TEXAS DEPARTMENT OF STATE HEALTH SERVICES

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KIRK S. COLE
INTERIM COMMISSIONER

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Dear Colleague:

Gonorrhea (GC) is developing resistance to the last classes of drugs available in the United States that are able to cure infection. In 2011, a surveillance network of the Centers for Disease Control and Prevention (CDC) confirmed that up to 1.4 percent of 5,900 gonorrhea samples from the east and west coasts of the U.S. had decreased susceptibility, meaning GC would succumb only to unusually high doses of cephalosporins. A commentary published in the *New England Journal of Medicine* stated that the occurrence of decreased susceptibility increased by a factor of 17 between 2006 and 2011.[1]

Following changes in gonorrhea treatment guidelines in 2010, which recommended dual therapy with ceftriaxone AND azithromycin, susceptibility actually improved through 2013. Recent data from 2014, published in the *Journal of the American Medical Association,* suggest that improvements may be short-lived, as the percent of gonorrhea isolates with reduced cephalosporin susceptibility has increased again.[2]

The CDC has deemed gonorrhea an urgent public health threat.[3] Gonorrhea is the second-most commonly reported infectious disease in the U.S., with around 300,000 new cases a year. If untreated, it can cause serious - even life-threatening and permanent - health problems in women and men, including widespread organ and joint damage, pelvic inflammatory disease, and infertility. Especially worrisome is the fact that untreated GC can increase a person's risk of acquiring and transmitting HIV. More detailed information about GC resistance can be found on the CDC website at http://www.cdc.gov/std/Gonorrhea/arg/default.htm

Clinicians should maintain a high index of suspicion when treating recurrent gonorrhea infections. Cephalosporin treatment failure is defined as the persistence of *N. gonorrhoeae* infection despite appropriate cephalosporin treatment and could indicate infection with cephalosporin-resistant gonorrhea (Ceph-R NG). A comprehensive gonorrhea response plan for the state of Texas can be found at http://www.dshs.state.tx.us/hivstd/healthcare/gcresponse.shtm.

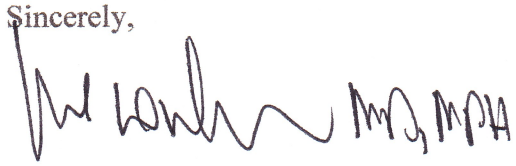
The CDC encourages individual providers to:

- Take a comprehensive sexual history.
- Sample all sites of exposure (including the pharynx and rectum).
- Promptly treat all patients diagnosed (or presumptively diagnosed) with gonorrhea according to CDC's 2015 Treatment Guidelines; available at http://www.cdc.gov/std/tg2015/. **Do not prescribe azithromycin monotherapy because of the potential for rapid emergence of azithromycin resistance.**
- Before re-treatment of patients with suspected or documented gonorrhea treatment failures, obtain cultures for antibiotic susceptibility testing (preferably with simultaneous NAAT).

  - Currently, public health laboratories in Texas do not perform antibiotic susceptibility testing (AST) for gonorrhea. AST is available at several commercial laboratories. Contact your reference lab to determine how and to whom specimens should be submitted.
  - Patients with suspected or documented Ceph-R NG should be re-treated with a regimen included in the CDC's 2015 Treatment Guidelines. There is a new alternative treatment with gentamicin and azithromycin that can be used.
  - Perform a test of cure (culture with simultaneous NAAT is preferred) in 7 to 14 days after re-treatment of a suspected treatment failure. AST should be performed if GC is isolated.
- Educate patients diagnosed with GC about Ceph-R NG.
- Instruct patients to return to care if symptoms do not resolve within three to five days.
- Perform a test of cure (NAAT or culture) 14 days after initial treatment if the patient was treated for pharyngeal gonorrhea with an alternative regimen.
- Inform patients of the need for their partners to be treated.
- Treat partners of patients diagnosed with or suspected of having gonorrhea. If partners of heterosexual patients are not able to be evaluated in clinic, consider patient-delivered partner therapy (PDPT) or provide a prescription for partner(s).[4] PDPT is not recommended at this time as a treatment in men who have sex with men because of the high risk of co-morbidities.
- Advise patients to avoid sex for one week following treatment.
- Reporting gonorrhea infection to your Texas public health authority is required within seven days. However, the CDC urges providers to report any suspected treatment failure to public health authorities within 24 hours. If your area does not have a local health department, phone numbers for reporting infection in your area can be found at http://www.dshs.state.tx.us/hivstd/healthcare/reporting/regions.shtm. STD program personnel at these numbers can answer questions you may have as well.

Should you have questions, please contact me at 512-776-6309 or lisa.cornelius@dshs.state.tx.us or Mary Cullinane, APN, at 512-533-3078 or mary.cullinane@dshs.state.tx.us. You may also contact the STD Clinician Consultation Network at www.STDCCN.org, an STD Prevention Training Center clinical expert at www.nnptc.org, or your local infectious disease specialist.

Sincerely,



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References

[1] The Emerging Threat of Untreatable Gonococcal Infection
GA Bolan, PF Sparling, and JN Wasserheit.
N Engl J Med. 2012; 366:485-487.
http://www.nejm.org/doi/full/10.1056/NEJMp1112456

[2] Trends in Neisseria gonorrhoeae Susceptibility to Cephalosporins in the United States, 2006-2014
RD Kirkcaldy, et al. *JAMA*. 2015;314(17):1869-1871.
http://jama.jamanetwork.com/article.aspx?articleid=2467544

[3] CDC Threat Report
http://www.cdc.gov/drugresistance/threat-report-2013/

[4] Support for the provision of Patient-Delivered Partner Therapy (PDPT) in Texas
CDC guidance on provision of PDPT
http://www.cdc.gov/std/ept/GC-Guidance.htm

Texas Medical Board Rules
Texas Administrative Code, Title 22, Part 9, Chapter 190, Subchapter B, §190.8
http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=22&pt=9&ch=190&rl=8

Texas State Board of Pharmacy Rules
Texas Administrative Code, Title 22, Part 15, Chapter 291, Subchapter A, §291.29 and Subchapter B, §291.33
http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=22&pt=15&ch=291&rl=29
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