CALIFORNIA STD TREATMENT GUIDELINES TABLE FOR ADULTS & ADOLESCENTS 2010

These guidelines reflect the 2010 CDC STD Treatment Guidelines and the Region IX Infertility Clinical Guidelines. The focus is primarily on STIs encountered in office 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 2010 STD treatment guidelines document. Call the local health department to report STD infections; to request assistance with confidential notification of sexual partners of patients with syphilis, gonorrhea, chlamydia or HIV infection; or to obtain additional information on the medical management of STD patients. The California STD/HIV Prevention Training Center is a resource for training and consultation about STD clinical management and prevention (510-625-8000) or www.stdhivtraining.org.

DISEASE

ReCOMMENDED REGIMENS
DOSE/ROUTE
ALTERNATIVE REGIMENS: To be used if medical contraindication to recommended regimen

CHLAMYDIA

Uncomplicated

Genital/Rectal/Pharyngeal Infections

• Azithromycin or
• Doxycycline

1g po

100 mg po bid x 7 d

• Erythromycin base 500 mg po qd x 7 d or
• Erythromycin ethylsuccinate 800 mg po qd x 7 d or
• Ofloxacin 100 mg po qd x 7 d

Pregnant Women

• Azithromycin or
• Amoxicillin

1g po

500 mg po bid x 7 d

• Erythromycin base 500 mg po qd x 7 d or
• Erythromycin ethylsuccinate 800 mg po qd x 7 d or
• Erythromycin ethylsuccinate 400 mg po qd x 4 d

GONORRHEA

Ceftriaxone is the preferred treatment for adult and adolescent patients with uncomplicated gonorrhea infections. Dual therapy with ceftriaxone 250 mg IM (increased from 125 mg) and azithromycin 1 g po or doxycycline 100 mg po bid x 7 days is recommended for all patients with gonorrhea regardless of chlamydia test results.

Uncomplicated

Genital/Rectal Infections

Dual therapy with
• Ceftriaxone or, if not an option
• Cefixime

PLUS

• Azithromycin or
• Doxycycline

250 mg IM

1g po

100 mg po bid x 7 d

• Cefprozil 400 mg po
• Cefixime axetil 1 g po
• Azithromycin 2 g po in a single dose

Pharyngeal Infections

Dual therapy with
• Ceftriaxone or
• Doxycycline

250 mg IM

1g po

100 mg po bid x 7 d

• Azithromycin 2 g po in a single dose

Pregnant Women

Dual therapy with
• Ceftriaxone or, if not an option
• Cefixime

PLUS

• Azithromycin

250 mg IM

1g po

100 mg po bid x 7 d

• Cefprozil 400 mg po
• Cefixime axetil 1 g po
• Azithromycin 2 g po in a single dose

PELVIC INFLAMMATORY DISEASE

Parenteral

• Either Ceftriaxone or Cefotaxime

PLUS

• Doxycycline or Gentamicin

IM/IV

2 g IV q 12 hrs

100 mg po or IV q 12 hrs

900 mg IV q 6 hrs

2 mg/kg IV or IM followed by 1.5 mg/kg IV or IM q 6 hrs

250 mg IM

2 g IM, 1 g po

100 mg po bid x 14 d

500 mg po bid x 14 d

Parenteral 10

• Ampicillin/Subbacitracin 3 g IV q 6 hrs plus
• Doxycycline 100 mg po or IV q 12 hrs

Oral

• Levofloxacin 500 mg po qd x 14 d or
• Ofloxacin 400 mg po bid x 14 d or
• Ceftriaxone 250 mg IM single dose and Azithromycin 1 g po once a week for 2 weeks

plus

• Metronidazole 500 mg po bid x 14 d if BV is present or cannot be ruled out

CERVICITIS

• Azithromycin or
• Doxycycline or
• Metronidazole if BV or trichomoniasis is present

1g po

100 mg po bid x 7 d

500 mg po bid x 7 d

NONGONOCOCCAL URETHRITIS

• Azithromycin or
• Doxycycline

1g po

100 mg po bid x 7 d

• Erythromycin base 500 mg po qd x 7 d or
• Erythromycin ethylsuccinate 800 mg po qd x 7 d or
• Levofloxacin 500 mg: po qd x 7 days or
• Ofloxacin 300 mg po bid x 7 d

EPIDIDYMITIS

Likely due to Gonorrhea or Chlamydia

• Ceftriaxone plus
• Doxycycline

Likely due to enteric organisms

• Levofloxacin 3-4 qd
• Ofloxacin 6

CHANCROID

• Azithromycin or
• Ceftriaxone or
• Ciprofloxacin
• Erythromycin base

1g po

250 mg IM

500 mg po bid x 3 d

500 mg po bid x 7 d

Lymphogranuloma VENEREUM

• Doxycycline

100 mg po bid x 21 d

• Erythromycin base 500 mg po qd x 21 d or
• Azithromycin 1 g po in 3 weeks

TRICHOMONIASIS

Non-pregnant women

• Metronidazole or
• Tinidazole

100 mg po bid x 7 d

• Metronidazole 500 mg po bid x 7 d

Pregnant women

• Metronidazole

100 mg po bid x 7 d

• Metronidazole 500 mg po bid x 7 d

1. Annual screening for women age 25 years or younger. Nucleic acid amplification tests (NAATs) are recommended. All patients should be retested 3 months after treatment for chlamydia or gonorrhea.

2. Contraindicated for pregnant and nursing women.

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

4. If treatment failure is suspected because of a negative clinical response, the patient has been treated with a recommended regimen for GC, and symptoms have not resolved, then perform a test-of-cure using culture and antibiotic susceptibility testing and report to the local health department. For clinical consult, call the CA STD Control Branch @ 510-620-3400. For further guidance, go to www.std.ca.gov (STD Guidelines).

5. Oral cephalosporins give lower and less-sustained bactericidal levels than ceftriaxone 250 mg and have limited efficacy for treating pharyngeal GC. Therefore, cefixime is the preferred medication.

6. For patients with cephalosporin allergy, or severe penicillin allergy, (e.g., anaphylaxis, Stevenson Johnson syndrome, and toxic epidermal necrolysis), azithromycin is an option. However, because of GI reliance and concerns regarding emerging resistance, it should be used with caution.

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

8. Evaluate for bacterial vaginosis. If present or cannot be ruled out, also use metronidazole.

9. Discontinue 24 hours after patient improves clinically and continue oral therapy for a total of 14 days.

10. 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 with the recommended ceftriaxone and doxycycline regimen. If cephalosporin therapy is not an option, the addition of azithromycin 2 g orally as a single dose to a quinolone-based PID regimen is recommended.

11. If local prevalence of gonorrhea is greater than 5%, treat empirically for gonorrhea infection.

12. If gonorrhea is documented, change to a medication regimen that does not include a fluoroquinolone.

13. For suspected drug-resistant trichomoniasis, rule out re-infection; see 2010 CDC Guidelines, Trichomonas Follow-up p. 60, for other treatment options, and evaluate for metronidazole-resistant T. vaginalis. For laboratory and clinical consultations, contact CDC at 404-718-4141, www.cdc.gov/std.

14. For HIV-positive women with trichomoniasis, metronidazole 500 mg po bid x 7 d is more effective than metronidazole 2 g orally.

15. Safety in pregnancy has not been established; pregnancy category C.
### BACTERIAL VAGINOSIS

<table>
<thead>
<tr>
<th>Adults/Adolescents</th>
<th>Re mendeed Regimens</th>
<th>Dose/Route</th>
<th>Alternative Regimens: To be used if medical contraindication to recommended regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Metronidazole or</td>
<td>500 mg po bid x 7 d</td>
<td>• Tindazole 15 2 g po qd x 2 d or</td>
</tr>
<tr>
<td></td>
<td>Metronidazole gel or</td>
<td>0.75%, one full applicator (5g) intravaginally q x 5 d</td>
<td>• Tinidazole 15 1 g po qd x 5 d or</td>
</tr>
<tr>
<td></td>
<td>Clindamycin cream 16</td>
<td>2%, one full applicator (5g) intravaginally q x 5 d</td>
<td>• Clindamycin 300 mg po bid x 7 d or</td>
</tr>
<tr>
<td></td>
<td>Clindamycin</td>
<td>300 mg po bid x 7 d</td>
<td>• Clindamycin ointes 100 mg intravaginally qhs x 3 d</td>
</tr>
</tbody>
</table>

### PREGNANT WOMEN

<table>
<thead>
<tr>
<th>Adult Women</th>
<th>Re mendeed Regimens</th>
<th>Dose/Route</th>
<th>Alternative Regimens: To be used if medical contraindication to recommended regimen</th>
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</tr>
<tr>
<td></td>
<td>Clindamycin</td>
<td>300 mg po bid x 7 d</td>
<td>• Clindamycin 300 mg po bid x 7 d or</td>
</tr>
</tbody>
</table>

### ANOGENITAL WARTS

#### Externai Genital

<table>
<thead>
<tr>
<th>Patient Applied</th>
<th>Provider Administered</th>
<th>Alternative Regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procaine penicillin G,</td>
<td>CaSA</td>
<td></td>
</tr>
<tr>
<td>Tetracycline</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Mucosal Genital Warts 17

<table>
<thead>
<tr>
<th>Crystotherapy or</th>
<th>TCA or BCA 80%-90% or</th>
<th>Vaginal and anal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podophyllin 16%</td>
<td></td>
<td>Urethral meatus only</td>
</tr>
<tr>
<td></td>
<td>15% resin in 25%-25% in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tincture of benzoin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surgical removal</td>
<td>Anal warts only</td>
</tr>
</tbody>
</table>

### ANOGENITAL HERPES 18

#### First Clinical Episode of Anogenital Herpes

<table>
<thead>
<tr>
<th>Acyclovir or</th>
<th>400 mg po bid x 7-10 d</th>
<th>200 mg po 5/day x 7-10 d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Famciclovir or</td>
<td>250 mg po bid x 7-10 d</td>
<td>1 g po bid x 7-10 d</td>
</tr>
<tr>
<td>Valacyclovir</td>
<td>500 mg po qd</td>
<td>1 g po qd</td>
</tr>
</tbody>
</table>

#### Established Infection

#### Suppressive Therapy 19, 20

<table>
<thead>
<tr>
<th>Acyclovir or</th>
<th>400 mg po bid</th>
<th>250 mg po bid</th>
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</thead>
<tbody>
<tr>
<td>Famciclovir or</td>
<td>500 mg po qd</td>
<td>1 g po qd</td>
</tr>
<tr>
<td>Valacyclovir</td>
<td>400 mg po bid</td>
<td>250 mg po bid</td>
</tr>
<tr>
<td>Valcyloprevir</td>
<td>500 mg po qd</td>
<td>1 g po qd</td>
</tr>
</tbody>
</table>

#### Epidemic Therapy for Recurrent Episodes

<table>
<thead>
<tr>
<th>Acyclovir or</th>
<th>400 mg po bid x 5-10 d</th>
<th>500 mg po bid x 5-10 d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Famciclovir or</td>
<td>500 mg po bid</td>
<td>1 g po bid</td>
</tr>
<tr>
<td>Valacycloprevir</td>
<td>500 mg po bid</td>
<td>1 g po bid</td>
</tr>
</tbody>
</table>

### HIV Co-Infected 21

#### Suppressive Therapy 21

<table>
<thead>
<tr>
<th>Acyclovir or</th>
<th>400-800 mg po bid or tid</th>
<th>500 mg po bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Famciclovir or</td>
<td>500 mg po bid</td>
<td>500 mg po bid</td>
</tr>
<tr>
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<td>500 mg po bid</td>
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<td>Valacycloprevir</td>
<td>500 mg po bid</td>
<td>1 g po bid</td>
</tr>
</tbody>
</table>

### SYPHILIS 22, 23

#### Primary, Secondary, and Early Latent

<table>
<thead>
<tr>
<th>Benzathine penicillin G</th>
<th>2.4 million units IM</th>
<th>Dosycycline 24 100 mg po bid x 14 d or</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tetracycline 25 250 mg po qd x 14 d or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceftriaxone 1 g IM or IV qd x 10-14 d</td>
</tr>
</tbody>
</table>

#### Late Latent and Latent of Unknown duration

<table>
<thead>
<tr>
<th>Benzathine penicillin G</th>
<th>7.2 million units, administered as 3 doses of 2.4 million units IM each, at 3 week intervals</th>
<th>Dosycycline 24 100 mg po bid x 28 d or</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tetracycline 25 500 mg po bid x 28 d</td>
</tr>
</tbody>
</table>

#### Neurosyphilis 24

<table>
<thead>
<tr>
<th>Aqueous crystalline penicillin G</th>
<th>18-24 million units daily, administered as 3-4 million units iv q 4 hrs x 10-14 d</th>
<th>Procaine penicillin G, 2.4 million units IM qd x 10-14 d plus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Prepenocid 500 mg po qd x 10-14 d plus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceftriaxone 24 2 g IM or IV qd x 10-14 d</td>
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</table>

#### Primary, Secondary, and Early Latent

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<tr>
<th>Benzathine penicillin G</th>
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15. Safety in pregnancy has not been established; pregnancy category C.
16. May weaken latex condoms and contraceptive diaphragms.
17. Cervical and intra-anal warts should be inquired in consultation with specialist.
18. Counseling about natural history, asymptomatic shedding, and sexual transmission is an essential component of herpes management.
19. The goal of suppressive therapy is to reduce recurrent symptomatic episodes and/or to reduce sexual transmission. Famciclovir appears somewhat less effective for suppression of viral shedding.
20. HIV-infected persons or persons at risk for syphilitic disease should be informed of the potential for development of opportunistic infections or other complications in patients infected with HIV. The choice of therapy should be based on the patient’s stage of disease, clinical status, and specific needs.
21. 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® (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.
22. Persons with HIV infection should be treated with penicillin G rather than penicillin V, since penicillin V is not detectable in the serum of HIV-infected patients. Available data demonstrate that additional doses of benzathine penicillin G, amoxicillin, or other aminopenicillin antibiotics in early syphilis do not result in enhanced efficacy, regardless of HIV status.
23. Alternates should only be used 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.
24. Some specialists recommend 2.4 million units of benzathine penicillin G q week for up to 3 weeks after completion of neurosyphilis treatment.
25. Pregnant women allergic to penicillin should be treated with penicillin after desensitization.