Yakima Health District
BULLETIN
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Sexually Transmitted Diseases Treatment Guidelines 2015

Earlier this month, the Centers for Disease Control and Prevention (CDC) released its updated *Sexually Transmitted Diseases Treatment Guidelines, 2015* (MMWR 2015;64:RR-3; http://www.cdc.gov/std/tg2015/default.htm). This synopsis provides excerpts and clarifying statements addressing new recommendations (e.g., gonoccocal therapy, consideration of *Mycoplasma genitalium* as an etiologic agent of urethritis, testing for trichomoniasis) and reinforcement of existing recommendations critical to disease control (e.g., expedited partner therapy, follow-up testing, routine screening). Elements of STD clinical care not mentioned in this synopsis have largely remained unchanged since the 2010 version of these guidelines.

Inside this issue:

Treatment of Uncomplicated Gonococcal Infections of the Cervix, Urethra, and Rectum

- Recommended regimen: dual therapy with ceftriaxone 250mg IM in a single dose PLUS azithromycin 1gm po in a single dose.
- Rationale:
  - Minimum inhibitory concentrations (MICs) for cefixime are increasing among gonococcal isolates (i.e., ceftriaxone preferred to cefixime).
  - Most gonococcal isolates with increased MICs for cefixime are also likely to be resistant to tetracyclines but susceptible to azithromycin.
- If ceftriaxone is not available, cefixime 400mg po-plus-azithromycin 1gm po remains an acceptable but lesser alternative. However cefixime is considered a substandard regimen in MSM and should not be used instead of ceftriaxone.
- Systematic unavailability of ceftriaxone in a clinical setting should be corrected rather than continuing routine use of cefixime.
- If pharyngeal gonococcal infection is diagnosed, ceftriaxone must be used rather than cefixime.
- For patients with a beta-lactam allergy, treat with azithromycin 2g orally PLUS either gentamicin 240 mg intramuscularly or gemifloxacin 320 mg orally once.
- Gonorrhea cases treated among MSM with regimens that do not include ceftriaxone, particularly in the context of asymptomatic rectal or pharyngeal gonorrhea, require a test of cure 2-3 weeks following treatment.
- Caveats:
  - Doxycycline 100mg po bid x 14 days (rather than azithromycin) remains the recommended complement to ceftriaxone in outpatient treatment for epididymitis, proctitis and pelvic inflammatory disease (PID).
  - A third agent, metronidazole 500mg po bid x 14 days, should accompany ceftriaxone and doxycycline in the outpatient treatment of PID.

Partner therapy

- Clinicians should understand that responsibility for ensuring the treatment of partners of patients with STDs other than syphilis and HIV rests with the diagnosing provider and the

patient.

- Clinicians should routinely offer expedited partner therapy (EPT, also known as patient delivered partner therapy [PDPT]) to heterosexual patients with chlamydia or gonorrhea infection when the provider cannot confidently ensure that all of a patient's sex partners from the prior 60 days will be treated.
- If the patient has not had sex in the 60 days before diagnosis, providers should attempt to treat a patient's most recent sex partner.
- EPT is permitted in Washington State (http://www.cdc.gov/std/ept/legal/washington.htm)
- EPT should not be used in the following settings
  - Men who have sex with men (MSM)
  - Human immunodeficiency virus (HIV) infection
  - Syphilis

Follow-up Testing Recommendations

Disease	Timing	Purpose
Gonorrhea and Chlamydia	3 months	Detect re-infection
Syphilis (no HIV)	6, 12 months (RPR or VDRL)	• Confirm serologic response to therapy with the target of a 4-fold decrease in titer (although 15-20% may be serofast) • Exclude reinfection
Syphilis (with HIV)	6, 12, 24 months (RPR or VDRL)	

Men who have sex with men (MSM)

- An association exists between acute bacterial STD and primary HIV infection.
- MSM should be tested at least annually for HIV, syphilis, gonorrhea (each site used: urine, rectal, pharyngeal), and chlamydia (each site used: urine, rectal).
- HCV testing should be added to the schedule above when the patient is HIV-infected.
- CDC recommends against the promotion of serosorting (having unprotected sex only with partners of the same HIV status) as an HIV prevention strategy. Undetected primary infection, untested partners, misrepresentation of HIV status, and transmission of other STD are among the pitfalls associated with this strategy.

Transgender women

- Patients who are born male but who identify as female (with or without genital affirmation surgery) are considered transgendered women.
- A systematic review of studies of HIV among transgender women suggests that the prevalence of HIV in the United States is 27.7% among all transgender women and 56.3% among black transgender women.
- Clinicians should assess STD- and HIV-related risks for their transgender patients based on current anatomy and sexual behaviors.

Pre-exposure Prophylaxis against HIV (PreP)

- HIV pre-exposure prophylaxis is recommended for
  - HIV-negative partners in a serodiscordant relationship OR
  - HIV-negative MSM at high risk of HIV exposure (e.g., recent bacterial STD).
- Regimen: emtricitabine 200mg + tenofovir 300mg po daily after ruling out seronegative acute infection with negative HIV RNA test results.
- PreP should be accompanied by non-pharmacologic risk reduction methods as well (e.g., reduce number of partners, consistent and correct use of condoms)
- For additional information:
  - http://www.cdc.gov/hiv/prevention/research/prep/
  - http://www.cdc.gov/hiv/pdf/PrEPguidelines2014.pdf

- Stay tuned for a detailed update on PreP in a future bulletin.

Treatment of syphilis among HIV-infected patients

- Patients with HIV infection who have primary, secondary or latent syphilis should be treated with the same regimens as those recommended for patients without HIV infection.
- However, penicillin-allergic HIV-infected patients with syphilis should undergo allergy testing and desensitization rather than being treated with doxycycline.
- All patients with HIV infection and syphilis should undergo a careful neurologic examination; those with neurologic symptoms or signs should undergo immediate CSF examination.
- In the absence of neurologic symptoms, CSF examination has not been associated with improved clinical outcomes and therefore is not recommended.

Chlamydia & Gonorrhea Screening

- Annual chlamydia testing is recommended for asymptomatic women <25 years of age who have not been in a mutually monogamous relationship for the full interval.
- Annual gonorrhea testing is recommended for asymptomatic women <25 years of age who have not been in a mutually monogamous relationship for the full interval and who are in communities with high rates of gonorrhea transmission (e.g., Yakima County at the present time).
- Asymptomatic males should be screened annually if they have sex with other men or if they present in settings with a high prevalence of STD (e.g., jails, youth detention, homeless)

Persistent non-gonococcal urethritis

- If doxycyline was used initially, try azithromycin 1gm po in a single dose.
- If azithromycin fails, consider covering *Mycoplasma genitalium* (moxifloxacin 400mg po qd x 7d) and *Trichomonas vaginalis* (metronidazole 2gm po in a single dose).

Persistent cervicitis unresponsive to azithromycin

- The etiology of persistent cervicitis including the potential role of *M. genitalium* is unclear.
- *M. genitalium* might be considered for cases of clinically significant cervicitis that persist after azithromycin or doxycycline therapy in which re-exposure to an infected partner or medical nonadherence is unlikely. In settings with validated assays, women with persistent cervicitis could be tested for *M. genitalium* with the decision to treat with moxifloxacin based on results of diagnostic testing.

Trichomoniasis diagnostics

- Trichomoniasis can be a cause of sexually transmitted vaginitis in women (e.g., frothy discharge with cervical petechiae) or non-gonoccocal urethritis in men.
- The use of highly sensitive and specific tests is recommended for detecting *T. vaginalis.*

Test	Sensitivity (%)	Specificity (%)
Wet mount	51-65	95-100
NAAT (Aptima *T. vaginalis*)	95-100	95-100
Antigen detection (OSOM)	86-94	95-100
DNA hybridization (Affirm VP III)	63-84	95-100
Culture	75-96	100

- Nucleic acid amplification testing (NAAT) is the preferred method for detection of trichomoniasis because it detects more cases than wet mount.
- When NAAT testing on all specimens is not feasible, a testing algorithm (e.g., wet mount first, followed by NAAT if wet mount-negative) can improve diagnostic sensitivity in persons with an initial negative result by wet mount.

Sexually Transmitted Diseases Morbidity Increases in Yakima County

The following table and figures show sustained increases in transmission of gonorrhea and syphilis in Yakima County over the past several years. Syphilis cases have been predominantly, although not exclusively, among men who have sex with men (MSM). Initial increases in gonorrhea several years ago were predominantly among MSM, but now the male:female gender ratio is close to 1:1. Most gonorrhea cases occur among individuals aged 15-29 years. Additional risk factors include methamphetamine use, multiple sexual partners, and use of social media smart phone applications for finding new partners.

As cited above in the summary of CDC's *STD Treatment Guidelines,* clinical interventions targeting MSM of all ages and sexually active heterosexuals 15-29 years include:

- taking a thorough non-judgmental sexual history;
- conducting routine annual screening for chlamydia, gonorrhea, syphilis, and HIV;
- testing and treating appropriately for symptomatic episodes when they occur;
- ensuring that the partners of heterosexual gonorrhea and chlamydia cases are treated using expedited partner therapy (EPT) as needed; and
- reporting all chlamydia, gonorrhea, syphilis, and initial genital herpes simplex virus cases to the Yakima Health District (YHD).

Blank STD case report forms can be downloaded at http://www.doh.wa.gov/Portals/1/Documents/Pubs/347-102-YakimaCsRpt.pdf and faxed to (509) 249-6628. The form also includes a template prescription for EPT and a list of participating pharmacies.

In addition to receiving case reports and providing this type of information back to the community and health care providers, YHD is engaged in the following priority activities addressing STD control:

- ensuring treatment of untreated cases of syphilis, gonorrhea and chlamydia;
- partner notification services for HIV and syphilis infections;
- partner notification services for select cases of gonorrhea and chlamydia (e.g., MSM, HIV infected, repeat infections, pregnant women); and
- management of the county-wide EPT program.

YHD recognizes that clinical interventions alone are unlikely to significantly curtail STD transmission in Yakima County; behavioral components of risk must be addressed as well. YHD is working on developing more comprehensive, community-based efforts addressing STD prevention through venues and media where youth and other at-risk individuals are likely to be encountered.

For more information on STD:

Centers for Disease Control and Prevention
http://www.cdc.gov/std/

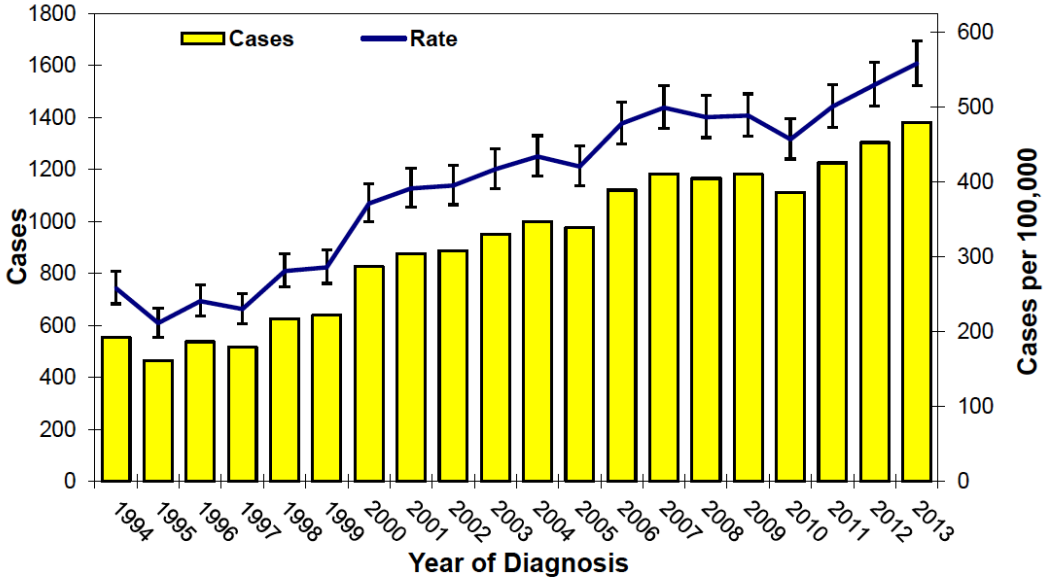
Washington State Department of Health http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/SexuallyTransmittedDisease (navigate using left side-bar)

Reportable Bacterial Sexually Transmitted Diseases, Yakima County, 2014

Disease	Yakima County			Washington State	
	Cases	Rate/100K	State Rank	Cases	Rate/100K
Chlamydia	1504	605	2	26,246	377
Gonorrhea	406	163	1	6,136	88
Infectious Syphilis	15	6	3	337	5
HIV New	8	3	9	2,587[1]	8[1]
HIV Living	197	79	--	12,129	173

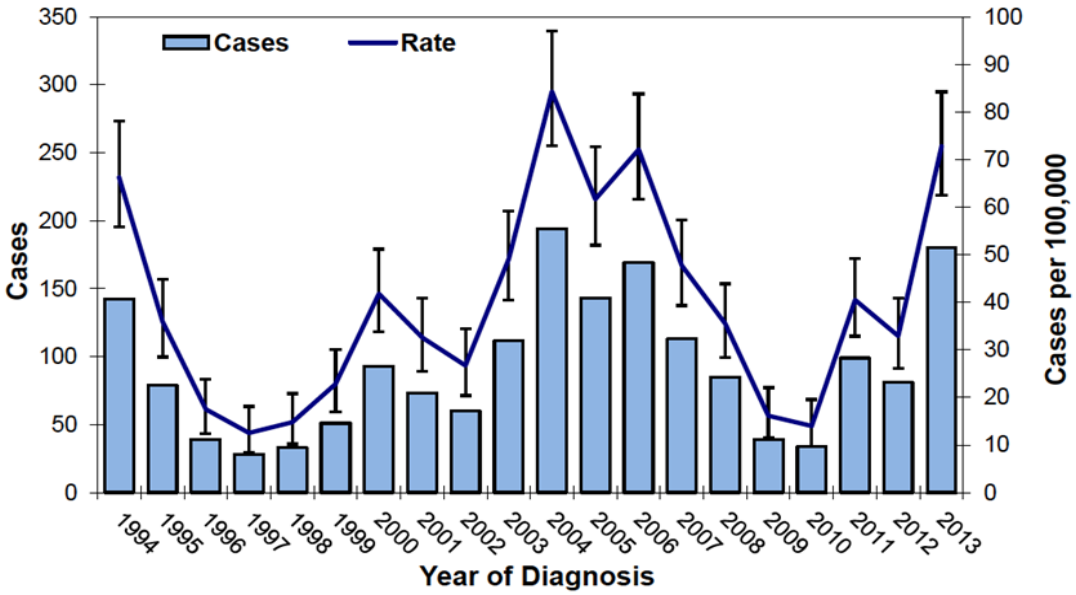
[1]These figures for Washington State are an average for the years 2009-2013

Chlamydia Cases and Rates, Yakima County, 1993-2013



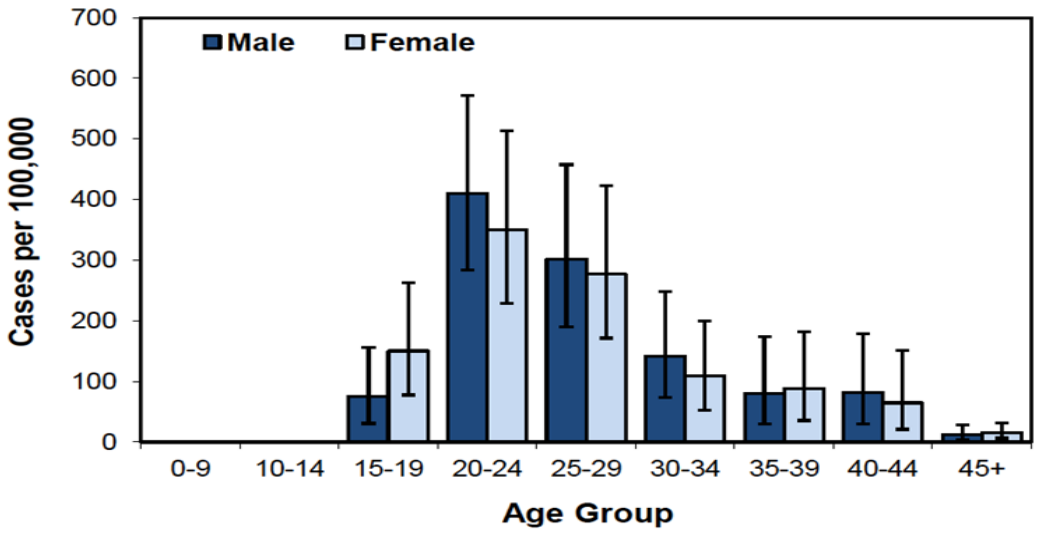
* Crude incidence rate with 95% confidence intervals.

Gonorrhea Cases and Rates, Yakima County, 1993-2013

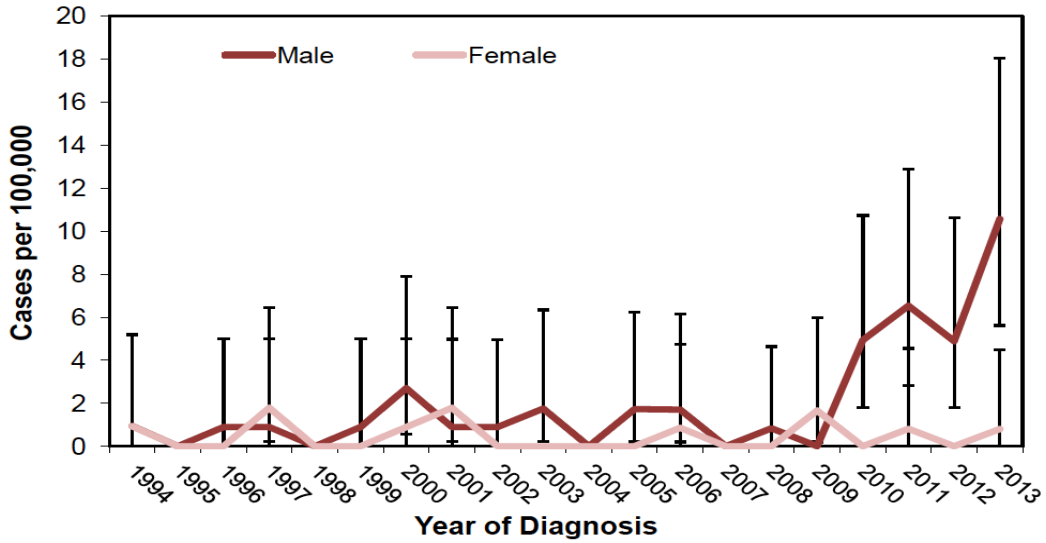


* Crude incidence rate with 95% confidence intervals.

Gonorrhea Rates by Age and Gender, Yakima County, 2013



Primary & Secondary (Infectious) Syphilis Cases and Rates, Yakima County, 1994-2013



Human Papilloma Virus Vaccination

After hepatitis B immunization, human papilloma virus (HPV) vaccine became the second cancer prevention immunization. HPV is the cause of the vast majority of cervical, penile, and anal cancers. Each year in the United States, an estimated 26,000 new cancers are attributable to HPV, about 17,000 in women and 9,000 in men. Until recently, two vaccine formulations were available to prevent HPV infection. A bivalent vaccine (2vHPV) contains the two HPV types, 16 and 18, that account for 65% of HPV-associated cancer (Cervarix, GlaxoSmithKline). A quadrivalent vaccine (4vHPV) contains HPV types 6 and 11 that cause the majority of genital warts and the cancer-causing HPV types 16 and 18 (Gardasil, Merck).

Earlier this year, CDC's Advisory Committee on Immunization Practices (ACIP) made recommendations addressing a new, 9-valent vaccine (9vHPV) that adds HPV types 31, 33, 45, 52, and 58 (Gardasil 9, Merck) to the existing 4vHPV formulation. These five HPV types account for an additional 10% of HPV-associated cancers. Because the additional five types in 9vHPV account for a higher proportion of HPV-associated cancers in females compared with males, the additional protection from 9vHPV will mostly benefit females. Efficacy trials showed the vaccine to be 96% effective in preventing persistent infection and cervical intraepithelial neoplasia due to these HPV types. Cost-effectiveness analysis concluded that changing from use of 4vPHV to 9vHPV is cost-saving at the current price difference between the two products (approximately $15).

Key elements of ACIPs recommendations for HPV vaccination are as follows:

Gender	Male	Female
Starting Age	11-12 years[1]	11-12 years[1]
Upper Age Limit	21 years[2]	26 years
Formulation	4vHPV or 9vHPV	2vHPV, 4vHPV or 9vHPV
Schedule	0, 1-2, and 6+ months	0, 1-2, and 6+ months
Missed dose?	Do not restart from dose 1; just give the next dose in the series	Do not restart from dose 1; just give the next dose in the series

[1] May start as early as 9 years of age
[2] Extend upper age limit to 26 years in MSM or at clinician discretion

For more information:

ACIP. Use of 9-Valent Human Papillomavirus (HPV) Vaccine: Updated HPV Vaccination Recommendations of the Advisory Committee on Immunization Practices. MMWR 2015;64(11):300-304. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6411a3.htm

Centers for Disease Control and Prevention. Human Papilloma Virus. http://www.cdc.gov/std/hpv/

YAKIMA HEALTH DISTRICT

1210 Ahtanum Ridge Drive
Union Gap, WA 98903

Reporting Line: (509) 249-6541
After hours Emergency: (509) 575-4040 #1
Toll Free: (800) 535-5016 x 541

Confidential Fax: (509) 249-6628

http://www.yakimapublichealth.org

Notifiable Condition *(includes confirmed and probable cases)*	Cases				
	Jan – May	Jan – May	Jan – May	Total Cases by Year	Total Cases by Year
	2015	2014	2013	2014	2013
Campylobacteriosis	56	23	32	97	154
Chlamydia	660	604	578	1504	1379
Cryptosporidiosis	3	5	0	7	3
Genital Herpes - Initial	54	20	20	60	56
Giardiasis	7	5	3	16	11
Gonorrhea	146	125	46	406	181
Hepatitis A acute	0	0	0	0	4
Hepatitis B acute	0	0	0	0	0
Hepatitis B chronic	5	6	1	11	6
Hepatitis C acute	0	2	0	2	0
Hepatitis C chronic	85	126	75	300	176
HIV/AIDS Cumulative Living	194	191	186	195	192
HIV/AIDS Deaths	1	0	1	2	4
HIV/AIDS New	0	2	2	8	8
Meningococcal Disease	0	0	0	1	0
Pertussis	8	10	108	18	128
Salmonellosis	14	10	10	53	31
Shigellosis	1	7	3	14	6
STEC (enterohemorrhagic E. coli)	8	5	4	15	21
Syphilis - Primary and Secondary	3	4	5	15	14
Tuberculosis	7	1	1	4	9

Notifiable Conditions Summary Jan - May 2015