# STD Case Definitions: Reportable Diseases or Conditions in Florida

(Chapter 64D-3, *Florida Administrative Code*)

**General Definitions**

**Clinical description:** The clinical description provides information on physical evidence of signs or symptoms, a reported history of symptoms or exposure, or risk factors pertinent to the organism.

**Laboratory criteria for diagnosis:** The laboratory criteria for diagnosis explains how a diagnosis can be reached and laboratory tests that can be used.

**Case Classification:** The case classification provides information on what is necessary to be present in a case.

- **Probable:** A probable case is one that cannot be established through laboratory testing alone, and/or where additional or alternate criteria are allowed.
- **Confirmed:** A confirmed case is one definitively identified through laboratory testing.

## Chancroid (*Haemophilus ducreyi*)[1]

**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

Tests: Culture of *H. ducreyi*, Alkaline Phosphatase Test, Nitrate Reductase Test, Oxidase Test, Porphyrin Test, β-lactamase Testing, Antimicrobial Resistance Plasmids.

**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 greater than or equal to 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 *(Chlamydia trachomatis)*, Genital Infections[1]

**Clinical description:** Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted. Female patients may report symptoms of abnormal vaginal discharge, a burning sensation when urinating, lower abdominal pain, low back pain, nausea and/or fever, pain during intercourse, bleeding between menstrual periods, or anal irritation. Male patients may report symptoms of discharge from the penis, a burning sensation when urinating, burning or itching around the opening of the penis, or anal irritation. Note, the infection is asymptomatic in approximately 70-80% of women and 60-70% of men. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns (see definitions below). Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see definitions below) 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

Tests: Cytology (Giemsa Test, Papanicolaou Stain, Immunofluorescence Test), Direct Detection (Enzyme Immunoassay, Direct Fluorescent Antibody, Nucleic Acid Probes), Cell Culture, Serology, Susceptibility Testing of *C. trachomatis* Isolates.

**Case Classification**

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

## Chlamydia in children ≤ 12 years of age[2]

**Clinical description[1]:** 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 females. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns (see definitions below).

**Laboratory Criteria for Diagnosis[3]**

Specimens to screen for *Chlamydia trachomatis* should be obtained for culture from the rectal area and vagina of girls and from the urethra of boys. Endocervical specimens for

culture are not required for prepubertal girls; only vaginal specimens are required. If vaginal discharge is present, specimens for wet mount for *Trichomonas vaginalis* and wet mount or Gram stain for bacterial vaginosis may be obtained as well. If the girl being evaluated is pubertal or postmenarcheal, specimens for cultures of *Chlamydia trachomatis* must be obtained from the endocervix.

**Case Classification**

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

## Chlamydial pneumonia

**Clinical description[3]:** Infection with *Chlamydia trachomatis* in infants may result in an afebrile illness of insidious onset occurring between 2 and 19 weeks after birth. A repetitive staccato cough, tachypnea, and rales are characteristic but not always present. Wheezing is uncommon. Hyperinflation usually accompanies infiltrates seen on chest radiographs. Nasal stuffiness and otitis media may occur. Untreated disease can linger or recur.

**Laboratory Criteria for Diagnosis[3]**

In children with pneumonia, an acute microimmunofluorescent serum titer of *C trachomatis*-specific immunoglobulin (Ig) M of ≥ 1:32 is diagnostic.

**Case Classification:**

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

## Conjunctivitis in neonates ≤ 14 days old

**Clinical description:** A condition that may be caused by infection with *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, other bacterial microbes, herpes simplex virus, or chemical exposure to prophylaxis in a neonate less than or equal to 14 days old. Signs may include inflammation of the mucous membrane that lines the inner surface of the eyelids and is continued over the forepart of the eyeball.

**Laboratory Criteria for Diagnosis**

For differential diagnosis, it is recommended that tests be done for *Chlamydia trachomatis*; *Neisseria gonorrhoeae*; and herpes simplex virus.

**Case Classification:**

A clinically compatible or confirmed case of *Chlamydia trachomatis*; *Neisseria gonorrhoeae*; *Staphylococcus* species; *Streptococcus pneumoniae*; *Haemophilus influenzae*, nontypeable; *Streptococcus mitis*; group A and B streptococci; *Neisseria*

*cinerea; Corynebacterium* species; *Moraxella catarrhalis*; *Escherichia coli*; *Klebsiella pneumoniae*; *Pseudomonas aeruginosa*; or herpes simplex virus. Conjunctivitis can also be caused by chemical reactions from silver nitrate or other topical medications.

## Gonorrhea *(Neisseria gonorrhoeae)*[1]

**Clinical description:** A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. Infections may be asymptomatic. Female patients may report symptoms of abnormal and/or increased vaginal discharge, a burning sensation when urinating, frequent urination, pain during intercourse, bleeding between menstrual periods, or anal irritation (itching, soreness, painful bowel movements, and/or bleeding). Male patients may report symptoms of discharge from the penis, a burning sensation when urinating, burning or itching around the opening of the penis, penile (head) swelling and soreness, pain or swelling of the testicles, or anal irritation.

**Laboratory criteria for diagnosis**

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

Tests: Direct Detection (Gram Stain, Enzyme Immunoassay, Nucleic Acid Probes), Isolation of *N. gonorrhoeae,* Presumptive Identification of *N. gonorrhoeae* (Growth and Colonial Morphology on Selective Media, Oxidase Test, Gram Staining of Colonies, Superoxol Test).

**Case classification**

*Probable*: a) demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a female or b) a written morbidity report of gonorrhea submitted by a physician

*Confirmed*: a case that is laboratory confirmed

## Gonorrhea in children ≤ 12 years of age[2]

**Clinical description[1]:** A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. Infections may be asymptomatic.

**Laboratory criteria for diagnosis[3]**

Specimens to screen for *N. gonorrhoeae* should be obtained for culture from the rectal area and vagina of girls and from the urethra of boys. Specimens should also be obtained

from the pharynx even in the absence of symptoms. Endocervical specimens for culture are not required for prepubertal girls; only vaginal specimens are required. If vaginal discharge is present, specimens for wet mount for *Trichomonas vaginalis* and wet mount or Gram stain for bacterial vaginosis may be obtained as well. If the girl being evaluated is pubertal or postmenarcheal, specimens for cultures of *N. gonorrhoeae* must be obtained from the endocervix.

**Case classification**[1]

*Probable*: a) demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a female or b) a written morbidity report of gonorrhea submitted by a physician

*Confirmed*: a case that is laboratory confirmed

## Granuloma Inguinale *(Calymmatobacterium granulomatis)*[1]

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

**Laboratory criteria for diagnosis**

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

**Case classification**

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

## Herpes Simplex Virus (HSV) in infants up to 60 days old with disseminated infection with involvement of liver, encephalitis and infections limited to skin, eyes and mouth

**Clinical description**[3]**:** In many neonates with disseminated or central nervous system disease, skin lesions do not develop or the lesions appear late in the course of infection. In the absence of skin lesions, the diagnosis of neonatal HSV is difficult. Disseminated infection should be considered in neonates with sepsis syndrome, negative bacteriologic culture results, and severe liver dysfunction. HSV also should be considered as a causative agent in neonates with fever, irritability, and abnormal cerebrospinal fluid findings, especially in the presence of seizures.

Neonatal herpetic infections often are severe, with attendant high mortality and morbidity rates, even when antiviral therapy is administered. Recurrent skin lesions are common in

surviving infants and can be associated with central nervous system sequelae if skin lesions occur frequently during the first 6 months of life.

Initial signs of HSV infection can occur anytime between birth and approximately 4 weeks of age. Disseminated disease has the earliest age of onset, often during the dirst week of life; central nervous system disease manifests latest, usually between the second and third weeks of life.

**Laboratory criteria for diagnosis[3]**

For diagnosis of neonatal HSV infection, swabs of the mouth, nasopharynx, conjunctivae, and rectum and specimens of skin vesicles, urine, stool, blood, and CSF should be obtained for culture. Positive cultures obtained from any of these sites more than 48 hours after birth indicate viral replication suggestive of infant infection rather than contamination after intrapartum exposure. Rapid diagnostic techniques also are available, such as direct fluorescent antibody staining of vesicle scrapings or enzyme immunoassay detection of HSV antigens. These techniques are as specific but slightly less sensitive than culture. Typing HSV strains differentiates between HSV-1 and HSV-2 isolates. Polymerase chain reaction assay is a sensitive method for detecting HSV DNA and is of particular value for evaluating CSF specimens from people with suspected herpes encephalitis. Histologic examination of lesions for the presence of giant cells and eosinophilic intranuclear inclusions typical of HSV (eg, with Tzanck test) has low sensitivity and is not recommended as a rapid diagnostic test.

**Case classification**

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

## Human Papillomavirus (HPV) associated laryngeal papillomas or recurrent respiratory papillomatosis in children ≤ 6 years of age (tentative case definition)

**Clinical description[3]:** Recurring papillomas in the larynx or other areas of the upper respiratory tract. This condition is diagnosed most commonly in children between 2 and 5 years of age and manifests as a voice change, stridor, or abnormal cry. Respiratory papillomas have been associated with respiratory tract obstruction in young children.

**Laboratory criteria for diagnosis[3]**

Respiratory papillomatosis is diagnosed using endoscopy and biopsy.

**Case classification**

Currently under review.

## HPV, anogenital in children ≤ 12 years of age[2]

**Clinical description[3]:** Skin-colored warts with a cauliflower-like surface that range in size from a few millimeters to several centimeters in children 12 years of age or below. In males, these warts may be found on the penis, scrotum, or anal and perianal area. In females, these lesions may occur on the vulva or perianal areas and less commonly in the vagina or on the cervix. Anogenital warts often are multiple and attract attention because of their appearance. Warts are usually painless, although they may cause itching, burning, local pain, or bleeding.

**Laboratory criteria for diagnosis[3]**

Most anogenital warts are diagnosed through clinical inspection. A definitive diagnosis of HPV infection is based on detection of viral nucleic acid (DNA or RNA) or capsid protein.

**Case classification**

Currently under review.

## HPV cancer associated strains

**Clinical description:** HPV infection may be associated with clinically inapparent dysplastic lesions, particularly in the female genital tract (cervix and vagina). These lesions may be made more apparent by applying 3% to 5% acetic acid to the mucosal surface and examining it by magnification. The HPV types associated with these dysplasias also are associated with cancers that occur in the anogenital tract.

**Laboratory criteria for diagnosis**

1) Positive test for any high risk human papillomavirus (HPV) type (e.g., 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 59, 68, etc.)
2) Abnormal cervical and anogenital cytologies consistent with "Bethesda 2001 Terminology"
3) Abnormal histologies including:
    a. Cervical vaginal intraepithelial neoplasia (CIN 1, 2, or 3)
    b. Vulvar intraepithelial neoplasia (VIN 1, 2, or 3)
    c. Vaginal intraepithelial neoplasia (VAIN 1, 2, or 3)
    d. Anal intraepithelial neoplasia (AIN 1, 2, or 3)

**Case classification**

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

## Lymphogranuloma Venereum *(Chlamydia trachomatis)*[1]

**Clinical description:** Infection with $L_1$, $L_2$, or $L_3$ serovars of *Chlamydia trachomatis* may result in a disease characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis. The infection is usually sexually transmitted.

**Laboratory criteria for diagnosis**

- Isolation of *C. trachomatis*, serotype $L_1$, $L_2$, or $L_3$, from clinical specimen; or,
- Demonstration of inclusion bodies by immunofluorescence in leukocytes of an inguinal lymph node (bubo) aspirate; or,
- Positive microimmunofluorescent serologic test for a lymphogranuloma venereum strain of *C. trachomatis* (in a clinically compatible case).

**Case classification**

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

*Confirmed*: a case that is laboratory confirmed

# Syphilis *(Treponema pallidum)*[1]

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

- Syphilis, primary
- Syphilis, secondary
- Syphilis, latent
- Syphilis, early latent
- Syphilis, late latent
- Syphilis, latent unknown duration
- Neurosyphilis
- Syphilis, late, non-neuro
- Syphilitic Stillbirth

## Syphilis, primary

**Clinical description:** A stage of infection with *Treponema pallidum* characterized by one or more chancres (ulcers); chancres might differ considerably in clinical appearance.

**Laboratory criteria for diagnosis**

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, direct fluorescent antibody (DFA-TP), or equivalent methods.

**Case classification**

*Probable*: a clinically compatible case with one or more ulcers (chancres) consistent with primary syphilis and a reactive serologic test (nontreponemal: Venereal Disease Research Laboratory [VDRL] or rapid plasma reagin [RPR]; treponemal: fluorescent treponemal antibody absorbed [FTA-ABS] or microhemagglutination assay for antibody to *T. pallidum* [MHA-TP])

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

## Syphilis, secondary

**Clinical description:** A stage of infection caused by *T. pallidum* and characterized by localized or diffuse mucocutaneous lesions, often with generalized lymphadenopathy. The primary chancre may still be present.

**Laboratory criteria for diagnosis**

- Demonstration of *T. pallidum* in clinical specimens by darkfield microscopy, DFA-TP, or equivalent methods

**Case classification**

*Probable*: a clinically compatible case with a nontreponemal (VDRL or RPR) titer greater than or equal to 4

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

## Syphilis, latent

**Clinical description:** A stage of infection caused by *T. pallidum* in which organisms persist in the body of the infected person without causing symptoms or signs. Latent syphilis is subdivided into early, late, and unknown categories based on the duration of infection.

**Case classification**

*Probable*: no clinical signs or symptoms of syphilis and the presence of one of the following:

- No past diagnosis of syphilis, a reactive nontreponemal test (i.e., VDRL or RPR), and a reactive treponemal test (i.e., FTA-ABS or MHA-TP)
- A past history of syphilis therapy and a current nontreponemal test titer demonstrating fourfold or greater increase from the last nontreponemal test titer

## Syphilis, early latent

**Clinical description:** A subcategory of latent syphilis. When initial infection has occurred within the previous 12 months, latent syphilis is classified as early latent.

**Case classification**

*Probable*: latent syphilis (see Syphilis, latent) in a person who has 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
- A history of symptoms consistent with primary or secondary syphilis during the previous 12 months
- A history of sexual exposure to a partner who had confirmed or probable primary or secondary syphilis or probable early latent syphilis (documented independently as duration less than 1 year)
- Reactive nontreponemal and treponemal tests from a person whose only possible exposure occurred within the preceding 12 months

## Syphilis, late latent

**Clinical description:** A subcategory of latent syphilis. When initial infection has occurred greater than 1 year previously, latent syphilis is classified as late latent.

**Case classification**

*Probable*: latent syphilis (see Syphilis, latent) in a patient who has no evidence of having acquired the disease within the preceding 12 months (see Syphilis, early latent) and whose age and titer do not meet the criteria specified for latent syphilis of unknown duration.

## Syphilis, latent, of unknown duration

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

**Case classification**

*Probable*: latent syphilis (see Syphilis, latent) that does not meet the criteria for early latent syphilis, and the patient is aged 13-35 years and has a nontreponemal titer greater than or equal to 32

## Neurosyphilis

**Clinical description:** Evidence of central nervous system infection with *T. pallidum*

**Laboratory criteria for diagnosis**

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

**Case classification**

*Probable*: syphilis of any stage, a negative VDRL in CSF, and both the following:

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

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

## Syphilis, late, with clinical manifestations other than neurosyphilis (late benign syphilis and cardiovascular syphilis)

**Clinical description:** Clinical manifestations of late syphilis other than neurosyphilis may include inflammatory lesions of the cardiovascular system, skin, and bone. 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.

**Laboratory criteria for diagnosis**

Demonstration of *T. pallidum* in late lesions by fluorescent antibody or special stains (although organisms are rarely visualized in late lesions)

**Case classification**

*Probable*: characteristic abnormalities or lesions of the cardiovascular system, skin, bone, or other structures with a reactive treponemal test, in the absence of other known causes of these abnormalities, and without CSF abnormalities and clinical symptoms or signs consistent with neurosyphilis

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

**Comment:** Analysis of CSF for evidence of neurosyphilis is necessary in the evaluation of late syphilis with clinical manifestations.

### Syphilitic Stillbirth

**Clinical case definition:** A fetal death that occurs after a 20-week gestation or in which the fetus weighs greater than 500 g and the mother had untreated or inadequately treated* syphilis at delivery

**Comment:** For reporting purposes, syphilitic stillbirths should be reported as cases of congenital syphilis.

*Inadequate treatment consists of any non-penicillin therapy or penicillin given less than 30 days before delivery.

## Syphilis, Congenital *(Treponema pallidum)*[1]

**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 less than 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 non-penicillin therapy or penicillin given less than 30 days before delivery.

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[1] Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance. MMWR 1997;46(No. RR-10). (Available online at: http://www.cdc.gov/epo/dphsi/casedef/case_definitions.htm)

[2] Child abuse should be considered by a practitioner upon collection of a specimen for laboratory testing in any person 12 years of age or under, excluding neonates. For information pertinent to reporting responsibilities regarding child abuse, please see Section 39.201, *Florida Statutes*.

[3] American Academy of Pediatrics. Summaries of Infectious Diseases. In: Pickering LK, Baker CJ, Long SS, McMillan JA, eds. *Red Book: 2006 Report of the Committee on Infectious Diseases*. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2006.