locations. Endocervical swabs (ES) and samples in ThinPrep liquid based cytology medium (LBC) were obtained from each participant as were urine samples (data not shown) and vaginal swabs (data not shown). LBC were sampled prior to cytology (prequot) for cobas and AC2 and after cytology (postquot) for cobas only. A patient was considered infected if at least 2 of the assays with different molecular targets gave positive results from the ES or urine samples.

Results

Overall CT sensitivity ranged from 89.7 to 92.8% and specificity ranged from 99.6 to 99.8% for all sample types. Overall GC sensitivity ranged from 95.6 to 97.1% and specificity from 99.9 to 100% see Abstract P3-S1.34 table 1.

Conclusions

The cobas assay has excellent sensitivity and specificity when compared to PIS. Equivalent performance was observed for the ES and LBC samples, providing clinicians with flexibility to tailor endocervical sample acquisition to their particular setting. There was no statistical difference between the pre- and post-quot LBC samples allowing specimen handling to be suited to the needs of the microbiology and cytology laboratories. The assay is easy to perform, automated, and can be completed in <4 h.

Abstract P3-S1.34 Table 1 Sample Type Cx

<table>
<thead>
<tr>
<th>Sample type</th>
<th>n</th>
<th>CT sensitivity [95% CI]</th>
<th>CT specificity [95% CI]</th>
<th>n</th>
<th>NG sensitivity [95% CI]</th>
<th>NG specificity [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES</td>
<td>4253</td>
<td>91.6% (240/262) [87.6 to 94.4]</td>
<td>99.8% (3984/3991) [99.6 to 99.9]</td>
<td>4252</td>
<td>95.6% (65/68) [87.8 to 98.5]</td>
<td>100% (4182/4184) [99.8 to 100]</td>
</tr>
<tr>
<td>LBC Prequot</td>
<td>4238</td>
<td>92.8% (246/265) [89.1 to 95.4]</td>
<td>99.6% (3958/3973) [99.4 to 99.8]</td>
<td>4239</td>
<td>97.1% (67/69) [90.0 to 99.2]</td>
<td>99.9% (4167/4170) [99.8 to 100]</td>
</tr>
<tr>
<td>LBC Postquot</td>
<td>4202</td>
<td>89.7% (235/262) [85.4 to 92.8]</td>
<td>99.7% (3930/3940) [99.5 to 99.9]</td>
<td>4203</td>
<td>95.7% (66/69) [88.0 to 98.5]</td>
<td>100% (4132/4134) [99.8 to 100]</td>
</tr>
</tbody>
</table>

P3-S1.36 ASSESSING THE DIAGNOSIS AND TREATMENT OF URETHRITIS AMONG MEN ATTENDING AN URBAN STD CLINIC


1B W Furness, 2E A Sheriff, 3S Sankar, 4N Kamunu Elias. 1CDC/NCHHSTP/DSTD/ESB/FEU, Washington, USA; 2George Washington University, Washington, USA; 3Department of Health, District of Columbia, Washington, USA

Background: Urethritis is inflammation of the urethra, the main symptoms of which are dysuria and discharge, and two of the most common causes of which are Chlamydia trachomatis and Neisseria gonorrhoeae. The objectives of this study were to: (1) Determine the prevalence of atypical urethritis among participants, (2) Assess the sensitivity and specificity of using gram stain to diagnose gonorrhoea, and (3) Evaluate the effect of diagnostic test used on the time to treatment.

Methods: A random sample of 600 eighteen to 60-year-old men who visited the SE STD Clinic from January 2008 to December 2009 and had a gram stain and nucleic acid amplification test (NAAT) performed were studied. Atypical urethritis was defined as having evidence of inflammation on gram stain but no evidence of gonorrhoea (ie, NGU) and a NAAT negative for both bacteria. The sensitivity and specificity of gram stain were calculated using NAAT as the gold standard. An analysis of variance was used to assess the relationship between time to treatment and diagnostic test — and statistics and corresponding p values were calculated. All statistical analyses were performed using SAS software V. 9 (SAS Institute Inc.) and WinPepi (Abramson, J.H. Epidemiologic Perspective and Innovations).

Results: Of the 600 cases, 493 (82.3%) were Black, 253 (42.2%) had clinical urethritis, and 204 (47.0%) had a previous STD history. The mean age of 30.6 years (SD=10.3). One hundred and five cases of gonorrhoea, 110 cases of chlamydia, and three co-infections were diagnosed (Abstract P3-S1.36 table 1). None of the men diagnosed with gonorrhoea via gram stain were co-infected with chlamydia. The prevalence of atypical urethritis among this study population was 51.2%. The sensitivity of gram stain was 84.3%, the specificity was 100%, the positive predictive value (PPV) was 100%, and the negative predictive value (NPV) was 96.7%. The mean time to treatment was 2.52 days (SD=2.17). Analysis of variance revealed that gram stain (F=41.50, p<0.0001) and NAAT (F=19.18, p<0.0001) had significantly different effects on time to treatment.