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General Information

Communicable Disease
and Epidemiology
(630) 221-7553

Environmental Health
(630) 682-7400

Immunizations
(630) 682-7400

Sexually
Transmitted Diseases
(630) 221-7553

HIV/AIDS
(630) 221-7553

Tuberculosis
(630) 221-7522

School Health
(630) 221-7300

Travel Clinic
(630) 682-7400

Animal Care & Control
(630) 407-2800

Please contact
Communicable Disease
and Epidemiology at
(630) 221-7553
with suggestions
or to be added to the
distribution list.

The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.



Under the Microscope *Neisseria gonorrhoeae*

For questions or to report a suspect or known case of gonorrhea, please call the DuPage County Health Department at (630) 221-7553.

April is Sexually Transmitted Diseases Awareness Month.¹ Gonorrhea is a sexually transmitted disease (STD) caused by infection with the *Neisseria gonorrhoeae* bacterium. *N. gonorrhoeae* infects the mucous membranes of the reproductive tract, including the cervix, uterus, and fallopian tubes in women, and the urethra in women and men. *N. gonorrhoeae* can also infect the mucous membranes of the mouth, throat, eyes, and rectum.²

Gonorrhea is the second most frequently-reported notifiable disease in the U.S. (second only to chlamydia).³ There has been a **62% increase in the number of reported gonorrhea cases in DuPage County from 2011 (241 cases) to 2016 (390 cases)**. While improved STD screening and reporting may contribute to rate increases, timely treatment and prevention should result in a reduction of disease burden.

Often asymptomatic, infections due to *N. gonorrhoeae*, like those resulting from *Chlamydia trachomatis*, are a major cause of pelvic inflammatory disease (PID) in the U.S. PID can lead to serious outcomes in women, such as tubal infertility, ectopic pregnancy, and chronic pelvic pain. In addition, epidemiologic and biologic studies provide strong evidence that **gonococcal infections facilitate the transmission of HIV infection**.³ Together, sexual behavior and community prevalence can increase the risk of acquiring gonorrhea. **Social determinants of health, such as socioeconomic status, discrimination, and access to quality health care, may contribute to the burden of gonorrhea in a community.**³

Clinicians should take a thorough sexual history.⁴ Annual screening for *N. gonorrhoeae* infection is recommended for all sexually active women aged <25 years and for older women at increased risk for infection (e.g., those who have a new sex partner, more than one sex partner, a sex partner with concurrent partners, or a sex partner who has an STI). **Additional risk factors** for gonorrhea include inconsistent condom use among persons who are not in mutually monogamous relationships, previous or coexisting sexually transmitted infections, and exchanging sex for money or drugs. **Subgroups of men who have sex with men (MSM) are at high risk for gonorrhea infection and should be screened at sites of exposure.**⁵

A recent travel history with sexual contacts outside of the U.S. should be part of any gonorrhea evaluation. Prenatal screening and treatment of pregnant women is the best method for preventing gonococcal infection among neonates. **All patients tested for gonorrhea should also be tested for other STDs, including chlamydia, syphilis, and HIV.**⁵

Over the years, gonorrhea has developed resistance to nearly every drug ever used to treat it, including sulfonamides, penicillin, tetracycline, and fluoroquinolones. Due to widespread resistance to each of these antibiotics, by 2007, only cephalosporins — including the oral antibiotic cefixime and the injectable antibiotic ceftriaxone — were left to effectively treat gonorrhea. In the U.S. today, **only one recommended treatment option remains – a combination of the antibiotics azithromycin and ceftriaxone.**⁴ Use of azithromycin as the second antimicrobial is preferred to doxycycline because of the convenience and compliance advantages of single-dose therapy and the substantially higher prevalence of observed gonococcal resistance to tetracycline than to azithromycin. As **dual therapy, ceftriaxone and azithromycin should be administered together on the same day, preferably simultaneously and under direct observation.**^{6,7}

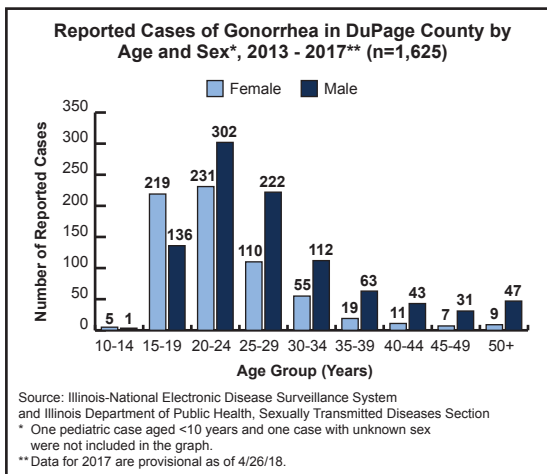
Recent sex partners (i.e., persons having sexual contact with the infected patient within the 60 days preceding onset of symptoms or gonorrhea diagnosis) should be referred for **evaluation, testing, and presumptive dual treatment**. If the patient's last potential sexual exposure was >60 days before onset of symptoms or diagnosis, the **most recent sex partner** should be treated. To avoid reinfection, sex partners should be instructed to **abstain from unprotected sexual intercourse for 7 days** after they and their sexual partner(s) have completed treatment and after resolution of symptoms, if present.⁵

Since 2010, health care professionals in Illinois (licensed physicians, physician assistants and advanced practice nurses) have the option of providing antibiotic therapy (**expedited partner therapy, or EPT**) for heterosexual partners of individuals infected with chlamydia or gonorrhea, even if they have not been able to perform an exam on the infected patient's partner(s). EPT guidance materials are available at: www.dph.illinois.gov/topics-services/diseases-and-conditions/stds/ept. If a clinician considers it unlikely that a heterosexual partner of a gonorrhea patient will access timely evaluation and treatment, EPT with **cefixime 400 mg and azithromycin 1 g** should still be considered, as not treating partners is significantly more harmful than is the use of EPT for gonorrhea.⁵

In addition to screening, timely diagnosis and treatment, with appropriate partner notification and management, the most reliable way to avoid transmission of STDs is to **abstain** from oral, vaginal, and anal sex or to be in a **long-term, mutually monogamous relationship with a partner known to be uninfected**. Latex male condoms, when used consistently and correctly, can reduce the risk of transmission of gonorrhea and other STDs.⁵ **Prevention counseling is most effective if provided in a nonjudgmental and empathetic manner** appropriate to the patient's culture, language, gender, sexual orientation, age, and developmental level.⁵

References:

1. www.cdc.gov/features/stdawareness/index.html
2. www.cdc.gov/std/gonorrhea/stdfact-gonorrhea-detailed.htm
3. www.cdc.gov/std/stats16/gonorrhea.htm
4. <https://nationalcoalitionforsexualhealth.org/tools/for-healthcare-providers/sexual-health-and-your-patients-a-providers-guide>
5. www.cdc.gov/std/tg2015/gonorrhea.htm
6. www.cdc.gov/std/gonorrhea/arg/default.htm
7. www.cdc.gov/nchhstp/newsroom/docs/factsheets/drug-resistant-gonorrhea.pdf



DUPAGE COUNTY HEALTH DEPARTMENT

CASES¹ OF REPORTABLE DISEASES*

* Last updated by the Illinois Department of Public Health in April 2016

CD REVIEW

Volume 14, No. 4 April 2018

	Report Within	2018		2017		2016		2015		2014		Median	
		Mar	Jan-Mar	Jan-Mar	Total	Jan-Mar	Total	Jan-Mar	Total	Jan-Mar	Total	Jan-Mar	Total ('14-'17)
Vaccine Preventable Diseases													
Chickenpox (varicella)	24 hrs	3	9	6	35	16	56	11	36	19	76	11	46
Diphtheria	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i> , invasive	24 hrs	2	6	3	9	2	13	3	15	1	5	3	11
Hepatitis A	24 hrs	0	1	2	3	0	2	1	5	2	8	1	4
Hepatitis B	7 days	0	0	0	1	0	2	1	2	1	5	0	2
Hepatitis B (carriers)	7 days	10	26	28	101	29	122	41	137	21	112	28	117
Influenza, deaths in < 18 yrs old	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Influenza, ICU admissions	24 hrs	11	105	55	122	54	69	28	43	35	152	54	95.5
Measles (rubeola)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	24 hrs	1	4	4	8	4	11	1	8	1	2	4	8
<i>Neisseria meningitidis</i> , invasive	24 hrs	0	0	0	0	0	1	0	1	0	0	0	0.5
Pertussis (whooping cough)	24 hrs	0	6	4	36	17	105	8	49	7	22	7	42.5
Poliomyelitis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
<i>Streptococcus pneumoniae</i> , invasive disease, in those < 5 yrs old	7 days	0	2	0	1	0	2	0	0	1	3	0	1.5
Tetanus	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Other Communicable Diseases													
Anaplasmosis ²	7 days	0	0	0	1	0	1	0	3	0	3	0	2
Anthrax	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, foodborne	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Botulism, other	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Brucellosis	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
California encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Campylobacteriosis	7 days	9	23	32	161	29	173	NR	NR	NR	NR	29	167
Chikungunya virus disease ³	7 days	0	0	0	0	0	4	0	2	0	0	0	1
Cholera	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	7 days	0	0	1	2	0	3	0	1	1	2	0	2
Cryptosporidiosis	7 days	2	9	1	18	2	18	2	5	0	2	2	11.5
Cyclosporiasis	7 days	0	0	0	7	0	5	0	1	0	1	0	3
Dengue fever ³	7 days	0	0	0	1	0	3	0	3	1	1	0	2
Ehrlichiosis ²	7 days	0	0	0	0	0	2	0	1	0	0	0	0.5
Enteric <i>E. coli</i> infections ⁴	24 hrs	3	6	3	24	5	24	3	14	0	18	3	21
Glomerulonephritis ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hantavirus pulmonary syndrome	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Hemolytic uremic syndrome	24 hrs	0	0	0	0	0	0	0	0	0	2	0	0
Hepatitis C (cases & carriers)	7 days	20	49	62	291	77	255	63	237	59	242	62	248.5
Hepatitis D	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Histoplasmosis	7 days	0	1	3	9	3	8	0	3	2	7	2	7.5
Influenza A, novel virus	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Legionellosis	7 days	0	0	3	28	2	34	1	18	5	26	2	27
Leprosy	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Leptospirosis	7 days	0	0	0	1	0	0	0	0	0	0	0	0
Listeriosis	7 days	0	0	0	4	0	0	0	2	0	2	0	2
Lyme disease ²	7 days	0	2	2	35	2	34	1	30	0	22	2	32
Malaria	7 days	0	1	0	3	5	10	0	4	0	2	0	3.5
Ophthalmia neonatorum	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Plague	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Psittacosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Q fever	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, animal case	24 hrs	0	0	0	11	0	10	0	16	0	6	0	10.5
Rabies, human case	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rabies, potential exposure	24 hrs	5	17	1	84	3	59	3	73	7	51	3	66
Reye syndrome	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Rheumatic fever ⁵	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Mountain spotted fever ²	7 days	0	0	0	1	0	3	0	0	0	0	0	0.5
Salmonellosis	7 days	8	18	16	104	14	119	18	133	12	115	16	117
Severe Acute Respiratory Syndrome	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Shigellosis	7 days	0	1	4	14	8	21	3	27	1	18	3	19.5
Smallpox	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Smallpox vaccination, complications	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
St. Louis encephalitis ³	7 days	0	0	0	0	0	0	0	0	0	0	0	0
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), in those < 61 days old	24 hrs	0	1	0	3	1	11	1	10	3	9	1	9.5
<i>Staphylococcus aureus</i> , methicillin resistant (MRSA), community cluster ⁶	24 hrs	0	0	1	1	0	1	0	0	0	0	0	0.5
<i>Staphylococcus aureus</i> (vancomycin-resistant)	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Streptococcal infections, group A invasive disease ⁷	24 hrs	4	14	8	24	7	18	8	22	13	29	8	23
Toxic shock syndrome ⁸	7 days	0	1	0	0	0	0	0	0	0	0	0	0
Trichinosis	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculosis	7 days	2	6	5	42	9	42	2	39	3	34	5	40.5
Tularemia	3 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid fever	24 hrs	0	2	2	4	0	0	1	3	1	5	1	3.5
Typhus	24 hrs	0	0	0	0	0	0	0	0	0	0	0	0
Vibriosis (non-cholera)	7 days	0	2	2	6	1	6	0	4	0	3	1	5
West Nile virus disease ³	7 days	0	0	0	6	0	10	0	9	0	5	0	7.5
Yersiniosis	7 days	0	1	0	1	1	4	0	1	1	3	1	2
Zika virus disease ³	7 days	0	0	0	1	1	11	NR	NR	NR	NR	0	6
STDs, HIV and AIDS													
AIDS ⁹ (January - March)	7 days	1	1	1	5	7	8	3	11	3	15	3	9.5
Chancroid	7 days	0	0	0	0	0	0	0	0	0	0	0	0
Chlamydia	7 days	127	446	550	2371	622	2417	541	2382	536	2056	541	2376.5
Gonorrhea	7 days	12	51	88	427	97	390	77	307	53	242	77	348.5
HIV infection ^{9,10} (January - March)	7 days	5	5	2	16	12	32	13	38	10	37	10	34.5
Syphilis ¹¹	7 days	0	12	17	49	14	59	7	42	9	41	12	45.5

DuPage County healthcare providers and hospitals must report any suspected or confirmed case of these diseases to the local health authorities within the number of hours or days indicated.

REPORTING NUMBERS:

Communicable Diseases
(630) 221-7553
24 hours: (630) 682-7400

Tuberculosis
(630) 221-7522

STDs
(630) 221-7553

HIV/AIDS:
(630) 221-7553

- ¹ Provisional cases, based on date of onset
 - ² Listed in CD Rules and Regulations under "Tickborne Disease"
 - ³ Listed in CD Rules and Regulations under "Arboviral Infections"
 - ⁴ O157:H7, STEC, EIEC, ETEC, EPEC
 - ⁵ Listed in CD Rules and Regulations under "Streptococcal infections, group A invasive disease sequelae"
 - ⁶ Two or more laboratory-confirmed cases of community onset MRSA infection during a 14 day period
 - ⁷ Includes streptococcal toxic shock syndrome and necrotizing fasciitis
 - ⁸ Due to *Staphylococcus aureus*
 - ⁹ HIV/AIDS data are provided quarterly by IDPH and are provisional, based on date of diagnosis.
 - ¹⁰ HIV counts reflect all newly diagnosed HIV cases regardless of stage of disease at diagnosis.
 - ¹¹ Cases are provisional, based on test date per local health department investigation.
- NR = Not reported

Websites

CDC:
www.cdc.gov

IDPH:
www.dph.illinois.gov

DuPage:
www.dupagehealth.org

Archived issues of CD Review are available at:
www.dupagehealth.org/publications