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Surveillance Case Definitions for *Select* Reportable Diseases in Florida

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Bureau of Epidemiology

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FLORIDA DEPARTMENT OF HEALTH

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Case Definitions for Select Diseases and Conditions Under Public Health Surveillance

INTRODUCTION

The importance of surveillance data collected from reportable disease information cannot be overstated. Without such data, trends cannot be accurately monitored, unusual occurrences of diseases might not be detected, and the effectiveness of intervention activities cannot be evaluated. Uniform reporting criteria, in addition to the simplicity and timeliness of surveillance data, are fundamental to increasing the specificity of reporting and improving the comparability of information about diseases occurring in different regions of the state. This document provides updated uniform criteria for the local county public health departments to use when reporting Florida's notifiable infectious diseases.

The surveillance case definitions included in this document differ in their use of clinical, laboratory, and epidemiologic criteria to define cases. For example, some clinical syndromes do not have confirmatory laboratory tests; however, laboratory evidence may be one component of a clinical definition. Some diseases require laboratory confirmation for diagnosis regardless of clinical symptoms, whereas others are diagnosed based on epidemiologic data alone. **To assist in laboratory diagnosis and epidemiologic investigation, there are certain diseases for which an isolate of the organism should, and in some cases must (as required by *Florida Administrative Code*, 64D-3), be sent to the Bureau of Laboratories.**

Substantial amounts of information, including laboratory tests, must be collected for many diseases before a final case classification is possible. **Since final case review and classification is performed at the state level using laboratory as well clinical data, it is requested that copies of the paper laboratory reports be submitted with paper case report forms for certain diseases.** These are: anthrax, botulism, brucellosis, CJD, cholera, cigutera, cyclosporiasis, dengue, diphtheria, *E. coli* ehrlichiosis/anaplasmosis, influenza due to novel or pandemic strains, influenza-associated pediatric mortality, legionellosis, leprosy (Hansen's Disease), leptospirosis, malaria, melioidosis, plague, psittacosis, Q-Fever (acute and chronic), Rocky Mountain spotted fever, smallpox, *Staphylococcus aureus* Vancomycin Intermediate and Resistant, streptococcal disease, group A, trichinosis, typhoid fever, typhus fever, *Vibrio* species (All), viral hemorrhagic fever. This list of diseases changes as additional diseases are incorporated to full electronic submission via Merlin. The most up-to-date list of diseases that require paper submission of case report forms and their associated laboratory results can be seen at: http://www.doh.state.fl.us/DISEASE_CTRL/epi/surv/DiseasesRequireCRF_.pdf.

Some of the more prominent changes in this document include updating of the case definitions for ehrlichiosis/anaplasmosis, Lyme disease, mumps, Q-fever, and Rocky Mountain spotted fever to reflect case definition changes adopted by the CDC based on recommendations from the 2007 CSTE conference. Also, the lab reporting criteria for most of the hepatitis diseases have been updated to facilitate case reporting and case management.

Case report forms for diseases under public health surveillance in Florida can be found at: http://www.doh.state.fl.us/disease_ctrl/epi/topics/crforms.htm

List of Sterile and Non-Sterile Sites

Below is a list of common sterile and non-sterile sites. For additional questions please contact the Bureau of Epidemiology.

Non-sterile: Bronch wash, wound, eye, sputum, stool, urine

Sterile: Blood, CSF, pleural fluid, peritoneal fluid, pericardial fluid, deep tissue specimen taken during surgery (e.g., muscle collected during debridement for necrotizing fasciitis), bone or joint fluid. This does not include middle ear or superficial wound aspirates.

Suspect Immediately: Report immediately, 24 hours a day, 7 days a week (24/7), by phone upon initial clinical suspicion or laboratory test order

Immediately: Report immediately 24 hours a day, 7 days a week (24/7), by phone upon diagnosis

Isolates or specimens are required to be submitted to the Bureau of Laboratories

HOW TO USE INFORMATION IN THIS REPORT

These case definitions are to be used for identifying and classifying cases for reporting to the Department of Health, Bureau of Epidemiology. Terms that are used in case classifications are defined in the section **Definition of Terms Used in Case Classification** below.

Definition of Terms Used in Case Classification

CLINICALLY COMPATIBLE CASE: a clinical syndrome generally compatible with the disease, as described in the clinical description.

CONFIRMED CASE: a case that is classified as confirmed for 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 its usual modes of transmission is plausible.

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.

PROBABLE CASE: a case that is classified as probable for reporting purposes.

SUPPORTIVE or PRESUMPTIVE LABORATORY RESULTS: specified laboratory results that are consistent with the diagnosis yet do not meet the criteria for laboratory confirmation.

SUSPECTED CASE: a case that is classified as suspected for reporting purposes.

Acute Arboviral Diseases (neuroinvasive and non-neuroinvasive)

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= 06631 West Nile virus (non-neuroinvasive)
case report form: *Florida Confidential Vector-borne Disease Infection Case Report (11/07)*
MERLIN ELECTRONIC SUBMISSION

Clinical description

Arboviral infections may be asymptomatic or may result in febrile illnesses of variable severity sometimes associated with central nervous system (CNS) involvement. When the CNS is affected, clinical syndromes include aseptic meningitis, myelitis and encephalitis, which are clinically indistinguishable from similar syndromes caused by other viruses. Arboviral meningitis is usually characterized by fever, headache, stiff neck, and pleocytosis in cerebrospinal fluid. Arboviral myelitis is usually characterized by fever and acute bulbar or limb paresis or flaccid paralysis. Arboviral encephalitis is usually characterized by fever, headache, and altered mental status ranging from confusion to coma with or without additional signs of brain dysfunction. Less common neurological syndromes can include cranial and peripheral neuritis or other neuropathies, including Guillain-Barré syndrome.

Non-neuroinvasive syndromes caused by these usually neurotropic arboviruses can rarely include myocarditis, pancreatitis, or hepatitis. In addition, they may cause febrile illnesses (e.g., West Nile fever [WNF]) that are non-localized, self-limited illnesses with headache, myalgias, arthralgias, and sometimes accompanied by skin rash or lymphadenopathy. Laboratory-confirmed arboviral illnesses lacking documented fever can occur, and overlap among the various clinical syndromes is common.

Clinical criteria

Cases of arboviral disease are classified either as neuroinvasive or non-neuroinvasive, according to the following criteria:
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).

Non-neuroinvasive disease requires, at minimum, the presence of documented fever, as measured by the patient or clinician, the absence of neuroinvasive disease (above), and the absence of a more likely clinical explanation for the illness. Involvement of non-neurological organs (e.g., heart, pancreas, liver) should be documented using standard clinical and laboratory criteria.

Laboratory criteria

Cases of arboviral disease are also classified either as confirmed or probable, according to the following laboratory criteria:

Confirmed:

- 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, 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).

Probable:

- Stable (less than or equal to a two-fold change) but elevated titer of virus-specific serum antibodies,

OR

- Virus-specific 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.

Case definition

A case must meet one or more of the above clinical criteria and one or more of the above laboratory criteria.

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. Because dengue fever and West Nile fever can be clinically indistinguishable, the importance of a recent travel history and appropriate serologic testing cannot be overemphasized. In some persons, West Nile virus-specific serum IgM antibody can wane slowly and be detectable for more than one year following infection. Therefore, in areas where West Nile virus has circulated in the recent past, the co-existence of West Nile virus-specific IgM antibody and illness in a given case may be coincidental and unrelated. In those areas, the testing of serially collected serum specimens assumes added importance.

Arboviral encephalitis cannot be distinguished clinically from other central nervous system (CNS) infections.

Acute and convalescent sera from reported and suspect cases should be acquired and sent to the Bureau of Laboratories.

Note

The Surveillance and Control of Arthropod-borne Diseases in Florida, 2008 Guidebook is found online at the following link:
http://www.doh.state.fl.us/environment/community/arboviral/pdf_files/UpdatedArboguide.pdf

For additional information about arboviral diseases please visit the Bureau of Community Environmental Health website http://www.doh.state.fl.us/environment/community/arboviral/index.html

Anthrax

reporting code = 02200
case report form: N/A

Clinical description

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

- Cutaneous: a skin lesion usually evolving during a period of 2–6 days from a papule, through a vesicular stage, to a depressed black eschar.
- Inhalation: a brief prodrome resembling a viral respiratory illness, followed by development of hypoxia and dyspnea or sepsis, often with radiographic evidence of mediastinal widening or pleural effusion.
- Intestinal: severe abdominal distress followed by fever and signs of septicemia.
- Oropharyngeal: mucosal lesion in the oral cavity or oropharynx, cervical adenopathy and edema, and fever.

Laboratory criteria

- Isolation of *Bacillus anthracis* from a clinical specimen,
  OR
- Other laboratory evidence of *Bacillus anthracis* infection based on at least two supportive laboratory tests that may include:
  - Anthrax electrophoretic immunotransblot (EITB) reaction to the protective antigen and/or lethal factor bands in one or more serum samples obtained after onset of symptoms, or
  - Demonstration of *Bacillus anthracis* in a clinical specimen by immunofluorescence

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Any isolates from cases or suspected cases must be sent to the Bureau of Laboratories. Detection of a suspected case is a PUBLIC HEALTH EMERGENCY and requires immediate reporting to the Bureau of Epidemiology at 850-245-4401. This condition has been identified as a potential bioterrorism agent by the CDC.

Botulism

reporting code = 00510 (Foodborne)
= 00511 (Infant)
= 00513 (Wound)
= 00512 (Other, Unspecified)
case report form: CDC 52.50 (4/83)
Botulism Alert Summary

Clinical description

Botulism has several distinct clinical forms:

- Foodborne: An illness caused by ingestion of botulinum toxin with variable severity. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.
- Infant: An illness of infants < 12 months of age, characterized by constipation, poor feeding, and "failure to thrive" that may be followed by progressive weakness, impaired respiration, and death.
- Wound: 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.
- Other, Unspecified: An illness in a patient aged ≥12 months of age who has no history of ingestion of suspect food and has no wounds. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.

Laboratory criteria

- Detection of botulinum toxin in a clinical specimen or food for foodborne botulism

OR

- Isolation of *Clostridium botulinum* from a clinical specimen

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed or occurs among persons who ate the same food as persons who have laboratory-confirmed botulism
Probable: a clinically compatible case with an epidemiologic link (e.g., ingestion of a home-canned food within the previous 48 hours)

Comment

Note that this is one of the few diseases in which an epi-linked case without laboratory confirmation is considered confirmed.

Specimens (food or clinical) must be sent to Bureau of Laboratories for laboratory diagnosis (toxin testing) from suspected cases of botulism and must be cleared through the Bureau of Epidemiology (850) 245-4401. **Trivalent botulinum antitoxin is available through the Bureau at the above telephone number, 24 hours per day. This condition has been identified as a potential bioterrorism agent by the CDC.**

A copy of laboratory test results must accompany the paper case report form.

Brucellosis

reporting code = 02300
case report form: CDC 52.25 (1/06)
Brucellosis Case Surveillance Report

Clinical description

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

Laboratory criteria

- Isolation of *Brucella* sp. from a clinical specimen

OR

- Fourfold or greater rise in *Brucella* agglutination titer between acute- and convalescent-phase serum specimens obtained ≥2 weeks apart and studied at the same laboratory

OR

- Demonstration by immunofluorescence of *Brucella* sp. in a clinical specimen

Case classification

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

Comment

Any available isolates of the organism must be sent to the Bureau of Laboratories for confirmation and speciation. This condition has been identified as a potential bioterrorism agent by the CDC.

A copy of laboratory test results must accompany the paper case report form.

Campylobacteriosis

(Do not report asymptomatic infections)

reporting code = 03840
case report form N/A

Clinical description

An infection that may result in diarrheal illness of variable severity

Laboratory criteria

Isolation of *Campylobacter* from any 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

Cholera, *Vibrio*

reporting code = 00190 Vibrio cholerae Type-O1
case report form: CDC 52.79 (7/00)
Cholera and Other Vibrio Illness Surveillance Report

Clinical description

An illness of variable severity that is characterized by diarrhea and/or vomiting

Laboratory criteria

- Isolation of toxigenic (i.e., cholera toxin-producing) *V. cholerae* O1 or O139 from stool or vomitus, OR
- Serologic evidence of recent infection

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Illnesses caused by strains of *V. cholerae* other than toxigenic *V. cholerae* O1 or O139 should not be reported as cases of cholera. The etiologic agent of a case of cholera should be reported as either *V. cholerae* O1 or *V. cholerae* O139.

Note

Infections due to *Vibrio cholerae* non-O1 should be reported as *Vibrio*, infections (code 00198) *Vibrio cholerae,* non-O1.

Any available isolates of the organism must be sent to the Bureau of Laboratories for confirmation and serotyping. This condition has been identified as a potential bioterrorism agent by the CDC.

A copy of laboratory test results must accompany the paper case report form.

Ciguatera poisoning

reporting code = 98809
case report forms:
1. CDC 52.13 (10/00)
Investigation of a Foodborne Illness Outbreak
2. (5/98) *Record of Ciguatera Intoxication*

Clinical description

Symptoms include abdominal cramps, nausea, vomiting, diarrhea, numbness and paresthesia of lips and tongue, paresthesias of the extremities, metallic taste, arthralgia, myalgia, blurred vision. Paradoxical temperature sensation is sometimes seen. The illness is associated with the consumption of reef or bottom-dwelling fish such as barracuda, amberjack, grouper or snapper.

Laboratory criteria

- Detection of ciguatoxin in implicated fish is strongly suggestive, but is not necessary for case confirmation

Case classification

Confirmed: A clinically compatible illness in a patient with a history of fish consumption in the 24 hours before onset of symptoms

Comment

Even single sporadic cases should be reported as a single case outbreak to the regional environmental epidemiologist and be recorded on the case report form: *Record of Ciguatera Intoxication*. Testing for the toxin in implicated fish is available from the FDA. Contact your regional environmental epidemiologist for information.

Creutzfeldt-Jakob Disease (CJD)

reporting code = 04610
Case report form: HSDE 2006
Creutzfeldt-Jakob Disease Work Sheet

Clinical description

A progressive uniformly fatal dementia characterized by: Myoclonus, visual or cerebellar signs, akinetic mutism and pyramidal or extrapyramidal signs,

Laboratory criteria

- Standard neuropathological techniques; and/or immunocytochemically; and/or Western blot confirmed protease-resistant PrP; and/or presence of scrapie-associated fibrils conducted on brain tissue
- 14-3-3 proteins in CSF (test not specific for CJD)
- Periodic sharp and slow wave complexes (PSWC) in EEG (Test suggestive but not specific for CJD)

Case classification

Confirmed: A clinically compatible case diagnosed by standard neuropathological techniques; and/or immunocytochemically; and/or Western blot confirmed protease-resistant PrP; and/or presence of scrapie-associated fibrils.
Probable: Progressive dementia; and at least two out of the following four clinical features:
• Myoclonus
• Visual or cerebellar signs
• Pyramidal/extrapyramidal signs
• Akinetic mutism
AND
• A typical EEG during an illness of any duration; and/or a positive 14-3-3 CSF assay and a clinical duration to death of < 2 years
• Routine investigations should not suggest an alternative diagnosis
Suspect: Progressive dementia; and at least two out of the following four clinical features:
• Myoclonus
• Visual or cerebellar signs
• Pyramidal/extrapyramidal signs
• Akinetic mutism
AND
• No EEG or atypical EEG and duration < 2 years

Comment

Cases under the age of 55 years old should be evaluated for the variant form of CJD. Brain tissue for diagnosis and CSF for the 14-3-3 protein should be sent to the National Prion disease Pathology Surveillance Center at Case Western Reserve University. Information about the center, shipping and mailing instructions can be found on their web site: http://www.cjdsurveillance.com. Please notify the BOE to assist with case evaluation and laboratory testing.

A copy of laboratory test results must accompany the paper case report form.

Cryptosporidiosis

reporting code = 13680
case report form N/A

Clinical description

An illness characterized by watery diarrhea, abdominal cramps, loss of appetite, low-grade fever, nausea, and vomiting; infected persons may be asymptomatic.

Laboratory criteria

Detection of a member of the genus *Cryptosporidium* by one of the following methods:

- Demonstration of *Cryptosporidium* oocysts in stool

OR

- Demonstration of *Cryptosporidium* in intestinal fluid or small-bowel biopsy specimens

OR

- Demonstration of *Cryptosporidium* antigen in stool or intestinal fluid by a specific immunodiagnostic test (e.g., enzyme-linked immunosorbent assay)

OR

- Demonstration of *Cryptosporidium* by PCR techniques

OR

- Demonstration of *Cryptosporidium* reproductive stages in tissue preparations.

Case classification

Confirmed: a case that meets the clinical description AND is laboratory confirmed.
Probable: a clinically compatible case that is epidemiologically linked to a confirmed case

Comment

The disease can be prolonged and life-threatening in severely immunocompromised persons.
When available, species designation and molecular characterization should be reported.

Cyclosporiasis

reporting code = 00720
case report form: (9/02)
Cyclosporiasis Case Report Form

Clinical description

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

Laboratory criteria

- Demonstration of *Cyclospora* oocysts (by morphologic criteria or by demonstration of sporulation) in stool, duodenal/jejunal aspirates or small-bowel biopsy.

OR

- Demonstration of *Cyclospora* DNA (by polymerase chain reaction) in stool, duodenal/jejunal aspirates or small-bowel biopsy.

Case classification

Confirmed: a case that is laboratory confirmed
Probable: a clinically compatible case that is epidemiologically linked to a confirmed case

Comment

Permanent slides from reported and suspect cases must be sent to the Bureau of Laboratories.

A copy of laboratory test results must accompany the paper case report form.

Dengue Fever

reporting code = 06100
case report form: CDC 56.31A (11/06)
Dengue Case Investigation

Clinical description

An acute febrile illness characterized by frontal headache, retroocular pain, muscle and joint pain, and rash. The principal vector is the *Aedes aegypti* mosquito and transmission usually occurs in tropical or subtropical areas. Severe manifestations (e.g., dengue hemorrhagic fever and dengue shock syndrome) are rare but may be fatal.

Laboratory criteria

- Isolation of dengue virus from serum and/or autopsy tissue samples

OR

- Demonstration of a fourfold or greater rise or fall in reciprocal IgG or IgM antibody titers to one or more dengue virus antigens in paired serum samples

OR

- Demonstration of dengue virus antigen in autopsy tissue or serum samples by immunohistochemistry or by viral nucleic acid detection

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case with supportive serologic findings (a reciprocal IgG antibody titer of >1:1280 or a positive IgM antibody test on a single acute (late)- or convalescent-phase serum specimen to one or more dengue virus antigens)

Comment

Dengue hemorrhagic fever is defined as an acute febrile illness with minor or major bleeding phenomena, thrombocytopenia (platelet count <100,000/mm^3), and evidence of plasma leakage documented by hemoconcentration (hematocrit increased by >20%) or other objective evidence of increased capillary permeability. The definition of dengue shock syndrome follows all of the above criteria for dengue hemorrhagic fever and also includes hypotension or narrow pulse pressure (<20 mm Hg).

Acute and convalescent sera from reported and suspect cases should be acquired and sent to the Bureau of Laboratories.

A copy of laboratory test results must accompany the paper case report form.

Diphtheria

reporting code = 03290
case report form: CDC 4.124 (5/98)
CDC Diphtheria Worksheet

Clinical description

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

Laboratory criteria

- Isolation of *Corynebacterium diphtheriae* from a clinical specimen

OR

- Histopathologic diagnosis of diphtheria

Case classification

Confirmed: a clinically compatible case that is either laboratory confirmed or epidemiologically linked to a laboratory confirmed case
Probable: a clinically compatible case that is not laboratory confirmed and is not epidemiologically linked to a laboratory confirmed case

Comment

Respiratory disease caused by non-toxigenic *C. diphtheriae* should be reported as diphtheria.
All diphtheria isolates, regardless of association with disease, must be sent to the Bureau of Laboratories.

Questions regarding the follow-up of a diphtheria case should be directed to the Department of Health, Bureau of Immunization program representative at (850) 245-4342.

Ehrlichiosis/Anaplasmosis, Human

reporting code = 08381 Ehrlichiosis/Anaplasmosis, HGE, *A. phagocytophilum*
reporting code = 08382 Ehrlichiosis/Anaplasmosis, HME, *E. chaffeensis*
reporting code = 08383 Ehrlichiosis/Anaplasmosis, *E. ewigii*
reporting code = 08384 Ehrlichiosis/Anaplasmosis, undetermined
case report form: CDC 55.1 (1/08)
Tick-Borne Rickettsial Disease Case Report

Clinical description

A tick-borne illness characterized by acute onset of fever and one or more of the following symptoms or signs: headache, myalgia, malaise, anemia, leukopenia, thrombocytopenia, or elevated hepatic transaminases. Nausea, vomiting, or rash may be present in some cases. Intracytoplasmic bacterial aggregates (morulae) may be visible in the leukocytes of some patients.

Laboratory criteria

For the purposes of surveillance,

1. *Ehrlichia chaffeensis* infection (formerly included in the category Human Monocytic Ehrlichiosis [HME]):
   Laboratory confirmed:
   - Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer to *E. chaffeensis* antigen by indirect immunofluorescence assay (IFA) between 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 amplification of a specific target by polymerase chain reaction (PCR) assay,

   OR
   - Demonstration of ehrlichial antigen in a biopsy or autopsy sample by immunohistochemical methods,

   OR
   - Isolation of *E. chaffeensis* from a clinical specimen in cell culture.

   Laboratory supportive:
   - Serological evidence of elevated IgG or IgM antibody reactive with *E. chaffeensis* antigen by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or assays in other formats (CDC uses an IFA IgG cutoff of >1:64 and does not use IgM test results independently as diagnostic support criteria.),

   OR
   - Identification of morulae in the cytoplasm of monocytes or macrophages by microscopic examination.
2. *Ehrlichia ewingii* infection (formerly included in the category Ehrlichiosis [unspecified, or other agent]):
   Laboratory confirmed:
   - Because the organism has never been cultured, antigens are not available. Thus, *Ehrlichia ewingii* infections may only be diagnosed by molecular detection methods: *E. ewingii* DNA detected in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay.
3. *Anaplasma phagocytophilum* infection (formerly included in the category Human Granulocytic Ehrlichiosis [HGE]):
   Laboratory confirmed:
   - Serological evidence of a fourfold change in IgG-specific antibody titer to *A. phagocytophilum* 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 *A. phagocytophilum* DNA in a clinical specimen via amplification of a specific target by polymerase chain reaction (PCR) assay,

OR

- Demonstration of anaplasmal antigen in a biopsy/autopsy sample by immunohistochemical methods,

OR

- Isolation of *A. phagocytophilum* from a clinical specimen in cell culture.

Laboratory supportive:

- Serological evidence of elevated IgG or IgM antibody reactive with *A. phagocytophilum* antigen by IFA, enzyme-linked immunosorbent Assay (ELISA), dot-ELISA, or assays in other formats (CDC uses an IFA IgG cutoff of ≥1:64 and does not use IgM test results independently as diagnostic support criteria.),

OR

- Identification of morulae in the cytoplasm of neutrophils or eosinophils by microscopic examination.

4. Human ehrlichiosis/anaplasmosis – undetermined:
   - See case classification

Exposure

Exposure is defined as having been in potential tick habitats within the past 14 days before onset of symptoms. A history of a tick bite is not required.

Case classification

Confirmed: A clinically compatible case (meets clinical evidence criteria) that is laboratory confirmed.
Probable: A clinically compatible case (meets clinical evidence criteria) that has supportive laboratory results. For ehrlichiosis/anaplasmosis – an undetermined case can only be classified as probable. This occurs when a case has compatible clinical criteria with laboratory evidence to support ehrlichia/anaplasma infection, but not with sufficient clarity to definitively place it in one of the categories previously described. This may include the identification of morulae in white cells by microscopic examination in the absence of other supportive laboratory results.
Suspect: A case with laboratory evidence of past or present infection but no clinical information available (e.g., a laboratory report).

Comment

There are at least three species of bacteria, all intracellular, responsible for ehrlichiosis/ anaplasmosis in the United States: *Ehrlichia chaffeensis*, found primarily in monocytes, *and Anaplasma phagocytophilum* and *Ehrlichia ewingii,* found primarily in granulocytes. The clinical signs of disease that result from infection with these agents are similar, and the range distributions of the agents overlap, so testing for one or more species may be indicated. Serologic cross-reactions may occur among tests for these etiologic agents.

Four sub-categories of confirmed or probable ehrlichiosis/anaplasmosis should be reported: 1) human ehrlichiosis caused by *Ehrlichia chaffeensis*, 2) human ehrlichiosis caused by *E. ewingii*, 3) human anaplasmosis caused by *Anaplasma phagocytophilum*, or 4) human ehrlichiosis/anaplasmosis - undetermined. Cases reported in the fourth sub-category can only be reported as “probable” because the cases are only weakly supported by ambiguous laboratory test results.
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 via the use of PCR, IHC, and isolation via cell culture may be needed for further

clarification. Cases involving persons infected with more than a single etiologic agent, while possible, are extremely rare and every effort should be undertaken to resolve cases that appear as such (equivalent IFA antibody titers) via other explanations.
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. Furthermore, IgM tests are not always specific and the IgM response may be persistent. Therefore, IgM tests are not strongly supported for use in serodiagnosis of acute disease.
Acute and convalescent sera from reported and suspect cases should be acquired on all cases and sent to the Bureau of Laboratories.

A copy of laboratory test results must accompany the paper case report form.

Encephalitis, other (non-arboviral)

reporting code = 03236
case report form: N/A

Clinical description

An illness in which encephalitis is the major manifestation. Symptoms are due to direct invasion and replication of the infectious agent in the central nervous system, resulting in objective clinical evidence of cerebral or cerebellar dysfunction. Symptoms may include headache, fever, nuchal rigidity, altered consciousness, confusion, stupor, coma, seizures, motor weakness, or accentuated deep tissue reflexes. Postinfectious (or parainfectious) encephalitis is excluded.

Case classification

Confirmed: a clinically compatible illness diagnosed by a physician as primary encephalitis

Comment

Laboratory studies are important in clinical diagnosis but are not required for reporting purposes. Examples of viruses that may cause encephalitis include herpes simplex, coxsackie virus, or other enterovirus.

Cases of encephalitis due to arboviral infection or infection by a vaccine preventable disease should be assessed using those specific case definitions and reported under those disease codes, not here. Encephalitis, other is reserved for cases of primary encephalitis that are not categorized under one of the already reportable disease or conditions.

Escherichia coli, Shiga toxin producing (STEC)

***Escherichia coli* O157:H7**

reporting code= 00800
case report form= CDC (10/93)
E. coli Case History Report

Clinical description

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

Laboratory criteria

Isolation of Shiga toxin-producing *Escherichia coli* from a clinical specimen. (*Escherichia coli* O157:H7 isolates may be assumed to be Shiga toxin-producing.) For all other *E. coli* isolates, Shiga toxin production or the presence of Shiga toxin genes must be determined to be considered Shiga toxin-producing *E. coli* (STEC).

Case classification

Confirmed: A case that meets the laboratory criteria for diagnosis. When available, O and H antigen serotype characterization should be reported.

Probable:

- A case with isolation of *E. coli* O157 from a clinical specimen, without confirmation of H antigen or Shiga toxin production,

OR

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

OR

- Identification of an elevated antibody titer to a known Shiga toxin-producing *E. coli* serotype from a clinically compatible case.

Suspect: A case of postdiarrheal HUS or TTP (see HUS case definition), or identification of Shiga toxin in a specimen from a clinically compatible case without the isolation of the Shiga toxin-producing *E. coli*.

Comment

Both asymptomatic infections and infections at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases that should be reported.

Note

Patients with *E. coli* who develop hemolytic uremic syndrome (HUS) should be reported in Merlin with BOTH disease codes (as if they were two separate cases). A lab result that reports only "*E. coli*" does not indicate pathogenic *E. coli*.

Isolates from all cases of *E. coli* O157:H7 must be sent to the Bureau of Laboratories for confirmation and PFGE typing. All shiga-toxin producing E coli, suspected of being serogroup O157:H7 should be sent to the Bureau of Laboratories for confirmation and PFGE typing. This condition has been identified as a potential bioterrorism agent by the CDC.

A copy of laboratory test results must accompany the paper case report form.

Giardiasis

reporting code = 00710
case report form: N/A

Clinical description

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

Laboratory criteria

- Demonstration of *G. lamblia* cysts in stool

OR

- Demonstration of *G. lamblia* trophozoites in stool, duodenal fluid, or small-bowel biopsy

OR

- Demonstration of *G. lamblia* antigen in stool by a specific immunodiagnostic test (e.g., enzyme-linked immunosorbent assay)

Case classification

Confirmed: a case that is laboratory confirmed
Probable: a clinically compatible case that is epidemiologically linked to a confirmed case

Comment

Asymptomatic cases, if laboratory confirmed, are considered confirmed cases and should be reported.

Glanders (*Burkholderia mallei*)

reporting code = 02400
case report form: N/A

Clinical description

The types of infection include localized, pus forming cutaneous infections, pulmonary infections, bloodstream infections, and chronic suppurative infections of the skin. Generalized symptoms of glanders include fever, muscle aches, chest pain, muscle tightness, and headache. Additional symptoms have included excessive tearing of the eyes, light sensitivity, and diarrhea.

- Localized infections: If there is a cut or scratch in the skin, a localized infection with ulceration will develop within 1 to 5 days at the site where the bacteria entered the body. Swollen lymph nodes may also be apparent. Infections involving the mucous membranes in the eyes, nose, and respiratory tract will cause increased mucous production from the affected sites.
- Pulmonary infections: In pulmonary infections, pneumonia, pulmonary abscesses, and pleural effusion can occur. Chest X-rays will show localized infection in the lobes of the lungs.
- Bloodstream infections: Glanders bloodstream infections are usually fatal within 7 to 10 days.

Laboratory criteria

- Isolation of *Burkholderia mallei* from blood, sputum, urine, or skin lesions. Serologic assays are not available.

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Isolates from all cases must be sent to the Bureau of Laboratories. This condition has been identified as a potential bioterrorism agent by the CDC.

Haemophilus influenzae (Invasive Disease)

reporting code= 03841
case report form: CDC 52.(2/93)
National Bacterial Meningitis and Bacteremia Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

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

Laboratory criteria

- Isolation of *H. influenzae* from a normally sterile site (e.g., blood or cerebrospinal fluid [CSF] or, less commonly, joint, pleural, or pericardial fluid)

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case with detection of *H. influenzae* type b antigen in CSF

Comment

Cases of all ages should be reported. Serotype should be determined for all *Haemophilus influenzae* isolates because Hib vaccines protect against serotype b organisms only. This testing is especially important for children <15 years of age to determine possible vaccine failure or failure to vaccinate. Positive antigen test results from urine or serum samples are unreliable for diagnosis of *H. influenzae* disease. Sputum cultures are not confirmatory as sputum is not obtained from a sterile site.

Isolates from cases, especially those under the age of 15 years, must be sent to the Bureau of Laboratories for typing to determine if they are type b.

Hansen's Disease (Leprosy)

reporting code = 03090
case report form: CDC 52.18 (6/93)
Leprosy Surveillance Report

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 disease represent a spectrum reflecting the cellular immune response to *Mycobacterium leprae*. The following characteristics are typical of the major forms of the disease:

- *Tuberculoid*: one or a few well-demarcated, hypopigmented, and anesthetic skin lesions, frequently with active, spreading edges and a clearing center; peripheral nerve swelling or thickening also may 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

Laboratory criteria

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

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

There are no serological tests or skin test other than a biopsy of a lepromatous lesion. Testing can be completed at the National Hansen's Disease Program Clinical Laboratory. Contact the BOE for assistance with case assessment and laboratory testing. Information can be viewed at: http://www.hrsa.gov/hansens/clinical/diagnostics/biopsy.htm.

A copy of laboratory test results must accompany the paper case report form.

Hantavirus Infection (Hantavirus Pulmonary Syndrome)

reporting code = 07869
case report form: (6/98) *Hantavirus Pulmonary Syndrome Case Report*
MERLIN ELECTRONIC SUBMISSION

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 >101.0°F [>38.3°C]) characterized by bilateral diffuse interstitial edema that may radiographically resemble ARDS, with respiratory compromise requiring supplemental oxygen, developing within 72 hours of hospitalization, 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

- Detection of hantavirus-specific IgM or rising titers of hantavirus-specific IgG

OR

- Detection of hantavirus-specific RNA 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

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.

Any available specimens must be sent to the Bureau of Laboratories for confirmatory testing. Requests for clinical specimens to be sent to the CDC for diagnostic testing must be cleared through the Bureau of Epidemiology and assigned a tracking number; specimens must be routed through the Bureau of Laboratories. This condition has been identified as a potential bioterrorism agent by the CDC.

Hemolytic Uremic Syndrome (HUS)

reporting code = 42000
case report form N/A

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

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., ≥1.0 mg/dL in a child aged <13 years or ≥1.5 mg/dL in a person aged ≥13 years, or ≥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 <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 a) has onset within 3 weeks after onset of an acute or bloody diarrhea and b) meets the laboratory criteria except that microangiopathic changes are not confirmed

Comment

Patients with HUS secondary to any reportable *E. coli* infection should be reported with BOTH disease codes (as if they were separate cases) in Merlin.

Hepatitis A

reporting code = 07010
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

An acute illness with a) discrete onset of symptoms **and** b) jaundice **or** elevated serum aminotransferase levels. Symptoms most commonly include: fever, malaise, anorexia, nausea and abdominal discomfort, followed in a few days by jaundice.

Laboratory criteria

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

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
OR
a clinically compatible case that 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 clinically compatible case that is hepatitis A IgM positive, lacks jaundice or elevated liver enzymes, but has discrete onset of other appropriate symptoms.

Comment

Report liver enzyme results for all cases where these are available.

Hepatitis B, Acute

reporting code = 07030
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

An acute illness with a) discrete onset of symptoms **and** b) jaundice **or** elevated serum aminotransferase levels. Symptoms most commonly include: anorexia, vague abdominal discomfort, nausea and vomiting. Only a small proportion of acute hepatitis B infections will be clinically recognized.

Laboratory criteria

1. IgM antibody to hepatitis B core antigen (anti-HBc) positive (if done)

OR

hepatitis B surface antigen (HBsAg) positive

AND

2. IgM anti-HAV negative (if done)

Case classification

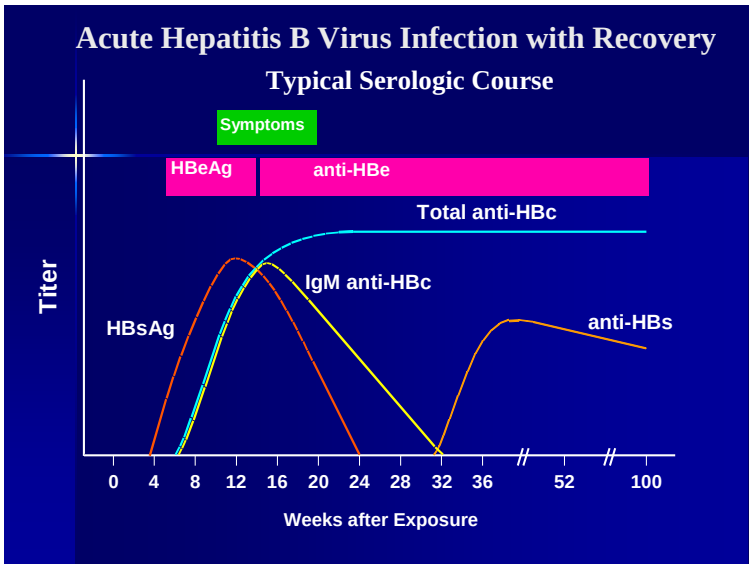
Confirmed: a case that meets the clinical case definition and is laboratory confirmed
Probable: a case that is IgM anti-HBc positive, lacks jaundice or elevated liver enzymes, but has discrete onset and other appropriate symptoms. Probable cases also include patients who have a discrete onset of symptoms, have a positive HBsAg and are epidemiologically linked to a confirmed acute Hepatitis B case.

Comment

Persons who have chronic hepatitis or persons identified as HBsAg positive should not be reported as having acute viral hepatitis unless they have evidence of an acute illness compatible with viral hepatitis. Report liver enzyme results for all cases in Merlin when available.

Note

A table for assisting with interpreting hepatitis B serology can be found on the CDC site:
http://www.cdc.gov/ncidod/diseases/hepatitis/b/Bserology.htm
See information below for additional information related to the serological course of disease.



Hepatitis B, Chronic

reporting code = 07032
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

Persons with chronic hepatitis B 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

- IgM antibodies to hepatitis B core antigen (anti-HBc) negative AND a positive result on one of the following tests: hepatitis B surface antigen (HBsAg), hepatitis B e antigen (HBeAg), or hepatitis B virus (HBV) DNA

OR

- HBsAg positive, or HBV DNA positive, or HBeAg positive two times at least 6 months apart (any combination of these tests performed six months apart is acceptable)

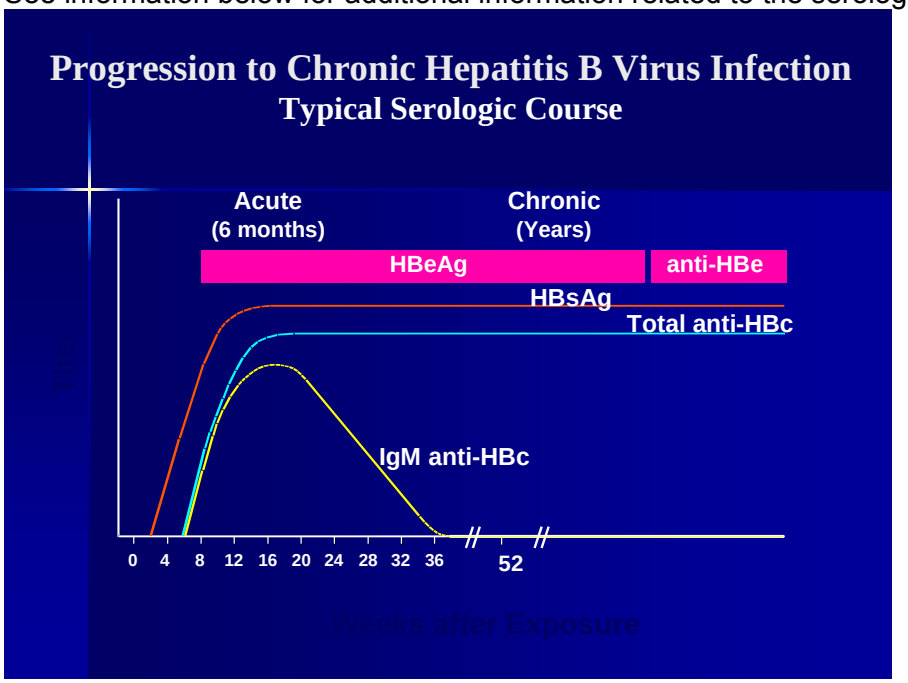
Case classification

Confirmed: A case that is laboratory confirmed.
Probable: A case with a single HBsAg positive, HBV DNA positive, or HBeAg positive lab result, when no anti-HBc results are available; and does not meet the case definition for hepatitis B, acute.

Note

A table for assisting in interpreting hepatitis B serology can be found on the CDC site below:
http://www.cdc.gov/ncidod/diseases/hepatitis/b/Bserology.htm

See information below for additional information related to the serological course of disease.



Hepatitis B Surface Antigen (HBsAg+), in Pregnant Women

reporting code = 07039
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

Acute or chronic illness, regardless of symptomatology, in which a woman tests positive for hepatitis B surface antigen (HBsAg) during pregnancy.

Laboratory criteria

Positive Hepatitis B surface antigen (HBsAg) result

Case classification

Confirmed: a case that meets the clinical case definition and is laboratory confirmed

Note

Mothers under this disease code (07039) should also be reported under disease codes for acute Hepatitis B (07030) or chronic Hepatitis B (07032) as appropriate.

Hepatitis B, Perinatal

reporting code = 07744
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

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

Laboratory criteria

- 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 12 hours of birth, followed by the second and third doses of vaccine at 1 and 6 months of age, respectively. Post vaccination testing for HBsAg and antibody to hepatitis B surface antigen (anti-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.

Note

The mother of a child reported under this code should be reported as HBsAg+ in a pregnant woman, code 07039.

Hepatitis C, Acute

reporting code = 07051
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

An acute illness with a) discrete onset of symptoms **and** b) jaundice **or** serum alanine aminotransferase levels > 400 IU/L. Symptoms most commonly include: anorexia, vague abdominal discomfort, nausea and vomiting.

Laboratory criteria

One or more of the following three criteria:

- Hepatitis C Virus Recombinant Immunoblot Assay (HCV RIBA) positive

OR

- Nucleic Acid Test (NAT) for HCV RNA Positive

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/ncidod/diseases/hepatitis/c/sc_ratios.htm)

AND, Meets the following two criteria:

- IgM anti-HAV negative

AND

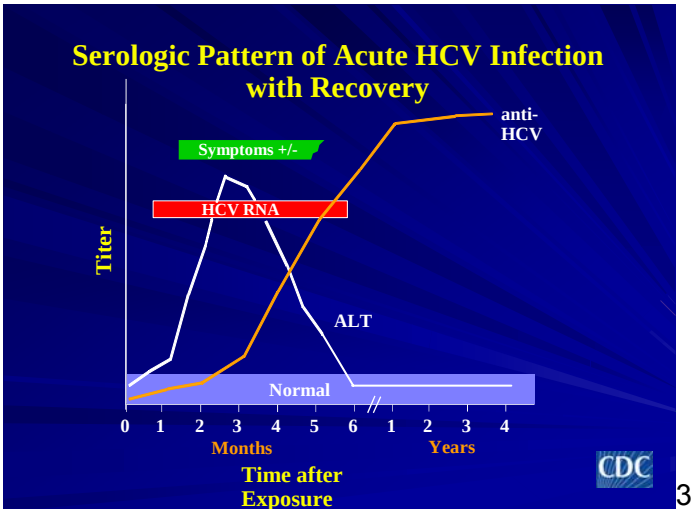
- IgM anti-HBc negative (if done) or HBsAg negative

Case classification

Confirmed: a case that meets the clinical case definition and is laboratory confirmed
Probable: a hepatitis C case with a clinically compatible illness and with positive anti-HCV laboratory results with a signal to cut-off ratio that does not meet the above criteria or is not reported.

Comment

Up to 20% of acute hepatitis C cases will be anti-HCV negative when reported and will be classified as non-A, non-B hepatitis because some (5%–10%) have not yet seroconverted and others (5%–10%) remain negative even with prolonged follow-up. 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.
Report liver enzymes results for all cases where these are available.
Note See information below for additional information related to the serological course of disease.



Hepatitis C, (Past or Present Infection)

reporting code = 07054
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

Persons with chronic hepatitis C 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

- Antibody to HCV (anti-HCV) positive (repeat reactive) by enzyme immunoassay (EIA), verified by an additional more specific assay (e.g., RIBA or PCR for HCV RNA)

OR

- HCV RIBA positive

OR

- Nucleic acid test for HCV RNA positive

OR

- Report of HCV genotype

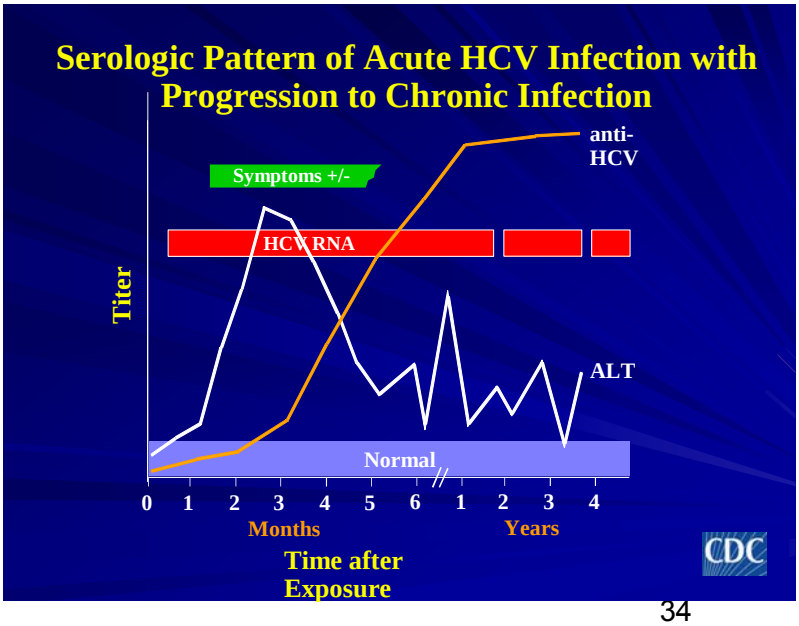
OR

- Anti-HCV positive (repeat reactive) 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/ncidod/diseases/hepatitis/c/sc_ratios.htm)

Case classification

Confirmed: A case that is laboratory confirmed AND that does not meet the case definition of acute hepatitis C.
Probable: A case that 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 and the signal to cut-off ratio that does not meet the above criteria or is not reported.
Suspect: A case that is Anti-HCV positive, but absent other diagnostic criteria and does not meet the clinical or laboratory criteria for hepatitis C, acute.

Note See information below for additional information related to the serological course of disease.



Hepatitis D

reporting code = 07052
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

An acute viral illness with a) discrete onset of symptoms **and** b) jaundice **or** elevated liver enzymes. Symptoms most commonly include: fatigue, abdominal pain, loss of appetite/anorexia, nausea, vomiting, or dark urine (tea colored).

Laboratory criteria

Evidence of Hepatitis B infection:

- Positive IgM anti-HBC

OR

- HBsAg Positive

AND one of the following:

- IgM anti-HDV positive

OR

- Positive HDV RNA (PCR)

OR

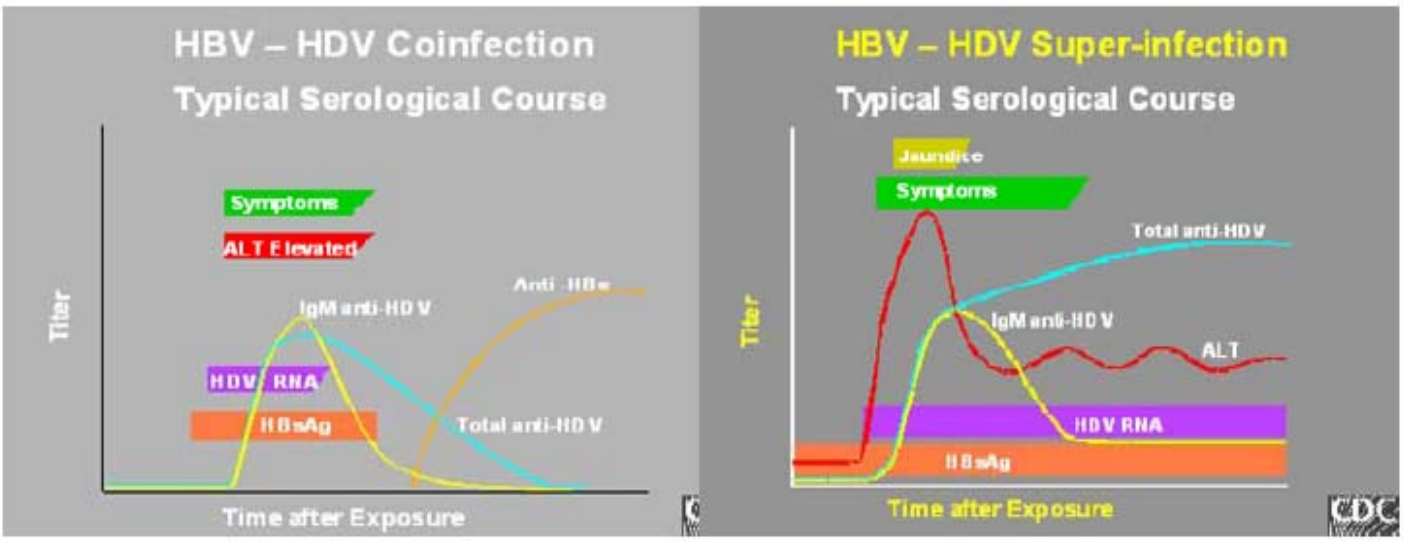
- Positive total anti-HDV

Case classification

Confirmed: A case that meets the clinical case definition and is laboratory confirmed.
Probable: A case that has a discrete onset of symptoms, lacks jaundice or elevated liver enzymes, but is laboratory confirmed.

Comment

See information below for additional information related to the serological course of disease.



Hepatitis E

reporting code = 07053
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

An acute viral illness with a) discrete onset of symptoms **and** b) jaundice **or** elevated liver enzymes. Symptoms most commonly include: fatigue, abdominal pain, loss of appetite/anorexia, nausea, vomiting, or dark urine (tea colored).

Laboratory criteria

- Positive IgM anti-HEV

OR

- Positive HEV RNA (PCR)

OR

- Positive total ANTI-HEV (both IgM and IgG)

One of the above, and meets the following criteria:

- IgM anti-HAV negative

AND

- IgM anti-HBc negative (if done) or HBsAg negative

AND

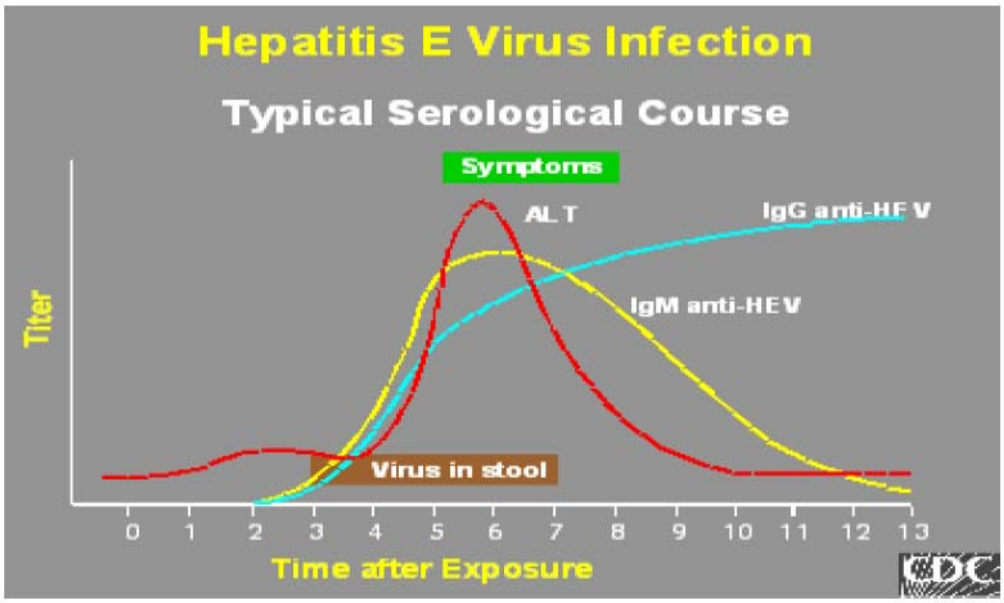
- Anti-HCV Negative (if done)

Case classification

Confirmed: A case that meets the clinical case definition and is laboratory confirmed.
Probable: A case that has a discrete onset of symptoms, lacks jaundice or elevated liver enzymes, but is laboratory confirmed.

Comment

See information below for additional information related to the serological course of disease.



Hepatitis G

reporting code = 07059
case report form: CDC 53.1 (8/01)
Viral Hepatitis Case Report

Clinical description
Persons with hepatitis G may or may not have evidence of liver disease.

Laboratory criteria
Hepatitis G RNA positive

Case classification
Confirmed: a case that meets the clinical case definition and is laboratory confirmed

Comment
The pathogenic role of HGV remains under investigation. Hepatitis G is mainly transmitted via blood. Infection has been documents in individuals that have received multiple blood transfusions or are intravenous drug users. It is estimated that frequency of infection is around 1-2% in healthy populations in the United States. Epidemiologic research has shown that type 2 is prevalent in the United States. Co-infection with hepatitis C virus is common.

Report liver enzymes results for all cases where these are available.

Influenza A, Novel or Pandemic Strains

reporting code = 48790
case report form: FDOH (6/06)
Avian Influenza Data Collection Tool

Clinical description

An Illness compatible with influenza virus infection.

Laboratory criteria

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]). Non-human influenza viruses include avian subtypes (e.g., H5, H7, or H9 viruses), swine and other mammalian subtypes. Confirmation that an influenza A virus represents a novel virus will be performed by CDC's influenza laboratory.
Criteria for epidemiologic linkage: a) the patient has had contact with one or more persons who either have or had the disease 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.

Case classification

Confirmed: A case of human infection with a novel influenza A virus confirmed by CDC's influenza laboratory.
Probable: A case meeting the clinical criteria and epidemiologically linked to a confirmed case, but for which no laboratory testing for influenza virus infection has been performed.
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.

Comment

For additional information about influenza or influenza surveillance, refer to the Bureau of Epidemiology Influenza website http://www.doh.state.fl.us/disease_ctrl/epi/htopics/flu/index.htm
or the CDC Influenza web site: http://www.cdc.gov/flu/.

On December 13, 2006, the United States formally accepted the revision of the International Health Regulations, referred to as IHR (2005) (http://www.hhs.gov/news/press/2006pres/20061213.html). The IHR (2005) are an international legal instrument that governs the roles of the 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.

Specimens from all cases must be sent to the Bureau of Laboratories for confirmation. Approval to perform testing must be obtained through the Bureau of Epidemiology, available 24/7 via phone 850-245-4401.

A copy of laboratory test results must accompany the paper case report form.

Influenza-Associated Pediatric Mortality

reporting code = 48700
case report form: CDC *Influenza-Associated Pediatric Deaths Case Report Form*

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:

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

Laboratory criteria

Laboratory testing for influenza virus infection may be done on pre- or post-mortem clinical specimens, and include identification of influenza A or B virus infections by a positive result by at least one of the following:

- Influenza virus isolation in cell culture from respiratory specimens;
- Reverse-transcriptase polymerase chain reaction (RT-PCR) testing of respiratory specimens;
- Immunofluorescent antibody staining (direct or indirect) of respiratory specimens;
- Rapid influenza diagnostic testing of respiratory specimens;
- Immunohistochemical (IHC) staining for influenza viral antigens in respiratory tract tissue from autopsy specimens;
- Fourfold rise in influenza hemagglutination inhibition (HI) antibody titer in paired acute and convalescent sera*.

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.

Comment

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

Isolates from all cases must be sent to the Bureau of Laboratories for confirmation.

A copy of laboratory test results must accompany the paper case report form.

Lead Poisoning

reporting code = 94890
case report form:
MERLIN ELECTRONIC SUBMISSION

Clinical description

Often asymptomatic but may result in impaired neurobehavioral development, low IQ, slow nerve conduction, peripheral neuropathies, and encephalopathy.

Laboratory criteria

Confirmed: Blood lead level ≥ 10 micrograms per deciliter of whole blood measured from a venous specimen
OR
Blood lead level ≥ 10 micrograms per deciliter measured from ***TWO*** capillary draws taken ***within 12 weeks*** of one another
Suspect: Blood lead level ≥ 10 micrograms per deciliter measured from a single capillary draw or, Blood lead level ≥ 10 micrograms per deciliter of blood with no test type indication.

Case classification

No symptoms necessary; case classifications provided in the "laboratory criteria for diagnosis"

Comment

1. Only report lead poisoning to HSDE once per lifetime.
2. Capillary tests ≥ 10 micrograms per deciliter with a venous follow-up tests should not be counted as "suspected" cases. If a case is initially reported as "suspect" and then a confirmatory venous test result is received, the "suspect" case needs to be updated to a "confirmed" status.
3. The reportable level of lead poisoning in Florida is the same for children as for adults. (see laboratory criteria above.)
4. Requirements for reporting to the State Health Office and the requirements for home health environmental inspections of elevated lead clients are decidedly different.

Legionellosis

reporting code = 48280
case report form: CDC 52.56 (2/03)
Legionellosis Case Report

Clinical description

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

Laboratory criteria

Confirmed:

- Isolation of any *Legionella* organism from respiratory secretions, lung tissue, pleural fluid, or other normally sterile fluid

OR

- Detection of *Legionella pneumophila* serogroup 1 antigen in urine using validated reagents

OR

- Fourfold or greater rise in specific serum antibody titer to *Legionella pneumophila* serogroup 1 using validated reagents

Suspect:

- 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).

OR

- Fourfold or greater rise in antibody titer to multiple species of *Legionella* using pooled antigen and validated reagents.

OR

- 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.

OR

- 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.
Suspect: a clinically compatible case that meets at least one of the presumptive (suspect) laboratory criteria.

Comment

The previously used category of “probable case,” which was based on a single IFA titer, lacks specificity for surveillance and is no longer used.

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 two weeks before onset of illness. **Indicate if the case is travel associated in the case notes.**

A copy of laboratory test results must accompany the paper case report form.

Leptospirosis

reporting code = 10090
case report form: CDC 52.26 (2/81)
Leptospirosis Case Investigation Report

Clinical description

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

Laboratory criteria

- 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

OR

- Demonstration of *Leptospira* in a clinical specimen by immunofluorescence

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case with supportive serologic findings (i.e., a *Leptospira* agglutination titer of ≥ 200 in one or more serum specimens)

Comment

Laboratory testing should be routed through the Bureau of Laboratories and must be approved by the BOE.

A copy of laboratory test results must accompany the paper case report form.

Listeriosis

reporting code = 02700
case report form: CDC 52.15 (2/93)
National Bacterial Meningitis and Bacteremia Case Report
MERLIN ELECTRONIC SUBMISSION

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

- Isolation of *L. monocytogenes* from a normally sterile site (e.g., blood or CSF or, less commonly, joint, pleural, or pericardial fluid)

OR

- 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 as fluorescent antibody testing or PCR to diagnose invasive Listeriosis has not been established.

Note

Meningitis due to *Listeria monocytogenes* should be reported as Listeriosis (02700) (and not under the disease code meningitis, bacterial, cryptococcal, mycotic) .

Isolates from all cases should be sent to the Bureau of Laboratories.

Lyme Disease

reporting code = 06959
case report form: CDC 52.60 (2/06)
Lyme Disease Case Report Form
MERLIN ELECTRONIC SUBMISSION

Clinical description

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 lesion that occurs in 60%-80% of patients.

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.

For 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. Manifestations not considered as criteria for diagnosis include chronic progressive arthritis not preceded by brief attacks and chronic symmetrical polyarthritis. Additionally, arthralgia, myalgia, or fibromyalgia syndromes alone are not criteria for musculoskeletal involvement.
- *Nervous system*. Any 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 demonstration of antibody production against Borrelia burgdorferi in the cerebrospinal fluid (CSF), evidenced by a higher titer of antibody in CSF than in serum. Headache, fatigue, paresthesia, or mildly stiff neck 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

- Demonstration of diagnostic IgM or IgG antibodies to *B. burgdorferi* in serum or cerebrospinal fluid (CSF) by EIA or IFA screen followed by demonstration of IgM or IgG antibodies by Western Blot (WB, same as immunoblot). When WB is used during the first 4 weeks of disease onset (early Lyme Disease), both IgM and IgG procedures should be performed. A positive IgM test result alone is not recommended for use in determining active disease in persons with illness greater than 1 month's duration because the likelihood of a false-positive test result for a current infection is high for these persons. If a patient with suspected early Lyme Disease has a negative serology, serologic evidence of infection is best obtained by testing of paired acute- and convalescent-phase serum samples. Serum samples from persons with disseminated or late-stage Lyme Disease almost always have a strong IgG response to Borrelia burgdorferi antigens.[1] OR
- Isolation of *Borrelia burgdorferi* from a clinical specimen OR

- A single positive IgG immunoblot*

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

- A positive culture for B. burgdorferi, [1]

OR

- A two-tier testing (EIA or IFA followed by WB) interpreted using established criteria*,

OR

- A single-tier IgG immunoblot seropositivity interpreted using established criteria*. [3]

***An IgM immunoblot** is considered positive if a band is present at two of the following three locations: 21-25 kDa (OspC)**, 39 kDa (BmpA), and 41 kDa (Fla).
An IgG immunoblot is considered positive if a band is present at five of the following 10 locations: 18 kDa, 21-25 kDa (OspC)**, 28 kDa, 30 kDa, 39 kDa (BmpA), 41 kDa (Fla), 45 kDa, 58 kDa (not GroEL), 66kDa, and 93 kDa.[3]

**The apparent molecular mass of OspC is dependent on the strain of B. burgdorferi being tested. The weight of this particular protein can range from 21-25 kDa.

Exposure

Exposure is defined as having been (less than or equal to 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. For surveillance purposes, the state of Florida is considered Lyme endemic.

Case classification

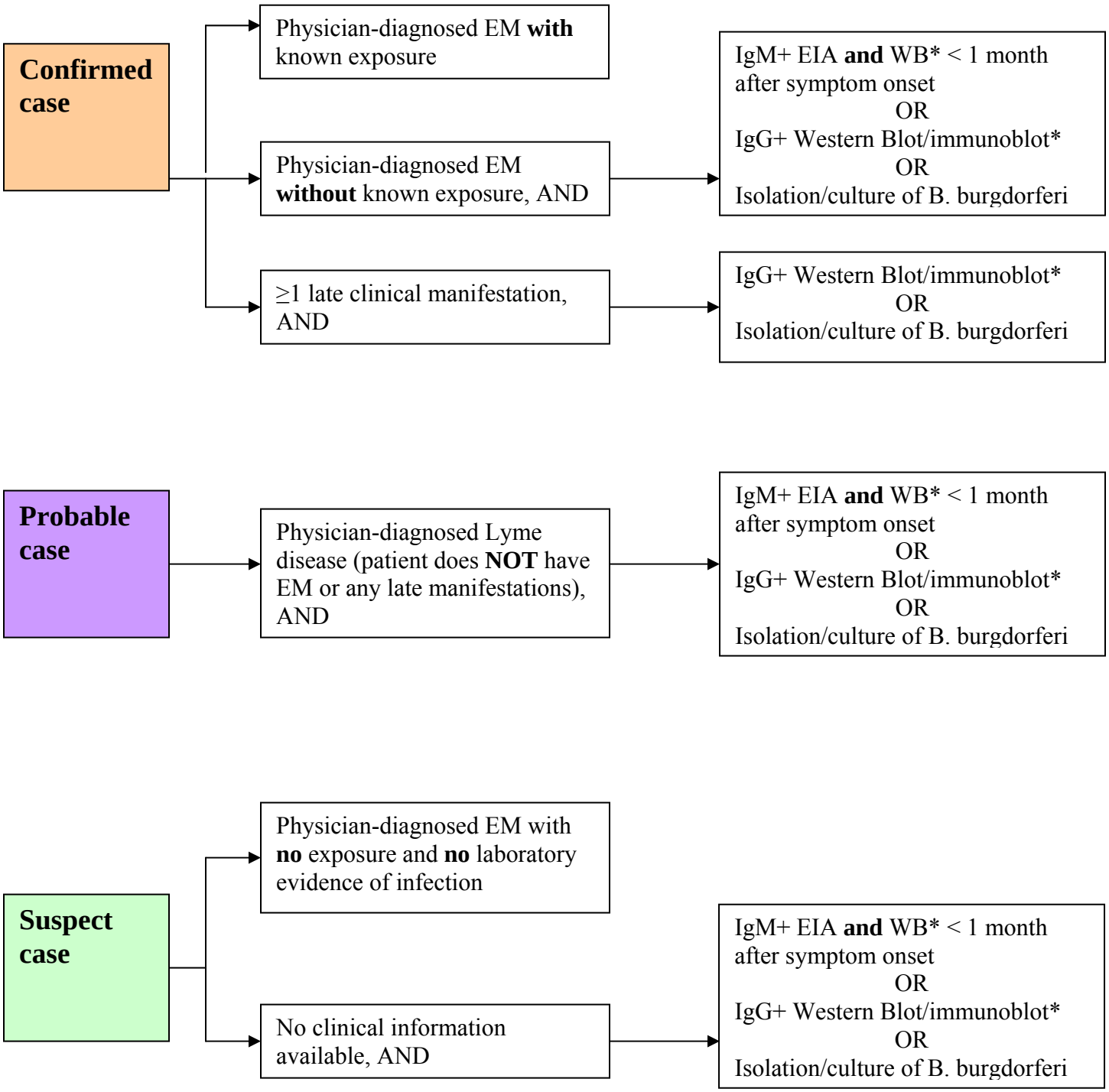
Confirmed: a) a case of EM with a known exposure (as defined above), or b) a case of EM with laboratory evidence of infection (as defined above) and without a known exposure or c) a case with at least one late manifestation that has laboratory evidence of infection.
Probable: any other case of physician-diagnosed Lyme disease that has laboratory evidence of infection (as defined above).
Suspect: a) a case of EM where there is no known exposure (as defined above) and no laboratory evidence of infection (as defined above), or b) a case with laboratory evidence of infection but no clinical information available (e.g., a laboratory report).

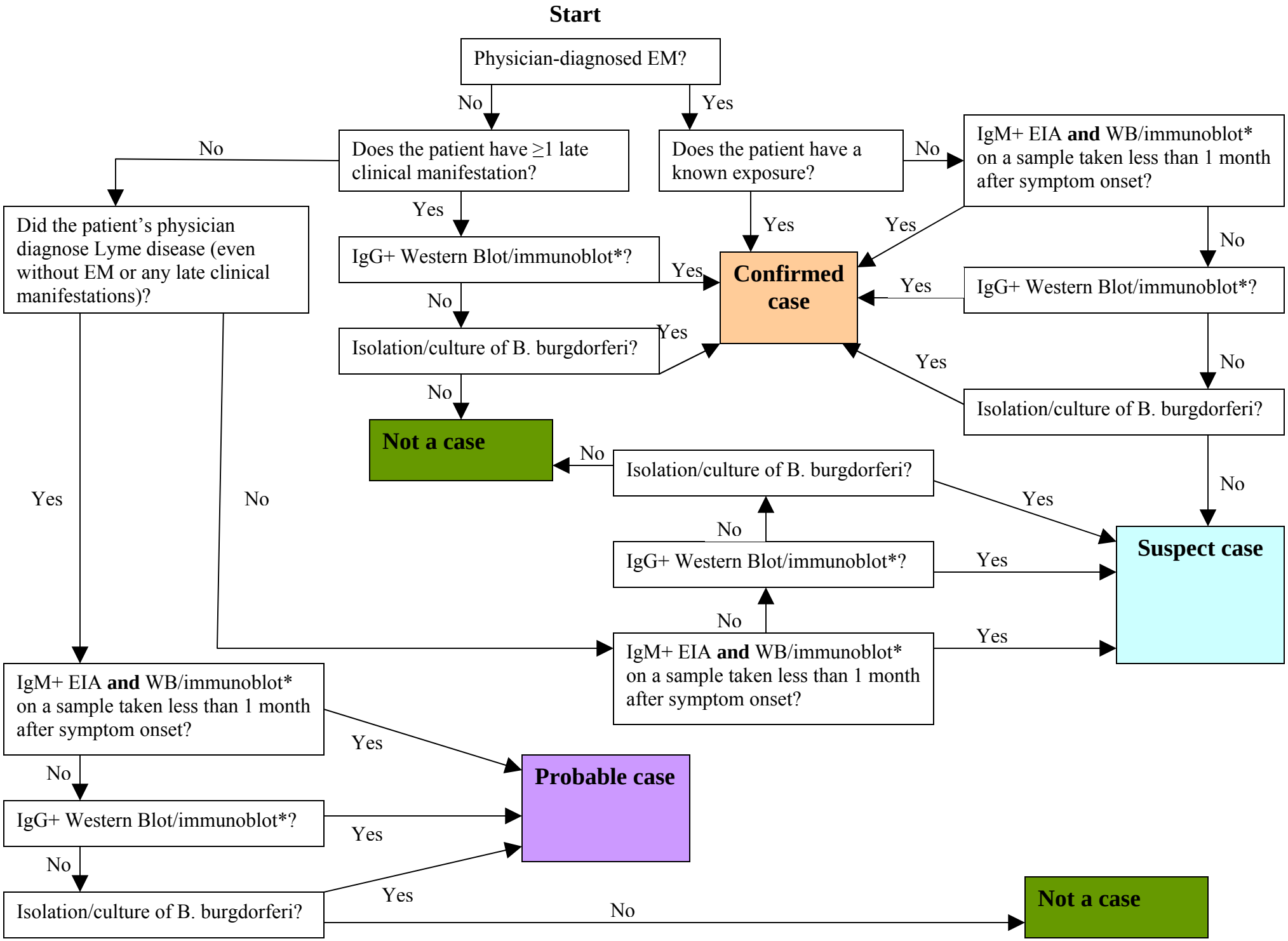
Comment

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

[1] Centers for Disease Control and Prevention. Recommendations for test performance and interpretation from the Second National Conference on Serologic Diagnosis of Lyme Disease. MMWR MMWR Morb Mortal Wkly Rep 1995; 44:590-1.
[2] Dressler F, Whalen JA, Reinhardt BN, Steere AC. Western blotting in the serodiagnosis of Lyme disease. J Infect Dis 1993; 167:392-00.
[3] Engstrom SM, Shoop E, Johnson RC. Immunoblot interpretation criteria for serodiagnosis of early Lyme disease. J Clin Microbiol 1995; 33:419-27.
[4] Centers for Disease Control and Prevention. Notice to readers: caution regarding testing for Lyme disease. MMWR Morb Mortal Wkly Rep 2005; 54:125-6.

Lyme Disease Case Classification Chart




Start
Physician-diagnosed EM?
No
Yes
Does the patient have ≥1 late clinical manifestation?
Does the patient have a known exposure?
No
IgM+ EIA and WB/immunoblot* on a sample taken less than 1 month after symptom onset?
No
Did the patient's physician diagnose Lyme disease (even without EM or any late clinical manifestations)?
Yes
IgG+ Western Blot/immunoblot*?
Yes
Yes
Yes
Confirmed case
No
IgG+ Western Blot/immunoblot*?
Yes
No
Isolation/culture of B. burgdorferi?
Yes
Yes
No
Isolation/culture of B. burgdorferi?
No
Not a case
No
Isolation/culture of B. burgdorferi?
Yes
No
Yes
No
Suspect case
No
IgG+ Western Blot/immunoblot*?
Yes
No
IgM+ EIA and WB/immunoblot* on a sample taken less than 1 month after symptom onset?
Yes
IgM+ EIA and WB/immunoblot* on a sample taken less than 1 month after symptom onset?
Yes
Probable case
No
IgG+ Western Blot/immunoblot*?
Yes
No
Isolation/culture of B. burgdorferi?
Yes
No
Not a case

Malaria

reporting code = 08460
case report form: CDC 54.1 (1/02)
Malaria Case Surveillance Report

Clinical description

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

Laboratory criteria

- Demonstration of malaria parasites in blood films

Case classification

Confirmed: an episode of microscopically confirmed malaria parasitemia 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

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.

Permanent slides from all diagnosed and suspected cases must be sent to the Bureau of Laboratories.

A copy of laboratory test results must accompany the paper case report form.

Measles (Rubeola)

reporting code = 05590
case report form: CDC 975 (9/87)
Measles Surveillance Worksheet
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

An illness characterized by all the following:

- Generalized rash lasting ≥3 days
- Temperature ≥101.0°F (≥38.3°C)
- Cough, coryza, or conjunctivitis

Laboratory criteria

- Positive serologic test for measles IgM antibody

OR

- Significant rise in measles antibody level by any standard serologic assay

OR

- Isolation of measles virus from a clinical specimen

Case classification

Confirmed: a case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a confirmed case. A laboratory confirmed case does not need to meet the clinical case definition.
Probable: a case that meets the clinical case definition, has noncontributory or no serologic or virologic testing, and is not epidemiologically linked to a confirmed case
Suspect: any febrile illness accompanied by a clinically compatible rash

Comment

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.

Specimens from all cases must be sent to the Bureau of Laboratories for confirmation.

Questions regarding the follow-up of measles should be directed to the Department of Health, Bureau of Immunization program at (850) 245-4342 or s/c 277-2755.

Melioidosis (*Burkholderia pseudomallei*)

reporting code = 02500
case report form: NA

Clinical description

Illness from melioidosis can be categorized as acute or localized infection, acute pulmonary infection, acute bloodstream infection, and chronic suppurative infection. Inapparent infections are also possible. The incubation period is not clearly defined, but may range from 2 days to many years.

- *Acute, localized infection:* This form of infection is generally localized as a nodule and results from inoculation through a break in the skin. The acute form of melioidosis can produce fever and general muscle aches, and may progress rapidly to infect the bloodstream.
- *Pulmonary infection:* This form of the disease can produce a clinical picture of mild bronchitis to severe pneumonia. The onset of pulmonary melioidosis is typically accompanied by a high fever, headache, anorexia, and general muscle soreness. Chest pain is common, but a nonproductive or productive cough with normal sputum is the hallmark of this form of melioidosis.
- *Acute bloodstream infection:* This type of the disease usually results in septic shock and typically infects patients with underlying illness such as HIV, renal failure, and diabetes. The symptoms of the bloodstream infection vary depending on the site of original infection, but they generally include respiratory distress, severe headache, fever, diarrhea, development of pus-filled lesions on the skin, muscle tenderness, and disorientation. This is typically an infection of short duration, and abscesses will be found throughout the body.
- *Chronic suppurative infection:* Chronic melioidosis is an infection that involves the organs of the body. These typically include the joints, viscera, lymph nodes, skin, brain, liver, lung, bones, and spleen.

Laboratory criteria

- Isolation of *Burkholderia pseudomallei* from blood, urine, sputum, or skin lesions.

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Specimens from all cases must be sent to the Bureau of Laboratories. This condition has been identified as a potential bioterrorism agent by the CDC.

Meningitis, bacterial, cryptococcal, mycotic

reporting code = 32090
case report form: CDC 52.15A (2/93) *National Bacterial Meningitis and Bacteremia Case Report*
MERLIN ELECTRONIC SUBMISSION

Clinical description

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

Laboratory criteria

- Isolation of a bacterial, cryptococcal, or fungal species from the cerebrospinal fluid (CSF)

OR

- Positive blood culture for a bacterial, cryptococcal, or fungal species

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

See the case definitions for *Haemophilus influenzae,* Invasive Disease (03841), Listeriosis caused by *Listeria monocytogenes* (02700), Meningococcal Disease caused by *Neisseria meningitides* (03630), and *Streptococcus pneumoniae,* Invasive Disease (04823, and 04830) to report cases of meningitis caused by these species.

Meningococcal Disease

reporting code = 03630
case report form: CDC 52.15A (2/93)
National Bacterial Meningitis and Bacteremia Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

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

Laboratory criteria

- Isolation of *Neisseria meningitidis* from a normally sterile site (e.g., blood or cerebrospinal fluid [CSF] or, less commonly, joint, pleural, or pericardial fluid) or skin scrapings of purpuric lesions

OR

- Evidence of *N. meningitidis* DNA using a validated polymerase chain reaction (PCR), obtained from a normally sterile site (e.g., blood or CSF)[1]

OR

- Evidence of *N. meningitides* antigen by IHC on formalin-fixed tissue or latex agglutination of CSF [2,3]

OR

- Isolation of gram negative diplococci from a normally sterile site (e.g., blood or CSF)

Case classification

Confirmed: a clinically compatible case with isolation of *N. meningitides* from a normally sterile site or skin scrapings of purpuric lesions.
Probable: a clinically compatible case that has either a positive PCR test or a positive IHC test.
Suspect: a) clinical purpura fulminans in the absence of a positive blood culture or b) a clinically compatible case and the isolation of gram negative diplococci from a normally sterile site.

Comment

Positive antigen test results from urine or serum samples are unreliable for diagnosing meningococcal disease. Sputum cultures are not considered confirmatory as sputum is not obtained from a normally sterile site.

Isolates of *N. meningitidis* must be sent to the Bureau of Laboratories for determination of serogroup.

[1] Mothershed EA, Sacchi CT, Whitney AM, Barnett GA, Ajello GW, Schmink S, Mayer LW, Phelan M, Taylor TH Jr, Bernhardt SA, Rosenstein NE, Popovic T. 2004. Use of real-time PCR to resolve slide agglutination discrepancies in serogroup identification of *Neisseria meningitidis*. *J Clin Microbiol* 42:320-328.

[2] Guarner J. Greer PW. Whitney A. Shieh WJ. Fischer M. White EH. Carlone GM. Stephens DS. Popovic T. Zaki SR. Pathogenesis and diagnosis of human meningococcal disease using immunohistochemical and PCR assays; *American Journal of Clinical Pathology. 122(5):754-64, 2004 Nov.*

[3] Positive antigen test results from urine or serum samples are unreliable for diagnosing meningococcal disease.

Mercury Poisoning

reporting code = 94899
case report form: N/A

Clinical description

Symptoms depend upon the form of mercury (organic or inorganic) as well as the route and dose ingested. Any organ system may be affected.

Acute exposure symptoms vary depending on the form of mercury exposed to – elemental or inorganic mercury. For elemental mercury, acute toxicity might result in fever, fatigue, and clinical signs of pneumonitis. For inorganic mercury, symptoms might include profuse vomiting and diarrhea that is often bloody, followed by hypovolemic shock, oliguric (decreased urine production) renal failure, and possibly death.

Chronic exposure symptoms are similar for both elemental and inorganic mercury poisoning and result in neurologic, dermatologic, and renal manifestations. Signs and symptoms might include neuropsychiatric disturbances (e.g., memory loss, irritability, or depression), tremor, tingling or skin numbness, gingivostomatitis, flushing, discoloration and desquamation of the hands and feet, and hypertension.

Delayed toxicity symptoms (> 1 month) are typical of organic mercury poisoning and usually involve the central nervous system. These symptoms might include tingling or skin numbness, headaches, ataxia, dysarthria (motor speech disorder), visual field constriction, blindness, and hearing impairment.

Laboratory criteria for diagnosis

- ≥10 micrograms per liter of urine

OR

- ≥10 micrograms per liter of blood

OR

- ≥5 micrograms per gram of hair

Case classification

Confirmed: Laboratory confirmed

Mumps

reporting code = 07290
case report form: CDC (9/97)
Mumps Surveillance Worksheet
MERLIN ELECTRONIC SUBMISSION

Clinical description

Clinical case definition:
An illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid and or other salivary gland(s), lasting at least 2 days, and without other apparent cause.
Clinically compatible illness:
Infection with mumps virus may present as aseptic meningitis, encephalitis, hearing loss, orchitis, oophoritis, parotitis or other salivary gland swelling, mastitis or pancreatitis.

Laboratory criteria

- Isolation of mumps virus from clinical specimen,

OR

- Detection of mumps nucleic acid (e.g., standard or real time RT-PCR assays),

OR

- Detection of mumps IgM antibody,

OR

- Demonstration of specific mumps antibody response in absence of recent vaccination, either a fourfold increase in IgG titer as measured by quantitative assays, or a seroconversion from negative to positive using a standard serologic assay of paired acute and convalescent serum specimens.

Epidemiologic Linkage

A case can be epidemiologically linked to a clinically compatible case or to a laboratory confirmed case. To be considered a confirmed case based on epidemiologic linkage, there must be a laboratory confirmed case in the chain of transmission.

Case classification

Confirmed: A case that: 1) meets the clinical case definition or has clinically compatible illness, and 2) is either laboratory confirmed or is epidemiologically linked to a confirmed case.
Probable: A case that meets the clinical case definition without laboratory confirmation and is epidemiologically linked to a clinically compatible case.
Suspect: A case with clinically compatible illness or that meets the clinical case definition without laboratory confirmation (this would include those not tested as well as those tested but with negative results), or a case with laboratory tests suggestive of mumps without clinical information.

Comment

Case Classification for 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.
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. 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.
Currently, there is insufficient information to determine whether any mumps strains are endemic to the United States or to distinguish endemic from non-endemic strains.

Questions regarding the follow-up of mumps cases should be directed to the Department of Health, Bureau of Immunization program at (850) 245-4342 or s/c 277-2755.

Neurotoxic Shellfish Poisoning

reporting code = 98800
case report form: CDC 52.13 (9/89)
Investigation of Foodborne Illness

Clinical case definition

Onset is within a few minutes to a few hours after consumption of epidemiologically implicated shellfish (typically clams, musslels oysters, whelks and certain gastropods). Symptoms include tingling and numbness of lips, mouth, fingers, and toes; muscular aches; ataxia, and dizziness and usually accompanied by diarrhea, vomiting and/or nausea. Symptoms sometimes include reversal of hot and cold sensations; pupil dilation; and respiratory distress. Illness is self-limited and generally milder than paralytic shellfish poisoning; some patients have required ICU support for respiratory distress. . Duration is from a few hours to a few days.

Laboratory criteria

- Detection of toxin (brevetoxin) in epidemiologically implicated shellfish

Case classification

Confirmed: Clinically compatible illness that is associated with consumption of shellfish with a positive laboratory finding (brevetoxin) or with consumption of shellfish from areas where other toxic shellfish have been found or where red tide id documented (DACS shellfish beds closed in region).

Comment

Contact your regional environmental epidemiologist for information.

Pertussis

reporting code = 03390
case report form: CDC 71.14A (9/97)
Pertussis Surveillance Worksheet
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

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

Laboratory criteria

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

Comment

The clinical case definition above is appropriate for endemic or sporadic cases. In outbreak settings, a case may be defined as a cough illness lasting at least 2 weeks (as reported by a health professional). Because direct fluorescent antibody testing of nasopharyngeal secretions has been demonstrated in some studies to have low sensitivity and variable specificity (9,10), such testing should not be relied on as a criterion for laboratory confirmation. Serologic testing (IgM and IgG) for pertussis is available in some areas but is not standardized and, therefore, should not be relied on as a criterion for laboratory confirmation.

References

9. Broome CV, Fraser DW, English WJ. Pertussis--diagnostic methods and surveillance. In: Manclark CR, Hill JC, eds. International Symposium on Pertussis. Bethesda, MD: US Department of Health, Education, and Welfare, Public Health Service, National Institutes of Health, 1979; DHEW publication no. (NIH)79-1830:19-22.
10. Halperin SA, Bortolussi R, Wort AJ. Evaluation of culture, immunofluorescence, and serology for the diagnosis of pertussis. J Clin Microbiol 1989;27:752-7.

Questions about pertussis follow-up should be directed to the Department of Health, Bureau of Immunization program at (850) 245-4342 or s/c 277-2755

Pesticide-Related Illness and Injury

reporting code = 09894
case report form: DACS 130320 (7/06)
Pesticide Incident Monitoring Report

Clinical case definition

Any acute adverse health effect resulting from exposure to a pesticide product (defined under the Federal Insecticide Fungicide and Rodenticide Act [FIFRA] with the exception that disinfectants are excluded*) including health effects due to an unpleasant odor, injury from explosion of the product, and allergic reaction. Symptoms typically involve one or more of the following:

- Systemic signs or symptoms (including respiratory, gastrointestinal, allergic and neurological signs/symptoms)
- Dermatologic lesions
- Ocular lesions

Laboratory criteria

Biological tests for the presence of, or toxic response to the pesticide and/or its metabolite (in blood, urine, etc.), which may include:

- Measurement of the pesticide and/or metabolite(s) in the biological specimen
- Measurement of a biochemical response to pesticide in a biological specimen (e.g., cholinesterase levels)
- Environmental tests for the pesticide (e.g., foliage residue, analysis of suspect liquid)
- Pesticide detection on clothing or equipment used by the case subject

Case classification

Reports are scored according to the following three criteria (a) documentation of pesticide exposure, (b) documentation of adverse health effect, and(c) evidence supporting a causal relationship. Refer to the classification matrix which follows this criteria section – the matrix provides the case classification categories and the scores needed to place the case into a specific category.

A. <u>Documentation of Pesticide Exposure</u>:

1. Laboratory, clinical, or environmental evidence corroborate exposure
    - analytical results from foliage residue, clothing residue, air, soil, water, or biologic samples
    - observation of residue and/or contamination (including damage to plant material from herbicides) by a trained professional**
    - biologic evidence of exposure (e.g., response to administration of an antidote such as 2-PAM, Vitamin K, or repeated doses of atropine
    - documentation of a characteristic eye injury or dermatological effects at the site of direct exposure by a licensed health care provider
    - clinical description of two or more post-exposure health effects characteristic for the pesticide by a licensed health care provider
2. Evidence of exposure based solely upon written or verbal report
    - report by case
    - report by witness
    - written records of application
    - observation of residue and/or contamination (including damage to plant material from herbicides) by other than a trained professional
    - other evidence suggesting that exposure occurred
3. Strong evidence that no pesticide exposure occurred
4. Insufficient data

B. <u>Documentation of Adverse Health Effect</u>

1. Two or more new post-exposure abnormal signs and/or test/laboratory findings reported by a licensed health care provider
2. Two or more new post-exposure abnormal signs reported (when new post-exposure signs and test/laboratory findings are insufficient to satisfy a B1 score, they can be used in lieu of symptoms towards satisfying a B2 score)
3. One post-exposure abnormal sign or symptom or insufficient data

C. Evidence Supporting a Causal Relationship Between Pesticide Exposure and Health Effects

1. Where the signs and symptoms documented under the criteria B. Health Effects are:
   - characteristic for the pesticide and the temporal relationship between exposure and health effects is plausible
   - consistent with an exposure-health effect relationship based upon the known toxicology (i.e., exposure dose, symptoms, and temporal relationship) of the putative agent from commonly available toxicology texts, government publications, information supplied by the manufacturer, or two or more case series or positive epidemiologic studies published in the peer-review literature
2. Evidence of exposure–health effect relationship is not present because
   - the exposure dose was insufficient to produce the observed health effects or
   - a temporal relationship does not exist (i.e., health effects preceded the exposure or occurred too long after exposure) or
   - the constellation of health effects are not consistent based upon the known toxicology of the putative agent from information in commonly toxicology texts, government publications, information supplied by the manufacturer, or the peer-reviewed literature
3. Definite evidence of non-pesticide causal agent
4. Insufficient toxicological information is available to determine causal relationship between exposure and health effects including
   - circumstances where minimal human health effects data are available or
   - where there are less than two published case series or positive epidemiologic studies linking health effects to exposure to the particular pesticide product/ingredient or class of pesticides

CASE CLASSIFICATION MATRIX

CLASSIFICATION CATEGORIES											
CLASSIFICATION CRITERIA	Confirmed Case	Probable Case		Possible Case	Suspicious Case	Unlikely Case	Insufficient Information		Not a Case		
									Asymptomatic	Unrelated	
A. Exposure	1	1	2	2	1 or 2	1 or 2	4	-	-	3	-
B. Health Effects	1	2	1	2	1 or 2	1 or 2	-	4	3	-	-
C. Causal Relationship	1	1	1	1	4	2		-	-	-	3

Comment

The Florida Poison Control Network (800-222-1222) can provide emergency information to physicians and the public. For information regarding Florida pesticide laws and regulations, contact the Florida Department of Agriculture and Consumer Services, Bureau of Compliance Monitoring at 850-488-3314. For information regarding this case definition, contact the Florida Department of Health, Bureau of Environmental Epidemiology, Pesticide Poisoning Surveillance Program at (850) 245-4117.

* **PESTICIDES:** are defined under FIFRA as any substance or mixture of substances intended to prevent, destroy, repel or mitigate insects, rodents, nematodes, fungi, weeds, microorganisms, or any other form of life declared to be a pest by the Administrator of the USEPA and any substance or mixture of substance intended for use as a plant regulator, defoliant, or desiccant. Pesticides include herbicides, insecticides, rodenticides, fungicides, disinfectants, wood treatment products, growth regulators, insect repellents, etc.
** **TRAINED PROFESSIONAL**: may be a plant pathologist, agricultural inspector, agricultural extension agent, industrial hygienist or any other licensed or academically trained specialist with expertise in plant pathology and/or environmental effects of pesticides. A licensed pesticide applicator may also be considered a trained professional.
For information concerning regulation and use of pesticides, contact the US EPA's Office of Pesticide Programs, at 703-305-5336. For information concerning Florida pesticide laws and regulations, contact the Florida Department of Agriculture and Consumer Services, Office of Pesticides at 850-487-0532.

Plague

reporting code = 02000 Bubonic
= 02050 Pneumonic
case report form: N/A

Clinical description

Plague is transmitted to humans by fleas or by direct exposure to infected tissues or respiratory droplets; the disease is characterized by fever, chills, headache, malaise, prostration, and leukocytosis that manifests 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 pneumonic plague) or inhalation of infectious droplets (primary pneumonic plague)
- Pharyngitis and cervical lymphadenitis resulting from exposure to larger infectious droplets or ingestion of infected tissues (pharyngeal plague)

Laboratory criteria

Presumptive:

- 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

Confirmatory:

- Isolation of *Y. pestis* from a clinical specimen

OR

- Fourfold or greater change in serum antibody titer to *Y. pestis* F1 antigen

Case classification

Confirmed: a clinically compatible case with confirmatory laboratory results
Probable: a clinically compatible case with presumptive laboratory results
Suspect: a clinically compatible case without presumptive or confirmatory laboratory results

Comment

Specimens from any case or suspect case must be sent to the Bureau of Laboratories for confirmation. This condition has been identified as a potential bioterrorism agent by the CDC.

Poliomyelitis, Paralytic

reporting code = 04590
case report form: N/A

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

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

Specimens from all cases must be sent to the Bureau of Laboratories for confirmation.

Questions about polio case definitions or follow-up, please contact the Department of Health, Bureau of Immunization program at (850) 245-4342 s/c 277-2755

Poliomyelitis, Nonparalytic

reporting code = 04520
case report form: N/A

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.

Case classification

Confirmed: 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.

Comment

Note: 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 04590”.

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 community1. 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 2002. 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. 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.

Specimens from all cases must be sent to the Bureau of Laboratories for confirmation.

Questions about polio case definitions or follow-up, please contact the Department of Health, Bureau of Immunization program at (850) 245-4342 s/c 277-2755

Psittacosis

reporting code = 07390
case report form: CDC 52.2 (3/81)
Psittacosis Case Surveillance Report

Clinical description

An illness characterized by fever, chills, headache, photophobia, cough, and myalgia

Laboratory criteria

- Isolation of *Chlamydia psittaci* from respiratory secretions

OR

- Fourfold or greater increase in antibody against *C. psittaci* by complement fixation or microimmunofluorescence (MIF) to a reciprocal titer of ≥32 between paired acute and convalescent phase serum specimens

OR

- Presence of IgM antibody against *C. psittaci* by MIF to a reciprocal titer of ≥16

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case that is epidemiologically linked to a confirmed case or that has supportive serology (e.g., *C. psittaci* titer of ≥32 in one or more serum specimens obtained after onset of symptoms)

Comment

The serologic findings by CF also may occur as a result of infection with Chlamydia pneumoniae or Chlamydia trachomatis. The MIF might be more specific for infection with C. psittaci, but experience with and availability of this newer test is more limited.

Specimens from all cases must be sent to the Bureau of Laboratories for confirmation. This condition has been identified as a potential bioterrorism agent by the CDC.

A copy of laboratory test results should accompany the case report form.

Q Fever, Acute (*Coxiella burnetii)*

reporting code = 08301
case report form: CDC 55.1(2/08) *Q Fever Case Report*

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.
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

Laboratory confirmed:

- Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer to *Coxiella. 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.

Laboratory supportive:

- 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 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: A laboratory confirmed case that either meets clinical case criteria or is epidemiologically linked to a lab confirmed case.
Probable: 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.

Comment

Serologic profiles of pregnant women infected with acute Q fever during gestation may progress frequently and rapidly to those characteristic of chronic infection.
Exposure is usually via aerosol, is broadly interpreted, and may be unknown, 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.

Acute and convalescent sera from reported and suspect cases must be sent to the Bureau of Laboratories. This condition has been identified as a potential bioterrorism agent by the CDC.

A copy of laboratory test results should accompany the case report form.

Q Fever, Chronic (*Coxiella burnetii)*

reporting code = 08302
case report form: CDC 55.1(2/08) *Q Fever Case Report*

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

Laboratory confirmed:

- Serological evidence of IgG antibody to *Coxiella 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.

Laboratory supportive:

- Has an antibody titer to *C. burnetii* phase I IgG antigen ≥1:128 and < 1:800 by IFA.

Case classification

Confirmed: A clinically compatible case of chronic illness (meets clinical evidence criteria for chronic Q fever) that is laboratory confirmed for chronic infection.
Probable: 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).

Comment

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. 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.

Acute and convalescent sera from reported and suspect cases must be acquired and sent to the Bureau of Laboratories. This condition has been identified as a potential bioterrorism agent by the CDC.

A copy of laboratory test results should accompany the case report form.

Rabies, Animal

reporting code = 07102
case report form:
copy of state laboratory positive result
MERLIN ELECTRONIC SUBMISSION

Laboratory criteria

- A positive direct fluorescent antibody test (preferably performed on central nervous system tissue)

OR

- Isolation of rabies virus (in cell culture or in a laboratory animal)

Case classification

Confirmed: a case that is laboratory confirmed in an animal

Rabies, Human

reporting code = 07100
case report form: NA

Clinical description

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

Laboratory criteria

- Detection by direct fluorescent antibody of viral antigens in a clinical specimen (preferably the brain or the nerves surrounding hair follicles in the nape of the neck)

OR

- Isolation (in cell culture or in a laboratory animal) of rabies virus from saliva, cerebrospinal fluid (CSF), or central nervous system tissue

OR

- Identification of a rabies-neutralizing antibody titer $\geq$5 (complete neutralization) in the serum or CSF of an unvaccinated person

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Laboratory confirmation by all of the above methods is strongly recommended. CDC requests the following specimens: CSF, serum, or saliva (not sputum), biopsy of skin from the back of the neck just above hairline. Neck biopsy and saliva specimens should be sent packed in dry ice.

Rabies, Possible Exposure

(Includes a bite or other significant exposure* to a human by an animal that is either infected with or suspected of being infected with rabies or capable of transmitting herpes B viruses, including exposures from non-human primates.)

reporting code = 07101 Animal Bite
= 07103 Monkey Bite
case report form: FL DOH 3180 (11/2000)

Clinical description

Any bite or other significant exposure

Laboratory criteria for diagnosis

N/A

Case classification

Confirmed: bite or other significant exposure of a human by a confirmed or suspected rabid animal or any animal capable of transmitting herpes B viruses, including non-human primates.

Comment

The following is requested by HSDE: 1) patient information – age, sex, race, occupation, location of wound or exposure on body site, and whether rabies PEP given (indicate if the patient refuses treatment); 2) animal information – species, vaccinated/non-vaccinated, ownership (stray, wild, owned), and lab rabies results.

Only bites or other exposures* where rabies PEP is recommended should be reported under the 07101 Animal Bite code. All *monkey* bites including those where PEP is not recommended should be reported under the 07103 Monkey Bite code.

Note

The Rabies Prevention and Control in Florida Guidebook is updated annually and should be considered the most up-to-date resource for rabies related questions. To locate the 2008 guidebook http://www.doh.state.fl.us/environment/community/rabies/Documents/Rabiesguide2008.pdf

* Pages 3-1 and 4-3 includes the definition and interpretation of what constitutes a rabies exposure "A rabies exposure is considered any bite, scratch, or other situation in which saliva or nervous tissue of a potentially rabid animal enters an open or fresh wound, or comes in contact with mucous membranes by entering the eye, mouth or nose of another animal."
Pages 4-3 through 4-5 includes information regarding risk assessment of potential exposures. Pages 4-15 and 4-16 provide a patient management chart with a bulleted summary.

Rabies PEP Report forms and Animal Bite Report forms are available on the Bureau of Epidemiology website at: http://www.doh.state.fl.us/disease_ctrl/epi/topics/crforms.htm. The Animal Bite Report form is not required to be submitted to the Bureau of Epidemiology.

Additional information can be found on the Bureau of Community Environmental Health website http://www.doh.state.fl.us/environment/community/rabies/rabies-index.html

Ricin Toxicity

reporting code = 98830
case report form: NA

Clinical description

- Inhalation: Within a few hours of inhaling significant amounts of ricin, the likely symptoms would be coughing, tightness in the chest, difficulty breathing, nausea, and aching muscles. Within the next few hours, the body's airways (such as lungs) would become severely inflamed (swollen and hot), excess fluid would build up in the lungs, breathing would become even more difficult, and the skin might turn blue. Excess fluid in the lungs would be diagnosed by x-ray or by listening to the chest with a stethoscope.
- Ingestion: If someone swallows a significant amount of ricin, he or she would have internal bleeding of the stomach and intestines that would lead to vomiting and bloody diarrhea. Eventually, the person's liver, spleen, and kidneys might stop working, and the person could die.
- Injection*:* Injection of a lethal amount of ricin at first would cause the muscles and lymph nodes near the injection site to die. Eventually, the liver, kidneys, and spleen would stop working, and the person would have massive bleeding from the stomach and intestines. The person would die from multiple organ failure.
- Death from ricin poisoning could take place within 36 to 48 hours of exposure, whether by injection, ingestion, or inhalation. If the person lives longer than 5 days without complications, he or she will probably not die.

Showing these signs and symptoms does not necessarily mean that a person has been exposed to ricin.

Laboratory criteria

- N/A

Case classification

Suspect: a clinically compatible case that is suspected of inhaling ricin. A possible clue would be that a large number of people who had been close to each other suddenly developed fever, cough, and excess fluid in their lungs. These symptoms could be followed by severe breathing problems and possibly death.

Comment

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation. This condition has been identified as a potential bioterrorism agent by the CDC.

Rocky Mountain Spotted Fever

reporting code = 08200
case report form: CDC 55.1 (1/08)
Tick-Borne Rickettsial Disease Case Report

Clinical description

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. 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. Acute 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.

Clinical evidence

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

Laboratory evidence

For the purposes of surveillance,
Laboratory confirmed:

- Serological evidence of a fourfold change in immunoglobulin G (IgG)-specific antibody titer reactive with *Rickettsia rickettsii* 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* 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* from a clinical specimen in cell culture.

Laboratory supportive:

- Has serologic evidence of elevated IgG or IgM antibody reactive with R. rickettsii antigen by IFA, enzyme-linked immunosorbent assay (ELISA), dot-ELISA, or latex agglutination.

Exposure

Exposure is defined as having been in potential tick habitats within the past 14 days before onset of symptoms. A history of a tick bite is not required.

Case classification

Confirmed: A clinically compatible case (meets clinical evidence criteria) that is laboratory confirmed.
Probable: A clinically compatible case (meets clinical evidence criteria) that has supportive laboratory results.
Suspect: A case with laboratory evidence of past or present infection but no clinical information available (e.g., a laboratory report).

Comment

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.

Recently, a growing number of case reports have included commercial laboratory results as supportive evidence. For example, the previous case definitions have used the word “antibody.” A review of testing protocols and reagents distributed to the state laboratories reveal that these existing tests were specific for IgG-class immunoglobulins. With the increased availability of IgM testing at commercial laboratories, it becomes necessary to clarify the traditional meaning of the word “antibody” as used in all previous definitions and routinely used by rickettsial laboratories. The use of IgM is less supported by scientific evidence, and actually is complicated by false negatives when IgG is present and false positives when rheumatoid factor or cross-reactive, non-rickettsial, antibodies are present. Thus, IgM testing cannot be recommended for confirmation of cases at this time. **Acute and convalescent sera from reported and suspect cases should be acquired and sent to the Bureau of Laboratories.**

A copy of laboratory test results should accompany the case report form.

Rubella

reporting code = 05690
case report form: CDC (9/97)
Rubella surveillance Worksheet
MERLIN ELECTRONIC SUBMISSION

Clinical case definition

An illness that has all the following characteristics:

- Acute onset of generalized maculopapular rash
- Temperature greater than 99.0 F (greater than 37.2 C), if measured
- Arthralgia/arthritis, lymphadenopathy, or conjunctivitis

Laboratory criteria

- Isolation of rubella virus,

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

Case classification

Confirmed: a case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a laboratory-confirmed case
Probable: a case that meets the clinical case definition, has no or noncontributory serologic or virologic testing, and is not epidemiologically linked to a laboratory-confirmed case
Suspect: any generalized rash illness of acute onset

Comment

Case Classification for Import Status:
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.

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.

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

Questions about rubella case definition or follow-up, contact the Department of Health, Bureau of Immunization program at (850) 245-4342 or s/c 277-2755

Rubella, Congenital Syndrome

reporting code = 77100
case report form: CDC 71.17 (3/97)
Congenital Rubella Syndrome Case Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

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

- Cataracts/congenital glaucoma, congenital heart disease (most commonly patent ductus arteriosus, or peripheral pulmonary artery stenosis), loss of hearing, pigmentary retinopathy
- Purpura, splenomegaly, jaundice, microcephaly, mental retardation, meningoencephalitis, radiolucent bone disease.

Clinical case definition

Presence of any defects or laboratory data consistent with congenital rubella infection

Laboratory criteria

- Isolation of rubella virus

OR

- Demonstration of rubella-specific 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

- PCR positive for rubella virus

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a case that is not laboratory confirmed and that has any two complications listed in paragraph a) of the clinical description or one complication from paragraph a) and one from paragraph b), and lacks evidence of any other etiology
Suspect: a case with some compatible clinical findings but not does not meet the criteria for a probable case

Comment

Case Classification for Import Status:
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.
Import-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.
1. A case that demonstrates laboratory evidence of infection, but without any clinical symptoms or signs is not reportable.
2. In probable cases, either or both of the eye-related findings (i.e., cataracts and congenital glaucoma) are interpreted 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.

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

Questions about rubella case definition or follow-up, contact the Department of Health, Bureau of Immunization program at (850) 245-4342 or s/c 277-2755

Salmonellosis

reporting code = 00300
case report form: N/A

Clinical description

An illness of variable severity commonly manifested by diarrhea, abdominal pain, nausea, and sometimes vomiting. Also, the infectious agent may cause a extraintestinal infection and localize in any tissue in the body producing absesses and causing such diseases as septic arthritis, endocarditis, meningitis, pericarditis, pneumonia, bacteremia, pyoderma or pyelonephritis. Asymptomatic infections may occur.

Laboratory criteria

- Isolation of *Salmonella* sp. from a clinical specimen. When available, O and H antigen serotype characterization should be reported

Case classification

Confirmed: a case that is laboratory confirmed
Probable: a clinically compatible case that is epidemiologically linked to a confirmed case

Comment

Both asymptomatic cases and cases at sites other than the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases and should be reported. Illness due to *Salmonella typhi* should be reported as Typhoid fever (code=00200), not as salmonellosis (code=00300).

Saxitoxin Poisoning (Paralytic Shellfish Poisoning)

reporting code = 98840
case report form: NA

Clinical description

A person with circumoral paresthesia, numbness or tingling of the face, arms, and legs, ataxia, respiratory distress, headache, dizziness, weakness, nausea, and vomiting. Onset is 15 minutes to 10 hours following the consumption of puffer fish caught off the Florida coast. Illness can also be linked to consumption of molluscan shellfish from non-Florida waters such as from northern Pacific and other cold water sources (not known to be present in molluscan shellfish in Florida at this time). In severe cases muscle paralysis and respiratory failure occur, with death occurring in 2 to 25 hours. Floirda cases associated with puffer fish consumption experienced milder symptoms and fewer hospitalizations.

Laboratory criteria

- Toxin detection in urine or epidemiology linked food specimen

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Suspect: a clinically compatible case that is not laboratory confirmed and has a demonstrated epidemiologic link

Comment

Contact your regional environmental epidemiologist epidemiologist for information.

Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV) disease

reporting code= 07982
case report form: N/A

Clinical description

Early illness:

- Presence of two or more of the following features: fever (might be subjective), chills, rigors, myalgia, headache, diarrhea, sore throat, rhinorrhea

Mild-to-moderate respiratory illness:

- Temperature of >100.4º F (>38º C) and
- One or more clinical findings of lower respiratory illness (e.g., cough, shortness of breath, 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

Epidemiologic Criteria

Possible exposure to SARS-associated coronavirus (SARS-CoV):

One or more of the following exposures in the 10 days before onset of symptoms:

- Travel to a foreign or domestic location with documented or suspected recent transmission of SARS-CoV or
- Close contact with a person with mild-to-moderate or severe respiratory illness and with history of travel in the 10 days before onset of symptoms to a foreign or domestic location with documented or suspected recent transmission of SARS-CoV

Likely exposure to SARS-CoV:

One or more of the following exposures in the 10 days before onset of symptoms:

- Close contact with a confirmed case of SARS-CoV disease or
- Close contact with a person with mild-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

Laboratory criteria

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 the 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 [EIA]),

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 (RT-PCR) test validated by CDC and with subsequent confirmation in a reference laboratory (e.g., CDC)

Exclusion Criteria

A person may be excluded as a SARS report under investigation (SARS RUI), including as a CDC-defined probable SARS-CoV case, if any of the following applies:

- An alternative diagnosis can explain the illness fully
- Antibody to SARS-CoV is undetectable in a serum specimen obtained >28 days after onset of illness
- 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

Case classification

SARS RUI (Report Under Investigation)

Reports in persons from areas where SARS is not known to be active:

SARS RUI-1: Patients with severe illness compatible with SARS in groups likely to be first affected by SARS-CoV7 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: Patients who meet the current clinical criteria for mild-to-moderate illness and the epidemiologic criteria for possible exposure (spring 2003 CDC definition for suspect cases8)

SARS RUI-3: Patients who meet the current clinical criteria for severe illness and the epidemiologic criteria for possible exposure (spring 2003 CDC definition for probable cases8)

SARS RUI-4: Patients who meet the clinical criteria for early or mild-moderate illness and the epidemiologic criteria for likely exposure to SARS-CoV

SARS-CoV disease classification

Confirmed: a case of SARS-CoV disease in a person who has a clinically compatible illness (i.e., early, mild-to-moderate, or severe) that is laboratory confirmed

Probable: a case of SARS-CoV disease in a person who meets the clinical criteria for severe respiratory illness and the epidemiologic criteria for likely exposure to SARS-CoV

Comment

Information regarding the current criteria for laboratory diagnosis of SARS-CoV is available at http://www.cdc.gov/ncidod/sars/labdiagnosis.htm

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

Shigellosis

reporting code = 00490
case report form: N/A

Clinical description

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

Laboratory criteria

- Isolation of *Shigella* sp. from a clinical specimen. When available, O antigen serotype characterization should be reported.

Case classification

Confirmed: a case that is laboratory confirmed
Probable: a clinically compatible case that is epidemiologically linked to a confirmed case

Comment

Both asymptomatic cases and cases at sites other that the gastrointestinal tract, if laboratory confirmed, are considered confirmed cases and should be reported.

Smallpox

reporting code = 05090
case report form: N/A

Clinical description

An illness with acute onset of fever ≥101º F (≥38.3 º C) 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

- 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).

Case classification

Confirmed: a 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.
Suspected: a case with a generalized, acute vesicular or pustular rash illness with fever preceding development of rash by 1-4 days.

Comment

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.

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

This 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 suspect case than this smallpox case definition that 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 this case definition, 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."

Staphylococcus aureus, Vancomycin Non-Susceptible

reporting code = 38100 (Intermediate)
= 38101 (Resistant)
case report form: NA

Clinical description

S. 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

Intermediate Resistance (GISA/VISA):

- Isolation of *Staphylococcus aureus* from a clinical specimen with an MIC 4-8 µg/ml to Vancomycin

Resistance (GRSA/VRSA):

- Isolation of *Staphylococcus aureus* from a clinical specimen with an MIC $\geq$ 16 µg/ml to Vancomycin

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Isolates from all cases must be submitted to the Bureau of Laboratories for confirmation.

Staphylococcus Enterotoxin B (SEB)

reporting code = 38200
case report form: NA

Clinical description

Staphylococcal enterotoxin B (SEB) is an exotoxin produced by *Staphylococcus aureus*. Clinical signs include nonspecific flu-like symptoms.

- General Symptoms: fever, chills, headache, myalgia, conjunctival injection, varying degrees of prostration and potentially septic shock or death.
- Aerosolized Exposure: nonproductive cough for up to 4 weeks, retrosternal chest pain and shortness of breath.
- Ingestion Exposure: nausea or vomiting and diarrhea.

Laboratory criteria

- N/A

Case classification

Confirmed: a clinically compatible case that is diagnosed by clinical signs and epidemiology. Staphylococcal enterotoxin B may be found in blood, urine, respiratory secretions or nasal swabs for a short period of time. The toxin is detected by ELISA and chemiluminescence tests. Specimens that are suspected of containing the toxin should be sent immediately to the state laboratory.

Comment

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation. This condition has been identified as a potential bioterrorism agent by the CDC.

Streptococcal Disease, Invasive, Group A

reporting code = 03400
case report form: Rev. 11/00
Invasive Group A Streptococcus Surveillance Report

Clinical description

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

Laboratory criteria

- Isolation of group A *Streptococcus* (*Streptococcus pyogenes*) by culture from a normally sterile site (e.g., blood or cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid)

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

A copy of laboratory test results should accompany the case report form.

Streptococcus pneumoniae, Invasive Disease

reporting code = 04823 (Drug Resistant)
= 04830 (Susceptible)
case report form: DOH (6/99)
Invasive Streptococcus pneumoniae Surveillance Report
MERLIN ELECTRONIC SUBMISSION

Clinical description

Streptococcus pneumoniae causes many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis).

Laboratory criteria

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

AND for resistant isolates:

- Intermediate- or high-level resistance of the *S. pneumoniae* isolate to at least one antimicrobial agent currently approved for use in treating pneumococcal infection (12, 13)*

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

Report both resistant and non-resistant isolates. Extended data in Merlin is only required for those cases <5 years old.

*Resistance defined by Clinical and Laboratory Standards Institute (CLSI) [formerly National Committee for Clinical Laboratory Standards (NCCLS)] approved methods and CLSI-approved interpretive minimum inhibitory concentration (MIC) standards (µg/mL) *for S. pneumoniae*. CLSI recommends that all invasive *S. pneumoniae* isolates found to be “possibly resistant” to beta-lactams (i.e., an oxacillin zone size of <20 mm) by oxacillin screening should undergo further susceptibility testing by using a quantitative MIC method acceptable for penicillin, extended-spectrum cephalosporins, and other drugs as clinically indicated.

References

12. National Committee for Clinical Laboratory Standards. Performance standards for antimicrobial susceptibility testing. Villanova, PA: National Committee for Clinical Laboratory Standards, 1994;14(16); NCCLS document M100-S5.
13. CDC. Defining the public health impact of drug-resistant Streptococcus pneumoniae: report of a working group. MMWR 1996;45(No. RR-1).

Tetanus

reporting code = 03700
case report form: CDC (9/97)
Tetanus Surveillance Worksheet
MERLIN ELECTRONIC SUBMISSION

Clinical case definition
Acute onset of hypertonia and/or painful muscular contractions (usually of the muscles of the jaw and neck) and generalized muscle spasms without other apparent medical cause

Laboratory criteria
N/A

Case classification
Confirmed: a clinically compatible case, as reported by a healthcare professional

Questions regarding tetanus case definition follow up should be directed to the Department of Health, Bureau of Immunization program at (904) 487-2755 or s/c 277-2755

Toxoplasmosis

reporting code = 13090
case report form: NA

Clinical description
A systemic protozoan disease that is frequently asymptomatic, or may be present as an acute disease resembling infectious mononucleosis with symptoms including fever, sore throat, malaise, headache, myalgias, sweats, anorexia, abdominal pain, chest pain, or cough. Among immunodeficient individuals such as AIDS patients, the disease may include cerebral signs, pneumonia, generalized skeletal muscle involvement, myocarditis, a maculopapular rash and death.

Laboratory criteria
- Demonstration of the *Toxoplasma gondii* in tissues or body fluids, or fourfold change in specific IgG antibody titers in sequential sera.

Case classification
Confirmed: a clinically compatible case that is laboratory confirmed
Probable: an asymptomatic case that is laboratory confirmed

Comment
IgM antibody detection will confirm acute disease in a patient with a fourfold rise in IgG

Trichinellosis

reporting code = 12400
case report form: CDC 54.7A (2/90)
Trichinosis Surveillance Case Report

Clinical description

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

Laboratory criteria

- Demonstration of *Trichinella* larvae in tissue obtained by muscle biopsy, or
- Positive serologic test for *Trichinella*

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed

Comment

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

A copy of laboratory test results should accompany the paper case report form.

Tularemia (*Francisella tularensis)*

reporting code = 02190
case report form: N/A

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; oropharyngeal – stomatitis or pharyngitis or tonsillitis and cervical lymphadenopathy;
- Intestinal: intestinal pain, vomiting, and diarrhea;
- Pneumonic: primary pleuropulmonary disease;
- Typhoidal: febrile illness without early localizing signs and symptoms

Laboratory criteria

Confirmatory:

- Isolation of *Francisella tularensis* from a clinical specimen

OR

- Fourfold or greater change in serum antibody titer to *Francisella tularensis* antigen

Presumptive:

- Elevated serum antibody titer(s) to *F. tularensis* antigen (without documented fourfold or greater change) in a patient with no history of tularemia vaccination

OR

- Detection of *F. tularensis* in a clinical specimen by fluorescent assay

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case with laboratory results indicative of presumptive infection

Comment

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.

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation. This condition has been identified as a potential bioterrorism agent by the CDC.

Typhoid Fever

reporting code = 00200
case report form: CDC 52.5 (10/03)
Typhoid Fever Surveillance Report

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

- 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. Infection with *Salmonella typhi* should only be reported under the Typhoid Fever disease (code=00200) and not as salmonellosis (code = 00300).

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

A copy of laboratory test results should accompany the paper case report form.

Typhus Fever, epidemic (*Rickettsia prowazekii*)

reporting code = 08000
case report form: N/A

Clinical description

Several distinct *Rickettsiae* species cause typhus fevers in humans. Each agent produces disease with a distinct epidemiology, but all cause illness, usually with fever, headache, or rash, or a combination of these.

Laboratory criteria

Demonstration of *Rickettsia prowazekii* species in tissues or body fluids, or fourfold change in specific antibody titers in sequential sera.

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case that is lacking laboratory confirmation

Comment

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation. This condition has been identified as a potential bioterrorism agent by the CDC.

Typhus Fever, endemic (*Rickettsia typhi*)

reporting code = 08100
case report form: N/A

Clinical description

Several distinct *Rickettsiae* species cause typhus fevers in humans. Each agent produces disease with a distinct epidemiology, but all cause illness, usually with fever, headache, or rash, or a combination of these.

Laboratory criteria

Demonstration of *Rickettsia typhi* in tissues or body fluids, or fourfold change in specific antibody titers in sequential sera.

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case that is lacking laboratory confirmation

Comment

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

Vaccinia Disease

reporting code: 9990
case report form: VAERS

Clinical description

Vaccinia disease can present as any number of clinical manifestations ranging from self-limited responses to life-threatening events due to receiving or being inadvertently inoculated with vaccinia as a result of smallpox vaccination. Clinical complications can include any of the following:

- Eczema vaccinatum - Characterized by localized or generalized popular, vesicular, or pustular rash, which can occur anywhere on the body, with a predilection for areas of previous atopic dermatitis (e.g., face, forearms, antecubital fossa, popliteal fossa). Rash onset may occur concurrently or shortly after development of the Smallpox vaccine lesion and is often accompanied by fever, malaise, lymphadenopathy and prostration or severe systemic illness.
- Erythema multiforme major (Stevens-Johnsons Syndrome) - Characterized by systemic symptoms (fever, malaise, prostration) and involvement of 2 or more mucosal surfaces or 10% of the body surface area.
- Fetal vaccinia (Congenital vaccinia) - Characterized by skin lesions (e.g., vesicular, pustular, or ulcerative) and/or organ involvement in a newborn. The skin lesions are similar to those of Generalized Vaccinia or Progressive Vaccinia and can be confluent and extensive.
- Post-vaccinial encephalitis (Post vaccinial encephalomyelitis) - Post-Vaccinial Encephalopathy or Post-Vaccinial Encephalitis, onset of symptoms 6-15 days post-vaccination, is characterized by any change in mental status (confusion, delirium, drowsiness, restlessness, disorientation, amnesia, seizures, loss of consciousness, coma) or in sensorimotor function (altered sensation, weakness, paresis, aphasia, incontinence or urinary retention, obstinate constipation) or any combination thereof.
- Progressive vaccinia - Characterized by a painless progressive and ulcerating lesion at the vaccination site that does not heal, often with central necrosis, and with little or no inflammation.
- Generalized vaccinia - Characterized by disseminated maculopapular or vesicular rash, frequently on an erythematous base, usually occurring 6-9 days after first-time vaccination. Lesions may occur on any part of the body, most often on the trunk and abdomen, less commonly on the face and limbs. Though usually benign and self-limiting, can develop into severe systemic illness.
- Inadvertent inoculation - Characterized by extensive vesicular and pustular lesion/s at a distant different location on the vaccinee, or anywhere on a close contact, which is not generalized but may involve a large contiguous area.
- Ocular vaccinia - Characterized by inflammation of peri-ocular soft tissue or the eye itself (blepharitis, conjunctivitis, keratitis, iritis) or any combination thereof.
- Pyogenic infection - Characterized by (staphylococcal infections) vesiculo-pustular lesion at the site of vaccination, often spreading peripherally in circumferential fashion, with clearing behind the advancing border. Bacterial lymphangitis and regional lymphadenitis may occur, but most often the lesions are solely superficial infections
  OR
  (streptococcal infections) a piled up eschar, heaping at the vaccination site. Lymphangitis occurs commonly as does edematous painful regional lymphadenitis
  OR
  (enteric and anaerobic infections) purulence with or without extensive necrosis at the vaccination site. Necrotic fasciitis has also been encountered in some cases.
- Other serious adverse events - Serious to life-threatening events resulting in hospitalization, permanent disability, life-threatening illness, or death in a Smallpox vaccinee, or a close contact of a vaccinee.

Laboratory criteria

- None unless laboratory confirmation is indicated to distinguish from other infections or other pox.

Case classification

Probable: clinical features compatible with the diagnosis, other causes are excluded, and supportive information is available.
Suspect: clinical features compatible with the diagnosis but either further investigation is required
OR
additional investigation of the case did not provide supporting evidence for the diagnosis AND did not identify an alternative diagnosis.

Comment

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.

Questions regarding case definition follow up should be directed to the Department of Health, Bureau of Immunization program at (904) 487-2755 or s/c 277-2755

Varicella (Chickenpox)

reporting code = 05290
case report form: CDC rev 7/07
Varicella Surveillance Worksheet
MERLIN ELECTRONIC SUBMISSION

Clinical description

An illness with acute onset of diffuse (generalized) maculo-papulovesicular rash without other apparent cause.

Laboratory criteria

- Isolation of varicella virus from a clinical specimen,

OR

- Direct fluorescent antibody (DFA),

OR

- Polymerase chain reaction (PCR),

OR

- Significant rise in serum varicella immunoglobulin G (IgG) antibody level by any standard serologic assay

Case classification

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

Comment

Two probable cases that are epidemiologically linked would be considered confirmed, even in the absence of laboratory confirmation.
In vaccinated persons who develop varicella more than 42 days after vaccination (breakthrough disease), the disease is almost always mild with fewer than 50 skin lesions and shorter duration of illness. The rash may also be atypical in appearance (maculopapular with few or no vesicles).
Laboratory confirmation of cases of varicella is not routinely recommended; laboratory confirmation is recommended for fatal cases and in other special circumstances.
***Varicella* cases should only be reported for cases of chickenpox. Herpes-zoster infections (Shingles) are not reportable.**

Questions regarding case definition follow up should be directed to the Department of Health, Bureau of Immunization program at (904) 487-2755 or s/c 277-2755

Varicella mortality

Reporting code= 05290
case report form: CDC rev 7/07
Varicella Death Investigation Worksheet

Case classification

Confirmed: A confirmed case of varicella which contributes directly or indirectly to acute medical complications which result in death.
Probable: A probable case of varicella which contributes directly or indirectly to acute medical complications which result in death.

Comment

Cases of varicella infection that resulted in death should be reported under the reporting code for varicella (disease code 05290) in Merlin with the date of death listed in the case information. It should be noted in the Merlin case notes that infection due to varicella was determined as the cause of death. The additional varicella Death Investigation Worksheet must still be filled out and sent to the BOE. Please see case definition for varicella (Chickenpox) in order to classify a case of varicella infection that did not result in death.
Varicella mortality should only be reported for cases of chickenpox, herpes-zoster infections (Shingles) are not reportable.

Questions regarding case definition follow up should be directed to the Department of Health, Bureau of Immunization program at (904) 487-2755 or s/c 277-2755

Vibrio, Infections
(see also Cholera, *Vibrio*)

reporting codes = 00193 *Vibrio*, other
= 00194 *V. fluvialis*
= 00195 *V. alginolyticus*
= 00196 *V. hollisae*
= 00197 *V. mimicus*
= 00198 *V. cholerae* type non-01
= 00199 *V. vulnificus*
= 00540 *V. parahaemolyticus*
case report form: CDC 52.79 (7/00)
Cholera and Other *Vibrio Illness Surveillance Report*

Clinical description
An infection of variable severity characterized by diarrhea and vomiting, primary septicemia, or wound infections. Asymptomatic infections may occur, and the organism may cause extraintestinal infections.

Laboratory criteria
Isolation of a *Vibrio* species other than toxigenic *Vibrio cholerae* O1 from a clinical specimen.

Case classification
Confirmed: A case that meets the laboratory criteria for diagnosis.
Probable: A clinically-compatible symptomatic case that is epidemiologically linked to a confirmed case.

Comment
Note that species identification and, if applicable, serotype designation (i.e., *Vibrio cholerae* non-O1/non-O139) should be reported.
Infections due to **toxigenic** *Vibrio cholerae* O1 or O139 should **NOT** be reported as *Vibrio*, infections but **SHOULD** be reported as *Vibrio cholerae* type O1 (code=00190)
Isolates from all cases must be submitted to the Bureau of Laboratories for confirmation.
Toxigenic production for *Vibrio cholerae* O1 or O139 must be confirmed by CDC.
The Florida Department of Agriculture and Consumer Services (DACS) Molluscan Shellfish Program should be notified of any *Vibrio* infections thought to be associated with shellfish consumption.

Contact your regional environmental epidemiologist for information.

A copy of laboratory test results should accompany the paper case report form.

Viral Hemorrhagic Fever

reporting code = 07889
case report form: N/A

Clinical description

Diagnosis of viral hemorrhagic fever must be made by a physician. Common presenting complaints are fever, myalgia, and prostration, with headache, pharyngitis, conjunctival injection, flushing, gastrointestinal symptoms. This may be complicated by spontaneous bleeding, petechiae, hypotension and perhaps shock, edema and neurologic involvement. Viruses under surveillance are Ebola, Lassa, Marburg, and Machupo.

Laboratory evidence

Laboratory confirmed

- Isolation of a viral hemorrhagic fever virus confirmed by the CDC,

OR

- Detection of specific virus by nucleic acid testing, antigen detection assay, or electron microscopy confirmed by the CDC,

OR

- IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titer to specific virus confirmed by the CDC

Laboratory supportive

- Isolation of virus

OR

- Detection of specific virus by nucleic acid testing, antigen detection assay, or electron microscopy

OR

- IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titer to specific virus

OR

- Detection of IgM antibodies to a specific virus.

Exposure criteria

- History of travel to an endemic/epidemic area within 9 days (Marburg) or 21 days (Lassa, Ebola, Machupo) of illness onset. Filoviruses are endemic in Sub-Saharan Africa, Lassa in Western Africa, and Machupo in eastern and northern Bolivia;

OR

- Contact with a confirmed case

OR

- Exposure to viral hemorrhagic fever (VHF)-infected blood or tissues.

Case classification

Confirmed: A clinically compatible case that is laboratory confirmed.

Probable:

- A clinically compatible case with supportive laboratory results,

OR

- A clinically compatible case that meets the exposure criteria.

Suspect: A clinically compatible case

Comment

Detection of a possible case requires immediate notification of the Bureau of Epidemiology which is available 24/7 at (850) 245-4401.
Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation by the CDC.

Yellow Fever

reporting code = 06090
case report form: N/A

Clinical description

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

Laboratory criteria

- Fourfold or greater rise in yellow fever antibody titer in a patient who has no history of recent yellow fever vaccination and cross-reactions to other flaviviruses have been excluded

OR

- Demonstration of yellow fever virus, antigen, or genome in tissue, blood, or other body fluid

Case classification

Confirmed: a clinically compatible case that is laboratory confirmed
Probable: a clinically compatible case 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 excluded, and the patient must not have a history of yellow fever vaccination.)

Comment

Specimens from all cases must be submitted to the Bureau of Laboratories for confirmation.