

## STD Surveillance Case Definitions

### Chancroid (Revised 9/96)

#### Clinical description

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

#### Laboratory criteria for diagnosis

- Isolation of *H. ducreyi* from a clinical specimen

#### Case classification

*Probable*: a clinically compatible case with both a) no evidence of *Treponema pallidum* infection by darkfield microscopic examination of ulcer exudate or by a serologic test for syphilis performed  $\geq 7$  days after onset of ulcers and b) either a clinical presentation of the ulcer(s) not typical of disease caused by herpes simplex virus (HSV) or a culture negative for HSV.

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

### ***Chlamydia trachomatis*, Infection (Revised 6/09)**

#### Clinical description

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see [Lymphogranuloma Venereum](#)) and trachoma.

#### Laboratory criteria for diagnosis

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

#### Case classification

*Confirmed*: a case that is laboratory confirmed

## **Gonorrhea (effective January 1, 2014)**

### Clinical description

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

### Laboratory Criteria for Diagnosis

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

### Case Classification

*Probable:* demonstration of gram-negative intracellular diplococci in a urethral smear obtained from a male or an endocervical smear obtained from a female

*Confirmed:* a person with laboratory isolation of typical gram-negative, oxidase-positive diplococci by culture (presumptive *Neisseria gonorrhoeae*) from a clinical specimen, or demonstration of *N. gonorrhoeae* in a clinical specimen by detection of antigen or detection of nucleic acid via nucleic acid amplification (e.g., PCR) or hybridization with a nucleic acid probe.

## **Syphilis (effective Jan 1, 2014)**

Syphilis is a complex sexually transmitted disease that has a highly variable clinical course. Adherence to the following surveillance case definitions will facilitate understanding the epidemiology of this disease across the U.S.

### **Syphilis, primary**

#### Clinical description

A stage of infection with *Treponema pallidum* characterized by one or more ulcerative lesions (e.g. chancre), which might differ considerably in clinical appearance.

### Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

### Case classification

*Probable*: a case that meets the clinical description of primary syphilis with a reactive serologic test (nontreponemal: Venereal Disease Research Laboratory [VDRL], rapid plasma reagin [RPR], or equivalent serologic methods; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS], *T. pallidum* particle agglutination [TP-PA], enzyme immunoassay [EIA], chemiluminescence immunoassay [CIA], or equivalent serologic methods).<sup>1</sup>

*Confirmed*: a case that meets the clinical description of primary syphilis that is laboratory confirmed

## **Syphilis, secondary**

### Clinical description

A stage of infection caused by *T. pallidum* characterized by localized or diffuse mucocutaneous lesions (e.g., rash — such as non-pruritic macular, maculopapular, papular, or pustular lesions), often with generalized lymphadenopathy. Other symptoms can include mucous patches, condyloma lata, and alopecia. The primary ulcerative lesion may still be present. Because of the wide array of symptoms possibly indicating secondary syphilis, serologic tests for syphilis and a thorough sexual history and physical examination are crucial to determining if a case should be classified as secondary syphilis.

### Laboratory criteria for diagnosis

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, or by polymerase chain reaction (PCR) or equivalent direct molecular methods

### Case classification

*Probable*: a case that meets the clinical description of secondary syphilis with a nontreponemal (VDRL, RPR, or equivalent serologic methods) titer  $\geq 4$  AND a reactive treponemal test (FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods).

*Confirmed*: a case that meets the clinical description of secondary syphilis (with at least one sign or symptom) that is laboratory confirmed

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<sup>1</sup> These treponemal tests supersede older testing technologies, including microhemagglutination assay for antibody to *T. pallidum* [MHA-TP].

## **Syphilis, early latent**

### Clinical description

A subcategory of latent syphilis (a stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs) when initial infection has occurred within the previous 12 months.

### Case classification

*Probable*: A person with no clinical signs or symptoms of syphilis who has one of the following:

- No past diagnosis of syphilis, AND a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods), AND a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods),

#### **OR**

- A current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer.

**AND** evidence of having acquired the infection within the previous 12 months based on one or more of the following criteria:

- Documented seroconversion or fourfold or greater increase in titer of a nontreponemal test during the previous 12 months
- Documented seroconversion of a treponemal test during the previous 12 months
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner within the previous 12 months who had primary, secondary, or early latent syphilis (documented independently as duration < 12 months)
- Only sexual contact was within the last 12 months (sexual debut)

There is no confirmed case classification for early latent syphilis.

## **Syphilis, late latent**

### Clinical description

A subcategory of latent syphilis (a stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs) when initial infection has occurred >12 months previously.

### Case classification

*Probable:* A person with no clinical signs or symptoms of syphilis who has one of the following:

- No past diagnosis of syphilis, AND a reactive nontreponemal test (e.g., VDRL, RPR, or equivalent serologic methods), AND a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods),

**OR**

- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer.

**AND** who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early latent).

There is no confirmed case definition for late latent syphilis.

### **Syphilis, late, with clinical manifestations (including late benign syphilis and cardiovascular syphilis)**

#### Clinical description

Clinical manifestations of late syphilis may include inflammatory lesions of the cardiovascular system, (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis) or other tissue. Rarely, other structures (e.g., the upper and lower respiratory tracts, mouth, eye, abdominal organs, reproductive organs, lymph nodes, and skeletal muscle) may be involved. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection. If only neurologic manifestations of syphilis (e.g., tabes dorsalis, dementia) are present and infection occurred more than 12 months ago, the case should be reported as “late syphilis”.

#### Laboratory criteria for diagnosis

Demonstration of *T. pallidum* in late lesions by special stains (although organisms are rarely visualized in late lesions), or equivalent methods, or by polymerase chain reaction (PCR) or equivalent direct molecular methods.

### Case classification

*Probable*: characteristic abnormalities or lesions of the cardiovascular system (e.g., aortitis, coronary vessel disease), skin (e.g., gummatous lesions), bone (e.g., osteitis), or other tissue AND a reactive treponemal test (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods), in the absence of other known causes of these abnormalities. CSF abnormalities and clinical symptoms or signs consistent with neurologic manifestations of syphilis might be present.

*Confirmed*: a case that meets the clinical description of late syphilis that is laboratory confirmed

### **Neurosyphilis**

#### Note

**Neurosyphilis can occur at any stage of syphilis.** If the patient has neurologic manifestations of syphilis, the case should be reported with the appropriate stage of infection (as if neurologic manifestations were not present) and “neurologic manifestations” should be noted in the case report data. If no other stage is appropriate, the case should be staged as “late, with clinical manifestations”.

### Clinical description

Infection of the central nervous system with *T. pallidum*, as evidenced by manifestations including syphilitic meningitis, meningovascular syphilis, optical involvement including interstitial keratitis and uveitis,<sup>2</sup> general paresis, including dementia, and tabes dorsalis.

### Laboratory criteria for diagnosis

- A reactive VDRL in cerebrospinal fluid (CSF) **AND** either 1.) a reactive treponemal serologic test for syphilis (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods) OR 2.) a reactive nontreponemal serologic test for syphilis (VDRL, RPR, or equivalent serologic method).

### Case classification

*Probable*: syphilis of any stage with a negative VDRL test in CSF specimen and either 1.) a reactive treponemal serologic test for syphilis (e.g., FTA-ABS, TP-PA, EIA, CIA, or equivalent serologic methods) OR 2.) a reactive non-treponemal serologic test for syphilis (VDRL, RPR, or equivalent serologic method), AND both the following:

- Elevated CSF protein<sup>†</sup> or leukocyte count<sup>†</sup> in the absence of other known causes of these Abnormalities

**AND**

- Clinical symptoms or signs consistent with neurosyphilis without other known causes for these clinical abnormalities

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

† CSF protein >50 mg/dL,<sup>3</sup> >5 white blood cells/cubic millimeter CSF;<sup>4</sup> in HIV-positive individuals, these parameters are less specific

<sup>2</sup> Doris JP, Saha K, Jones NP, Sukthankar A. Ocular syphilis: the new epidemic. *Eye (Lond)*. 2006 Jun;20(6):703-5. Epub 2005 Jun 3.

<sup>3</sup> Sparling, PF, Swartz, MN, Musher, DM, Healy, BP. Clinical Manifestations of Syphilis. In Holmes, KK, Sparling, PF, Stamm, WE, Piot, P, Wasserheit, J, Corey, L, Cohen, MS, Watts, DH (eds). *Sexually Transmitted Diseases* (4th ed). McGraw Medical: New York City, NY (2008), pp. 661–684.

<sup>4</sup> Tramont, EC. *Treponema pallidum* (Syphilis). In Mandell, GL, Bennett, JE, Dolin, R (eds). *Principles and Practice of Infectious Diseases* (5th ed). Churchill Livingstone: Philadelphia, PA (2000), pp. 2474–2490.

## **Syphilitic Stillbirth**

### Clinical description

A fetal death that occurs after a 20-week gestation or in which the fetus weighs >500 g and the mother had untreated or inadequately treated\* syphilis at delivery

### **Comment**

For reporting purposes, syphilitic stillbirths should be reported as cases of congenital syphilis

## **Syphilis, Congenital (Revised 9/96)**

### Clinical description

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

### Laboratory criteria for diagnosis

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

### Case classification

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

- Any evidence of congenital syphilis on physical examination
- Any evidence of congenital syphilis on radiographs of long bones
- A reactive cerebrospinal fluid (CSF) venereal disease research laboratory (VDRL)
- An elevated CSF cell count or protein (without other cause)
- A reactive fluorescent treponemal antibody absorbed—19S-IgM antibody test or IgM enzyme-linked immunosorbent assay

*Confirmed*: a case that is laboratory confirmed

### **Comment**

Congenital and acquired syphilis may be difficult to distinguish when a child is seropositive after infancy. Signs of congenital syphilis may not be obvious, and stigmata may not yet have developed. Abnormal values for CSF VDRL, cell count, and protein, as well as IgM antibodies, may be found in either congenital or acquired syphilis. Findings on radiographs of long bones may help because radiographic changes in the metaphysis and epiphysis are considered classic signs of congenitally acquired syphilis. The decision may ultimately be based on maternal history and clinical judgment. In a young child, the possibility of sexual abuse should be considered as a cause of acquired rather than congenital syphilis, depending on the clinical picture. For reporting purposes, congenital syphilis includes cases of congenitally acquired syphilis among infants and children as well as syphilitic stillbirths.

\* Inadequate treatment consists of any nonpenicillin therapy or penicillin administered < 30 days before delivery.