STD TREATMENT GUIDELINES TABLE FOR ADULTS & ADOLESCENTS 2016

These recommendations for the treatment of STDs reflect the 2016 CDC STD Treatment Guidelines; this focus is primarily on STDs encountered in outpatient practice. This table is intended as a source of clinical guidance and is not a comprehensive list of all effective regimens. For more information, please refer to the complete CDC document at http://www.cdc.gov/std/hsgd/2010 BORDER.HTML. Please visit our website at www.nrpg.org for updates and print versions of this resource, and for additional STD resources and education.

DOING ABBREVIATIONS: daily, once/daily each day; bid, twice daily; tid, three times a day; qid, four times a day; por, by mouth; IM, intramuscular injection; IV, intravenous; mg, milligram; gr, gram; temp of sleep; ppm, parts needed.

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>RECOMMENDED REGIMENS</th>
<th>ALTERNATIVE REGIMENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLAMYDIA</td>
<td>Uncomplicated Genital/Rectal/</td>
<td>• Azithromycin 1 g po x 1</td>
</tr>
<tr>
<td>Pharyngeal Infections</td>
<td>• Azithromycin 1 g po x 1</td>
<td>• Amoxicillin 500 mg po x tid x 7 d (alternative due to concern for persistent infection following penicillin exposure) or Erythromycin base 500 mg po x qid x 7 d or Erythromycin base 250 mg po x tid x 14 or Erythromycin ethylsuccinate 800 mg po x qid x 7 d or Erythromycin ethylsuccinate 400 mg po x tid x 14</td>
</tr>
<tr>
<td>Pregnant Women</td>
<td>• Azithromycin 1 g po x 1</td>
<td></td>
</tr>
</tbody>
</table>

GONORRHEA:
Ceftriaxone 250 mg IM plus azithromycin 1 g as a single dose is the preferred treatment for adults and adolescents with uncomplicated gonorrhea. This dual therapy is recommended for all patients with gonorrhea regardless of chlamydia test results to prevent resistance. 1 For ALTERNATIVE REGIMENS: If a patient with oral pharyngeal gonorrhea is treated as an alternative regimen, the patient should return 14 days after treatment for a test-of-cure (NAAT or culture). For all GC infections, if symptoms persist, culture with susceptibility testing at the infected anatomic site.

Uncomplicated Genital/Rectal Infections
Dual therapy with
• Ceftriaxone 250 mg IM PLUS
• Azithromycin 1 g po

Use of azithromycin as the second antimicrobial is preferred to doxycycline because of the convenience and compliance with a single-dose therapy and the substantially higher persistence of gonococcal resistance to tetracycline among Gonococcal Isolate Surveillance Project (GISP) isolates, particularly in strains with elevated cell-wall MICs

If an intramuscular injection cannot be given, Dual therapy with
• Ceftriaxone 1 400 mg po PLUS
• Azithromycin 1 g po

If allergic to cephalosporins or severe penicillin allergy
• Gemifloxacin 320 mg po plus azithromycin 2 g as single dose or Gentamicin 240 IM plus azithromycin 2 g as single dose

If allergic to azithromycin:
• Ceftriaxone or Cefixime plus Doxycycline 100 mg po x Bid x 7 days

Pharyngeal Infections
Dual therapy with
• Ceftriaxone 250 mg IM PLUS
• Azithromycin 1 g po

Dual therapy with
• Gemifloxacin 320 mg po plus azithromycin 2 g single dose or Gentamicin 240 IM plus azithromycin 2 g single dose

Pregnant Women
Dual therapy with
• Ceftriaxone 250 mg IM PLUS
• Azithromycin 1 g po

Cefixime 400 mg po PLUS
• Azithromycin 1 1 g po

If allergic to cephalosporins or severe penicillin allergy: consult ID

PELVIC INFLAMMATORY DISEASE
Oral regimens
(For parenteral regimens, see www.cdc.gov/std/treatment2015)
• Ceftriaxone 250 mg IM x 1 or Cefixime 250 mg IM x 1 with Probenecid 1 g po x 1 given concurrently PLUS
• Doxycycline 100 mg po bid x 14 or without Metronidazole 500 mg po bid x 14 d

• Azithromycin 500 mg IV 1-2 doses followed by 250 mg po daily x 12 14 days with or without metronidazole 500 mg bid x 14 days
• Ceftriaxone 250 mg IM single dose plus azithromycin 1 gram once a week x 2 weeks with or without metronidazole
• Quinolone use only if penicillin allergy, if gonorrhea is risk low, and if gonorrhea test performed prior to treatment. Treatment with Levofloxacin® 500 mg daily, or Ofloxacin® 400 mg BID or Moxifloxacin 400 mg daily with Metronidazole 500 mg BID x 14 days. Susceptibility testing should guide further management in consultation with STD or ID specialist.

CERVICITIS
• Azithromycin 1 g po x 1 or Doxycycline 100 mg po bid x 7 d Consider concurrent treatment for GC if at risk for GC or living in an area of high prevalence of GC

NONGONOCOCAL URETHRITIS
• Azithromycin 1 g po x 1 or Doxycycline 100 mg po bid x 7 d

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

RECURRENT & PERSISTENT URETHRITIS?
Treatment for presumptive T vaginalis and M genitalium with:
• Metronidazole 2g po x 1 or Tinidazole 2g po x PLUS
• Azithromycin 1 g po x 1 (if not used initially)

Moxifloxacin 400 mg qd x 7 d

TREATMENT FOR RECURRENT & PERSISTENT URETHRITIS
For men at risk for both sexually transmitted and enteric organisms:
• Ceftriaxone 250 mg IM x 1 PLUS
• Doxycycline 100 mg po x tid x 10 d or Ofloxacin 300 mg po bid x tid x 10 d

TRICHOMONIASIS
Non-pregnant women
• Metronidazole 2g po x 1 or Tinidazole 2g po x 1

• Levofloxacin 500 mg po x qd x 10 d or Ofloxacin 300 mg po bid x 10 d

Pregnant Women
• Metronidazole 2g po x 1

• Levofloxacin 500 mg po bid x 7 d

BACTERIAL VAGINOSIS
Adults/Adolescents
• Metronidazole 500 mg po bid x 7 d or Metronidazole gel 0.75%, one full applicator (5g) intra vaginally qd x 5 or 7 or Clindamycin cream 2%, one full applicator (5g) intra vaginally qd x 7

• Tinidazole 2g po x qd x 2 or Tinidazole 1g po x qd x 5 or Clindamycin 300 mg po bid x 7 or Clindamycin ovules 100mg intravaginally qhs x 3d

Pregnant Women
• Metronidazole 500 mg po x bid x 7 d or Metronidazole gel regimens equally effective

1 Contacted in pregnant and nursing women.
2 For suspected treatment failure. Re-test via NAAT and culture with antibiotic susceptibility testing from affected anatomical site(s). If not patient was not treated with the recommended regimen, retreat with Ceftriaxone 250 mg IM plus Azithromycin 2 g as a single dose, unless allergies preclude use of that regimen. If patient was previously treated with the recommended regimen or allergies preclude use of the regimen, consult with a local ID specialist or with the NCVPC (http://www.aidsinfo.nih.gov). For guidance, go to www.aidsinfo.nih.gov/ContentRepository/ContentRepository.pdf. In NHC, receipt of the Provider Access Unit: 866.662.9941. It is a patient with gonorrhea is treated with an alternative regimen, the patient should return 1 week after treatment for a test-of-cure at the infected anatomic site, http://www.cdc.gov/std/prevention/venereal/venereal/venereal_laboratory_laboratory.html. 15. C. trachomatis is the preferred medication. No other oral cephalosporin is recommended due to inferior efficacy and less favorable pharmacokinetics.

3 Due to concerns over emerging antimicrobial resistance, use should be limited to those with severe gonorrhoea or chlamydia infection or history of severe reaction to penicillin.

4 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.

5 M. hominis causes a rare vaginal infection in patients with HIV infection.

6 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.

7 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.

8 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.

9 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.

10 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.

11 M. hominis is a common natural commensal. The symptoms of an infection are usually minor. It should be treated only if: (1) the patient is symptomatic; (2) there is a high risk of HIV exposure; or (3) the patient is an immunosuppressed host.
<table>
<thead>
<tr>
<th>DISEASE</th>
<th>RECOMMENDED REGIMENS</th>
<th>ALTERNATIVE REGIMENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUTE PROCTITIS</td>
<td><strong>Ceftriaxone 250mg IM x 1 PLUS</strong> &lt;br&gt; <strong>Doxycycline 100mg po bid x 7 d</strong></td>
<td><strong>Erythromycin base 500mg po qd x 21 d or</strong> &lt;br&gt; <strong>Azithromycin 1g po q week x 3 weeks</strong></td>
</tr>
<tr>
<td>LYMPHOGRAVULUM VENEREUM</td>
<td><strong>Doxycycline 100mg po bid x 21 d</strong></td>
<td></td>
</tr>
<tr>
<td>CHANCROID</td>
<td><strong>Azithromycin 1g po x 1 or</strong> &lt;br&gt; <strong>Ceftriaxone 250mg IM x 1 or</strong> &lt;br&gt; <strong>Ciprofloxacin 500mg po bid x 3 or</strong> &lt;br&gt; <strong>Erythromycin base 500mg po tid x 7 d</strong></td>
<td></td>
</tr>
<tr>
<td>SYPHILIS</td>
<td>Benzathine penicillin G, Bicillin-LA (trade name), is the preferred drug for treatment of all stages of syphilis and is the only treatment with documented efficacy for syphilis during pregnancy. 14</td>
<td></td>
</tr>
<tr>
<td>Adults (including HIV-Co-Infected) 16</td>
<td><strong>Benzathine penicillin G 2.4 million units IM x 1</strong></td>
<td><strong>Doxycycline 100mg po bid x 14 d or</strong> &lt;br&gt; <strong>Tetracycline 500mg po qd x 14 d</strong></td>
</tr>
<tr>
<td>Primary, Secondary, and Early Latent</td>
<td><strong>Benzathine penicillin G 7.2 million units, administered as 3 doses of 2.4 million units IM each, of 1-week intervals.</strong> 14</td>
<td><strong>Doxycycline 100mg po bid x 28 d or</strong> &lt;br&gt; <strong>Tetracycline 500mg po qd x 28 d</strong></td>
</tr>
<tr>
<td>Late Latent and Latent of Unknown Duration 17</td>
<td><strong>Aqueous crystalline penicillin G 18-24 million units qd, administered as 3-4 million units iv q 4 hrs or continuous infusion x 10-14 d</strong></td>
<td><strong>Procaine penicillin G, 2.4 million units IM qd x 10-14 d PLUS</strong> &lt;br&gt; <strong>Probenecid 500mg po qd x 10-14 d</strong></td>
</tr>
<tr>
<td>Pregnant Women</td>
<td><strong>Benzathine penicillin G 2.4 million units IM x 1</strong></td>
<td><strong>None. If PCN allergic, desensitize and treat.</strong></td>
</tr>
<tr>
<td>Primary, Secondary, and Early Latent</td>
<td><strong>Benzathine penicillin G 2.4 million units IM x 1</strong></td>
<td><strong>None. If PCN allergic, desensitize and treat.</strong></td>
</tr>
<tr>
<td>Late Latent and Latent of Unknown Duration 17</td>
<td><strong>Benzathine penicillin G 7.2 million units, administered as 3 doses of 2.4 million units IM each, at 1-week intervals.</strong> 14</td>
<td><strong>Procaine penicillin G, 2.4 million units IM qd x 10-14 d PLUS</strong> &lt;br&gt; <strong>Probenecid 500mg po qd x 10-14 d</strong></td>
</tr>
<tr>
<td>Neurosyphilis</td>
<td><strong>Aqueous crystalline penicillin G 18-24 million units qd, administered as 3-4 million units iv q 4 hrs or continuous infusion x 10-14 d</strong></td>
<td><strong>None. If PCN allergic, desensitize and treat.</strong></td>
</tr>
<tr>
<td>DISEASE</td>
<td>RECOMMENDED REGIMENS</td>
<td></td>
</tr>
<tr>
<td>ANOGENITAL WARTS (Human Papilloma Virus)</td>
<td><strong>Patient Applied</strong>&lt;br&gt; - Podofilox 0.5% solution 19-25: apply bid x 3 d followed by 4 d no treatment; use for up to 4 cycles. Total area treated not to exceed 10cm 2 and total volume used &lt; 0.5ml per day or&lt;br&gt; - Imiquimod 5% cream 23-27: apply qhs 3x/week for up to 16 weeks; wash off after 6-10 hours or&lt;br&gt; - Simeprevir 15% ointment 22,23-25: apply tid (0.5cm strand of ointment per watt) for a maximum of 16 weeks</td>
<td><strong>Provider Applied</strong>&lt;br&gt; - Cryotherapy: repeat applications q1-2 weeks or&lt;br&gt; - Podophyllin resin 10%-25%: apply q1-2 weeks pm; wash off after 1-4 h. Total area treated not to exceed 10cm 2 and total volume used &lt; 0.5ml per day or&lt;br&gt; - Trichloroacetic acid (TCA) 80%: 90% or Bichloroacetic acid (BCA) 80%-90%: apply q week pm&lt;br&gt; - Surgery—electrocautery, excision, laser, curettage</td>
</tr>
<tr>
<td>ANOGENITAL HERPES (HSV-2 and HSV-1)</td>
<td><strong>First Clinical Episode</strong>&lt;br&gt; - Acyclovir 400mg po tid x 7-10 d or&lt;br&gt; - Famciclovir 250mg po tid x 7-10 d or&lt;br&gt; - Valacyclovir 1g po bid x 7-10 d</td>
<td><strong>Established Infection</strong>&lt;br&gt; - Acyclovir 400mg po bid or&lt;br&gt; - Famciclovir 250mg po bid or&lt;br&gt; - Valacyclovir 500mg po qd or 1g po qd</td>
</tr>
</tbody>
</table>

5. Contraindicated in pregnant and nursing women
12. Examine patients by anoscopy and evaluate for infection with HSV, gonorrhea, chlamydia and syphilis
13. If partial perianal ulcers are present or mucosal ulcers detected on anoscopy, presumptive therapy should include a regimen for genital herpes and LGV.
14. Benzathine penicillin G is available in one long-acting formulation: Bicillin-LA, which contains only benzathine penicillin G. Combination penicillin drug products, such as Bicillin LA-CR, contain both long- and short-acting penicillins and should not be used to treat syphilis.
15. Most HIV-infected persons respond appropriately to standard benzathine penicillin G regimens. HIV-infected patients with syphilis should be treated according to the stage-specific recommendations for HIV-negative persons.
16. Use alternative regimens for penicillin-allergic, non-pregnant patients only. Data to support the use of alternatives to penicillin are limited. If compliance or follow-up cannot be ensured, the patient should be desensitized and treated with benzathine penicillin.
17. Patients diagnosed with latent syphilis who demonstrate any of the following should have a prompt CSF exam to evaluate for neurosyphilis: 1) neurologic or ophthalmic signs or symptoms; 2) evidence of active-tertiary syphilitic; or 3) serologic or treatment failure.
18. An interval of 10-14 days between doses of benzathine penicillin for late or latent syphilis of unknown duration might be acceptable before redosing the sequence of injections.
19. Some specialists recommend an additional 2.4 million units of benzathine penicillin G IM weekly for up to 3 weeks after completion of neurosyphilis treatment.
20. Mucocutaneous genital warts (anal, vaginal, anorectal, cervico-vaginal) should be managed in consultation with a specialist.
21. Safety profiles during pregnancy not established. Pregnancy Category C.
22. Do not wash off after initial application.
23. May weaken condoms and diaphragma.
24. Use is not recommended for HIV-infected or other immunocompromised persons, or those with clinical genital herpes.
25. HIV-1 lesions persist or recur while receiving antiretroviral treatment, expect antiretroviral. Obtain a viral load for sensitivity testing and consult with an HIV specialist.

Download the STD Treatment Guidelines App for both Apple and Android devices.

2/16/2016