



# Sexually Transmitted Infection Prevention

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## Objectives



Be comfortable discussing the topic with patients



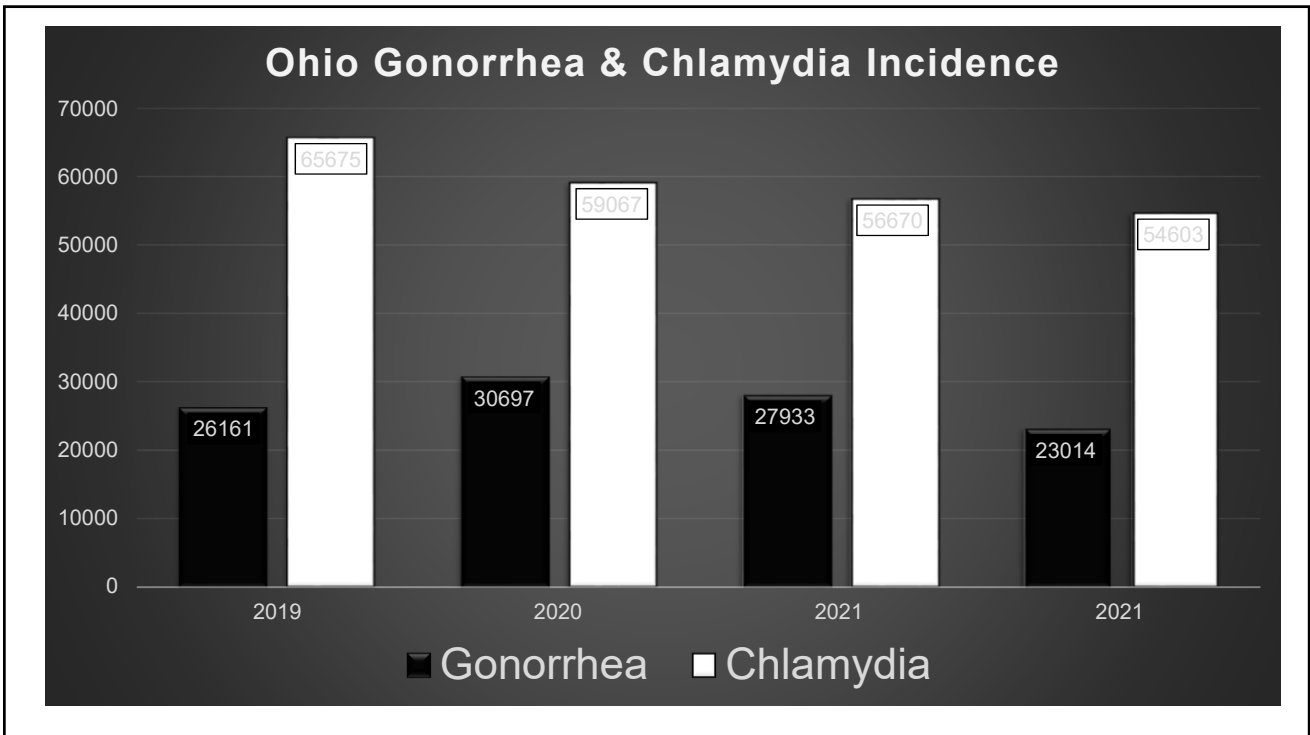
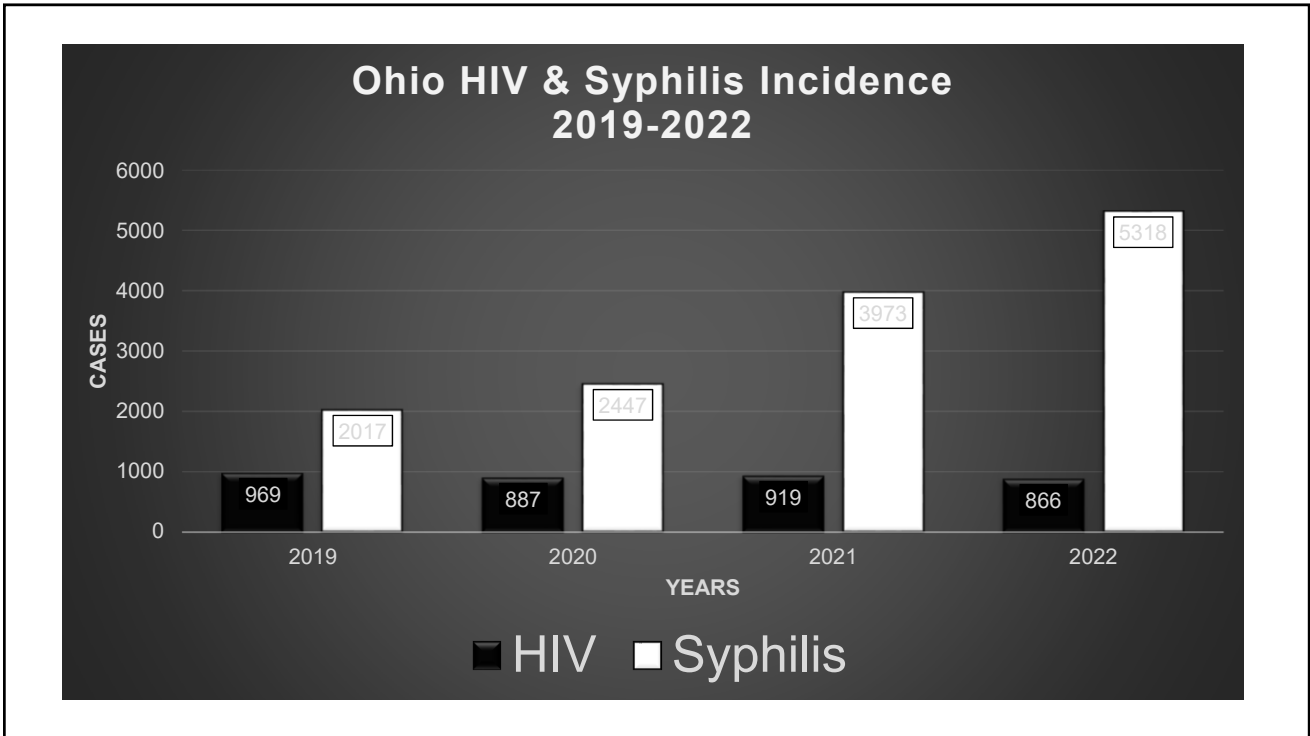
Understand the need and target patient population



Understand the options



Understand associated risks



## Discussing sexual health is step one

<b>Set the Stage</b>	<ul style="list-style-type: none"> <li>• I'm going to ask some questions about your sexual health to make sure I give you the care you deserve.</li> </ul>
<b>Partners</b>	<ul style="list-style-type: none"> <li>• Who do you have sex with? How many partners have you had in the past year?</li> </ul>
<b>Practices</b>	<ul style="list-style-type: none"> <li>• When having sex do you have vaginal, anal, and oral sex?</li> </ul>
<b>Protection</b>	<ul style="list-style-type: none"> <li>• What forms of protection do you use? How often do you have unprotected sex?</li> </ul>
<b>Past</b>	<ul style="list-style-type: none"> <li>• What STD's have you had before? How were you treated?</li> </ul>
<b>Pregnancy</b>	<ul style="list-style-type: none"> <li>• Are you okay with getting pregnant if it happens by accident?</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>• Do you ever exchange sex for drugs or money?</li> </ul>

## STI Prevention Options

- Medications – Pre and post exposure prophylaxis
  - HIV PrEP and DoxyPEP
- Risk Factor Modification – condom use, drug use, perinatal exposures
- Treatment as prevention (U=U)

## Bacterial STI Prevention

**DoxyPEP** is the use of antibiotic medication by people without known STI to protect themselves from chlamydia, syphilis, and gonorrhea

**DoxyPEP** 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

**Doxycycline 200 mg is a common tetracycline antibiotic that is well tolerated**

### Administration:

**Take Doxycycline 200 mg within 72 hours of unprotected sexual encounter. Do not take more than 200 mg per day**

## 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

**PrEP** is the use of antiretroviral medications by people without HIV to protect themselves from getting HIV

**PrEP** is recommended for adults and adolescents weighing at least 35 kg (77 lb) who are at risk of getting HIV

**Cabotegravir (CAB) 600 mg injection** (brand name **Apretude®**)

**\*On going trials for Lenacapavir**







### Oral PrEP

**Emtricitabine (F) 200 mg in combination with tenofovir disoproxil fumarate (TDF) 300 mg (F/TDF – brand name **Truvada®** or generic equivalent)**

**Emtricitabine (F) 200 mg in combination with tenofovir alafenamide (TAF) 25 mg (F/TAF – brand name **Descovy®**)\***

\*F/TAF is not approved for use by women or other people who could get HIV through receptive vaginal sex

# HIV PrEP Comparison

Side Effects	F/TDF (oral PrEP)	F/TAF (oral PrEP)	CAB (injectable PrEP)
 <b>Start-up Syndrome</b>	<ul style="list-style-type: none"> <li>- &lt;10% of patients</li> <li>- Headache, nausea, abdominal discomfort lasting &lt;1 month<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>- &lt;10% of patients</li> <li>- Headache, nausea, abdominal discomfort lasting &lt;1 month<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>- No reported start-up syndrome<sup>1</sup></li> </ul>
 <b>Kidney Safety</b>	<ul style="list-style-type: none"> <li>- Small decrease in creatinine clearance</li> <li>- Resolves after stopping drug<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Less risk of kidney-related side effects<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>- No reported risk of kidney-related side effects<sup>1</sup></li> </ul>
 <b>Bone Safety</b>	<ul style="list-style-type: none"> <li>- Small decreases in bone mineral density</li> <li>- Not associated with fractures<sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>- No reported bone safety issues<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>- No reported bone safety issues<sup>1</sup></li> </ul>
 <b>Injection Site Reactions</b>	<ul style="list-style-type: none"> <li>- N/A</li> </ul>	<ul style="list-style-type: none"> <li>- N/A</li> </ul>	<ul style="list-style-type: none"> <li>- Pain, tenderness, local skin swelling</li> <li>- Typically, mild/moderate, brief<sup>5</sup></li> </ul>
 <b>Weight and Lipids</b>	<ul style="list-style-type: none"> <li>- No reported effects on weight or lipid levels<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>- Weight gain</li> <li>- Increased triglycerides<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>- No reported effects on weight or lipid levels<sup>1</sup></li> </ul>
 <b>Overall Safety</b>	<p><b>All three types of PrEP are generally well tolerated, with side effects that are usually mild/moderate, manageable, and temporary<sup>1</sup></b></p>		

# Baseline Laboratory Testing

**REQUIRED**



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

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



**Kidney function**

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

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

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

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

**CAB:** Not required

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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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