

treatment of 0 days. In the standard-care period, 40/41 (97.6%, 95% CI: 87.1–99.9) received treatment; 15 (37.5%) were treated presumptively on the same day (due to symptoms/risk) and 25 (62.5%) were treated on the basis of the laboratory test result; and of these 44% were treated in 1–7 days, 44% in 8–14 days and 12% in 15+ days, with a median time-to-treatment of 8 days.

Conclusion This site is already part of a strong and comprehensive STI control program run by NHC over 20 years. Early findings from TTANGO show further improvement in STI management were achieved with point-of-care tests, with treatment occurring on average 8 days sooner for those treated on the basis of a test result. Future analyses will include all 12 clinics and also assess if re-infections have reduced.

Disclosure of interest statement No pharmaceutical grants were received in the development of this study. TTANGO is funded by a NHMRC project grant. The GeneXpert cartridges were purchased from Cepheid and Cepheid provided machines on loan for the duration of the study.

P07.05 UTILITY OF POOLED URINE SAMPLES FOR DETECTION OF *CHLAMYDIA TRACHOMATIS* INFECTION IN ASYMPTOMATIC PREGNANT WOMEN IN NORTHERN INDIA

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Background Urogenital infections by *Chlamydia trachomatis* (CT) are the most prevalent sexually-transmitted bacterial diseases in women. Cost effective screening of women for *C. trachomatis* infection in developing countries is highly desirable for reducing morbidity and complications like pelvic inflammatory diseases, ectopic pregnancy and infertility. Results of noninvasive urine samples tests for *C. trachomatis* are nearly identical to samples collected directly from the cervix or urethra. The present study used the pooled urine samples to decrease the cost of screening for *C. trachomatis*.

Methods First void urine samples were collected from 1000 asymptomatic pregnant women having gestational age less than 24 weeks attending the Antenatal Clinics at PGIMER, Chandigarh during July 2009 to June 2012. The pooled urine samples (5x pooled processed specimen) were tested for presence of *C. trachomatis* by Amplicor CT PCR kit (Roche Diagnostic) and positive results were further tested separately on each urine sample. Direct fluorescent antibody test (DFA) assay was used on urine specimen which were positive by PCR to confirm the positive results.

Results Overall *C. trachomatis* infection tested by both PCR and DFA was present in 1.6% (16/1000) of asymptomatic pregnant women. A total of 200 pools of urine samples were tested and 20 pools were positive for *C. trachomatis*. When these pools were tested individually, 20 (10%) samples were positive for CT (In one pool, 2 samples were positive and one pool was false positive). Four samples were negative by DFA. Pooling of urine samples saved 70% of reagent costs in our study.

Conclusions The study shows *C. trachomatis* infection was present in 1.6% of pregnant women which indicates low prevalence of infection in northern India. Pooling of urine samples

saved labour, cost (70% reduction) and time in screening large number of samples in resource-limited settings.

Disclosure of interest statement None (No conflict of interest). The study was funded by Indian Council of Medical Research, New Delhi. No pharmaceutical grants were received in the development of this study.

P07.06 A LOW COST, HAND-HELD POINT OF CARE MOLECULAR DIAGNOSTIC DEVICE FOR SEXUALLY TRANSMITTED INFECTIONS

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Introduction Rapid and accurate field diagnostics have potential to impact on the burden of STIs in resource poor settings. Microfluidic and nano technologies offer opportunities to create molecular detection platforms but costs may be prohibitive. We present a low cost isothermal amplification, point of care test for rapid identification of sexually transmitted infections. Sample collection integrates directly with a microfluidic device for automated sample preparation, isothermal amplification and optical detection.

Methods Cell lysis, within the microfluidic cartridge, is conducted using a chemical method and nucleic acid purification is achieved on activated cellulose membrane. The microfluidic device incorporates passive mixing of lysis-binding buffers and sample using a serpentine channel. Isothermal amplification is conducted using thermophilic helicase dependent amplification (tHDA) and recombinase polymerase amplification (RPA). A low cost real-time isothermal amplification platform has been developed capable of running six amplifications simultaneously.

Results Results have shown extraction efficiencies for the new membrane of 69% and 57% compared to commercial Qiagen extraction of 85% and 59.4% for 0.1 ng/μL and 100 ng/μL salmon sperm DNA respectively spiked in phosphate buffered solution. Extraction experiments using the serpentine passive mixer cartridges incorporating lysis and nucleic acid purification showed extraction efficiency around 80% of the commercial Qiagen kit. The platform is capable of detecting 1.32×10^6 copies of target DNA through thermophilic helicase dependent amplification and 1×10^5 copies of *Chlamydia trachomatis* genomic DNA within 10 min through RPA.

Conclusion We have produced a low cost, rapid nucleic acid extraction, isothermal amplification and detection platform consistent with use remote resource poor settings. The simple optics setup demonstrated high sensitivity and rapid detection of the tHDA and RPA reactions removing the requirement for expensive dichroic filters and lenses. Diagnostic performance of the device is currently being undertaken.

Disclosure of interest statement No Disclosure of interest.

P07.07 MULTIPLEXING STI CAUSING PATHOGENS USING MNAZYME QPCR: A NOVEL REAL-TIME TECHNOLOGY WITH A SUPERIOR CAPACITY FOR MULTIPLEXING

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