Sexually Transmitted Infections Clinical Practice Guidelines (CDC, 2021)

Centers for Disease Control and Prevention

These are some of the highlights of the guidelines without analysis or commentary. For more information, go directly to the guidelines by clicking the link in the reference.

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Guidelines on the treatment of sexually transmitted infections were published in July 2021 by the Centers for Disease Control and Prevention in the *Morbidity and Mortality Weekly Report*.[1]

Treatment of *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Trichomonas vaginalis* Infection

N gonorrhoeae

The recommended treatment regimen for uncomplicated gonococcal infection of the cervix, urethra, or rectum in adults and adolescents is as follows:

- Ceftriaxone: 500 mg IM in a single dose for persons weighing <150 kg; for persons weighing ≥150 kg, administer 1 g ceftriaxone
- Chlamydial infection not excluded: Treat for chlamydial infection with doxycycline at 100 mg PO BID for 7 days
- Alternative regimens if ceftriaxone not available: Gentamicin at 240 mg IM in a single dose PLUS azithromycin at 2 g PO in a single dose OR cefixime at 800 mg PO in a single dose; if chlamydial infection not excluded, treat for chlamydial infection with doxycycline at 100 mg PO BID for 7 days

C trachomatis

The recommended regimen for chlamydial infection among adults and adolescents is as follows:

- Doxycycline: 100 mg PO BID for 7 days
- Alternative regimens: Azithromycin at 1 g PO in a single dose OR levofloxacin at 500 mg PO once daily for 7 days

T vaginalis

The recommended treatment regimens for trichomoniasis are as follows:

- Women: Metronidazole at 500 mg PO BID for 7 days
- Men: Metronidazole at 2 g PO in a single dose
- Alternative regimen for women and men: Tinidazole at 2 g PO in a single dose

Treatment for Pelvic Inflammatory Disease

The recommended parenteral treatment regimens for pelvic inflammatory disease are as follows:

- Ceftriaxone 1 g IV every 24 hours PLUS
- Doxycycline at 100 mg PO or IV every 12 hours PLUS
- Metronidazole at 500 mg PO or IV every 12 hours

OR

- Cefotetan at 2 g IV every 12 hours PLUS
- Doxycycline at 100 mg PO or IV every 12 hours

OR

- Cefoxitin at 2 g IV every 6 hours PLUS
- Doxycycline at 100 mg PO or IV every 12 hours

Alternative parenteral treatment regimens are as follows:

- Ampicillin-sulbactam at 3 g IV every 6 hours PLUS
- Doxycycline at 100 mg PO or IV every 12 hours

OR

- Clindamycin at 900 mg IV every 8 hours PLUS
- Gentamicin loading dose IV or IM (2 mg/kg body weight), followed by a maintenance dose (1.5 mg/kg body weight) every 8 hours; can substitute single daily dosing (3-5 mg/kg body weight)

The recommended intramuscular or oral regimens for pelvic inflammatory disease are as follows:

- Ceftriaxone at 500 mg IM in a single dose (for persons weighing ≥150 kg, administer 1 g of ceftriaxone) PLUS
- Doxycycline at 100 mg PO BID for 14 days with metronidazole at 500 mg PO BID for 14 days

OR

- Cefoxitin at 2 g IM in a single dose and probenecid at 1 g PO administered concurrently in a single dose PLUS
- Doxycycline at 100 mg PO BID for 14 days with metronidazole at 500 mg PO BID for 14 days

OR

- Other parenteral third-generation cephalosporin (eg, ceftizoxime, cefotaxime) PLUS
- Doxycycline at 100 mg PO BID for 14 days with metronidazole at 500 mg PO BID for 14 days

Treatment of Bacterial Vaginosis

The recommended treatment regimens for bacterial vaginosis are as follows:

- Metronidazole at 500 mg PO BID for 7 days OR
- Metronidazole gel 0.75% one full applicator (5 g) intravaginally once daily for 5 days OR
- Clindamycin cream 2% one full applicator (5 g) intravaginally at bedtime for 7 days

Alternative treatment regimens for bacterial vaginosis are as follows:

- Clindamycin at 300 mg PO BID for 7 days OR
- Clindamycin ovules 100 mg intravaginally once at bedtime for 3 days (oleaginous base used in ovules may weaken rubber or latex products [eg, condoms, diaphragms]; using such products ≤72 hours after treatment with clindamycin ovules not recommended) OR
- Secnidazole 2 g oral granules in a single dose OR
- Tinidazole at 2 g PO once daily for 2 days OR
- Tinidazole at 1 g PO once daily for 5 days

Management of *Mycoplasma genitalium*

The recommended treatment regimens if *M genitalium* resistance testing is available are as follows:

- Macrolide-sensitive: Doxycycline at 100 mg PO BID for 7 days, followed by azithromycin at 1 g PO initial dose and then 500 mg PO once daily for 3 additional days (2.5 g total)
- Macrolide-resistant: Doxycycline at 100 mg PO BID for 7 days, followed by moxifloxacin at 400 mg PO once daily for 7 days

The recommended treatment regimen if *M genitalium* resistance testing is not available is as follows:

- *M genitalium* detected by an FDA-approved nucleic acid amplification test: Doxycycline at 100 mg PO BID for 7 days, followed by moxifloxacin at 400 mg PO once daily for 7 days

Human Papillomavirus Vaccination

The three vaccines used to prevent human papillomavirus (HPV) diseases and cancers are the 2vHPV, 4vHPV, and 9vHPV vaccines; these protect against most cervical cancers. The 4vHPV and 9vHPV vaccines also protect against most genital warts. The only vaccine available in the United States is the 9vHPV vaccine. HPV vaccines are safe and effective. They are recommended routinely for persons aged 11-12 years. Also recommended is catch-up vaccination for older adolescents and young adults through age 26 years.

Expanded Risk Factors for Syphilis Testing in Pregnant Females

Pregnant females who are allergic to penicillin should be desensitized and then treated with penicillin G. It also may be helpful to perform skin testing or use an oral graded penicillin dose challenge in order to identify females at risk for acute allergic reactions.

One-Time Testing for Hepatitis C Infection

When testing for hepatitis C viral infection, an FDA-approved test for antibodies to the hepatitis C virus (ie, immunoassay, enzyme immunoassay, enhanced chemiluminescence immunoassay and, if recommended, a supplemental antibody test) should be used. This should be followed by nucleic acid amplification testing to detect hepatitis C virus RNA in persons who had a positive antibody result. Those with HIV infection and a low $CD4^+$ T-cell count may require further testing using nucleic acid amplification testing, owing to the potential for a false-negative result from the antibody assay.

Post Sexual Assault Evaluation for Men Who Have Sex With Men

Perform nucleic acid amplification testing for *C trachomatis* and *N gonorrhoeae* at the sites of penetration or attempted penetration. This is the preferred diagnostic evaluation for adult or adolescent sexual assault survivors.

Screening for *C trachomatis* and *N gonorrhoeae* should be offered to men who have sex with men if they report having had receptive anal or oral sex during the preceding year. This is offered regardless of whether the sexual contact occurred at these anatomic sites during the assault. Consider performing anoscopy if anal penetration is reported.

Perform a serum sample for HIV, hepatitis B virus, and syphilis infection.

For more information, please go to Chlamydia (Chlamydial Genitourinary Infections), Syphilis, and Gonorrhea.

References

1. Workowski KA, Bachmann LH, Chan PA, et al. Sexually Transmitted Infections Treatment Guidelines, 2021. *MMWR Recomm Rep*. 2021 Jul 23;70(4):1-187. PMID: 34292926. Available at: https://www.cdc.gov/mmwr/volumes/70/rr/RR7004a1.htm?s_cid=RR7004a1_w .