DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control and Prevention

May 24, 2011

Dear Colleague,

On May 17, 2011, a *Neisseria gonorrhoeae* isolate from a young woman in Hawaii was found to exhibit high-level resistance to azithromycin as demonstrated by a high minimal inhibitory concentration (MIC ≥1024 µg/ml). To CDC's knowledge, the patient and her partner were infected in Hawaii. She was successfully treated with ceftriaxone and azithromycin and the Hawaii Department of Health, STD/AIDS Prevention Program has initiated partner contact tracing and treatment. This is the first case of an isolate with high-level resistance to azithromycin to be detected in the United States, reminding us of the growing threat of multidrug resistant *N. gonorrhoeae*.

N. gonorrhoeae isolates with high-level resistance to azithromycin have been previously reported from Argentina and the United Kingdom. In the United States, CDC's Gonococcal Isolate Surveillance Project (GISP) detected several *N. gonorrhoeae* isolates with decreased susceptibility to azithromycin during the past several years. These isolates were predominantly from the West and from men who have sex with men (MSM); five isolates from MSM in San Diego with decreased susceptibility to azithromycin were described in a recent *Morbidity and Mortality Weekly Report*.

As stated in the *2010 STD Treatment Guidelines*, dual therapy with 250 mg ceftriaxone and either one gram of azithromycin orally or 100 mg of doxycycline twice daily for seven days is the recommended regimen for uncomplicated urogenital, rectal, and pharyngeal gonorrhea. CDC does not recommend azithromycin as monotherapy for routine treatment of gonorrhea; however, if azithromycin is prescribed for patients with cephalosporin-allergy, a two gram oral dose should be administered and a test-of-cure (ideally with culture) should be performed one week after treatment. If culture testing is not available, a nucleic acid amplification test (NAAT) should be conducted and if the result is positive, a confirmatory culture should be done.

To detect antibiotic resistance beyond GISP and guide treatment of gonorrhea, it is essential that gonorrhea culture and susceptibility testing capacity be expanded at the local level, where it is waning due, in part, to the widespread use of NAATs. Additionally, CDC recognizes the need to develop alternative effective antibiotics and is working with National Institutes of Health and the Infectious Disease Society of America in this endeavor. The case described in this letter reiterates the existing threat of antibiotic resistance in *N. gonorrhoeae*. Gonorrhea cases with suspected treatment failure should be

promptly reported to the local or state health department and to CDC (Bob Kirkcaldy, MD, MPH at rkirkcaldy@cdc.gov or 404-639-8659). Please share this letter widely with other colleagues who may benefit from this information.

Sincerely,

/Gail Bolan/

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