Using HIV Incidence Estimates to Inform Guidelines for the PrEP Impact Trial

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INTRODUCTION

- The PrEP Impact Trial started in October 2017 in sexual health clinics (SHCs) in England.
- Three population groups are eligible to enrol:
  A. Men and transgender women with a negative HIV test in the last year and reporting condomless sex with men
  B. Condomless sex partners of HIV positive individuals with detectable viral loads
  C. Any other individual at similar high risk of HIV acquisition as those in group B
- Trial data are collected through the GUMCAD sexually transmitted infection (STI) Surveillance System, a pseudo-anonymised, patient-level dataset of all attendances at SHCs in England.

OBJECTIVE

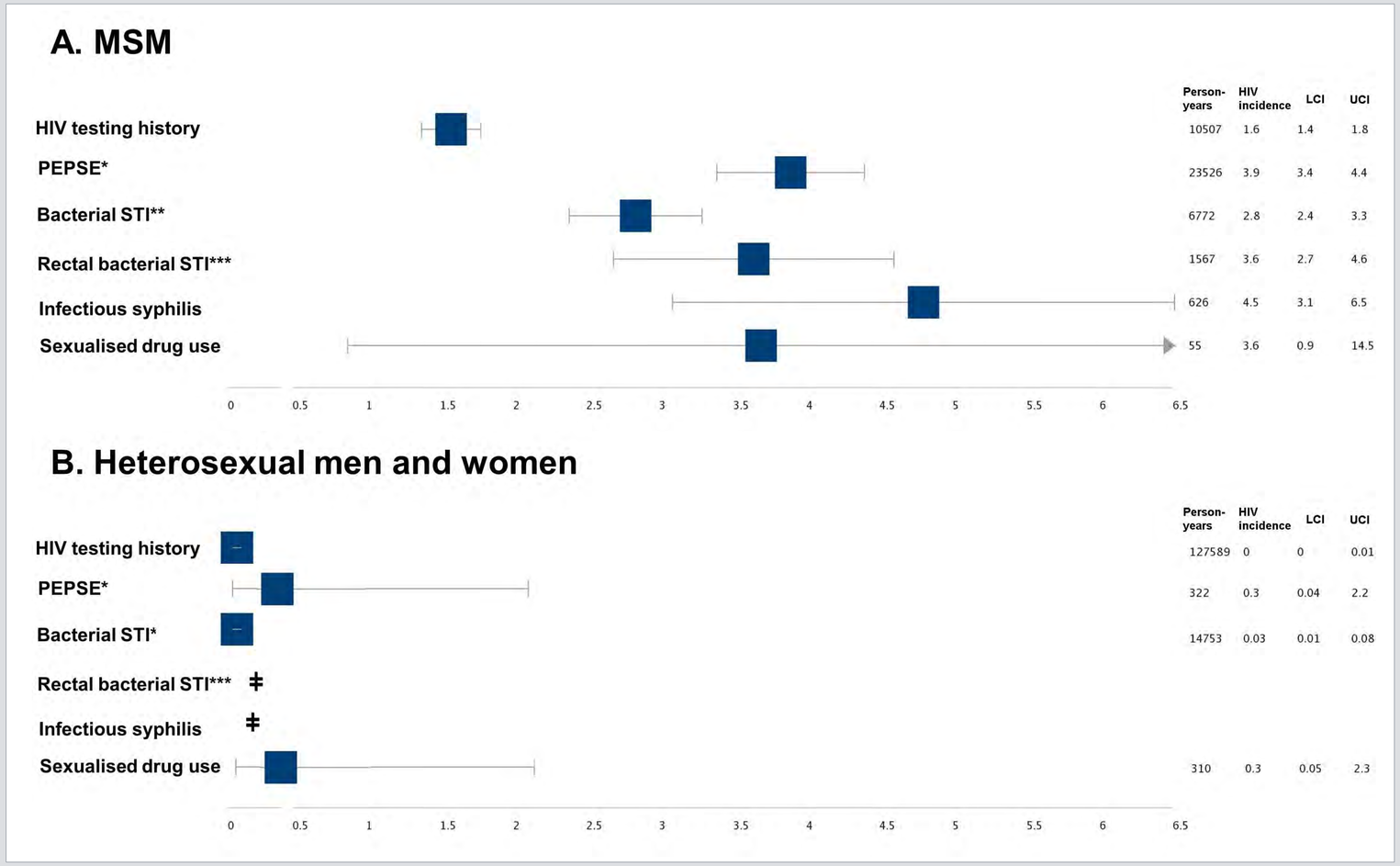
- To define MSM and heterosexuals that may be eligible for PrEP within the PrEP eligibility group C using HIV incidence estimates from routinely collected surveillance data.

METHODS

- We reviewed longitudinal GUMCAD data on attendees who visited a SHC in England between 2011 and 2015.
- For all attendees, we selected a baseline attendance then followed them prospectively for one year, to determine HIV incidence per 100 person-years (95% confidence intervals) based on a history of:
  - HIV testing in the past year
  - HIV post-exposure prophylaxis after sexual exposure (PEPSE) use in the past year
  - Bacterial STIs in the past year, or
  - Being under the influence of drugs before or during last sexual intercourse (sexualised drug use)
- Eligibility criteria included: ≥15 years of age, HIV negative at baseline attendance, and at least one HIV test within the following 365 days.
- Incidence was determined using the Kaplan-Meier method. Analyses were performed separately for MSM and heterosexuals [1] [2].

RESULTS

Figure 1: Incidence (per 100 person-years) of HIV in A) MSM and B) Heterosexual men and women attending sexual health clinics in England, by clinical and behavioural risk factors



** Post exposure prophylaxis after sexual exposure*
*** Chlamydia, gonorrhoea, syphilis (primary, secondary or early latent), non-specific genital infection (NSGI), lymphogranuloma venereum (LGV), donovanosis or chancroid (excluding pharyngeal only diagnoses)*
**** Chlamydia, gonorrhoea, NSGI or LGV*
‡ Not calculated due to small numbers

DISCUSSION

- We have identified key groups that may be eligible within group C and benefit from PrEP:
  i. MSM with a history of a bacterial STI, and
  ii. MSM and heterosexuals with a history of PEPSE or sexualised drug use.

- HIV incidence in MSM greatly exceeds that of heterosexuals reporting the same risk factors, however more heterosexuals are diagnosed with HIV outside SHCs; as a result, we may have underestimated HIV incidence in heterosexuals.

CONCLUSION

- These findings provide evidence to guide clinical risk assessment.

- However, we are limited by what is routinely collected in GUMCAD. Therefore, individuals who could potentially benefit from PrEP may have been missed.

REFERENCES

[1] Mitchell H, Furegato M, Hughes G, *et al.* What are the characteristics of, and clinical outcomes in men who have sex with men prescribed HIV postexposure prophylaxis following sexual exposure (PEPSE) at sexual health clinics in England? *Sex Transm Infect* , 2016;0:1–7.
[2] Desai, S., Nardone, A., Hughes, G., Delpech, V., Burns, F., Hart, G. and Gill, O. (2017), HIV incidence in an open national cohort of men who have sex with men attending sexually transmitted infection clinics in England. *HIV Med*, 18: 615–622

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