

Health Advisory: Doxycycline for Prevention of STIs

Minnesota Department of Health, Wed, Apr 17 10:00 CDT 2024

Action Steps

Local and tribal health department: Please forward to hospitals, clinics, urgent care centers, emergency departments, pharmacies, and convenience clinics in your jurisdictions.

Hospitals, clinics and other facilities: Please forward to infection preventionists, infectious disease physicians, emergency department staff, hospitalists, and primary care clinicians.

Health care providers:

- Inform men who have sex with men (MSM) and transgender women (TGW) who have had ≥ 1 bacterial STI in the past 12 months about doxycycline post-exposure prophylaxis (doxy-PEP), including the efficacy, potential benefits and risks, and alternative options to prevent, diagnose, and treat STIs.
- Consider doxy-PEP for all MSM and TGW who have had ≥ 1 bacterial STI in the past 12 months.
- Consider offering doxy-PEP using shared decision-making to all non-pregnant women and persons at increased risk for bacterial STIs and to those requesting doxy-PEP, even if these individuals have not been previously diagnosed with an STI or have not disclosed their risk status.
- Discuss potential benefits as well as known and unknown harms of doxy-PEP including potential side effects and risk of antibiotic resistance, and the need to take doxycycline exactly as prescribed.
- Refer to [MDH: Interim Recommendations for the Use of Doxycycline for Post-Exposure Prophylaxis \(doxy-PEP\) for the Prevention of Certain Bacterial Sexually Transmitted Infections \(STIs\)](https://www.health.state.mn.us/diseases/stds/hcp/doxy pep.pdf) (<https://www.health.state.mn.us/diseases/stds/hcp/doxy pep.pdf>) for more information.
- Contact the MDH Public Health Laboratory for antimicrobial susceptibility testing of *Neisseria gonorrhoeae* isolates, if treatment failure is suspected, by emailing arlnmn@state.mn.us.

Background

The incidence of bacterial STIs, including chlamydia, gonorrhea, and syphilis, continues to increase in both Minnesota and throughout the United States. These infections disproportionately impact historically disadvantaged populations, and as a result novel prevention and treatment approaches are required. Recent evidence suggests that a single 200 mg dose of doxycycline as post-exposure prophylaxis (doxy-PEP), within 72 hours after condomless anal, oral, or other insertive/receptive sex can reduce the risk of transmission of chlamydia, gonorrhea, and syphilis among men who have sex with men (MSM) and transgender women (TGW).

Evidence

To date, results from three randomized controlled trials of doxycycline PEP in MSM on HIV pre-exposure prophylaxis (HIV PrEP) or MSM living with HIV have shown a relative risk reduction of 70-89% for chlamydia, 73-87% for syphilis, and 51-57% for gonorrhea. Evidence is similar for TGW, though in a much smaller clinical trial population. One randomized controlled clinical trial of cisgender women in Kenya

did not show that doxy-PEP was protective against bacterial STIs, possibly due to low adherence. Due to this lack of data, there is no specific recommendation for cisgender women at this time. In addition, there are currently no data on the efficacy of doxy-PEP in cisgender heterosexual men, transgender men, and other queer and nonbinary individuals. See the [MDH: Interim Recommendations for the Use of Doxycycline for Post-Exposure Prophylaxis \(doxy-PEP\) for the Prevention of Certain Bacterial Sexually Transmitted Infections \(STIs\)](https://www.health.state.mn.us/diseases/stds/hcp/doxy pep.pdf) (<https://www.health.state.mn.us/diseases/stds/hcp/doxy pep.pdf>) for more information.

Prescribing Doxycycline as PEP

- **Prescribe 200 mg of doxycycline to be taken within 72 hours** (ideally within 24 hours or as soon as possible) **after condomless oral, anal, or other insertive/receptive sex**. Doxycycline can be taken daily depending on sexual activity, but no more than 200 mg every 24 hours.
- Screen for GC and CT at all anatomic sites of exposure (urogenital, pharyngeal, and/or rectal), as well as test for syphilis and HIV (if not known person living with HIV) at initiation of doxy-PEP and every three months or sooner if there is a concern about STIs.
- Patients should be counseled about both the benefits and potential adverse effects of taking doxycycline.
- Doxycycline has not been studied in pregnancy and is not recommended in pregnancy. For patients who can become pregnant, conduct regular pregnancy testing while prescribed doxy-PEP.
- Laboratory monitoring is not routinely indicated for patients on doxy-PEP but should be considered periodically (complete blood count, liver function tests, renal function) in patients taking doxycycline for a prolonged period or at the prescriber's discretion.

If a patient is diagnosed with an STI or has a known exposure to syphilis while using doxy-PEP, they should be treated according to standard CDC Treatment Guidelines (www.cdc.gov/std/treatment-guidelines/default.htm). Patients diagnosed with CT, GC, syphilis, or HIV should be reported to MDH.

For More Information

- [MDH: Interim Recommendations for the Use of Doxycycline for Post-Exposure Prophylaxis \(doxy-PEP\) for the Prevention of Certain Bacterial Sexually Transmitted Infections \(STIs\)](https://www.health.state.mn.us/diseases/stds/hcp/doxy pep.pdf) (<https://www.health.state.mn.us/diseases/stds/hcp/doxy pep.pdf>)
- [CDC: Guidelines for the Use of Doxycycline Post-Exposure Prophylaxis for Bacterial STI Prevention](https://www.cdc.gov/std/treatment/guidelines-for-doxycycline.htm) (<https://www.cdc.gov/std/treatment/guidelines-for-doxycycline.htm>)

A copy of this HAN is available at: [MDH Health Alert Network](http://www.health.state.mn.us/han) (<http://www.health.state.mn.us/han>)
The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.