthamoeba* GAE affects both immunocompetent persons and persons who are immunosuppressed from a variety of causes (e.g., HIV/AIDS, organ transplantation). Initial symptoms of *Acanthamoeba* GAE might include headache, photophobia, and stiff neck accompanied by positive Kernig's and Brudzinski's signs. Other symptoms might include nausea, vomiting, low-grade fever, muscle aches, weight loss, mental-state abnormalities, lethargy, dizziness, loss of balance, cranial nerve palsies, other visual disturbances, hemiparesis, seizures, and coma. Once the disease progresses to neurologic infection, it is generally fatal within weeks or months. However, a few patients have survived this infection.

Laboratory Criteria for Diagnosis

Confirmatory Testing

Acanthamoeba spp. infections (excluding keratitis) are defined as the detection of *Acanthamoeba* spp.

- Organisms in CSF, biopsy, or tissue specimens, or
- Nucleic acid (e.g,. polymerase chain reaction) in CSF, biopsy, or tissue specimens, or
- Antigen (e.g., direct fluorescent antibody) in CSF, biopsy, or tissue specimens.

Comment

Acanthamoeba and *B. mandrillaris* can cause clinically similar illnesses and might be difficult to differentiate using commonly available laboratory procedures. Definitive diagnosis by a reference laboratory might be required. Several species of *Acanthamoeba* are associated with infection (i.e., *A. castellanii*, *A. culbertsoni*, *A. hatchetti*, *A. healyi*, *A. polyphaga*, *A. rhysodes*, *A. astonyxis*, *A. lenticulata* and *A. divionensis*). A negative test on CSF does not rule out *Acanthamoeba* infection because the organism is not commonly present in the CSF.

4. Acanthamoeba keratitis

Acanthamoeba keratitis is a local infection of the cornea (outer layer of the visual pathway of the eye) caused by a microscopic, free-living ameba belonging to the genus *Acanthamoeba*. Symptoms include foreign body sensation, photophobia, decreased visual acuity, tearing, pain, and redness of the eye. It occurs most typically among healthy, contact lens users, but can occur in anyone. Although treatable with topical medications, affected individuals are at risk for permanent visual impairment or blindness. *Acanthamoeba* organisms are ubiquitous in nature and can be found in bodies of water (e.g., lakes and oceans), soil, and air.

Laboratory Criteria for Diagnosis

Laboratory-confirmed *Acanthamoeba* spp. keratitis infections are defined as the detection of *Acanthamoeba* spp.

- Organisms in corneal scraping, or biopsy specimens, or
- Nucleic acid (e.g., polymerase chain reaction) in corneal scraping, or biopsy specimens, or
- Antigen (e.g., direct fluorescent antibody) in corneal scraping, or biopsy specimens.

Case Classification

Confirmed
A clinically compatible illness that is laboratory confirmed. When available, species designation and molecular characterization (e.g., genotype) should be documented.

Probable
A clinically compatible illness with positive identification of *Acanthamoeba* trophozoites or cysts using confocal microscopy

CONTROL MEASURES

Arizona Administrative Code R9-6-328 Encephalitis: Viral or Parasitic

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a viral or parasitic encephalitis case or suspect case, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported viral or parasitic encephalitis case or suspect case; and
3. For each encephalitis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/Free-livingAmebaCaseReport.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	Definitions for free-living amebic infections moved into Encephalitis, parasitic in 2013.
Most Recent CDC/CSTE Revision Year	N/A

ENCEPHALITIS, VIRAL	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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).

Clinical Criteria for Diagnosis

Neuroinvasive disease requires the presence of fever and at least one of the following, as documented by a physician and in the absence of a more likely clinical explanation:

- Acutely altered mental status (e.g., disorientation, obtundation, stupor, or coma), OR
- Other acute signs of central or peripheral neurologic dysfunction (e.g., paresis or paralysis, nerve palsies, sensory deficits, abnormal reflexes, generalized convulsions, or abnormal movements), OR
- Pleocytosis (increased white blood cell concentration in cerebrospinal fluid [CSF]) associated with illness clinically compatible with meningitis (e.g., headache or stiff neck).

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), OR
- Confirmation of the parasite by a method approved by ADHS and/or CDC.

Case Classification

Confirmed
An encephalitis or meningitis case that is laboratory confirmed

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.

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. These encephalitides/meningitides 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), and other viral CNS infections transmitted by mosquitoes, ticks, or midges (e.g., Venezuelan equine encephalitis/meningitis and Cache Valley encephalitis/meningitis).

CONTROL MEASURES

Arizona Administrative Code R9-6-328 Viral or Parasitic

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a viral or parasitic encephalitis case or suspect case, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported viral or parasitic encephalitis case or suspect case; and
3. For each encephalitis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

ENTEROHEMORRHAGIC *ESCHERICHIA COLI*
E. coli* O157:H7 or Shiga toxin-producing *E. coli SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An infection of variable severity characterized by diarrhea (often bloody) and abdominal cramps. Illness may be complicated by hemolytic uremic syndrome (HUS) . (Note, some clinicians still use the term thrombotic thrombocytopenic purpura [TTP] for adults with post-diarrheal HUS.); asymptomatic infections also may occur and the organism may rarely cause extraintestinal infections.

Laboratory Criteria for Diagnosis

Confirmatory results

- Isolation of Shiga toxin-producing *Escherichia coli* from a clinical specimen, OR
- Isolation of *E. coli* O157:H7 from a specimen, OR
- For all other *E. coli* isolates, identification of Shiga toxin or Shiga toxin genes

Supportive results

- A case with isolation of *E. coli* O157 from a clinical specimen, without confirmation of H antigen or Shiga toxin production
- Identification of an elevated antibody titer to a known STEC serotype from a clinically compatible case
- Identification of Shiga toxin in a specimen from a clinically compatible case without the isolation of STEC

Case Classification

Confirmed

A case that meets the confirmatory laboratory criteria for diagnosis

Probable

- A case with isolation of *E. coli* O157 from a clinical specimen, without confirmation of H antigen7 or Shiga toxin production, OR
- A clinically compatible case that is epidemiologically linked to a confirmed or probable case or is a member of a defined risk group during an outbreak, OR
- Identification of Shiga toxin in a specimen from a clinically compatible case if no specimen is available to culture, OR
- Identification of an elevated antibody titer to a known Shiga toxin-producing *E. coli* EHEC serotype from a clinically compatible case

Suspect

- A case of post-diarrheal HUS (see HUS case definition), or
- Identification of Shiga toxin in a specimen from a clinically compatible case with a negative culture or inability to isolate Shiga toxin-producing *E. coli* from culture.

Comment

When available, O and H antigen serotype characterization should be reported. Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.

CONTROL MEASURES

Arizona Administrative Code R9-6-329 Enterohemorrhagic *Escherichia coli*

Case Control Measures

A local health agency shall:

1. Exclude an enterohemorrhagic *Escherichia coli* case or suspect case with diarrhea from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until:
    a. Two successive cultures negative for enterohemorrhagic *Escherichia coli* are obtained from stool specimens collected from the case at least 24 hours apart and at least 48 hours after discontinuing antibiotics, or
    b. Diarrhea has resolved
2. Conduct an epidemiologic investigation of each reported enterohemorrhagic *Escherichia coli* case or suspect case; and
3. For each enterohemorrhagic *Escherichia coli* case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency shall

1. Exclude an enterohemorrhagic *Escherichia coli* contact with diarrhea of unknown cause from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until diarrhea has resolved.

Environmental Control Measures

A local health agency shall

1. If an animal located in a private residence is suspected to be the source of infection for an enterohemorrhagic Escherichia coli case or outbreak, provide health education for the animal's owner about enterohemorrhagic *Escherichia coli* and the risks of becoming infected with enterohemorrhagic *Escherichia coli*; and
2. If an animal located in a setting other than a private residence is suspected to be the source of infection for an enterohemorrhagic *Escherichia coli* case or outbreak:
    a. Provide health education for the animal's owner about enterohemorrhagic *Escherichia coli* and the risks of becoming infected with enterohemorrhagic *Escherichia coli*, and
    b. Require the animal's owner to provide information to individuals with whom the animal may come into contact about enterohemorrhagic *Escherichia coli* and methods to reduce the risk of transmission.

INVESTIGATION FORMS

http://azdhs.gov/phs/oids/pdf/forms/EColiHUSLongform2010.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	2014: Modifications were made to the supportive laboratory results to match the 2014 CDC/CSTE case definitions. 2013: ADHS case definition was edited to match CDC/CSTE except for a difference in the suspect and probable case classifications for classifying cases when no specimen is available to culture.
Most Recent CDC/CSTE Revision Year	2014

ENTEROTOXIGENIC *ESCHERICHIA COLI* (ETEC)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Diarrhea caused by enterotoxigenic *E. coli* or ETEC is a self-limited illness lasting 1 to 5 days of moderate severity with watery stools and abdominal cramps. Vomiting, dehydration, and low grade fever may also be present.

Laboratory Criteria for Diagnosis

Demonstration of production of enterotoxin in an *E. coli* isolate by a technique that is able to identify heat-labile toxin (LT) and heat-stable toxin (ST).

Case Classification

Confirmed
A clinically compatible case that is laboratory confirmed

Probable
A clinically compatible case that is epidemiologically linked to a probable or confirmed case

CONTROL MEASURES

Arizona Administrative Code R9-6-330 Enterotoxigenic *Escherichia coli*

Case Control Measures
A local health agency shall:

1. Exclude an enterotoxigenic *Escherichia coli* case or suspect case with diarrhea from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until:
    a. Two successive cultures negative for enterotoxigenic *Escherichia coli* are obtained from stool specimens collected from the case at least 24 hours apart and at least 48 hours after discontinuing antibiotics, or
    b. Diarrhea has resolved;
2. Conduct an epidemiologic investigation of each reported enterotoxigenic *Escherichia coli* case or suspect case; and
3. For each enterotoxigenic *Escherichia coli* case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures
A local health agency shall

1. Exclude an enterotoxigenic *Escherichia coli* contact with diarrhea of unknown cause from working as a food handler until diarrhea has resolved.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/EColiHUSLongform2010.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

FOODBORNE DISEASE OUTBREAK	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Symptoms of illness depend upon etiologic agent. Please see Appendix B, "Guidelines for Confirmation of Foodborne-Disease Outbreaks" at http://www.cdc.gov/outbreaknet/references_resources/guide_confirming_diagnosis.html

Laboratory Criteria for Diagnosis

Dependent upon the etiologic agent.

Please see Appendix B, "Guidelines for Confirmation of Foodborne-Disease Outbreaks" at http://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/confirming_diagnosis.html.

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 linked to a food item constitutes an outbreak.

CONTROL MEASURES

Arizona Administrative Code R9-6-324 Diarrhea, Nausea, or Vomiting

Environmental Control Measures

A local health agency shall

1. Conduct a sanitary inspection or ensure that a sanitary inspection is conducted of each: water, sewage, or food preparation facility associated with an outbreak of diarrhea, nausea, or vomiting.

Outbreak Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported outbreak of diarrhea, nausea, or vomiting;
2. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F) for:
    a. Each suspected foodborne illness outbreak,
    b. Each suspected waterborne illness outbreak, and
    c. Each outbreak of viral gastroenteritis

INVESTIGATION FORMS:

Foodborne Outbreak: http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_spn_frk.pdf
Norovirus: http://www.azdhs.gov/phs/oids/pdf/forms/norovirus.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2011

GIARDIASIS	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness caused by the protozoan *Giardia lamblia* (aka *G. intestinalis* or *G. duodenalis*) and characterized by gastrointestinal symptoms such as diarrhea, abdominal cramps, bloating, weight loss, or malabsorption.

Laboratory Criteria for Diagnosis

Laboratory-confirmed giardiasis is defined as the detection of *Giardia* organisms, antigen, or DNA in stool, intestinal fluid, tissue samples, biopsy specimens or other biological samples.

Case Classification

Confirmed
A case that meets the clinical description and the criteria for laboratory confirmation as described above. When available, molecular characterization (e.g., assemblage designation) should be reported.

Probable
A case that meets the clinical description and that is epidemiologically linked to a confirmed case.

CONTROL MEASURES

Arizona Administrative Code R9-6-331 Giardiasis

Case Control Masures
A local health agency shall

1. Exclude a giardiasis case or suspect case from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until:
    a. Two successive stool specimens negative for *Giardia lamblia* are obtained from specimens collected from the case at least 24 hours apart; or
    b. Treatment for giardiasis is initiated and diarrhea has resolved.

Contact Control Measures
A local health agency shall

1. Exclude a giardiasis contact with diarrhea of unknown cause from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until diarrhea has resolved.

Outbreak Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported giardiasis outbreak;

2. For each giardiasis case involved in an outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
3. For each giardiasis outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_giardia.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CSTE Revision Year	2011

GONORRHEA	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

Laboratory Criteria for Diagnosis

- Isolation of typical gram-negative, oxidase-positive diplococci by culture (presumptive *Neisseria gonorrhoeae*) from a clinical specimen, OR
- Demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or nucleic acid, OR
- Observation of gram-negative intracellular diplococci in a urethral smear obtained from a male or an endocervical smear obtained from a female

Case Classification

Confirmed
A person with laboratory isolation of typical gram-negative, oxidase-positive diplococcic by culture (presumptive *Neisseria gonorrhoeae*) from a clinical specimen, or demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or detection of nucleic acid via nucleic acid amplification (e.g., Polymerase Chain Reaction [PCR]) or hybridization with a nucleic acid probe.
Probable
Demonstration of gram-negative intracellular diplococci in a urethral smear obtained from a male or an endocervical smear obtained from a female.

CONTROL MEASURES

Arizona Administrative Code R9-6-313, R9-6-1101 thru R9-6-1104: Gonorrhea

Case Control Measures:

1. The Department shall review each gonorrhea case report for completeness, accuracy, and need for follow-up.
2. For the prevention of gonorrheal ophthalmia, a physician, physician assistant, registered nurse practitioner, or midwife attending the birth of an infant in this state shall treat the eyes of the infant immediately after the birth with one of the following, unless treatment is refused by the parent or guardian:
    a. Erythromycin ophthalmic ointment 0.5%, or
    b. Tetracycline ophthalmic ointment 1%.
3. A local health agency shall comply with the requirements specified in R9-6-1103 concerning treatment and health education for a gonorrhea case that seeks treatment from the local health agency.

Contact Control Measures:

If an individual who may have been exposed to gonorrhea through sexual contact with a gonorrhea case seeks treatment for symptoms of gonorrhea from a local health agency, the local health agency shall comply with the requirements specified in R9-6-1103 concerning treatment and health education for the individual.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	2014: Laboratory criteria revised to include an endocervical smear obtained from a female; probable case definition modified to remove the criterion of a written morbidity report of gonorrhea submitted by a physician and urethral smear obtained from a male was added; modifications made to match the 2014 CDC/CSTE case definition.
Most Recent CDC/CSTE Revision Year	2014

HAEMOPHILUS INFLUENZAE **(Invasive Disease)**	SUBMIT A REPORT WITHIN 24 HOURS *Haemophilus influenzae*, type b, isolated from a normally sterile site is a 24 hour lab reportable Other reports should be submitted within 5 days

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Invasive disease due to *Haemophilus influenzae* may produce any of several clinical syndromes, including pneumonia, bacteremia, meningitis, epiglottitis, septic arthritis, cellulitis, or purulent pericarditis; less common infections include endocarditis and osteomyelitis.

Laboratory Criteria for Diagnosis

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

Case Classification

Confirmed
Isolation of *Haemophilus influenzae* from a normally sterile body site (e.g., blood or CSF, or, less commonly, joint, pleural, or pericardial fluid).

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.

CONTROL MEASURES

Arizona Administrative Code R9-6-333 *Haemophilus influenzae*: Invasive Disease

Case Control Measures

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and institute droplet precautions for a *Haemophilus influenzae* meningitis or epiglottitis case or suspect case for 24 hours after the initiation of treatment.
2. A local health agency shall:
    a. Conduct an epidemiologic investigation of each reported *Haemophilus influenzae* invasive disease case or suspect case; and
    b. For each *Haemophilus influenzae* invasive disease case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency shall

1. Evaluate the level of risk of transmission from each contact's exposure to a *Haemophilus influenzae* invasive disease case and, if indicated, shall provide or arrange for each contact to receive immunization or treatment

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/hflu_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: Minor revisions to ADHS case definition to better match CDC/CSTE.
Most Recent CDC/CSTE Revision Year	2010

HANSEN'S DISEASE (LEPROSY)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITIONS

Clinical Description

A chronic bacterial disease characterized by the involvement primarily of skin as well as peripheral nerves and the mucosa of the upper airway. Clinical forms of Hansen's disease represent a spectrum reflecting the cellular immune response to *Mycobacterium leprae*. The following characteristics are typical of the major forms of the disease, though these classifications are assigned after a case has been laboratory confirmed.

- *Tuberculoid*: One or a few well-demarcated, hypopigmented, and hypoesthetic or 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 (dimorphous)*: Skin lesions characteristic of both the tuberculoid and lepromatous forms.
- *Indeterminate*: Early lesions, usually hypopigmented macules without developed tuberculoid or lepromatous features but with definite identification of acid-fast bacilli in Fite stained sections

Laboratory Criteria for Diagnosis

- Demonstration of acid-fast bacilli in skin or dermal nerve from a biopsy of skin lesion using Fite stain, without growth of mycobacteria on conventional media (if done), OR
- Identification of noncaseating granulomas with peripheral nerve involvement, without growth of mycobacteria on conventional media (if done).

Case Classification

Confirmed
A clinically compatible illness with confirmatory laboratory results.

CONTROL MEASURES

Arizona Administrative Code R9-6-334 Hansen's Disease (Leprosy)

Case Control Measures:
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Hansen's disease case or suspect case; AND
2. For each Hansen's disease case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures:
In consultation with the Department, a local health agency shall

1. Examine contacts of a Hansen's disease case, if indicated, for signs and symptoms of leprosy at six-to-twelve month intervals for five years after the last exposure to an infectious case.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/HansenInvestForm-Fillable.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS case definition was updated to match the new 2013 CDC/CSTE case definition.
Most Recent CDC/CSTE Revision Year	2013

HANTAVIRUS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Hantavirus pulmonary syndrome (HPS), commonly referred to as hantavirus disease, is a febrile illness characterized by bilateral interstitial pulmonary infiltrates and respiratory compromise usually requiring supplemental oxygen and clinically resembling acute respiratory disease syndrome (ARDS). The typical prodrome consists of fever, chills, myalgia, headache, and gastrointestinal symptoms. Typical clinical laboratory findings include hemoconcentration, left shift in the white blood cell count, neutrophilic leukocytosis, thrombocytopenia, and circulating immunoblasts.

Clinical Case Definition

An illness characterized by one or more of the following clinical features:

- A febrile illness (i.e., temperature greater than 101.0° F [greater than 38.3° C]) corroborated by bilateral diffuse interstitial edema or a clinical diagnosis of acute respiratory distress syndrome (ARDS) or radiographic evidence of noncardiogenic pulmonary edema, or unexplained respiratory illness resulting in death, and occurring in a previously healthy person
- An unexplained respiratory illness resulting in death, with an autopsy examination demonstrating noncardiogenic 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 that is laboratory confirmed

Comment

Laboratory testing should be performed or confirmed at a reference laboratory such as the Arizona State Public Health Laboratory or Centers for Disease Control and Prevention. Because the clinical illness is nonspecific and ARDS is common, a screening case definition can be used to determine which patients to test. In general, a predisposing medical condition (e.g., chronic pulmonary disease, malignancy, trauma, burn, and surgery) is a more likely cause of ARDS than HPS, and patients who have these underlying conditions and ARDS need not be tested for hantavirus.

CONTROL MEASURES

Arizona Administrative Code R9-6-335 Hantavirus Infection

Case Control Measures

A local health agency shall:

1. Provide or arrange for a hantavirus infection case or, if the case is a child or incapacitated adult, the parent or guardian of the case to receive health education about reducing the risks of becoming reinfected with or of having others become infected with hantavirus;
2. Conduct an epidemiologic investigation of each reported hantavirus infection case or suspect case; and
3. For each hantavirus infection case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.cdc.gov/hantavirus/health-care-workers/specimen-submission/index.html

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

HEMOLYTIC UREMIC SYNDROME POST-DIARRHEAL (HUS, TTP)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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^3, other diagnoses should be considered.

Case Classification

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

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 has onset within 3 weeks after onset of an acute or bloody diarrhea AND meets the laboratory criteria except that microangiopathic changes are not confirmed

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 post-diarrheal TTP also should meet the criteria for HUS. These cases are reported as post-diarrheal HUS. If a patient meets the case definition for both Shiga toxin-producing *E. coli* (STEC) and HUS, the case should be reported for each of the conditions.

CONTROL MEASURES

Arizona Administrative Code R9-6-336 Hemolytic Uremic Syndrome

Case Control Measures

A local health agency shall:

1. Exclude a hemolytic uremic syndrome case or suspect case from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until:
    a. Two successive cultures negative for enterohemorrhagic *Escherichia coli* and *Shigella* spp. are obtained from stool specimens collected from the case at least 24 hours apart and at least 48 hours after discontinuing antibiotics, or
    b. Diarrhea has resolved;
2. Conduct an epidemiologic investigation of each reported hemolytic uremic syndrome case or suspect case; and
3. For each hemolytic uremic syndrome case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency shall

1. Exclude a hemolytic uremic syndrome contact with diarrhea of unknown cause from working as a food handler until diarrhea has resolved

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/EColiHUSLongform2010.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: Statement added about reporting a case as both STEC and HUS, when appropriate, in accordance with CDC/CSTE case definition.
Most Recent CDC/CSTE Revision Year	2010

HEPATITIS A	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain), and either:

a) jaundice, or
b) elevated serum aminotransferase (alanine aminotransferase or aspartate aminotransferase) levels (greater than 2.5 times the upper limit of normal)

Laboratory Criteria for Diagnosis

Immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive

Case Classification

Confirmed

- A case that meets the clinical case definition and is laboratory confirmed, OR
- 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)

Probable

A case that is laboratory confirmed but for which clinical illness information is unavailable. If an investigation indicates the absence of clinical illness, the case should be ruled out rather than classified as probable.

CONTROL MEASURES

Arizona Administrative Code R9-6-337 Hepatitis A

Case Control Measures

A local health agency shall:

1. Exclude a hepatitis A case or suspect case from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment during the first 14 calendar days of illness or for seven calendar days after onset of jaundice;
2. Conduct an epidemiologic investigation of each reported hepatitis A case or suspect case; and
3. For each hepatitis A case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency shall:

1. Exclude a hepatitis A contact with symptoms of hepatitis A from working as a food handler during the first 14 calendar days of illness or for seven calendar days after onset of jaundice;
2. For 45 calendar days after exposure, monitor a food handler who was a contact of a hepatitis A case during the infectious period for symptoms of hepatitis A; and
3. Evaluate the level of risk of transmission from each contact's exposure to a hepatitis A case and, if indicated, provide or arrange for each contact to receive prophylaxis and immunization.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_hav.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: A probable case classification was added to the ADHS case definition to be able to distinguish cases with confirmatory laboratory results but for which clinical information could not be obtained from those meeting both the clinical and laboratory criteria. The CSTE/CDC case definition also does not specify criteria for what constitutes "elevated" liver aminotransferase levels.
Most Recent CDC/CSTE Revision Year	2012

HEPATITIS B, ACUTE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute illness with a discrete onset of any sign or symptom* consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain), and either

a) jaundice, or
b) elevated serum alanine aminotransferase (ALT) levels >100 IU/L.

*A documented negative hepatitis B surface antigen (HBsAg) laboratory test result within 6 months prior to a positive test (either HBsAg, hepatitis B "e" antigen (HBeAg), or hepatitis B virus nucleic acid testing (HBV NAT) including genotype) result does not require an acute clinical presentation to meet the surveillance case definition.

Laboratory Criteria for Diagnosis

- Hepatitis B surface antigen (HBsAg) positive, AND
- Immunoglobulin M (IgM) antibody to hepatitis B core antigen (HBcIgM) positive (if done)

Case Classification

Confirmed
A case that meets the clinical case definition, is laboratory confirmed (HBsAg positive and, if done, HBcIgM positive), and is not known to have chronic hepatitis B.

Probable
A case that meets the clinical case definition, is HBcIgM positive and either HBsAg negative or unknown

Suspect
A case that is IgM positive (HBsAg can be positive, negative, or unknown) but for which clinical illness information is unavailable. If an investigation indicates the absence of clinical illness, the case should be ruled out rather than classified as suspect.

CONTROL MEASURES

Arizona Administrative Code R9-6-338 Hepatitis B and Hepatitis D

Case Control Measures
A local health agency shall:

1. Evaluate a health care provider identified as the source of hepatitis B virus transmission in the work place and, if indicated, ensure reassignment of the health care provider to a position where the occupational risk of transmission is eliminated;
2. Conduct an epidemiologic investigation of each reported case or suspect case of hepatitis B or hepatitis B co-infected with hepatitis D; and

3. For each acute case of hepatitis B or hepatitis B co-infected with hepatitis D or case of perinatal hepatitis B, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of hepatitis B, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

Contact Control Measures

A local health agency shall:

1. Refer each non-immune hepatitis B contact to a health care provider for prophylaxis and initiation of the hepatitis B vaccine series, and
2. Provide health education related to the progression of hepatitis B disease and the prevention of transmission of hepatitis B infection to each non-immune hepatitis contact

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/epi/pdf/frm_hbv.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	The CDC/CSTE case definition was changed in 2012, and the ADHS confirmed case definition was changed to match. CDC/CSTE does not have probable or suspect case definitions for acute hepatitis B, but we feel it is important to monitor symptomatic persons with HBcIgM positive results or for whom symptoms cannot be identified. The current suspect definition was considered probable before 2013.
Most Recent CDC/CSTE Revision Year	2012

HEPATITIS B, CHRONIC	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

- IgM anti-HBc negative AND a positive result on one of the following tests: hepatitis B surface antigen (HBsAg), hepatitis B e antigen (HBeAg), or nucleic acid test for hepatitis B virus DNA (HBV DNA, including qualitative, quantitative and genotype testing), OR
- HBsAg positive or HBV DNA positive or HBeAg positive two times at least 6 months apart (any combination of these tests performed 6 months apart is acceptable.)

Case Classification

Confirmed
A case that meets either of the above laboratory criteria for diagnosis

Probable
A case with a single HBsAg positive or HBV DNA positive or HBeAg positive lab result that does not meet the case definition for acute hepatitis B (either does not have symptoms or symptoms are unknown)

Comment

Multiple laboratory tests indicative of chronic HBV infection may be performed simultaneously on the same patient specimen as part of a “hepatitis panel”. Testing performed in this manner may lead to seemingly discordant results, e.g. HBsAg-negative AND HBV DNA-positive. For the purposes of this case definition, any positive result among the three laboratory tests mentioned above is acceptable, regardless of other testing results. Negative HBeAg results and HBV DNA levels below positive cutoff level cannot rule out HBV infection.

In the United States, an estimated 1.25 million persons have chronic hepatitis B virus (HBV) infection. Fifteen to 25% of these persons will develop the complications of cirrhosis or hepatocellullar carcinoma. In addition, chronically infected persons are a major reservoir of transmission to others. Persons who test positive for the presence of hepatitis B surface antigen (HBsAg), HBeAg or HBV DNA are potentially infectious to contacts.

CONTROL MEASURES

Arizona Administrative Code R9-6-338 Hepatitis B and Hepatitis D

Case Control Measures
A local health agency shall:

1. Evaluate a health care provider identified as the source of hepatitis B virus transmission in the work place and, if indicated, ensure reassignment of the health care provider to a position where the occupational risk of transmission is eliminated;
2. Conduct an epidemiologic investigation of each reported case or suspect case of hepatitis B or hepatitis B co-infected with hepatitis D; and
3. For each acute case of hepatitis B or hepatitis B co-infected with hepatitis D or case of perinatal hepatitis B, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of hepatitis B, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

Contact Control Measures
A local health agency shall:

1. Refer each non-immune hepatitis B contact to a health care provider for prophylaxis and initiation of the hepatitis B vaccine series, and
2. Provide health education related to the progression of hepatitis B disease and the prevention of transmission of hepatitis B infection to each non-immune hepatitis contact

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frm_hbv_chron.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2012

HEPATITIS B, PERINATAL- Acquired in the United States or U.S. Territories	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINTION

Clinical Description

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

Confirmed
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. Post-vaccination 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.

CONTROL MEASURES

Arizona Administrative Code R9-6-338 Hepatitis B and Hepatitis D

Case Control Measures
A local health agency shall:

1. Evaluate a health care provider identified as the source of hepatitis B virus transmission in the work place and, if indicated, ensure reassignment of the health care provider to a position where the occupational risk of transmission is eliminated;
2. Conduct an epidemiologic investigation of each reported case or suspect case of hepatitis B or hepatitis B co-infected with hepatitis D; and
3. For each acute case of hepatitis B or hepatitis B co-infected with hepatitis D or case of perinatal hepatitis B, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of hepatitis B, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

Contact control measures

A local health agency shall:

1. Refer each non-immune hepatitis B contact to a health care provider for prophylaxis and initiation of the hepatitis B vaccine series, and
2. Provide health education related to the progression of hepatitis B disease and the prevention of transmission of hepatitis B infection to each non-immune hepatitis contact

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	1997

HEPATITIS C, ACUTE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute illness with a discrete onset of any sign or symptom* consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, abdominal pain, nausea, vomiting, or diarrhea), and either a) jaundice, or b) serum alanine aminotransferase (ALT) levels >400 IU/L.

*A documented negative HCV antibody laboratory test result followed within 6 months by a positive test (as described in the laboratory criteria for diagnosis) result does not require an acute clinical presentation to meet the surveillance case definition.

Laboratory Criteria for Diagnosis

One or more of the following three criteria:

- Antibodies to hepatitis C virus (anti-HCV) screening-test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay as defined by CDC. (URL for the signal to cut-off ratios: http://www.cdc.gov/hepatitis/HCV/LabTesting.htm), OR
- Hepatitis C Virus Recombinant Immunoblot Assay (HCV RIBA) positive, OR
- Nucleic Acid Test (NAT) for HCV RNA positive AND

Meets the following two criteria, if done:

- IgM antibody to hepatitis A virus (IgM anti-HAV) negative, AND
- IgM antibody to hepatitis B core antigen (IgM anti-HBc) negative

Case Classification

Confirmed
A case that meets the clinical case definition, is laboratory confirmed, and is not known to have chronic hepatitis C case

Comment

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.

CONTROL MEASURES

Arizona Administrative Code R9-6-339 Hepatitis C

Case Control Measures:

1. A local health agency shall:
    a. Conduct an epidemiologic investigation of each reported acute hepatitis C case or suspect case; and

b. For each acute hepatitis C case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

2. The Department shall provide health education related to the progression of hepatitis C disease and the prevention of transmission of hepatitis C infection to each reported non-acute hepatitis C case or suspect case.

INVESTIGATION FORMS

Acute: http://www.azdhs.gov/phs/oids/pdf/forms/frm_hcv.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS case definition updated to match CDC/CSTE definition.
Most Recent CDC/CSTE Revision Year	2012

HEPATITIS C, CHRONIC or past infection	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

- HCV RIBA positive; OR
- Nucleic acid test (NAT) for HCV RNA positive (including qualitative, quantitative, or genotype testing); OR
- Antibodies to hepatitis C virus (anti-HCV) screening-test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay as defined by CDC. (URL for the signal to cut-off ratios: http://www.cdc.gov/hepatitis/HCV/LabTesting.htm).

Case Classification

Confirmed
A case that is laboratory confirmed and that does not meet the case definition for acute hepatitis C. If case is less than 18 months of age, laboratory confirmation must be by NAT for HCV RNA.

Probable
A case that does not meet the case definition for acute hepatitis C, is anti-HCV positive (repeat reactive) by EIA and has alanine aminotranferase (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.

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 (≥85%). Chronic liver disease develops in most (≥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.

CONTROL MEASURES

Arizona Administrative Code R9-6-339 Hepatitis C

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported acute hepatitis C case or suspect case; and
2. For each acute hepatitis C case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

The Department shall provide health education related to the progression of hepatitis C disease and the prevention of transmission of hepatitis C infection to each reported non-acute hepatitis C case or suspect case.

INVESTIGATION FORMS

Chronic: http://www.azdhs.gov/phs/oids/pdf/forms/frm_hcv_chron.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was edited to match CDC/CSTE by removing an outdated laboratory criterion for diagnosis
Most Recent CDC/CSTE Revision Year	2012

HEPATITIS D	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute illness with a discrete onset of symptoms and jaundice or elevated serum aminotransferase levels (alanine aminotransferase or aspartate aminotransferase) levels (greater than 2.5 times the upper limit of normal).

Laboratory Criteria for Diagnosis

- HBsAg-positive or IgM anti-HBc positive, and
- Positive for antibody to hepatitis delta virus

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Case Classification

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

CONTROL MEASURES

Arizona Administrative Code R9-6-338 Hepatitis B and Hepatitis D

Case Control Measures
A local health agency shall:

1. Evaluate a health care provider identified as the source of hepatitis B virus transmission in the work place and, if indicated, ensure reassignment of the health care provider to a position where the occupational risk of transmission is eliminated;
2. Conduct an epidemiologic investigation of each reported case or suspect case of hepatitis B or hepatitis B co-infected with hepatitis D; and
3. For each acute case of hepatitis B or hepatitis B co-infected with hepatitis D or case of perinatal hepatitis B, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of hepatitis B, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

Contact Control Measures
A local health agency shall:

1. Refer each non-immune hepatitis B contact to a health care provider for prophylaxis and initiation of the hepatitis B vaccine series, and
2. Provide health education related to the progression of hepatitis B disease and the prevention of transmission of hepatitis B infection to each non-immune hepatitis contact

INVESTIGATION FORMS

- Acute: http://www.azdhs.gov/phs/oids/pdf/forms/frm_hbv.doc

- Chronic: http://www.azdhs.gov/phs/oids/pdf/forms/frm_hbv_chron.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

HEPATITIS E	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute illness with a discrete onset of symptoms and jaundice or elevated serum aminotransferase levels (alanine aminotransferase or aspartate aminotransferase) levels (greater than 2.5 times the upper limit of normal).

Laboratory Criteria for Diagnosis

Confirmatory Testing

Presence of either of the following criteria in CDC-conducted testing:

- IgM or IgG to hepatitis E virus, OR
- Detection of hepatitis E virus by nucleic acid testing in a clinical specimen

Supportive Testing

Presence of IgM to hepatitis E virus in non-CDC-conducted testing.

Case Classification

Confirmed
A case that meets the clinical case definition and is laboratory confirmed or, 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 E (i.e., household or sexual contact with an infected person during the 15-50 days before the onset of symptoms).

Probable
A case that meets the clinical case definition and meets the supportive laboratory criteria, with:

- History of international travel or residence during the incubation period prior to illness onset (15-50 days) OR another highly suspect risk factor for hepatitis E
- The absence of confirmatory diagnosis of any other acute viral hepatitis.

CONTROL MEASURES

Arizona Administrative Code R9-6-340 Hepatitis E

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported hepatitis E case or suspect case; and

2. For each hepatitis E case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D)

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	No.
Justifications	Confirmatory and supportive laboratory criteria were modified; Probable case definition was added; modifications were made to capture cases for which no clinical specimen is available for testing at CDC, but risk factors and clinical symptoms are compatible with acute HEV infection.
Most Recent CDC/CSTE Revision Year	N/A

HERPES GENITALIS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

Confirmed
A clinically compatible case that is laboratory confirmed

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.

Comment

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

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

HUMAN IMMUNODEFICIENCY VIRUS (HIV)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

2008 Surveillance Case Definition for HIV Infection Among Adults and Adolescents

The 2008 HIV infection case definition for adults and adolescents (aged >13 years) replaces the HIV infection and AIDS case definitions and the HIV infection classification system (1--3,5). The case definition is intended for public health surveillance only and not as a guide for clinical diagnosis. The definition applies to all HIV variants (e.g., HIV-1 or HIV-2) and excludes confirmation of HIV infection through diagnosis of AIDS-defining conditions alone. For surveillance purposes, a reportable case of HIV infection among adults and adolescents aged >13 years is categorized by increasing severity as stage 1, stage 2, or stage 3 (AIDS) or as stage unknown (Table).

Laboratory Criteria

- Positive result from an HIV antibody screening test (e.g., reactive enzyme immunoassay [EIA]*) confirmed by a positive result from a supplemental HIV antibody test (e.g., Western blot or indirect immunofluorescence assay test) OR
- Positive result or report of a detectable quantity (i.e., within the established limits of the laboratory test) from any of the following HIV virologic (i.e., non-antibody) tests†:
    - HIV nucleic acid (DNA or RNA) detection test (e.g., polymerase chain reaction [PCR])
    - HIV p24 antigen test, including neutralization assay
    - HIV isolation (viral culture)

Other Criterion (for Cases that Do Not Meet Laboratory Criteria)

HIV infection diagnosed by a physician or qualified medical-care provider§ based on the laboratory criteria and documented in a medical record. Oral reports of prior laboratory test results are not acceptable.

Case Classification

Confirmed
A confirmed case meets the laboratory criteria for diagnosis of HIV infection and one of the four HIV infection stages (stage 1, stage 2, stage 3, or stage unknown) (Table). Although cases with no information on CD4+ T-lymphocyte count or percentage and no information on AIDS-defining conditions can be classified as stage unknown, every effort should be made to report CD4+ T-lymphocyte counts or percentages and the presence of AIDS-defining conditions at the time of diagnosis. Additional CD4+ T-lymphocyte counts or percentages and any identified AIDS-defining conditions can be reported as recommended (6)

HIV Infection, Stage 1
No AIDS-defining condition and either CD4+ T-lymphocyte count of >500 cells/µL or CD4+ T-lymphocyte percentage of total lymphocytes of >29.

HIV Infection, Stage 2
No AIDS-defining condition and either CD4+ T-lymphocyte count of 200--499 cells/µL or CD4+ T-lymphocyte percentage of total lymphocytes of 14--28.

HIV Infection, Stage 3 (AIDS)
CD4+ T-lymphocyte count of <200 cells/µL or CD4+ T-lymphocyte percentage of total lymphocytes of <14 or documentation of an AIDS-defining condition (Appendix A). Documentation of an AIDS-defining condition supersedes a CD4+ T-lymphocyte count of >200 cells/µL and a CD4+ T-lymphocyte percentage of total lymphocytes of >14. Definitive diagnostic methods for these conditions are available in Appendix C of the 1993 revised HIV classification system and the expanded AIDS case definition (2) and from the National Notifiable Diseases Surveillance System (available at http://www.cdc.gov/epo/dphsi/casedef/case_definitions.htm).

HIV Infection, Stage Unknown
No information available on CD4+ T-lymphocyte count or percentage and no information available on AIDS-defining conditions. (Every effort should be made to report CD4+ T-lymphocyte counts or percentages and the presence of AIDS-defining conditions at the time of diagnosis.)

2008 Surveillance Case Definitions for HIV Infection and AIDS Among Children Aged 18 Months to <13 Years

These 2008 surveillance case definitions of HIV infection and AIDS supersede those published in 1987 (*1*) and 1999 (*3*) and apply to all variants of HIV (e.g., HIV-1 or HIV-2). They are intended for public health surveillance only and are not a guide for clinical diagnosis. The 2008 laboratory criteria for reportable HIV infection among persons aged 18 months to <13 years exclude confirmation of HIV infection through the diagnosis of AIDS-defining conditions alone. Laboratory-confirmed evidence of HIV infection is now required for all reported cases of HIV infection among children aged 18 months to <13 years (*20*).

Criteria for HIV Infection

Children aged 18 months to <13 years are categorized as HIV infected for surveillance purposes if at least one of laboratory criteria or the other criterion is met.¶¶

Laboratory Criteria for Diagnosis

- Positive result from a screening test for HIV antibody (e.g., reactive EIA), confirmed by a positive result from a supplemental test for HIV antibody (e.g., Western blot or indirect immunofluorescence assay). OR
- Positive result or a detectable quantity by any of the following HIV virologic (non-antibody) tests***:
    - HIV nucleic acid (DNA or RNA) detection (e.g., PCR)
    - HIV p24 antigen test, including neutralization assay
    - HIV isolation (viral culture)

Other Criterion (for Cases that Do Not Meet Laboratory Criteria)

HIV infection diagnosed by a physician or qualified medical-care provider based on the laboratory criteria and documented in a medical record. Oral reports of prior laboratory test results are not acceptable.

Criteria for AIDS

Children aged 18 months to <13 years are categorized for surveillance purposes as having AIDS if the criteria for HIV infection are met and at least one of the AIDS-defining conditions has been documented (Appendix A).
The 2008 surveillance case definition for AIDS retains the 24 clinical conditions in the AIDS surveillance case definition published in 1987 (*1*) and revised in 1994 (*4*) for children aged <13 years (Appendix A). Because the 2008 definition requires that all AIDS diagnoses have laboratory-confirmed evidence of HIV infection, the presence of any AIDS-defining condition listed in Appendix A indicates a surveillance diagnosis of AIDS. Guidance on the diagnosis of these diseases in the context of all nationally notifiable diseases is available at http://www.cdc.gov/epo/dphsi/casedef/case_definitions.htm.

2008 Surveillance Case Definition for HIV Infection Among Children Aged <18 Months

The 2008 case definition of HIV infection among children aged <18 months replaces the definition published in 1999 (*3*) and applies to all variants of HIV (e.g., HIV-1 or HIV-2). The 2008 definition is intended for public health surveillance only and not as a guide for clinical diagnosis. The 2008 definition takes into account new available testing technologies. Laboratory criteria for children aged <18 months at the time of diagnosis include revisions to one category: presumptively uninfected with HIV. No substantial changes have been made to the remaining three categories (definitively HIV infected, presumptively HIV infected, and definitively uninfected with HIV), and no changes have been made to the conditions listed under the AIDS criteria in the 1987 pediatric surveillance case definition for AIDS for children aged <18 months (*1,3,13*). Because diagnostic laboratory testing for HIV infection among children aged <18 months might be unreliable, children in this age group with perinatal HIV exposure whose illness meets the AIDS case definition on the basis of clinical criteria are considered presumptively HIV infected when the mother has laboratory-confirmed HIV infection. The definitive or presumptive exclusion of HIV infection for surveillance purposes does not mean that clinical HIV infection can be ruled out. For the purposes of calculating the exact timing of tests (e.g., when a specimen was obtained for laboratory testing) based on the surveillance case definition, 1 month corresponds to 30 days.

Criteria for Definitive or Presumptive HIV Infection

A child aged <18 months is categorized for surveillance purposes as definitively or presumptively HIV infected if born to an HIV-infected mother and if the laboratory criterion or at least one of the other criteria is met.

Laboratory Criterion for Definitive HIV Infection

A child aged <18 months is categorized for surveillance purposes as definitively HIV infected if born to an HIV-infected mother and the following laboratory criterion is met.

- Positive results on two separate specimens (not including cord blood) from one or more of the following HIV virologic (non-antibody) tests:
    - HIV nucleic acid (DNA or RNA) detection**
    - HIV p24 antigen test, including neutralization assay, for a child aged >1 month
    - HIV isolation (viral culture)

Laboratory Criterion for Presumptive HIV Infection

A child aged <18 months is categorized for surveillance purposes as presumptively HIV infected if

1. born to an HIV-infected mother,
2. the criterion for definitively HIV infected is not met, and
3. the following laboratory criterion is met.
    a. Positive results on one specimen (not including cord blood) from the listed HIV virologic tests (HIV nucleic acid detection test; HIV p24 antigen test, including neutralization assay, for a child aged >1 month; or HIV isolation [viral culture] for definitively HIV infected) and no subsequent negative results from HIV virologic or HIV antibody tests.

Other Criteria (for Cases that Do Not Meet Laboratory Criteria for Definitive or Presumptive HIV Infection)

- HIV infection diagnosed by a physician or qualified medical-care provider based on the laboratory criteria and documented in a medical record. Oral reports of prior laboratory test results are not acceptable OR
- When test results regarding HIV infection status are not available, documentation of a condition that meets the criteria in the 1987 pediatric surveillance case definition for AIDS (*1*) (Appendix A).

Criteria for Uninfected with HIV, Definitive or Presumptive

A child aged <18 months born to an HIV-infected mother is categorized for surveillance purposes as either definitively or presumptively uninfected with HIV if

1. the criteria for definitive or presumptive HIV infection are not met and
2. at least one of the laboratory criteria or other criteria are met.[††]
    a. At least two negative HIV DNA or RNA virologic tests from separate specimens, both of which were obtained at age ≥1 month and one of which was obtained at age ≥4 months OR
    b. At least two negative HIV antibody tests from separate specimens obtained at age ≥6 months AND
    c. No other laboratory or clinical evidence of HIV infection (i.e., no positive results from virologic tests [if tests were performed] and no current or previous AIDS-defining condition) (Appendix A).

Laboratory Criteria for Uninfected with HIV, Presumptive

A child aged <18 months born to an HIV-infected mother is categorized for surveillance purposes as presumptively uninfected with HIV if

1. the criteria for definitively uninfected with HIV are not met and
2. at least one of the laboratory criteria are met.

a. Two negative RNA or DNA virologic tests, from separate specimens, both of which were obtained at age ≥2 weeks and one of which was obtained at age ≥4 weeks [§§] OR
b. One negative RNA or a DNA virologic test from a specimen obtained at age ≥8 weeks OR
c. One negative HIV antibody test from a specimen obtained at age ≥6 months OR
d. One positive HIV virologic test followed by at least two negative tests from separate specimens, one of which is a virologic test from a specimen obtained at age ≥8 weeks or an HIV antibody test from a specimen obtained at age ≥6 months AND
e. No other laboratory or clinical evidence of HIV infection (i.e., no subsequent positive results from virologic tests if tests were performed, and no AIDS-defining condition for which no other underlying condition indicative of immunosuppression exists) (Appendix A).

Other Criteria (for Cases that Do Not Meet Laboratory Criteria for Uninfected with HIV, Definitive or Presumptive)

- Determination of uninfected with HIV by a physician or qualified medical-care provider based on the laboratory criteria and who has noted the HIV diagnostic test results in the medical record. Oral reports of prior laboratory test results are not acceptable AND
- No other laboratory or clinical evidence of HIV infection (i.e., no positive results from virologic tests [if tests were performed] and no AIDS-defining condition for which no other underlying condition indicative of immunosuppression exists) (Appendix A).

Criteria for Indeterminate HIV Infection

A child aged <18 months born to an HIV-infected mother is categorized as having perinatal exposure with an indeterminate HIV infection status if the criteria for infected with HIV and uninfected with HIV are not met.

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5710a1.htm

CONTROL MEASURES

Arizona Administrative Code R9-6-341 Human Immunodeficiency Virus (HIV) Infection and Related Disease

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported HIV-infected individual or suspect case; and
2. For each HIV-infected individual, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of HIV infection, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

The Department and a local health agency shall offer anonymous HIV-testing to an individual as specified in R9-6-1005.

Contact Control Measures

The Department or the Department's designee shall confidentially notify an individual reported to be at risk for HIV infection under A.R.S. § 36-664(J) as specified in R9-6-1006(A).

Environmental Control Measures
An employer, as defined under A.R.S. § 23-401, or health care provider shall comply with the requirements specified in A.R.S. § 23-403 and A.A.C. R20-5-602.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2008

INFLUENZA	REPORTABLE BY LABORATORIES ONLY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Influenza-like illness with a reported fever >100°F AND cough and/or sore throat, in the absence of a known cause other than influenza.

Laboratory Criteria for Diagnosis

- Isolation of influenza virus in tissue cell culture from respiratory specimens; or
- Positive reverse-transcriptase polymerase chain reaction (RT-PCR) from respiratory specimens; or
- Positive immunofluorescent antibody staining (direct or indirect) of respiratory specimens; or
- Positive rapid influenza diagnostic test of respiratory specimens; or
- Demonstration of immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens; or
- Four-fold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera*.

Case Classification

Confirmed
A case that meets the laboratory criteria for diagnosis

Comment

The sensitivity and specificity of rapid diagnostic test kits vary and the predicative value positive may be low outside the time of peak influenza activity. Therefore, positive results from rapid influenza diagnostic tests will only be considered laboratory-confirmed cases after confirmation of the first culture- or RT-PCR-confirmed case at the Arizona State Public Health Laboratory in a case with no out-of-state travel during the incubation period for influenza, each season. After that case is identified, all cases that meet the above laboratory criteria will be considered lab-confirmed. Negative RT-PCR or culture results may also be used to rule out cases identified by other testing methods, at any time of year.

*Serologic testing for influenza is available in a limited number of laboratories, and should only be considered as evidence of recent infection if a four-fold rise in influenza (HI) antibody titer is demonstrated in paired sera. Single serum samples are not interpretable.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

INFLUENZA-ASSOCIATED PEDIATRIC MORTALITY	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An influenza-associated death is defined for surveillance purposes as a death resulting from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test. There should be no period of complete recovery between the illness and death. Influenza-associated deaths in all persons aged <18 years should be reported.

A death should not be reported if:

- There is no laboratory confirmation of influenza virus infection.
- The influenza illness is followed by full recovery to baseline health status prior to death.
- The death occurs in a person 18 years or older.
- After review and consultation there is an alternative agreed upon cause of death.

Laboratory Criteria for Diagnosis

See laboratory criteria for influenza. Laboratory testing for influenza virus infection may be done on pre- or post-mortem clinical specimens.

Case Classification

Confirmed
A death meeting the clinical case definition that is laboratory confirmed. Laboratory or rapid diagnostic test confirmation is required as part of the case definition; therefore, all reported deaths will be classified as confirmed.

CONTROL MEASURES

Arizona Administrative Code R9-6-342 Influenza-Associated Mortality in a Child

Case Control Measures
A local health agency shall:

1. Confirm that influenza was the cause of death for each reported case or suspect case of influenza-associated mortality in a child; and
2. For each case of influenza-associated mortality in a child, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(C).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/pedfludeath_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2004

INFLUENZA A NOVEL VIRUS	SUBMIT A REPORT WITHIN 24 HOURS (emerging or exotic disease agent)

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness compatible with influenza virus infection (fever >100 degrees Fahrenheit, with cough and/or sore throat).

Laboratory Criteria for Diagnosis

A human case of infection with an influenza A virus subtype that is different from currently circulating human influenza H1 and H3 viruses. Novel subtypes include, but are not limited to, H2, H5, H7, and H9 subtypes. Influenza H1 and H3 subtypes originating from a non-human species or from genetic reassortment between animal and human viruses are also novel subtypes. Novel subtypes will be detected with methods available for detection of currently circulating human influenza viruses at state public health laboratories (e.g., real-time reverse transcriptase polymerase chain reaction [RT-PCR]). Confirmation that an influenza A virus represents a novel virus will be performed by CDC's influenza laboratory. Once a novel virus has been identified by CDC, confirmation may be made by public health laboratories following CDC-approved protocols for that specific virus, or by laboratories using an FDA-authorized test specific for detection of that novel influenza virus.

Exposure

Criteria for epidemiologic linkage:

- The patient has had contact with one or more persons who either have or had the disease, AND
- Transmission of the agent by the usual modes of transmission is plausible.

A case may be considered epidemiologically linked to a laboratory-confirmed case if at least one case in the chain of transmission is laboratory confirmed. Laboratory testing for the purposes of case classification should use methods mutually agreed upon by CDC and the Council of State and Territorial Epidemiologists (CSTE). Currently, only viral isolation, RT-PCR, gene sequencing, or a 4-fold rise in strain-specific serum antibody titers are considered confirmatory.

Case Classification

Confirmed
A case of human infection with a novel influenza A virus confirmed by CDC's influenza laboratory or using methods agreed upon by CDC and CSTE as noted in Laboratory Criteria, above.

Probable
A case meeting the clinical criteria and epidemiologically linked to a confirmed case, but for which no confirmatory laboratory testing for influenza virus infection has been performed or test results are inconclusive for a novel influenza A virus infection.

Suspect
A case meeting the clinical criteria, pending laboratory confirmation. Any case of human infection with an influenza A virus that is different from currently circulating human influenza H1 and H3 viruses is classified as a suspected case until the confirmation process is complete.

Comments

Once a novel virus is identified by CDC, it will be nationally notifiable until CSTE in consultation with CDC determines that it is no longer necessary to report each case.

On December 13, 2006, the United States formally accepted the revision of the International Health Regulations, referred to as IHR (2005) (http://archive.hhs.gov/news/press/2006pres/20061213.html). The IHR (2005) are an international legal instrument that governs the roles of the World Health Organization (WHO) and its member countries in identifying and responding to and sharing information about public health emergencies of international concern (http://www.who.int/csr/ihr/IHRWHA58_3-en.pdf). The updated rules are designed to prevent and protect against the international spread of diseases, while minimizing interference with world travel and trade. The revised regulations add human infections with new influenza strains to the list of conditions that Member States must immediately report to WHO. An outbreak of infections with a new influenza A virus that demonstrates human-to-human transmission could signal the beginning of the next pandemic. Robust epidemiologic and laboratory surveillance systems are required for a coordinated public health response to infections with a novel influenza virus subtype. Early detection of an influenza virus with pandemic potential will permit identification of viral characteristics (e.g., genetic sequence, antiviral susceptibility, and virulence) that will affect clinical management and public health response measures. It should also facilitate development of a virus-specific vaccine and testing strategies.

All state public health laboratories have the capacity to test respiratory specimens for influenza viruses with sensitive and specific assays that can detect human and non-human influenza A viruses. They also have the capacity to subtype currently circulating human influenza A H1, H3, and avian H5 (Asian lineage) viruses. The detection or confirmation by a state public health laboratory of an influenza A virus that is unsubtypable with standard methods (e.g., real-time RT-PCR assays for human influenza A(H3) or (H1) viruses), or a non-human influenza virus (e.g., H5) from a human specimen, could be the initial identification of a virus with pandemic potential. Prompt notification of CDC by a state epidemiologist in conjunction with the public health laboratory will permit rapid confirmation of results and reporting to WHO. In addition, it will aid prompt viral characterization, and the development of virus-specific diagnostic tests.

CONTROL MEASURES
None

INVESTIGATION FORMS
http://www.azdhs.gov/phs/oids/pdf/forms/novel_flu_A_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	New case definition in 2013.
Most Recent CDC/CSTE Revision Year	2013

KAWASAKI SYNDROME	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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.

CONTROL MEASURES

Arizona Administrative Code R9-6-343 Kawasaki Syndrome

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Kawasaki syndrome case or suspect case; and
2. For each Kawasaki syndrome case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/KawasakiInvestForm-Fillable.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

LEGIONELLOSIS (Legionnaires' disease)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Legionellosis is associated with two clinically and epidemiologically distinct illnesses: Legionnaires' disease, which is characterized by fever, myalgia, cough, and clinical or radiographic pneumonia; and Pontiac fever, a milder illness without pneumonia.

Laboratory Criteria for Diagnosis

Confirmatory Testing

- By culture: isolation of any *Legionella* organism from respiratory secretions, lung tissue, pleural fluid, or other normally sterile fluid.
- By detection of *Legionella pneumophila* serogroup 1 antigen in urine using validated reagents.
- By seroconversion: fourfold or greater rise in specific serum antibody titer to *Legionella pneumophila* serogroup 1 using validated reagents.

Supportive Testing

- By seroconversion: fourfold or greater rise in antibody titer to specific species or serogroups of Legionella other than *L. pneumophila* serogroup 1 (e.g., *L. micdadei*, *L. pneumophila* serogroup 6).
- By seroconversion: fourfold or greater rise in antibody titer to multiple species of *Legionella* using pooled antigen and validated reagents.
- By the detection of specific *Legionella* antigen or staining of the organism in respiratory secretions, lung tissue, or pleural fluid by direct fluorescent antibody (DFA) staining, immunohistochemstry (IHC), or other similar method, using validated reagents.
- By detection of *Legionella* species by a validated nucleic acid assay.

Case Classification

Confirmed

- A clinically compatible case that meets at least one of the confirmatory laboratory criteria.
- Travel-associated: A case that has a history of spending at least one night away from home, either in the same country of residence or abroad, in the ten days before onset of illness.

Suspect

- A clinically compatible case that meets at least one of the presumptive (supportive) laboratory criteria.
- Travel-associated: A case that has a history of spending at least one night away from home, either in the same country of residence or abroad, in the ten days before onset of illness.

CONTROL MEASURES

Arizona Administrative Code R9-6-344 Legionellosis (Legionnaires' Disease)

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported legionellosis case or suspect case; and
2. For each legionellosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Environmental control measures: The owner of a water, cooling, or ventilation system that is determined by the Department or a local health agency to have caused a case of Legionella infection shall disinfect the system before resuming its use.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/legionella_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2005

LEPTOSPIROSIS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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.

Clinical presentation includes history of fever within the past two weeks and at least two of the following clinical findings: myalgia, headache, jaundice, conjunctival suffusion without purulent discharge, or rash (i.e. maculopapular or petechial); OR at least one of the following clinical findings:

- Aseptic meningitis
- GI symptoms (e.g., abdominal pain, nausea, vomiting, diarrhea)
- Pulmonary complications (e.g., cough, breathlessness, hemoptysis)
- Cardiac arrhythmias, ECG abnormalities
- Renal insufficiency (e.g., anuria, oliguria)
- Hemorrhage (e.g., intestinal, pulmonary, hematuria, hematemesis)
- Jaundice with acute renal failure

Laboratory Criteria for Diagnosis

Diagnostic testing should be requested for patients in whom there is a high index of suspicion for leptospirosis, based either on signs and symptoms, or on occupational, recreational or vocational exposure to animals or environments contaminated with animal urine.

Confirmatory Testing

- Isolation of *Leptospira* from a clinical specimen, OR
- Fourfold or greater increase in *Leptospira* agglutination titer between acute and convalescent-phase serum specimens obtained >2 weeks apart and studied at the same laboratory,
- Demonstration of *Leptospira* in a clinical specimen by immunofluorescence
- *Leptospira* agglutination titer of ≥800 by Microscopic Agglutination Test (MAT) in one or more serum specimens, or
- Detection of pathogenic *Leptospira* DNA (e.g., by PCR) from a clinical specimen.

Presumptive Testing

- *Leptospira* agglutination titer of ≥200 but <800 by Microscopic Agglutination Test (MAT) in one or more serum specimens, or
- Demonstration of anti-*Leptospira* antibodies in a clinical specimen by indirect immunofluorescence, or
- Demonstration of *Leptospira* in a clinical specimen by darkfield microscopy, or
- Detection of IgM antibodies against *Leptospira* in an acute phase serum specimen

Case Classification

Confirmed
A clinically compatible case that meets the confirmatory laboratory criteria.

Probable
A clinically compatible case with at least one of the following:

- Involvement in an exposure event (e.g., adventure race, triathlon, flooding) with known associated cases, *or*
- Presumptive laboratory findings, but without confirmatory laboratory evidence of *Leptospira* infection.

CONTROL MEASURES

Arizona Administrative Code R9-6-345 Leptospirosis

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported leptospirosis case or suspect case; and
2. For each leptospirosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frm_lepto.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS case definition was updated to match the new CDC/CSTE case definition.
Most Recent CDC/CSTE Revision Year	2013

LISTERIOSIS (*Listeria monocytogenes*)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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.

CONTROL MEASURES

Arizona Administrative Code R9-6-346 Listeriosis

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported listeriosis case or suspect case;
2. For each listeriosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
3. Ensure that an isolate from each listeriosis case is submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/listeria_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

LYME DISEASE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Presentation

A systemic, tick-borne disease with protean manifestations, including dermatologic, rheumatologic, neurologic, and cardiac abnormalities. The best clinical marker for the disease is erythema migrans (EM), the initial skin legion that occurs in 60%-80% of patients.

Erythema migrans (EM)
For purposes of surveillance, EM is defined as a 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 single primary lesion must reach greater than or equal to 5 cm in size across its largest diameter. Secondary lesions also may 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, mildly 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. Local reactions to insect bites and stings are often misidentified as EM. As a result, it is important to get additional information about the lesion, including (1) general description (shape and color), (2) was it itchy, painful, or warm to-the-touch, (3) when did the lesion first appear, (4) how many days did it persist, and (5) how much it expanded.

Late Manifestations
Late manifestations occur after the acute period of illness, usually after months or years of infection. For the purposes of surveillance, 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.
  - Arthralgia, myalgia, or fibromyalgia syndromes alone are not criteria for musculoskeletal involvement.
- Nervous system
  - Any 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 *Borrelia burgdorferi* in the CSF (cerebrospinal fluid), evidenced by a higher titer of antibody in CSF than in serum.
  - Headaches, fatigue, paresthesia, or mild stiff necks alone are not criteria for neurologic involvement.
- Cardiovascular system

    - Acute onset of high-grade (2nd degree or 3rd degree) 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.

Laboratory Criteria for Diagnosis

For the purposes of surveillance, the definition of a qualified laboratory assay is:

- A positive culture for *Borrelia burgdorferi*, or
- Two-tier testing using established criteria [1], where:
    - Positive IgM is sufficient only when ≤30 days from symptom onset or
    - Positive IgG is sufficient at any point during illness
- Single-tier IgG immunoblot seropositivity using established criteria [1-4]
- CSF antibody positive for *Borrelia burgdorferi* by Enzyme Immunoassay (EIA) or Immunofluorescence Assay (IFA), when the titer is higher than it was in the serum.

Exposure

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

Endemicity

A county in which Lyme disease is endemic is one in which at least two confirmed cases have been acquired in the county or in which established populations of a known tick vector are infected with *B. burgdorferi*. Some states with highly endemic counties include: Connecticut, Delaware, Maryland, Massachusetts, Minnesota, New Jersey, New York, Pennsylvania, Rhode Island, and Wisconsin.

Case Classification

Confirmed

- A case of EM with a known exposure (as defined above), OR
- A case of EM with laboratory evidence of infection (as defined above) and without a known exposure, OR
- A case with at least one late manifestation that has laboratory evidence of infection.

Probable

- A case of physician-diagnosed Lyme disease that has laboratory evidence of infection (as defined above).

Suspect

- A case of EM where there is no known exposure (as defined above) and no laboratory evidence of infection (as defined above), OR
- A case with laboratory evidence of infection but no clinical information available (e.g., a laboratory report).

Comment

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

Lyme disease reports will not be considered cases if the medical provider specifically states "this is not a case of Lyme disease", or if the only symptom listed is "tick bite" or "insect bite".

CONTROL MEASURES

Arizona Administrative Code R9-6-347 Lyme Disease

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Lyme disease case or suspect case; and
2. For each Lyme disease case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frm_lyme.pdf

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3. Engstrom SM, Shoop E, Johnson RC. Immunoblot interpretation criteria for serodiagnosis of early Lyme disease. J Clin Microbiol 1995; 33:419–27.
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CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition changed to match CDC/CSTE.
Most Recent CDC/CSTE Revision Year	2011

LYMPHOCYTIC CHORIOMENINGITIS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Lymphocytic choriomeningitis virus (LCMV) is a rodent-borne arenavirus which is endemic in house mice throughout the world. Infection has also been documented in pet rodents such as mice, guinea pigs, and hamsters. Transmission to humans can occur through direct contact with infected rodents or rodent-contaminated environments. LCMV infection in humans can range from asymptomatic to mild self-limited illness characterized by any or all of the following symptoms: fever, malaise, lack of appetite, muscle aches, headache, nausea, and vomiting. Aseptic meningitis can also occur in some patients. Orchitis, parotitis, arthritis, myocarditis, and rash occasionally occur. Lab findings can include leucopenia and thrombocytopenia.

Laboratory Diagnosis

Confirmatory Testing

- Isolation of the lymphocytic choriomeningitis virus
- Polymerase chain reaction (PCR) for LCMV

Supportive Testing

- Serology indicating a positive IgM or a four-fold increase in IgG
- Complete blood count showing leukopenia and thrombocytopenia
- Cerebral spinal fluid analysis indicating increased protein or an increase in white blood cells with an increase in lymphocytes

Case Classification

Confirmed

A clinically-compatible illness that is laboratory confirmed by culture or PCR

Probable

A clinically-compatible illness that has at least one of the supportive tests listed

CONTROL MEASURES

Arizona Administrative Code R9-6-348 Lymphocytic Choriomeningitis

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported lymphocytic choriomeningitis case or suspect case; and
2. For each lymphocytic choriomeningitis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

LYMPHOGRANULOMA VENEREUM (LGV) **(reportable under Chlamydia)**	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Infection with L_1, L_2, or L_3 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 L1, L2, or L3, 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

Confirmed
A case that is laboratory confirmed

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

CONTROL MEASURES

Arizona Administrative Code R9-6-314: Chlamydia Infection, Sexually Transmitted

Case Control Measures:

1. The Department shall review each chlamydia infection case report for completeness, accuracy, and need for follow-up.
2. A local health agency shall comply with the requirements specified in R9-6-1103 concerning treatment and health education for a chlamydia infection case that seeks treatment from the local health agency.

Contact Control Measures:

1. If an individual who may have been exposed to chlamydia through sexual contact with a chlamydia infection case seeks treatment for symptoms of chlamydia infection from a local health agency, the local health agency shall comply with the requirements specified in R9-6-1103 concerning treatment and health education for the individual.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: Separated from ADHS Chlamydia case definition.
Most Recent CDC/CSTE Revision Year	1997

MALARIA	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

The first symptoms of malaria (most often fever, chills, sweats, headaches, muscle pains, nausea and vomiting) are often not specific and are also found in other diseases (such as influenza and other common viral infections). Likewise, the physical findings are often not specific (elevated temperature, perspiration, tiredness). In severe malaria (caused by *P. falciparum*), clinical findings (confusion, coma, neurologic focal signs, severe anemia, respiratory difficulties) are more striking and may increase the suspicion index for malaria.

Laboratory Criteria for Diagnosis

- Detection of circulating malaria-specific antigens using rapid diagnostic test (RDT), OR
- Detection of species specific parasite DNA in a sample of peripheral blood using a Polymerase Chain Reaction (PCR) test*, OR
- Detection of malaria parasites in thick or thin peripheral blood films, determining the species by morphologic criteria, and calculating the percentage of red blood cells infected by asexual malaria parasites (parasitemia).

Case Classification

Confirmed

- Detection and specific identification of malaria parasites by microscopy on blood films in a laboratory with appropriate expertise in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country, OR
- Detection of *Plasmodium* species by nucleic acid test * in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country, OR
- Detection of unspeciated malaria parasite by microscopy on blood films in a laboratory with appropriate expertise in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country.

Suspect

Detection of *Plasmodium* species by rapid diagnostic antigen testing without confirmation by microscopy or nucleic acid testing in any person (symptomatic or asymptomatic) diagnosed in the United States, regardless of whether the person experienced previous episodes of malaria while outside the country.

Comment

* Laboratory-developed malaria PCR tests must fulfill CLIA requirements, including validation studies

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 caused by drug resistance or a separate attack.

Blood smears from questionable cases should be referred to the CDC Division of Parasitic Diseases Diagnostic Laboratory for confirmation of the diagnosis.

Cases also are classified according to the following World Health Organization categories:

- Autochthonous:
  - Indigenous: malaria acquired by mosquito transmission in an area where malaria is a regular occurrence
  - Introduced: malaria acquired by mosquito transmission from an imported case in an area where malaria is not a regular occurrence
- Imported: malaria acquired outside a specific area (e.g., the United States and its territories)
- Induced: malaria acquired through artificial means (e.g., blood transfusion, common syringes, or malariotherapy)
- Relapsing: recurrence of disease after it has been apparently cured. In malaria, true relapses are caused by reactivation of dormant liver-stage parasites (hypnozoites) of *P. vivax* and *P. ovale*.
- Cryptic: an isolated case of malaria that cannot be epidemiologically linked to additional cases

CONTROL MEASURES

Arizona Administrative Code R9-6-349 Malaria

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported malaria case or suspect case; and
2. For each malaria case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

- http://www.cdc.gov/malaria/resources/pdf/report/malaria_form.pdf
- http://www.cdc.gov/malaria/resources/pdf/report/survellianceformcoverletter2.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	Modifications were made to the laboratory

	criteria to include the determination of the parasite species and the quantification of the parasitemia; confirmed case definition was changed to include detection of unspeciated parasite; modifications were made to match the 2014 CDC/CSTE case definition.
Most Recent CDC/CSTE Revision Year	2014

MEASLES (rubeola)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute illness characterized by:

- A generalized, maculopapular rash lasting ≥3 days; and
- A temperature ≥101.0°F (≥38.3°C); and
- Cough, coryza, or conjunctivitis

Laboratory Criteria for Diagnosis

- Isolation of measles virus[†] from a clinical specimen; or
- Detection of measles-virus specific nucleic acid[†] from a clinical specimen using polymerase chain reaction; or
- IgG seroconversion[†] or a significant rise in measles immunoglobulin G antibody[†] using any evaluated and validated method; or
- A positive serologic test for measles immunoglobulin M[†§] antibody

[†]Not explained by MMR vaccination during the previous 6-45 days
[§]Not otherwise ruled out by other confirmatory testing or more specific measles testing in a public health laboratory.

Case Classification

Confirmed
An acute febrile rash illness[‡] with:

- Any of the laboratory criteria for diagnosis listed above; or
- Direct epidemiologic linkage to a case confirmed by one of the laboratory criteria for diagnosis listed above.

Probable
In the absence of a more likely diagnosis, an illness that meets the clinical description with:

- No epidemiologic linkage to a laboratory-confirmed measles case; and
- Noncontributory or no measles laboratory testing.

[‡]Temperature does not need to reach ≥101°F/38.3°C and rash does not need to last ≥3 days.

Epidemiologic Classification of Internationally-Imported and U.S-Acquired

Internationally imported case
An internationally imported case is defined as a case in which measles results from exposure to measles virus outside the United States as evidenced by at least some of the exposure period (7–21 days before rash onset) occurring outside the United States and rash onset occurring within 21 days of entering the United States and there is no known exposure to measles in the U.S. during that time. All other cases are considered U.S.-acquired.

U.S.-acquired case
An U.S.-acquired case is defined as a case in which the patient had not been outside the United States during the 21 days before rash onset or was known to have been exposed to measles within the United States. U.S.-acquired cases are subclassified into four mutually exclusive groups:

- **Import-linked case**: Any case in a chain of transmission that is epidemiologically linked to an internationally imported case.
- **Imported-virus case**: a case for which an epidemiologic link to an internationally imported case was not identified, but for which viral genetic evidence indicates an imported measles genotype, i.e., a genotype that is not occurring within the United States in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any measles virus that occurs in an endemic chain of transmission (i.e., lasting ≥12 months). Any genotype that is found repeatedly in U.S.-acquired cases should be thoroughly investigated as a potential endemic genotype, especially if the cases are closely related in time or location.
- **Endemic case**: a case for which epidemiological or virological evidence indicates an endemic chain of transmission. Endemic transmission is defined as a chain of measles virus transmission that is continuous for ≥12 months within the United States.
- **Unknown source case**: a case for which an epidemiological or virological link to importation or to endemic transmission within the U.S. cannot be established after a thorough investigation.

These cases must be carefully assessed epidemiologically to assure that they do not represent a sustained U.S.-acquired chain of transmission or an endemic chain of transmission within the U.S.

Note: Internationally imported, import-linked, and imported-virus cases are considered collectively to be import-associated cases. States may also choose to classify cases as "out-of-state-imported" when imported from another state in the United States. For national reporting, however, cases will be classified as either internationally imported or U.S.-acquired.

CONTROL MEASURES

Arizona Administrative Code R9-6-350 Measles (Rubeola)

Case Control Measures:

1. An administrator of a school or child care establishment, either personally or through a representative, shall:
    a. Exclude a measles case from the school or child care establishment and from school- or child-care-establishment-sponsored events from the onset of illness through the fourth calendar day after the rash appears; and
    b. Exclude a measles suspect case from the school or child care establishment and from school- or child-care-establishment-sponsored events until evaluated and determined to be noninfectious by a physician, physician assistant, or registered nurse practitioner.
2. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and institute airborne precautions for a measles case from onset of illness through the fourth calendar day after the rash appears.
3. A local health agency shall:

a. Upon receiving a report under R9-6-202 or R9-6-203 of a measles case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
b. Conduct an epidemiologic investigation of each reported measles case or suspect case;
c. For each measles case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
d. Ensure that specimens from each measles case, as required by the Department, are submitted to the Arizona State Laboratory.

Contact Control Measures:

1. When a measles case has been at a school or child care establishment, the administrator of the school or child care establishment, either personally or through a representative, shall:
    a. Consult with the local health agency to determine who shall be excluded and how long each individual shall be excluded from the school or child care establishment, and
    b. Comply with the local health agency's recommendations for exclusion.
2. A local health agency shall provide or arrange for immunization of each non-immune measles contact within 72 hours after last exposure, if possible.
3. An administrator of a health care institution shall ensure that a paid or volunteer full-time or part-time worker at a health care institution does not participate in the direct care of a measles case or suspect case unless the worker is able to provide evidence of immunity to measles through one of the following:
    a. A record of immunization against measles with two doses of live virus vaccine given on or after the first birthday and at least one month apart;
    b. A statement signed by a physician, physician assistant, registered nurse practitioner, state health officer, or local health officer affirming serologic evidence of immunity to measles; or
    c. Documentary evidence of birth before January 1, 1957.

INVESTIGATION FORMS

- Measles CDC Investigation Form: http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix08-2-mea-wrsht.pdf
- ADHS Rash Illness Investigation Form: http://www.azdhs.gov/phs/oids/pdf/forms/frmvpd_rash.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was edited to match the new 2013 CDC/CSTE definition. Changes including adding PCR to the laboratory criteria and removing the Suspect case classification.
Most Recent CDC/CSTE Revision Year	2013

MENINGOCOCCAL INVASIVE DISEASE SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

Laboratory Criteria for Diagnosis

Confirmatory Testing
Isolation of *Neisseria meningitidis* from a normally sterile site (e.g., blood or CSR or, less commonly, synovial, pleural, or pericardial fluid) or purpuric lesions.

Presumptive Testing

- Detection of *N. meningitidis*-specific nucleic acid in a specimen obtained from a normally sterile site (e.g., blood or CSF), using a validated polymerase chain reaction (PCR) assay, OR
- Detection of *N. meningitidis* antigen in a formalin-fixed tissue by immunochemistry (IHC), or in CSF by latex agglutination.

Case Classification

Confirmed
A case that meets the confirmatory laboratory criteria for diagnosis.

Probable
A case that meets the presumptive laboratory criteria for diagnosis.

Suspect

- Clinical purpura fulminans in the absence of a positive blood culture, OR
- Gram-negative diplococci, not yet identified, isolated from a normally sterile site (e.g., blood or CSF)

CONTROL MEASURES

Arizona Administrative Code R9-6-352 Meningococcal Invasive Disease

Case Control Measures:

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and institute droplet precautions for a meningococcal invasive disease case for 24 hours after the initiation of treatment.
2. A local health agency shall:
    a. Upon receiving a report under R9-6-202 or R9-6-203 of a meningococcal invasive disease case or suspect case, notify the Department within 24 hours

after receiving the report and provide to the Department the information contained in the report;

b. Conduct an epidemiologic investigation of each reported meningococcal invasive disease case or suspect case;
c. For each meningococcal invasive disease case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
d. Ensure that an isolate from each meningococcal invasive disease case is submitted to the Arizona State Laboratory.

Contact Control Measures:
A local health agency shall:

1. Evaluate the level of risk of transmission from each contact's exposure to a meningococcal invasive disease case and, if indicated, provide or arrange for each contact to receive prophylaxis

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/mening_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (INVASIVE)	REPORTABLE BY LABORATORIES ONLY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Staphylococcus aureus can produce a variety of presentations, ranging from skin or soft tissue infection to bacteremia or the involvement of various organs (e.g., endocarditis, pneumonia, osteomyelitis). Methicillin-resistant *Staphylococcus aureus* (MRSA) is resistant to beta-lactam antibiotics. Only MRSA from normally sterile sites (invasive disease) is reportable.

Laboratory Criteria for Diagnosis

- Isolation of *Staphylococcus aureus* from a normally sterile site. Examples of sterile sites include but are not limited to: CSF, blood, peritoneal fluid, pericardial fluid, or pleural fluid AND
- Intermediate or high level resistance of *Staphylococcus aureus* isolate to methicillin or oxacillin, detected and defined according to the standards and guidelines approved by the National Committee for Clinical Laboratory Standards (NCCLS) (MIC: 4-8 mg/L for intermediate and >16 mg/L for high (NCCLS 2006)).

Case Classification

Confirmed

A case that meets the laboratory criteria for diagnosis

CONTROL MEASURES

None

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/mrsa_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

MUMPS	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

The clinical case definition requirements vary for each of the case classification categories. See the case classifications, below.

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Isolation of mumps virus from clinical specimen, OR
- Detection of mumps nucleic acid via reverse transcriptase polymerase chain reaction (RT-PCR)

Presumptive Testing

- Detection of serum mumps IgM antibody

Case Classification

Confirmed

A case with confirmatory laboratory results and an acute illness characterized by any of the following:

- Acute parotitis or other salivary gland swelling, lasting at least 2 days
- Aseptic meningitis
- Encephalitis
- Hearing loss
- Orchitis
- Oophoritis
- Mastitis
- Pancreatitis

Probable

Acute parotitis or other salivary gland swelling lasting at least 2 days, or orchitis or oophoritis unexplained by another more likely diagnosis, in:

- A person with positive presumptive laboratory results, OR
- A person with epidemiologic linkage to another probable or confirmed case or linkage to a group/community defined by public health during an outbreak of mumps.

Suspect

- Parotitis, acute salivary gland swelling, orchitis, or oophoritis unexplained by another more likely diagnosis, OR
- A positive lab result with no mumps clinical symptoms (with or without epidemiological-linkage to a confirmed or probable case).

Classification of Import Status

Internationally imported case
An internationally imported case is defined as a case in which mumps results from exposure to mumps virus outside the United States as evidenced by at least some of the exposure period (12–25 days before onset of parotitis or other mumps-associated complications) occurring outside the United States and the onset of parotitis or other mumps-associated complications within 25 days of entering the United States and no known exposure to mumps in the U.S. during that time. All other cases are considered U.S.-acquired cases.

U.S.-acquired case
A U.S.-acquired case is defined as a case in which the patient had not been outside the United States during the 25 days before onset of parotitis or other mumps-associated complications or was known to have been exposed to mumps within the United States. U.S.-acquired cases are sub-classified into four mutually exclusive groups:

- **Import-linked case**: Any case in a chain of transmission that is epidemiologically linked to an internationally imported case.
- **Imported-virus case**: A case for which an epidemiologic link to an internationally imported case was not identified but for which viral genetic evidence indicates an imported mumps genotype, i.e., a genotype that is not occurring within the United States in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any mumps virus that occurs in an endemic chain of transmission (i.e., lasting ≥12 months). Any genotype that is found repeatedly in U.S.-acquired cases should be thoroughly investigated as a potential endemic genotype, especially if the cases are closely related in time or location.
- **Endemic case**: A case for which epidemiological or virological evidence indicates an endemic chain of transmission. Endemic transmission is defined as a chain of mumps virus transmission continuous for ≥12 months within the United States.
- **Unknown source case**: A case for which an epidemiological or virological link to importation or to endemic transmission within the U.S. cannot be established after a thorough investigation. These cases must be carefully assessed epidemiologically to assure that they do not represent a sustained U.S.-acquired chain of transmission or an endemic chain of transmission within the U.S.

Note: Internationally imported, import-linked, and imported-virus cases are considered collectively to be import-associated cases.

Comment

With previous contact with mumps virus either through vaccination (particularly with 2 doses) or natural infection, serum mumps IgM test results may be negative; IgG test results may be positive at initial blood draw and viral detection in RT-PCR or culture may have low yield if the buccal swab is collected too long after parotitis onset. Therefore, mumps cases should not be ruled out by negative laboratory results. Serologic tests should be interpreted with caution, as false positive and false negative results are possible with IgM tests.

States may also choose to classify cases as “out-of-state-imported” when imported from another state in the United States. For national reporting, however, cases will be classified as either internationally imported or U.S.-acquired.

CONTROL MEASURES

Arizona Administrative Code R9-6-353 Mumps

Case Control Measures

1. An administrator of a school or child care establishment, either personally or through a representative, shall:
    a. Exclude a mumps case from the school or child care establishment for five calendar days after the onset of glandular swelling; and
    b. Exclude a mumps suspect case from the school or child care establishment and from school- or child-care-establishment-sponsored events until evaluated and determined to be noninfectious by a physician, physician assistant, or registered nurse practitioner.
2. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and institute droplet precautions with a mumps case for five calendar days after the onset of glandular swelling.
3. A local health agency shall:
    a. Upon receiving a report under R9-6-202 or R9-6-203 of a mumps case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
    b. Conduct an epidemiologic investigation of each reported mumps case or suspect case;
    c. For each mumps case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
    d. Ensure that specimens from each mumps case, as required by the Department, are submitted to the Arizona State Laboratory.

Contact Control Measures

1. When a mumps case has been at a school or child care establishment, the administrator of the school or child care establishment, either personally or through a representative, shall:
    a. Consult with the local health agency to determine who shall be excluded and how long each individual shall be excluded from the school or child care establishment, and
    b. Comply with the local health agency's recommendations for exclusion.
2. An administrator of a health care institution shall ensure that a paid or volunteer full-time or part-time worker at a health care institution does not participate in the direct care of a mumps case or suspect case unless the worker is able to provide evidence of immunity to mumps through one of the following:
    a. A record of immunization against mumps with two doses of live virus vaccine given on or after the first birthday and at least one month apart; or
    b. A statement signed by a physician, physician assistant, registered nurse practitioner, state health officer, or local health officer affirming serologic evidence of immunity to mumps.
3. A local health agency shall determine which contacts will be:
    a. Excluded from a school or child care establishment, and
    b. Advised to obtain an immunization against mumps.

INVESTIGATION FORMS

http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix10-2-mum-wrsht.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was updated to match the 2012 CDC/CSTE definition.
Most Recent CDC/CSTE Revision Year	2012

NOROVIRUS	REPORTABLE BY LABORATORIES ONLY DIARRHEA, NAUSEA, OR VOMITING

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Norovirus usually causes a self-limited, mild-to-moderate disease that often occurs in outbreaks. Clinical symptoms include nausea, vomiting, diarrhea, abdominal pain, or other symptoms typical of gastrointestinal illnesses.

Laboratory Criteria for Diagnosis

Identification of norovirus through nucleic acid testing at the Arizona State Public Health Laboratory, CDC, or other approved reference laboratory.

Case Classification

Confirmed
A case that meets the laboratory criteria for diagnosis

Suspect
A case with clinically compatible symptoms of norovirus and epi-linked to a confirmed norovirus case OR a confirmed norovirus outbreak.

CONTROL MEASURES

Arizona Administrative Code R9-6-354 Norovirus

Outbreak Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported norovirus outbreak; and
2. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F).

Environmental Control Measures
A local health agency shall

1. Conduct a sanitary inspection or ensure that a sanitary inspection is conducted of each water, sewage, or food preparation facility associated with a norovirus outbreak.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/norovirus.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	No

Justification	2013: testing from other approved labs accepted 2014: addition of suspect case definition to capture epi-linked/outbreak cases without laboratory testing available, that were not captured in the previous case definition.
Most Recent CDC/CSTE Revision Year	N/A

PERTUSSIS (WHOOPING COUGH)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Background

Bordetella pertussis is the most poorly controlled bacterial vaccine-preventable disease in the U.S., with peaks in disease occurring every 3-5 years. Although routine childhood vaccination has resulted in substantial reductions in disease, the number of reported pertussis cases has been steadily increasing since the 1980s. Notable peaks in disease occurred in 2004 (25,827 cases, 27 deaths), 2010 (27,550 cases, 27 deaths), and most recently in 2012 when more than 41,000 cases and 18 deaths were reported, the largest number of cases in the U.S. since 1959. Furthermore, the epidemiologic features of pertussis have changed in recent years with an increasing burden of disease among fully-vaccinated children and adolescents.

Clinical Description

A cough illness lasting at least 2 weeks with at least one of the following: paroxysms of coughing, inspiratory "whoop," post-tussive vomiting, or (FOR INFANTS AGED <1 YEAR ONLY) apnea (with or without cyanosis), in the absence of a more likely diagnosis.

Laboratory Criteria for Diagnosis

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

Case Classification

Confirmed

- A case that is culture-positive for *B. pertussis* 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*

Probable

- In the absence of a more likely diagnosis, a case that meets the clinical case definition that is not laboratory confirmed by culture or PCR, and is not epidemiologically linked to a laboratory-confirmed case;

OR, FOR INFANTS AGED <1 YEAR ONLY:

- Acute cough illness of any duration, with at least one of the following signs or symptoms:
    - Paroxysms of coughing; or
    - Inspiratory "whoop"; or
    - Post-tussive vomiting; or
    - Apnea (with or without cyanosis)

And

- Polymerase chain reaction (PCR) positive for pertussis.

OR, FOR INFANTS AGED <1 YEAR ONLY:

- Acute cough illness of any duration, with at least one of the following signs or symptoms:
    - Paroxysms of coughing; or
    - Inspiratory "whoop"; or
    - Post-tussive vomiting; or
    - Apnea (with or without cyanosis)

  And
- Contact with a laboratory-confirmed case of pertussis.

OR

- A case with positive PCR results and unknown information on clinical symptoms

Suspect

In the absence of a more likely diagnosis, a case that has positive serological tests against *B. pertussis* with unknown clinical symptoms. Cases with positive serology, in the absence of other positive test pertussis test results, that are known to not meet the clinical case definition should be ruled out.

Comment

*An illness meeting the clinical case definition should be classified as "probable" rather than "confirmed" if it occurs in a patient who has contact with an infant aged <1 year who is Polymerase Chain Reacton (PCR) positive for pertussis and has ≥1 sign or symptom and cough duration <14 days (classified as "probable" case).

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, 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.

CONTROL MEASURES

Arizona Administrative Code R9-6-356 Pertussis (Whooping Cough)

Case Control Measures:

1. An administrator of a school or child care establishment, either personally or through a representative, shall:
    a. Exclude a pertussis case from the school or child care establishment for 21 calendar days after the date of onset of cough or for five calendar days after the date of initiation of antibiotic treatment for pertussis; and
    b. Exclude a pertussis suspect case from the school or child care establishment until evaluated and determined to be noninfectious by a physician, physician assistant, or registered nurse practitioner.

2. An administrator of a health care institution, either personally or through a representative, shall:
    a. Exclude a pertussis case from working at the health care institution for 21 calendar days after the date of onset of cough or for five calendar days after the date of initiation of antibiotic treatment for pertussis; and
    b. Exclude a pertussis suspect case from working at the health care institution until evaluated and determined to be noninfectious by a physician, physician assistant, or registered nurse practitioner.
3. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall
    a. Isolate and initiate droplet precautions for a pertussis case for five calendar days after the date of initiation of antibiotic treatment for pertussis.
4. A local health agency shall:
    a. Conduct an epidemiologic investigation of each reported pertussis case or suspect case; and
    b. For each pertussis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures:

1. When a pertussis case has been at a school or child care establishment, the administrator of the school or child care establishment, either personally or through a representative, shall:
2. Consult with the local health agency to determine who shall be excluded and how long each individual shall be excluded from the school or child care establishment, and
3. Comply with the local health agency's recommendations for exclusion.
4. A local health agency shall identify contacts of a pertussis case and, if indicated, shall provide or arrange for a contact to receive antibiotic prophylaxis.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/pert_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	2014: changes were made to include apnea to the list of case-defining clinical signs and symptoms for infants; the probable classification was modified to PCR positive or epi-linked cases occurring among infants with cough of any duration and at least one other clinical symptom. Both changes follow the CDC/CSTE changes. 2013: ADHS case definition includes a Suspect classification for use in tracking serological results, including serologic cases that cannot be investigated. The probable case definition includes a classification for

	PCR positive individuals who are lost to follow up or are missing clinical information. The confirmed case classification matches the CDC/CSTE definitions.
Most Recent CDC/CSTE Revision Year	2014

PLAGUE	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

Confirmatory Testing

- Isolation of *Yersinia pestis* from a clinical specimen, OR
- Fourfold or greater change in serum antibody titers to *Y. pestis* F1 antigen

Presumptive Testing

- Elevated serum antibody titer(s) to *Yersinia pestis* fraction 1 (F1) antigen (without documented fourfold or greater change) in a patient with no history of plague vaccination, or
- Detection of F1 antigen in a clinical specimen by fluorescent assay

Case Classification

Confirmed
A clinically compatible case with confirmatory laboratory results

Probable
A clinically compatible illness with presumptive laboratory results.

Suspect
A clinically compatible case without presumptive or confirmatory laboratory results.

CONTROL MEASURES

Arizona Administrative Code R9-6-357 Plague

Case Control Measures

A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall:

1. Isolate and institute droplet precautions for a pneumonic plague case or suspect case until 72 hours of antibiotic therapy have been completed with favorable clinical response.
2. An individual handling the body of a deceased plague case shall use droplet precautions.

A local health agency shall:

1. Upon receiving a report under R9-6-202 of a plague case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported plague case or suspect case;
3. For each plague case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
4. Ensure that an isolate from each plague case is submitted to the Arizona State Laboratory.

Contact Control Measures

A local health agency shall:

1. Provide follow-up to pneumonic plague contacts for seven calendar days after last exposure to a pneumonic plague case.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frm_plague.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: Suspect category added to ADHS definition to match CDC/CSTE definition. Slight rewording of laboratory criteria.
Most Recent CDC/CSTE Revision Year	2010

POLIOMYELITIS (Paralytic)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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.

Laboratory Criteria for Diagnosis

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. Confirmed cases are then further classified based on epidemiologic and laboratory criteria (classification described in Sutter RW, et al. 1989. AJPH: 79(4):495-498).

I. SPORADIC: A case of paralytic poliomyelitis not linked epidemiologically to another case of paralytic poliomyelitis
    a. Wild virus poliomyelitis: Virus characterized as wild virus
    b. Vaccine-associated poliomyelitis
        i. Recipient—OPV was received 4 to 30 days before onset of illness
        ii. Contact—illness onset was 4 to 75 days after OPV was fed to a recipient in contact with patient and contact occurred within 30 days before onset of illness
        iii. Community—No history of receiving OPV or of contact with an OPV recipient, as defined in 1 and 2, and virus isolated and characterized as vaccine-related
    c. Poliomyelitis with no history of receiving OPV or of contact with an OPV recipient, as defined in BI and B2, and virus not isolated or not characterized \

II. EPIDEMIC: A case of paralytic poliomyelitis linked epidemiologically to another case of paralytic poliomyelitis.
    a. Not a recipient of OPV
        i. Virus characterized as wild virus
        ii. Virus characterized as vaccine-related
        iii. Virus not isolated or not characterized
    b. OPV recipient—OPV received 4 to 30 days before onset of illness

i. Virus characterized as wild virus
ii. Virus characterized as vaccine-related
iii. Virus not isolated or not characterized

III. IMMUNOLOGICALLY ABNORMAL: Proven or presumed
   a. Wild virus poliomyelitis—Virus characterized as wild virus
   b. Vaccine-associated poliomyelitis
      i. Recipient—OPV was received 4 to 30 days before onset of illness
      ii. Contact—Illness onset was 4 to 75 days after OPV was fed to a recipient in contact with patient and contact occurred within 30 days before onset of illness
      iii. Community—No history of receiving OPV or of contact with an OPV recipient, as defined in 1 and 2, and virus isolated and characterized as vaccine-related
   c. Poliomyelitis with no history- of receiving OPV or of contact with an OPV recipient, as defined in BI and B2, and virus not isolated or not characterized.

IV. IMPORTED: Poliomyelitis in a person (US resident or other) who has entered the United States
   a. Virus characterized as wild virus
   b. Virus characterized as vaccine-related
   c. Indeterminate—Virus not isolated or characterized

CONTROL MEASURES

Arizona Administrative Code R9-6-358 Poliomyelitis

Case Control Measures

A local health agency shall:

1. Upon receiving a report under R9-6-202 of a poliomyelitis case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported poliomyelitis case or suspect case;
3. For each poliomyelitis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
4. Ensure that specimens from each poliomyelitis case, as required by the Department, are submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix14-2-polio-wrsht.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

POLIOVIRUS INFECTION (NONPARALYTIC)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Most poliovirus infections are asymptomatic or cause mild febrile disease. Poliovirus infections occasionally cause aseptic meningitis and one out of 200 infections from poliovirus type 1 results in paralytic poliomyelitis, characterized by acute onset of flaccid paralysis that is typically asymmetric and associated with a prodromal fever. Poliovirus is spread through fecal material, oral secretions, some aerosols, and fomites.

*Note that this case definition applies only to poliovirus infections found in asymptomatic persons or those with mild, nonparalytic disease (e.g., those with a nonspecific febrile illness, diarrhea, or aseptic meningitis). Isolation of polioviruses from persons with acute paralytic poliomyelitis should continue to be reported as “paralytic poliomyelitis.”

Laboratory Criteria for Diagnosis

Poliovirus isolate identified in an appropriate clinical specimen (e.g., stool, cerebrospinal fluid, oropharyngeal secretions), with confirmatory typing and sequencing performed by the CDC Poliovirus Laboratory, as needed.

Case Classification

Confirmed

Any person without symptoms of paralytic poliomyelitis who meets the laboratory criteria for diagnosis.

Comment

In 2005, a vaccine-derived poliovirus (VDPV) type 1 was identified in a stool specimen obtained from an immunodeficient Amish infant and, subsequently, from 4 other children in 2 other families in the infant’s central Minnesota community[1]. Epidemiological and laboratory investigations determined that the VDPV had been introduced into the community about 3 months before the infant was identified and that there had been virus circulation in the community. Investigations in other communities in Minnesota and nearby states and Canada did not identify any additional infections or any cases of paralytic poliomyelitis.

Although oral poliovirus vaccine (OPV) is still widely used in most countries, inactivated poliovirus vaccine (IPV) replaced OPV in the United States in 20002. Therefore, the Minnesota poliovirus infections were the result of importation of a vaccine-derived poliovirus into the United States and the first time a VDPV has been shown to circulate in a community in a developed country[3]. Circulating VDPVs commonly revert to a wild poliovirus phenotype and have increased transmissibility & high risk for paralytic disease; they have recently caused polio infections and outbreaks of paralytic poliomyelitis in several countries[3]. Contacts between persons in

communities with low polio vaccination coverage pose the potential for transmission of polioviruses and outbreaks of paralytic poliomyelitis.

Because of the success of the routine childhood immunization program in the U.S. and the Global Polio Eradication Initiative, polio has been eliminated in the Americas since 1991. Because the U.S. has used IPV exclusively since 2000, the occurrence of any poliovirus infections in the U.S. is a cause for concern. Reflecting the global concern for poliovirus importations into previously polio-free countries, the World Health Assembly, W.H.O., has added circulating poliovirus to the notifiable events in the International Health Regulations (IHR)[4].

References

[1] CDC. Poliovirus infections in four unvaccinated children – Minnesota, August-October 2005. MMWR; 54(41); 1053–1055.
[2] CDC. Poliomyelitis prevention in the United States. Updated recommendations from the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49 (No. RR-5).
[3] Kew OM, Sutter RW, de Gourville EM, Dowdle WR, Pallansch MA. Vaccine-derived polioviruses and the endgame strategy for global polio eradication. Ann Rev Microbiol 2005;59;587-635.
[4] CDC. Brief report. Conclusions and recommendations of the Advisory Committee on Poliomyelitis Eradication — Geneva, Switzerland, October 2005. MMWR 2005;54;1186-8.

CONTROL MEASURES

Arizona Administrative Code R9-6-358 Poliomyelitis

Case Control Measures

A local health agency shall:

1. Upon receiving a report under R9-6-202 of a poliomyelitis case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported poliomyelitis case or suspect case;
3. For each poliomyelitis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
4. Ensure that specimens from each poliomyelitis case, as required by the Department, are submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix14-2-polio-wrsht.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

PSITTACOSIS (*Chlamydophila psittaci*) (Ornithosis)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical description

Psittacosis is an illness characterized by fever, chills, headache, myalgia, and a dry cough with pneumonia often evident on chest x-ray. Severe pneumonia requiring intensive-care support, endocarditis, hepatitis, and neurologic complications occasionally occur.

Laboratory Criteria for Diagnosis

- Isolation of *Chlamydophila psittaci* from respiratory specimens (e.g., sputum, pleural fluid, or tissue), or blood, OR
- Fourfold or greater increase in antibody (Immunoglobulin G [IgG]) against *C. psittaci* by complement fixation (CF) or microimmunofluorescence (MIF) between paired acute- and convalescent-phase serum specimens obtained at least 2-4 weeks apart, OR
- Supportive serology (e.g. *C. psittaci* antibody titer [Immunoglobulin M (IgM)] of greater than or equal to 32 in at least one serum specimen obtained after onset of symptoms), OR
- Detection of *C. psittaci* DNA in a respiratory specimen (e.g. sputum, pleural fluid or tissue) via amplification of a specific target by polymerase chain reaction (PCR) assay.

Case Classification

Confirmed
An illness characterized by fever, chills, headache, cough and myalgia, and laboratory confirmed by either:

- Isolation of *Chlamydophila psittaci* from respiratory specimens (e.g., sputum, pleural fluid, or tissue), or blood, OR
- Fourfold or greater increase in antibody (Immunoglobulin G [IgG]) against *C. psittaci* by complement fixation (CF) or microimmunofluorescence (MIF) between paired acute- and convalescent-phase serum specimens obtained at least 2-4 weeks apart.

Probable
An illness characterized by fever, chills, headache, cough and myalgia that has either:

- Supportive serology (e.g., *C. psittaci* antibody titer [Immunoglobulin M, IgM] of greater than or equal to 32 in at least one serum specimen obtained after onset of symptoms), OR
- Detection of *C. psittaci* DNA in a respiratory specimen (e.g. sputum, pleural fluid or tissue) via amplification of a specific target by polymerase chain reaction (PCR) assay.

Comment

Although MIF has shown greater specificity to *C. psittaci* than CF, positive serologic findings by both techniques may occur as a result of infection with other *Chlamydophila* species and should be

interpreted with caution. To increase the reliability of test results, acute- and convalescent-phase serum specimens should be analyzed at the same time in the same laboratory. A realtime polymerase chain reaction (rtPCR) has been developed and validated in avian specimens but has not yet been validated for use in humans (1).

References

1. Mitchell SL, BJ Wolff, WL Thacker, PG Ciembor, CR Gregory, KDE Everett, BW Ritchie, JM Winchell 2008 Genotyping of *Chlamydophila psittaci* by real-time PCR and high resolution melt analysis. J. Clin. Microbiol. 47:175-181

CONTROL MEASURES

Arizona Administrative Code R9-6-359 Psittacosis (Ornithosis)

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported psittacosis case or suspect case; and
2. For each psittacosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Environmental Control Measures

A local health agency shall:

1. If a bird infected with *Chlamydia psittaci* or *Chlamydophila psittaci* is located in a private residence:
    a. Provide health education for the bird's owner about psittacosis and the risks of becoming infected with psittacosis, and
    b. Advise the bird's owner to obtain treatment for the bird; and
2. If a bird infected with *Chlamydia psittaci* or *Chlamydophila psittaci* is located in a setting other than a private residence:
    a. Provide health education for the bird's owner about psittacosis and the risks of becoming infected with psittacosis,
    b. Ensure that the bird is treated or destroyed and any contaminated structures are disinfected, and
    c. Require the bird's owner to isolate the bird from contact with members of the public and from other birds until treatment of the bird is completed or the bird is destroyed.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frm_psitacos.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

Q FEVER (*Coxiella burnetii*)	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Exposure

Exposure is usually via aerosol, is broadly interpreted, and may be unknown (especially for chronic infection), but often includes the presence of goats, sheep, or other livestock, especially during periods of parturition. Direct contact with animals is not required, and variable incubation periods may be dose dependent.

Q FEVER, ACUTE

Clinical Description

Acute fever usually accompanied by rigors, myalgia, malaise, and a severe retrobulbar headache. Fatigue, night-sweats, dyspnea, confusion, nausea, diarrhea, abdominal pain, vomiting, non-productive cough, and chest pain have also been reported. Severe disease can include acute hepatitis, atypical pneumonia with abnormal radiograph, and meningoencephalitis. Pregnant women are at risk for fetal death and abortion. Clinical laboratory findings may include elevated liver enzyme levels, leukocytosis, and thrombocytopenia. Asymptomatic infections may also occur.

Note: Serologic profiles of pregnant women infected with acute Q fever during gestation may progress frequently and rapidly to those characteristic of chronic infection.

Clinical Evidence

Acute fever and one or more of the following: rigors, severe retrobulbar headache, acute hepatitis, pneumonia, or elevated liver enzyme levels.

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer to *C. burnetii* phase II antigen by indirect immunofluorescence assay (IFA) between paired serum samples, (CDC suggests one taken during the first week of illness and a second 3-6 weeks later, antibody titers to phase I antigen may be elevated or rise as well), OR
- Detection of *C. burnetii* DNA in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay, OR
- Demonstration of *C. burnetii* in a clinical specimen by immunohistochemical methods (IHC), OR
- Isolation of *C. burnetii* from a clinical specimen by culture.

Supportive Testing

- Has a single supportive IFA IgG titer of ≥1:128 to phase II antigen (phase I titers may be elevated as well).
- Has serologic evidence of elevated phase II IgG or IgM antibody reactive with *C. burnetii* antigen by enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination.

Note: For acute testing, CDC uses in-house IFA IgG testing (cutoff of ≥1:128), preferring simultaneous testing of paired specimens, and does not use IgM results for routine diagnostic testing.

Case Classification

Confirmed acute Q fever
A laboratory confirmed case that either meets clinical case criteria or is epidemiologically linked to a lab confirmed case.

Probable acute Q fever
A clinically compatible case of acute illness (meets clinical evidence criteria for acute Q fever illness) that has laboratory supportive results for past or present acute disease (antibody to Phase II antigen) but is not laboratory confirmed.

Q FEVER, CHRONIC

Clinical Description

Infection that persists for more than 6 months. Potentially fatal endocarditis may evolve months to years after acute infection, particularly in persons with underlying valvular disease. Infections of aneurysms and vascular prostheses have been reported. Immunocompromised individuals are particularly susceptible. Rare cases of chronic hepatitis without endocarditis, osteomyelitis, osteoarthritis, and pneumonitis have been described.

Clinical Evidence

Newly recognized, culture-negative endocarditis, particularly in a patient with previous valvulopathy or compromised immune system, suspected infection of a vascular aneurysm or vascular prosthesis, or chronic hepatitis, osteomyelitis, osteoarthritis, or pneumonitis in the absence of other known etiology.

Laboratory Criteria for Diagnosis

Confirmatory Testing

- Serological evidence of IgG antibody to *C. burnetii* phase I antigen ≥ 1:800 by IFA (while phase II IgG titer will be elevated as well; phase I titer is higher than the phase II titer), OR
- Detection of *C. burnetii* DNA in a clinical specimen via amplification of a specific target by PCR assay, OR
- Demonstration of *C. burnetii* antigen in a clinical specimen by IHC, OR
- Isolation of *C. burnetii* from a clinical specimen by culture.

Supportive Testing
Has an antibody titer to *C. burnetii* phase I IgG antigen ≥1:128 and < 1:800 by IFA.

Note: Samples from suspected chronic patients should be evaluated for IgG titers to both phase I and phase II antigens. Current commercially available ELISA tests (which test only for phase 2) are not quantitative, cannot be used to evaluate changes in antibody titer, and hence are not useful for serological confirmation. IgM tests are not strongly supported for use in serodiagnosis of acute disease, as the response may not be specific for the agent (resulting in false positives) and the IgM response may be persistent. Complement fixation (CF) tests and other older test methods are neither readily available nor commonly used.

Serologic test results must be interpreted with caution, because baseline antibodies acquired as a result of historical exposure to Q fever may exist, especially in rural and farming areas.

Case Classification

Confirmed chronic Q fever
A clinically compatible case of chronic illness (meets clinical evidence criteria for chronic Q fever) that meets the confirmatory laboratory criteria for chronic infection.

Probable chronic Q fever
A clinically compatible case of chronic illness (meets clinical evidence criteria for chronic Q fever) that has laboratory supportive results for past or present chronic infection (antibody to Phase I antigen).

CONTROL MEASURES
Arizona Administrative Code R9-6-360 Q-Fever

Case Control Measures
A local health agency shall:
1. Upon receiving a report under R9-6-202 of a Q fever case or suspect case, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported Q fever case or suspect case; and
3. For each Q fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS
http://www.azdhs.gov/phs/oids/pdf/forms/frm_qfever.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2009

RABIES, ANIMAL	REPORT IMMEDIATELY

Report the case to your local health department.

CASE DEFINITION

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

CONTROL MEASURES

http://www.azsos.gov/public_services/Title_09/9-06.htm

INVESTIGATION (REPORTING) FORMS

- http://www.azdhs.gov/phs/oids/vector/rabies/index.htm
- Manual: http://www.azdhs.gov/phs/oids/vector/rabies/manual.htm
- Animal Bite or Exposure Form: http://www.azdhs.gov/phs/oids/pdf/forms/frm_rabiesexpsr.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

RABIES, HUMAN	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 Lyssavirus 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 Lyssavirus specific antibody (i.e. by indirect fluorescent antibody (IFA) test or complete rabies virus neutralization at 1:5 dilution) in the cerebrospinal fluid (CSF), OR
- Identification of Lyssavirus specific antibody (i.e. by indirect fluorescent antibody (IFA) test or complete rabies virus neutralization at 1:5 dilution) in the serum of an unvaccinated person, OR
- Detection of Lyssavirus viral RNA (using reverse transcriptase-polymerase chain reaction [RT-PCR]) in saliva, CSF, or tissue.

Case Classification

Confirmed
A clinically compatible illness that is laboratory confirmed.

Comment

- Laboratory confirmation by all of the above methods is strongly recommended.
- All confirmatory testing must be performed by the Centers for Disease Control and Prevention. Contact the Arizona Department of Health Services (602) 364-4562 to consult on suspected rabies cases.
- Serology performed by a commercial laboratory is not recognized for diagnosis of rabies.

CONTROL MEASURES

Arizona Administrative Code R9-6-361 Rabies in a Human

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a human rabies case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported human rabies case or suspect case; and

3. For each human rabies case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures:
A local health agency shall:

1. Evaluate the level of risk of transmission from each contact's exposure to a human rabies case and, if indicated, provide or arrange for each contact to receive prophylaxis.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2011

RELAPSING FEVER (Borreliosis)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

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

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

CONTROL MEASURES

Arizona Administrative Code R9-6-362 Relapsing Fever (Borreliosis)

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported borreliosis case or suspect case; and
2. For each borreliosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

RESPIRATORY SYNCYTIAL VIRUS (RSV)	REPORTABLE BY LABORATORIES ONLY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Laboratory Criteria for Diagnosis

- RSV isolation in tissue cell culture from nasopharyngeal secretions;
- Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens;
- Immunofluorescent antibody staining (direct or indirect) of respiratory specimens;
- Rapid RSV diagnostic testing of respiratory specimens; OR
- Four-fold rise in antibody titer in paired acute and convalescent sera.

Case Classification

Confirmed
A case that meets the laboratory criteria for diagnosis.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

REYE SYNDROME	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness that meets all of the following criteria:

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

Laboratory Criteria for Diagnosis

None

Case Classification

Confirmed

A case that meets the clinical case definition

CONTROL MEASURES

Arizona Administrative Code R9-6-363 Reye Syndrome

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Reye syndrome case or suspect case; and
2. For each Reye syndrome case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No longer nationally notifiable, but meets CDC/CSTE 1990 case definition.
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

ROCKY MOUNTAIN SPOTTED FEVER & OTHER SPOTTED FEVER RICKETTSIOSES	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Epidemiology

Spotted fever rickettsioses are a group of tick-borne infections caused by some members of the genus Rickettsia. Rocky Mountain spotted fever (RMSF) is an illness caused by *Rickettsia rickettsii*, a bacterial pathogen transmitted to humans through contact with ticks. *Dermacentor* species of ticks are most commonly associated with infection, including *Dermacentor variabilis* (the American dog tick), *Dermacentor andersoni* (the Rocky Mountain wood tick), and more recently *Rhiphicephalus sanguineus* (the brown dog tick). Disease onset averages one week following a tick bite. Age-specific illness is highest for children and older adults. In addition to RMSF, human illness associated with other spotted fever group *Rickettsia* species, including infection with *Rickettsia parkeri* (associated with *Amblyomma maculatum* ticks), has also been reported. In these patients, clinical presentation appears similar to, but may be milder than, RMSF; the presence of an eschar at the site of tick attachment has been reported for some other spotted fever rickettsioses.

Clinical Description

Illness is characterized by acute onset of fever, and may be accompanied by headache, malaise, myalgia, nausea/vomiting, or neurologic signs; a macular or maculopapular rash appears 4-7 days following onset in many (~80%) patients, often present on the palms and soles. RMSF may be fatal in as many as 20% of untreated cases, and severe, fulminant disease can occur.

Note: The characteristic rash may appear late or not at all. Also, some RMSF cases present with acute respiratory distress syndrome (ARDS) and thrombocytopenia.

Clinical Evidence

Any reported fever and one or more of the following: rash, eschar, headache, myalgia, anemia, thrombocytopenia, or any hepatic transaminase elevation.

Laboratory Criteria for Diagnosis

The organism in the acute phase of illness is best detected by polymerase chain reaction (PCR) and immunohistochemical methods (IHC) in skin biopsy specimens, and occasionally by PCR in appropriate whole blood specimens taken during the first week of illness, prior to antibiotic treatment. Serology can also be employed for detection, however an antibody response may not be detectable in initial samples, and paired acute and convalescent samples are essential for confirmation.

For the purposes of surveillance:

Confirmatory Testing

- Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer reactive with *Rickettsia rickettsii* or other spotted fever group antigen by indirect immunofluorescence assay (IFA) between paired serum specimens (one taken in the first week of illness and a second 2-4 weeks later), OR
- Detection of *R. rickettsii* or other spotted fever group DNA in a clinical specimen via amplification of a specific target by PCR assay, OR
- Demonstration of spotted fever group antigen in a biopsy or autopsy specimen by IHC, OR
- Isolation of *R. rickettsii* or other spotted fever group rickettsia from a clinical specimen in cell culture.

Supportive Testing

Has serologic evidence of elevated IgG or IgM antibody reactive with *R. rickettsii* or other spotted fever group antigen by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination.

Note: Current commercially available ELISA tests are not quantitative, cannot be used to evaluate changes in antibody titer, and hence are not useful for serological confirmation. IgM tests are not strongly supported for use in serodiagnosis of acute disease, as the response may not be specific for the agent (resulting in false positives) and the IgM response may be persistent. Complement fixation (CF) tests and other older test methods are neither readily available nor commonly used. CDC uses in-house IFA IgG testing (cutoff of ≥1:64), preferring simultaneous testing of paired specimens, and does not use IgM results for routine diagnostic testing.

Exposure

Exposure is defined as having been in potential tick habitats within the past 14 days before onset of symptoms. Occupation should be recorded if relevant to exposure. A history of a tick bite is not required.

Case Classification

Confirmed

A clinically compatible case (meets clinical evidence criteria) that meets the confirmatory laboratory criteria.

Probable

A clinically compatible case (meets clinical evidence criteria) that meets the supportive laboratory criteria

Suspect

- A case with laboratory evidence of past or present infection but no clinical information available (e.g. a laboratory report).
- A case that meets the clinical criteria with a negative acute specimen results and missing convalescent testing.

CONTROL MEASURES

Arizona Administrative Code R9-6-364 Rocky Mountain Spotted Fever

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported Rocky Mountain spotted fever case or suspect case; and
2. For each Rocky Mountain spotted fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.cdc.gov/ticks/forms/2010_tbrd_crf.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS has added additional criteria to the suspect case definition. Many cases do not go in for convalescent testing and most acute specimens are negative. For cases meeting clinical criteria with missing convalescent testing, ADHS is classifying these as suspect cases.
Most Recent CDC/CSTE Revision Year	2010

RUBELLA (German measles)	SUBMIT A REPORT WITHIN 24 HOURS IF SUSPECT CASE HAS A HIGH-RISK OCCUPATION. OTHERWISE, SUBMIT A REPORT WITHIN 1 WORKING DAY.

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness with all of the following characteristics

- Acute onset of generalized maculopapular rash
- Temperature greater than 99.0°F or 37.2°C, if measured
- Arthralgia, arthritis, lymphadenopathy, or conjunctivitis

Laboratory Criteria for Diagnosis

- Isolation of rubella virus, OR
- Detection of rubella-virus specific nucleic acid by polymerase chain reaction; OR
- IgG seroconversion† or significant rise between acute- and convalescent-phase titers in serum rubella immunoglobulin G antibody level by any standard serologic assay, OR
- Positive serologic test for rubella immunoglobulin M (IgM) antibody†*

†Not explained by MMR vaccination during the previous 6-45 days
*Not otherwise ruled out by more specific testing in a public health laboratory.

Case Classification

Confirmed

- A case that is laboratory confirmed (with or without symptoms), or
- A case that meets the clinical case definition, including a measured fever greater than 99.0°F or 37.2°C, and is epidemiologically linked to a laboratory-confirmed case.

Probable
A case that meets the clinical case definition, has no or noncontributory serologic or virologic testing, and is not epidemiologically linked to a laboratory-confirmed case, in the absence of a more likely diagnosis.

Suspect
Any generalized rash illness of acute onset that does not meet the criteria for probable or confirmed rubella or any other illness.

Epidemiologic Classification of Internationally-Imported and U.S.-Acquired

Internationally imported case: An internationally imported case is defined as a case in which rubella results from exposure to rubella virus outside the United States as evidenced by at least some of the exposure period (12–23 days before rash onset) occurring outside the United States and the onset of rash within 23 days of entering the United States and no known exposure to rubella in the U.S. during that time. All other cases are considered U.S.-acquired cases.

U.S.-acquired case: A U.S.-acquired case is defined as a case in which the patient had not been outside the United States during the 23 days before rash onset or was known to have been exposed to rubella within the United States. U.S.-acquired cases are subclassified into four mutually exclusive groups:

- **Import-linked case**: Any case in a chain of transmission that is epidemiologically linked to an internationally imported case.
- **Imported-virus case**: A case for which an epidemiologic link to an internationally imported case was not identified but for which viral genetic evidence indicates an imported rubella genotype, i.e., a genotype that is not occurring within the United States in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any rubella virus that occurs in an endemic chain of transmission (i.e., lasting ≥12 months). Any genotype that is found repeatedly in U.S.-acquired cases should be thoroughly investigated as a potential endemic genotype, especially if the cases are closely related in time or location.
- **Endemic case**: A case for which epidemiological or virological evidence indicates an endemic chain of transmission. Endemic transmission is defined as a chain of rubella virus transmission continuous for ≥12 months within the United States.
- **Unknown source case**: A case for which an epidemiological or virological link to importation or to endemic transmission within the U.S. cannot be established after a thorough investigation. These cases must be carefully assessed epidemiologically to assure that they do not represent a sustained U.S.-acquired chain of transmission or an endemic chain of transmission within the U.S.

Note: Internationally imported, import-linked, and imported-virus cases are considered collectively to be import-associated cases.

Comment

Serum rubella IgM test results that are false positives have been reported in persons with other viral infections (e.g., acute infection with Epstein-Barr virus [infectious mononucleosis], recent cytomegalovirus infection, and parvovirus infection) or in the presence of rheumatoid factor. Patients who have laboratory evidence of recent measles infection are excluded.

CONTROL MEASURES

Arizona Administrative Code R9-6-365 Rubella (German Measles)

Case Control Measures

An administrator of a school or child care establishment, either personally or through a representative, shall:

1. Exclude a rubella case from the school or child care establishment and from school- or child-care-establishment-sponsored events from the onset of illness through the seventh calendar day after the rash appears; and
2. Exclude a rubella suspect case from the school or child care establishment and from school- or child-care-establishment-sponsored events until evaluated and determined to be noninfectious by a physician, physician assistant, or registered nurse practitioner.

A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall

1. Isolate and institute droplet precautions for a rubella case through the seventh calendar day after the rash appears.

A local health agency shall:

1. Upon receiving a report under R9-6-202 or R9-6-203 of a rubella case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported rubella case or suspect case;
3. For each rubella case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
4. Ensure that specimens from each rubella case, as required by the Department, are submitted to the Arizona State Laboratory.

Contact Control Measures:
An administrator of a health care institution shall ensure that a paid or volunteer full-time or part-time worker at a health care institution does not participate in the direct care of a rubella case or suspect case or of a patient who is or may be pregnant unless the worker first provides evidence of immunity to rubella consisting of:

1. A record of immunization against rubella given on or after the first birthday, or
2. A statement signed by a physician, physician assistant, registered nurse practitioner, state health officer, or local health officer affirming serologic evidence of immunity to rubella.

When a rubella case has been at a school or child care establishment, the administrator of the school or child care establishment, either personally or through a representative, shall:

1. Consult with the local health agency to determine who shall be excluded and how long each individual shall be excluded from the school or child care establishment, and
2. Comply with the local health agency's recommendations for exclusion.

A local health agency shall provide or arrange for immunization of each non-immune rubella contact within 72 hours after last exposure, if possible.

INVESTIGATION FORMS

- http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix16-2-rubella-wrsh.pdf
- http://www.azdhs.gov/phs/oids/pdf/forms/frmvpd_rash.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was edited to match CDC/CSTE, including addition of PCR testing.
Most Recent CSTE Revision Year	2013

RUBELLA syndrome, congenital	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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. Hearing impairment is most common single defect.

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.

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), OR
- A specimen that is PCR positive for rubella virus.

Case Classification

Confirmed
An infant with at least one of the symptoms listed in the clinical case definition and meets the laboratory criteria for diagnosis.

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.

Suspect
A case with one or more compatible clinical findings but not meeting the criteria for a probable case

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

Comment

*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.

Epidemiologic Classification of Internationally-Imported and U.S.-Acquired

Congenital rubella syndrome cases will be classified epidemiologically as internationally imported or U.S.-acquired, according to the source of infection in the mother, using the definitions below, which parallel the classifications for rubella cases.

Internationally imported case: To be classified as an internationally imported CRS case, the mother must have acquired rubella infection outside the U.S. or in the absence of documented rubella infection, the mother was outside the United States during the period when she may have had exposure to rubella that affected her pregnancy (from 21 days before conception and through the first 24 weeks of pregnancy).

U.S.-acquired case: A US-acquired case is one in which the mother acquired rubella from an exposure in the United States. U.S.-acquired cases are subclassified into four mutually exclusive groups:

- **Import-linked case**: Any case in a chain of transmission that is epidemiologically linked to an internationally imported case.
- **Imported-virus case**: A case for which an epidemiologic link to an internationally imported case was not identified but for which viral genetic evidence indicates an imported rubella genotype, i.e., a genotype that is not occurring within the United States in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any rubella virus that occurs in an endemic chain of transmission (i.e., lasting ≥12 months). Any genotype that is found repeatedly in U.S.-acquired cases should be thoroughly investigated as a potential endemic genotype, especially if the cases are closely related in time or location.
- **Endemic case**: A case for which epidemiological or virological evidence indicates an endemic chain of transmission. Endemic transmission is defined as a chain of rubella virus transmission continuous for ≥12 months within the United States.
- **Unknown source case**: A case for which an epidemiological or virological link to importation or to endemic transmission within the U.S. cannot be established after a thorough investigation. These cases must be carefully assessed epidemiologically to assure that they do not represent a sustained U.S.-acquired chain of transmission or an endemic chain of transmission within the U.S.

Note: Internationally imported, import-linked, and imported-virus cases are considered collectively to be import-associated cases.

CONTROL MEASURES

Case Control Measures:
A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and implement contact precautions for an infant congenital rubella syndrome case until:

1. The infant congenital rubella syndrome case reaches one year of age, or
2. Two successive negative virus cultures are obtained from the infant congenital rubella syndrome case after the infant congenital rubella syndrome case reaches three months of age.

A local health agency shall:

1. Upon receiving a report under R9-6-202 of a congenital rubella syndrome case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported congenital rubella syndrome case or suspect case;
3. For each congenital rubella syndrome case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
4. Ensure that specimens from each congenital rubella syndrome case, as required by the Department, are submitted to the Arizona State Laboratory.

Contact Control Measures
An administrator of a health care institution shall

1. Ensure that a paid or volunteer full-time or part-time worker at a health care institution who is known to be pregnant does not participate in the direct care of a congenital rubella syndrome case or suspect case unless the worker first provides evidence of immunity to rubella that complies with R9-6-365(B)(1).

INVESTIGATION FORMS

http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix17-rubella-syn.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

SALMONELLOSIS	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

Confirmatory Testing
Isolation of *Salmonella* from a clinical specimen

Supportive Testing
Detection of *Salmonella* from a clinical specimen using a non-culture based method

Case Classification

Confirmed
A case that meets the confirmatory laboratory criteria.

Probable
A clinically compatible illness that is epidemiologically linked to a confirmed case, i.e., a contact of a confirmed case or member of a risk group as defined by public health authorities during an outbreak.

Suspect
A case that meets the supportive laboratory criteria

Comment
Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.

CONTROL MEASURES
Arizona Administrative Code R9-6-367 Salmonellosis

Case Control Measures:
A local health agency shall:

1. Exclude a salmonellosis case with diarrhea from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until either of the following occurs:
    a. Two successive cultures negative for *Salmonella* spp. are obtained from stool specimens collected at least 24 hours apart, or
    b. Diarrhea has resolved;

2. Conduct an epidemiologic investigation of each reported salmonellosis case or suspect case; and
3. For each salmonellosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency shall:

1. Exclude a salmonellosis contact with diarrhea of unknown cause from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until either of the following occurs:
    a. Two successive cultures negative for *Salmonella* spp. are obtained from stool specimens collected at least 24 hours apart, or
    b. Diarrhea has resolved.

Environmental Control Measures

A local health agency shall:

1. If an animal infected with Salmonella spp. is located in a private residence, provide health education for the animal's owner about salmonellosis and the risks of becoming infected with *Salmonella* spp.; and
2. If an animal infected with *Salmonella* spp. is located in a setting other than a private residence:
    a. Provide health education for the animal's owner about salmonellosis and the risks of becoming infected with *Salmonella* spp., and
    b. Require the animal's owner to provide information to individuals with whom the animal may come into contact about salmonellosis and methods to reduce the risk of transmission.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/salmonellaform.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was changed to match CDC/CSTE, including the addition of non-culture based testing and a suspect case classification.
Most Recent CDC/CSTE Revision Year	2012

SCABIES	REPORT OUTBREAKS ONLY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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, parts of the mite, or eggs by scraping.

Case Classification

Confirmed
A laboratory confirmed case

Probable
An infested individual with rash occurring as described above.

Comment

Only outbreaks of scabies are reportable

CONTROL MEASURES

Arizona Administrative Code R9-6-368 Scabies

Case Control Measures
An administrator of a school or child care establishment, either personally or through a representative, shall:

1. Exclude a scabies case from the school or child care establishment until treatment for scabies is completed.
2. Exclude a scabies case from participating in the direct care of a patient or resident until treatment for scabies is completed.
3. Ensure that a scabies case receives treatment for scabies and that the case's clothing and personal articles are disinfested.

Contact Control Measures
An administrator of a school, child care establishment, health care institution, or shelter, either personally or through a representative, shall:

1. Advise a scabies contact with symptoms of scabies to obtain examination and, if necessary, treatment.

Outbreak Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported scabies outbreak;
2. Provide health education regarding prevention, control, and treatment of scabies to individuals affected by the outbreak;
3. When a scabies outbreak occurs in a health care institution, notify the licensing agency of the outbreak; and
4. For each scabies outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-202(E).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

SEVERE ACUTE RESPIRATORY SYNDROME (SARS)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Early illness
Presence of two or more of the following features: fever (might be subjective), chills, rigors, myalgia, headache, diarrhea, sore throat, or rhinorrhea

Mild-to-moderate respiratory illness
- Temperature of >100.4° F (>38° C) and
- One or more clinical findings of lower respiratory illness (e.g., cough, shortness of breath, or difficulty breathing)

Severe respiratory illness
- Meets clinical criteria of mild-to-moderate respiratory illness and
- One or more of the following findings:
  - Radiographic evidence of pneumonia, OR
  - Acute respiratory distress syndrome, OR
  - Autopsy findings consistent with pneumonia or acute respiratory distress syndrome without an identifiable cause

Laboratory Criteria for Diagnosis

Tests to detect SARS-CoV are being refined and their performance characteristics assessed; therefore, criteria for laboratory diagnosis of SARS-CoV are changing. The following are general criteria for laboratory confirmation of SARS-CoV:
- Detection of serum antibody to SARS-CoV by a test validated by CDC (e.g., enzyme immunoassay), OR
- Isolation in cell culture of SARS-CoV from a clinical specimen, OR
- Detection of SARS-CoV RNA by a reverse transcription polymerase chain reaction test validated by CDC and with subsequent confirmation in a reference laboratory (e.g., CDC).
- Information about the current criteria for laboratory diagnosis of SARS-CoV is available at http://www.cdc.gov/ncidod/sars/labdiagnosis.htm.

Exposure

One or more of the following exposures in the 10 days before onset of symptoms:
- Close contact with a person with confirmed SARS-CoV disease, OR
- Close contact with a person with mild-to-moderate or severe respiratory illness for whom a chain of transmission can be linked to a confirmed case of SARS-CoV disease in the 10 days before onset of symptoms

Case Classification

SARS-CoV disease

Confirmed case of SARS-CoV disease
Clinically compatible illness (i.e., early, mild-to-moderate, or severe) that is laboratory confirmed

Probable case of SARS-CoV disease
Meets the clinical criteria for severe respiratory illness and the epidemiologic criteria for likely exposure to SARS-CoV

Other Criteria

SARS Report Under Investigation (RUI)
Reports in persons from areas where SARS is not known to be active

- SARS RUI-1: Cases compatible with SARS in groups likely to be first affected by SARS-CoV if SARS-CoV is introduced from a person without clear epidemiologic links to known cases of SARS-CoV disease or places with known ongoing transmission of SARS-CoV

Reports in persons from areas where SARS activity is occurring

- SARS RUI-2: Cases meeting the clinical criteria for mild-to-moderate illness and the epidemiologic criteria for possible exposure (spring 2003 CDC definition for suspect cases)
- SARS RUI-3: Cases meeting the clinical criteria for severe illness and the epidemiologic criteria for possible exposure (spring 2003 CDC definition for probable cases)
- SARS RUI-4: Cases meeting the clinical criteria for early or mild-to-moderate illness and the epidemiologic criteria for likely exposure to SARS-CoV

Exclusion Criteria
A case may be excluded as a SARS report under investigation (SARS RUI), including as a CDC-defined probable SARSCoV case, if any of the following apply:

- An alternative diagnosis can explain the illness fully, OR
- Antibody to SARS-CoV is undetectable in a serum specimen obtained >28 days after onset of illness, OR
- The case was reported on the basis of contact with a person who was excluded subsequently as a case of SARS-CoV disease; then the reported case also is excluded, provided other epidemiologic or laboratory criteria are not present.

Comment

See the MMWR report from December 12, 2003 /52(49); 1202-1206 for more information and the full list of comments.

CONTROL MEASURES

Arizona Administrative Code R9-6-369 Severe Acute Respiratory Syndrome

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a severe acute respiratory syndrome case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. In consultation with the Department, ensure the isolation of and the institution of both airborne precautions and contact precautions for a severe acute respiratory syndrome case or suspect case to prevent transmission;
3. Conduct an epidemiologic investigation of each reported severe acute respiratory syndrome case or suspect case; and
4. For each severe acute respiratory syndrome case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency, in consultation with the Department, shall:

1. Quarantine a severe acute respiratory syndrome contact as necessary to prevent transmission

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was changed to match CDC/CSTE, including modifying the exposure criteria for the situation in which SARS is not currently known to be circulating in the world.
Most Recent CSTE Revision Year	2003

SHIGELLOSIS	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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

Laboratory Criteria for Diagnosis

Confirmatory Testing
Isolation of *Shigella* species from a clinical specimen

Supportive Testing
Detection of *Shigella* from a clinical specimen using a non-culture based method

Case Classification

Confirmed
A case that meets the confirmatory laboratory criteria.

Probable
A clinically compatible illness that is epidemiologically linked, i.e., is a contact of a confirmed case or a member of a risk group defined by public health authorities during an outbreak.

Suspect
A case that meets the supportive laboratory criteria.

Comment

Both asymptomatic infections and infection at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.

CONTROL MEASURES

Arizona Administrative Code R9-6-370 Shigellosis

Case Control Measures
A local health agency shall:

1. Exclude a shigellosis case with diarrhea from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until either of the following occurs:
    a. Two successive cultures negative for *Shigella* spp. are obtained from stool specimens collected at least 24 hours apart and at least 48 hours after discontinuing antibiotics, or
    b. Treatment is maintained for 24 hours and diarrhea has resolved;

2. Conduct an epidemiologic investigation of each reported shigellosis case or suspect case; and
3. For each shigellosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency shall:

1. Exclude a shigellosis contact with diarrhea of unknown cause from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until:
    a. Two successive cultures negative for *Shigella* spp. are obtained from stool specimens collected at least 24 hours apart, or
    b. Treatment has been maintained for 24 hours and diarrhea has resolved.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_shigel.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS definition was edited to better match CDC/CSTE, including addition of non-culture based testing and the suspect case classification.
Most Recent CDC/CSTE Revision Year	2012

SMALLPOX	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An illness with acute onset of fever ≥101ºF or 38.3ºC followed by a rash characterized by firm, deep seated vesicles or pustules in the same stage of development without other apparent cause. Clinically consistent cases are those presentations of smallpox that do not meet this classical clinical case definition: a) hemorrhagic type, b) flat type, and c) *variola sine eruptione*. (Detailed clinical description is available on the CDC web site, see URL: http://www.bt.cdc.gov/agent/smallpox/index.asp)

Laboratory Criteria for Diagnosis

- Polymerase chain reaction (PCR) identification of variola DNA in a clinical specimen, OR
- Isolation of smallpox (variola) virus from a clinical specimen (Level D laboratory only; confirmed by variola PCR)

Note: Indications for laboratory testing of patients with suspected smallpox should be followed as described in detail in Guide A of the CDC Smallpox Response Plan. Laboratory diagnostic testing for variola virus should be conducted in Level C or D laboratories only.

Generic orthopox PCR and negative strain electron microscopy (EM) identification of a pox virus in a clinical specimen are suggestive of an orthopox virus infection but not diagnostic for smallpox.

Case Classification*

Confirmed
Case of smallpox that is laboratory confirmed, or a case that meets the clinical case definition that is epidemiologically linked to a laboratory confirmed case.

Probable
A case that meets the clinical case definition, or a clinically consistent case that does not meet the clinical case definition and has an epidemiological link to a confirmed case of smallpox.

Suspect
A case with a generalized, acute vesicular or pustular rash illness with fever preceding development of rash by 1-4 days, without another apparent cause.

*Exclusion Criteria: A case may be excluded as a suspect or probable smallpox case if an alternative diagnosis fully explains the illness or appropriate clinical specimens are negative for laboratory criteria for smallpox.

Comment

The smallpox case definition is to be used only during post-event surveillance. The case definition described in Guide A of the Smallpox Response Plan and Guidelines (Version 3) on the CDC bioterrorism preparedness website (URL: http://www.bt.cdc.gov/agent/smallpox/response-plan/index.asp) includes different criteria for a suspected case than the smallpox case definition the Council of State and Territorial Epidemiologists approved for use in the National Notifiable Diseases Surveillance System (NNDSS). The smallpox case definition on the CDC bioterrorism web site is more sensitive and less specific than the case definition for the NNDSS, in that a "suspect" case is defined as: "a case with febrile rash illness with fever preceding the development of rash by 1-4 days."

CONTROL MEASURES

Arizona Administrative Code R9-6-371 Smallpox

Case Control Measures

A local health agency shall:

1. Upon receiving a report under R9-6-202 of a smallpox case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
2. In consultation with the Department:
    a. Ensure the isolation of and the institution of both airborne precautions and contact precautions for a smallpox case or suspect case to prevent transmission; and
    b. Conduct an epidemiologic investigation of each reported smallpox case or suspect case; and
3. For each smallpox case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

A local health agency, in consultation with the Department, shall:

1. Quarantine a smallpox contact as necessary to prevent transmission; and
2. Monitor the contact for smallpox symptoms, including fever, each day for 21 calendar days after last exposure.

INVESTIGATION FORMS

http://emergency.cdc.gov/agent/smallpox/response-plan

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

STREPTOCOCCAL GROUP A: INVASIVE DISEASE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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.

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. STSS cases should be reported and classified under Toxic Shock Syndrome (see case definition).

Laboratory Criteria for Diagnosis

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

Case Classification

Confirmed
A case that is laboratory confirmed.

CONTROL MEASURES

Arizona Administrative Code R9-6-372 Streptococcal Group A Infection

Non-invasive streptococcal group A infection:
Case Control Measures
An administrator of a school, child care establishment, or health care institution or a person in charge of a food establishment, either personally or through a representative, shall

1. Exclude a streptococcal group A infection case with streptococcal lesions or streptococcal sore throat from working as a food handler, attending or working in a school, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution for 24 hours after the initiation of treatment for streptococcal infection.

Invasive streptococcal group A infection:
Outbreak Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported outbreak of streptococcal group A invasive infection;
2. For each streptococcal group A invasive infection case involved in an outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
3. For each outbreak of streptococcal group A invasive infection, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/strep_groupa_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments about STSS)
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	2014: Removed “clinically compatible” from confirmed definition. Matches 2014 CDC/CSTE definition.
Most Recent CDC/CSTE Revision Year	1997

STREPTOCOCCAL GROUP B: INVASIVE DISEASE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Group B Streptococcus can produce a variety of syndromes in neonates. Clinical manifestations include pneumonia, bloodstream infection, and meningitis.

Laboratory Criteria for Diagnosis

Isolation of Group B Streptococcus (*Streptococcus agalactiae*) from a normally sterile site

Case Classification

Confirmed
A clinically compatible case of invasive Group B Streptococcus that is laboratory-confirmed in a sterile site in children < 90 days of age.

CONTROL MEASURES

Arizona Administrative Code R9-6-373 Streptococcal Group B Infection in an Infant Younger Than 90 Days of Age

Case Control Measures
A local health agency shall:

1. Confirm the diagnosis of streptococcal group B infection for each reported case or suspect case of streptococcal group B infection in an infant younger than 90 days of age; and
2. For each case of streptococcal group B infection in an infant younger than 90 days of age, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(C)

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

STREPTOCOCCUS PNEUMONIAE: INVASIVE DISEASE	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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
Isolation of *S. pneumoniae* from a normally sterile body site.

Suspect*
Any reported case lacking confirmation of isolation of *Streptococcus pneumoniae* from a normally sterile body site.

Comment

In 2010 a new 13-valent pneumococcal conjugate vaccine (PCV 13) was licensed. Surveillance should be enhanced to provide baseline and ongoing data for the assessment of disease burden and immunization program effects.

In January 2008, the Clinical and Laboratory Standards Institute published new Minimum Inhibitory Concentration (MIC) breakpoints for defining susceptibility of *S. pneumoniae* isolates to penicillin (1). The new breakpoints are estimated to decrease the number of isolates classified as antibiotic-resistant by approximately 5% (2).The changes in breakpoints will likely result in a surveillance artifact in drug resistant *S. pneumoniae* reporting and further complicate interpretation of the reported data.

*The suspect definition should be used for classifying invasive *Streptococcus pneumoniae* infections reported by a health care provider, or identified in medical records or death certificates, and when laboratory confirmation is unavailable, rather than for laboratory reports *identifying S. pneumoniae* from non-invasive specimen sites.

References

1. Clinical and Laboratory Standards Institute. Performance Standards for Antimicrobial Susceptibility Testing; Eighteenth Informational Supplement. CLSI document M100-S18

(ISBN 1-56238-653-0). Clinical and Laboratory Standards Institute, 940 West Valley Road, Suite 1400, Wayne, Pennsylvania. 19087-1898 USA, 2008.
2. Centers for Disease Control and Prevention. Effect of New Penicillin Susceptibility Breakpoints for *Streptococcus pneumoniae*—United States, 2006-2007. MMWR 2008;57:1353-5.

CONTROL MEASURES

Arizona Administrative Code R9-6-374 *Streptococcus pneumoniae* Infection

Case Control Measures

A local health agency shall:

1. If a reported *Streptococcus pneumoniae* infection case or suspect case is five or more years of age:
    a. Confirm the diagnosis of *Streptococcus pneumoniae* infection for each reported *Streptococcus pneumoniae* infection case or suspect case who is five or more years of age; and
    b. For each *Streptococcus pneumoniae* infection case who is five or more years of age, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(C); and
2. If a reported *Streptococcus pneumoniae* infection case or suspect case is under five years of age:
    a. Conduct an epidemiologic investigation for each reported *Streptococcus pneumoniae* infection case or suspect case who is under five years of age; and
    b. For each *Streptococcus pneumoniae* infection case who is under five years of age, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix13-strep-pneu.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	2014: Suspect case definition added, and slight rewording of confirmed case definition, to match CDC/CSTE.
Most Recent CDC/CSTE Revision Year	2010

SYPHILIS- Primary, Secondary, Early Latent, Late Latent, Late with clinical manifestations, & Neurosyphilis	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Case Definition

Syphilis is a complex, sexually transmitted disease with a highly variable clinical course. Adherence to the following surveillance case definitions will facilitate understanding the epidemiology of this disease across the U.S.

PRIMARY SYPHILIS

Clinical Description

A stage of infection with *Treponema pallidum* characterized by one or more ulcerative lesions (e.g. chancre), which might differ considerably in clinical appearance.

Laboratory Criteria for Diagnosis

Demonstration of *Treponema pallidum* in clinical specimens by darkfield or direct fluorescent antibody (DFA) microscopy, or by polymerase chain reaction (PCR) or equivalent molecular 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 (nontreponemal: Venereal Disease Research Laboratory [VDRL], rapid plasma reagin [RPR], or equivalent serologic methods; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS], *T. pallidum* particle agglutination [TP-PA], enzyme immunoassay [EIA], chemiluminescence immunoassay [CIA], or equivalent serologic methods).

These treponemal tests supersede older testing technologies, including microhemagglutination assay for antibody to *T. pallidum* [MHA-TP].

Comment
For cases with neurological manifestations, please see the Neurosyphilis section at the end of the Syphilis definition.

SECONDARY SYPHILIS

Clinical Description

A stage of infection due to *T. pallidum*, characterized by localized or diffuse mucocutaneous lesions (e.g., rash — such as non-pruritic macular, maculopapular, papular, or pustular lesions), often with generalized lymphadenopathy. Other symptoms can include mucous patches, condyloma lata, and alopecia. The primary ulcerative lesion may still be present. Because of the wide array of symptoms possibly indicating secondary syphilis, serologic tests for syphilis and a thorough sexual history and physical examination are crucial to determining if a case should be classified as secondary syphilis.

Laboratory Criteria for Diagnosis

Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

Case Classification

Confirmed
A clinically compatible case (with at least one sign or symptom) that is laboratory confirmed.

Probable
A clinically compatible case with a reactive nontreponemal (VDRL, RPR, or equivalent serologic methods) test titer ≥4 AND a reactive treponemal test (FTA-ABS, TP-PA, EIA, CIA), or equivalent serologic methods

Comment
For cases with neurological manifestations, please see the Neurosyphilis section at the end of the Syphilis definition.

EARLY LATENT SYPHILIS

Clinical Description

A subcategory of latent syphilis (a stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs) when initial infection has occurred within the previous 12 months.

Case Classification

Confirmed
There is no confirmed case classification for early latent syphilis.

Probable
A person with no clinical signs or symptoms of syphilis who has one of the following:

- No past diagnosis of syphilis, AND a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods), AND a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods),

OR

- A current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer.

AND

evidence of having acquired the infection within the previous 12 months based on one or more of the following criteria:

- Documented seroconversion or fourfold or greater increase in titer of a nontreponemal test during the previous 12 months
- Documented seroconversion of a treponemal test during the previous 12 months
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner within the previous 12 months who had primary, secondary, or early latent syphilis (documented independently as duration < 12 months)
- Only sexual contact was within the last 12 months (sexual debut)

Comment

For cases with neurological manifestations, please see the Neurosyphilis section at the end of the Syphilis definition.

LATE LATENT SYPHILIS

Clinical Description

A subcategory of latent syphilis (a stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs) when initial infection has occurred >12 months previously.

Case Classification

Confirmed

There is no confirmed case classification for late latent syphilis.

Probable

A person with no clinical signs or symptoms of syphilis who has one of the following:

- No past diagnosis of syphilis, AND a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods), AND a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods),

OR

- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer.

AND who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early latent). There is no confirmed case classification for late latent syphilis.

Comment

For cases with neurological manifestations, please see the Neurosyphilis section at the end of the Syphilis definition.

SYPHILIS, LATE, with CLINICAL MANIFESTATIONS OTHER THAN NEUROSYPHILIS

Clinical Description

Clinical manifestations of late syphilis may include inflammatory lesions of the cardiovascular system, (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis) or other tissue. Rarely, other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle) may be involved. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection. If only neurologic manifestations of syphilis (e.g., tabes dorsalis, dementia) are present and infection occurred more than 12 months ago, the case should be reported as "late syphilis".

Laboratory Criteria for Diagnosis

Demonstration of *T. pallidum* in late lesions by special stains (although organisms are rarely visualized in late lesions), or equivalent methods, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

Case Classification

Confirmed

A case that meets the clinical description of late syphilis that is laboratory confirmed

Probable

Characteristic abnormalities or lesions of the cardiovascular system (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis), or other tissue AND a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods), in the absence of other known causes of these abnormalities. CSF abnormalities and clinical symptoms or signs consistent with neurologic manifestations of syphilis might be present.

Comment

For cases with neurological manifestations, please see the Neurosyphilis section at the end of the Syphilis definition.

NEUROSYPHILIS

Neurosyphilis can occur at any stage of syphilis. If the patient has neurologic manifestations of syphilis, the case should be reported with the appropriate stage of infection (as if neurologic manifestations were not present) and neurologic manifestations should be noted in the case report data. If no other stage is appropriate, the case should be staged as "late, with clinical manifestations".

Neurosyphilis can apply to all stages of infection of syphilis on this page, including: primary syphilis, secondary syphilis, early latent syphilis, late latent syphilis, and late syphilis with clinical manifestations.

Clinical Description

Infection of the central nervous system with *T. pallidum*, as evidenced by manifestations including syphilitic meningitis, meningovascular syphilis, optical involvement including interstitial keratitis and uveitis, general paresis, including dementia, and tabes dorsalis.

Laboratory Criteria for Diagnosis

- A reactive VDRL in cerebrospinal fluid (CSF) AND either 1.) a reactive treponemal serologic test for syphilis (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods) OR 2.) a reactive nontreponemal serologic test for syphilis (VDRL, RPR, or equivalent serologic method).

Case Classification

Confirmed

Syphilis of any stage that meets the laboratory criteria for neurosyphilis.

Probable

Syphilis of any stage with a negative VDRL test in CSF specimen and either 1) a reactive treponemal serologic test for syphilis (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods) OR 2) a reactive non-treponemal serologic test for syphilis (VDRL, RPR, or equivalent serologic method), AND both the following:

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

†CSF protein >50 mg/dL[2], >5 white blood cells/cubic millimeter CSF[3]; in HIV-positive individuals, these parameters are less specific

CONTROL MEASURES

Arizona Administrative Code R9-6-375 Syphilis

Case Control Measures

1. A syphilis case shall obtain serologic testing for syphilis three months, six months, and one year after initiating treatment.
2. A local health agency shall:
    a. Conduct an epidemiologic investigation of each reported syphilis case or suspect case, confirming the stage of the disease;
    b. For each syphilis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D);
    c. If the syphilis case is pregnant, ensure that the syphilis case obtains the serologic testing for syphilis required in subsection (A)(1); and
    d. Comply with the requirements specified in R9-6-1103 concerning treatment and health education for a syphilis case.

3. The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of syphilis, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

Contact Control Measures
When a syphilis case has named a contact, a local health agency shall:
1. Comply with the requirements specified in R9-6-1103 concerning notification, testing, treatment, and health education for the contact.

Outbreak Control Measures:
A local health agency shall:
1. Conduct an epidemiologic investigation of each reported syphilis outbreak; and
2. For each syphilis outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	Laboratory criteria updated to reflect the addition of new diagnostic tests (PCR, TP-PA, EIA, CIA) and the removal of old ones (MHA-TP), according to the 2014 CDC/CSTE case definition; elimination of neurosyphilis as a separate category, syphilis, latent and syphilis latent of unknown; modification of clinical descriptions; addition of syphilis late, with clinical manifestations other than neurosyphilis; all modifications were made to match the 2014 CDC/CSTE case definition
Most Recent CDC/CSTE Revision Year	2014

SYPHILIS, Congenital or Stillbirth	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 or child (<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.

CONGENITAL SYPHILIS

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 that is laboratory confirmed.

Probable
A condition affecting an infant whose mother had untreated or inadequately treated* syphilis at delivery, regardless of signs in the infant or 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 leukocyte count or protein (without other cause)
- A reactive test for fluorescent treponemal antibody absorbed-19S-IgM antibody or IgM enzyme-linked immunosorbent assay.

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 judgment. In a young child, the possibility of sexual abuse should be considered as a cause of acquired rather than congenital syphilis, depending on the clinical picture. For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

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.

SYPHILITIC STILLBIRTH

Clinical Description

A fetal death that occurs after a 20-week gestation or in which the fetus weighs greater than 500 g and the mother had untreated or inadequately treated* syphilis at delivery.

Comment

For reporting purposes, syphilitic stillbirths should be reported as cases of congenital syphilis.

*Inadequate treatment consists of any non-penicillin therapy or penicillin given less than 30 days before delivery.

CONTROL MEASURES

Arizona Administrative Code R9-6-375 Syphilis

Case Control Measures

1. A syphilis case shall obtain serologic testing for syphilis three months, six months, and one year after initiating treatment.
2. A local health agency shall:
    a. Conduct an epidemiologic investigation of each reported syphilis case or suspect case, confirming the stage of the disease;
    b. For each syphilis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D);
    c. If the syphilis case is pregnant, ensure that the syphilis case obtains the serologic testing for syphilis required in subsection (A)(1); and
    d. Comply with the requirements specified in R9-6-1103 concerning treatment and health education for a syphilis case.
3. The operator of a blood bank, blood center, or plasma center shall notify a donor of a test result with significant evidence suggestive of syphilis, as required under A.R.S. § 32-1483 and 21 CFR 630.6.

Contact Control Measures

When a syphilis case has named a contact, a local health agency shall comply with the requirements specified in R9-6-1103 concerning notification, testing, treatment, and health education for the contact.

Outbreak Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported syphilis outbreak; and
2. For each syphilis outbreak, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justifications	Clinical description and case classifications have been changed to match the 2014 CDC/CSTE definitions. Syphilitic stillbirth was added to the 2014 ADHS case definitions manual to match the 2014 CDC/CSTE definitions.
Most Recent CDC/CSTE Revision Year	2014

TAENIASIS	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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.

CONTROL MEASURES

Arizona Administrative Code R9-6-376 Taeniasis

Case Control Measures
A local health agency shall:

1. Exclude a taeniasis case with *Taenia* spp. from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until free of infestation;
2. Conduct an epidemiologic investigation of each reported taeniasis case; and
3. For each taeniasis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

TETANUS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

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 for Diagnosis

None

Case Classification

Probable

- In the absence of a more likely diagnosis, an acute illness with muscle spasms or hypertonia, AND diagnosis of tetanus by a health care provider;

OR:

- Death, with tetanus listed on the death certificate as the cause of death or a significant condition contributing to death

Comment

There is no definition for “confirmed” tetanus.

CONTROL MEASURES

Arizona Administrative Code R9-6-377 Tetanus

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported tetanus case or suspect case; and
2. For each tetanus case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix18-2-tet-wrsht.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

TOXIC-SHOCK SYNDROME	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

For Toxic Shock Syndrome (not Streptococcal)

An illness with the following clinical manifestations:

- Fever: Temperature >38.9°C (102°F)
- Rash: diffuse macular erythroderma
- Desquamation: 1-2 weeks after onset of illness
- Hypotension: systolic blood pressure ≤90 mm Hg for adults or <5th percentile by age for children <16 years of age;
- Multisystem involvement - three or more of the following:
    - Gastrointestinal (vomiting or diarrhea at onset of illness)
    - Muscular (severe myalgia or creatine phosphokinase level at least twice the upper limit of normal for laboratory):
    - Mucous membrane (vaginal, oropharyngeal, or conjunctival hyperemia);
    - Renal (blood urea nitrogen or creatinine at least twice the upper limit of normal for laboratory or urinary sediment with pyuria [greater than or equal to 5 leukocytes per high-power field] in the absence of urinary tract infection):
    - Hepatic (total bilirubin, AST/SGOT [aspartate aminotransferase enzyme/serum glutamic-oxaloacetic transaminase], or ALT/SGPT [alanine aminotransferase enzyme/serum glutamic - pyruvic transaminase] at least twice the upper limit of normal for laboratory):
    - Hematologic (platelets <100,000/mm^3):
    - Central nervous system (disorientation or alterations in consciousness without focal neurologic signs when fever and hypotension are absent)

For Streptococcal Toxic Shock Syndrome

An illness with the following clinical manifestations:

- Hypotension defined by a systolic blood pressure ≤90 mm Hg for adults or <5th percentile by age for children <16 years of age.
- Multi-organ involvement characterized by two or more of the following:
    - Renal impairment: Creatinine greater than or equal to 2 mg/dL (greater than or equal to 177 µmol/L) for adults or greater than or equal to twice the upper limit of normal for age. In patients with preexisting renal disease, a greater than twofold elevation over the baseline level.
    - Coagulopathy: Platelets less than or equal to 100,000/mm^3 (less than or equal to 100 x 106/L) or disseminated intravascular coagulation, defined by prolonged clotting times, low fibrinogen level, and the presence of fibrin degradation products.
    - Liver involvement: Alanine aminotransferase, aspartate aminotransferase, or total bilirubin levels greater than or equal to twice the upper limit of normal for the patient's age. In patients with preexisting liver disease, a greater than twofold

increase over the baseline level.
  - Acute respiratory distress syndrome: defined by acute onset of diffuse pulmonary infiltrates and hypoxemia in the absence of cardiac failure or by evidence of diffuse capillary leak manifested by acute onset of generalized edema, or pleural or peritoneal effusions with hypoalbuminemia.
  - A generalized erythematous macular rash that may desquamate.
  - Soft-tissue necrosis, including necrotizing fasciitis or myositis, or gangrene.

Laboratory Criteria for Diagnosis

For Toxic Shock Syndrome (not Streptococcal)

Negative results on the following tests, if obtained:

- Blood or cerebrospinal fluid cultures (blood culture may be positive for *Staphylococcus aureus*);
- Negative serologies for Rocky Mountain spotted fever, leptospirosis, or measles

For Streptococcal Toxic Shock Syndrome

- Isolation of group A *Streptococcus*

Case Classification

For Toxic Shock Syndrome (not Streptococcal)

Confirmed
A case which meets the laboratory criteria and in which all five of the clinical findings described above are present, including desquamation, unless the patient dies before desquamation occurs.

Probable
A case which meets the laboratory criteria and in which four of the five clinical findings described above are present.

For Streptococcal Toxic Shock Syndrome

Confirmed
A case that meets the clinical case definition and with isolation of group A *Streptococcus* from a normally sterile site (e.g., blood or cerebrospinal fluid or, less commonly, joint, pleural, or pericardial fluid).

Probable
A case that meets the clinical case definition in the absence of another identified etiology for the illness and with isolation of group A *Streptococcus* from a non-sterile site.

Comment

Streptococcal toxic-shock syndrome (STSS) 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%.

CONTROL MEASURES

Arizona Administrative Code R9-6-378 Toxic Shock Syndrome

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported toxic shock syndrome case or suspect case; and
2. For each toxic shock syndrome case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/toxicshock.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (however, STSS and TSS combined)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS case definition includes STSS under TSS. However, both STSS and TSS match the CDC/CSTE case definitions for those morbidities. Previous mistake in ADHS 2011 definition corrected.
Most Recent CDC/CSTE Revision Year	2011 (TSS); 2010 (STSS)

TRICHINOSIS (TRICHINELLOSIS)	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

A disease caused by ingestion of *Trichinella* larvae, usually through consumption of *Trichinella*-containing meat—or food contaminated with such meat—that has been inadequately cooked prior to consumption. The disease has variable clinical manifestations. Common signs and symptoms among symptomatic persons include eosinophilia, fever, myalgia, and periorbital edema.

Laboratory Criteria for Diagnosis

Human Specimens

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

Food Specimens

- Demonstration of *Trichinella* larvae in the food item (probable)

Case Classification

Confirmed
A clinically compatible illness that is laboratory confirmed in the patient.

Probable
A clinically compatible illness in a person who shared an epidemiologically implicated meal or ate an epidemiologically implicated meat product.

OR

A clinically compatible illness in a person who consumed a meat product in which the parasite was demonstrated.

Suspected
Instances where there is no clinically compatible illness should be reported as suspect if the person shared an epidemiologically implicated meal, or ate an epidemiologically implicated meat product, and has a positive serologic test for trichinellosis (and no known prior history of *Trichinella* infection).

Comment

Epidemiologically implicated meals or meat products are defined as a meal or meat product that was consumed by a person who subsequently developed a clinically compatible illness that was

laboratory confirmed.

Negative serologic results may not accurately reflect disease status if blood was drawn less than 3-4 weeks from symptom onset.

Criteria to Distinguish a New Case from an Existing Case: Serial or subsequent cases of trichinosis experienced by one individual should only be counted if there is an additional epidemiologically compatible exposure. Because the duration of antibodies to *Trichinella* spp. is not known, mere presence of antibodies without a clinically-compatible illness AND an epidemiologically compatible exposure may not indicate a new infection especially among persons with frequent consumption of wild game that is known to harbor the parasite.

CONTROL MEASURES

Arizona Administrative Code R9-6-379 Trichinosis

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported trichinosis case or suspect case; and
2. For each trichinosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	No
Justification	Laboratory criteria were modified to include the identification of the parasite in food as a laboratory criterion for diagnosis; suspected and probable case definitions were added; comments were modified to include definition of epidemiologically implicated meals and meat products and criteria to distinguish between new and existing cases; modifications were made to match the 2014 CDC/CSTE case definitions.
Most Recent CDC/CSTE Revision Year	2014

For more information on control measures, see Arizona Administrative Code R9-6-380 and R9-6-601 (pg 31 and 69).

Complete the Report of Verified Case of Tuberculosis Form, Report of Verified Case of Tuberculosis Addendum Form and the ADHS TB Prevention Registry Form located at the Communicable Disease Investigations Form page.

If Interjurisdictional: Complete Interjurisdictional Tuberculosis Notification Form and Interjurisdictional Tuberculosis Notification Follow-up Form found at the Communicable Disease Investigations Form page.

CASE DEFINITION

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 or positive interferon gamma release assay for *M. tuberculosis*; AND
- Other signs and/or symptoms compatible with tuberculosis, such as an abnormal, unstable (i.e. 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* from a clinical specimen, OR
- Demonstration of *M. tuberculosis* complex from a clinical specimen by nucleic acid amplification test, OR
- Demonstration of acid-fast bacilli in a clinical specimen when a culture has not been or cannot be obtained or is falsely negative or contaminated.

Case Classification

Confirmed
A case that meets the clinical case definition or is laboratory confirmed.

Comment

Only one case should be counted in a person within any consecutive 12-month period. However, a case in a patient who had previously had verified disease should be reported again if more than 12 months have elapsed since the patient was discharged from treatment. A case

should also be reported again if the patient was lost to supervision for >12 months and disease can be verified again. Mycobacterial diseases other than those caused by *M. tuberculosis* complex should not be counted in tuberculosis morbidity statistics unless there is concurrent tuberculosis.

CONTROL MEASURES

Arizona Administrative Code R9-6-380 Tuberculosis

Case Control Measures:

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and institute airborne precautions for an individual with infectious active tuberculosis or a suspect case until:
    a. At least three successive sputum smears collected at least eight hours apart, at least one of which is taken in the morning as soon as possible after the individual awakens from sleep, are negative for acid-fast bacilli;
    b. Anti-tuberculosis treatment is initiated with multiple antibiotics;
    c. Clinical signs and symptoms of active tuberculosis are improved; and
    d. For a case of multi-drug resistant active tuberculosis, a tuberculosis control officer has approved the release of the case from airborne precautions.
2. An administrator of a health care institution, either personally or through a representative, shall notify a local health agency at least one working day before discharging a tuberculosis case or suspect case.
3. A local health agency shall:
    a. Exclude an individual with infectious active tuberculosis or a suspect case from working, unless the individual's work setting has been approved by a tuberculosis control officer, until:
        i. At least three successive sputum smears collected at least eight hours apart, at least one of which is taken first thing in the morning as soon as possible after the individual awakens from sleep, are negative for acid-fast bacilli;
        ii. Anti-tuberculosis treatment is initiated with multiple antibiotics;
        iii. Clinical signs and symptoms of active tuberculosis are improved; and
        iv. For a case of multi-drug resistant active tuberculosis, a tuberculosis control officer has approved the release of the case from airborne precautions;
    b. Conduct an epidemiologic investigation of each reported tuberculosis case or suspect case;
    c. For each tuberculosis case or suspect case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D);
    d. Ensure that an isolate from each tuberculosis case is submitted to the Arizona State Laboratory; and
    e. Comply with the requirements specified in R9-6-1202.

Contact Control Measures

1. A contact of an individual with infectious active tuberculosis shall allow a local health agency to evaluate the contact's tuberculosis status.
2. A local health agency shall comply with the tuberculosis contact control measures specified in R9-6-1202.

An individual is not a tuberculosis case if the individual has a positive result from an approved test for tuberculosis but does not have clinical signs or symptoms of disease.

INVESTIGATION FORMS

- http://www.azdhs.gov/phs/oids/pdf/forms/frmtb_rvct.pdf
- http://www.azdhs.gov/phs/oids/pdf/forms/frmtb_rvctaddem.doc
- http://www.azdhs.gov/phs/oids/pdf/forms/frmtb_regist.doc
- http://www.azdhs.gov/phs/oids/pdf/forms/frmtb_ij_notific.doc
- http://www.azdhs.gov/phs/oids/pdf/forms/frmtb_ij_fu.doc

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: Updated the ADHS case definition to match CDC/CSTE, including addition of interferon gamma release assay criteria.
Most Recent CDC/CSTE Revision Year	2009

TULAREMIA	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

Confirmatory Testing

- Isolation of *F. tularensis* from a clinical specimen, OR
- Fourfold or greater rise in serum antibody titer to *F. tularensis* antigen

Presumptive Testing

- Detection of *F. tularensis* in a clinical specimen by fluorescent assay, OR
- Elevated serum antibody titer(s) to *F. tularensis* antigen (without documented fourfold or greater change) in a patient with no history of tularemia vaccination

Case Classification

Confirmed
A clinically compatible case that that meets the confirmatory laboratory criteria

Probable
A clinically compatible case with laboratory results indicative of presumptive infection

CONTROL MEASURES

Arizona Administrative Code R9-6-381 Tularemia

Case Control Measures

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate a pneumonic tularemia case until 72 hours of antibiotic therapy have been completed with favorable clinical response.
2. A local health agency shall:
    a. Upon receiving a report under R9-6-202 of a tularemia case or suspect case,

notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;

b. Conduct an epidemiologic investigation of each reported tularemia case or suspect case;
c. For each tularemia case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
d. Ensure that an isolate from each tularemia case is submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS case definition updated to match CDC/CSTE.
Most Recent CDC/CSTE Revision Year	2010

TYPHOID FEVER (*Salmonella typhi*) SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

Confirmed
A clinically compatible case that is laboratory confirmed

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

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*.)

CONTROL MEASURES

Arizona Administrative Code R9-6-382 Typhoid Fever

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported typhoid fever case or suspect case;
2. For each typhoid fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D);
3. Exclude a typhoid fever case from working as a food handler, caring for children in or attending child care establishment, or caring for patients or residents in a health care institution until:
    a. At least one month after the date of onset of illness, and
    b. After three successive cultures negative for *Salmonella typhi* have been obtained from stool specimens collected at least 24 hours apart and at least 48 hours after cessation of antibiotic therapy;
4. If a culture from a typhoid fever case who has received antibiotic therapy is positive for

Salmonella typhi, enforce the exclusions specified in subsection (A)(3) until three successive cultures negative for *Salmonella typhi* are obtained from stool specimens collected at least one month apart and 12 or fewer months after the date of onset of illness;

5. If a positive culture is obtained on a stool specimen collected at least 12 months after onset of illness from a typhoid fever case who has received antibiotic therapy, redesignate the case as a carrier; and
6. Exclude a typhoid fever carrier from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until three successive cultures negative for *Salmonella typhi* have been obtained from stool specimens collected at least one month apart, at least one by purging.

Contact Control Measures

A local health agency shall

1. Exclude a typhoid fever contact from working as a food handler, caring for children in or attending a child care establishment, or caring for patients or residents in a health care institution until two successive cultures negative for *Salmonella typhi* are obtained from stool specimens collected at least 24 hours apart.

INVESTIGATION FORMS

http://www.cdc.gov/nationalsurveillance/PDFs/typhi-surveillance-form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

TYPHUS FEVER	SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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

Case Classification

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

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

CONTROL MEASURES

Arizona Administrative Code R9-6-383 Typhus Fever

Case Control Measures
A local health agency shall:

1. Conduct an epidemiologic investigation of each reported typhus fever case or suspect case; and
2. For each typhus fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

UNEXPLAINED DEATH WITH HISTORY OF FEVER	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Deaths meeting any of the following criteria should be reported:

- Hospital or facility or patient-reported death with no known cause AND with a history of fever (>38.0°C) OR a temperature of <36°C within 48 hours of death. Please refer to protocol for any clarification.

CONTROL MEASURES

Arizona Administrative Code R9-6-384 Unexplained Death with a History of Fever

Case Control Measures

A local health agency shall:

1. Upon receiving a report under R9-6-202 of a case or suspect case of unexplained death with a history of fever, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported case or suspect case of unexplained death with a history of fever; and
3. For each case of unexplained death with a history of fever, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(E).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/unex_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: The case definition was changed to be more specific. Subjective criteria such as unmeasured fever or unattended deaths were removed. Clinical suspicion of an infectious disease was also removed as these cases should be reported under the suspected disease or should meet the criteria for unexplained deaths.
Most Recent CDC/CSTE Revision Year	N/A

VACCINIA-RELATED ADVERSE EVENT SUBMIT A REPORT WITHIN 1 WORKING DAY

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Adverse events may include one or more of the following:

- Common adverse reactions
  - Local skin reaction
  - Nonspecific rashes, e.g., reticular maculopapular, generalized urticarial rash
  - Erythema migrans
- Vaccinia-specific reactions
  - Inadvertent inoculation
  - Ocular vaccinia infection (keratitis)
  - Generalized vaccinia: disseminated, non-centrifugal maculopapular or vesicular rash
  - Progressive vaccinia/vaccinia necrosum: an initial lesion which continues to progress without healing for more than 15 days after the vaccination; painless progressive necrosis at the site with or without metastases to other distant sites
  - Eczema vaccinia: localized or generalized popular, vesicular or pustular rash anywhere on the body, especially at sites of previous atopic dermatitis lesions
  - Encephalopathy or encephalomyelitis: most common in infants; symptoms include fever, headache, change in mental status, lethargy, seizures, coma, and is diagnosed by exclusion of other causes
- Other adverse effects
  - Cardiac, e.g., myocarditis, pericarditis
  - Osteomyelitis
  - Transverse myelitis, seizures, paralysis and neuritis
  - Fetal vaccinia: transmission from mother to fetus resulting in skin diseases and other organ involvement leading to fetal or neonatal death
  - Wound complications

Exposure Criteria

- Vaccination with smallpox vaccine within the three months preceding symptom onset, or
- Contact exposure to someone vaccinated with smallpox vaccine within the three months preceding symptom onset

Case Classification

Confirmed
A person who has at least one of the clinical features and meets at least one of the exposure criteria

CONTROL MEASURES

Arizona Administrative Code R9-6-385 Vaccinia-related Adverse Event

Case Control Measures

A local health agency shall:

1. Conduct an epidemiologic investigation of each reported case or suspect case of a vaccinia-related adverse event; and
2. For each case of a vaccinia-related adverse event, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

VANCOMYCIN-INTERMEDIATE STAPHYLOCOCCUS AUREUS (VISA), or VANCOMYCIN-RESISTANT STAPHYLOCOCCUS AUREUS (VRSA)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Staphylococcus aureus can produce a variety of syndromes with clinical manifestations including skin and soft tissue infections, empyema, bloodstream infection, pneumonia, osteomyelitis, septic arthritis, endocarditis, sepsis, and meningitis. *S. aureus* may also colonize individuals who remain asymptomatic. The most frequent site of *S. aureus* colonization is the nares.

Laboratory Criteria for Diagnosis

- Isolation of *Staphylococcus aureus* from any body site AND
- Intermediate or resistance of the *S. aureus* isolate to vancomycin, detected and defined according to Clinical and Laboratory Standards Institute (CLSI, formerly NCCLS) approved standards and recommendations (Minimum Inhibitory Concentration [MIC]=4-8 µg/ml for VISA and MIC≥16 µg/ml for VRSA).

Case Classification

Confirmed
A case of vancomycin-intermediate or vancomycin-resistant *S. aureus* that is laboratory-confirmed (MIC=4-8 µg/ml for VISA and MIC≥16 µg/ml for VRSA).

References

Clinical and Laboratory Standards Institute/NCCLS. Performance Standards for Antimicrobial Susceptibility Testing. Sixteenth informational supplement. M100-S16. Wayne, PA: CLSI, 2006

CONTROL MEASURES

Arizona Administrative Code R9-6-386 Vancomycin-Resistant or Vancomycin-Intermediate *Staphylococcus aureus*

Case Control Measures

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and implement contact precautions for a case or suspect case of vancomycin-intermediate or resistant *Staphylococcus aureus*.
2. A local health agency shall:
    a. Upon receiving a report under R9-6-202 of a case or suspect case of vancomycin intermediate or resistant *Staphylococcus aureus*, notify the Department within one working day after receiving the report and provide to the Department the

information contained in the report;

b. Conduct an epidemiologic investigation of each reported case or suspect case of vancomycin-intermediate or resistant *Staphylococcus aureus*;
c. For each case of vancomycin-intermediate or resistant *Staphylococcus aureus*, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
d. Ensure that an isolate from each case of vancomycin-intermediate or resistant *Staphylococcus aureus* is submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/VISA-VRSA_Form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2007

VANCOMYCIN-RESISTANT STAPHYLOCOCCUS EPIDERMIDIS (VRSE)	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

Vancomycin-resistant *Staphylococcus epidermidis* (VRSE) can cause a variety of infections ranging from skin infections to deeper tissue/organ involvement such as bacteremia, endocarditis, or urinary tract infections.

Laboratory Criteria for Diagnosis

- Isolation of *Staphylococcus epidermidis* from any body site AND
- Resistance of *Staphylococcus epidermidis* isolate to vancomycin, detected and defined according to the standards and guidelines approved by the National Committee for Clinical Laboratory Standards (NCCLS) (MIC >32 mg/L (NCCLS 2006)).

Case Classification

Confirmed
A clinically-compatible case of vancomycin-resistant *Staphylococcus epidermidis* that is laboratory confirmed

CONTROL MEASURES

Arizona Administrative Code R9-6-387 Vancomycin-Resistant *Staphylococcus epidermidis*

Case Control Measures

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and implement contact precautions for a case or suspect case of vancomycin-resistant *Staphylococcus epidermidis*.
2. A local health agency shall:
    a. Upon receiving a report under R9-6-202 of a case or suspect case of vancomycin-resistant *Staphylococcus epidermidis*, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
    b. Conduct an epidemiologic investigation of each reported case or suspect case of vancomycin-resistant *Staphylococcus epidermidis*;
    c. For each case of vancomycin-resistant *Staphylococcus epidermidis*, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
    d. Ensure that an isolate from each case of vancomycin-resistant *Staphylococcus epidermidis* is submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

VARICELLA (Chickenpox) and VARICELLA DEATHS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

If case expired, complete Varicella Death Investigation Worksheet Form.

CASE DEFINITION

Clinical Description

An illness with acute onset of diffuse (generalized) maculo-papulovesicular rash without other apparent cause.

Laboratory Criteria for Diagnosis

- Isolation of varicella virus from a clinical specimen; OR
- Varicella antigen by direct fluorescent antibody (DFA); OR
- Varicella-specific nucleic acid detected by polymerase chain reaction (PCR); OR
- Significant rise in serum varicella immunoglobulin G (IgG) antibody level by any standard serologic assay

Case Classification (Varicella Case)

Confirmed
An acute illness with diffuse (generalized) maculopapulovesicular rash or a case of varicella reported by a provider or school, AND

- Laboratory confirmation by any of methods above, OR
- Epidemiologic linkage to a confirmed or probable case or known outbreak.

Probable

- A reported case of rash illness by a school or healthcare provider that does not meet the criteria for a confirmed case. Case may be negative on laboratory testing or have a single serology reported.

Suspect

- Laboratory evidence of infection, including single serologic assays, in someone who does not meet the confirmed or probable case definition.

Case Classification (Varicella Death)

Confirmed
A confirmed case of varicella that contributes directly or indirectly to acute medical complications that result in death

Probable
A probable case of varicella that contributes directly or indirectly to acute medical complications that result in death.

Comment

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

Laboratory confirmation of cases of varicella is not routinely recommended; laboratory confirmation is recommended for fatal cases and in other special circumstances, including outbreaks.

For reports meeting the laboratory criteria for diagnosis, and not reported by a school or a healthcare provider, attempts should be made to identify the presence of compatible symptoms. Laboratory reports without evidence of symptoms should be classified as suspect.

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).

CONTROL MEASURES

Arizona Administrative Code R9-6-388 Varicella (Chickenpox)

Case Control Measures:

1. An administrator of a school or child care establishment, either personally or through a representative, shall exclude a varicella case from the school or child care establishment and from school- or child-care-establishment-sponsored events until lesions are dry and crusted.
2. An administrator of a health care institution, either personally or through a representative, shall isolate and implement airborne precautions for a varicella case until the case is no longer infectious.
3. A local health agency shall:
    a. Conduct an epidemiologic investigation of each reported case of death due to varicella infection; and
    b. For each reported case of death due to varicella infection, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

Contact Control Measures

1. When a varicella case has been at a school or child care establishment, the administrator of the school or child care establishment, either personally or through a representative, shall:
    a. Consult with the local health agency to determine who shall be excluded and how long each individual shall be excluded from the school or child care establishment, and
    b. Comply with the local health agency's recommendations for exclusion.
2. A local health agency shall determine which contacts of a varicella case will be:
    a. Excluded from a school or child care establishment, and
    b. Advised to obtain an immunization against varicella.

INVESTIGATION FORMS

- Death Investigation Form: http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix19-2-varicella-wrsh.pdf

- Outbreak Reporting Form (School and Childcare Facilities Only): http://www.azdhs.gov/phs/oids/pdf/forms/VaricellaReportingForm_ADHS.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	No
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS removed one laboratory criterion for diagnosis in order to match that of CDC/CSTE. ADHS 2013 kept additional comments not present in CDC/CSTE. Additionally, ADHS case definition includes a Suspect category and criteria for classifying school or provider reports in the absence of information on specific symptoms.
Most Recent CDC/CSTE Revision Year	2010 (Varicella); 1998 (Varicella death)

VIBRIO INFECTION	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR CASE HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An infection of variable severity characterized by watery diarrhea, primary septicemia, or wound infections. Asymptomatic infections may occur, and the organism may cause extra-intestinal infections.

Laboratory Criteria for Diagnosis

Isolation of a species of the family *Vibrionaceae* (other than toxigenic *Vibrio cholerae* O1 or O139, which are reportable as cholera) from a clinical specimen.

Case Classification

Confirmed
A case that meets the laboratory criteria for diagnosis. Note that species identification and, if applicable, serotype designation (i.e., *Vibrio cholerae* non-O1/non-O139 or *Grimontia hollisae*) should be reported.

Probable
A clinically-compatible case that is epidemiologically linked to a confirmed case.

Comment

Genera in the family *Vibrionaceae* (not all have been recognized to cause human illness) currently include:

- Aliivibrio
- Allomonas
- Catenococcus
- Enterovibrio
- Grimontia
- Listonella
- Photobacterium
- Salinivibrio
- Vibrio

CONTROL MEASURES

Arizona Administrative Code R9-6-389 Vibrio Infection

Case Control Measures
A local health agency shall:

1. Exclude a Vibrio infection case or suspect case from working as a food handler, caring

for patients or residents in a health care institution, or caring for children in or attending a child care establishment until either of the following occurs:
    a. Two successive cultures negative for *Vibrio* spp. are obtained from stool specimens collected at least 24 hours apart, or
    b. Diarrhea has resolved;
2. Conduct an epidemiologic investigation of each reported Vibrio infection case or suspect case; and
3. For each Vibrio infection case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/cholera_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	2013: ADHS case definition updated to match CDC/CSTE.
Most Recent CDC/CSTE Revision Year	2012

VIRAL HEMORRHAGIC FEVER	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

- Filoviruses (Ebola, Marburg)
- Lassa virus
- Lujo virus
- New World Arenaviruses (Guanarito, Machupo, Junin, Sabia)
- Crimean-Congo Hemorrhagic Fever (Nairovirus)

Clinical Description

A person with acute onset with ALL the following clinical findings:

- A fever > 40°C, AND
- One or more of the following clinical findings:
  - Severe headache
  - Muscle pain
  - Erythematous maculopapular rash on the trunk with fine desquamation 3–4 days after rash onset
  - Vomiting
  - Diarrhea
  - Pharyngitis (arenavirus only)
  - Abdominal pain
  - Bleeding not related to injury
  - Retrosternal chest pain (arenavirus only)
  - Proteinuria (arenavirus only)
  - Thrombocytopenia

Laboratory Criteria for Diagnosis

Laboratory criteria are virus-specific. Diagnostic tests should be performed in consultation with ADHS. Laboratory criteria include one or more of the following laboratory findings:

- Detection of VHF viral antigens in blood by enzyme-linked immunosorbent assay (ELISA) antigen detection
- VHF viral isolation in cell culture for blood or tissues
- Detection of VHF viral genes using reverse transcriptase with polymerase chain reaction amplification (RT-PCR) from blood or tissues
- Detection of VHF viral antigens in tissues by immunohistochemistry

Exposure/Epidemiological Criteria

One or more of the following exposures within the 3 weeks before onset of symptoms:

- Contact with blood or other body fluids of a patient with VHF
- Residence in, or travel to, a VHF endemic area
- Work in a laboratory that handles VHF specimens
- Work in a laboratory that handles bats, rodents, or primates from endemic areas

- Exposure to semen from a confirmed acute or convalescent case of VHF within the 10 weeks of that person's onset of symptoms

Case Classification

Confirmed
A case that meets the clinical and laboratory criteria.

Suspect
A case that meets the clinical and epidemiological linkage (exposure) criteria.

Comment

Viral hemorrhagic fever (VHF) may be due to a variety of etiologies which may have a wide spectrum of clinical presentations. The clinical presentations vary from constitutional symptoms of fever, myalagia, headache to bleeding/hemorrhaging from vascular abnormalities to shock and death. There are four RNA viral families that cause VHF:

- Arenaviridea family (Lassa fever, Argentina HF, Bolvian HF, Venezuelan HF, Brazilian HF);
- Bunyaviridae family (Rift Valley fever, Crimean-Congo HF, Hantavirus, Korean HF);
- Filovirdae (Marburg HF, Ebola HF);
- Flaviviridae (Yellow Fever, Dengue HF, Omsk HF, Kyasanur Forest Disease).

Hemorrhagic cases of dengue, hantavirus, or yellow fever should be reported and counted as those morbidities.

CONTROL MEASURES

Arizona Administrative Code R9-6-390 Viral Hemorrhagic Fever

Case Control Measures

1. A diagnosing health care provider or an administrator of a health care institution, either personally or through a representative, shall isolate and implement both droplet precautions and contact precautions for a viral hemorrhagic fever case or suspect case for the duration of the illness.
2. A local health agency shall:
    a. Upon receiving a report under R9-6-202 of a viral hemorrhagic fever case or suspect case, notify the Department within 24 hours after receiving the report and provide to the Department the information contained in the report;
    b. Conduct an epidemiologic investigation of each reported viral hemorrhagic fever case or suspect case;
    c. For each viral hemorrhagic fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
    d. Ensure that specimens from each viral hemorrhagic fever case are submitted to the Arizona State Laboratory.

Contact Control Measures
A local health agency, in consultation with the Department, shall:

1. Quarantine a viral hemorrhagic fever contact as necessary to prevent transmission.

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes (with additional comments)
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2011

WATERBORNE DISEASE OUTBREAK SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

Complete Waterborne Diseases Outbreak Report Form.

If Suspected Norovirus, complete Suspected Viral Gastroenteritis Outbreak Form.

CASE DEFINITION

Definition

An incident in which two or more epidemiologically-linked persons experience a similar illness after exposure to the same water source and epidemiologic evidence implicates the water as the likely source of the illness.

Clinical Description

Symptoms of illness depend upon etiologic agent.

Laboratory Criteria for Diagnosis

Dependent upon etiologic agent

Case classification

Confirmed
Any outbreak of an infectious disease, chemical poisoning or toxin-mediated illness where water is indicated as the source by an epidemiological investigation

Comment

The implicated water in these waterborne disease outbreaks may be drinking water, recreational water, water not intended for drinking (e.g., water used for agricultural purposes or in a cooling tower) or water of unknown intent. The route of exposure may be ingestion, inhalation, intranasal, or contact. The agent associated with the waterborne disease outbreak may be a microbe, chemical, or toxin. Water testing to demonstrate contamination or identify the etiologic agent is preferred, but not required for inclusion. Chemicals (including disinfection byproducts) in drinking water or in recreational water that cause health effects either through water exposure or by volatilization leading to poor air quality are included. Reports of waterborne disease outbreaks received through the National Outbreak Reporting System (NORS) are captured in the Waterborne Disease and Outbreak Surveillance System (WBDOSS).

Although not reported through NORS, the WBDOSS also accepts single cases of chemical exposure, wound infection and other illnesses, (e.g., *Naegleria* infections) that are epidemiologically linked to water exposure as well as aquatic facility-related health events (e.g., chemical mixing accidents or air quality problems). However, these single cases or aquatic facility-related health events are not reported or analyzed as waterborne disease outbreaks.

CONTROL MEASURES

Arizona Administrative Code R9-6-324 Diarrhea, Nausea, or Vomiting

Environmental Control Measures

A local health agency shall

1. Conduct a sanitary inspection or ensure that a sanitary inspection is conducted of each water, sewage, or food preparation facility associated with an outbreak of diarrhea, nausea, or vomiting.

Outbreak Control Measures

A local health agency shall:

2. Conduct an epidemiologic investigation of each reported outbreak of diarrhea, nausea, or vomiting;
3. Submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(F) for:
    a. Each suspected foodborne illness outbreak,
    b. Each suspected waterborne illness outbreak, and
    c. Each outbreak of viral gastroenteritis.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/frmfb_water.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

WEST NILE VIRUS	SUBMIT A REPORT WITHIN 5 WORKING DAYS

See ARBOVIRAL DISEASES (including WEST NILE VIRUS) in this document.

YELLOW FEVER	SUBMIT A REPORT WITHIN 24 HOURS

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

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 other 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., ≥32 by complement fixation, ≥ 256 by immunofluorescence assay, ≥320 by hemagglutination inhibition, ≥ 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).

CONTROL MEASURES

Arizona Administrative Code R9-6-392 Yellow Fever

Case Control Measures
A local health agency shall:

1. Upon receiving a report under R9-6-202 of a yellow fever case or suspect case, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
2. Conduct an epidemiologic investigation of each reported yellow fever case or suspect case; and
3. For each yellow fever case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D).

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2010

YERSINIOSIS	REPORT WITHIN 24 HOURS IF AN OUTBREAK IS DETECTED OR PERSON HAS A HIGH-RISK OCCUPATION SUBMIT REPORT WITHIN 5 DAYS FOR ALL OTHER CASES

To report a case, complete a Communicable Disease Investigations Form and report the case to your local health department.

CASE DEFINITION

Clinical Description

An acute bacterial enteric disease typically manifested by acute febrile diarrhea and enterocolitis. Bloody diarrhea is reported in approximately 25% of patients with *Yersinia enterocolitis*. Mesenteric lymphadenitis mimicking appendicitis especially in older children and adults has also been noted.

Laboratory Criteria for Diagnosis

Isolation of *Y. enterocolitica* or *Y. pseudotuberculosis* from a clinical specimen

Case Classification

Confirmed
A clinically compatible case that is laboratory confirmed

Probable
A clinically compatible case that is epidemiologically linked to a probable or confirmed case

CONTROL MEASURES

Arizona Administrative Code R9-6-393 Yersiniosis (Enteropathogenic *Yersinia*)

Case Control Measures
A local health agency shall:

1. Exclude a yersiniosis case or suspect case from working as a food handler, caring for patients or residents in a health care institution, or caring for children in or attending a child care establishment until either of the following occurs:
    a. Two successive cultures negative for enteropathogenic *Yersinia* are obtained from stool specimens collected at least 24 hours apart and at least 48 hours after discontinuing antibiotics, or
    b. Diarrhea has resolved;
2. Upon receiving a report under R9-6-202 of a yersiniosis case or suspect case, notify the Department within one working day after receiving the report and provide to the Department the information contained in the report;
3. Conduct an epidemiologic investigation of each reported yersiniosis case or suspect case;
4. For each yersiniosis case, submit to the Department, as specified in Article 2, Table 4, the information required under R9-6-206(D); and
5. Ensure that an isolate from each yersiniosis case is submitted to the Arizona State Laboratory.

INVESTIGATION FORMS

http://www.azdhs.gov/phs/oids/pdf/forms/yersiniosis_form.pdf

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

CASE DEFINITIONS FOR COMMUNICABLE MORBIDITIES OF PUBLIC HEALTH SIGNIFICANCE WHICH ARE NOT EXPLICITLY REPORTABLE IN ARIZONA

AFRICAN TICK BITE FEVER

CASE DEFINITION

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

INVESTIGATION FORMS

http://www.cdc.gov/ticks/forms/2010_tbrd_crf.pdf

CONTROL MEASURES

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

BABESIOSIS

CASE DEFINITION

Clinical Description

Babesiosis is a parasitic disease caused by intraerythrocytic protozoa of the *Babesia* genus (*Babesia microti* and other species). *Babesia* are transmitted in nature through the bites of infected ticks but can also be acquired through contaminated blood components from asymptomatic parasitemic donors or, more rarely, transplacentally. *Babesia* infection can range from subclinical to life-threatening. Clinical manifestations, if any, can include hemolytic anemia and nonspecific influenza-like signs and symptoms (e.g., fever, chills, sweats, headache, myalgia, arthralgia, malaise, fatigue, generalized weakness). Splenomegaly, hepatomegaly, or jaundice may be evident. In addition to signs of hemolytic anemia, laboratory findings may include thrombocytopenia, proteinuria, hemoglobinuria, and elevated levels of liver enzymes, blood urea nitrogen, and creatinine. Risk factors for severe babesiosis include asplenia, advanced age, and other causes of impaired immune function (e.g., HIV, malignancy, corticosteroid therapy). Some immunosuppressive therapies or conditions may mask or modulate the clinical manifestations (e.g., the patient may be afebrile). Severe cases can be associated with marked thrombocytopenia, disseminated intravascular coagulation, hemodynamic instability, acute respiratory distress, myocardial infarction, renal failure, hepatic compromise, altered mental status, and death.

Clinical Evidence

For the purposes of surveillance:

- Objective: one or more of the following: fever, anemia, or thrombocytopenia.
- Subjective: one or more of the following: chills, sweats, headache, myalgia, or arthralgia.

Laboratory Criteria for Diagnosis

For the purposes of surveillance:

Laboratory confirmatory

- Identification of intraerythrocytic *Babesia* organisms by light microscopy in a Giemsa, Wright, or Wright-Giemsa–stained blood smear; or
- Detection of *Babesia microti* DNA in a whole blood specimen by polymerase chain reaction (PCR); or
- Detection of *Babesia* spp. genomic sequences in a whole blood specimen by nucleic acid amplification; or
- Isolation of *Babesia* organisms from a whole blood specimen by animal inoculation.

Laboratory supportive

- Demonstration of a *Babesia microti* Indirect Fluorescent Antibody (IFA) total immunoglobulin (Ig) or IgG antibody titer of greater than or equal to (≥) 1:256 (or ≥1:64 in epidemiologically linked blood donors or recipients); or
- Demonstration of a *Babesia microti* Immunoblot IgG positive result; or

- Demonstration of a *Babesia divergens* IFA total Ig or IgG antibody titer of greater than or equal to (≥) 1:256; or
- Demonstration of a *Babesia duncani* IFA total Ig or IgG antibody titer of greater than or equal to (≥) 1:512.

Epidemiologic Evidence for Transfusion Transmission

For the purposes of surveillance, epidemiologic linkage between a transfusion recipient and a blood donor is demonstrated if all of the following criteria are met:

a. In the transfusion recipient:
    i. Received one or more red blood cell (RBC) or platelet transfusions within one year before the collection date of a specimen with laboratory evidence of *Babesia* infection; and
    ii. At least one of these transfused blood components was donated by the donor described below; and
    iii. Transfusion-associated infection is considered at least as plausible as tickborne transmission; and
b. In the blood donor:
    i. Donated at least one of the RBC or platelet components that was transfused into the above recipient; and
    ii. The plausibility that this blood component was the source of infection in the recipient is considered equal to or greater than that of blood from other involved donors. (More than one plausible donor may be linked to the same recipient.)

Case Classification

Confirmed
A case that has confirmatory laboratory results and meets at least one of the objective or subjective clinical evidence criteria, regardless of the mode of transmission (can include clinically manifest cases in transfusion recipients or blood donors).

Probable

a. a case that has supportive laboratory results and meets at least one of the objective clinical evidence criteria (subjective criteria alone are not sufficient); or
b. a case that is in a blood donor or recipient epidemiologically linked to a confirmed or probable babesiosis case (as defined above) and:
    i. has confirmatory laboratory evidence but does not meet any objective or subjective clinical evidence criteria; or
    ii. has supportive laboratory evidence and may or may not meet any subjective clinical evidence criteria but does not meet any objective clinical evidence criteria.

Suspect
A case that has confirmatory or supportive laboratory results, but insufficient clinical or epidemiologic information is available for case classification (e.g., only a laboratory report was provided).

Comment

The validity of the diagnosis of babesiosis is highly dependent on the laboratory that performs the testing. For example, differentiation between Plasmodium and *Babesia* organisms on

peripheral blood smears can be difficult. Confirmation of the diagnosis of babesiosis by a reference laboratory is strongly encouraged, especially for patients without residence in or travel to areas known to be endemic for babesiosis.

A positive *Babesia* IFA result for immunoglobulin M (IgM) is insufficient for diagnosis and case classification of babesiosis in the absence of a positive IFA result for IgG (or total Ig). If the IgM result is positive but the IgG result is negative, a follow-up blood specimen drawn at least one week after the first should be tested. If the IgG result remains negative in the second specimen, the IgM result likely was a false positive.
When interpreting IFA IgG or total Ig results, it is helpful to consider factors that may influence the relative magnitude of *Babesia* titers (e.g., timing of specimen collection relative to exposure or illness onset, the patient's immune status, the presence of clinically manifest versus asymptomatic infection). In immunocompetent persons, active or recent *Babesia* infections that are symptomatic are generally associated with relatively high titers (although antibody levels may be below the detection threshold early in the course of infection); titers can then persist at lower levels for more than a year. In persons who are immunosuppressed or who have asymptomatic *Babesia* infections, active infections can be associated with lower titers.

Babesia microti is the most frequently identified agent of human babesiosis in the United States; most reported tick-borne cases have been acquired in parts of northeastern and north-central regions. Sporadic U.S. cases caused by other *Babesia* agents include *B. duncani* (formerly the WA1 parasite) and related organisms (CA1-type parasites) in several western states as well as parasites characterized as "*B. divergens* like" (MO1 and others) in various states. Serologic and molecular tests available for *B. microti* infection do not typically detect these other *Babesia* agents.

Blood-borne transmission of *Babesia* is not restricted by geographic region or season. The epidemiologic linkage criteria for transfusion transmission that are described here provide a low threshold for asymptomatic donor or recipient cases to be considered probable cases for surveillance purposes and are not intended to be regulatory criteria. Transfusion investigations entail laboratory testing for evidence of *Babesia* infection in recipients and donors as well as epidemiologic assessments of the plausibilities of blood- and tick-borne transmission.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	2011

GENITAL WARTS

CASE DEFINITION

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

Confirmed
A clinically compatible case that is laboratory confirmed

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

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	1996

GRANULOMA INGUINALE (GI) (*Calymmotabacterium granulomatis*)

CASE DEFINITION

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.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	1997

INFLUENZA-ASSOCIATED HOSPITALIZATIONS

CASE DEFINITION

Clinical Description

An influenza-associated hospitalization is defined for surveillance purposes as a hospital admission 14 days or less after influenza identification by an appropriate laboratory or rapid diagnostic test or a hospital admission 3 days or less before influenza identification by an appropriate laboratory or rapid diagnostic test.

Laboratory Criteria for Diagnosis

See laboratory criteria for Influenza.

Case Classification

Confirmed
A case that meets clinical case definition that is laboratory confirmed. Laboratory or rapid diagnostic test confirmation is required as part of the case definition; therefore, all reported hospitalizations will be classified as confirmed.

Comment

Influenza is not a required reportable condition by healthcare providers in Arizona, with the exception of influenza-associated pediatric deaths. However, influenza virus is a laboratory-reportable condition in the state. This definition should be used when designating any reported cases of influenza as “hospitalized”.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Justification	New case definition in 2012
Most Recent CDC/CSTE Revision Year	2012

MUCOPURULENT CERVICITIS (MPC)

CASE DEFINITION

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.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	1996

NONGONOCOCCAL URETHRITIS (NGU)

CASE DEFINITION

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.

CONTROL MEASURES

None

INVESTIGATION FORMS

None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	1996

PEDICULOSIS

CASE DEFINITION

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.

CONTROL MEASURES
None

INVESTIGATION FORMS
None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	N/A
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	N/A

PELVIC INFLAMMATORY DISEASE (PID)

CASE DEFINITION

Clinical Description

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^{o}F (greater than 38.0^{o}C)
- Leukocytosis greater than 10,000 white blood cells/mm3
- 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.

CONTROL MEASURES
None

INVESTIGATION FORMS
None

CASE DEFINITION SUMMARY

Case Definition Matches CDC/CSTE Case Definition?	Yes
Case Definition Matches 2013 ADHS Case Definition?	Yes
Most Recent CDC/CSTE Revision Year	1996