**Mycoplasma genitalium** (MG) is a recognised sexually transmitted infection causing urethritis in men and women. There is a growing concern that *M. genitalium* could become an STI superbug due to its increasing resistance to first-line azithromycin (macrolides) and second-line moxifloxacin (fluoroquinolones) antibiotics. In Northern Ireland where routine testing for *M. genitalium* is extremely limited, the true knowledge of macrolide resistance is unknown therefore adherence to a syndromic approach for management of urethritis could facilitate the spread of resistance strains amongst sexual partners. The aim of this study was to obtain preliminary data on the prevalence and associated macrolide resistance of *M. genitalium* in male and female patients attending Genitourinary Medicine (GUM) clinic in Belfast using a commercially available assay.

**METHODS**

- A total of 1052 specimens were collected from 359 anonymised women and 693 anonymised men.
- 200µl of each sample was obtained for the study after all routine testing was performed.
- Samples were processed, extracted and tested against **ResistancePlus™** MG assay (SpeeDx Pty Ltd, Sydney, Australia) in accordance to manufacturer’s instructions to simultaneously detect MG and macrolide resistance associated 23S rRNA mutations.

**RESULTS**

- 41/1052 (3.9%) patients in the study tested positive for MG.
- MG positivity rates were as follows:- 8.13% (14/172) in rectal swabs, 4.18% (15/359) in vaginal / endocervical / genital swabs and 2.85% (12/421) in males urines. There were no positive penile or throat swabs.
- Amongst all MG positives in the study, 24 (58.5%) had a 23s rRNA wild type gene and the remaining 17 (41.5%) had a 23S rRNA gene mutation known to confer macrolide resistance [see figure 2].
- The rate of 23S rRNA mutations were highest among male urines (58.3%), followed by rectal swabs (50%) and then female swabs (20%) [figure 2].

**CONCLUSION**

- MG is currently circulating in N. Ireland amongst male and female STI population. Possible macrolide resistant strains may exceed 50% in specific patient groups.
- This data adds to the evidence base to perform routine MG testing in risk groups in N. Ireland to improve patient outcomes and antimicrobial stewardship.
- In addition, nearly 10% of rectal swabs from men who have sex with men were MG positive with half conferring resistance to macrolides. This is concerning as MG infection is a known risk factor HIV transmission/acquisition.