

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

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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 dose 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 gonorrhoea depending on the level of tetracycline resistance in gonorrhoea) 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 gonorrhoea 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 gonorrhoea or chlamydia is probably very high, the considerable potential to select resistance in STIs and other bacterial species and the possibility of disrupting the microbiome, it's considered that potential individual benefits of doxyPEP is outweighed by the risks in men who have sex with men.

Further studies are required to measure the wider impact on AMR at an individual and population level.

Regular screening for syphilis and HIV stay crucial in people with high risk of STI acquisition.

In cases, where at an individual level, DoxyPEP is being prescribed, we encourage that this should be done in a medically supervised setting (HRC) and preferably in a research context (such as the SafeDoxyPEP Study at ITM ) to generate more data on the impact of DoxyPEP on resistance and microbiome.

## References

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