

Real-world effect of decreasing the frequency of screening for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* on the incidence of these infections among MSM taking PrEP in Belgium



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A RETROSPECTIVE COHORT STUDY

Thibaut Vanbaelen PhD\*, Irith De Baetselier PhD, Achilleas Tsoumanis, Bernadette Hensen PhD, Chris Kenyon PhD  
\* tvanbaelen@itg.be

BACKGROUND

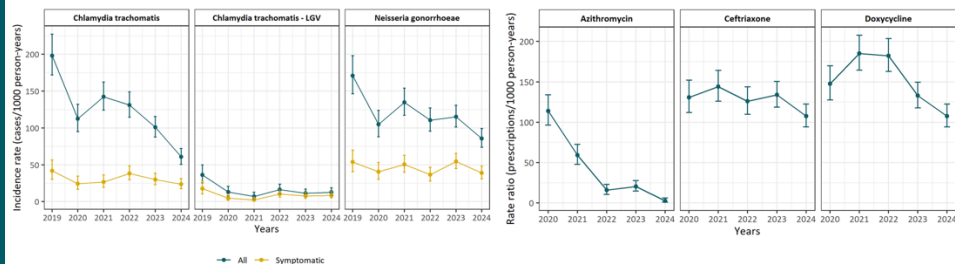
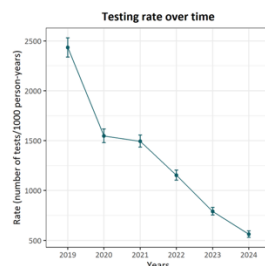
- There is growing debate about the benefits of routine screening for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* in MSM taking PrEP.
- An RCT showed that screening leads to high antimicrobial consumption and has a limited impact on the incidence.
- Since 2019, we have been reducing the frequency of screening for *N. Gonorrhoeae* and *C. Trachomatis* in MSM taking PrEP attending the Institute Of Tropical Medicine (ITM) Clinic in Antwerp, Belgium.
- We assessed the real-world effect of reducing screening frequency on the incidence of these infections and antimicrobial use among MSM taking PrEP.

METHODS

- **Study design:** retrospective analysis of medical records, laboratory results, and antimicrobial prescriptions among MSM taking PrEP attending ITM between January 2019, and December 2024.
- **Outcomes:**
  - Yearly testing rates for *N. gonorrhoeae* and *C. trachomatis*.
  - Yearly incidence rates of overall and symptomatic infections.
  - Yearly prescription rates of azithromycin, doxycycline, and ceftriaxone (2020-2024).
- **Statistical analysis:** trends were analyzed using a Poisson regression model.

RESULTS

- 3955 MSM taking PrEP attended the clinic in the study period.
- **Testing rate** decreased over fourfold between 2019 and 2024 (yearly RR 0.78 [95% CI 0.77-0.78],  $p < 0.001$ ).
- The **incidence of all *N. gonorrhoeae* and *C. trachomatis* infections** decreased (yearly IRR 0.91 [95% CI 0.88-0.94],  $p < 0.0001$ , and IRR 0.84 [95% CI 0.81-0.87],  $p < 0.0001$ ).
- There was no increase in the incidence of **symptomatic infections**.
- **Doxycycline, ceftriaxone, and azithromycin** prescriptions decreased (RR 0.9 [95% CI 0.87-0.94],  $p < 0.0001$ , RR 0.95 [95% CI 0.91-0.99],  $p < 0.023$ , and RR 0.47 [95% CI 0.43-0.52],  $p < 0.0001$ , respectively).



CONCLUSION

- The incidence of symptomatic *N. gonorrhoeae* and *C. trachomatis* infections did not increase over time despite less frequent screening, and antimicrobial prescriptions decreased.
- Our findings underline the potential of decreasing frequency of screening as a safe and effective antimicrobial stewardship intervention in MSM taking PrEP.



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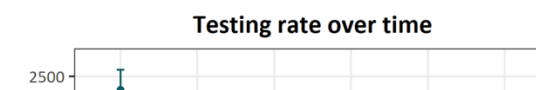
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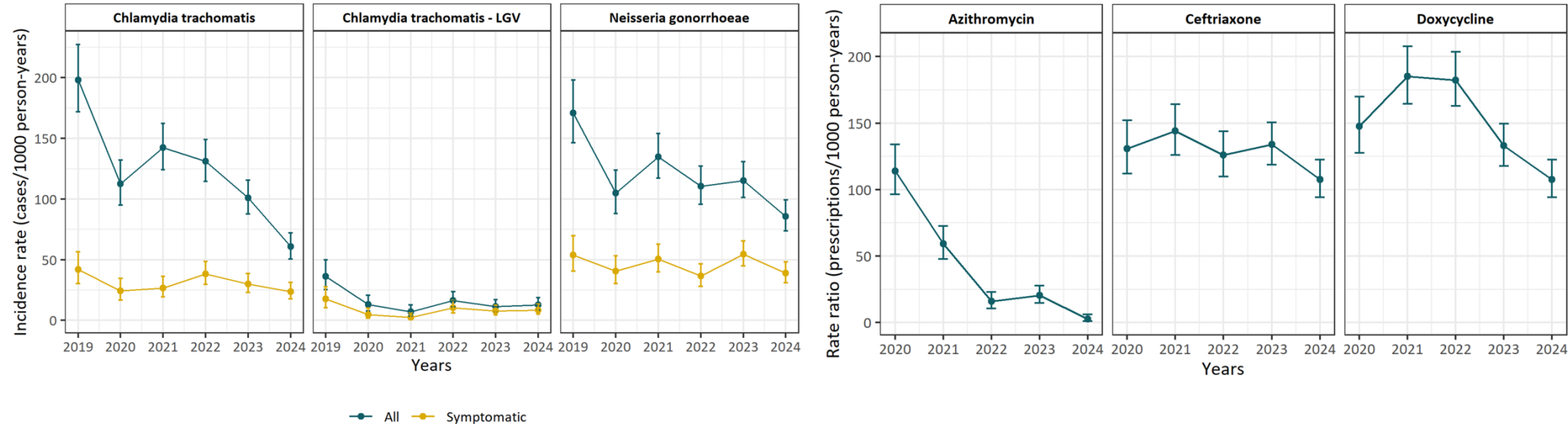
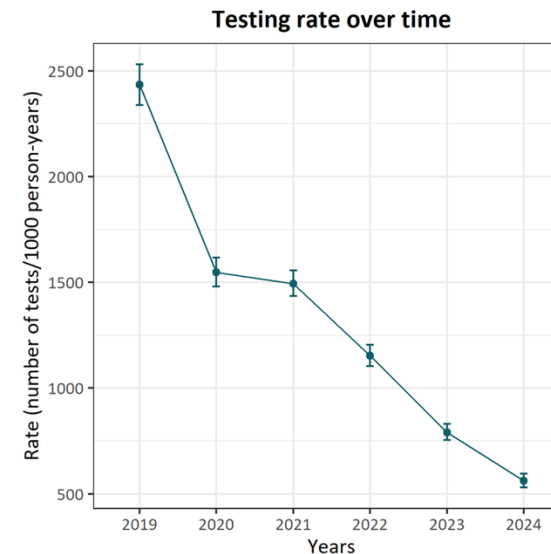
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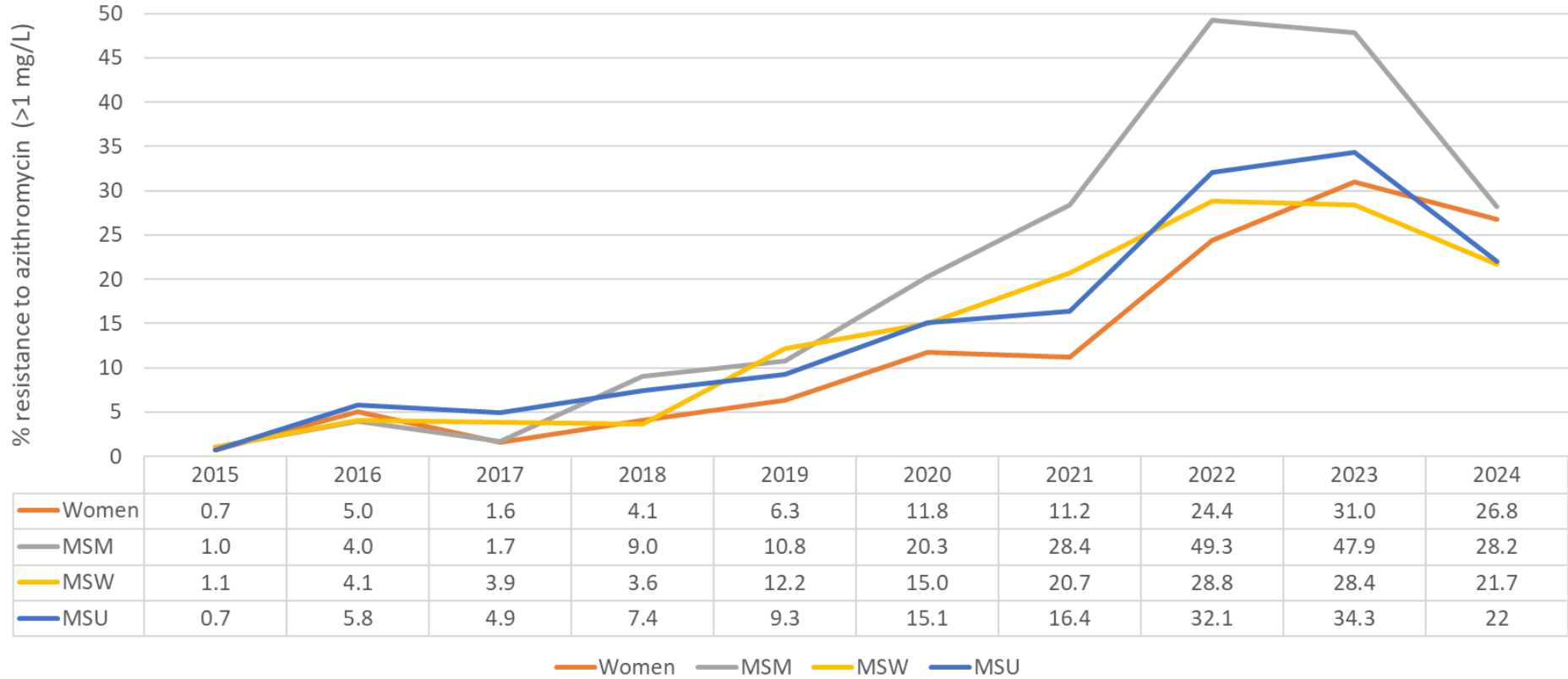


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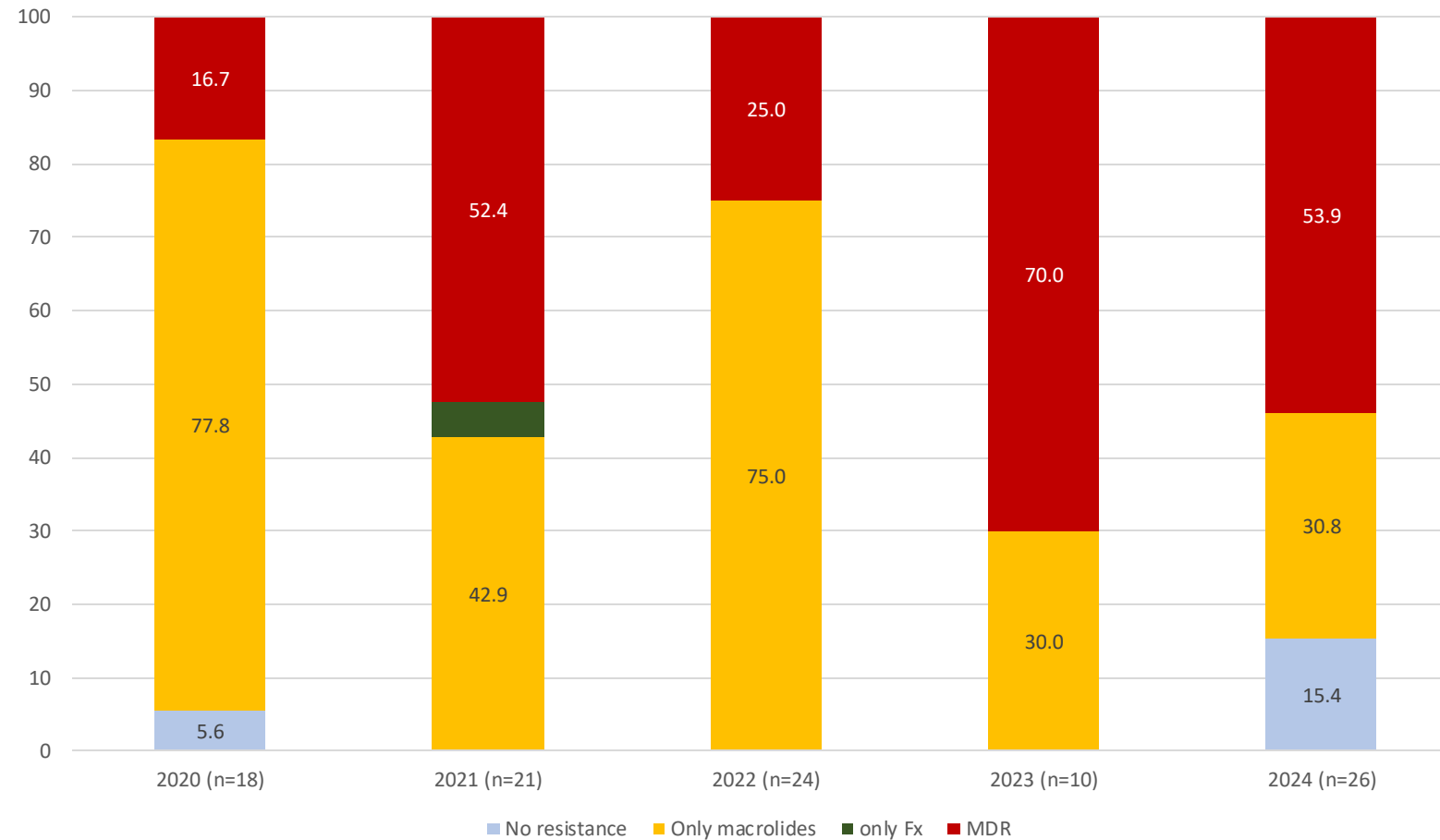
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Antimicrobial resistance in *N. gonorrhoeae*



Antimicrobial resistance in *Mycoplasma genitalium* (MSM)



# Conclusion

- No increase in symptomatic *N gonorrhoeae* & *C trachomatis* infections despite less frequent screening in MSM taking PrEP at ITM
- Decrease in azithromycin, doxycycline, and ceftriaxone prescriptions
- Signals of decrease in AZM-R in *N gonorrhoeae* and *M genitalium*

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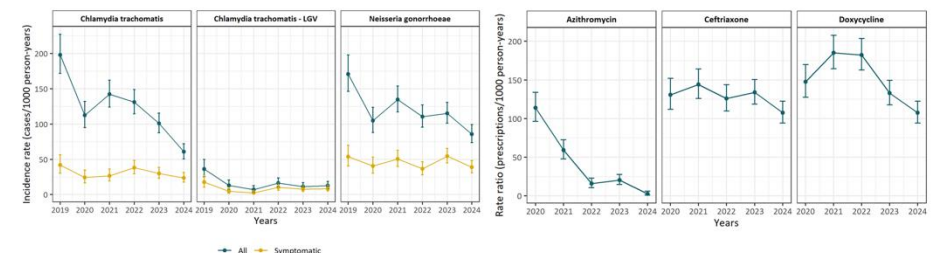
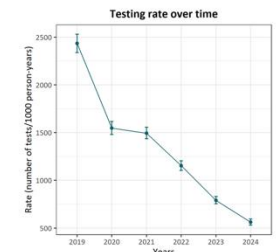
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# Thank you!

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