

trimester or on the date of delivery among all pregnant women, especially among pregnant women without syphilis testing before the third trimester, leaves a critical gap in the prevention of congenital syphilis infection. Interventions should be developed to increase prenatal syphilis testing as recommended.

**P09.19 RESULTS FROM A PREVALENCE STUDY OF NEISSERIA GONORRHOEA AND CHLAMYDIA TRACHOMATIS IN A COMMUNITY-BASED, PEER-LED HIV TESTING SERVICE**

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**Introduction** PRONTO!, Victoria's community based rapid point of care (RPOC) testing service, opened in August 2013. RPOC syphilis testing was introduced in June 2014. To assess the need and feasibility of comprehensive STI testing at PRONTO! a *Neisseria gonorrhoea* (NG) and *Chlamydia trachomatis* (CT) testing trial was conducted in November–December 2014. We describe site specific positivity of NG and CT infection and the characteristics of gay, bisexual and other men who have sex with men (GBM) testing positive.

**Methods** All GBM testing for HIV between November 7–December 23 2014 were offered NG and CT testing, with clients instructed in the self-collection of anal, genital and throat swabs. Client characteristics were collected using standard PRONTO! client surveys and matched to test results. All clients with an infection were notified by telephone and referred to a high case-load clinic for treatment.

**Results** Among 239 clients, 186 (78%) opted to receive NG and CT tests and 35 (18.8%) tested positive for at least one of NG or CT. Of the 22 (11.8%) positive NG results, there were nine anal (5.0%), two urethral (1.1%), and 15 throat (8.2%) infections. Of the 17 (9.1%) positive CT results, there were 12 anal (6.6%), eight urethral (4.3%), and three throat (1.6%) infections. Twelve men (6.4%) tested positive for more than one STI or at multiple sites. Demographic and risk characteristics were largely similar between men testing positive or negative for NG and/or CT with the exception that group sex in the previous six months was associated with both CT (OR = 4.65; 95% CI = 0.96–7.3) and NG (OR = 2.54; 95% CI = 1.02–6.33) positivity.

**Conclusion** STI testing using self-collected samples is a feasible model for screening in a community-based RPOC testing service. The high prevalence of infections and acceptability testing for bacterial STIs supports the introduction of comprehensive STI screening at PRONTO!.

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**P09.20 TREND OF STIS PREVALENCE AMONG WOMEN AND MEN IN MOROCCO BETWEEN 1999 TO 2011**

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**Background** The Ministry of Health in Morocco conducted several studies to determine the prevalence of STIs in the Moroccan population. Two studies in 1999 and 2011, among women consultants in family planning units (FPU) for studied the aetiology and for follow the trends of genital tract infections and two studies in 2001 and 2009 to determine the aetiological profile of urethral discharge (UD).

**Methods** A samples of 760 (1999) and 256 (2011) women who consult in the maternal and infant health units (MIHU) and in the FPU were recruited and samples of 422 (2001) and 171 (2009) men complaining of UD were recruited in basic health services. *Neisseria gonorrhoeae* (GC) identification was performed by culture and PCR and *Chlamydia trachomatis* (CT) was detected by PCR. HIV and Syphilis status was determined for all the patients.

**Results** Results showed that cervical infection due to GC and CT increased respectively from 0,7% to 0,9% and 4,02% to 4,4% from 1999 to 2011. Urethral discharge caused by GC and CT extend respectively from 41,6% in 2001 to 62,8% in 2009 and from 6,3% in 2001 to 10,4% in 2009. Syphilis serology decreased in women and men and no case for the HIV was detected.

**Conclusion** The increase of cervical infections and urethral discharges with GC and CT showed that the asymptomatic infections in women and the UD are a serious problem for the Moroccan population. These studies has allowed the Ministry of Health (MOH) to update the data on the aetiology of STIs in women and men and therefore to strengthen primary prevention of STIs and regularly monitor trends in prevalence of these infections among the general population and also among vulnerable groups in particular.

**Disclosure of interest statement** We declare that none of the authors has conflicts of interest relevant to this work and no pharmaceutical grants were received in the development of these studies.

**P09.21 PERFORMANCE OF GENEXPERT® CT/NG IN THE DIAGNOSIS OF NEISSERIA GONORRHOEA AND CHLAMYDIA TRACHOMATIS AMONG MEN AND WOMEN WITH GENITAL DISCHARGE SYNDROME IN ZIMBABWE**

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**Background** In many countries, patients with genital discharge syndrome (GDS) are treated syndromically with antibiotics that

cover both *Neisseria gonorrhoeae* (NG) and *Chlamydia trachomatis* (CT). The syndromic approach leads to both over-treatment (as most patients are not dually infected) and under-treatment (as asymptomatic infections are not detected). We studied the performance of the GeneXpert® nucleic acid amplification test (NAAT) as a testing platform for NG and CT in a study of the aetiology of GDS in Zimbabwe.

**Materials and methods** In an ongoing study, we enrolled 400 patients with GDS in 6 regionally diverse clinics in Zimbabwe serving high numbers of STI cases. Urine (men) and vaginal (women) specimens were taken for testing on 3 NAAT platforms: GeneXpert®, Probetec™ and multiplex polymerase chain reaction (M-PCR), conducted in different laboratories. We analysed overall concordance of results between platforms and assessed the performance of the GeneXpert® test when compared to a gold standard comprised of concordant results on both Probetec™ and M-PCR platforms.

**Results** To date, a total of 197 men and 200 women with GDS have been enrolled. Testing on all 3 platforms is complete for the 136 GDS patients enrolled in Harare. Concordance of positive or negative results for all 3 platforms was 133/136 (97.8%) for NG and 132/136 (97.0%) for CT. Sensitivity of the GeneXpert® platform compared to the Probetec™/M-PCR combined gold standard was 100% for both NG and CT; specificity was 98.8% for NG and 100% for CT.

**Conclusions** Aetiologic diagnosis has long been out of reach for many countries. However, the increasing presence of nucleic acid amplification test (NAAT) devices in many countries, such as GeneXpert®, for the diagnosis of tuberculosis and other infections, opens the possibility to use them for the diagnosis of other pathogens including NG and CT as an alternative or adjunct to syndromic management.

**Disclosure of interest statement** Nothing to declare.

#### P09.22 THE AETIOLOGY OF GENITAL DISCHARGE SYNDROMES IN ZIMBABWE

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**Background** In many countries, sexually transmitted infections (STI) are treated syndromically. Thus, male and female patients with genital discharge syndromes (GDS) receive antimicrobials covering *Chlamydia trachomatis* (CT), *Neisseria Gonorrhoeae* (NG) and *Trichomonas vaginalis* (TV) infections and bacterial vaginosis (BV) among women. However, periodic surveys into the aetiology of GDS are necessary to inform treatment guidelines.

**Methods** For this study, we enrolled 400 patients with GDS at 6 regionally diverse clinics in Zimbabwe. To date, test procedures have been completed for patients enrolled at the Harare study sites (N = 137). Sites were visited sequentially by a mobile unit of 3 trained nurses to enrol patients with STI syndromes, including GDS. STI history and risk data were collected by questionnaire and uploaded to a web-based database. Urine and vaginal specimens were taken for testing with a validated multiplex polymerase chain reaction assay (M-PCR, National Institute of

Communicable Diseases, Johannesburg) for CT, NG, TV and *Mycoplasma genitalium* (MG). Smears for Gram stain and subsequent assessment using Nugent criteria for the diagnosis of BV were obtained from all women with vaginal discharge.

**Results** M-PCR testing is complete for all GDS patients enrolled in Harare; 68 men and 69 women. Positivity rates were as follows. Men: NG = 60.3%, CT = 13.2%, TV = 4.4%, MG = 2.9%. Women: NG = 18.8%, CT = 8.7%, TV = 14.5%, MG = 7.3%. Among women, 31.9% met Nugent criteria for BV and 20.0% had yeast infection identified on Gram stain.

**Conclusions** In this preliminary analysis, gonorrhoea was the most common cause of GDS among both men and women, but much more common among men. Chlamydia infections were substantially less common among both men and women and trichomoniasis was more common than chlamydia infections among women. Regardless of investigated microbiologic causes, many women met criteria for BV. *M. genitalium* infections were uncommon overall. These findings will inform development of future syndromic STI management guidelines.

#### P09.23 HIGH PREVALENCE OF HIV INFECTION AMONG PATIENTS WITH STI SYNDROMES IN ZIMBABWE: IMPLICATIONS FOR PREVENTION

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**Introduction** The occurrence of sexually transmitted infection (STI) syndromes among persons with HIV infection indicates the presence of high-risk behaviours and biological co-factors favouring HIV transmission. We determined HIV prevalence among patients enrolled in a study of the aetiology of STI syndromes in Zimbabwe.

**Methods** In an ongoing study, we enrolled men and women with genital discharge syndrome (GDS) or genital ulcer disease (GUD) at 6 geographically diverse clinics in Zimbabwe. We used Xpert® CT/NG to determine the presence of *Neisseria gonorrhoeae* (NG) and *Chlamydia trachomatis* (CT) in urethral or vaginal specimens from all study participants. Blood samples were collected for HIV testing by a standard rapid HIV test algorithm (First Response™ followed by Alere HIV 1/2™) and considered positive when reactive on both. Blood samples were also tested for treponemal antibodies (SD Bioline HIV/syphilis DUO™).

**Results** To date we completed laboratory test on 371 patients. Of these, 150 (40.4%) were HIV-infected. HIV rates were as follows. Female GUD: 35/62 (56.5%) vs. female GDS: 46/116 (39.7%, p = 0.05) and male GUD: 32/72 (44.4%) vs. male GDS (37/121 (30.6%, p < 0.05). HIV-infected GDS/GUD patients were significantly more likely to have positive treponemal tests compared to HIV uninfected (10.3% vs. 4.8%; p < 0.05). They were also more likely to test positive for NG (40.0% vs. 29.4%; p = 0.07), but less likely to test positive for CT (12.2% vs. 20.3%; p = 0.07).

**Conclusion** In our study, HIV prevalence was high among patients with STI syndromes and higher among patients with GUD than patients with GDS. The high prevalence of NG infections and evidence for recent syphilis infection among persons