



CLINICAL GUIDELINE

Doxycycline as Post-Exposure Prophylaxis (DoxyPEP)

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

Version Number:	1
Does this version include changes to clinical advice:	N/A
Date Approved:	18 th February 2026
Date of Next Review:	30 th September 2027
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Approval Group:	Sandyford Governance Group
Guideline ID number:	1270

Important Note:

The online version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Doxycycline as Post-Exposure Prophylaxis (DoxyPEP)

Key Summary Points

- Various randomised controlled trials (RCTs) have shown doxyPEP to be effective at reducing bacterial STIs in GBMSM and transgender women, particularly syphilis and chlamydia.
- DoxyPEP has not yet been shown to be effective at reducing bacterial STIs in cisgender women.
- DoxyPEP is currently recommended for cisgender GBMSM and transgender women at increased risk of syphilis infection (see below). However, it can be considered for other individuals on a case-by-case basis.
- Recommended dose is a single dose of 200mg within 24 hours, and no later than 72 hours, after sex.
- There is concern around possible antimicrobial resistance (AMR) but studies to date have provided limited understanding of this, and more research is required.
- DoxyPEP should be used as a preventative strategy similar to HIV PrEP. Patients should not be routinely booked into urgent clinic appointments purely for doxyPEP alone (as currently happens with HIV PEP or EC).

Purpose

- **Describe the rationale for using doxyPEP to help prevent syphilis infection in those at increased risk.**
- **Outline the process to healthcare workers of supplying and administering doxyPEP to individuals deemed eligible.**

Rationale

In multiple randomised studies and real-world evaluations, doxycycline post-exposure prophylaxis ('doxyPEP') reduces the incidence of syphilis and chlamydia in cis-gender gay or bisexual men having sex with men (GBMSM) and transgender women (TGW) by around 75 to 80%. It is unlikely to affect incidence of gonorrhoea because of antimicrobial resistance. Qualitative data also show benefits to quality of life and mental health through reduced anxiety about STIs.

In randomised studies there was a minor increase in gastrointestinal intolerance effects but no worrying serious adverse events.

The impact of doxyPEP on antimicrobial resistance including so-called 'off-target' effects is subject to intense study. To date no significant harms have been reported clinically for an individual, although data remain limited. Population-level effects will be closely monitored as doxyPEP becomes established. **To date, doxycycline resistance has not been observed in *Treponema pallidum* and *Chlamydia trachomatis*.**

Recommendations

DoxyPEP is recommended for cisgender GBMSM and transgender women at increased risk of acquiring syphilis. Increased risk includes:

- a bacterial STI diagnosis in the previous 12 months
- those with multiple new, occasional, or one-off sexual partners in the previous 3 months

DoxyPEP can be considered on a case-by-case basis for:

- individuals assigned female at birth at increased risk of acquiring syphilis (this may include sex workers and transgender men who have sex with men)
- individuals at increased risk of acquiring syphilis attending for clinical care within 72 hours of sexual assault, noting that:
 - (a) current BASHH guidance (2022) does **not** recommend routine antibiotic prophylaxis
 - (b) there is no evidence of efficacy of doxyPEP after receptive vaginal sex

DoxyPEP *may* protect concurrent partners with a womb and ovaries from the reproductive sequelae of infection, by reducing the risk of chlamydia and syphilis acquisition in the individual taking doxyPEP.

For individuals in the 'consider' categories above, if a clinician is unsure whether doxyPEP should be offered, then further discussion with GUM DoD and/or at GUM peer review is suggested. Learning will hopefully occur from these cases as time goes on.

Dosage

Doxycycline 200mg (2 x 100mg) taken as a single dose within 24 hours and no later than 72 hours after sexual risk

Dose should not exceed 200mg/day

Prescribe (or administer under PGD) the 50 tablet pre-packed supply on NaSH – this helps us monitor uptake of doxyPEP. This is sufficient for 25 episodes requiring protection.

With typically 26 weeks between HIV PrEP clinical review, one to two packs should be sufficient to cover use 1-2 x per week. Discuss those requesting more with the GUM DoD.

For multiple sexual encounters over a 72h period it is reasonable to take a single dose of doxycycline at the end of the period.

Managing contacts of infection

People who have taken doxyPEP *may* prefer a 'watch-and-wait' approach if notified of likely syphilis exposure occurring at that time; however due to the time required to rule out infection it's recommended to give epidemiological treatment.

Contacts of chlamydia who already took doxycycline within 72 hours of likely exposure do not need further epidemiological treatment.

Cautions

Avoid taking doxycycline at the same time as antacids. See BASHH guidance and BNF for more detailed caution and interaction information.

In pregnancy: in line with the BASHH Position Statement on use of doxycycline in pregnancy, doxyPEP should only be used up to 15 weeks of gestation. Anyone considered to need doxyPEP who is pregnant should have additional syphilis screening later in gestation.

References and further reading

[BASHH Guidelines - DoxyPEP for the prevention of syphilis](#) (accessed online September 2025)

[BASHH DoxyPEP Patient Information Leaflet \(draft\)](#) (accessed online November 2025)

Appendix - Process for providing DoxyPEP in clinic

- Eligible individuals will be invited via SMS to arrange a telephone consultation for DoxyPEP initiation via online booking.
- DoxyPEP can also be provided opportunistically to eligible individuals when they attend clinic for another reason such as Urgent Care or HIV PrEP
- Clinician should clarify/identify if individual meets criteria for recommending or considering doxyPEP, and offer DoxyPEP if eligibility criteria is met.
- DoxyPEP is part of a comprehensive and holistic sexual health approach (including BBV/STI testing, vaccination, and other risk reduction strategies). Ensure to assess individual's eligibility for HIV PrEP and inform them of HIV PrEP and how to access.
- Give information around doxyPEP:
 - Advise that doxyPEP is only recommended for the prevention of syphilis and chlamydia, explaining it is about 80% effective at preventing these infections. Discuss that it is unlikely to prevent gonorrhoea and doesn't offer protection against any other STIs.

- Give clear information on dosing and timing (infographics are useful and available in the BASHH DoxyPEP PIL).
- Discuss potential benefits and harms, including limits of evidence base around AMR - explain that taking doxyPEP *may* make other infections harder to treat with doxycycline, although there is no real-world evidence of this so far. If individuals are found to have pneumonia or a severe skin infection they should inform their doctor that they have been using doxyPEP.
- Inform about potential SEs (photosensitivity, headache, nausea, vomiting, dyspepsia, and rash) and strategies to minimise these (take doxycycline with plenty of fluid and some food, sitting upright for 30 minutes after taking doxycycline, avoiding sunbeds and wear sunscreen with SPF).
- Explain there is no current evidence that doxyPEP is effective after vaginal sex in cisgender women.
- Support individual to make informed decisions around when and how to use doxyPEP. Include alternatives (condoms), safer sex advice, and behaviour change interventions.
- Advise individual to undertake regular STI testing as per current guideline recommendations (at least one sexual health screen every 6 months) and inform them to seek clinical advice if they develop signs or symptoms of an STI.
- Inform about possible drug interactions (avoid taking doxycycline with polyvalent cations – calcium/ iron/ magnesium/ zinc, and separate these substances by at least 2 hours). Note the possibility of increased clearance of doxycycline in those taking enzyme inducers (carbamazepine or phenytoin) and advise against using doxycycline if they are taking ciclosporin or isotretinoin.
- Inform that chronic and heavy alcohol consumption can decrease the effectiveness of doxycycline.
- If individual accepts, discuss how often they are likely to use doxyPEP and supply them with an appropriate quantity of doxycycline capsules to last 6 months or until their next appointment/review. Generally, to save waste and reduce costs and quantity of capsules given, it is recommended that 200mg of doxycycline can be taken at the end of a 72 hour period to cover all sexual exposure within that period. Therefore, one 50 capsule pack of doxycycline should cover most sexual exposures within 3 months.
- Prescribe (or administer under PGD) doxyPEP on NaSH.
- Advise individual not to share doxyPEP with anyone else, as they may have different risks. Doxycycline may not suit them for other reasons.
- Advise individual not to take any other antibiotics they may have to try and prevent syphilis and chlamydia infections.
- Advise individual how to access further supply of DoxyPEP: at next HIV PrEP Return appointment or if not using HIV PrEP then they can book online for a further telephone DoxyPEP appointment.

- **No additional monitoring is required when using doxyPEP (including renal or liver monitoring).**