PREVALENCE OF MYCOPLASMA GENITALIUM INFECTION AND MACROLIDE RESISTANCE AMONG MEN-WHO-HAVE-SEX-WITH-MEN IN WESTERN SYDNEY.

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Background: *Mycoplasma genitalium* causes urethritis and proctitis as well as asymptomatic infections among men-who-have-sex-with-men (MSM), with increasing rates of antibiotic resistance being reported. We aimed to measure the current burden of infection and estimate macrolide resistance in our MSM population.

Methods: Anal, throat and urine samples from consecutive MSM who attended Western Sydney Sexual Health Centre for testing for sexually transmitted infections were also tested for presence of *M. genitalium* using the multiplexed *PlexPCR*™ *M. genitalium ResistancePlus*™ assay (SpeeDx), which simultaneously detects *M. genitalium* (*MgPa* gene) and single nucleotide polymorphisms (SNPs) in the 23S rRNA gene associated with macrolide resistance.

Results: *M. genitalium* at any site was detected in 68 (13.4%) of 508 men who attended from February to May 2017; in 24/508 (4.7%) urine samples, 45/508 (8.9%) anal samples, and 0/508 throat samples. One man had both anorectal and urethral infection. Overall, macrolide resistance-associated mutations (MRM) were detected in 55/69 (79.7%) samples, 21/24 (87.5%) urine, and 34/45 (75.6%) anal samples. Among men with urethral *M. genitalium* infection, 5/24 (20.8%) had urethral symptoms, while 3/45 (6.7%) of men with anorectal *M. genitalium* were symptomatic. Men who were on HIV pre-exposure prophylaxis (PrEP) were almost twice as likely as men not on PrEP to be infected with *M. genitalium* (19.1 versus 10.6%), OR 1.99 (95% CI 1.18-3.35), p=0.0085, but presence of MRM was similar in both groups. Age or HIV status did not influence the likelihood of infection.

Conclusion: The anorectum and urethra are common sites of *M. genitalium* infection among MSM in western Sydney, whereas pharyngeal infection was not detected. Most infections at either site were asymptomatic, and more than three quarters were resistant to macrolide antibiotics.

Disclosure of Interest Statement: SpeeDx is the developer and manufacturer of the assay used in this study and supplied the test kits.