Incidence and duration of incident oropharyngeal gonorrhoea and chlamydia infections among men who have sex with men: a prospective cohort study

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Background:
This prospective cohort study aimed to determine the natural history and incidence of oropharyngeal gonorrhoea and chlamydia among a cohort of men who have sex with men (MSM) over a 12-week period, and to examine risk factors associated with incident oropharyngeal infections.

Methods:
MSM either aged ≥18 years and had a diagnosis of oropharyngeal gonorrhoea by nucleic acid amplification test (NAAT) in the last three months; or aged 18-35 years who were HIV-negative taking PrEP were eligible for this study. Enrolled men were followed for 12 weeks. Oropharyngeal swabs were collected at week 0 (baseline) and week 12 (end of study). Between these timepoints, weekly saliva specimens and the number of tongue-kissing, penile-oral and insertive rimming partners were collected by post. Oropharyngeal swabs and saliva specimens were tested by NAAT for *Neisseria gonorrheae* and *Chlamydia trachomatis*.

Results:
The incidence of oropharyngeal gonorrhoea and chlamydia was 56 (95%CI: 30-94) and 4 (95%CI: 1-32) per 100 person-years, respectively. The estimated median duration of oropharyngeal gonorrhoea infection was 28 days (IQR 21-36) and chlamydia was 14 days (IQR 10-17). The incidence rate ratio (IRR) for oropharyngeal gonorrhoea increased with increased number of kissing partners (IRR 1.08; 95% CI: 1.03-1.12; p=0.001) and increased number of penile-oral sex partners (IRR 1.07; 95% CI: 1.01-1.14; p=0.016) but not with increased number of insertive rimming partners (IRR 1.11; 95% CI: 0.95-1.29; p=0.175) or other demographic factors. The IRR for oropharyngeal chlamydia was not calculated due to small number of cases (n=2).

Conclusion:
Incident oropharyngeal gonorrhoea was associated with tongue-kissing and penile-oral sex partners but not insertive rimming. MSM have a high incidence of oropharyngeal gonorrhoea and the infection is short-lived (i.e. 28 days), suggesting some infections may be missed with three-monthly screening.

Disclosure of Interest Statement:

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