



Sexually Transmitted Infections & Women



Disclosure

I have NO financial disclosure or conflicts of interest with the presented material in this presentation

Objectives

- Discuss Sexually Transmitted Infections (STI's) and how they are transmitted.
- Discuss STIs and the impact on women.
- Discuss the management and treatment of Sexually Transmitted Infections.
- Discuss the importance of establishing a genuine provider & patient connection.



FAQs

What are STIs (Sexually Transmitted Infections)?

How are they transmitted?

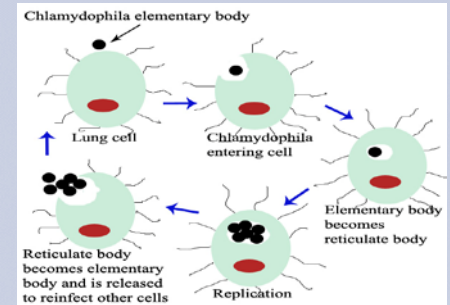
How to diagnose an STD?

What are the various treatment options?

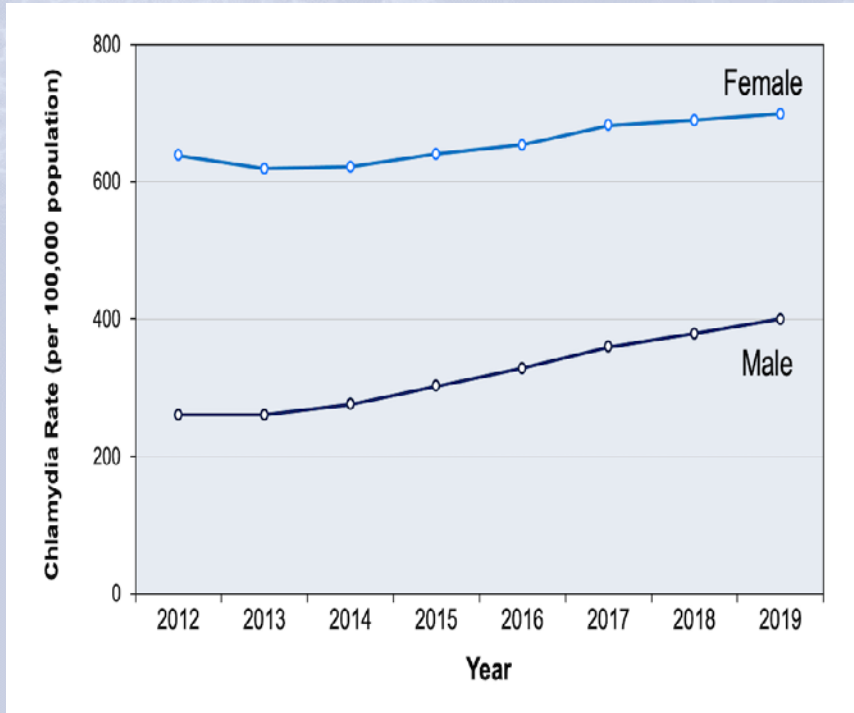


Chlamydia

- Bacterium Chlamydia Trachomatis: obligate intracellular bacteria
- In 2018, there were an estimated 2.35 million chlamydial infections acquired in the United States at an estimated total lifetime direct medical cost of \$691.3 million
- Transmission: oral, vaginal, anal & childbirth.
- Rate of transmission between sex partners is approximately 55%, with a per act of urogenital infection of about 10%, transmission rates per sexual act for rectal, oropharyngeal infection is unknown.
- Transmission rates are slightly higher from men to women than from women to men.
- Neonate infection rate from mothers with untreated Chlamydial infection is about 50%



Chlamydia



Most women with urogenital infection have no signs or symptoms

Complications: Perihepatitis, endometritis, salpingitis, or reactive arthritis

Diagnostic: Endocervical swabs & vaginal NAATs, Binx ([point of care NAATs)

Treatment :

Non-pregnant women: Uncomplicated chlamydial infections. tx : Doxycycline 100 mg orally twice daily for 7 days.

Alt: Azithromycin 1 gram orally in a single dose

2nd Alt: Levofloxacin 500 mg orally once daily for 7 days

Pregnant: Azithromycin 1 gram orally in a single dose

Alt: Amoxicillin 500 mg orally three times a day for 7 days



Gonorrhea



- Gram negative bacterium, *Neisseria gonorrhoeae*
- Transmission: oral, anal, vaginal intercourse & vaginal delivery
- The rate of reported gonorrhea cases among men was significantly higher than among women (224.4 versus 152.6 cases per 100,000 population).
- Male to female transmission of *Neisseria Gonorrhoeae* is 50 to 70% per episode of vaginal intercourse. Female to male genital transmission is estimated to be about 20% per episode.
- Complications of Gonorrhea include Bartholin Gland infections, PID and Perihepatitis



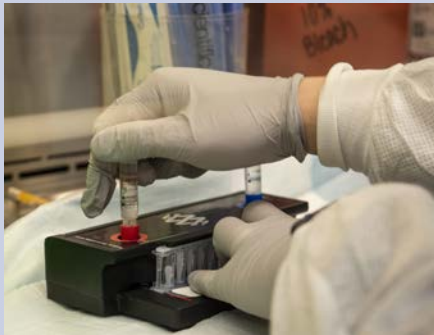
Gonorrhea

Diagnostic Test:

NAAT

Point of care testing: BINX

Gram Stain



Treatment guidelines:

Uncomplicated gonococcal infections of the cervix, urethra, or rectum, the recommended treatment is a single intramuscular dose of ceftriaxone 500 mg, with or without oral doxycycline 100 mg twice daily for 7 days depending on whether chlamydia infection has been excluded.

Gonococcal infections of the pharynx are more difficult to eradicate than infections at urogenital and anorectal sites. The recommended treatment of pharyngeal gonorrhea is a single intramuscular dose of ceftriaxone 500 mg; if chlamydia infection was also identified when the pharyngeal testing was performed, then it should be treated with oral doxycycline 100 mg twice daily for 7 days.

Test-of-Cure is unnecessary for patients with uncomplicated urogenital or rectal gonorrhea who are treated with any of the recommended or alternative regimens. HOWEVER, for person with pharyngeal gonorrhea, test of cure is recommended using a culture or nucleic acid amplification tests 7-1.



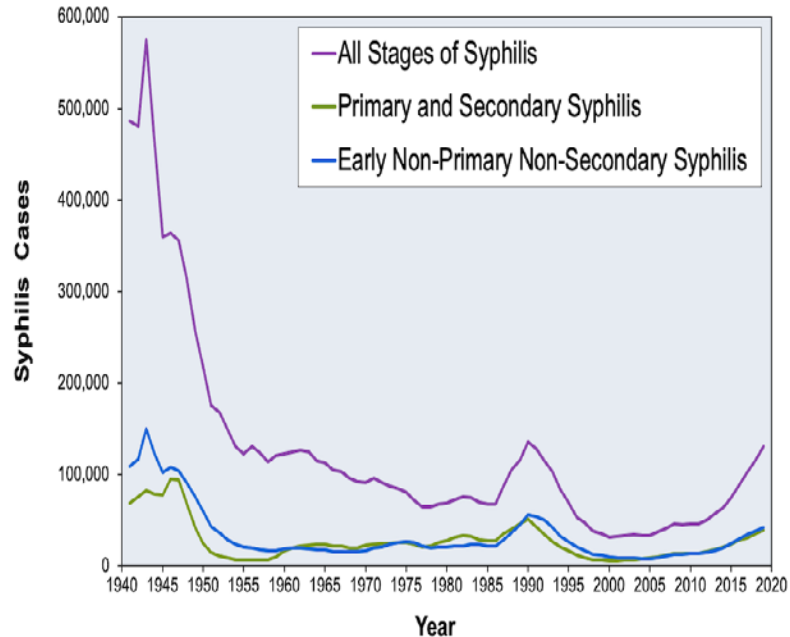
Syphilis



- Syphilis is a systemic infection caused by *Treponema pallidum*, a spirochete bacterium that is transmitted primarily through sexual activity or with vertical transmission during pregnancy.
- Syphilis transmission rates **increased dramatically** within the last 10-15 years
- Concurrent congenital increase: The number of reported congenital syphilis cases has consistently risen in recent years—during the 6-year period from 2013-2019, the number of cases increased by an alarming 417% (from 362 to 1,870 cases)
- **In 2019**, a total of 38,992 cases of primary and secondary syphilis were reported, which represents a 63% increase from 2015 and the highest reported number of cases since 1991.
- The rate of reported primary and secondary syphilis cases among men (**20.1 cases per 100,000 men**) was **approximately 5-fold higher than among women (3.9 cases per 100,000 women)** and men accounted for 83% of these cases. For both men and women, rates of reported primary and secondary syphilis had increased significantly from 2015 to 2019, with a 179% increase in women and a 48% increase in men



Syphilis



Diagnostic Test:

Dark Field Microscopy

Treponemal Serologic tests

Non-Treponemal Serologic tests

Treatment Options:

Primary, secondary and early latent syphilis :

Benzathine Penicillin G 2.4 million units once a single intramuscular dose

Late latent syphilis: Benzathine Penicillin G 7.2 million units divided into three weekly doses.



Herpes

- Herpes simplex virus (HSV), HSV-1 & HSV-2
- In 2018, 18.6 plus million people living in the United States with genital herpes caused by HSV-1 & HSV-2. HSV-2 leading cause of first episode genital herpes
- HSV-2 seroprevalence was nearly **2 fold higher in females** compared with males
- Transmission occurs through close contact with a person who is shedding virus at a mucosal or epithelial surface or in genital or oral secretions. **HSV can also be transmitted perinatally, direct mucosa or skin contact.**



Herpes

Diagnostic test:

NAATs - Nucleic acid amplification test

Gold standard

Viral culture: sensitivity changes with stage of lesion.

Two step type specific serologic testing:

Initial testing

Confirmatory test

Testing Recommendations:

Screening is not recommended for asymptomatic persons.

Treatment: Antiviral therapy is used to treat first, episodic and recurrent episodes.

Suppressive Therapy: prevent recurrences or transmission/

Acyclovir

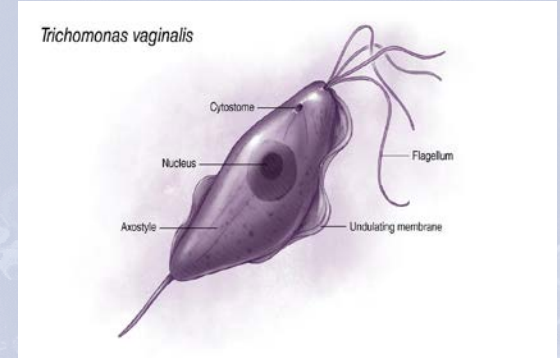
Famciclovir

Valacyclovir



Trichomoniasis

- Trichomoniasis is caused by the protozoan parasite, *Trichomonas vaginalis*
- 3.7 million cases in the united states, an 1.1 new cases occurring yearly
- Rates of Trich.is at least four times higher in non Hispanic Black Women.
- Women who have sex with women. Less likely in MSM.
- 72% of men who have sex with women have been diagnosed with Trichomoniasis
- Women diagnosed with trichomoniasis two fold risk for developing cervical cancer.



Trichomoniasis

Symptoms:

“Frothy” gray, or yellowish- green vaginal discharge

Diagnostic testing:

Osom Trichomonas Rapid test (not FDA approved in men)

Wet mount: sensitivity 48-68%

NAAT testing

Treatment:

Women:

Metronidazole 500 mg orally, twice daily for 7 days.

Men:

Metronidazole 2 grams orally, single dose use



HIV

- 2019, 77.8% male living with HIV vs 22.2% female.
- 80% of women diagnosed with HIV acquired it through heterosexual contact.



Make space for Sexual Health Education (SHE)

Screening

PrEP

Expedited Partner Treatment

Counseling & Education

References:

National STD Curriculum, <https://www.std.uw.edu/>.

“Weekly Report.” *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 7 Jan. 2021, <https://www.cdc.gov/mmwr/index2020.html>.

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