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# CDC update: Guidelines for treating STDs

## A revised dosage for ceftriaxone and an alternative agent for bacterial vaginosis are among the newer recommendations.

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In 2010, the CDC released an update of its Sexually Transmitted Diseases (STD) Treatment Guidelines,[1] which were last updated in 2006. The guidelines are widely viewed as the most authoritative source of information on the diagnosis, treatment, and follow-up of STDs, and they are the standard for publicly and privately funded clinics focusing on sexual health.

## What's new

Some of the notable changes made since the last update in 2006 appear in **TABLE 1**.[1,2]

**Uncomplicated gonorrhea.** Cephalosporins are the only class of antibiotic recommended as first-line treatment for gonorrhea. (In a 2007 recommendation revision, the CDC opted to no longer recommend quinolone antibiotics for the treatment of gonorrhea, because of widespread bacterial resistance.[3]) Preference is now given to ceftriaxone because of its proven effectiveness against pharyngeal infection, which is often asymptomatic, difficult to detect, and difficult to eradicate. Additionally, the 2010 update has increased the recommended dose of ceftriazone from 125 to 250 mg intramuscularly. The larger dose is more effective against pharyngeal infection; it is also a safeguard against decreased bacterial susceptibility to cephalosporins, which, although still very low, has been reported in more cases recently.

The guidelines still recommend that azithromycin, 1 g orally in a single dose, be given with ceftriaxone because of the relatively high rate of co-infection with *Chlamydia trachomatis* and the potential for azithromycin to assist with eradicating any gonorrhea with decreased susceptibility to ceftriaxone.

**Pelvic inflammatory disease.** Quinolones have also been removed from the list of options for outpatient treatment of pelvic inflammatory disease. All recommended regimens now specify a parenteral cephalosporin as a single injection with doxycycline 100 mg PO twice a day for 14 days, with or without metronidazole 500 mg PO twice a day for 14 days.

**Bacterial vaginosis.** Tinidazole, 2 g orally once a day for 2 days or 1 g orally once a day for 5 days, is now an alternative agent for bacterial vaginosis. However, preferred treatments remain metronidazole 500 mg orally twice a day for 7 days, metronidazole gel intravaginally once a day for 5 days, or clindamycin cream intravaginally at bedtime for 7 days.

**Newborn gonococcal eye infection.** A relatively minor change is the elimination of tetracycline as prophylaxis for newborn gonococcal eye infections, leaving only erythromycin ointment to prevent the condition.

## Single-dose therapy preferred among equivalent options

Single-dose therapy (**TABLE 2**), while often more expensive than other options, increases compliance and helps ensure treatment com-

**New CDC guidance on pre-exposure HIV prophylaxis for men who have sex with men**

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**TABLE 1**

## 2010 vs 2006: How have the CDC recommendations for STD treatment changed?[1,2]

**Uncomplicated gonococcal infections of the cervix, urethra, rectum, and pharynx**

- Ceftriaxone IM dose increased from 125 to 250 mg
- Quinolones no longer recommended

**Pelvic inflammatory disease**

Parenteral regimens
- Quinolones no longer recommended

Outpatient regimens
- Quinolones no longer recommended
- Completely oral regimens no longer recommended; all include an injectable cephalosporin

**Bacterial vaginosis**

- Tinidazole now an alternative agent; however,
- Metronidazole orally, metronidazole intravaginally, or clindamycin intravaginally still preferred

**Prophylaxis for gonococcal eye infection in a newborn**

- Tetracycline ointment no longer recommended
- Erythromycin ointment the only recommended regimen

**If the single-dose agent is as effective as alternative medications, directly observed on-site administration is the preferred option for treating STDs.**

pletion. Single-dose therapy administered in your office is essentially directly observed treatment, an intervention that has become the standard of care for other diseases such as tuberculosis. If the single-dose agent is as effective as alternative medications, directly observed on-site administration is the preferred option for treating STDs.

### Other guideline recommendations

The CDC's STD treatment guidelines contain a wealth of useful information beyond treatment advice: recommended methods of confirming diagnoses, analyses of the usefulness of various diagnostic tests, recommendations on how to manage sex partners of those infected, guidance on STD prevention counseling, and considerations for special populations and circumstances.

Additionally, there is a section on screening for STDs reflecting recommendations of the US Preventive Services Task Force (USPSTF); it also includes recommendations from the American College of Obstetricians and Gynecologists. In at least one instance, though, the USPSTF recommendation on screening for HIV infection contradicts other CDC sources.[4,5] Also included is guidance on using vaccines to prevent hepatitis A, hepatitis B, and human papillomavirus (HPV), which follows the recommendations of the Advisory Committee on Immunization Practices. When to use DNA testing to detect HPV is described briefly.

### A shortcoming of the CDC guidelines

Although the CDC's STD guidelines remain the most authoritative source of information on the diagnosis and treatment of STDs, they do not seem to use a consistent method for assessing and describing the strength of the evidence behind the recommendations, which family physicians have come to expect. (However, it is sometimes possible to discern the type and strength of evidence for a particular recommendation from the written discussion.)

The new guidelines state that a series of papers to be published in *Clinical Infectious Diseases* will describe more fully the evidence behind some of the recommendations and include evidence tables. However, in future guideline updates, it would be helpful if the CDC were to include a brief description of the quantity and strength of evidence alongside each recommended treatment option in the tables.

**TABLE 2**

## Single-dose therapies for specific STDs[1]

| Infection or condition | Single-dose therapy |
|---|---|
| Candida | Miconazole 1200 mg vaginal suppository<br>*or*<br>Tioconazole 6.5% ointment 5 g intravaginally<br>*or*<br>Butoconazole 2% cream 5 g intravaginally<br>*or*<br>Fluconazole 150 mg PO |
| Cervicitis | Azithromycin 1 g PO |
| Chancroid | Azithromycin 1 g PO<br>*or*<br>Ceftriaxone 250 mg IM |
| Chlamydia urogenital infection | Azithromycin 1 g PO |
| Gonorrhea: conjunctivitis | Ceftriaxone 1 g IM |
| Gonorrhea: uncomplicated infection of the cervix, urethra, rectum | Ceftriaxone 250 mg IM (preferred)<br>*or*<br>Cefixime 400 mg PO<br>*or*<br>Single-dose injectable cephalosporin<br>*plus*<br>Azithromycin 1 g PO |
| Gonorrhea: uncomplicated infection of the pharynx | Ceftriaxone 250 mg IM<br>*plus*<br>Azithromycin 1 g PO |
| Nongonococcal urethritis | Azithromycin 1 g PO |
| Post-sexual assault prophylaxis | Ceftriaxone 250 mg IM<br>*or*<br>Cefixime 400 mg PO<br>*plus*<br>Metronidazole 2 g PO<br>*plus*<br>Azithromycin 1 g PO |
| Recurrent, persistent nongonococcal urethritis | Metronidazole 2 g PO<br>*or*<br>Tinidazole 2 g PO<br>*plus*<br>Azithromycin 1 g PO<br>(if not used for initial episode) |
| Syphilis: primary, secondary, and early latent | Benzathine penicillin G 2.4 million units IM |
| Trichomoniasis | Metronidazole 2 g PO<br>*or*<br>Tinidazole 2 g PO |

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**The CDC is planning to publish a series of papers that will more fully describe the evidence behind some of the STD recommendations.**

### How best to keep up to date

Although the new guidelines summarize the current status of recommendations on the diagnosis, treatment, and prevention of STDs and are a useful resource for family physicians, we cannot stay current simply by referring to them alone over the next 4 to 5 years until a new edition is published. As new evidence develops, changes in recommendations will be published in the *Morbidity and Mortality Weekly Report*.

**Case in point: new interim HIV recommendations.** Interim recommendations were recently released on pre-exposure prophylaxis for men who have sex with men.[6] (For more on these recommendations, check out this month's audiocast at jfponline.com.) Final recommendations are expected later this year. Recommendations for post-exposure prophylaxis to prevent HIV infection are also expected soon. JFP


References

1. Workowski KA, Berman S, Centers for Disease Control and Prevention (CDC). Sexually transmitted diseases treatment guidelines, 2010. *MMWR Recomm Rep*. 2010;59(RR-12):1-110.
2. Centers for Disease Control and Prevention, Workowski KA, Berman SM. Sexually transmitted diseases treatment guidelines, 2006. *MMWR Recomm Rep*. 2006;55(RR-11):1-94.
3. Campos-Outcalt D. Practice alert: CDC no longer recommends quinolones for treatment of gonorrhea. *J Fam Pract*. 2007;56:554-558.
4. Branson BM, Handsfield HH, Lampe MA, et al; for the Centers for Disease Control and Prevention (CDC). Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR Recomm Rep*. 2006;55(RR-14):1-17.
5. Campos-Outcalt D. Time to revise your HIV testing routine. *J Fam Pract*. 2007;56:283-284.
6. Centers for Disease Control and Prevention (CDC). Interim guidance: preexposure prophylaxis for the prevention of HIV infection in men who have sex with men. *MMWR Morb Mortal Wkly Rep*. 2011;60:65-68.