enough. Multidrug resistant *M. genitalium* strains including macrolide or fluoroquinolone-resistance are increasing and analysis of *M. genitalium* strains is important.

Methods *M. genitalium* strains were isolated from urinary sediment of *M. genitalium*-positive urine-specimens from Japanese man. The antimicrobial susceptibility testing was examined by the cell-culture method. The tested antimicrobials were azithromycin (AZM), clarithromycin (CLR), doxycycline (DOX), minocycline (MIN), ciprofloxacin (CIP), levofloxacin (LVX), moxifloxacin (MOX) and sitafloxacin (STFX).

Results Total 14 *M. genitalium* strains were isolated from Japanese patients. Four strains were isolated in 2003, and other 10 strains were isolated in 2017 and 2018. MIC50 and MIC90 were ≥ 16 mg/L and ≥ 16 mg/L for AZM, ≥ 16 mg/L and ≥ 16 mg/L for CLR, .5 mg/L and 1 mg/L for DOX, 0.25 mg/L and 0.5 mg/L for MIN, 8 mg/L and ≥ 16 mg/L for CIP, 4 mg/L and ≥ 16 mg/L for LVX, 1 mg/L and 4 mg/L for MOX and 0.125 mg/L and 0.5 mg/L for STFX, respectively. There was no macrolide-resistant strains in 2003, but 9 strains isolated in 2017 and 2018 were resistant to macrolide. Seven strains had high MICs more than 1 mg/L for MOX, but only one strain had high MIC 1 mg/L for STFX. Except for one strain which had MIC 2 mg/L for DOX, MICs of other strains for DOX or MIN were shown between 0.125 mg/L and 1 mg/L.

Conclusion Among 14 strain, 7 strains had high MICs for macrolide and MOX. In Japan, multidrug-resistant *M. genitalium* strains were increasing. Limitation of this study was that we tried to isolated *M. genitalium* strains from patients with treatment-failure cases by macrolide or fluoroquinolone in 2017 and 2018.

Disclosure No significant relationships.

P613

PREVALENCE AND CLINICAL FEATURES OF *MYCOPLASMA GENITALIUM* IN PATIENTS ATTENDING A STI OUTPATIENT CLINIC IN BERLIN: 2013–2017

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Background The *Mycoplasma genitalium* (MG) infection is a sexually transmitted infection (STI) with often asymptomatic course and increasing antibiotic resistance. One of the risk groups with a high prevalence are men, having sex with men (MSM). To our knowledge we are the first clinic in Germany to test routinely for MG.

Methods We performed a retrospective analysis of all data from MG-tested patients (rectal, pharyngeal and urethral swabs and urine samples) between 2013 and 2017. Due to an absence of consequent test of cure (TOC), an in-depth analysis was performed solely on the samples collected by the first visit of selected patient.

Results A total of 32,302 probes from 7,474 patients were systematically analyzed. Over 5 years we continuously increased testing rates from 3,362 probes (2013) to 11,845 probes (2017). The majority of patients were male (97.0%), with the mean age of 34.7 years. Most of the patients identified themselves as MSM. Due to patient discomfort, the tests for urethral infection were successively switched from urethral swab to urine probe (2013, 59.6% vs 2017, 88.2%). The mean prevalence appeared relatively stable and peaked in

2014 (5.2%). The majority of infections were rectal (6.7%) and urethral (4.8%). Pharyngeal infections were rarely identified (1.0%). The urethral swabs appeared as more sensitive when compared to urine probes (5.5% vs 4.1%). A total of 3,819 (51.1%) patients never received a TOC.

Conclusion The presented data represent the largest epidemiological surveillance of MG in Germany to date. The prevalence of MG appeared stable over 5 years. Probably due to many asymptomatic courses the majority of patients did not receive a TOC, making them possible vectors in case of treatment failure. Due to increased vulnerability for HIV-acquisition in persons with a MG-infection, we recommend routine rectal tests in MSM.

Disclosure No significant relationships.

P614

MACROLIDE RESISTANCE IN *MYCOPLASMA GENITALIUM* IS STRONGLY ASSOCIATED WITH STI CO-INFECTION

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Background Co-infections can compromise empirical therapy when treating genital discharge syndrome (GDS). In the UK, lack of testing for *Mycoplasma genitalium* (MG), a common cause of GDS, is particularly challenging because of increasing rates of macrolide antimicrobial resistance (AMR). We calculated prevalence of MG co-infections, macrolide resistance and associated risk factors in a diverse symptomatic sexual health clinic (SHC) population.

Methods SHC attendees in England aged ≥ 16 years, symptomatic of an STI provided: vulvovaginal swabs (females), first void urine (men-who-have-sex-with-women (MSW) and men-who-have-sex-with-men (MSM)), pharyngeal and rectal swabs (MSM). Routine clinic *Chlamydia trachomatis* (CT)/*Neisseria gonorrhoeae* (NG) results were obtained and PCR used for MG detection. Macrolide resistance was determined using Sanger sequencing. Unadjusted and risk factor adjusted odds ratios (ORs) for being MG resistant were derived using logistic regression models.

Results Prevalence of MG was 9.5% across all groups and 6.5%(95%CI:4.6–8.9), 12.8%(9.1–17.3) and 12.3%(8.5–17.1) in females, MSW and MSM, respectively ($p < 0.005$). Among patients infected with CT and/or NG, co-infection with MG was 18.7%(8.9–32.6), 9.5%(3.6–19.6) and 4.9%(1.4–12.2), respectively ($p < 0.05$). Among MG positives, macrolide resistance was 62.1%(42.3–79.3), 77.4%(58.9–90.4), and 90.9%(70.8–98.9), respectively. In univariate analysis, being MSM (OR:3.0[95%CI:1.60–5.88]), being of black (3.02[1.66–5.47]) compared to white ethnicity, reported more than one regular partner (3.19[1.25–8.13]), having an STI co-infection (10.13[4.62–22.25]; $p < 0.001$) and a recent STI diagnosis (2.09[1.18–3.68]; $p < 0.005$) were associated with having macrolide resistant MG. In multivariable analysis, being MSM (aOR:3.31[1.44–7.61]), being of black ethnicity (3.31[95%CI:1.58–6.94]; $p < 0.005$), more than one regular partner (3.32[1.21–9.08];