





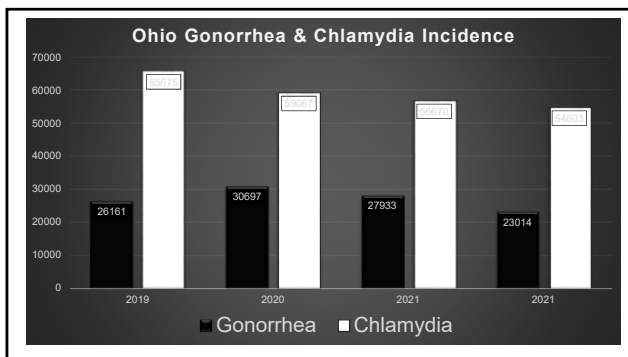
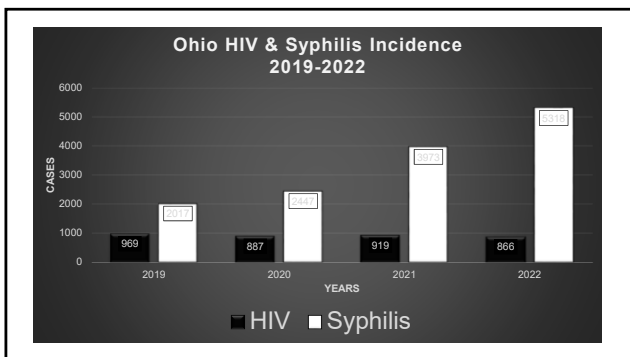
## Sexually Transmitted Infection Prevention

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### Objectives

-  Be comfortable discussing the topic with patients
-  Understand the need and target patient population
-  Understand the options
-  Understand associated risks



Discussing sexual health is step one	
<b>Set the Stage</b>	• I'm going to ask some questions about your sexual health to make sure I give you the care you deserve.
<b>Partners</b>	• Who do you have sex with? How many partners have you had in the past year?
<b>Practices</b>	• When having sex do you have vaginal, anal, and oral sex?
<b>Protection</b>	• What forms of protection do you use? How often do you have unprotected sex?
<b>Past</b>	• What STD's have you had before? How were you treated?
<b>Pregnancy</b>	• Are you okay with getting pregnant if it happens by accident?
<b>Safety</b>	• Do you ever exchange sex for drugs or money?

STI Prevention Options
<ul style="list-style-type: none"> <li>▪ Medications – Pre and post exposure prophylaxis                             <ul style="list-style-type: none"> <li>▪ HIV PrEP and DoxyPEP</li> </ul> </li> <li>▪ Risk Factor Modification – condom use, drug use, perinatal exposures</li> <li>▪ Treatment as prevention (U=U)</li> </ul>

Bacterial STI Prevention		
<p><b>DoxyPEP</b> is the use of antibiotic medication by people without known STI to protect themselves from chlamydia, syphilis, and gonorrhea</p>	<p><b>DoxyPEP</b> is recommended for all gay, bisexual, and other (MSM) and transgender women with a history of at least one bacterial sexually transmitted infection during the past 12 months</p>	<p><b>Doxycycline 200 mg is a common tetracycline antibiotic that is well tolerated</b></p> <p><b>Administration:</b>  <b>Take Doxycycline 200 mg within 72 hours of unprotected sexual encounter. Do not take more than 200 mg per day</b></p>

DoxyPEP Data Summary		
Study	Population	Summary Result
IPERGAY	232 MSM/TGWSM on HIV PrEP	Risk reduction in Chlamydia and Syphilis. (lack of significance Gonorrhea**)
DoxyPEP	174 MSM/TGWSM PLWH; 327 MSM/TGWSM on HIV PrEP	Risk Reduction Gonorrhea, Chlamydia, Syphilis
ANRS DOXYVAC	502 MSM/TGWSM on HIV PrEP	Risk Reduction gonorrhea, Chlamydia, Syphilis
dPEP	449 Cis-gender Women on HIV PrEP	No statistical significance*

### Implementation

- I prescribe 30(100 mg) tablets with 1 refill
  - 30 encounters
- Follow up every 3-6 months for testing/counseling
- Separate doxycycline dose by at least 2 hours from dairy products, antacids, and supplements that contain calcium, iron, magnesium, or sodium bicarbonate

### Ongoing Assessment DoxyPEP

- Every 3 months
  - Gonorrhea
  - Chlamydia
  - Syphilis
  - HIV
- Assess risk factors, educate, treat any infections
- Every 3-6 months (if not on HIV PrEP)
  - Gonorrhea
  - Chlamydia
  - Syphilis
  - HIV
- Assess risk factors, educate, treat infection
- Assess need for HIV PrEP/ Preventative care

### Considerations & Adverse Effects

- Gastrointestinal side effects, Photosensitivity, esophageal sensitivity
- Increased tetracycline resistance genes among participant microbiome
- Unknown effects of doxycycline on primary syphilis/RPR
- No proven efficacy with vaginal sex.

### HIV PrEP Options

	Injectable PrEP	Oral PrEP
<p><b>PrEP</b> is the use of antiretroviral medications by people without HIV to protect themselves from getting HIV</p> <p><b>PrEP</b> is recommended for adults and adolescents weighing at least 35 kg (77 lb) who are at risk of getting HIV</p>	<p><b>Cabotegravir (CAB) 600 mg injection</b> (brand name <b>Apretude</b>®)</p> <p><b>*On going trials for Lenacapravir</b></p>	<p><b>Emtricitabine (F) 200 mg in combination with tenofovir disoproxil fumarate (TDF) 300 mg (F/TDF</b> – brand name <b>Truvada</b>® or generic equivalent)</p> <p><b>Emtricitabine (F) 200 mg in combination with tenofovir alafenamide (TAF) 25 mg (F/TAF</b> – brand name <b>Descovy</b>®)*</p> <p><small>*F/TAF is not approved for use by women or other people who could get HIV through receptive vaginal sex</small></p>

### HIV PrEP Comparison

Side Effects	F/TDF (oral PrEP)	F/TAF (oral PrEP)	CAB (injectable PrEP)
<b>Start-up Syndrome</b>	- <10% of patients - Headache, nausea, abdominal discomfort lasting <1 month <sup>1</sup>	- <10% of patients - Headache, nausea, abdominal discomfort lasting <1 month <sup>2</sup>	- No reported start-up syndrome <sup>3</sup>
<b>Kidney Safety</b>	- Small decrease in creatinine clearance - Resolves after stopping drug <sup>4</sup>	- Less risk of kidney-related side effects <sup>5</sup>	- No reported risk of kidney-related side effects <sup>6</sup>
<b>Bone Safety</b>	- Small decreases in bone mineral density - Not associated with fractures <sup>7</sup>	- No reported bone safety issues <sup>8</sup>	- No reported bone safety issues <sup>9</sup>
<b>Injection Site Reactions</b>	- N/A	- N/A	- Pain, tenderness, local skin swelling - Typically, mild/moderate, brief <sup>10</sup>
<b>Weight and Lipids</b>	- No reported effects on weight or lipid levels	- Weight gain - Increased triglycerides <sup>11</sup>	- No reported effects on weight or lipid levels
<b>Overall Safety</b>	All three types of PrEP are generally well tolerated, with side effects that are usually mild/moderate, manageable, and temporary <sup>12</sup>		

### Baseline Laboratory Testing

**REQUIRED**

**HIV test** (antigen/antibody test, preferably laboratory based) to confirm negative status

**Kidney function**

**F/TDF:** Estimated creatinine clearance (must be >60 mL/min)

**F/TAF:** Estimated creatinine clearance (must be >30 mL/min)

**CAB:** Not required

**Hepatitis B screening (F/TAF and F/TDF)** because active infection is a potential safety issue

**Lipid profile** (triglyceride and cholesterol levels) for patients prescribed F/TAF, as this medication may be associated with triglyceride elevation

**STI tests** for chlamydia, gonorrhea, and syphilis for all sexually active adults

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- ### Ongoing Assessment (Oral PrEP)
- Every 3 months
    - Gonorrhea
    - Chlamydia
    - Syphilis
    - HIV
  - Assess risk factors, educate, treat any infectious found
  - Every year
    - HIV Viral Load
    - Creatinine Clearance
    - Weight, Lipid Panel

- ### Ongoing Assessment (Injectable PrEP)
- Every 2 months (Infusion visits)
    - HIV, HIV Viral Load
    - Promote adherence
  - Every 4 months
    - Gonorrhea
    - Chlamydia
    - Syphilis
    - Promote adherence, assess risk factors, educate, treat any infectious found

## Summary

- Doxycycline can be prescribed to MSM/TGW to decrease Gonorrhea, Chlamydia, Syphilis incidence
- HIV PrEP decreases risk of getting HIV
- Neither option is 100% effective
- PrEP/PEP visits are a good way to increase patient engagement and provide counseling

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