

MEN WHO HAVE SEX WITH MEN WITH *MYCOPLASMA GENITALIUM*-POSITIVE NON-GONOCOCCAL URETHRITIS ARE MORE LIKELY TO HAVE MACROLIDE RESISTANT STRAINS THAN MEN WITH ONLY FEMALE PARTNERS

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Introduction:

Among men with non-gonococcal urethritis (NGU) in Sydney, Australia, *Mycoplasma genitalium* was previously less common among men who have sex with men (MSM) compared with men with only female sexual partners (MSW). A recent study found that *M. genitalium* infections among MSM in Sydney were predominantly asymptomatic and macrolide resistant. We aimed to determine the prevalence of *M. genitalium* and *M. genitalium* macrolide resistance in men with NGU, and investigate differences between MSW and MSM.

Methods:

588 men with NGU were enrolled in a prospective study at two Sydney urban public sexual health services. Men with gonococcal urethritis or previous *M. genitalium* infection at any site were excluded. The ResistancePlus MG assay (Speedx, Sydney, New South Wales, Australia) was used to detect both *M. genitalium* and macrolide resistance-associated mutations in first void urine samples. Demographic, behavioural and clinical data were analysed to investigate associations with *M. genitalium* infection or presence of macrolide resistance.

Results:

M. genitalium prevalence was 12.8% (75/588) overall, 14.3% (36/282) among MSW and 12.7% (39/306) among MSM (p=0.99, 95% CI: 0.61-1.62). Overall, 70.7% (53/75) of *M. genitalium* strains were macrolide resistant, 50% (18/36) among MSW and 89.7% (35/39) among MSM (p<0.001, 95% CI: 2.23-34.39). There was no significant association between *M. genitalium* infection or presence of macrolide resistance mutations, and age, condom use, HIV serostatus, azithromycin treatment in the last 12 months or use of HIV pre-exposure prophylaxis.

Conclusion:

Prevalence of *M. genitalium* among men with NGU is now similar for MSM and MSW, and has increased from 4.5% to 12.8% within the last ten years. MSM are significantly more likely than MSW to have macrolide resistant *M. genitalium* infections.

Disclosure of Interest Statement:

SpeeDx (Sydney, New South Wales, Australia) is the manufacturer of the ResistancePlus MG assay and supplied the kits used in this study free-of-charge.