

Weekly Pharmacy Pearl – CDC STI 2021 Treatment Guideline Summary

Disease	Recommended Rx (In the Order of Preference)	Follow-Up	Partner Tx Needed?	Caveats
Gonorrhea	<p><u>Uncomplicated gonococcal infections of the cervix, urethra, or rectum:</u> If < 150 kg, ceftriaxone 500 mg IM once If ≥ 150 kg, ceftriaxone 1 g IM once OR Gentamicin 240 mg IM once + azithromycin 2 g PO once OR Cefixime 800 mg PO once</p> <p><u>Uncomplicated gonococcal infections of the pharynx:</u> If < 150 kg, ceftriaxone 500 mg IM once If ≥ 150 kg, ceftriaxone 1 g IM once</p>	No, except for pharyngeal gonorrhea – return 7–14 days after tx for a test-of cure	Yes	<p>Cross reactivity between PCN and cephalosporin is < 2.5% in people with a history of PCN allergy. The risk is the highest with 1st generation cephalosporins but is <u>negligible</u> between most 2nd generation (cefoxitin) and all 3rd generation (ceftriaxone) cephalosporins.</p> <p>For people with an anaphylactic or other severe reaction (e.g., Steven’s Johnson syndrome) to ceftriaxone, consult an ID specialist for an alternative treatment.</p>
Chlamydia	<p>Doxycycline 100 mg PO BID x 7 days OR Azithromycin 1 gram PO x 1 dose OR Levofloxacin 500 mg PO daily x 7 days</p>	No	Yes	Doxycycline and levofloxacin should not be used in pregnancy. Azithromycin remains treatment of choice during pregnancy.
Bacterial Vaginosis (BV)	<p>Metronidazole 500 mg PO BID x 7 days OR Metronidazole gel 0.75%, one full applicator (5 g) intravaginally daily x 5 days OR Clindamycin cream 2%, one full applicator (5 g) intravaginally QHS x 7 days</p>	No	No	<p>Some data have suggested that there is no disulfiram reaction between ethanol and metronidazole but when both are combined with concomitant serotonergic medications, it may cause a disulfiram-like reaction.</p> <p>Clindamycin cream - Weakens latex or rubber products (e.g., condoms and vaginal contraceptive diaphragms). - Use of such products within 72 hours following treatment is not recommended.</p>
Trichomoniasis	<p>Metronidazole 2 g PO once (Men) Metronidazole 500 mg BID x 7 days (Women) OR Tinidazole 2 g PO once</p>	Yes, retesting recommended within 3 months regardless of tx of sex partners	Yes	Some data have suggested that there is no disulfiram reaction between ethanol and metronidazole but when both are combined with concomitant serotonergic medications, it may cause a disulfiram-like reaction.

Pelvic Inflammatory Disease (PID)	Ceftriaxone 500 mg IM once PLUS Doxycycline 100 mg PO BID x 14 days PLUS Metronidazole 500 mg PO BID x 14 days	No, unless no symptom improvement in 72 hrs	Yes	Doxycycline should not be used in pregnancy.
Epididymitis	<u>Most likely caused by chlamydia and gonorrhea:</u> Ceftriaxone 500 mg IM once PLUS Doxycycline 100 mg PO BID x 10 days <u>Most likely caused by chlamydia, gonorrhea and enteric organisms (men who practice insertive anal sex):</u> Ceftriaxone 500 mg IM once PLUS Levofloxacin 500 mg PO daily x 10 days <u>Most likely caused by enteric organisms:</u> Levofloxacin 500 mg PO daily x 10 days	No, unless no symptom improvement in 72 hrs	No, unless STI suspected	Cross reactivity between PCN and cephalosporin is < 2.5% in people with a history of PCN allergy. The risk is the highest with 1 st generation cephalosporins but is <u>negligible</u> between most 2 nd generation (cefoxitin) and all 3 rd generation (ceftriaxone) cephalosporins.
Non-gonococcal Urethritis/Cervicitis	Doxycycline 100 mg PO BID x 7 days OR Azithromycin 1 g PO once OR Azithromycin 500 mg PO once, then 250 mg PO daily x 4 days (Zpack)	No	No, unless STI identified	Men who receive a diagnosis of NGU should be tested for HIV and syphilis. Doxycycline and levofloxacin should not be used in pregnancy.
Syphilis	<u>Primary, secondary or early latent <1 yr:</u> Benzathine PCN G 2.4 million units IM once <u>Latent > 1 yr or unknown duration:</u> Benzathine PCN G 2.4 million units IM weekly x 3 weeks <u>Neurosyphilis and ocular syphilis:</u> Aqueous crystalline PCN G 3-4 million units IV Q4H or continuous infusion x 10 – 14 days	Yes, clinical and serologic evaluation should be performed at 6 and 12 months after treatment	Yes, need immediate evaluation and treatment if meets criteria per CDC	Benzathine PCN and aqueous crystalline PCN G are safe in pregnancy. All people who have primary and secondary syphilis should be tested for HIV infection.

New ceftriaxone 1 gm vial reconstitution instructions:

- Dilute 1 gm vial with 2.1 ml Lidocaine 1% (for both 1 gm and 500 mg doses)
- If giving 500 mg IM – only inject 1.43 mL

Trichomonas:

- Metronidazole 500 mg BID x 7 days
 - Increased risk (up to 282%) of treatment failure with 1 time dose vs. 7-day course of metronidazole.

Pelvic Inflammatory Disease:

- Metronidazole should now be added to all regimens for PID, not just when tubo-ovarian abscesses are present.
 - While this will increase the pill burden for patients, using metronidazole in PID courses has reduced pelvic tenderness and can help prevent infertility, ectopic pregnancies, and tubal endothelial destruction, as these complications have been linked to anaerobic bacteria in the GU tract.
- Copper IUDs do not need to be removed unless there is no clinical improvement in 72 hours.

Disulfiram-Reaction Concern with Metronidazole:

- With longer courses of metronidazole, it is important to note that some data have suggested that there is no disulfiram reaction between ethanol and metronidazole.
- A study of healthy male volunteers was conducted in which the participants were given a 5-day course of Flagyl and received 0.4 g/kg of ethanol at the beginning of the study. No participant reported any adverse effect and there was no objective evidence of a disulfiram reaction noted by investigators. PMID 12022894
- There is a theory based on animal models that metronidazole increases levels of serotonin in the brain and when combined with ethanol and other serotonergic medications, may produce a disulfiram-like reaction that may be better categorized as a form of serotonin syndrome. PMID: 17963129
 - **May still counsel patients on multiple concomitant serotonergic medications to avoid alcohol while on metronidazole to avoid a disulfiram-like reaction.**