



NEW YORK CITY STD TREATMENT GUIDELINES TABLE FOR ADULTS & ADOLESCENTS 2008

These recommendations for the treatment of patients with STDs reflect the 2006 CDC STD Treatment Guidelines, subsequent CDC Morbidity and Mortality Weekly Reports (MMWRs), and New York City Department of Health and Mental Hygiene (NYC DOHMH) Health Alerts. The focus is primarily on STDs encountered in outpatient practice. These guidelines are intended as a source of clinical guidance; they are not a comprehensive list of all effective regimens and are not intended to substitute for use of the full 2006 STD treatment guidelines document. Call 311 or go to <http://www.nyc.gov/std> to learn more about STDs and how to report infections, request assistance with confidential notification of sexual partners of patients with syphilis or HIV infection and obtain additional information on NYC DOHMH clinical services. Further information about STD epidemiology, prevention and management is also available at <http://www.cdc.gov/std> and <http://www.nyc.gov/health/std>. Health care providers can access the latest NYC public health information by joining NYC MED at <http://www.nyc.gov/html/doh/html/hcp/hcp.shtml#nycmed>.

DOSING ABBREVIATIONS: d=day; qd=once each day; bid= twice daily; tid=three times a day; qid=four times a day; po=by mouth; IM=intramuscular injection; IV=intravenous; mg=milligram; g=gram; hs=hour of sleep; prn=as needed.

DISEASE	RECOMMENDED REGIMENS	DOSE/ROUTE	ALTERNATIVE REGIMENS <i>To be used if medical contraindication to recommended regimen</i>
CHLAMYDIA			
Uncomplicated Genital/Rectal/Pharyngeal Infections ¹	<ul style="list-style-type: none"> Azithromycin or Doxycycline² 	1 g po 100 mg po bid x 7 d	<ul style="list-style-type: none"> Erythromycin base 500 mg po qid x 7 d or Erythromycin ethylsuccinate 800 mg po qid x 7 d or Ofloxacin³ 300 mg po bid x 7 d or Levofloxacin³ 500 mg po qd x 7 d
Pregnant Women ³	<ul style="list-style-type: none"> Azithromycin or Amoxicillin 	1 g po 500 mg po tid x 7 d	<ul style="list-style-type: none"> Erythromycin base 500 mg po qid x 7 d or Erythromycin base 250 mg po qid x 14 d or Erythromycin ethylsuccinate 800 mg po qid x 7 d or Erythromycin ethylsuccinate 400 mg po qid x 14 d
GONORRHEA			
Ceftriaxone is the preferred treatment for adult and adolescent patients with uncomplicated gonorrhea infections. Fluoroquinolones are no longer recommended for treatment of gonococcal infections in the United States because of high levels of resistance to this class of drugs. Complete guidelines for the treatment of gonorrhea are available at www.cdc.gov			
Uncomplicated Genital/Rectal Infections ⁴ ; including pregnant women ³	<ul style="list-style-type: none"> Ceftriaxone⁴ or Cefixime^{4,5} plus A chlamydia recommended regimen listed above if not ruled out by NAAT 	125 mg IM 400 mg po	<ul style="list-style-type: none"> Azithromycin⁷ 2 g po in a single dose Cefpodoxime⁴ 400 mg po Spectinomycin⁸ 2 g IM or Alternative single dose cephalosporin regimens.
Pharyngeal Infections including pregnant women	<ul style="list-style-type: none"> Ceftriaxone⁴ plus A chlamydia recommended regimen listed above if not ruled out by NAAT 	125 mg IM	<ul style="list-style-type: none"> Azithromycin⁷ 2 g po in a single dose
PELVIC INFLAMMATORY DISEASE^{8,9}			
	IM/Oral <ul style="list-style-type: none"> Ceftriaxone or Cefoxitin with Probenecid plus Doxycycline² with or without Metronidazole⁹ IV¹⁰/oral <ul style="list-style-type: none"> Cefotetan or Cefoxitin¹⁰ plus Doxycycline² or Clindamycin plus Gentamicin 	250 mg IM 2 g IM, 1 g po 100 mg po bid x 14 d 500 mg po bid x 14 d 2 g IV q 12 hrs 2 g IV q 6 hrs 100 mg po or IV q 12 hrs 900 mg IV q 8 hrs 2 mg/kg IV or IM followed by 1.5 mg/kg IV or IM q 8 hrs	Oral <ul style="list-style-type: none"> Ofloxacin² 400 mg po bid x 14 d or Levofloxacin² 500 mg po qd x 14 d with or without Metronidazole 500 mg po bid x 14 d⁹ IV¹⁰/oral <ul style="list-style-type: none"> Ampicillin/Sulbactam 3 g IV q 6 hrs plus¹⁰ Doxycycline² 100 mg po or IV q 12 hrs
CERVICITIS^{11,12,13}			
	<ul style="list-style-type: none"> Azithromycin or Doxycycline² plus Treatment for BV or trich if detected 	1 g po 100 mg po bid x 7 d	
NONGONOCOCCAL URETHRITIS			
	<ul style="list-style-type: none"> Azithromycin or Doxycycline 	1 g po 100 mg po bid x 7 d	<ul style="list-style-type: none"> Erythromycin base 500 mg po qid x 7 d or Erythromycin ethylsuccinate 800 mg po qid x 7 d or Ofloxacin 300 mg po bid x 7 d or Levofloxacin 500 mg po qd x 7 d
EPIDIDYMITIS⁸			
	Likely due to gonorrhea or chlamydia <ul style="list-style-type: none"> Ceftriaxone plus Doxycycline Likely due to enteric organisms or with a negative GC culture or NAAT <ul style="list-style-type: none"> Ofloxacin or Levofloxacin 	250 mg IM 100 mg po bid x 10 d 300 mg po bid x 10 d 500 mg po qd x 10 d	
TRICHOMONIASIS¹⁴			
Non-pregnant women	<ul style="list-style-type: none"> Metronidazole or Tinidazole¹⁵ 	2 g po 2 g po	<ul style="list-style-type: none"> Metronidazole 500 mg po bid x 7 d
Pregnant Women	<ul style="list-style-type: none"> Metronidazole 	2 g po	<ul style="list-style-type: none"> Metronidazole 500 mg po bid x 7 d
BACTERIAL VAGINOSIS			
Adults/Adolescents	<ul style="list-style-type: none"> Metronidazole or Metronidazole gel or Clindamycin cream¹⁶ 	500 mg po bid x 7 d 0.75%, one full applicator (5g) intravaginally qd x 5 d 2%, one full applicator (5g) intravaginally qhs x 7 d	<ul style="list-style-type: none"> Clindamycin 300 mg po bid x 7 d or Clindamycin ovules¹⁶ 100 mg intravaginally qhs x 3 d
Pregnant Women	<ul style="list-style-type: none"> Metronidazole or Metronidazole or Clindamycin 	500 mg po bid x 7 d 250 mg po tid x 7 d 300 mg po bid x 7 d	

- Annual screening for women age 25 years or younger. Nucleic acid amplification tests (NAATs) are recommended. Reinfection occurs in up to 40% of cases; retest 3 months after treatment for chlamydia or gonorrhea infections
- Contraindicated for pregnant and nursing women.
- Perform test-of-cure follow-up, (preferably by NAAT), 3-4 weeks after completion of therapy is recommended in pregnancy.
- For patients with cephalosporin allergy, penicillin allergy or other contraindication: CDC recommends considering desensitization. However, in the vast majority of cases, this may not be feasible. Judicious use of azithromycin is a practical option if spectinomycin is not available or not indicated.
- Cefixime tablets should become available in 2008 in the U.S.
- Spectinomycin has not been manufactured since January 2006, and future availability is uncertain.
- Use only if medical contraindications to a cephalosporin.
- Test for gonorrhea and chlamydia.

- Evaluate for bacterial vaginosis. If present or cannot be ruled out, also use metronidazole. Metronidazole offers additional anaerobic coverage.
- Discontinue parenteral 24 hours after patient improves clinically and continue with oral therapy for a total of 14 days.
- Treatment suggested is the presumptive regimen.
- Evaluate for pelvic inflammatory disease and test for gonorrhea and chlamydia.
- Concurrent therapy for gonorrhea is indicated if the prevalence for this infection is high (>5%) in the patient population.
- For suspected drug-resistant trichomoniasis, rule out reinfection; see 2006 CDC Guidelines, Trichomonas Follow-up p. 53, for other treatment options, and evaluate for metronidazole-resistant *T. vaginalis*. For laboratory and clinical consultations, contact CDC at 770-488-4115, <http://www.cdc.gov/std>.
- Safety in pregnancy has not been established.
- Might weaken latex condoms and diaphragms because oil-based.

DISEASE	RECOMMENDED REGIMENS	DOSE/ROUTE	ALTERNATIVE REGIMENS <i>To be used if medical contraindication to recommended regimen</i>
ACUTE PROCTITIS ¹⁷	<ul style="list-style-type: none"> Ceftriaxone¹⁸ plus Doxycycline 	125 mg IM 100 mg po bid X 7 d	
CHANCROID	<ul style="list-style-type: none"> Azithromycin or Ceftriaxone or Ciprofloxacin² Erythromycin base 	1 g po 250 mg IM 500 mg po bid x 3 d 500 mg po tid x 7 d	
LYMPHOGRANULOMA VENEREUM	<ul style="list-style-type: none"> Doxycycline² 	100 mg po bid x 21 d	<ul style="list-style-type: none"> Erythromycin base 500 mg po qid x 21 d or Azithromycin 1 g po q week x 3 weeks
ANOGENITAL WARTS (Human Papilloma Virus)			
External Genital/Perianal Warts	<p>Patient Applied</p> <ul style="list-style-type: none"> Podofilox¹⁹ 0.5% solution or gel – apply to areas not to exceed 10 cm² or Imiquimod¹⁹ 5% cream <p>Provider Administered</p> <ul style="list-style-type: none"> Cryotherapy or Podophyllin¹⁹ resin 10%-25% in tincture of benzoin or Trichloroacetic acid (TCA) 80%- 90% or Bichloroacetic acid (BCA) 80%- 90% or Surgical removal 	<p>Topically bid x 3 d followed by 4 d no treatment for up to 4 cycles</p> <p>Topically qhs 3x/wk up to 16 wks; Wash off after 6-10 hours.</p> <p>Apply x 1. Repeat q 1-2 wks. Wash off after 1-4 hours Apply q wk. Repeat q week prn.</p> <p>Apply q wk. Repeat q week prn.</p>	
Mucosal Genital Warts ²⁰	<ul style="list-style-type: none"> Cryotherapy or TCA or BCA 80%-90% or Podophyllin¹⁹ resin 10%-25% in tincture of benzoin or Surgical removal 	Vaginal, urethral meatus, and anal Vaginal and anal Urethral meatus only Anal warts only	
ANOGENITAL HERPES ²¹			
First Clinical Episode of Herpes	<ul style="list-style-type: none"> Acyclovir or Acyclovir or Famciclovir or Valacyclovir 	400 mg po tid x 7-10 d 200 mg po 5/day x 7-10 d 250 mg po tid x 7-10 d 1 g po bid x 7-10 d	
Established Infection Suppressive Therapy ²²	<ul style="list-style-type: none"> Acyclovir or Famciclovir or Valacyclovir or Valacyclovir 	400 mg po bid 250 mg po bid 500 mg po qd 1 g po qd	
Episodic Therapy for Recurrent Episodes	<ul style="list-style-type: none"> Acyclovir or Acyclovir or Acyclovir or Famciclovir or Famciclovir or Valacyclovir or Valacyclovir 	400 mg po tid x 5 d 800 mg po bid x 5 d 800 mg po tid x 2 d 125 mg po bid x 5 d 1000 mg po bid x 1 d 500 mg po bid x 3 d 1 g po qd x 5 d	
HIV Co-Infected ²³			
Suppressive Therapy ²²	<ul style="list-style-type: none"> Acyclovir or Famciclovir or Valacyclovir 	400-800 mg po bid or tid 500 mg po bid 500 mg po bid	
Episodic Therapy for Recurrent Episodes	<ul style="list-style-type: none"> Acyclovir or Famciclovir or Valacyclovir 	400 mg po tid x 5-10 d 500 mg po bid x 5-10 d 1 g po bid x 5-10 d	
SYPHILIS			
Benzathine penicillin G, Bicillin@L-A, (trade name), given parenterally, is the preferred drug for treatment of all stages of syphilis, and is the only treatment with documented efficacy for syphilis during pregnancy. ²⁴			
Primary, Secondary, and Early Latent	<ul style="list-style-type: none"> Benzathine penicillin G 	2.4 million units IM	<ul style="list-style-type: none"> Doxycycline²⁵ 100 mg po bid x 14 d or Tetracycline²⁵ 500 mg po qid x 14 d or Ceftriaxone²⁵ 1 g IM or IV qd x 8-10 d
Late Latent and Latent of Unknown Duration	<ul style="list-style-type: none"> Benzathine penicillin G 	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	<ul style="list-style-type: none"> Doxycycline²⁵ 100 mg po bid x 28 d or Tetracycline²⁵ 500 mg po qid x 28 d
Neurosyphilis ²⁶	<ul style="list-style-type: none"> Aqueous crystalline penicillin G 	18-24 million units daily, administered as 3-4 million units IV q 4 hrs x 10-14 d	<ul style="list-style-type: none"> Procaine penicillin G, 2.4 million units IM qd x 10-14 d plus Probenecid 500 mg po qid x 10-14 d or Ceftriaxone²⁵ 2 g IM or IV qd x 10-14 d
Pregnant Women ²⁷			
Primary, Secondary, and Early Latent ²⁸	<ul style="list-style-type: none"> Benzathine penicillin G 	2.4 million units IM	<ul style="list-style-type: none"> None
Late Latent and Latent of Unknown Duration	<ul style="list-style-type: none"> Benzathine penicillin G 	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	<ul style="list-style-type: none"> None
Neurosyphilis ²⁷	<ul style="list-style-type: none"> Aqueous crystalline penicillin G 	18-24 million units daily, administered as 3-4 million units IV q 4 hrs x 10-14 d	<ul style="list-style-type: none"> Procaine penicillin G, 2.4 million units IM qd x 10-14 d plus Probenecid 500 mg po qid x 10-14 d
HIV Co-Infected			
Primary, Secondary and Early Latent	<ul style="list-style-type: none"> Benzathine penicillin G 	2.4 million units IM	<ul style="list-style-type: none"> Doxycycline²⁵ 100 mg po bid x 14 d or Tetracycline²⁵ 500 mg po qid x 14 d
Late Latent, and Latent of Unknown Duration with normal CSF Exam	<ul style="list-style-type: none"> Benzathine penicillin G 	7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals	<ul style="list-style-type: none"> Doxycycline²⁵ 100 mg po bid x 28 d
Neurosyphilis ²⁶	<ul style="list-style-type: none"> Aqueous crystalline penicillin G 	18-24 million units daily, administered as 3-4 million units IV q 4 hrs x 10-14 d	<ul style="list-style-type: none"> Procaine penicillin G, 2.4 million units IM qd x 10-14 d plus Probenecid 500 mg po qid x 10-14 d or Ceftriaxone²⁵ 2 g IM or IV qd x 10-14 d

17. Examine patients by anoscopy and evaluate for infection with HSV, gonorrhea, chlamydia and syphilis.
18. Or another agent effective against rectal and genital gonorrhea.

19. Contraindicated in pregnancy.

20. Cervical and rectal warts should be managed in consultation with a specialist.

21. Counseling about natural history, asymptomatic shedding, and sexual and vertical transmission is an essential component of herpes management.

22. The goal of suppressive therapy is to reduce the number of recurrent symptomatic episodes and/or to reduce transmission.

23. If HSV lesions persist or recur while receiving antiviral treatment, suspect antiviral resistance. Obtain a viral isolate for sensitivity testing, and consult with an infectious disease expert.

24. Benzathine penicillin G is available in one long-acting formulation, Bicillin@L-A, which contains only benzathine penicillin G. Combination penicillin drug products such as Bicillin@ CR contain both long

and short acting penicillins and should not be used to treat syphilis.

25. Use alternatives for penicillin-allergic patients only, because efficacy of these therapies has not been established. Compliance with some of these regimens is difficult, and close follow-up is essential. If compliance or follow-up cannot be ensured, the patient should be desensitized and treated with benzathine penicillin.

26. Some specialists recommend 2.4 million units of benzathine penicillin G 1 x/wk for up to 3 weeks after completion of neurosyphilis treatment.

27. Patients allergic to penicillin should be treated with penicillin after desensitization. Pregnant women with syphilis in any stage who report penicillin allergy should be desensitized and treated with penicillin.

28. Some specialists recommend an additional dose of benzathine penicillin 2.4 million units administered 1 week initial dose for primary, secondary, or early latent syphilis.