State of Alaska Epidemiology **Bulletin**

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Updated Gonococcal Infection Treatment Guidelines

Background

Gonococcal infection (GC) is a sexually transmitted disease (STD) caused by the bacterium *Neisseria gonorrhoeae.* GC is often asymptomatic; however, it can facilitate transmission of human immunodeficiency virus (HIV) and, if untreated, can lead to pelvic inflammatory disease (PID), ectopic pregnancy, and infertility in women. Septicemia occurs in up to 1% of all GC infections, and can result in complications such as arthritis, endocarditis, and meningitis. Alaska is still experiencing a GC outbreak that started in 2008 and peaked in 2010 -- Alaska's GC infection rate was 3rd highest in the nation in 2010. In 2011, following statewide efforts to control the outbreak, Alaska's rate dropped to 9th.[1,2]

Drug Resistance

Over the years, circulating strains of GC have gradually developed resistance to the antibiotics that have been recommended for its treatment. Most recently, the U.S. Centers for Disease Control and Prevention (CDC) Gonococcal Isolate Surveillance Project, which monitors GC antimicrobial susceptibilities across the nation, has shown that GC's susceptibility to cephalosporins is rapidly diminishing -- especially strains circulating in the Western states and in men who have sex with men (MSM). Consequently, CDC's GC experts are concerned that continued use of cefixime may prompt GC to develop resistance to all cephalosporins.[3,4] This concern prompted CDC to recently revise their GC treatment recommendations.

CDC's Updated Treatment Recommendations

In August 2012, CDC updated its STD treatment guidelines to no longer recommend routinely treating GC with cefixime.[3,4] Instead, *CDC now recommends treating uncomplicated GC with ceftriaxone and a second antibiotic* -- even if testing for concomitant chlamydial infection is negative -- to improve the likelihood of cure and decrease the risk of emergent cephalosporin resistance (Box 1). The use of azithromycin as the second antibiotic in combination therapy is currently recommended instead of doxycycline because GC may be more susceptible to azithromycin and azithromycin's single-dose regimen promises better compliance.[3,4]

Box 1. Recommended Treatment for Uncomplicated GC

Ceftriaxone 250 mg intramuscular dose
PLUS
Azithromycin 1 g orally in a single dose

NOTE: Alternative regimens are provided in CDC's updated treatment guidelines; if prescribed, the patient should return to clinic 1 week after treatment for a test-of-cure.[3,4]

Expedited Partner Therapy for GC

Expedited partner therapy (EPT) is the clinical practice of treating the sex partners of patients diagnosed with chlamydia and/or GC without the health care provider first examining the partner. CDC has recommended EPT since 2006 as an effective strategy to combat these sexually transmitted infections. Since EPT is not possible when treatment involves an injection, every effort should be made to ensure that GC patients' sex partners from the past 60 days are evaluated and treated with the above regimen. However, because that is not always possible, *providers can still consider EPT for heterosexual partners of patients diagnosed with GC.* CDC recommends partners who receive EPT with cefixime and azithromycin receive a test-of-cure 1 week after finishing their antibiotics (Box 2).[5] EPT is not routinely recommended for MSM because of the high risk for coexisting infections, especially undiagnosed HIV, in their partners.[5]

Box 2. Recommendations for EPT in the Treatment of GC[5]

Cefixime 400 mg orally in a single dose
PLUS
Azithromycin 1 g orally in a single dose
PLUS
A test-of-cure in 1 week*

**Note: information as to where partners can receive a test-of-cure or other medical evaluation should also be provided.*[5]*

Suspected GC Treatment Failure

Health care providers should suspect GC treatment failure in patients who report ongoing symptoms 3–5 days after appropriate treatment and no post-treatment sexual contact. Providers should promptly report suspected treatment failure to the HIV/STD Program staff and follow CDCs GC treatment failure recommendations below (Box 3).

Box 3. Suspected GC Treatment Failure Guidelines

- Immediately report suspected treatment failure to the HIV/STD Program at 907-269-8000, and provide Program staff with requested surveillance information;
- Obtain a culture specimen collection kit from the Alaska State Public Health Laboratory for susceptibility testing;
- Re-treat the patient with the following:

  Ceftriaxone 250 mg intramuscular dose
  PLUS
  Azithromycin 2 g orally in a single dose
- Assure that all sex partners from the previous 60 days are identified for testing and treatment.[4]

Additional Recommendations

1. Strongly encourage patients with GC to participate in partner notification services, including confidential and timely notification of all sex partners.
2. Offer all STD-infected patients condoms, risk-reduction counseling, testing for other STDs (including HIV), and re-testing for GC 3 months post-treatment.
3. Conduct a test-of-cure 1 week after completion of treatment on all patients receiving an alternative treatment regimen or EPT.
4. *Report all confirmed or suspected cases of GC -- and the treatment that was provided -- to SOE within 5 working days* via fax (907-561-4239) or telephone (907-561-4234 or 800-478-1700). Reporting forms are available at: www.epi.alaska.gov/pubs/conditions/frmSTD.pdf

References

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