CALIFORNIA STD TREATMENT GUIDELINES TABLE FOR ADULTS & ADOLESCENTS 2015

These guidelines reflect recent updates in the 2015 CDC STD Treatment Guidelines for both HIV-uninfected and HIV-infected adults and adolescents, treatments that offer for HIV-infected populations are designated by a red ribbon. Call the local health department for assistance with confidential notification of sexual partners of patients with syphilis, gonorrhea, chlamydia or HIV infection. For STD clinical management consultation, call (510-620-3400) or submit your question online to the STD Clinical Consultation Network at www.stdccn.org

DISEASE

RECOMMENDED REGIMENS

DOSE/ROUTE

ALTERNATIVE REGIMENS: To be used if medical contraindication to recommended regimen.

CHLAMYDIA (CT)

Genital/Rectal/Pharyngeal infections

- Azithromycin or
- Doxycycline

1 g po 100 mg po bid x 7 d

- Erythromycin base 500 mg po q 7 d or
- Erythromycin ethylsuccinate 800 mg po q 7 d or
- oxytetracycline 500 mg po bid x 7 d or
- Ofloxacin10 300 mg po bid x 7 d or
- Doxycycline (delayed release) 200 mg po q 7 d

Pharyngeal infections

- Azithromycin

1 g po

- Amoxicillin11 500 mg po tid x 7 d or
- Erythromycin base 500 mg po q 7 d or
- Erythromycin ethylsuccinate 800 mg po q 7 d or
- Doxycycline 100 mg po bid x 7 d or
- Erythromycin base 500 mg po bid x 7 d or

Pregnant Women12

- Azithromycin

1 g po

- Ofloxacin10 400 mg po PLUS or
- Azithromycin 1 gpo if cephalosporin or tetracycline mediated penicillin allergy (e.g., anaphylaxis, Stevens-Johnson syndrome, or toxic epidermal necrolysis), limited data exist on alternatives. See footnotes.

GONORRHEA (GC)

Dual therapy with ceftriaxone 250 mg IM PLUS azithromycin 1 g po is recommended for all patients with gonorrhea regardless of chlamydia test results.

Dual therapy should be simultaneous and by directly observed therapy. Azithromycin is preferred second antimicrobial; if allergy to azithromycin, can use doxycycline 100 mg po bid x 7 days.

Genital/Rectal Infections1 2

- Ceftriaxone 250 mg IM
- Azithromycin

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 q 8 hr followed by 1.5 mg/kg IV q 8 hr in kids
250 mg IM
2 g po bid x 14 d
500 mg po bid x 14 d

- Doxycycline12

250 mg IM 1 g po

- Metronidazole

100 mg po bid x 7 d

PELVIC INFLAMMATORY DISEASE

- C/Recurrent, TG, C. rectal

- Azithromycin or
- Doxycycline

1 g po 100 mg po bid x 7 d

- Erythromycin base 500 mg po q 7 d or
- Erythromycin ethylsuccinate 800 mg po q 7 d or
- Levofloxacin12 400 mg po q 7 d or
- Ofloxacin300 mg IM or IM PLUS Azithromycin 2 g po

PREGNANT WOMEN

- Ceftriaxone 250 mg IM
- Azithromycin

1 g po

- Ofloxacin10 400 mg po PLUS or
- Azithromycin 1 gpo if cephalosporin or tetracycline mediated penicillin allergy, consult with specialist, see footnotes.

RECURRENT/NONSTRICTING NGU (Etiologies: M. genitalium, T. vaginalis, other bacteria)13

- Moxifloxacin12
- Doxycycline2
- Tinidazole

400 mg po qd 2 g po 2 g po

- Metronidazole12 or
- Tinidazole

500 mg po bid x 7 d

- Levofloxacin or
- Ofloxacin

500 mg po bid x 10 d
300 mg po bid x 10 d

- LYMOPHAGRANULOMA VENEREUM

- Azithromycin

100 mg po bid x 21 d

- Erythromycin base 500 mg po q 21 d

TRICHOMONIASIS1 4

Adults/Adolescents

- Metronidazole or
- Tinidazole

2 g po 2 g po

- Metronidazole 500 mg po bid x 7 d

Pregnant Women

- Metronidazole

4 g po

- Metronidazole 500 mg po bid x 7 d

HIV-infected Women

- Metronidazole

500 mg po bid x 7 d

3 Annual screening is recommended for women aged <25 years. Nucleic acid amplification tests (NAATs) are recommended. All patients should be re-tested 3 months after treatment for CT or GC.

4 Dual therapy with ceftriaxone 250 mg IM PLUS azithromycin 1 g po is recommended for all patients with gonorrhea regardless of chlamydia test results.

5 Every effort should be made to use a recommended regimen. Test-of-cure follow-up (preferably by NAAT) 3-4 weeks after completion of therapy is recommended in pregnancy.

6 In case of allergy to cephalosporins, fluoroquinolones can be considered for PID if the risk of GC is low, a NAAT test for GC is performed, and follow-up of the patient can be assured. If GC is documented, the patient should be re-treated based on antimicrobial susceptibility test results (if available). If antimicrobial susceptibility testing reveals fluoroquinolone resistance or if resistance is unavailing then consultation with ID specialist is recommended for treatment options.

7 If patient lives in community with high GC prevalence or has risk factors (e.g., age <25 years, new partner, partner with concurrent sex partners, or sex partner with a STD), consider empiric treatment for GC.

8 Treatment for chlamydia and gonorrhea is recommended because a specific diagnosis may improve compliance and partner management and because these infections are reportable by state law.

9 Metronidazole has less efficacy in treating pharyngeal GC. Ceftriaxone should be used only when metronidazole is not available.

10 Dual therapy with levofloxacin 500 mg po plus azithromycin 2 g po or gentamicin 240 mg IM plus azithromycin 2 g po are potential alternatives. ID specialist consultation may be prudent. Azithromycin monotherapy is no longer recommended due to resistance concerns and treatment failure reports. Pharyngeal GC patients treated with an alternative regimen should have a test of cure (with culture or NAAT) 14 days after treatment.

11 Testing for gonorrhea and chlamydia is recommended because a specific diagnosis may improve compliance and partner management and because these infections are reportable by state law.

12 Levofloxacin is a fluoroquinolone; it is not recommended for use in pregnant women due to potential for fetal toxicity.

13 Treatment of bacterial vaginosis (BV) is considered for pregnant women.

14 For patients with trimethoprim-sulfamethoxazole allergy, see footnotes.

15 All women should be retested for trichomoniasis 3 months after treatment.

16 Safety in pregnancy has not been established; avoid during pregnancy. When using tinidazole, breastfeeding should be deferred for 72 hours after 2 g dose.

The treatment of bacterial vaginosis (BV) is considered for pregnant women.

1 For patients with trimethoprim-sulfamethoxazole allergy, see footnotes.

15 All women should be retested for trichomoniasis 3 months after treatment.

16 Safety in pregnancy has not been established; avoid during pregnancy. When using tinidazole, breastfeeding should be deferred for 72 hours after 2 g dose.
## BACTERIAL VAGINOSIS

| Adults/Adolescents | • Metronidazole* or • Metronidazole gel or • Clindamycin cream17 | 500 mg po bid x 7 d | 0.75%, one full applicator (5 g) intravaginally qd x 5 d, 2%, one full applicator (5 g) intravaginally qhs x 7 d | • Trisodium* 2 g po qd x 2 d or • Trisodium* 1 g po qd x 5 d or • Clindamycin 300 mg po bid x 7 d or • Clindamycin oint* 100 mg intravaginally qhs x 3 d |
| Pregnant Women | • Metronidazole* or • Metronidazole gel or • Clindamycin cream17 | 500 mg po bid x 7 d | 0.75%, one full applicator (5 g) intravaginally qd x 5 d, 2%, one full applicator (5 g) intravaginally qhs x 7 d | • Clindamycin 300 mg po bid x 7 d or • Clindamycin oint* 100 mg intravaginally qhs x 3 d |

### ANGIOGENIC WARTS

**External Genital/Perianal Warts**

**Patient-Administered**

- Imiquimod*14,15 5% cream or Imiquimod*14,15 2.5% cream or Podofilox*15 0.5% cream or Sinecatechins*11,15 15% cream 26

**Provider-Administered**

- Cryotherapy or Tretinoin acid (TCA) 80%-90% or Benzoilnicotinic acid (BCA) 80%-90% or Surgical removal 26

- Topically qhs 3 times/wk up to 16 wks Topically qhs up to 16 wks

- Topically bid x 3 followed by 4 to 8 tx

- Topically, for up to 16 wks

- Apply once q 1-2 wks

- Apply once q 1-2 wks

- Apply once q 1-2 wks

**Alternative Regimens**

- Podophyllin*15 10%-15% in solution of benzoin

- Apply q 1-2 wks

- Intentional ulceration

- Photodynamic therapy or

- Topical cidofovir

**ANALGESIC WARTS**

| First Clinical Episode of Anogenital Herpes | • Acyclovir or • Acyclovir or • Valacyclovir or • Famciclovir | 400 mg po bid x 7-10 d | 1 g po bid x 7-10 d | 250 mg po bid x 7-10 d | 24 million units daily, as 3 doses of 2.4 million units IM each, at 1-week intervals |
| Established Infection | • Acyclovir or • Acyclovir or • Valacyclovir or • Famciclovir | 400 mg po bid | 500 mg po qd | 250 mg po bid | 2.4 million units IM qd x 10-14 d |
| Suppressive Therapy | • Acyclovir or • Acyclovir or • Valacyclovir or • Famciclovir | 400 mg po bid | 500 mg po bid | 250 mg po bid | 2.4 million units IM qd x 10-14 d |
| HIV Co-Infected** | | | | | | 24 million units daily, as 3 doses of 2.4 million units IM each, at 1-week intervals |

**HIV Co-Infected**

**Suppressive Therapy**

- Acyclovir or Valacyclovir or Famciclovir or Tenofovir19,22 400-800 mg po bid or qd | 500 mg po bid | 500 mg po bid | 500 mg po bid | 2 g po bid x 2 d |

**Episodic Therapy for Recurrent Episodes**

- Acyclovir or Valacyclovir or Famciclovir or Tenofovir19,22 1 g po bid x 5-10 d | 1 g po bid x 5-10 d | 1 g po bid x 5-10 d | 100 mg po bid x 5-10 d |

**NALATIS**

| Primary, Secondary, and Early Latent | • Benzathine penicillin G | 2.4 million units IM | • Oxacillin*100 200 mg po bid x 14 d or • Tetracycline*100 500 mg po qid x 14 d or • Ceftriaxone*100 1 g IM or IV qd x 10-14 d |
| Late Latent | • Benzathine penicillin G | 7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals | • Oxacillin*100 200 mg po bid x 28 d or • Tetracycline*100 500 mg po x 28 d |
| Neurosyphilis and Ocular Syphilis32 | • Aqueous crystalline penicillin G | 18-24 million units daily, administered as 3-4 million units IV qhs x 4-6 d | • Procaine penicillin G 2.4 million units IM qd x 10-14 d plus Probenecid 500 mg po qd x 10-14 d or • Ceftriaxone*100 2 g IM or IV qd x 10-14 d |

**Pregnant Women**

**NOTE:** Pregnant women who miss any dose of therapy must repeat full course of treatment.

| Primary, Secondary, and Early Latent | • Benzathine penicillin G | 2.4 million units IM | • None |
| Late Latent | • Benzathine penicillin G | 7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals | • None |
| Neurosyphilis and Ocular Syphilis32 | • Aqueous crystalline penicillin G | 18-24 million units daily, administered as 3-4 million units IV qhs x 4-6 d | • Procaine penicillin G 2.4 million units IM qd x 10-14 d plus Probenecid 500 mg po qd x 10-14 d |

16 Safety in pregnancy has not been established, avoid during pregnancy. When using trisodium, breastfeeding should be deferred for 72 hours after 2 g dose.
17 May weaken latex condoms and contraceptive diaphragms. Patients should follow directions on package insert carefully regarding whether to wash area after treatment (e.g. imiquimod) versus leaving product on the affected area (e.g. sinecatechins).
18 Limited human data on imiquimod use in pregnancy; animal data suggest low risk.
19 Podophyllin resin is now an alternative rather than recommended regimen; severe toxicity has been reported.
20 Cervical and intra-anal warts should be managed in consultation with specialist.
21 Counseling about natural history, asymptomatic shedding, and sexual transmission is an essential component of herpes management.
22 The goal of suppressive therapy is to reduce recurrent symptomatic episodes and/or to reduce sexual transmission. Famciclovir is somewhat less effective for suppression of viral shedding.
23 If HSV lesions persist or recur during antiviral treatment, drug resistance should be suspected. Obtaining a viral isolate for sensitivity testing and consulting with an infectious disease expert is recommended.
24 Benzathine penicillin G (generic name) is the recommended treatment for syphilis not involving the central nervous system and is available in only one long-acting formulation, Bicillin® L-A (the trade name), which contains only benzathine penicillin G. Other combination products, such as Bicillin® C-R, contain both long- and short-acting penicillins and are not effective for treating syphilis.
25 Persons with HIV infection should be treated according to the same stage-specific recommendations for primary, secondary, and latent syphilis as used for HIV-negative persons. Available data demonstrate that additional doses of benzathine penicillin G, amoxicillin, or other antibiotics in early syphilis do not result in enhanced efficacy, regardless of the stage. Alternates should be used only for penicillin-allergic patients 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 G.
26 Some specialists recommend 2.4 million units of benzathine penicillin G once weekly for up to 3 weeks after completion of neurosyphilis treatment.
27 Pregnant women allergic to penicillin should be desensitized and treated with penicillin. There are no alternatives. Pregnant women who miss any dose of therapy (greater than 7 days between doses) must repeat the full course of treatment.