

## Rectal *Mycoplasma Genitalium* in men who have sex with men at Sydney Sexual Health Centre: implications for screening and health promotion

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### **Background:**

Sexually Transmitted Infections (STIs) have been increasing in men who have sex with men (MSM) in recent years; however, few studies have investigated the prevalence or knowledge of rectal *Mycoplasma genitalium* (MG) in this group. The primary aim of this study was to determine the prevalence and predictors of rectal MG in MSM attending Sydney Sexual Health Centre. The secondary aim was to determine the knowledge and level of concern towards MG in this group.

### **Methods:**

We conducted a prospective cross-sectional analysis including rectally asymptomatic MSM who were having a rectal swab collected as part of routine care between March and May 2017. Participants self-collected a rectal swab to be tested for MG and completed a 14-item self-administered questionnaire following their consultation. Demographic and risk behaviour information was extracted from the electronic medical record. For the primary aim we determined the prevalence of rectal MG and used a conservative variable selection approach to conduct age-adjusted logistic regression to assess the associations for having rectal MG. For the secondary aim we calculated the frequency of responses to questions around participant's knowledge, level of concern and contact tracing for MG.

### **Results:**

A total of 749 participants were included in the primary aim, and 746 participants in the secondary aim. The overall MG prevalence was 6.8% (95%CI: 5.1-8.8), and 11.6% (95%CI: 7.2-17.4) in those taking PrEP. In age-adjusted analysis PrEP use and a history of an STI were significantly associated with having rectal MG (OR 2.26, 95%CI: 1.24-4.12,  $P=0.01$ ; OR 2.05, 95%CI: 1.12-3.77,  $P=0.02$  respectively). Only 7.5% (95%CI: 5.7-9.6) of men had previously heard of MG and overall 31.4% (95%CI: 28.0-34.8) of men expressed concern at the idea of having MG. In response to a statement outlining MG antibiotic resistance, 61.6% (95%CI: 58.0-65.1) of participants indicated that they would increase their condom use in the future.

### **Conclusion:**

Our study provides the largest estimate in the literature to date of rectal MG prevalence in asymptomatic MSM. We found a prevalence of 6.8% in asymptomatic men and rectal infection was significantly associated with a history of an STI and being on PrEP. We also identified low awareness and concern around this infection amongst MSM. Our study findings will help inform future screening guidelines and health promotion requirements for this infection.