

## **MEMORANDUM**

**TO:** Physicians, Health Care Providers, and Local Health Departments

**FROM:** Sexually Transmitted Disease (STD) Program

**DATE:** July 15, 2016

**SUBJECT:** New CDC MMWR report on antibiotic-resistant gonorrhea includes concerning findings for azithromycin – one of two drugs in the only recommended treatment regimen

On July 14, 2016, the Centers for Disease Control and Prevention (CDC) MMWR report titled [Neisseria gonorrhoeae Antimicrobial Susceptibility Surveillance -The Gonococcal Isolate Surveillance Project, 27 Sites, United States, 2014](#) which presented the first report to present comprehensive surveillance data from the CDC's sentinel surveillance system to monitor trends in antimicrobial susceptibilities of *N. gonorrhoeae*, the [Gonococcal Isolate Surveillance Project](#) (GISP), and summarized gonorrhea resistance trends over time. **This report outlines a concerning trend: resistance levels of gonorrhea to azithromycin, one of the two drugs in the recommended dual therapy treatment for gonorrhea, increased from 0.6 percent in 2013 to 2.5 percent in 2014 (317 percent increase).** This is concerning now that this threat is emerging at a time when gonorrhea rates continue to rise while resources to fight this common infection continue to fall.

### **ISSUE**

Gonorrhea is the second most commonly reported notifiable disease in the United States. The CDC estimates that approximately 820,000 new gonorrheal infections occur in the U.S. each year. Gonorrhea infections are a major cause of pelvic inflammatory disease in women, which can lead to serious reproductive complications including tubal infertility, ectopic pregnancy, and chronic pelvic pain. Prevention of sequelae and of transmission to sexual partners relies largely on prompt detection and effective antimicrobial treatment. However, the emergence of cephalosporin-resistant gonorrhea significantly complicated the ability of providers to treat gonorrhea successfully.

### **TREATMENT RECOMMENDATIONS**

Since 2012, the CDC has recommended dual therapy with a single dose of 250 mg of intramuscular ceftriaxone in combination with 1 gram of oral azithromycin. This recommendation was made to preserve the last highly effective class of antibiotics left to treat gonorrhea (i.e., cephalosporins) for as long as possible after laboratory data suggested that the oral cephalosporin, cefixime, was becoming less effective. According to GISP data, isolates with reduced azithromycin susceptibility were highly susceptible to ceftriaxone, and isolates with reduced ceftriaxone susceptibility were highly susceptible to azithromycin, suggesting that cases resistant to one drug would be cured by the second. This demonstrates the strength and importance of dual treatment and today, this combination therapy is now the only recommended treatment option available for gonorrhea.

With the increasing resistance to azithromycin, whether this may be an indication of future trends at this point in time, is still concerning. The GISP data shows the fact that gonorrhea can rapidly develop resistance across the country, which has serious implications for treatment of this infection and control of the gonorrhea epidemic. Azithromycin is not only a part of the CDC recommended gonorrhea treatment, but is also included in every alternative treatment to gonorrhea.

According to the CDC [Clinician Outreach and Communication Activity](#) (COCA), **Clinicians should not treat gonorrhea with only azithromycin.** As the GISP data suggests that azithromycin resistance might be emerging, the data suggests the use of azithromycin as a monotherapy to treat gonorrhea might promote the emergence of azithromycin-resistant gonorrhea. Clinicians should follow gonorrhea dual therapy recommendations and can find the most up-to-date gonorrhea treatment guidance within [CDC's STD Treatment Guidelines](#).

## REPORTING

Clinicians should report apparent treatment failures to CDC recommended therapies to their local health department's (LHD) STD program. Health departments should report to IDPH and are encouraged to notify CDC of such cases by contacting Robert D. Kirkcaldy, MD, MPH ([rkirkcaldy@cdc.gov](mailto:rkirkcaldy@cdc.gov); 404-639-8659). Additional [resources and references](#) for antibiotic-resistant gonorrhea are available online.

## PREVENTION AND SCREENING

The complications and spread of gonorrhea can also be prevented through screening. Key screening recommendations are as follows:

- Screen all sexually active women younger than 25 years, as well as older women with risk factors such as new or multiple sex partners or a sex partner who has a sexually transmitted infection.
- Screen sexually active MSM at anatomic sites of possible exposure at least annually.

Clinicians should also:

- Notify and treat sexual partners to prevent reinfection and help halt the spread of gonorrhea.
- Consider [Expedited Partner Therapy](#) (EPT) for heterosexual partners unable or unwilling to access care. In Illinois, as of 2010, all health care professionals prescribing or providing EPT are protected from civil or professional liability, except for willful and wanton misconduct ([Control of Sexually Transmissible Infections Code, 77 Ill. Adm. Code 693.150](#)).

For further inquiries, please contact your local health department or the IDPH STD Program at (217) 782-2747.