Abstracts

**P09.02** REATTENDANCE RATES IN MEN PRESENTING WITH SYMPTOMS OF URETHRITIS – CAN POINT OF CARE TESTING FOR CHLAMYDIA AND GONORRHOEA IMPROVE OUTCOMES?

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**Introduction** Chlamydia and gonorrhoea are common causes of urethritis. Management is often based on a symptomatic approach while awaiting results. This can necessitate prescribing to cover a range of potential pathogens, and uncertainty for patients. Point of care testing (POCT) for chlamydia and gonorrhoea in men with symptoms of urethritis could alter care pathways and reduce reattendance in these patients. The aim of this study was to measure reattendance rates in men presenting with symptoms of urethritis and develop a decision tree care pathway model in order to estimate potential benefits of replacing standard nucleic acid amplification testing with POCT.

**Methods** All men with urethritis symptoms presenting over a three month period were identified using electronic patient records. Urethritis was defined as ≥5 pnmis/lhp on a Gram stained urethral smear. Reattendances within 30 days of initial clinic visit and reasons for reattendance were recorded for both microscopy-positive and negative groups. Review of literature was used to provide estimates of improved outcomes if the chlamydia/gonorrhoea POCT result was available prior to the clinical consultation.

**Results** 431 men with urethritis symptoms were identified in a 3 month period. 192 had confirmed urethritis on initial microscopy. 31% of microscopy-positive men and 42% of microscopy-negative men reattended at least once within 30 days of initial visit. Common reasons for reattendance were early morning smear (20%), persistent symptoms (18%), results (16%) and gonorrhoea test of cure (9%). It was estimated that POCT could reduce microscopy by 25% and repeat reattendance following treatment by 75% through improved pathogen-directed treatment and the introduction of gonorrhoea POCT sample drop-off as a test of cure.

**Conclusion** This service evaluation using decision tree care pathway modelling has identified high reattendance rates in men with urethritis symptoms which POCT has the potential to reduce substantially.

**Disclosure of interest statement** PH has received funding from Cepheid directly and indirectly for lecturing on point of care testing and undertaking research on the cost effectiveness of their CT/NG assay. Has also received payment from Atlas Genetics for an article in the Parliamentary Review on the benefits of point of care technology in improving the cost effectiveness of sexual health services. Has also received an honorarium from Hologic for an education talk on STI diagnostics.

NC, MC, FG, MC, JN, HW, no conflicts of interest declared.

**P09.03** TREATMENT OF MYCOPLASMA GENITALII WITH AZITHROMYCIN 1 G IS LESS EFFICACIOUS AND ASSOCIATED WITH INDUCTION OF MACROLIDE RESISTANCE COMPARED TO A 5-DAY REGIMEN

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**Introduction** Mycoplasma genitalii (MG) is an emerging important STI. Failure rates with azithromycin 1 g appear to be increasing. This may be due to the emergence of macrolide antimicrobial resistance as a consequence of extensive use of azithromycin 1 g. An extended regimen of azithromycin 500 mgs on day one then 250 mgs daily for 4 days (5 day regimen) was introduced in the 1990s for treatment of MG and has high efficacy rates (if no pre-existing macrolide resistance) and is less associated with induction of macrolide resistance. There are no comparative trials of the two regimens. We undertook a meta-analysis of MG treatment studies using the two azithromycin regimens to determine which is more effective.

**Methods** Medline was used to identify published articles including the search terms Mycoplasma genitalii and resistance up to March 2015. Treatment studies using azithromycin 1 g or 5 days were identified in which patients were initially assessed for macrolide resistance genetic mutations, and those who failed were again resistance genotyped were selected. Sensitivity analyses included only patients without prior treatment.

**Results** Six studies were identified totaling 424 patients of whom 78 (18.4%) had received the 5 dy regimen. Only one person failed the 5 dy regimen and no resistance was detected. Compared to the 5 day regimen, azithromycin 1 g had a higher risk of failure (difference: 12.9%, 95% CI: 8.4%, 17.3%) and more developed macrolide resistance (risk difference: 12.1% (8.7%, 15.6%)). The 5 day regimen included 52 patients with prior doxycycline treatment when these were excluded sensitivity analysis showed a failure risk difference of 10.3% (2.1%, 18.6%). Resistance risk did not change.

**Conclusion** Azithromycin 1 g is more likely to result in treatment failure and the development of macrolide antimicrobial resistance than 500 mgs on day one then 250 mgs daily for 4 days.

**Disclosure of interest statement** PH - Has received funding for providing expert advice on M. genitalium diagnostics. HM – has received a honorarium and travel expenses from Becton Dickenson for a lecture on Mycoplasma genitalium. SI, FG, FK and KB – none to declare.

**P09.04** TRICHOMONAS VAGINALIS AND MYCOPLASMA GENITALII: AGE-SPECIFIC PREVALENCE AND DISEASE BURDEN IN MEN ATTENDING A SEXUALLY TRANSMITTED INFECTIONS CLINIC IN AMSTERDAM, THE NETHERLANDS

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Introduction Men are not routinely tested for *Trichomonas vaginalis* (Tv) and *Mycoplasma genitalium* (Mg) in the Netherlands and, therefore, their prevalence and/or role in urogenital complaints in the Dutch male population is unknown. Our aim was to describe the age-specific prevalence of Tv and Mg and the possible association of Tv and Mg infections with male urogenital complaints, ethnicity, high-risk sexual behaviour and co-infections with *Chlamydia trachomatis* (Ct), in men attending the Sexually Transmitted Infection (STI) clinic in Amsterdam, the Netherlands.

Methods Urine samples and clinical data were collected from 526 heterosexual men and 678 men who had sex with men (MSM) attending the STI clinic. To investigate age as a risk factor, we oversampled older men. Urine samples were tested for Tv and Mg using TMA (Hologic) and in-house PCR.

Results Tv infection was rare in heterosexual men (1.1%) and non-existent in MSM attending the STI clinic, whereas Mg infection was equally common in both groups (3.1%). Most Tv cases were older than 40, of non-Dutch ethnicity and associated with low-risk sexual behaviour. No age or ethnic trends were observed for Mg infection; however, high-risk sexual behaviour in MSM did correlate with Mg infection. Co-infections of Tv or Mg with Ct were very rare (< 0.5%). Of the patients with Mg infection 21.6% reported urogenital symptoms.

Conclusion Tv infection is rare and asymptomatic among men attending the STI clinic in Amsterdam. Our results support previous findings that Tv prevalence increases with age. Mg is quite common in men, but also remains mostly asymptomatic. While the outcome of this study does not encourage general testing for Tv in men, it does, however, suggest that some male urogenital symptoms – not caused by gonorrhoea or C. trachomatis – could be explained by Mg infection.

Disclosure of interest statement This work was funded by the Public Health Laboratory in Amsterdam, the Netherlands. The authors declare no conflicts of interest.

P09.05 HIGH PREVALENCE OF GENITAL INFECTIONS WITH MYCOPLASMA GENITALIUM IN FEMALE SEX WORKERS REACHED AT THEIR WORKING PLACE IN GERMANY: THE STI-OUTREACH-STUDY

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Background Data on *Mycoplasma genitalium* (MG) in female sex workers (FSW) is scarce. FSW without regular contact to public health services may be at high risk for STI. Amongst other STIs, we measured prevalence of MG among FSW at their workplace to identify most vulnerable subgroups and to plan effective interventions.

Methods Outreach-workers screened FSW in Berlin, Hamburg, and North Rhine-Westphalia for MG using self-collected vaginal swabs. Swabs were analysed by TMA (APTIMA® Mycoplasma genitalium assay, RUO). We collected data on sociodemographics, duration of sex work and access to medical care through cultural mediators. We fitted multivariate logistic regression models to calculate adjusted odds ratio (aOR) and 95% confidence intervals (95 CI) for diagnosis of MG.

Results Overall, 1,445 FSW working at 292 places were enrolled. 88% of FSW were born abroad, 28% in Romania, 21% in Bulgaria. 41% of non-Germans had no German skills. German and non-German FSW differed regarding existing health insurance (89% vs. 21%, p < 0.01) and ever attending low threshold STI clinics (70% vs. 43%, p < 0.01). FSW worked in brothels (26%), clubs/bars (20%), rented rooms inside brothels (18%), apartments (14%), saunas (9%) and on the street (7%).

P09.06 UNUSUALLY LOW PREVALENCE OF MYCOPLASMA GENITALIUM AND TRICHOMONAS VAGINALIS IN URINE SAMPLES FROM CHINESE WOMEN ATTENDING A CENTRE OF PREGNATAL DIAGNOSIS

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Background *Trichomonas vaginalis* (Tv) and *Mycoplasma genitalium* (Mg) have been identified as high-risk pathogens in pregnant women. We aimed to describe the age-specific prevalence of Tv and Mg and the possible association of Tv and Mg infections with female urogenital complaints in pregnant women. Our aim was to describe the age-specific prevalence of Tv and Mg infections with female urogenital complaints, ethnicity, high-risk sexual behaviour and co-infections with *Chlamydia trachomatis* (Ct) in a centre of prenatal diagnosis who residing in the middle and lower reaches of the Yangze River.

Methods Urine samples and clinical data were collected from 326 heterosexual women and 678 women who had sex with men (MSM) attending the STI clinic. To investigate age as a risk factor, we oversampled older women. Urine samples were tested for Tv and Mg using TMA (Hologic) and in-house PCR.

Results Tv infection was rare in heterosexual women (1.1%) and non-existent in MSM attending the STI clinic. While screening all pregnant women with these STI-6 PCR method would save a lot of time, the Chinese Mg genitalium and *T. vaginalis* prevalence remains low and this STI-6 Detection Kit is unlikely to be cost effective.

Conclusion Comparison with reported data, unusually low prevalence of *M. genitalium* and *T. vaginalis* were found in Chinese women attending a centre of prenatal diagnosis who residing in the middle and lower reaches of the Yangze River. While screening all pregnant women with these STI-6 PCR method will save a lot of time, the Chinese *M. genitalium* and *T. vaginalis* prevalence remains low and this STI-6 Detection Kit is unlikely to be cost effective.

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