

## Men who have sex with men with *Mycoplasma genitalium*-positive nongonococcal urethritis are more likely to have macrolide resistant strains than men with only female partners: a prospective study

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**Disclosures:** none

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### BACKGROUND/AIMS & METHODS:

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**Background:** *Mycoplasma genitalium* urethritis was previously thought to be more common in men with only female partners (MSW) compared to men who have sex with men (MSM). Antimicrobial resistant *M. genitalium* is now a major problem.

**Importance:** Current infection and resistance prevalence data is needed to inform testing and treatment guidelines.

**Aim:** To determine the prevalence of *M. genitalium* and macrolide resistance in men with urethritis and investigate associations with infection and resistance.

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**Study:** 589 men with acute nongonococcal urethritis (NGU) were consecutively enrolled at two sexual health clinics in Sydney, Australia between April 2017 and May 2018.

**Study assessments:** First void urine for *M. genitalium* infection and macrolide resistance associated mutations plus routine STI tests.

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## RESULTS:

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**Prevalence**

	n	%	OR	95%CI	p-value
<b><i>M. genitalium</i> infection</b>					
MSM	39/306	12.8	1.0	0.6-1.6	0.99
MSW	36/282	12.8			
<b>Macrolide resistance</b>					
MSM	35/39	<b>89.7</b>	8.8	2.2-34.4	<b>&lt;0.01</b>
MSW	18/36	50.0			

**Associations with *M. genitalium* infection**

- **Higher number of male sexual partners** (OR 1.7, 95%CI 1.2-2.4, **p=<0.01**)
- Not significant: age, condom use, sex of partners, HIV status, PrEP use, chlamydia or gonorrhoea treatment in the last 12 months

**Associations with macrolide resistance**

- **Age ≥ 30 years** (OR 6.9, 95% CI 1.8-25.8, **p=<0.01**)
- **Male sexual partners** (OR 8.75, 95% CI 2.2-34.4, **p=<0.01**)
- **100% condom use** (OR 0.3, 95% CI 0.1-1.1, **p=0.05**)
- Not significant: number of partners, HIV status, PrEP use, chlamydia or gonorrhea treatment in the last 12 months

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## CONCLUSIONS/IMPLICATIONS:

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**Main findings:**

- We found no difference in the prevalence of *M. genitalium* between MSW and MSM
- Most MSM had macrolide resistant infections
- Macrolide resistance was associated with increasing age, male sexual partners and condomless sex

**Implications:**

- NGU is an indication for *M. genitalium* testing
- Conserve the use of azithromycin in NGU and STI treatment
- *M. genitalium* treatment should be guided by real-time resistance testing
- Expand monitoring and surveillance of resistance data

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