

New Recommended Treatment for Gonococcal Infections.

Summary

In the U.S., sexually transmitted infections (STIs) caused by the bacteria *Neisseria gonorrhoeae* (gonococcal infections) have increased 63% since 2014 and are a cause of sequelae including pelvic inflammatory disease, ectopic pregnancy, and infertility and can facilitate transmission of human immunodeficiency virus (HIV). Effective treatment can prevent complications and transmission, but *N. gonorrhoeae*'s ability to acquire antimicrobial resistance influences treatment recommendations and complicates control. In response to concerns about effective treatment, CDC released a MMWR, Update to CDC's Treatment Guidelines for Gonococcal Infection, 2020 on December 18, 2020. **CDC now recommends a single 500 mg IM dose of ceftriaxone for treatment of uncomplicated urogenital, anorectal, and pharyngeal gonorrhea.** If chlamydial infection has not been excluded, concurrent treatment with doxycycline (100 mg orally twice a day for 7 days) is recommended. Continuing to monitor for emergence of ceftriaxone resistance through surveillance and health care providers' reporting of treatment failures is essential to ensuring continued efficacy of recommended regimens.

Background

Combination therapy, using a highly effective gonococcal therapeutic agent with cotreatment for chlamydia, has been recommended since 1985. Since 2007, treatment recommendations have changed several times based on treatment resistant gonococcal strains. The most recent treatment guidelines were published in 2015 and since then, concerns regarding antimicrobial stewardship have increased, especially the impact of antimicrobial use on the microbiome and data indicating azithromycin resistance (elevated MICs) for gonorrhea and other organisms. Pharmacokinetic and pharmacodynamic modeling has also affected the understanding of optimal antimicrobial dosing for *N. gonorrhoeae* treatment. Increasing concern for antimicrobial stewardship and the potential impact of dual therapy on commensal organisms and concurrent pathogens, in conjunction with the continued low incidence of ceftriaxone resistance and the increased incidence of azithromycin resistance, has led to reevaluation of the previous gonorrhea treatment recommendation.

Recommendations

Summary of Recommendations

1. Treat gonorrhea infections with a **single 500 mg injection of ceftriaxone.**
2. A test-of-cure is not needed for people who receive a diagnosis of uncomplicated urogenital or rectal gonorrhea unless symptoms persist.
3. A test-of-cure is recommended in people with pharyngeal gonorrhea 7-14 days after the initial treatment, regardless of the regimen.
4. Patients who have been treated for gonorrhea should be retested three months after treatment to ensure there is no reinfection.
5. As always, facilitate partner testing and treatment.

Additional Information on Recommendations

Regimen for uncomplicated gonococcal infections of the cervix, urethra, or rectum:

- **Ceftriaxone 500 mg IM as a single dose for persons weighing <150 kg (300 lb)**
 - For persons weighing ≥ 150 kg (300 lb), 1 g of IM ceftriaxone should be administered.
 - If chlamydial infection has not been excluded, providers should treat for chlamydia with doxycycline 100 mg orally twice daily for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.

Alternative regimens for uncomplicated gonococcal infections of the cervix, urethra, or rectum if ceftriaxone is not available:

- Gentamicin 240 mg IM as a single dose plus azithromycin 2 g orally as a single dose OR
- Cefixime 800 mg orally as a single dose. If treating with cefixime, and chlamydial infection has not been excluded, providers should treat for chlamydia with doxycycline 100 mg orally twice daily for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.

Recommended regimen for uncomplicated gonococcal infections of the pharynx:

- **Ceftriaxone 500 mg IM as a single dose for persons weighing <150 kg (300 lb)**
 - For persons weighing ≥ 150 kg (300 lb), 1 g of IM ceftriaxone should be administered.
 - If chlamydia coinfection is identified when pharyngeal gonorrhea testing is performed, providers should treat for chlamydia with doxycycline 100 mg orally twice a day for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.
 - No reliable alternative treatments are available for pharyngeal gonorrhea. For persons with a history of a beta-lactam allergy, a thorough assessment of the reaction is recommended.*
 - For persons with an anaphylactic or other severe reaction (e.g., Stevens Johnson syndrome) to ceftriaxone, consult an infectious disease specialist for an alternative treatment recommendation.

* CDC. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2015;64(No. RR-3). <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6403a1.htm>.

A test-of-cure is unnecessary for persons with uncomplicated urogenital or rectal gonorrhea who are treated with any of the recommended or alternative regimens; however, for persons with pharyngeal gonorrhea, a test-of-cure is recommended, using culture or nucleic acid amplification tests 7–14 days after initial treatment, regardless of the treatment regimen. Because reinfection within 12 months ranges from 7% to 12% among persons previously treated for gonorrhea, persons who have been treated for gonorrhea should be retested 3 months after treatment regardless of whether they believe their sex partners were treated. If retesting at 3 months is not possible, clinicians should retest within 12 months after initial treatment.

Effective treatment—the cornerstone of U.S. gonorrhea control efforts—begins with action from state and local health departments, health care providers, community-based organizations, and other partners in the field of STDs. By implementing this new gonorrhea treatment recommendation now, along with scaling up prevention education and counseling, we can prevent this common

infection with potentially severe health consequences. Of note, CDC expects to publish the revised STI Treatment Guidelines in 2021.

For More Information

Further information is available here: [Update to CDC's Treatment Guidelines for Gonococcal Infection, 2020 | MMWR](#). If you have questions, contact the Division of Sexually Transmitted and Bloodborne Diseases at 800.472.2180.

Reference:

St. Cyr S, Barbee L, Workowski KA, et al. Update to CDC's Treatment Guidelines for Gonococcal Infection, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1911–1916. DOI: <http://dx.doi.org/10.15585/mmwr.mm6950a6>.

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