

**Results** The sensitivity, specificity, PPV and NPV of new multiplex qPCR was 98.80%, 100%, 100% and 99.69% respectively compared to uniplex qPCR. The discordant result of multiplex qPCR was detected in 1 sample. Developed multiplex qPCR showed 100% sensitivity, specificity, PPV and NPV for *C.trachomatis* and *N.gonorrhoeae* respectively. The sensitivity, specificity, PPV and NPV for *M.genitalium* were 97.78%, 100%, 100% and 99.72% respectively. No cross-reactions were detected between target organisms or with related species.

**Conclusions** Multiplex In house qPCR in this study has shown high sensitivity and specificity for detection of *C.trachomatis*, *N.gonorrhoeae* and *M.genitalium* in infertility patients which facilitate the opportunity to be used as a rapid diagnostic tool and for initiation of early treatment in resource poor settings where syndromic approach is being followed. This assay needs to be performed on the larger sample size and using different specimens prior to large-scale screening.

**P1.55 DETECTION OF GENITAL MYCOPLASMAS IN WOMEN VISITING THE INFERTILITY CLINIC OF AN ACADEMIC HOSPITAL, PRETORIA, SOUTH AFRICA**

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**Introduction** Sexually transmitted infections (STIs) continue to be a significant public health problem with a high burden in women of reproductive age. Rates of *Chlamydia trachomatis*, *Neisseria gonorrhoeae* and *Trichomonas vaginalis* are frequently tested for and rates of infection are generally high in African settings, but the prevalence of other genital STIs is largely unknown. The aim of this study was to determine the prevalence of genital mycoplasmas (*Mycoplasma genitalium*, *M. hominis*, *Ureaplasma parvum* and *U. urealyticum*) in women visiting the infertility clinic of a tertiary academic hospital in South Africa.

**Methods** In this pilot evaluation self-collected vaginal swabs were obtained from 51 women visiting the infertility clinic. The genomic DNA was extracted from the swabs using the ZR Fungal/Bacterial DNA Miniprep (Thermo Scientific, USA) and analysed using the Anyplex II STI-7 (Seegene, Korea) real-time PCR assay for the simultaneous detection and identification of seven STIs including the four mycoplasma species.

**Results** The real-time PCR assay detected the following genital mycoplasmas and co-infections in the 51 women: *U. parvum* [55% (28/51)], *M. hominis* [20% (10/51)] and *U. urealyticum* [16% (8/51)]; none of the specimens tested positive for *M. genitalium*. Among the nine patients where mixed infections were observed, *M. hominis* and *Ureaplasma* spp. were frequently detected together [67% (6/9)]. In addition to the mycoplasmas, one woman tested positive for *C. trachomatis*; *N. gonorrhoeae* and *T. vaginalis* were not detected.

**Conclusion** This pilot study demonstrated an unexpectedly high rate of genital mycoplasma infections among women visiting an infertility clinic. The burden of genital mycoplasma infection is largely unknown and warrants further investigation, in particular with regards to the prevalence and clinical significance in different population groups.

**Support:** Anyplex II STI-7 kits provided by Seegene, Korea

**P1.56 PREDICTORS OF CARDIOVASCULAR RISK AND ATHEROGENIC INDICES AMONG ADULT HIV SEROPOSITIVE PATIENTS ON HIGHLY ACTIVE ANTIRETROVIRALS IN WESTERN NIGERIA: A CASE-CONTROL STUDY**

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**Introduction** Cardiovascular risk factors place HIV-infected patients at increased risk for cardiovascular diseases (CVDs) due to complex interactions between traditional CVD risk factors, antiretroviral therapy (ART) and HIV infection itself. The report of the 2012 National Reproductive Health Survey Plus indicated that the prevalence of HIV/AIDS in Nigeria is about 3.4% while Ondo State has a prevalence of 4.3%. This study was therefore designed to evaluate the CD4+ T-cell count, atherogenic indices and risk score of adult HIV seropositives on Highly Active Antiretroviral Therapy (HAART), those not yet started on HAART and HIV seronegative control subjects. Hypothesis tested was the effect of the various drugs on the indices determining the risk level.

**Methods** Serum levels of CD4+ cell count of adult HIV seropositive subjects on HAART, HAART naïve subjects and seronegative controls were determined using flow cytometry while their atherogenic indices and Framingham risk score were determined from enzymatic spectrophotometrically determined lipids and lipoproteins. Ethical approval was obtained from the Ondo State Ministry of Health Research Ethics Committee, Akure, Nigeria. All data were expressed as Mean  $\pm$  Standard Deviation and analysed with Analysis of Variance (ANOVA) while multiple comparisons were done using Post Hoc Bonferroni test.

**Results** The average duration (in months) of the use of HAART in the group 1 subjects is  $25.63 \pm 19.99$  while the average duration (in months) of cotrimoxazole use for subjects in group 2 is  $7.10 \pm 4.89$ . There was a significant mean increased weight in the control subjects as compared with that of the other two groups. The mean serum cardiac risk ratio (CRR), atherogenic index of plasma (AIP), atherogenic coefficient (AC) and Framingham Risk Score (FRS) were significantly increased in the HAART group as compared with those of the two other groups.

**Conclusion** HIV appears to have negatively altered the exogenous and endogenous synthesis and metabolism of lipids and lipoproteins in the liver, with ultimate effect on the atherogenic indices and risk score. This is worsened by antiretroviral therapy as the increased levels of these indices were mainly seen in the HAART group, constituting a major risk for cardiovascular diseases in these patients, thus increasing mortality rate.

**P1.57 HOW TO FACILITATE AND IMPROVE SCREENING OF SEXUALLY-TRANSMITTED INFECTIONS IN WOMEN POPULATION**

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**Introduction** Sexually Transmitted Infections (STIs) are increasing worldwide. Innovative approaches are required to eliminate barriers to STIs testing such as home-based self-sampling for patients that are difficult to reach or for those that refuse