Sexually Transmitted Diseases

Updated Summary of 2010 CDC Treatment Guidelines

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of STD Prevention

Sexually Transmitted Diseases: Updated Summary of 2010 CDC Treatment Guidelines

These summary guidelines reflect the August 2012 update to the 2010 CDC Guidelines for Treatment of Sexually Transmitted Diseases. CDC issues new recommendations for treating uncomplicated gonorrhea in this update. This summary is intended as a source of clinical guidance. An important component of STD treatment is partner management. Providers can arrange for the evaluation and treatment of sex partners either directly or with assistance from state and local health departments. Complete guidelines can be viewed online at www.cdc.gov/std/treatment/2010.

DISEASE	RECOMMENDED Rx	DOSE/ROUTE	ALTERNATIVES
Bacterial Vaginosis Nonpregnant women	metronidazole oral[1] OR metronidazole gel 0.75%[1] OR clindamycin cream 2%[1,2]	500 mg orally 2x/day for 7 days One 5 g applicator intravaginally 1x/day for 5 days One 5 g applicator intravaginally at bedtime for 7 days	◆ tinidazole 2 g orally 1x/day for 2 days OR ◆ tinidazole 1 g orally 1x/day for 5 days OR clindamycin 300 mg orally 2x/day for 7 days OR clindamycin ovules 100 mg intravaginally at bedtime for 3 days
Pregnancy[3,4]	metronidazole oral[1] OR clindamycin oral	500 mg orally 2x/day for 7 days or 250 mg orally 3x/day for 7 days 300 mg orally 2x/day for 7 days; See complete guidelines for dosing	
Cervicitis[5]	azithromycin OR doxycycline[6]	1 g orally in a single dose 100 mg orally 2x/day for 7 days	
Chlamydial Infections Adults, adolescents, and children aged ≥8 years	azithromycin OR doxycycline[6]	1 g orally in a single dose 100 mg orally 2x/day for 7 days	erythromycin base[7] 500 mg orally 4x/day for 7 days OR erythromycin ethylsuccinate[8] 800 mg orally 4x/day for 7 days OR levofloxacin[9] 500 mg orally 1x/day for 7 days OR ofloxacin[9] 300 mg orally 2x/day for 7 days
Pregnancy[3]	azithromycin[10] OR amoxicillin	1 g orally in a single dose 500 mg orally 3x/day for 7 days	erythromycin base[7,11] 500 mg orally 4x/day for 7 days OR erythromycin base 250 mg orally 4x/day for 14 days OR erythromycin ethylsuccinate 800 mg orally 4x/day for 7 days OR erythromycin ethylsuccinate 400 mg orally 4x/day for 14 days
Children (<45 kg): urogenital, rectal	erythromycin base[12] or ethylsuccinate	50 mg/kg/day orally (4 divided doses) daily for 14 days	
Neonates: ophthalmia neonatorum, pneumonia	erythromycin base[12] or ethylsuccinate	50 mg/kg/day orally (4 divided doses) daily for 14 days	
Epididymitis[13,14] *For acute epididymitis most likely due to enteric organisms or with negative GC culture or NAAT:*	ceftriaxone PLUS doxycycline levofloxacin OR ofloxacin	250 mg IM in a single dose 100 mg orally 2x/day for 10 days 500 mg orally 1x/day for 10 days 300 mg orally 2x/day for 10 days	
Genital Herpes Simplex First clinical episode of genital herpes	acyclovir OR acyclovir OR famciclovir[15] OR valacyclovir[15]	400 mg orally 3x/day for 7-10 days[16] 200 mg orally 5x/day for 7-10 days[16] 250 mg orally 3x/day for 7-10 days[16] 1 g orally 2x/day for 7-10 days[16]	
Episodic therapy for recurrent genital herpes	acyclovir OR acyclovir OR acyclovir OR famciclovir[15] OR famciclovir[15] OR famciclovir[15] OR valacyclovir[15] OR valacyclovir[15]	400 mg orally 3x/day for 5 days 800 mg orally 2x/day for 5 days 800 mg orally 3x/day for 2 days 125 mg orally 2x/day for 5 days 1000 mg orally 2x/day for 1 day[16] ◆ 500 mg orally once, followed by 250 mg 2x/day for 2 days 500 mg orally 2x/day for 3 days 1 g orally 1x/day for 5 days	
Suppressive therapy[17] for recurrent genital herpes	acyclovir OR famciclovir[15] OR valacyclovir[15] OR valacyclovir[15]	400 mg orally 2x/day 250 mg orally 2x/day 500 mg orally once a day 1 g orally once a day	
Recommended regimens for episodic infection in persons with HIV infection	acyclovir OR famciclovir[15] OR valacyclovir[15]	400 mg orally 3x/day for 5-10 days 500 mg orally 2x/day for 5-10 days 1 g orally 2x/day for 5-10 days	
Recommended regimens for daily suppressive therapy in persons with HIV infection	acyclovir OR famciclovir[15] OR valacyclovir[15]	400-800 mg orally 2-3x/day 500 mg orally 2x/day 500 mg orally 2x/day	
Genital Warts[18] (Human Papillomavirus) External genital and perianal warts	**Patient Applied** podofilox 0.5%[15] solution or gel OR imiquimod 5%[15] cream OR ◆ sinecatechins 15% ointment[2,15] **Provider Administered** Cryotherapy OR podophyllin resin 10%-25%[15] OR trichloroacetic acid or bichloroacetic acid 80%-90% OR surgical removal	 Apply to visible warts 2x/day for 3 days, rest 4 days, 4 cycles max. Apply once h.s., wash off after 6-10 hours 3x/week QOD, 16 weeks max. Apply 3x/day, 16 weeks max; See complete CDC guidelines. Apply small amount, dry, wash off in 1-4 hours. Repeat weekly if necessary Apply small amount, dry, apply weekly if necessary	 Intralesional interferon OR Laser surgery
★ ***Gonococcal Infections[19]*** Adults, adolescents, and children >45 kg: urogenital, rectal	ceftriaxone OR PLUS azithromycin[6] OR doxycycline[9]	◆ 250 mg IM in a single dose 1 g orally in a single dose 100 mg orally 2x/day for 7 days	cefixime[20] 400 mg orally in a single dose PLUS azithromycin[10] 1 g orally in a single dose OR doxycycline[6] 100 mg 2x/day for 7 days PLUS test-of-cure If the patient has severe cephalosporin allergy: azithromycin 2 g orally in a single dose PLUS test-of-cure
◆ Pharyngeal[21]	ceftriaxone PLUS azithromycin[6] OR doxycycline[9]	250 mg IM in a single dose 1 g orally in a single dose 100 mg orally 2x/day for 7 days	
Pregnancy[3]	See complete CDC guidelines.		
Adults and adolescents: conjunctivitis	ceftriaxone	1 g IM in a single dose, irrigate infected eye with saline solution once	
Children (≤ 45 kg): urogenital, rectal, pharyngeal	ceftriaxone[22]	◆ 125 mg IM in a single dose	
Lymphogranuloma venereum	doxycycline[6]	100 mg orally 2x/day for 21 days	erythromycin base 500 mg orally 4x/day for 21 days
Nongonococcal Urethritis *(NGU)*	azithromycin[10] OR doxycycline[6]	1 g orally in a single dose 100 mg orally 2x/day for 7 days	erythromycin base[7] 500 mg orally 4x/day for 7 days OR erythromycin ethylsuccinate[8] 800 mg orally 4x/day for 7 days OR levofloxacin 500 mg 1x/day for 7 days OR ofloxacin 300 mg 2x/day for 7 days
Recurrent NGU[3,23,24]	metronidazole[25] OR tinidazole PLUS azithromycin (if not used for initial episode)	2 g orally in a single dose 2 g orally in a single dose 1 g orally in a single dose	
Pediculosis Pubis	permethrin 1% cream rinse OR pyrethrins with piperonyl butoxide	Apply to affected area, wash off after 10 minutes Apply to affected area, wash off after 10 minutes	malathion 0.5% lotion, applied 8-12 hrs then washed off OR ivermectin 250 µg/kg, orally repeated in 2 weeks
Pelvic Inflammatory Disease[13]	1. ceftriaxone PLUS doxycycline WITH OR WITHOUT metronidazole 2. cefoxitin PLUS doxycycline WITH OR WITHOUT metronidazole 3. Other parenteral third-generation cephalosporin (e.g. ceftizoxime or cefotaxime) doxycycline PLUS WITH OR WITHOUT metronidazole Alternative oral regimens are listed in CDC's 2010 STD Treatment Guidelines.	250 mg IM in a single dose 100 mg orally 2x/day for 14 days 500 mg orally 2x/day for 14 days 2 g IM in a single dose and probenecid, 1 g, orally administered concurrently in a single dose 100 mg orally 2x/day for 14 days 500 mg orally 2x/day for 14 days 100 mg orally 2x/day for 14 days 500 mg orally 2x/day for 14 days	
Scabies	permethrin 5% cream OR ivermectin	Apply to all areas of body from neck down, wash off after 8-14 hours 200 µg/kg orally, repeated in 2 weeks	lindane 1%[26,27] 1 oz. of lotion or 30 g of cream, applied thinly to all areas of the body from the neck down, wash off after 8 hours
Syphilis Primary, secondary, or early latent <1 year	benzathine penicillin G	2.4 million units IM in a single dose	doxycycline[6,28] 100 mg 2x/day for 14 days OR tetracycline[6,28] 500 mg orally 4x/day for 14 days
Latent >1 year, latent of unknown duration	benzathine penicillin G	2.4 million units IM in 3 doses each at 1 week intervals (7.2 million units total)	doxycycline[6,28] 100 mg 2x/day for 28 days OR tetracycline[6,28] 500 mg orally 4x/day for 28 days
Pregnancy[3]	See complete CDC guidelines.		
Neurosyphilis	aqueous crystalline penicillin G	3 to 4 million units IV every 4 hours for 10-14 days (18-24 million units/day)	procaine penicillin G 2.4 MU IM 1x daily PLUS probenecid 500 mg orally 4x/day, both for 10-14 days.
Congenital syphilis	aqueous crystalline penicillin G OR procaine penicillin G	100,000-150,000 units/kg/day (50,000 units/kg/dose IV every 12 hours) during the first 7 days of life and every 8 hours thereafter for a total of 10 days 50,000 units/kg/dose IM in a single dose for 10 days	
Children: primary, secondary, or early latent <1 year	benzathine penicillin G	50,000 units/kg IM in a single dose (maximum 2.4 million units)	
Children: latent >1 year, latent of unknown duration	benzathine penicillin G	50,000 units/kg IM for 3 doses at 1 week intervals (maximum total 7.2 million units)	
Trichomoniasis	metronidazole[25] OR tinidazole[29]	2 g orally in a single dose 2 g orally in a single dose	metronidazole[25] 500 mg 2x/day for 7 days

1. The recommended regimens are equally efficacious.
2. These creams are oil-based and may weaken latex condoms and diaphragms. Refer to product labeling for further information.
3. Please refer to the complete 2010 CDC Guidelines for recommended regimens.
4. Existing data do not support the use of topical agents in pregnancy.
5. Consider concurrent treatment for gonococcal infection if prevalence of gonorrhea is >5% (younger age).
6. Should not be administered during pregnancy, lactation, or to children <8 years of age.
7. If patient cannot tolerate high-dose erythromycin base schedules, change to 250 mg 4x/day for 14 days.
8. If patient cannot tolerate high-dose erythromycin ethylsuccinate schedules, change to 400 mg orally 4 times a day for 14 days.
9. Contraindicated for pregnant or lactating women.
10. Clinical experience and published studies suggest that azithromycin is safe and effective.
11. Erythromycin estolate is contraindicated during pregnancy.
12. Effectiveness of erythromycin treatment is approximately 80%; a second course of therapy may be required.
13. Patients who do not respond to oral therapy (within 72 hours) should be re-evaluated.
14. For patients with suspected sexually transmitted epididymitis, close follow-up is essential.
15. No definitive information available on prenatal exposure.
16. Treatment may be extended if healing is incomplete after 10 days of therapy.
17. Consider discontinuation of treatment after one year to assess frequency of recurrence.
18. Vaginal, cervical, urethral meatal, and anal warts may require referral to an appropriate specialist.
19. CDC recommends that treatment for uncomplicated gonococcal infections of the cervix, urethra, and/or rectum should include dual therapy, i.e. both a cephalosporin (e.g. ceftriaxone) plus azithromycin (preferred) or doxycycline
20. CDC recommends that cefixime in combination with azithromycin or doxycycline be used as an alternative when ceftriaxone is not available.
21. Only ceftriaxone is recommended for the treatment of pharyngeal infection. Providers should inquire about oral sexual exposure
22. Use with caution in hyperbilirubinemic infants, especially those born prematurely.
23. MSM are unlikely to benefit from the addition of nitroimidazoles.
24. Moxifloxacin 400mg orally 1x/day for 7 days effective against *Mycoplasma genitalium*
25. Pregnant patients can be treated with 2 g single dose.
26. Contraindicated for pregnant or lactating women, or children <2 years of age.
27. Do not use after a bath; should not be used by persons who have extensive dermatitis.
28. Pregnant patients allergic to penicillin should be treated with penicillin after desensitization.
29. Randomized controlled trials comparing single 2 g doses of metronidazole and tinidazole suggest that tinidazole is equivalent to, or superior to, metronidazole in achieving parasitologic cure and resolution of symptoms.

◆ Indicates revision from the 2006 CDC Guidelines for the Treatment of Sexually Transmitted Diseases.

★ Indicates update from the 2010 CDC Guidelines for the Treatment of Sexually Transmitted Diseases; see MMWR Morb Mortal Wkly Rep. 2012 Aug 10; 61(31):590-594 for details.

Reviewed by the CDC 8/2012