

# **Gonorrhea Investigation Guideline**

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# Gonorrhea

## Disease Management and Investigative Guidelines

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### CASE DEFINITION

#### A. Clinical Description for Public Health Surveillance:

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

#### B. 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.

#### C. Case Classification:

- Confirmed: A case that is laboratory confirmed.
- Probable:
  - Demonstration of gram-negative intracellular diplococci in an endocervical smear obtained from a female, or
  - A written morbidity report of gonorrhea submitted by a physician.

#### D. Laboratory Tests:

Isolates are not required to be sent to the State Public Health Laboratory; however, if the local health department is participating in the Kansas Infertility Prevention Program the laboratory will provide appropriate testing.

- Specimen: Urogenital
- Remarks: For complete information on the services provided by the Kansas Infertility Prevention Program call 785-296-6544. Additional information and/or questions concerning isolate collection, sample transport and laboratory kits call (785) 296-1620. An online manual of laboratory tests is available at <http://www.kdhe.state.ks.us/labs/links.html>

#### E. Bioterrorism Potential:

None.

#### F. Outbreak Definition:

There are no formal outbreak definitions; however, the investigator may consider the possibility of an outbreak when there is an unusual clustering of cases in time and/or space. Frequently, outbreaks occur among adolescents living in urban areas where gonorrhea is endemic. They also occur in suburban and rural areas within sexually active adolescent social networks.

## INVESTIGATOR RESPONSIBILITIES

### A. Investigation Tasks and Activities:

- Conduct an epidemiological investigation to identify the possible source of infection and to locate additional cases and/or contacts in the community.
- Report all confirmed cases to the STD Control Program (Fax 785-296-5590).
- Identify all individuals who had sexual contact with the case within the 60 days prior to treatment and refer then for presumptive treatment.
- Follow-up with each identified contact to ensure partner notification has been received and understood.
- Ensure that the case and their sexual partners (*i.e.*, contacts) have access to appropriate medical treatment.
- Maintain an accurate record of the investigation and individuals involved (*i.e.*, case and contacts).

### B. Notifications:

- Sexual partners of those diagnosed with a STD's should be notified. Methods of notification include: Provider (*i.e.*, medical provider referral), self (*i.e.*, patient referral) and contact (*i.e.*, Health Department notification).

## EPIDEMIOLOGY

In the United States, an estimated 650,000 cases annually. An increase in gonorrhea among men who have sex with men has been noted and resistance to fluoroquinolones, although rare, has been reported. The highest rates occur among adolescents and young adults, minorities, and persons living in the southeastern United States.

## DISEASE OVERVIEW

### A. Agent:

*Neisseria gonorrhoeae*, a gram-negative, diplococcal bacterium.

### B. Clinical Description:

Asymptomatic and symptomatic infections occur. The site of infection varies and includes: the urethra, endocervix, rectum, and pharynx. In men, symptoms include a burning sensation when urinating, or a white, yellow, or green discharge from the penis. Sometimes men with gonorrhea have painful or swollen testicles. In women, symptoms are often mild, and many may have no symptoms. Initial symptoms in women may include: painful or burning sensation when urinating, increased vaginal discharge, or vaginal bleeding between periods; however, even when a woman has symptoms, they may be mistaken for a bladder or vaginal infection.

- **Differential Diagnosis:** Chlamydia, cervicitis, herpes, trichomoniasis and candidiasis.

**C. Reservoirs:**

Humans.

**D. Mode(s) of Transmission:**

Contact with exudate from infected mucous membrane of infected individuals through sexual activity. Pregnant women that are infected may infect their newborn children. In children >1 year of age, it is considered an indicator of sexual abuse.

**E. Incubation Period:**

The incubation period averages 2-7 days, but may range up to 30 days.

**F. Period of Communicability:**

Persons should be considered infectious from the time of exposure until they are adequately treated and reinfection is common if partners are not adequately treated. Asymptomatic individuals may be just as infectious as those that are symptomatic.

**G. Susceptibility and Resistance:**

Susceptibility is universal and prior infection, with or without treatment, does not confer immunity.

**H. Treatment:**

Immediate antimicrobial therapy is recommended. Men and women with suspected urethritis, cervicitis or proctitis should be treated presumptively for gonorrhea and chlamydial infection, pending the results of laboratory testing for both. Serologic testing for syphilis and HIV should also be considered. For complete treatment guidelines refer to the current STD Treatment Guidelines CDC Sexually transmitted diseases treatment guidelines 2002. MMWR 2002;51 (No. RR-6) available at <http://www.cdc.gov/std/treatment/rr5106.pdf>

**STANDARD CASE INVESTIGATION AND CONTROL METHODS**

Standard investigation activities include the following: 1) Confirmation of the diagnoses (*i.e.*, case definition), 2) Collection of relevant demographic and clinical data (*e.g.*, age, sex, disease syndromes and/or symptoms), 3) Determination of the setting (*e.g.*, community, hospital, daycare or other facility), and 4) Investigation of possible epidemiologic links among cases (*e.g.*, cluster, family, co-workers). This can be accomplished by completing the appropriate sections of the Chlamydia / Gonorrhea investigation form. Most of the information can be obtained from the case person, healthcare provider and/or the medical record. The investigator may want to also review previously reported cases in the region and/or state. Additional investigation activities include:

**A. Identify Potential Source of Infection:**

To help identify the source of the infection, the investigator should focus their investigation within the 60 day time period prior to onset of symptoms or their last sexual partner (if > 60 days) and direct their investigation on the following potential source(s) of infection.

- Sexual partners, If possible, obtain name, address including alternative address, and date(s) of exposure for each sexual partner.

**B. Identify Potential Exposed Individuals / Populations (Contacts):**

Cases should be instructed to refer their sex partners for evaluation, testing, and treatment. The following recommendations on exposure intervals are based on limited evaluation. Sex partners should be evaluated, tested, and treated if they had sexual contact with the patient during the 60 days preceding onset of symptoms. The most recent sex partner should be evaluated and treated even if the time of the last sexual contact was >60 days before symptom onset or diagnosis.

**C. Isolation, Work and Daycare Restrictions:**

None; however, the case should be counseled to avoid sexual contact for 7 days following initiation of treatment.

**D. Follow-up of Cases:**

After examination and treatment an interview for their sexual partners may be required.

**E. Protection of Contacts:**

- Contacts reasonably believed to have been exposed to a STD should be treated prophylactically at the time of exam based upon CDC treatment guidelines.
- Contact tracing that requires assistance in locating should be referred to STD Section of the Kansas Department of Health & Environment at (785) 296-5596.

**F. Environmental Measures:**

None.

**G. Education:**

Cases and their contacts should be provided information including:

- The method of transmission of STD's, and
- The importance of taking medication, and
- Complications of the disease, and
- The need to practice safer sex (*i.e.*, condom usage) and/or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

## MANAGING SPECIAL SITUATIONS

### A. Reported Incidence Is Higher than Usual/Outbreak Suspected:

If you suspect an outbreak, consult with the STD Control Program at the KDHE (785-296-5596). They can help determine a course of action to prevent further cases and can perform surveillance for cases that may cross county lines that would be difficult to detect at the local level.

## ADDITIONAL INFORMATION / REFERENCES

- American Academy of Pediatrics. 2003 *Red Book: Report of the Committee on Infectious Disease, 26<sup>th</sup> Edition*. Illinois, Academy of Pediatrics, 2003.
- Heymann. D., ed., *Control of Communicable Diseases Manual, 18<sup>th</sup> Edition*. Washington, DC, American Public Health Association, 2004.
- Case definitions for Infectious Conditions Under Public Health Surveillance, Division of Public Health Surveillance and Informatics, Nationally Notifiable Infectious Diseases, United States 2005. Available at: <http://www.cdc.gov/epo/dphsi/PHS/infdis2005.htm>
- Kansas Department of Health and Environment, Bureau of Epidemiology. *Disease Protocols*, 2001.
- County of Los Angeles, Department of Health, Public Health Programs and Services, *Communicable Diseases Manual*, June 2003.
- Oklahoma State Department of Health, Communicable Diseases Division. *The Epidemiologic Follow-up of Communicable Diseases in Oklahoma*, 2001.
- Missouri Department of Health and Senior Services, Section of Communicable Disease Control & Veterinary Public Health, *Communicable Disease Investigation Reference Manual*. 2001.
- Oregon Health Services Website. Available at <http://www.ohd.hr.state.or.us>
- Commonwealth of Massachusetts, Department of Public Health Website. Available at <http://www.state.ma.us/dph/>
- CDC Website. Available at <http://www.cdc.gov/health/default.htm>

# Gonococcal & Chlamydial Infections

Case # \_\_\_\_\_

- Confirmed  
 Probable  
 Suspect

## Report Source

Lab  Hospital  Physician / HCP  Other \_\_\_\_\_

County \_\_\_\_\_

Reporter Name \_\_\_\_\_

Report Date / / 

Primary M.D. / HCP \_\_\_\_\_

Phone (  )  - Phone (  )  - 

## Case Identification

Name: \_\_\_\_\_  
Last First InitialAddress: \_\_\_\_\_  
Street CityZip:  -  Phone: (  )  - Alternative Contact:  Parent  Spouse  Other \_\_\_\_\_Name: \_\_\_\_\_  
Last First InitialPhone: (  )  - 

Workplace / School / Daycare: \_\_\_\_\_

Occupation / Grade: \_\_\_\_\_

## Demographics

Gender:  Male  FemaleBirth Date: / / Or if unknown, Age: 

Race: (check all that apply)

 White  Black  Asian American Indian / Alaska Native Native Hawaiian / Pacific Islander UnknownHispanic / Latino:  Yes  No

## Clinical Information

Clinical Data Onset date / /  Diagnosis date / / Illness duration:  days

### STD Information

#### Gonorrhea

- Cervical  
 Urethral  
 Rectal  
 Pharyngeal/Throat  
 Other, Specify \_\_\_\_\_

Culture Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_Gram Stain Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_Urine DNA Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_LCR (or equivalent) Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_Other test \_\_\_\_\_ Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_Did the patient have PID?  Yes  NoIs the case pregnant?  Yes  No

#### Chlamydia

- Cervical  
 Urethral  
 Rectal  
 Other, Specify \_\_\_\_\_

EIA Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_Urine DNA Collection Date / /   Pos.  Neg.  Not Done Results \_\_\_\_\_Did the patient have PID?  Yes  NoIs the case pregnant?  Yes  No

## Gonorrhea Investigation and Documentation Checklist

TASK	DATE	INITIALS
Report Received:	___/___/___	_____
Assigned to Investigator:	___/___/___	_____
Reported to State STD Program:	___/___/___	_____
Met Case Definition: <input type="checkbox"/> Yes <input type="checkbox"/> No	___/___/___	_____
Case Interviewed: MOGE: <input type="checkbox"/> Yes <input type="checkbox"/> No Reason: _____	___/___/___	_____
Contacts Identified and/or Interviewed: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None If Yes, Name(s): _____	___/___/___	_____
<hr/>		
Contacts Treated: <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Name(s): _____	___/___/___	_____
<hr/>		
Follow up with Case & Contacts (if necessary):	___/___/___	_____
Case Closed and Filed:	___/___/___	_____
Comments: _____		
_____		
_____		
_____		
_____		
_____		
<b>Case Name:</b> _____	<b>Number:</b> _____	
<b>Principal Investigator:</b> _____	<b>Date:</b> ___/___/___	
<b>Case Reviewed By:</b> _____	<b>Date:</b> ___/___/___	

**KANSAS NOTIFIABLE DISEASE FORM**

Today's Date: \_\_\_ / \_\_\_ / \_\_\_

Patient's Name: \_\_\_\_\_  
Last First Middle

Day Phone: \_\_\_\_\_ Evening Phone: \_\_\_\_\_

Residential Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_ County: \_\_\_\_\_

Ethnicity: Hispanic or Latino Not Hispanic or Latino Unknown

Race: American Indian/Alaska Native Asian Black or African American  
Native Hawaiian or Other Pacific Islander White Unknown  
(Circle all that apply)

Sex: M F Date of Birth: \_\_\_ / \_\_\_ / \_\_\_ Age if DOB unknown: \_\_\_\_\_

Disease Name: \_\_\_\_\_

Symptoms:  
Onset: \_\_\_ / \_\_\_ / \_\_\_ State the 3 most prominent symptoms:

Symptom 1: \_\_\_\_\_ Symptom 2: \_\_\_\_\_ Symptom 3: \_\_\_\_\_

Outbreak associated? Y N Died? Y N

Institutional Residence? None Nursing Home Correctional Residential Hospital Psych

Physician Name: \_\_\_\_\_ Physician Phone: \_\_\_\_\_

**Laboratory Information:**

Specimen Collection Date: \_\_\_ / \_\_\_ / \_\_\_ Date Reported To You: \_\_\_ / \_\_\_ / \_\_\_

Name of Test Performed: \_\_\_\_\_ Results of Test: \_\_\_\_\_

Name of Laboratory: \_\_\_\_\_ Laboratory Results Attached? Y N

**Treatment Information:**

Date of Treatment: \_\_\_ / \_\_\_ / \_\_\_ Treatment Type and Dosage: \_\_\_\_\_  
Treatment Status: Complete On-going Discontinued

Name of person reporting: \_\_\_\_\_ Phone: \_\_\_\_\_

Comments: \_\_\_\_\_

	<b>Public Health Fact Sheet Gonorrhea</b>
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**What is gonorrhea?**

Gonorrhea is a sexually transmitted disease caused by bacteria called *Neisseria gonorrhoeae*. It is one of the most commonly reported sexually transmitted diseases (STD) in the United States.

**What are the symptoms?**

Men infected with gonorrhea will usually experience a burning sensation while urinating and have a thick yellowish-white drip from the penis. Most women do not have symptoms; however, those that do may experience a discharge from the vagina and possibly some burning while urinating. Women may also have abdominal pain and/or abnormal bleeding. Infections in the throat and rectum cause few symptoms.

**What happens if gonorrhea goes untreated?**

Untreated gonorrhea may cause serious and permanent damage to the body. Women frequently develop pelvic inflammatory disease (PID), a painful condition that occurs when the infection spreads throughout the reproductive organs. PID can make women unable to have children or cause them to be at risk for ectopic pregnancy. Men may suffer from painful swelling of the testicles. Both sexes may suffer from arthritis, skin problems and other problems caused by the spread of gonorrhea within the body. It may also make it easier to be infected with other STD's including HIV, the virus that causes AIDS.

**How is gonorrhea spread?**

Gonorrhea is spread through contact with an infected person during vaginal, anal, or oral sex. Gonorrhea can also be spread from mother to child during birth.

**Who gets gonorrhea?**

Any person who has sex can be infected with gonorrhea. Most often, gonorrhea is found in younger people, ages 15-30, that have multiple sex partners. It is more frequently reported in urban areas.

**How is it diagnosed?**

It is diagnosed through laboratory examination of penile or vaginal discharges to see if the bacteria responsible for gonorrhea are present. .

**How is gonorrhea treated?**

Antibiotics are normally used to treat gonococcal infections often in a single dose. A person may become re-infected after treatment if they are re-exposed to someone with gonorrhea.

**How can you prevent gonorrhea?**

Abstinence is the only sure way to avoid gonorrhea or any other STD. You can reduce your risk by having sex with only one uninfected partner who has sex only with you. Using condoms correctly with all partners will also decrease the risk of becoming infected. If you think you may have gonorrhea, or any other STD, avoid any sexual contact until you have visited a doctor, hospital or STD clinic. If you are infected, notify your sex partners immediately so they can be tested and treated.

**Where can I get more information?**

- Your Local Health Department
- <http://www.cdc.gov/health/default.htm>
- Your doctor, nurse, or local health center

*This fact sheet is for information only and is not intended for self-diagnosis or as a substitute for consultation with a healthcare provider. If you have any questions about the disease described above or think that you may have an infection, consult with your healthcare provider. The information in this fact sheet is based on the Centers for Disease Control and Prevention's Health and Safety topic fact sheets.*