

"But Can It Be Treated?": Pharmacological Management of STIs in Adolescents



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Disclosures

- I have no actual/potential conflict of interest in relation to this presentation.



Objectives

- Examine evidence-based pharmacologic management of common STIs impacting the adolescent population using CDC guidelines.
- Analyze patient-specific factors to help guide management and treatment of STIs in the adolescent population.
- Integrate current guidelines and legal regulations into clinical decision making to aid in the prevention, screening, diagnosis, and treatment of STIs in the adolescent population.



Adolescent Confidentiality

- Discuss confidentiality with patient
- Section 3709.241 Ohio Revised Code
 - Minor may give consent for diagnosis or treatment of venereal disease
- Confirm phone number!



Consent

- Consent as part of anticipatory guidance
- Ohio Consent
 - 16 years is age of consent
 - 12 years and younger can not consent



Site Specific Testing

- Thorough sexual health history
 - o Urogenital tract
 - o Pharynx
 - o Rectum



Infection Prevention

- Barrier methods
 - External & internal condoms, dental dams
- HPV vaccination
- Doxycycline-Post-Exposure Prophylaxis (Doxy Pep)
 - Single dose of 200mg Doxycycline taken within 72 hours
 - Reduce risk of chlamydia, syphilis, and gonorrhea acquisition

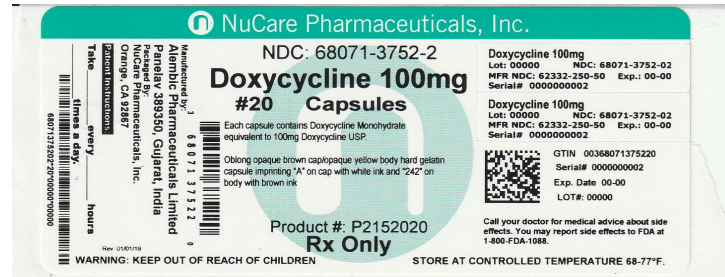


Infection Prevention

- Pre-Exposure Prophylaxis (PREP)
 - HIV prevention
 - Daily pills versus long action injections
- Post-Exposure Prophylaxis (PEP)
 - HIV prevention after exposure
 - Taken for 28 days and must start within 72 hours of possible exposure

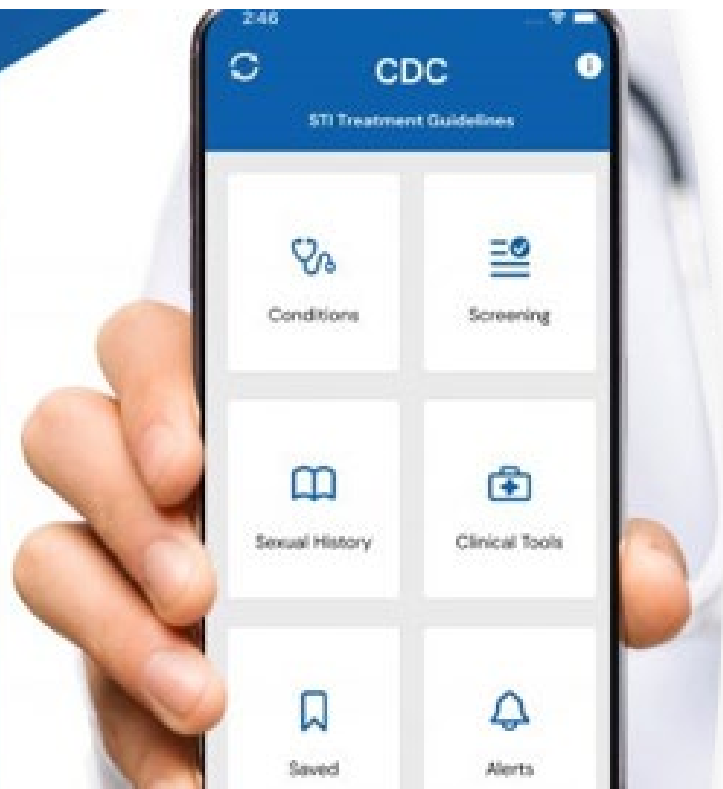


Pharmacological Management of Sexually Transmitted Infections



Treatment Guide Mobile App

More Comprehensive
More Integrated
More Features



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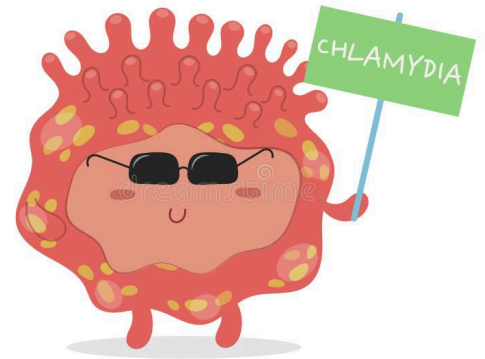
Josh

- 16-year-old AMAB (he/him pronouns) seen yesterday for well visit
- Two prior sexual partners
- Urine STI screening sent
- Lab called this morning for +chlamydia



Chlamydia

- Most frequently reported STI
- Bacterial infection
- Often asymptomatic
- Dysuria, urethral pruritis, and mucoid, mucopurulent, or purulent discharge
- Annual screening



Chlamydia Treatment

Recommended

- **Doxycycline** 100 mg orally BID x 7 days

Alternative

- **Azithromycin** 1 g orally single dose
- **Levofloxacin** 500 mg orally daily x7 days



Chlamydia Follow Up

- Partner notification
- Abstain from intercourse until treated
- Test of cure (4 weeks) not recommended for non-pregnant
- Rescreen at 3 month (or when next seek care) recommended for all



Brianna

- 17-year-old AFAB (she/her pronouns) using Nexplanon for contraception coming in today because her partner called this morning and told her he tested positive for gonorrhea
- Denies symptoms
- Engage in shared decision making



Gonorrhea

- Often asymptomatic
- Bacterial infection
- Dysuria, urethral pruritis, and mucoid, mucopurulent, or purulent discharge
- Annual screening



Recommended Gonorrhea Treatment

- **Ceftriaxone** 500 mg IM single dose for persons weighing <150 kg
- **Ceftriaxone** 1gram IM single dose for persons weighing ≥ 150 kg
 - If chlamydia not ruled out, treat for chlamydia with doxycycline 100 mg orally BID x 7 days



Alternative Gonorrhea Treatment

- **Gentamicin** 240 mg IM single dose + **Azithromycin** 2 g orally single dose
- **Cefixime** 800 mg orally single dose



FDA Approves Two Oral Therapies to Treat Gonorrhea

Approvals Are for Uncomplicated Urogenital Gonorrhea

For Immediate Release: December 12, 2025

The U.S. Food and Drug Administration recently approved two new oral medicines to treat a common sexually transmitted infection called gonorrhea.

The FDA today approved Nuzolvence (zoliflodacin) granules that dissolve in water. This medicine can treat uncomplicated urogenital gonorrhea in adults and children 12 years

Gonorrhea Follow up

- Partner notification
- Abstain from intercourse until treated
- Test of cure (4 weeks) not recommended for non-pregnant
- Test of cure in 7-14 days for pharyngeal infection
- Rescreen at 3 month (or when next seek care) recommended for all



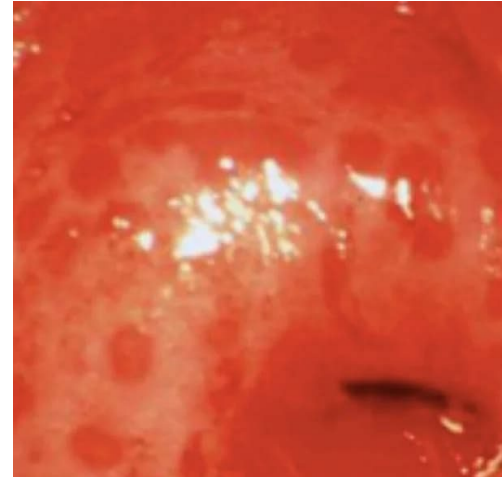
Oliver

- 18-year-old AFAB (he/him pronouns) coming in today for vaginal irritation/itching
- Consents to a pelvic exam and POCT swabs and urine STI screening collected
- Yellow discharge present in the vaginal canal and a strawberry appearing cervix



Trichomoniasis

- Parasite infection
- Not a reportable disease
- No recommendations for screening
- Minimal or no symptoms
- Urethritis, yellow/green discharge, irritation, strawberry cervix



Trichomoniasis Treatment

Recommended

- AFAB: Metronidazole 500 mg orally BID x 7 days
- AMAB: Metronidazole 2 g orally single dose

Alternative

- Tinidazole 2 g orally single dose



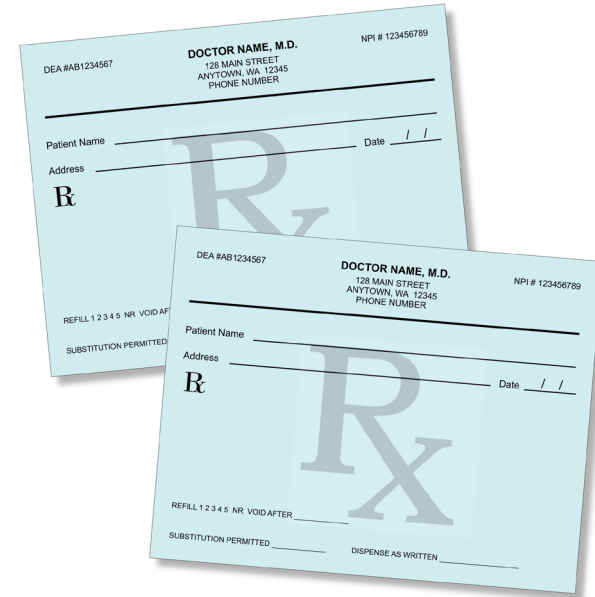
Trichomoniasis Follow Up

- Partner notification
- Abstain from intercourse until treated
- Retesting for AFAB in 3 months
 - No sooner than 3 weeks



Expedited Partner Therapy (EPT)

- For chlamydia, gonorrhea, & trich
- Up to 2 sexual partners
- For partners unable or unlikely to be evaluated
- Must provide info about medication



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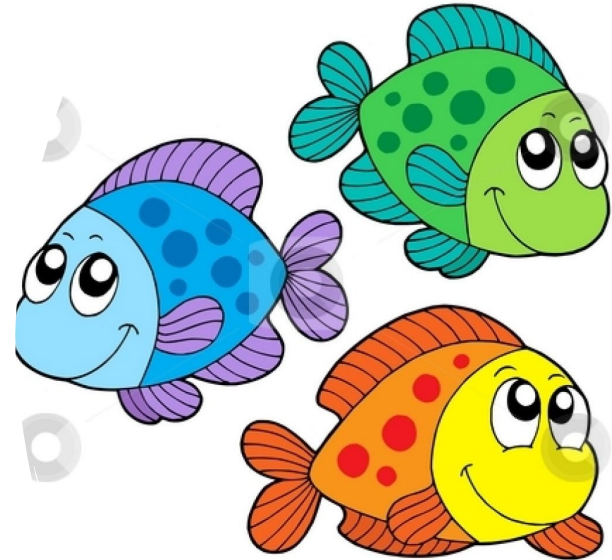
Sierra

- 21-year-old AFAB (she/her pronouns) coming in for her first pap
- Increased vaginal discharge and fishy odor
- Worried her "pH is off"
- White milky discharge in vaginal canal
- Urine STI screening, POCT trich & POCT BV collected



Bacterial Vaginosis

- Discharge, itching, burning, odor (fishy), irritation
- Most common cause of vaginal discharge
- Often also asymptomatic
- Increased risk of STI acquisition



Recommended Bacterial Vaginosis Treatment

- Metronidazole 500 mg orally BID x7 days
- Metronidazole gel 0.75% one full applicator (5 g) intravaginally, daily @ bedtime x 5 days
- Clindamycin cream 2% one full applicator (5 g) intravaginally @ bedtime x7 days



Alternative Bacterial Vaginosis Treatment

- Clindamycin 300 mg orally BID x 7 days
- Clindamycin ovules 100 mg intravaginally once @ bedtime x3 days
- Secnidazole 2 g oral granules single dose
- Tinidazole 2 g orally once daily x 2 days
- Tinidazole 1 g orally once daily x 5 days



AMAB Partner Treatment for BV

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Male-Partner Treatment to Prevent Recurrence of Bacterial Vaginosis

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AMAB Partner Treatment for BV

- Metronidazole 400 mg or 500 mg BID x 7days + Clindamycin 2% topical applied to penile skin BID x 7days



Bacterial Vaginosis Follow up

- Consider testing for HIV & other STIs
- Retesting unnecessary if symptoms resolved
- Consider partner treatment
- Management for those with recurrent BV?



Role for Probiotics?

- Trials with promising results
- Need larger trials
- Need to determine which strain is preferred



Mallory

- 17-year-old AFAB (she/her pronouns) presents for dysuria and lower belly pain x2 days
- Confidential interview
- Consents to pelvic exam & chaperone present
- +CMT
- STI screening pending



Pelvic Inflammatory Disease (PID)

- Inflammatory disorder of upper AFAB genital tract
- May be caused by gonorrhea or chlamydia
- Pelvic/lower abdominal pain and/or CMT, uterine tenderness, adnexal tenderness



PID Treatment

- **Low treatment threshold**
 - PID sequelae
- Should improve within 72 hours
- Ceftriaxone 500 mg IM single dose +
Doxycycline 100 mg orally BID x 14 days +
metronidazole 500 mg orally BID x 14 days



Mallory

- Calls into the office 2 days after her visit
- Belly pain is worsening and now she is vomiting and she cannot keep her medications down



Parenteral Treatment

- Ceftriaxone 1 g IV every 24 hours + Doxycycline 100 mg orally or IV every 12 hours + Metronidazole 500 mg orally or IV every 12 hours
- Cefotetan 2 g IV every 12 hours + Doxycycline 100 mg orally or IV every 12 hours
- Cefoxitin 2 g IV every 6 hours + Doxycycline 100 mg orally or IV every 12 hours



PID Follow Up

- Consider fluconazole?
- Evaluate, test, consider treatment of gonorrhea & chlamydia for sex partners who had contact in past 60 days
- Abstain from sexual intercourse until treated and symptoms resolved



Alex

- 17-year-old AFAB (they/them pronouns) complains of little blisters in genital area
- Started out itching but now notices they are painful especially with urination
- STI urine screening & HSV swab collected



Genital Herpes

- Viral infection
- Chronic & lifelong
- Most HSV transmitted by people who don't know they have HSV and/or without symptoms
- Serologic screening NOT recommended
- Testing by swabbing lesions



Herpes Simplex Virus

HSV 1

- Increasingly more common to be cause of genital herpes
- Less likely to reoccur

HSV 2

- Cause for majority of cases of genital herpes
- Likely to reoccur



Recommended Herpes Simplex Virus *Initial Outbreak* Treatment

- **Acyclovir** 400 mg orally TID x 7–10 days
- **Famciclovir** 250 mg orally TID x 7–10 days
- **Valacyclovir** 1 gm orally BID x 7–10 days
- * Extend treatment if healing not complete



Recommended Herpes Simplex Virus

Episodic Treatment

- **Acyclovir** 800 mg orally BID X 5 days
- **Acyclovir** 800 mg orally TID 2 days
- **Famciclovir** 1 gm orally BID x 1 day
- **Famciclovir** 500 mg once, followed by 250 mg BID x 2 days
- **Famciclovir** 125 mg BID x 5 days
- **Valacyclovir** 500 mg orally BID x 3 days
- **Valacyclovir** 1 gm orally daily x 5 days



Recommended Herpes Simplex Virus

Suppressive Therapy

- Acyclovir 400 mg orally BID
 - Valacyclovir 500 mg orally daily (maybe less effective)
 - Valacyclovir 1 gm orally daily
 - Famciclovir 250 mg orally BID
-
- Reduces frequency of recurrence by 70-80% in those with frequent outbreaks



HSV Follow Up

- Treat symptomatic partners
- Counseling for patient and partner/future partners
- Can consider serologic testing in patient with positive partner



Adam

- 18-year-old AMAB (he/him pronouns) with ulcer on his penis
- No pain or itching
- No other symptoms
- STI urine screening, HSV swab, and blood STI testing completed



Syphilis

- Systemic disease
- Caused by *T. pallidum*
- Primary, secondary, tertiary or latent



Syphilis Treatment (primary & secondary)

Recommended

- Benzathine penicillin G
2.4 million units IM
single dose

Alternative

- Doxycycline 100 mg
BID x 14 days OR
tetracycline 500 mg 4
times daily x 14 days



Syphilis Follow Up

- Treat sex partners who have had contact with patient in last 90 days even if testing is negative
- If more than 90 days, treat if testing unavailable



Other STIs

- HIV
- Hepatitis
- Genital warts/HPV



Bella

- 16-year-old AFAB (she/her pronouns)
- Unprotected penetrative sex 2 days ago
- Not on any hormonal contraception
- Worried she could have gotten pregnant



Emergency Contraception (EC)

- Work by stopping ovulation
- NOT abortion pills
- Unless a patient thinks they could be pregnant or have missed a period do not delay prescribing to check a pregnancy test!



Levonorgestrel 1.5 mg

- AKA "Plan B"
- Does not require prescription
- For use up to 72 hours after unprotected sex
- Can start hormonal contraceptive at same time
- Side effects: headache, ABD pain, nausea, dysmenorrhea, fatigue, dizziness



Ulipristal acetate 30 mg

- AKA "Ella"
- Requires prescription
- For use up to 120 hours after unprotected sex
- Delay start of progestin containing contraceptives for 5 days following
- Side effects: headache, ABD pain, nausea, dysmenorrhea, fatigue, dizziness



Other EC Methods

- Yuzpe Method
 - 2 doses of combined OCP 12 hours apart
 - Within 72 hours
- Copper IUD
- Levonorgestrel IUD



EC Follow Up

- Can consider repeating dose if vomiting occurs within 3 hours
- Take a pregnancy test if no period within 3 weeks
- If pregnancy occurred before EC, EC didn't work, or there was further intercourse after EC – no known adverse effects on pregnancy



Questions?



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