

types were calculated by comparing results to the patient infected status (PIS) algorithm of wet mount and TV culture.

Results Results from 838 participants were available for evaluation. The overall prevalence of TV in this population was 120/838 (14.3%). Using the self-collected vaginal swab as the reference comparator, there was excellent agreement between vaginal swabs, neat and UPT urine, and endocervical swabs (kappa 0.93–0.95). Of these specimen types, endocervical had the lowest yield but still had excellent agreement with vaginal specimens.

Conclusions Vaginal, urine, and endocervical samples showed excellent agreement for diagnosis of TV and are all acceptable specimens for use with the BD Viper™ System in extracted mode. The development of NAATS testing for TV, especially with the potential use of self-collected vaginal swab and urine specimens should greatly facilitate screening for this common STI.

P2.075 EVALUATION OF FEMALE URINE AND VAGINAL SWABS USING THE BD PROBETEC™ TRICHOMONAS VAGINALIS Qx AMPLIFIED DNA ASSAY ON THE BD VIPER™ SYSTEM IN EXTRACTED MODE AND A CLEARED NAAT TV ASSAY AS COMPARED TO PIS

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Background *Trichomonas vaginalis* (TV) is a sexually transmitted organism associated with vaginitis, cervicitis, urethritis, low birth weight, preterm delivery, pelvic inflammatory disease and HIV transmission and acquisition. Nucleic acid amplification testing improves the sensitivity for detection of pathogens. The performance of the BD ProbeTec™ TV Qx (TVQ) Amplified DNA Assay and the Gen-Probe Aptima TV assay were compared to patient infected status (PIS) established by the InPouch TV culture and wet mount for the detection of trichomonas in women.

Methods Participants with symptoms of trichomonas or presenting for routine visit were enrolled from seven geographically diverse centres. First void urine, a patient collected vaginal swab, and three clinician-collected vaginal swabs were obtained from each participant. Urine was aliquoted into BD neat and UPT tubes as well as an Aptima UTT tube. The first two clinician-collected vaginal swabs were randomised for wet mount and InPouch TV culture. The third was used for the Aptima TV assay.

Results There were a total of 1034 compliant participants with evaluable PIS. Specimen and instrument level exclusions resulted in 830 compliant vaginal result sets and 733 neat, UPT and UTT urine result sets for evaluation. For vaginal specimens, the sensitivity (specificity) of the TVQ Assay and the Aptima TV Assay compared to PIS were 98.3% (99%) and 100% (98.3%), respectively. For BD neat and UPT urine specimens, the sensitivity (specificity) of the TVQ Assay compared to PIS were 95.5% (98.7%) and 94.6% (98.6%). For the Aptima UTT urine specimen, the sensitivity and specificity of the Aptima TV Assay compared to PIS were 97.3% and 98.7%.

Conclusion The BD ProbeTec™ *Trichomonas vaginalis* Qx Amplified DNA Assay on the BD Viper™ System in extracted mode demonstrated excellent performance characteristics that were comparable to the only commercially available nucleic acid amplification assay for the detection of *Trichomonas vaginalis*.

P2.076 DEVELOPMENT OF A MOLECULAR BEACON-MEDIATED DIAGNOSTIC PROBE ASSAYS FOR THE DETECTION OF TRICHOMONAS VAGINALIS IN DRY SWABS SPECIMENS OF SYMPTOMATIC WOMEN

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Introduction *Trichomonas vaginalis* (TV) is a protozoan parasite that infects the genitourinary tract of 250 million individuals annually, leading to trichomoniasis. The infection is associated with preterm delivery, low foetus birth weight and increased susceptibility to other STDs as well as increased HIV acquisition. Infection with *Trichomonas* is globally underestimated because of ineffective screening protocols and under equipped pathological laboratories especially in developing countries. As a consequence, trichomoniasis is associated with poor reproductive health, with numerous clinical sequelae and complications. In developing countries like India, due to forbidden cost of commercial kits, syndromic management is preferred. Hence, a cost effective and quick diagnostic assay is urgently required. The present study is an attempt to develop an inexpensive, specific and sensitive quantitative assay for *Trichomonas vaginalis*.

Methods Specimens were retrieved consecutively from patients with vaginal complaints. In-house primers and molecular TV beacon (Tv-B) were designed to detect the presence of unique regions in the genome of *Trichomonas* in clinical isolates. The sensitivity and specificity of the inhouse primers were evaluated against published primers and the method was validated against qPCR based commercial kit using DNA isolated from 802 dry clinical swabs.

Results In-house designed PCR based assay for detection of trichomonas was highly sensitive as could detect as low as 10fg of genomic DNA (3–5 pathogens). Using molecular beacon, Tv-B, 83 women (10.3%) tested positive for trichomonas out of 802 women (age 15 yrs –55 yrs). The assay was extremely specific and sensitive (99.25% and 94.64% respectively). The PPV was found to be 94% and NPV was 99%. The assay could be used for quantification of load of infection.

Conclusion The results demonstrated that in house developed test for TV is highly specific, sensitive, pocket and user friendly.

P2.077 USE OF THE OSOM® TRICHOMONAS RAPID TEST IN AN EMERGENCY ROOM SETTING

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Background The availability of sensitive point-of-care tests for *Trichomonas vaginalis* (TV) in emergency rooms (ER) is important to facilitate immediate diagnosis and treatment. We evaluated the use of the OSOM® *Trichomonas* Rapid Test, an FDA-approved immunochromatographic capillary flow assay, among female patients in an ER located in the southeastern United States.

Methods The University of North Carolina Hospitals located in Chapel Hill, North Carolina, US replaced wet mount microscopy (WM) for vaginal TV detection with the OSOM® *Trichomonas* Rapid Test (Genzyme Corporation, US) in October 2011. We analysed 10 months of data for women evaluated in the ER with the rapid test, and compared the positivity rate with a similar 10-month period determined by WM. We assessed characteristics of women identified with trichomoniasis using the rapid test, and the proportion who received appropriate therapy.

Results Over the study period, 1533 female patients were tested for TV using the rapid test, of which 539 (35.2%) were Black, with a median age of 28 years (range 6–82 years). The TV positivity rate based on the rapid test was 5.6% (86/1533), compared to 3.2% (54/1681) among those tested with WM. Among 77 unique female patients with TV infection, 467 (34.0%) were Black and had a median age of 28 years. Nearly half of infected women presented with a chief complaint of abdominal pain (49%); vaginal discharge was only reported by 10%. Among infected women, 55% had concomitant bacterial vaginosis (BV), and 16% were co-infected with gonorrhoea and/or chlamydia. Most infected women (84%) were prescribed metronidazole during the same ER visit.

Conclusions . The OSOM® Trichomonas Rapid Test resulted in a 60% increase in TV detection among women compared to WM, and the majority received appropriate TV therapy. Women identified with TV infection in an ER setting were primarily co-infected with BV and other STIs.

P2.078 DRUG RESISTANCE OF MYCOBACTERIUM TUBERCULOSIS AT PATIENTS WITH COMBINATION OF TUBERCULOSIS AND THE HIV INFECTION

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Purpose To estimate of drug resistances of (MBT) at patients with combination of tuberculosis and the HIV (TB+HIV).

Materials and Methods Patients with confection treated in tubercular hospital N^o2 for the period of 2005–2011

Results For the specified period the among patients with TB+HIV the share of low immune status (less than 200 cell/mkl), causing severe TB has increased from 32.5% up to 60.4%. It was accompanied by growth generalised forms of TB from 30.1% up to 56.5%.

MBT excreting it has been identified at 67.7% TB+HIV cases, and in 53.2% cases bacillar TB have been revealed by culture. From them only at 19.9% of MBT were sensitive to antitubercular drugs, at others tests identified presence of resistance of various prevalence. Resistance to streptomycin (73.2%) and izoniasid 73.4% was more often, it is a little bit less - to rifampicin - than 63.3%, and ethambutol - 41.2%. Among second line TB drugs the greatest resistance has been fixed to canamycin - 36.7%, to other drugs of this group it did not exceed 20%.

The proportion of patients with multi drug resistant MBT has determined in an interval of 80.6% of - 65.3%; among patients with new cases of TB it was on the average 73.3%. Extremely drug resistant MBT (XDR) has registered among for the new cases within 7.9% - 14.8%. Patients with XDR had expressed immune suppression and progressing of tuberculosis with development generalised forms even at use of ART. Lethal outcomes at them made 56.9%.

Conclusion wide circulation of multi and extremely drug resistant MBT at patients with TB+HIV makes inefficient treatment at prescription of f standard TB schemes. Besides for these patients use of methods of fast identification of drug resistance is necessary.

P2.079 WITHDRAWN BY AUTHOR

P2.080 DIVERSITY OF NEISSERIA GONORRHOAE ANTIMICROBIAL SUSCEPTIBILITY TESTING METHODOLOGIES IN THE UNITED KINGDOM

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Background Appropriate and timely treatment for *Neisseria gonorrhoeae* infection is an essential clinical and public health action. Antimicrobial susceptibility testing (AST) predicts therapeutic failure and guides selection of appropriate treatment.

Increasing antimicrobial resistance in *N. gonorrhoeae* prompted the publication of the global action plan by the World Health Organisation to control its spread. This document highlighted the lack of or use of different methodologies for AST making the inter-laboratories and international comparisons and monitoring difficult.

Aims The aim of this study was to explore whether laboratories offered AST for *N. gonorrhoeae* and which methodologies were being used to detect resistance particularly to current recommended treatment.

Methods A web based survey with 23 questions regarding AST was developed and rolled out to the members of British Society for Microbiology Technology and UK Standards for Microbiology Investigations from November 2012 to January 2013.

Results There were 327 responses from 118 laboratories from across the UK. After excluding duplicate and empty responses, 206 responses were analysed.

196 respondents (95%) conducted AST for *N. gonorrhoeae* with 46% performing this daily. 147 respondents (75%) used British Society of Antimicrobial Chemotherapy method and 8% used European Committee on Antimicrobial Susceptibility Testing breakpoints. 80% respondents always tested penicillin susceptibility, 71% always tested ceftriaxone and 55% always tested azithromycin. The most common methods used were disc diffusion (73% respondents) and E-test (48% respondents). 26% respondents did not archive isolates with potentially decreased susceptibility to cephalosporins and 19% did not use control strains for AST.

Conclusion This study highlights the diversity in approach to AST by different laboratories across the UK. Ceftriaxone and azithromycin, the antibiotics of choice for uncomplicated anogenital infections, were not consistently tested. AST is the basis for detecting resistance and modifying therapy accordingly and a consistent approach is required for both patient treatment and surveillance.

P2.081 ANTIMICROBIAL SUSCEPTIBILITIES OF NEISSERIA GONORRHOAE STRAINS FROM MALE URETHRITIS IN JAPAN -THE FIRST NATIONAL SURVEILLANCE

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Background *Neisseria gonorrhoeae* is one of the most important pathogens causing sexually transmitted infection. Resistant *N. gonorrhoeae* strains against several antimicrobials are increasing worldwide.

Purpose In this study, the trends of antimicrobial susceptibilities among *N. gonorrhoeae* strains isolated from male patients with urethritis were investigated as the first Japanese national surveillance, which was conducted by the surveillance committee of three Japanese societies as Japanese Society of Chemotherapy, Japanese Association of Infectious Diseases and Japanese Society of Clinical Microbiology.

Methods The targets were male patients older than 16 years with urethral discharge and symptoms of urethritis. The patients were diagnosed with gonococcal urethritis by a clinician at 51 participating facilities. The period of specimen collection was between April 2009 and October 2010.