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 an enhanced syndromic 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 pmnls/hpf 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 GENITALIUM* 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 genitalium* (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 genitalium* 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 day 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 Dickinson for a lecture on *Mycoplasma genitalium*. SI, FG, FK and KB – none to declare.

P09.04 *TRICHOMONAS VAGINALIS* AND *MYCOPLASMA GENITALIUM*: 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 Ct - 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 UNUSUALLY LOW PREVALENCE OF *MYCOPLASMA GENITALIUM* AND *TRICHOMONAS VAGINALIS* IN URINE SAMPLES FROM CHINESE WOMEN ATTENDING A CENTRE OF PRENATAL DIAGNOSIS

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Introduction Sexually transmitted infections (STIs) in pregnant women are health problems that lead to serious medical complications and consequences. This study aimed to investigate the prevalence of six STIs among pregnant women attending a centre of prenatal diagnosis.

Methods From Feb 2008 to Dec 2010, women who attending centre of prenatal diagnosis of Nanjing maternity and child health hospital seeking for medical care were enrolled in this study. A case-control study was conducted that 42 case women who suffered a medically unexplained spontaneous abortion and 159 control women who had no history of spontaneous abortion and had at least one living child. Six kinds of sexually transmitted infections such as *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Mycoplasma genitalium*, *Trichomonas vaginalis*, *Mycoplasma hominis*, and *Ureaplasma urealyticum* was detected by using the DiaPlexQ^{TM} STI-6 Detection Kit.

Results The overall prevalence of any STI was 11.90% in case women while 16.98% in control women. *Mycoplasma genitalium* and *Trichomonas vaginalis* were not found in case women and these in 0.63% control women. *Chlamydia trachomatis* and *Ureaplasma urealyticum* were detected in 4.76% and 11.90% of case women which were higher than these in control women; None *Neisseria gonorrhoeae* were found in case women while in 4.40% control samples. *Mycoplasma hominis* were 2.38% in case and 9.43% in control. The lack of association between STIs and spontaneous abortion was found in this study.

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

Disclosure of interest statement The Australasian Society for HIV Medicine recognises the considerable contribution that industry partners make to professional and research activities. We also recognise the need for transparency of disclosure of potential conflicts of interest by acknowledging these relationships in publications and presentations.

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P09.06 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 STI, 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%), saunaclubs (9%) and on the street (7%).