

# doxyPEP guidelines



POPULATION HEALTH DIVISION  
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH



## Health Update:

### Updated Recommendations for Prescribing Doxycycline Post-Exposure Prophylaxis (Doxy-PEP)

September 12, 2024

Update to the prior health update dated October 20, 2022

On June 6, 2024, the CDC published its first [doxy-PEP clinical guidelines](#). The San Francisco Department of Public Health (SFDPH) celebrates the publication of these new national-level guidelines.

This health update summarizes developments in the field of doxy-PEP and their effect on SFDPH's recommendations for clinical providers.

#### Situational Update

On October 20, 2022, San Francisco Department of Health (SFDPH) released a [health update](#) presenting the nation's first doxy-PEP guidance from a public agency. The impetus for that guidance was the finding that doxy-PEP significantly reduced acquisition of bacterial sexually transmitted infections (STIs) in men who have sex with men (MSM) and trans women who were living with HIV or taking HIV PrEP and who were enrolled in the [DoxyPEP Study](#).



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## CDC Clinical Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention, United States, 2024

Recommendations and Reports / June 6, 2024 / 73(2):1–8

[Print](#)

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[View suggested citation](#)

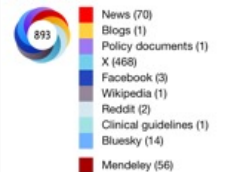
### Summary

No vaccines and few chemoprophylaxis options exist for the prevention of bacterial sexually transmitted infections (STIs) (specifically syphilis, chlamydia, and gonorrhea). These infections have increased in the United States and disproportionately affect gay, bisexual, and other men who have sex with men (MSM) and transgender women (TGW). In three large randomized controlled trials, 200 mg of doxycycline taken within 72 hours after sex has been shown to reduce syphilis and chlamydia infections by >70% and gonococcal infections by approximately 50%.

This report outlines CDC's recommendation for the use of doxycycline postexposure prophylaxis (doxy PEP), a novel, ongoing, patient-managed biomedical STI prevention strategy for a selected population. CDC recommends that MSM and TGW who have had a bacterial STI (specifically syphilis, chlamydia, or gonorrhea) diagnosed in the past 12 months should receive counseling that doxy PEP can be used as postexposure prophylaxis to prevent these infections. Following shared decision-making with their provider, CDC recommends that providers offer persons in this group a prescription for doxy PEP to be self-administered within 72 hours after having oral, vaginal, or anal sex. The recommended dose of doxy

### Article Metrics

Altmetric:



28 Total citations

<https://www.sf.gov/sites/default/files/2024-09/Update-Updated-Recommendations-Prescribing-Doxy-PEP-SFDPH-FINAL-9.12.24.pdf>

<https://www.cdc.gov/mmwr/volumes/73/rr/rr7302a1.htm>

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**CDC** Sexually Transmitted Infections (STIs) EXPLORE TOPICS SEARCH

DECEMBER 5, 2024

## Doxy PEP for Bacterial STI Prevention

**KEY POINTS**

- Healthcare providers can use CDC guidelines to prescribe doxycycline post-exposure prophylaxis (doxy PEP) to prevent bacterial STIs
- Discuss the pros and cons of doxy PEP with gay, bisexual, and other men who have sex with men and transgender women who had a bacterial STI in the last year
- If offering doxy PEP, write a prescription for patients to self-administer 200 mg of doxycycline as soon as possible within 72 hours after sex
- Offer doxy PEP in the context of comprehensive sexual health approach

**Overview**

CDC encourages providers to use [Clinical Guidelines on the Use of Doxycycline Post-exposure Prophylaxis for Bacterial STI Prevention](#) to inform doxy PEP practices. These guidelines were developed as part of a comprehensive review of available research, as well as extensive internal and external consultation.

**Did you know?**  
Doxy PEP has proven to reduce the risk of getting some bacterial STIs for gay.

**ON THIS PAGE**

- Overview
- What you can do
- What researchers are still learning
- Resources
- Suggested citation

<https://www.cdc.gov/sti/hcp/doxy-pep/index.html>

**National Coalition of STD Directors** SEARCH CONTACT STI INFORMATION & RESOURCES LEARNING CENTER

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[Resources > Doxy and STI PEP Sample Policies](#)

**STD RESOURCE**

## DOXY AND STI PEP SAMPLE POLICIES

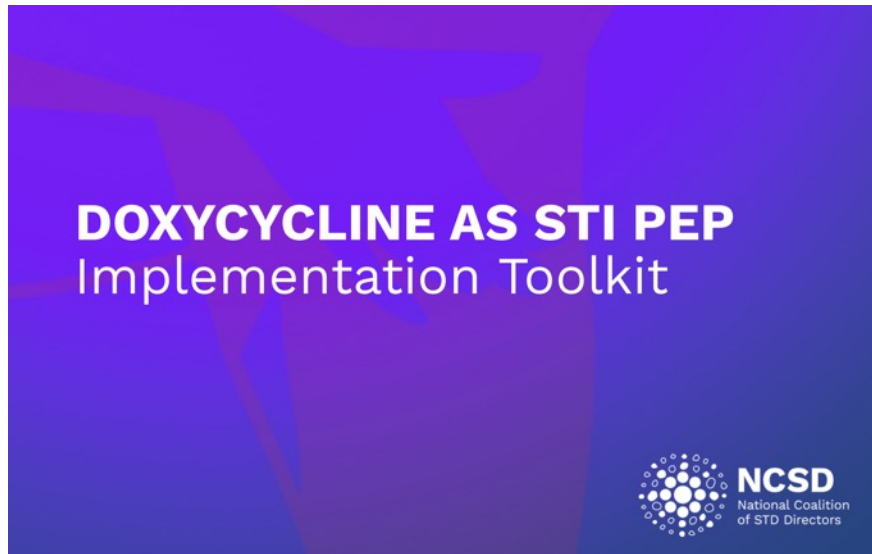
Download policies and protocols from a sample of clinics currently providing doxycycline as STI PEP.

<https://www.ncsddc.org/resource/doxy-and-sti-pep-sample-policies/>

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## Health Equity Considerations for Doxycycline as STI PEP

Gay, bisexual, and other men who have sex with men (GBMSM) and transgender people experience higher rates of STIs than other populations, and the disparities are even larger for GBMSM and trans people of color. As an effective new prevention tool for cisgender GBMSM and transgender women, doxycycline as STI PEP has the potential to lessen health disparities. However, lessons learned from the introduction of PrEP for HIV and Jynneos as the Mpox vaccine demonstrate that an effective introduction of doxycycline as STI PEP will require careful attention to health equity.

The following are ways you can ensure your doxycycline as STI PEP program is equitable and prepared to serve your community.

### Develop Equitable Criteria for Offering Doxycycline as STI PEP

Develop organization-wide criteria for when you will proactively offer doxycycline as STI PEP. For example, you may offer doxycycline as STI PEP to every GBMSM or transgender woman who has tested positive for syphilis or for a bacterial STI in the past six months. You may want to build counseling about doxycycline as STI PEP into certain routine visits.

<https://www.ncsddc.org/wp-content/uploads/2023/08/Doxycycline-as-STI-PEP-Toolkit-August-2023.pdf>

### WHAT IS DOXY PEP?

**DOXY.** Doxycycline, also called simply "doxy", is an antibiotic that's been in use since 1967.

**PEP.** PEP stands for Post-Exposure Prophylaxis. Post-exposure prophylaxis is any preventive medical treatment started after exposure to an infection in order to prevent the infection from occurring.

**IN OTHER WORDS:** Taking doxycycline after potentially being exposed to a bacterial STI can help prevent the STI from spreading to your system and causing illness.

**WHO CAN TAKE IT?** Doxy PEP is effective in adults assigned male at birth and has been primarily studied in gay, bisexual, and other men who have sex with men (GBMSM) and people living with HIV. So far, it has not been found to work for those assigned female at birth. No studies have yet looked at doxy PEP specifically with nonbinary or intersex people, nor adolescents.

**HOW EFFECTIVE IS IT?** When taken as prescribed, doxy leads to up to an:
 

- 87% reduction in syphilis
- 88% reduction in chlamydia
- 55% reduction in gonorrhea

**IT'S ALSO IMPORTANT TO KNOW...**

- It's more effective the sooner you take it. It is taken within 72 hrs, ideally within 24-hour sexual contact.
- This is a new use for doxy that has been in use since the '50s.
- Doxy is NOT a replacement for HIV PEP or PrEP.

LEARN MORE [QR CODE]

NCS D National Coalition of STD Directors

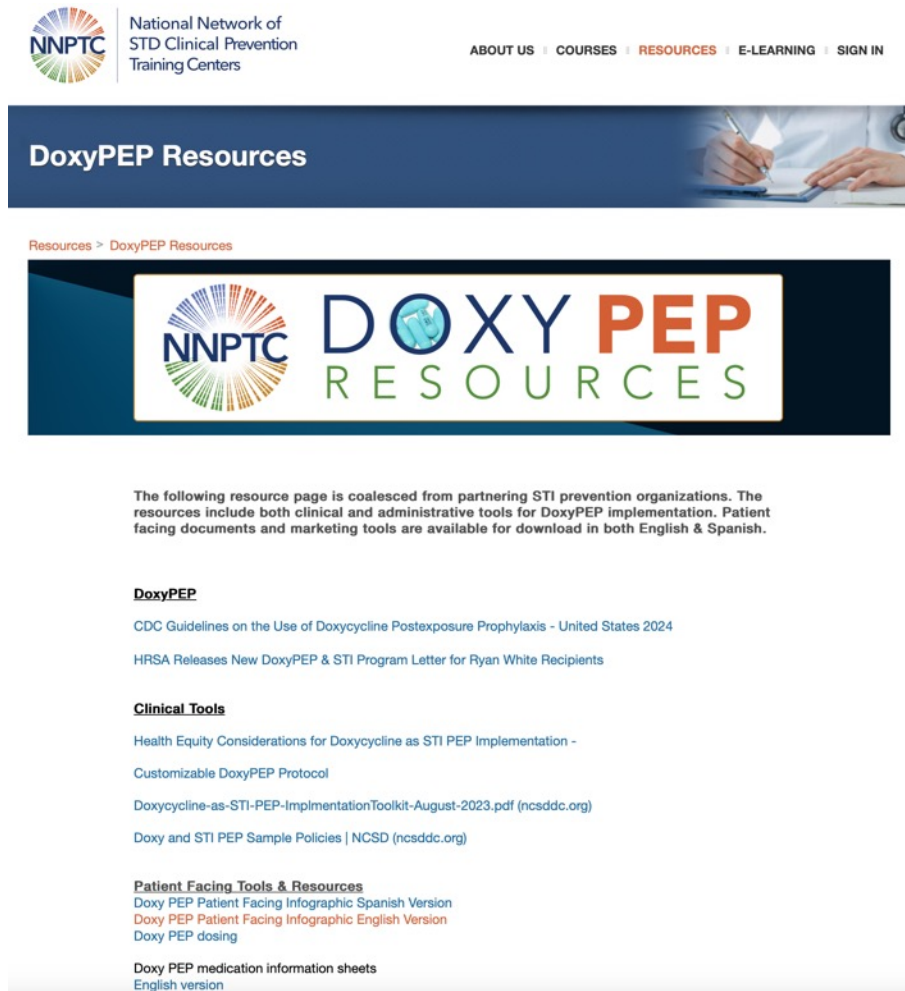
**GRAPHICS**  
Social media is a key tool in spreading awareness. Our website has a full range of the graphics seen below that are sized for Facebook, Twitter, Instagram posts, and Instagram stories. We hope you'll share these graphics widely!



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The screenshot shows the NNPTC website header with navigation links: ABOUT US, COURSES, RESOURCES, E-LEARNING, and SIGN IN. Below the header is a blue banner with the text "DoxyPEP Resources" and a background image of a doctor's hands. Underneath is a breadcrumb trail: Resources > DoxyPEP Resources. The main content area features a large graphic with the NNPTC logo and the text "DOXY PEP RESOURCES". Below this graphic is a paragraph of introductory text, followed by sections for "DoxyPEP", "Clinical Tools", and "Patient Facing Tools & Resources", each with a list of links to various resources.

National Network of  
STD Clinical Prevention  
Training Centers

ABOUT US | COURSES | RESOURCES | E-LEARNING | SIGN IN

## DoxyPEP Resources

Resources > DoxyPEP Resources

# DOXY PEP RESOURCES

The following resource page is coalesced from partnering STI prevention organizations. The resources include both clinical and administrative tools for DoxyPEP implementation. Patient facing documents and marketing tools are available for download in both English & Spanish.

**DoxyPEP**

- [CDC Guidelines on the Use of Doxycycline Postexposure Prophylaxis - United States 2024](#)
- [HRSA Releases New DoxyPEP & STI Program Letter for Ryan White Recipients](#)

**Clinical Tools**

- [Health Equity Considerations for Doxycycline as STI PEP Implementation - Customizable DoxyPEP Protocol](#)
- [Doxycycline-as-STI-PEP-ImplementationToolkit-August-2023.pdf \(ncsddc.org\)](#)
- [Doxy and STI PEP Sample Policies | NCSDD \(ncsddc.org\)](#)

**Patient Facing Tools & Resources**

- [Doxy PEP Patient Facing Infographic Spanish Version](#)
- [Doxy PEP Patient Facing Infographic English Version](#)
- [Doxy PEP dosing](#)

**Doxy PEP medication information sheets**

- [English version](#)

## DoxyPEP Customizable DoxyPEP Protocol

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## IUSTI Europe Position Statement on use of DoxyPEP: June 2024

### Scope

This position statement is aimed at front-line clinical practitioners and public health authorities in WHO European Region providing services for people wishing to reduce their risk of acquiring sexually transmitted infections (STIs), including HIV.

### Assurance

This statement was developed by the IUSTI Europe STI Guidelines Editorial Board<sup>s</sup> and agreed by the IUSTI Europe Council at a meeting on 25 June 2024.

### Position Statement

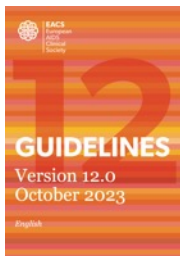
1. IUSTI Europe agrees that there is evidence of benefit at the individual level for oral doxycycline 200mg taken 24 to 72 hours after sexual exposure (DoxyPEP) in reducing acquisition of some bacterial STIs in some settings. The most compelling evidence is in reduction of syphilis and chlamydia incidence, with least likely impact on gonorrhoea.
2. IUSTI Europe believes there remain considerable uncertainties over longer-term benefits, population impact, antimicrobial resistance emergence, and scalability to health systems very different to those where DoxyPEP has been intensively studied. Population impact has only been reported to date from a single jurisdiction.
3. Decisions to offer DoxyPEP should therefore be taken in the context of:
  - a. **local STI epidemiology and desired outcome:** be clear which infection(s) the DoxyPEP service is intended to impact and how this will be monitored
  - b. **capacity of sexual health services:** Provision of DoxyPEP must not be at the expense of maintaining established STI and HIV controls including access to

The screenshot shows the Eurosurveillance website interface. At the top, it says 'Eurosurveillance Europe's journal on infectious disease surveillance, epidemiology, prevention and control'. Below the navigation bar, the article title is 'Using doxycycline for prophylaxis of bacterial sexually transmitted infections: considerations for the European Union and European Economic Area' by Otilia Mårdh<sup>1</sup>, Diamantis Plachouras<sup>1</sup>. The article is marked as a 'Meeting report' and 'Open Access'. There are buttons for 'Like' (0), 'Download', and 'Check for updates'. On the right side, there are options to 'Receive the Table of contents', 'Submit your article here', and 'Share'. Below the article title, there are icons for 'Abstract', 'Full-Text', 'References (15)', 'Supplementary Material', and 'Metrics/Cited By'. The article preview shows the title and authors again.

[https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2023.28.46.2300621?emailalert=true#abstract\\_content](https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2023.28.46.2300621?emailalert=true#abstract_content)

[https://iusti.org/wp-content/uploads/2024/06/DOXYPEP-Position-Statement-26\\_6\\_24-FINAL.pdf](https://iusti.org/wp-content/uploads/2024/06/DOXYPEP-Position-Statement-26_6_24-FINAL.pdf)

# doxyPEP guidelines



<https://www.eacsociety.org/media/guidelines-12.0.pdf>

## Pre-exposure Prophylaxis (PrEP)

1. PrEP should be used in adults at high-risk of acquiring HIV infection when condoms are not used consistently. Before PrEP is initiated, HBV serology status should be documented

- Recommended in HIV-negative men who have sex with men (MSM) and transgender individuals when condoms are not used consistently with casual partners or with partners with HIV who are not virally suppressed on treatment. A recent STI, use of post-exposure prophylaxis or chem-sex may be markers of increased risk for HIV
- May be considered in HIV-negative heterosexual women and men who are inconsistent in their use of condoms and have multiple sexual partners where some may have untreated or inadequately suppressed HIV infection

2. PrEP is a medical intervention that provides a high level of protection against HIV acquisition but does not protect against other STIs or pregnancy and should be used in combination with other preventive interventions. PrEP should be supervised by a doctor, experienced with sexual health and use of HIV medicines, possibly as part of a shared care arrangement

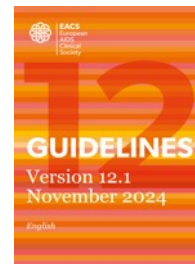
### The following procedures are recommended:

- Documented negative fourth generation HIV test a week prior to starting PrEP. In case of suspicion of acute HIV-infection, an RNA test on plasma should also be performed, page 15. During PrEP, a fourth generation HIV test should be repeated at one month and then every 3 months. In stable long-term users who are on 6 monthly prescriptions an interim fourth generation test that can be performed without a visit to clinic
- PrEP should be changed to triple-drug ART without interruption in case of early clinical signs of HIV seroconversion or a positive HIV diagnostic test which may necessitate referral for evaluation to an HIV unit, see ART initiation page 12
- PrEP may continue during pregnancy and breastfeeding if the risk of acquiring HIV persists
- Before PrEP is initiated, HBV serology status should be documented. If HBsAg positive, see [Clinical Management and Treatment of HBV and HCV Co-infection](#)
- Counsel that PrEP does not prevent other types of STIs; screen for STI (syphilis, chlamydia, gonorrhoeae, HAV, HCV) when starting PrEP and regularly during use of PrEP, pages 7-9. All persons under PrEP should be offered vaccinations against HAV, HBV, HPV and monkeypox virus. Doxycycline post exposure prophylaxis, 200 mg within 24 to 72h after sexual intercourse, proved to be effective in preventing bacterial STIs in MSM with the caveat of the unknown long terms effects on microbiota and STIs resistance. It can be proposed to persons with repeated STIs on a case by case basis
- Counsel that TDF-based PrEP may rarely impact renal and bone health, see pages 78 and 80-82. Check renal function within the first 3 months of starting PrEP and check renal function and bone health during PrEP according to guidelines on TDF use
- Counsel that PrEP, like other prevention methods, only works when it is taken. An adherence check one month after starting is recommended, and counselling may be required in follow-up
- Counsel that PrEP can be prescribed long-term but that each consecutive PrEP prescription should cover the period to the next visit which will be every 3 months for the majority but could be a maximum of 6 months in stable long-term users (over one year of daily PrEP)

3. PrEP regimen

- The most common drug available is a generic version with 300mg of tenofovir (formulated as disoproxil fumarate/maleate/phosphate) combined with 200mg of emtricitabine (TDF/FTC). In certain countries, TDF is labelled as 245 mg rather than 300 mg to reflect the amount of the prodrug (tenofovir disoproxil) rather than the fumarate salt (tenofovir disoproxil fumarate)
- The effectiveness of daily and on-demand regimens of TDF/FTC has been extensively evaluated in clinical studies in men, but on demand has only been evaluated in pharmacokinetic/pharmacodynamic (PK/PD) studies for the female genital tract (FGT) and not at all for neovaginal/neopenile tissues
- TAF/FTC could be considered, if available, when creatinine clearance or bone mineral density preclude TDF/FTC. TAF/FTC has been evaluated as a daily regimen in comparison to TDF/FTC in men and transgender women. It was non-inferior, with a statistically significant benefit for renal and bone biomarkers
- Long-acting cabotegravir is available on application to compassionate release program, pending EMA approval, for individuals for whom TDF/FTC is contraindicated

- TDF/FTC 300\*/200 mg 1 tablet qd. In both men and women PrEP should be taken for 7 days before the first exposure and stopped 7 days after the last exposure
- For men only, PrEP may be dosed 'on demand' (double dose of TDF/FTC 2-24 hours before each sexual intercourse, followed by two single doses of TDF/FTC, 24 and 48 hours after the first drug intake; no data for TAF/FTC so far). There are no efficacy data with on demand PrEP with TDF/FTC in women
- PK/PD studies comparing TAF/FTC to TDF/FTC suggest that the recommendations for starting and stopping TAF/FTC can be extrapolated from TDF/FTC
- Use of generic formulations of TDF/FTC, if and where available, may help to improve the cost-effectiveness of PrEP, which is essential for its use as public health approach
- Rates of adverse eGFR declines are generally low for those using TDF for PrEP, but PrEP users with the highest risk of adverse renal outcomes on TDF and most in need for systematic monitoring of renal function are older individuals and those with pre-existing renal impairment. Data on renal outcomes with use of TDF vs. TAF in those on PrEP with renal impairment is limited, recommendations to follow guidelines on TDF use in persons with HIV, see pages 81-83. Similarly, no data on use of 'on demand' vs daily PrEP for renal outcomes
- Any person presenting with low PrEP adherence and a condomless at risk sexual intercourse should benefit from post exposure prophylaxis. Low adherence is defined :
  - For men and women on daily regimen: less than 4 pills a week, regardless of the distribution
  - For men on on demand regimen: less than 1 pill before and 1 pill after sexual intercourse



<https://eacs.sanfordguide.com>

## 4.3 Sexually-transmitted infections (STIs)



### Prevention of STIs:

- Wording was modified, removing the reference to gonococcal infection prevention among the benefits of doxy-PEP

### Syphilis management:

- Panelists agreed to remove isolated late-latent syphilis without neurological symptoms as an indication to consider CSF examination.

# doxyPEP guidelines

New Zealand Sexual Health Society Doxy-PEP statement. Final version 02/04/24.



New Zealand



## NZSHS doxy-PEP statement for Aotearoa New Zealand

Sexually transmissible infections (STIs) are on the rise worldwide and in Aotearoa/New Zealand. Specifically, the rates of three major STIs (syphilis, gonorrhoea, chlamydia) are all increasing again in Aotearoa after an apparent decline during the COVID-19 pandemic. (ESR, 2023) Three subpopulations bear the heaviest burden of STIs in Aotearoa:

- Gay, Bisexual, and other Men who have sex with men (GBMSM): rate of syphilis in 2023 760/100,000 compared to 6/100,000 among the heterosexual population; rate of gonorrhoea in 2023 5,587/100,000 compared to 129/100,000 among heterosexual men and 142/100,000 among heterosexual women (ESR, 2023).
- Māori and Pacific people: in 2023, rates among Māori and Pacific people of syphilis were twice and of gonorrhoea 3-4 times that of people of other ethnicities. Among 35 cases of congenital syphilis between 2017 and 2023, 26 were Māori and 6 Pacific babies (ESR, 2023)
- Young people: in 2023, the age group 20-24 had the highest rate for gonorrhoea and chlamydia (ESR, 2023).

NZSHS believes that the epidemics of STIs in Aotearoa/New Zealand can be controlled, similar to the most recent trends of the HIV epidemic, by implementing a comprehensive STI prevention approach. Drawing on the Consensus Statement on Comprehensive HIV Prevention in Aotearoa/New Zealand (hivconsensus.org.nz) and Aotearoa New Zealand Sexually Transmitted and Blood Borne Infection Strategy 2023-2030 (Ministry of Health, 2023), we define comprehensive STI prevention as

[https://www.nzshs.org/site\\_files/38652/upload\\_files/AoNZfinaldoxyPEPstatement\(1\).pdf?dl=1](https://www.nzshs.org/site_files/38652/upload_files/AoNZfinaldoxyPEPstatement(1).pdf?dl=1)



Australia

The screenshot shows the ASHM website with a navigation bar containing 'Resources', 'Training', 'Prescriber Program', 'Sign Up', and 'Log In'. Below the navigation bar are menu items for 'Global Development', 'Conferences and Events', 'Get Involved', and 'About ASHM'. The main content area features the title '2023 Consensus Statement on doxycycline prophylaxis (Doxy-PEP) for the prevention of syphilis, chlamydia and gonorrhoea among gay, bisexual, and other men who have sex with men in Australia' dated September 20, 2023. There are social media sharing buttons for Facebook, Twitter, and LinkedIn, and links to download the PDF version and the full summary of the roundtable. A sidebar on the right lists 'Other Articles and Publications' including 'A trusting and responsive relationship: The power of HIV nursing', 'New tool provides critical legal information about HIV for clinicians', 'Interviews with Nurse Practitioners on S100 prescribing', 'Highlights from HIV&AIDS 2024 and the 25th IUSTI World Congress', 'First of its kind Chemsex Toolkit for health workforce in Asia-Pacific launched', and 'Trans and Gender Diverse Sexual Health'.

<https://www.mja.com.au/journal/2024/220/7/australian-consensus-statement-doxycycline-post-exposure-prophylaxis-doxy-pep>

# doxyPEP guidelines

1



Ireland

## HSE interim guidance on Doxycycline as Prophylaxis for Sexually Transmitted Infections, July 2024

### Background and context:

In Ireland, as in many other countries sexually transmitted infections (STIs) notification rates continue to rise, particularly affecting gay, bisexual and other men who have sex with men (gbMSM) and young people.

With the introduction of the World Health Organization (WHO) targets for STIs in July 2022<sup>1</sup>, there is renewed focus on STIs. The WHO has published Global Health Sector Strategies on, respectively, HIV, viral hepatitis and sexually transmitted infections for the period 2022-2030 (GHSS). The targets for 2030 are very ambitious and include a 90% reduction in the number of new cases of syphilis and gonorrhoea as well as 50% reduction in the number of new cases of chlamydia and trichomoniasis by 2030. Their aim is to eliminate STIs as a significant public health problem by 2030.

Concerted efforts are needed to respond to increases and reverse the trends in STIs, taking a combination approach which includes supporting people in achieving good sexual health, delivery of condoms at scale, good access to testing, treatment, partner notification and investment in services.

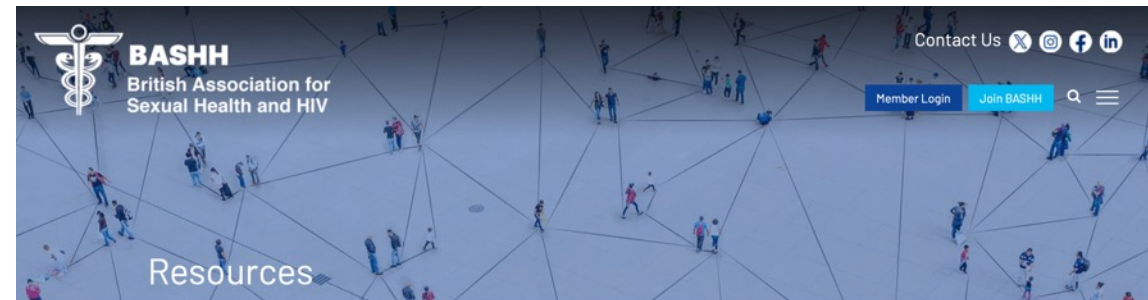
Doxycycline taken as Post-Exposure Prophylaxis (doxyPEP) following sexual exposure has been shown to reduce incident syphilis and chlamydia in three randomised controlled trials amongst gbMSM and transgender women (TGW)<sup>2,3,4</sup>. One of these studies also showed a reduction in incident gonorrhoea infections<sup>4</sup>. The absence of this effect in the other studies is likely related to background tetracycline resistance in gonorrhoea isolates in the settings where these studies were conducted.

One study in heterosexual women did not find a benefit in incident STI reduction, most likely related

<https://www.sexualwellbeing.ie/for-professionals/research/research-reports/hse-interim-guidance-on-doxycycline-as-prophylaxis-for-sexually-transmitted-infections-july-2024.pdf>



U.K.



Home | Resources | BASHH position statement on doxycycline as prophylaxis for sexually transmitted infections (2021 update)

## BASHH position statement on doxycycline as prophylaxis for sexually transmitted infections (2021 update)

Last Updated: 09 Nov 2021

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[https://www.bashh.org/resources/73/bashh\\_position\\_statement\\_on\\_doxycycline\\_as\\_prophylaxis\\_for\\_sexually\\_transmitted\\_infections\\_2021\\_update](https://www.bashh.org/resources/73/bashh_position_statement_on_doxycycline_as_prophylaxis_for_sexually_transmitted_infections_2021_update)



# doxyPEP guidelines

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DOI: 10.1111/ddg.15282

**GUIDELINE**



Germany



Belgium

## Position statement of the German STI Society on the prophylactic use of doxycycline to prevent STIs (Doxy-PEP, Doxy-PrEP)

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**Summary**  
Over the past two decades, there has been a rise in the incidence of syphilis, particularly among men who have sex with men (MSM). This has sparked interest in studying the prophylactic use of doxycycline to prevent syphilis and other sexually transmitted infections (STIs), commonly referred to as Doxycycline Pre- or Post-Exposure Prophylaxis (Doxy-PrEP, Doxy-PEP). At the same time, demand from potential users for this preventive measure is increasing. Several randomized controlled trials have demonstrated that the prophylactic use of doxycycline in MSM and trans women using HIV pre-exposure prophylaxis (HIV-PrEP) or living with an HIV infection effectively reduces the risk of syphilis and chlamydia infections. At present, however, unresolved questions remain, particularly regarding implications of a broad implementation of prophylactic doxycycline to prevent STIs on tetracycline and other antimicrobial resistance in bacterial STIs, non-STI-related bacterial pathogens, and the microbiome. In response to the increasing demand and the challenge of balancing effectiveness, safety, and the risk of promoting antibiotic resistance, the German STI Society (DSTIG) has issued a position statement, providing specific recommendations regarding potential indications, criteria, and occasions for the use of doxycycline in STI prevention. These recommendations are based on current evidence and expert opinion.

**SUMMARY AND RECOMMENDATIONS**

Given the rising incidence of syphilis over the past 20 years in Germany and other countries, particularly among men who have sex with men (MSM), there has been an increasing body of evidence and demand for the preven-

tive use of the antibiotic doxycycline to avoid syphilis and other sexually transmitted infections (STIs). The preventive intake of doxycycline before, during, or after sexual exposure is internationally referred to as "doxycycline Pre- or Post-Exposure Prophylaxis (Doxy-PrEP/-PEP)." To promote terminological clarity, Doxy-PrEP/-PEP is referred to as

## Doxy post-exposure prophylaxis for STI not endorsed by BREACH

*De Scheerder M-A, Agnès Libois, Jens Van Praet and Chris Kenyon*

After a debate at the BREACH symposium on November 30<sup>th</sup> 2023, a consensus was reached not to recommend the widespread use of DoxyPEP for the prevention of STI.

Doxycycline post exposure prophylaxis (DoxyPEP) is the intake of the antibiotic doxycycline 200 mg in prevention of sexually transmitted infections (STI). At least one dosis of the antibiotic is taken maximum 72 hours after the sexual contact. It is often taken in a context of risk sexual behaviour and in combination with PrEP as a prevention of HIV transmission.

DoxyPEP studies (Ipergay, doxyPEP, doxyVAC) showed efficacy to decrease the incidence of syphilis and chlamydia (and in some studies gonorrhea depending on the level of tetracycline resistance in gonorrhea) but the number of symptomatic infections was low or not reported.<sup>1,2,3</sup>The Belgian Gonoscreen study has shown little or no impact of screening for chlamydia and gonorrhea on the incidence of these infections in asymptomatic MSM taking PrEP.<sup>4</sup>

Antimicrobial resistance (AMR) is a huge concern in STI and other bacteria. Data on the use of doxycycline and resistance are very limited but some studies showed an increase in AMR.<sup>5,6</sup>

Considering that the number to treat to avoid a symptomatic infection with gonorrhea or chlamydia is probably very high, the considerable potential to select resistance in STIs and

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Czechia

## Profylaxe jiných sexuálně přenosných chorob, Doxy-PEP

Zvýšený výskyt syfilis, kapavky a chlamydiových infekcí nutí k hledání postupů, které omezí riziko nákazy, a to zejména v exponovaných skupinách MSM a transgender žen, zvláště pokud užívají preexpozici profylaxi proti HIV.

Použití doxycyklinu v postexpozici profylaxi STI bylo zkoumáno v klinických studiích:

- V **rozšířené fázi francouzské IPERGAY study** bylo 232 MSM užívajících PrEP randomizováno k užití 200mg doxycyklinu 24-72 hodin po análním nebo orálním sexu bez použití kondomu, oproti kontrolní skupině bez doxy-PEP došlo k významné redukci chlamydiových nákaz o 70 % a případů syfilis o 73 %, u kapavky významný rozdíl nebyl.
- Americká randomizovaná open-label studie **DoxyPEP** zahrnuje 501 MSM a TGW s HIV infekcí nebo užívajících PrEP s anamnézou sexu bez užití kondomu a nejméně jednou STI v posledních 12 měsících. Použití 200mg doxycyklinu ideálně 24 hodin (ne později než za 72 hodin) po análním, orálním nebo vaginálním sexu bez kondomu vedlo k redukci všech tří nákaz (zejména vzhledem k nižší rezistenci gonokoků k tetracyklinu v USA oproti Francii).
- Nejvíce je citována francouzská studie **ANRS DOXYVAC**, zařadila MSM užívající PrEP, kteří měli v posledních 12 měsících STI. Ve skupině užívajících doxycyklin 24-72 hodin po sexu (n=332) došlo oproti skupině bez doxy-PEP k významné redukci kapavky (HR 0,49), chlamydiových infekcí (HR 0,11) a syfilis (HR 0,21)
- Oproti tomu v jediné studii provedené u cisgender žen v Keni nedošlo k redukci STI, nejspíše pro špatnou adhezenci (doxycyklin byl detekován ve vlasech pouze u 29 % žen v rameni s doxycyklinem).

**Doxycyklin** je širokospektré tetracyklinové antibiotikum s dobrým vstřebáváním ze zažívacího traktu, s biologickou dostupností 90 % a poločasem asi 12 hodin. Používá se mimo jiné k léčbě chlamydiových infekcí a jako alternativní léčba syfilis u pacientů alergických k penicilinu. Preexpozici profylaxie doxycyklinem chrání před nákazou malárií, postexpozici se doporučuje v USA po přísátí klíštěte k prevenci lymfské boreliózy. K nežádoucím účinkům doxycyklinu patří zejména gastrointestinální intolerance (od tlaku či bolesti v nadbřišku po eroze až vředy v jícnu, nauzea, zvracení, průjem) a fotosenzibilizace. I při dlouhodobém užívání (například v léčbě akné, rosacey či v profylaxi malárie) jsou závažné reakce vzácné.

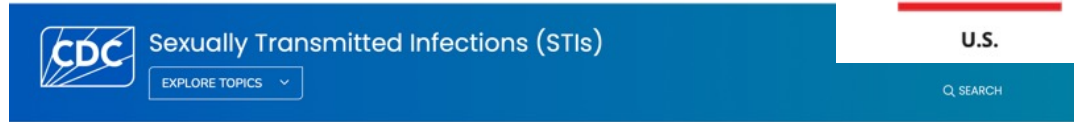
Potenciálně rizikový je vliv užívání doxycyklinu na mikrobiom a uplatnění selektivního tlaku se vzestupem rezistence u běžné mikroflory nebo u původců STI. Krátkodobá rizika doxy-PEP jsou zejména nevelká, dlouhodobá jsou ale nejasná.

# doxyPEP guidelines

Country for which you are responding	Are there any official <b>national doxyPEP guidelines</b> / statements / positions available in your country?	If you answered yes, please provide a link to the document, if publicly available	Are there any <b>community doxyPEP information materials</b> available in your country?	Provide a link to materials you are aware of, if publicly available	Are there any <b>national surveys</b> on doxyPEP use available in your country?
Italy	No		Yes	<a href="https://www.plusroma.it/doxy pep/">https://www.plusroma.it/doxy pep/</a> <a href="https://www.dirittisessuali.it/p/doxy pep-linee-guida">https://www.dirittisessuali.it/p/doxy pep-linee-guida</a>	I don't know / I am not sure
Greece	No		No		No
Portugal	No		No		No
France	I don't know / I am not sure		Yes		I don't know / I am not sure
Slovenia	No		No		No
Germany	Yes	<a href="https://register.awmf.org/assets/guidelines/055-008I_S2k_HIV-Präexposition prophylaxe_2024_04_02.pdf">https://register.awmf.org/assets/guidelines/055-008I_S2k_HIV-Präexposition prophylaxe_2024_04_02.pdf</a>	Yes	<a href="https://www.aidshilfe-hamburg.de/informieren/aktuelles/doxy-prep/-/pep-was-ist-das">https://www.aidshilfe-hamburg.de/informieren/aktuelles/doxy-prep/-/pep-was-ist-das</a>	I don't know / I am not sure
Croatia	No	While, there is no, HIV clinicians are following EACS guidelines, so doxyPEP is prescribed on individual basis	No		No
Czechia	Yes	To be published in the fall 2024	No		Yes
North Macedonia	No		No		No
Bulgaria	No		No		No
France	No		Yes	<a href="https://vih.org/vih-et-sante-sexuelle/20220731/prevention-des-ist-la-doxycycline-efficace-en-post-exposition/">https://vih.org/vih-et-sante-sexuelle/20220731/prevention-des-ist-la-doxycycline-efficace-en-post-exposition/</a>	I don't know / I am not sure
Ireland	Yes	<a href="http://Man2man.ie/doxyprep/">Man2man.ie/doxyprep/</a>	Yes	HIV Ireland	I don't know / I am not sure

Source: EATG rapid survey (September 2024)

# doxyPEP community guidelines



U.S.

## Preventing STIs with Doxy PEP

### KEY POINTS

- Taking the antibiotic doxycycline within 72 hours after sex can help some people reduce the chances of getting sexually transmitted infections (STI). This is called "doxy PEP."
- Have an open and honest conversation with your healthcare provider about the types of sex you have.
- Together, you and your healthcare provider can decide if doxy PEP is right for you and discuss other ways to protect your sexual health.



## Doxy PEP overview

Doxycycline (or "doxy" for short) is a common antibiotic.

Recent research shows that taking doxycycline within 3 days (or 72 hours) after sex can help some people reduce the chances of getting syphilis, chlamydia, and, in some studies, gonorrhea. This prevention strategy is called doxy PEP.

### ON THIS PAGE

[Doxy PEP overview](#)

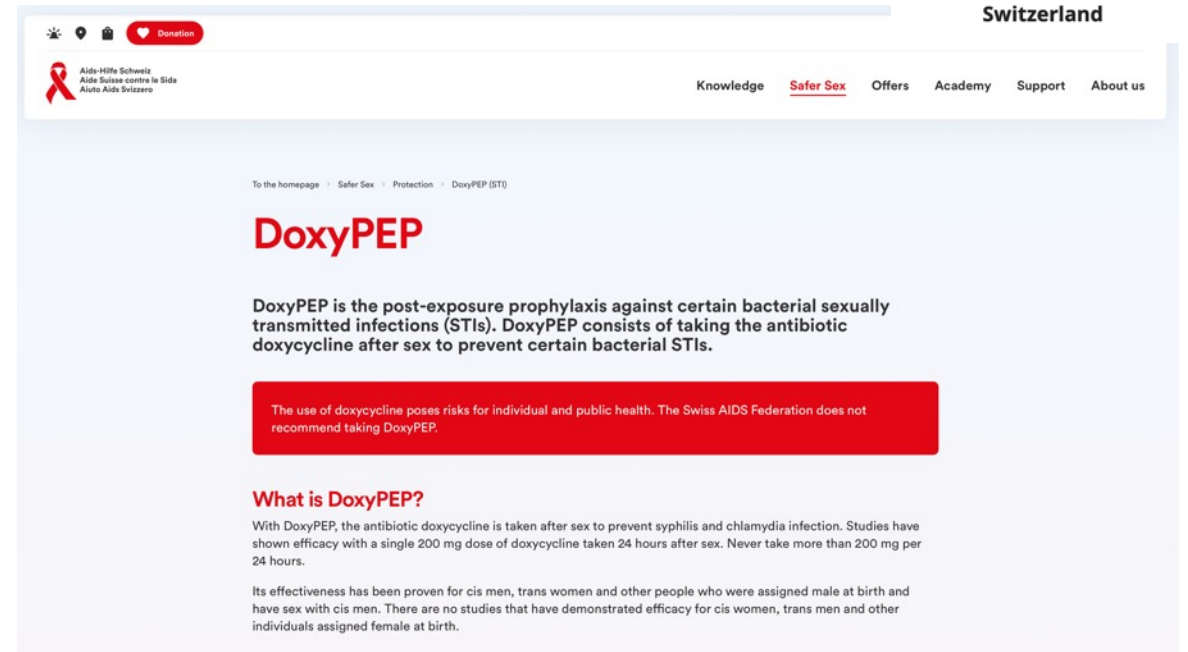
[Populations](#)

[Talk to your healthcare provider](#)

[How to take doxy PEP](#)



Switzerland



<https://aids.ch/en/safer-sex/protection/doxy-pep/>

# doxyPEP community guidelines



Germany

Feedback Impressum Datenschutz

**Aidshilfe Hamburg** Termine Informieren Beraten Workshops Mitmachen Über uns Selbsthilfe Shop Spenden

### Doxy PrEP / PEP was ist das?

Angesichts der stetig ansteigenden Zahlen sexuell übertragbarer Infektionen, hat auch die Diskussion um die Doxycyclin als PrEP/PEP wieder an Fahrt aufgenommen. Damit Ihr die Pros und Contras der "Doxy" für Euch besser einordnen könnt, beantwortet [Michael Rack](#) (Präventionsberatung) nachfolgend die wichtigsten Fragen.

**Ist es richtig, dass die Zahlen für bestimmte sexuell übertragbare Infektionen stetig ansteigen?**

Die stetig zunehmende Zahl sexuell übertragbarer Infektionen, wie Syphilis, Chlamydien und Gonokokken (Tripper), besonders unter Männern die Sex mit Männern haben, kann schon einige Jahre beobachtet werden und wurde durch das [BKI](#) auch im November 2023 wieder bestätigt.

**Und wie kommt da jetzt ein handelsübliches Antibiotikum ins Spiel?**


Doxycyclin ist ein lange erprobtes und relativ gut verträgliches Antibiotikum, das vielfach zur Behandlung von infektiösen und nicht infektiösen bakteriellen Erkrankungen eingesetzt wird. Und die Syphilis beispielweise ist so eine bakterielle Infektion. Die einnehmende Person verbindet also mit einer solchen Einnahme die Erwartung einer Infektionsvermeidung.

**Und das funktioniert?**

Da muss schon genau hingeschaut werden, um die Frage korrekt beantworten zu können. Für eine Reduktion von Syphilis- und Chlamydien Infektionen bei MSM (Männer die Sex mit Männern haben) und Trans\* Frauen die eine HIV-PrEP nehmen, oder mit einer bekannter HIV Infektion leben, ist die Wirksamkeit belegt. Keine Wirksamkeit zeigte sich allerdings in einer Studie bei Cis Frauen. Ebenso zeigte sich nur eine geringe bis keine Wirksamkeit vor einer Gonokokken Infektion.

**Es müssen also offensichtlich bestimmte Kriterien erfüllt werden.**

Vorab: es gibt aktuell noch gar keine offizielle Zulassung für den Einsatz von Doxycyclin zur STI-Prophylaxe. Daher wäre es bisher nur als „Off-Label“ Verschreibung möglich. Und zu den Kriterien: die Doxy sollte laut



<https://www.aidshilfe-hamburg.de/informieren/aktuelles/doxy-prep/-pep-was-ist-das>

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**STIs?**  
**No thanks!**





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# doxyPEP community guidelines



Italy

**DIRITTISESSUALI**



## DoxyPEP: prevenire Clamidia e Sifilide dopo un rapporto a rischio

Finalmente le linee guida del CDC

MARCO BASTIAN STIZIOLI  
GIU 07, 2024

5 3

Condividi

**DIRITTISESSUALI.IT**

Io sono Marco e questa è Diritti Sessuali per prenderci cura della nostra salute sessuale, insieme.

Le aspettavano come il Natale. Il centro statunitense per la prevenzione e il controllo delle malattie ha pubblicato [le linee guida](#) per la DoxyPEP:

<https://www.dirittisessuali.it/p/doxyep-linee-guida>

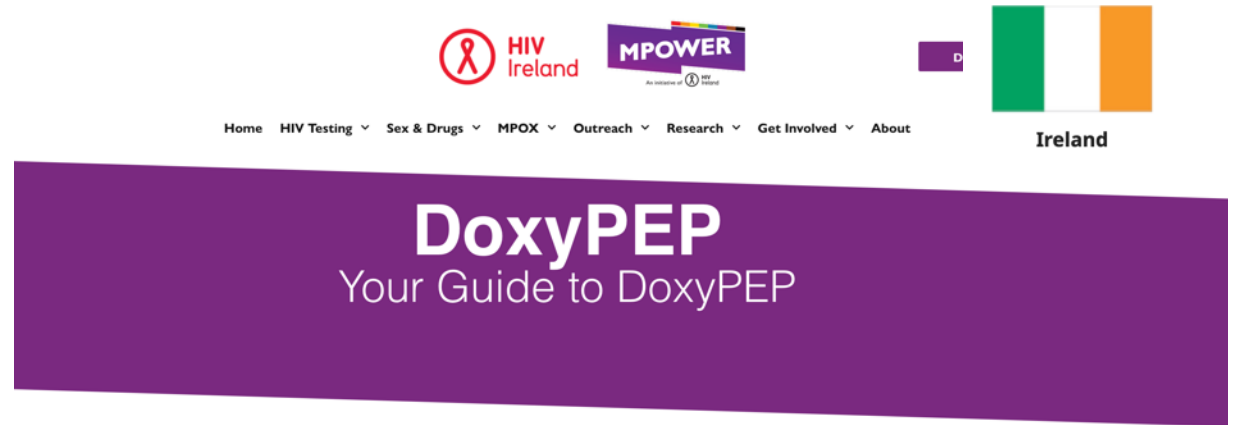
The screenshot shows the Plus Roma website interface. At the top, there is a blue navigation bar with the Plus Roma logo and links for Home, Checkpoint, Blog, Contattaci, 5x1000, and Sostienici. The main content area features a large image of colorful pills with the text 'DOXY PEP' overlaid. To the left of the image is a sidebar with 'Articoli recenti' and 'Categorie'. The article text below the image discusses the CDC guidelines for DoxyPEP, mentioning the NCSST (National Coalition of STD Directors) and the effectiveness of doxycycline in preventing bacterial infections.

<https://www.plusroma.it/doxyep/>

# doxyPEP community guidelines



U.K.



We are working on developing a printed guide to doxyPEP and hope to have it available in bars, clubs, saunas and clinics soon.

Introduction



## What is DoxyPEP?

DoxyPEP stands for doxycycline post-exposure prophylaxis. Doxycycline is an antibiotic. Post-exposure prophylaxis is the use of a medical treatment after potential exposure to an infectious agent (bacteria, virus, etc) to prevent an infection from occurring.

DoxyPEP is a relatively new way of preventing some sexually transmitted infections (STIs) by using doxycycline after condomless sex, including oral sex.

## What STIs can DoxyPEP help to prevent?

There is good emerging evidence that the correct use of doxyPEP can significantly reduce the chances of acquiring syphilis and chlamydia. The effectiveness of doxyPEP against gonorrhoea is less clear and appears to be lower than for syphilis and chlamydia. However, some studies have shown modest reductions in gonorrhoea among those using doxyPEP.

<https://www.queerhealth.info/lbgt/doxypep>

<https://mpower.hivireland.ie/doxypep/>

# doxyPEP community guidelines

FACTSHEET June 17, 2024

## Advocates' Guide to Doxycycline to Prevent Bacterial STIs (DoxyPEP)



Doxycycline, an oral antibiotic commonly referred to as DoxyPEP, is a post-exposure prophylaxis used to prevent the acquisition of some bacterial STIs after sex. Doxycycline is inexpensive, easily tolerated, and widely available. However, questions remain regarding who will benefit most from DoxyPEP and how to implement this strategy broadly to ensure equitable access. This guide seeks to explore and address these critical questions.

Topics: [Tracking and Translating the Field](#)

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Print article



# doxyPEP use data



Have you ever taken antibiotics (e.g. doxycycline) before or after having sex to reduce the risk of getting some sexually transmitted infections? This is sometimes called ‘Doxy PrEP’ or ‘Doxy-PEP’

Where did you get your antibiotics from? (Tick as many as apply)

> Sex Transm Infect. 2024 Aug 29;sextrans-2024-056261. doi: 10.1136/sextrans-2024-056261. Online ahead of print.

## Doxycycline post-exposure prophylaxis among men who have sex with men and transgender women in Belgium: awareness, use and antimicrobial resistance concerns in a cross-sectional online survey

Thibaut Vanbaelen<sup>1</sup>, Anke Rotsaert<sup>2</sup>, Irith De Baetselier<sup>3</sup>, Tom Platteau<sup>3</sup>, Bernadette Hensen<sup>2</sup>, Thijs Reyniers<sup>2</sup>, Chris Kenyon<sup>3</sup>

Affiliations + expand

PMID: 39209541 DOI: 10.1136/sextrans-2024-056261

Free article

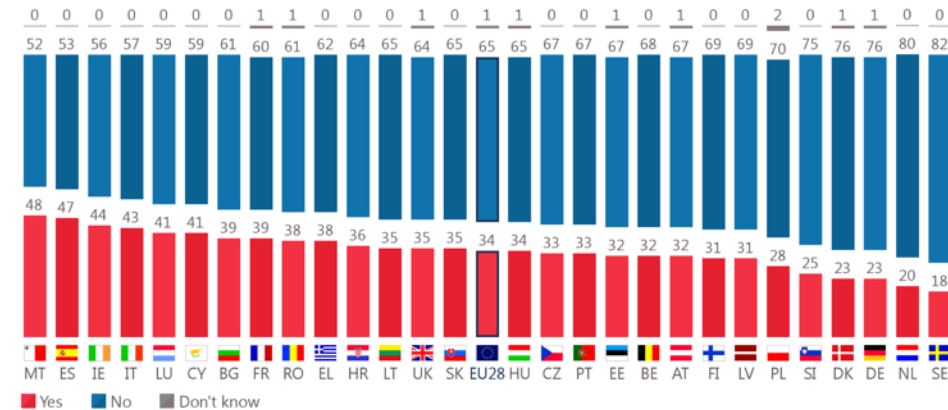
### Abstract

**Objectives:** We aimed to assess the awareness, willingness to use and use of doxycycline post-exposure prophylaxis (doxyPEP) among men who have sex with men (MSM) and transgender women (TGW) in Belgium. Additionally, we aimed to identify factors associated with doxyPEP use and concerns regarding antimicrobial resistance (AMR).

**Methods:** Cross-sectional online survey among MSM and TGW in Belgium in April 2024. Participants were recruited through sexual networking applications and social media of community-based organisations. Numerical variables were compared with Wilcoxon rank-sum test and categorical variables with  $\chi^2$  or Fisher’s exact tests. Factors associated with doxyPEP use were assessed using logistic regression. Willingness to use doxyPEP and concerns about side effects/AMR were assessed before and after presenting a brief paragraph on the potential effects of doxyPEP on AMR.

**Results:** 875 individuals initiated the survey. Almost all identified as men (860/875, 98.3%) with a median age of 40 years (IQR 32–48), 40.4% (n=352/875) had heard of doxyPEP and 9.4% (n=82/875) had used it, among whom the majority used it within the previous 6 months (70/81, 86.4%). In multivariable logistic regression, doxyPEP use was associated with reporting  $\geq 1$  sexually transmitted infection (STI) in the previous 12 months, engagement in chemsex, HIV status and non-exposure nonhollow use and education level. About 80% of the participants

QB1 Have you taken any antibiotics orally such as tablets, powder or syrup in the last 12 months? (%)



Total base (N=27,969)

<https://pubmed.ncbi.nlm.nih.gov/39209541/>

[https://www.jpiamr.eu/app/uploads/2016/06/EUbarometer\\_SpecialReportonAMR\\_Summary.pdf](https://www.jpiamr.eu/app/uploads/2016/06/EUbarometer_SpecialReportonAMR_Summary.pdf)

# doxyPEP / SF evidence

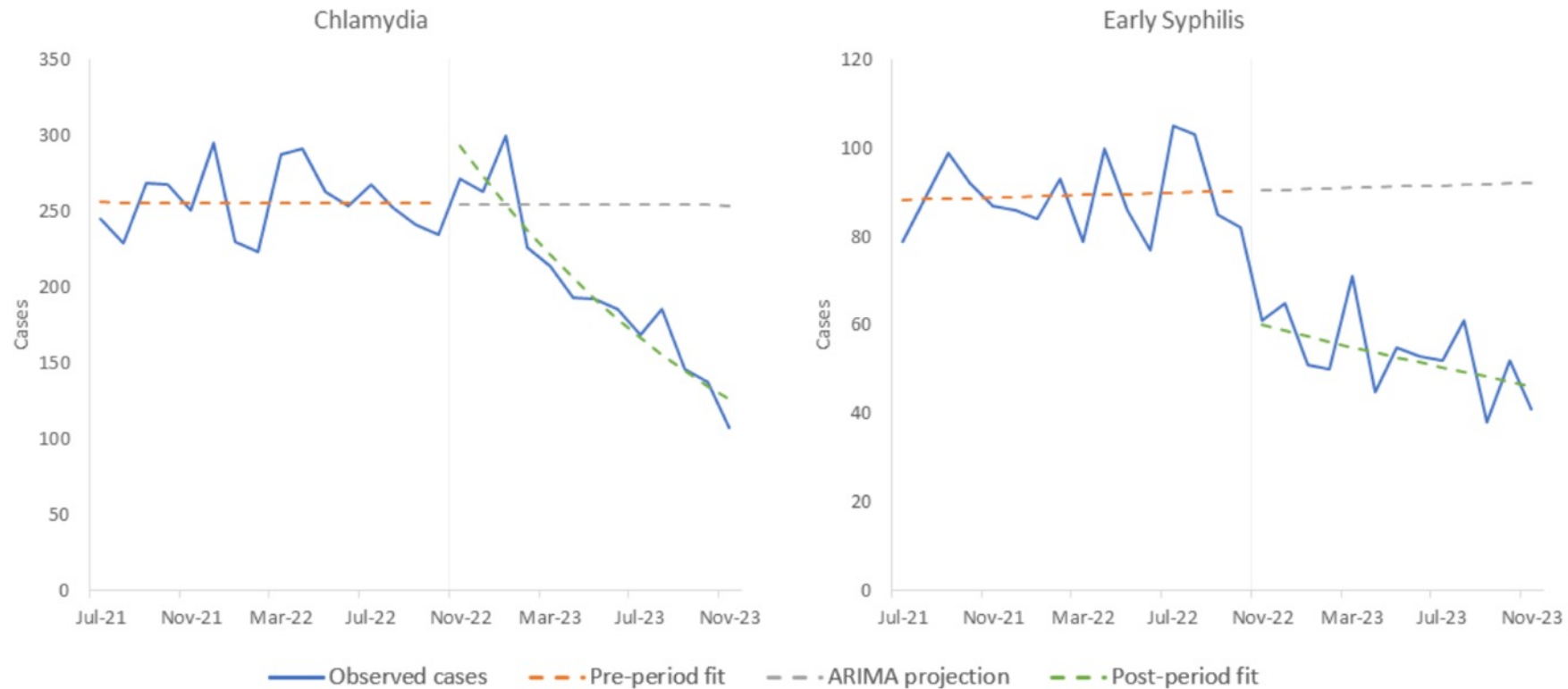


Figure. Observed and modelled chlamydia and early syphilis cases among MSM and TGW in San Francisco pre and post doxy-PEP implementation

<https://www.croiconference.org/abstract/doxy-peg-associated-with-declines-in-chlamydia-and-syphilis-in-msm-and-trans-women-in-san-francisco/>