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