



Cook County Department of Public Health
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CD UPDATE

August 2012

Gonorrhea in Suburban Cook County

Cook County
Department of Public Health
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To report a communicable dis-
ease, please call **708-633-8030**
during regular business hours
(8:30 AM - 4:30 PM).

To reach communicable disease
staff after hours (4:30 PM - 8:30
AM), please call **708-633-4000**
and press '3' when prompted.

Background: Gonorrhea (GC) is the second most commonly reported infectious disease both in suburban Cook County¹ and in the U.S.² This sexually transmitted infection (STI) is caused by the organism *Neisseria gonorrhoeae*. Left untreated, GC can lead to pelvic inflammatory disease (PID)³, ectopic pregnancy³, and infertility³.

Epidemiology of GC in suburban Cook County, 2011

- 2,067 cases were reported; 71% of reported cases were non-Hispanic Black; 5.7% of cases were non-Hispanic White and 5.7% were Hispanic/Latino
- Two-thirds of cases were between 15-24 years of age
- 61% of reported cases lived in the South District and 23% lived in the West District

Resistance: *N. gonorrhoeae* has progressively developed resistance to antibiotics including sulfonilamides, penicillin, tetracycline, and ciprofloxacin. Among *N. gonorrhoeae* isolates collected between 2009-2010, 0.11% had decreased susceptibility to cefixime compared to just 0.002% between 2000-2006.⁴ This finding raises concerns for the potential emergence of gonococcal cephalosporin resistance.

Treatment: Current CDC treatment guidelines recommend dual therapy with the injectable cephalosporin, ceftriaxone, plus either azithromycin or doxycycline to treat all uncomplicated GC infections among adults and adolescents in the U.S. As always, treatment should be administered with appropriate patient counseling, partner management, and public health reporting.

Treatment Failures: Patients who remain symptomatic after treatment with a cephalosporin should return within 1 week for a 'test-of-cure,' preferably by culture and antibiotic susceptibility testing. Notify the STI Program at CCDPH (708-633-8585) within 24 hours following the identification of a GC treatment failure and consult with STI program personnel for referral of the isolate for susceptibility testing.

Counseling: Emphasize that patients should abstain from oral, vaginal, or anal sex until one week

Figure 2. Reported GC Cases by Age Groups, 2007-2011, CCDPH Jurisdiction

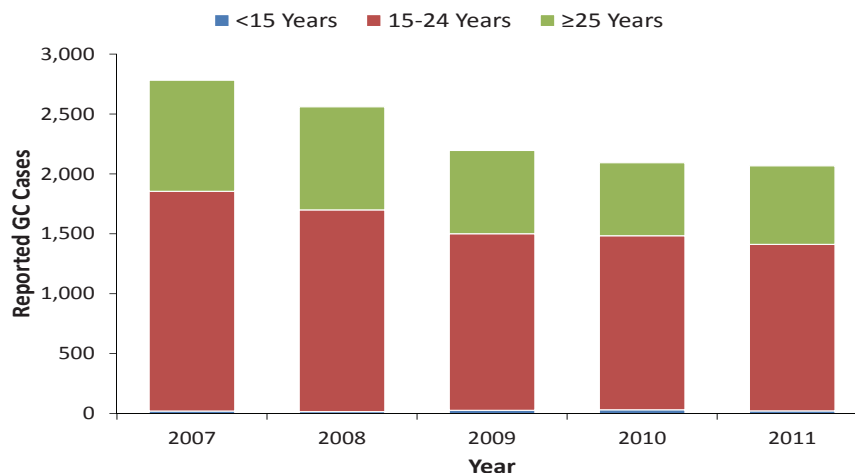
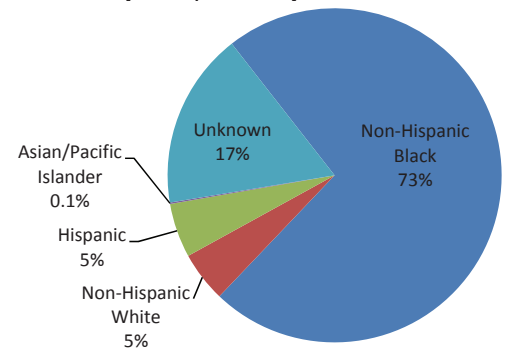


Figure 1. 2011 GC Cases Among Persons Aged 15-24 Years by Race/Ethnicity, CCDPH Jurisdiction



after the patient and all of his/her partners are treated. Discuss the importance of timely notification and referral of sex partners for treatment. Discuss risk reduction measures to avoid reinfection with gonorrhea or acquisition of another STI and HIV.

Reporting

Report all confirmed cases of gonorrhea to the STI Program within 7 days.

Table 1. Morbidity for Selected Infectious Diseases, Suburban Cook County*, 2007-2012¶

| Vaccine Preventable | 2007 | 2008 | 2009 | 2010 | 2011 | Jan-Jun 2012¶ | 5 yr Median |
|--|-------|-------|-------|-------|-------|---------------|-------------|
| Diphtheria | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| <i>Haemophilus influenzae</i> (type B) | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| Hepatitis B | | | | | | | |
| Acute | 39 | 66 | 34 | 26 | 25 | 12 | 34 |
| Chronic | 512 | 385 | 385 | 326 | 315 | 123 | 385 |
| Measles | 0 | 11 | 0 | 0 | 1 | 0 | 0 |
| Mumps | 21 | 19 | 14 | 4 | 2 | 0 | 14 |
| Pertussis (Whooping cough) | 44 | 92 | 98 | 142 | 280 | 302 | 98 |
| Rubella | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tetanus | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| Selected Diseases | | | | | | | |
| Cryptosporidiosis | 21 | 14 | 15 | 27 | 17 | 3 | 17 |
| <i>E. coli</i> O157:H7 | 17 | 10 | 33 | 10 | 16 | 6 | 16 |
| Giardiasis | 94 | 72 | 79 | 78 | 81 | 22 | 79 |
| <i>Haemophilus influenzae</i> | 21 | 30 | 30 | 32 | 23 | 11 | 30 |
| Hepatitis A | 35 | 46 | 36 | 5 | 6 | 3 | 35 |
| Hepatitis C | 1,141 | 811 | 806 | 852 | 920 | 474 | 852 |
| Histoplasmosis | 10 | 19 | 3 | 15 | 12 | 14 | 12 |
| Legionnaires' disease | 14 | 38 | 30 | 39 | 27 | 8 | 30 |
| Listeriosis | 7 | 11 | 10 | 6 | 6 | 2 | 7 |
| Lyme Disease | 18 | 9 | 23 | 32 | 31 | 18 | 23 |
| Malaria | 11 | 21 | 19 | 12 | 19 | 4 | 19 |
| Meningococcal disease | 14 | 22 | 8 | 3 | 3 | 3 | 8 |
| Pneumococcal disease (invasive)† | 172 | 32 | 23 | 17 | 9 | 4 | 23 |
| Salmonellosis | 371 | 282 | 285 | 356 | 260 | 103 | 285 |
| Shigellosis | 95 | 120 | 90 | 128 | 60 | 13 | 95 |
| Streptococcal Invasive (Group A) | 47 | 38 | 46 | 50 | 49 | 38 | 47 |
| Tuberculosis | | | | | | | |
| Active | 139 | 100 | 100 | 93 | 75 | 36 | 100 |
| Latent | 947 | 783 | n/a | 650 | 559 | n/a | 717 |
| Typhoid Fever | 7 | 5 | 3 | 6 | 8 | 1 | 6 |
| WNV (neuroinvasive) | 16 | 3 | 0 | 15 | 10 | 0 | 10 |
| Sexually Transmitted Infections | | | | | | | |
| Chlamydia | 8,110 | 8,219 | 8,204 | 8,825 | 8,398 | 4,385 | 8,219 |
| Gonorrhea | 2,782 | 2,560 | 2,196 | 2,093 | 2,067 | 1,005 | 2,196 |
| HIV | 189 | 201 | 182 | 184 | 141¶ | n/a | 184 |
| AIDS | 185 | 112 | 84 | 62 | 35¶ | n/a | 84 |
| Syphilis§ | 69 | 89 | 133 | 151 | 171 | 31 | 133 |

* Excludes Evanston, Oak Park, Skokie and Stickney Township (except for tuberculosis)

† As of 3/08, reportable only in those < 5 years of age

¶ Provisional cases

§ Early syphilis (i.e., primary, secondary and early latent)

1. Data Source: Illinois Department of Public Health STD Section.
2. CDC. 2010 Sexually Transmitted Disease Surveillance Report. Available at: <http://www.cdc.gov/std/stats10/default.htm> (last accessed 7/6/12).
3. CDC. Fact Sheet on Gonorrhea. Available at: <http://www.cdc.gov/std/gonorrhea/STDFact-Gonorrhea.htm> (last accessed, 7/6/12).
4. CDC. Cephalosporin susceptibility among *Neisseria gonorrhoeae* isolates - United States, 2000–2010. MMWR 2011; 60(26); 873-877.