Abstract P3-S.1.36 Table 1 Concordance between tests used to diagnosis urethritis among men

<table>
<thead>
<tr>
<th>Gram stain result</th>
<th>NAAT result</th>
<th>Chlamydia</th>
<th>Negative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhoea</td>
<td>NAAT result</td>
<td>91</td>
<td>0</td>
<td>91</td>
</tr>
<tr>
<td>NGU</td>
<td>3*</td>
<td>87*</td>
<td>187</td>
<td>277*</td>
</tr>
<tr>
<td>Negative</td>
<td>14</td>
<td>26</td>
<td>195</td>
<td>235</td>
</tr>
<tr>
<td>Total</td>
<td>108*</td>
<td>113*</td>
<td>382</td>
<td>600</td>
</tr>
</tbody>
</table>

*Three of these results were positive for both gonorrhoea and chlamydia.

Conclusion Gram stain is a reliable and relatively inexpensive test for the diagnosis of gonorrhoea among men. Men diagnosed with gonorrhoea or NGU using this point-of-care test were treated earlier than those diagnosed with NAAT only. The prevalence of atypical urethritis among this study population was high and further research should be conducted to investigate the possible aetiologies.

P3-S.1.37 THE ROLE OF MICROSCOPY IN THE DIAGNOSIS OF PROCTITIS AMONG MEN WHO HAVE SEX WITH MEN (MSM). A RETROSPECTIVE REVIEW OF RECTAL SCREENING

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1H Porner, 2D Harte. 1University of Bristol, Bristol, UK; 2University Hospital Bristol trust, Bristol, UK

Background The rectum is a common site of infection with Chlamydia trachomatis (CT), Mycoplasma genitalium (MG) and Neisseria gonorrhoeae (GC) among men who sex with men (MSM) who engage in receptive anal intercourse (RAI). Whilst the majority of individuals remain asymptomatic, these infections are likely to induce rectal inflammation which may have implications for HIV transmission. Information regarding the association between rectal CT, MG and GC and proctitis is limited.

Objectives To calculate the prevalence of proctitis among a cohort of MSM and investigate the association of proctitis with rectal CT and GC.

Methods Data were collected retrospectively. All MSM attending the clinic between July and December 2010 were included. Proctitis was defined as >5 PMNs per high power field on microscopy of a Gram-stained rectal smear. Information including sexual history, clinical presentation, microscopy and GC/CT NAAT (Aptima combo 2 (AC2)) results were recorded on a proforma. Data were analysed using SPSS 16.0. Statistical tests of association were performed using Pearson’s χ2 test. OR were calculated using logistic regression.

Results There were 425 MSM who attended for screening in the review period. Of these 83% were UK born. The median age was 32 years (range=16–69 yrs). RAI in the preceding 3 months was reported by 59% (n=251). Of these 64% (n=160) had rectal microscopy performed. Rectal symptoms were reported by 11%. The majority (96%) of samples were collected using a blind rectal swab technique. Proctitis was diagnosed in 23 (14.4%). Of these five were AC2-positive (CT=2, GC=1, CT+GC=1, LGV=1), nine were AC2 positive in 19/160 (11.8%) (GC=7, CT=10, CT+GC=1, LGV=1), five of whom had proctitis. Sensitivity and specificity of microscopy for rectal CT/GC was 26% and 87% respectively. Factors which were predictive of proctitis included rectal symptoms (p=0.001), and being HIV-1sero-positive (p=0.001) but being CT/GC/LGV positive was not associated (p=0.157 OR 2.4; 95% CI 0.8 to 7.5).

Conclusion Proctitis is common among MSM, particularly HIV-1 seropositive men. The association with GC/CT infection was weak.

The causes of and relevance of proctitis remain poorly understood and further research is warranted.

P3-S.1.38 MOLECULAR DETECTION OF CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEA IN RECTAL SWABS AND (SELF) COLLECTED VAGINAL SWABS WITH THE COBAS 4800 SYSTEM


S Moree. VU University Medical Center, Amsterdam, Netherlands

Objectives Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) are the most prevalent sexual transmitted diseases worldwide. In recent years molecular diagnostics for the standard sample types like cervical swabs and urines has been highly adapted in most laboratories. Currently more difficult samples types, with regard to inhibition, sensitivity and specificity, like rectal swabs and (self collected) vaginal swabs are received more often in the laboratories. This study describes the performance of the new Cobas 4800 for the detection of CT and NG in these difficult sample types.

Methods A total of 1100 co-collected swabs were tested (900 vaginal; 200 rectal). Informed consent was obtained from all patients included in the study for co-collection. All swabs were tested routinely with the M2000 system (Abbott) and the co-collected samples were tested in the Cobas 4800 system (Roche). All swabs were collected in their corresponding transport buffer and tested blinded. Discrepancy results were tested with an independent real time PCR method.

Results In the 900 vaginal swabs 10% (n=90) were positive for CT and 0.5% (n=4) for NG and in the 200 rectal swabs 11% CT positives (n=22) an 6% NG positives (n=12) were identified. In the vaginal samples nine discrepant results between the Cobas 4800 and M2000 system were identified. Five with borderline values and four with clear different results (1 NG, 3 CT). Two M2000 positive results (CT 35.9; S.3) were available for home brew analysis and could not be confirmed. In the rectal samples 3 discrepant results were found including three clear differences (2 NG, 1 CT). The CT discrepant sample was positive in the Cobas 4800 system (Cp 33.1) and negative in the M2000 system. For NG two samples were negative in the Cobas 4800 system but positive (CT 25.2; S.2) in the M2000 system. All three clear discrepant results were available for home brew analysis and confirmed the Cobas 4800 results.

Conclusion Both samples types showed a high concordance between the two systems (κ 0.95 for CT, κ 0.93 for NG). For detection of vaginal swabs some small differences were found both for CT and NG but these were equally spread between the two systems. There is no difference between self collected and clinician taken vaginal swabs. All clear rectal swabs discrepancies confirmed the Cobas 4800 results. This remarkable difference has to be further studied. In general, (self collected) vaginal swabs and rectal swabs show reliable results for routine detection of CT and NG.

P3-S.1.39 COMPARISON OF STRATEGIES FOR EMPIRIC CHLAMYDIA TRACHOMATIS (CT) TREATMENT IN THE DENVER METRO HEALTH CLINIC: TREAT MPC VS INCREASED WBC ON WET PREP


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Background Our STD stat lab reports WBC on the vaginal wet prep as normal or increased (≥10 WBC/LPF). WBC reflect inflammation and may be associated with CT infection. Mucopurulent cervicitis (MPC) may also result from CT infection. The role of microscopy in the diagnosis of proctitis among men who have sex with men (MSM). A retrospective review of rectal screening

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1H Porner, 2D Harte. 1University of Bristol, Bristol, UK; 2University Hospital Bristol trust, Bristol, UK

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Results There were 425 MSM who attended for screening in the review period. Of these 83% were UK born. The median age was 32 years (range=16–69 yrs). RAI in the preceding 3 months was reported by 59% (n=251). Of these 64% (n=160) had rectal microscopy performed. Rectal symptoms were reported by 11%. The majority (96%) of samples were collected using a blind rectal swab technique. Proctitis was diagnosed in 23 (14.4%). Of these five were AC2-positive (CT=2, GC=1, CT+GC=1, LGV=1), nine were AC2 positive in 19/160 (11.8%) (GC=7, CT=10, CT+GC=1, LGV=1), five of whom had proctitis. Sensitivity and specificity of microscopy for rectal CT/GC was 26% and 87% respectively. Factors which were predictive of proctitis included rectal symptoms (p=0.001), and being HIV-1sero-positive (p=0.001) but being CT/GC/LGV positive was not associated (p=0.157 OR 2.4; 95% CI 0.8 to 7.5).

Conclusion Proctitis is common among MSM, particularly HIV-1 seropositive men. The association with GC/CT infection was weak.

The causes of and relevance of proctitis remain poorly understood and further research is warranted.
Gonorrhea (GC), and some evidence suggests that azithromycin (AZM) plus an oral cephalosporin is superior to an oral cephalosporin alone in the treatment of GC.

Methods We used information from WA GC case report forms submitted July 2009—December 2010 to calculate the proportion of cases receiving different GC therapies. We used log regression to identify factors associated with recommended treatments.

Results Treatment data were available for 5910 (96%) of 4066 reported GC cases; 2087 (53.4%) were treated with CFX, 931 (23.8%) with cefixime, 535 (13.6%) with cefpodoxime, and 559 (9.2%) with another drug. Of 1464 persons receiving an oral cephalosporin, 507 (34.6%) also received AZM. Abstract P3-S1.40 table 1 displays the distribution of single and multidrug therapies for the three most common therapies observed. In a multivariate model, treatment with CFX was associated with male gender (prevalence ratio (PR): 1.23, 95% CI 1.14 to 1.32), Asian/Pacific Islander race (PR: 1.10, 95% CI 1.00 to 1.20) and other/multiple races (PR: 1.13, 95% CI 1.04 to 1.22) (vs White race). Compared to persons treated by private sector medical providers, CFX use was more common among persons treated in STD clinics (PR: 1.65, 95% CI 1.53 to 1.77), ER/urgent care clinics (PR: 1.37, 95% CI 1.25 to 1.50), other hospital settings (PR: 1.27, 95% CI 1.12 to 1.44), or community health centers (PR: 1.14, 95% CI 1.00 to 1.29), and less common among those treated in family planning clinics (PR: 0.88, 95% CI 0.76 to 0.98).

Among persons treated with oral cephalosporins, concurrent treatment with AZM was associated with male gender (PR: 1.71 95% CI 1.49 to 2.01), treatment in an STD clinic (PR: 1.64, 95% CI 1.41 to 1.91) or ER/urgent care clinic (PR: 1.28, 95% CI 1.03 to 1.58) vs by a private provider, having GC only (PR: 3.32, 95% CI 2.84 to 5.28) (vs chlamydial infection), and Seattle residence (1.32, 95% CI 1.08 to 1.61).

Abstract P3-S1.40 Table 1

FREQUENCY AND PREDICTORS OF RECOMMENDED GONORRHOEA THERAPIES IN WASHINGTON STATE

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Background Washington State (WA) and CDC treatment guidelines recommend ceftriaxone (CFX) as the primary therapy for gonorrhea (GC), and some evidence suggests that azithromycin (AZM) plus an oral cephalosporin is superior to an oral cephalosporin alone in the treatment of GC.

Methods We used information from WA GC case report forms submitted July 2009—December 2010 to calculate the proportion of cases receiving different GC therapies. We used log regression to identify factors associated with recommended treatments.

Results Treatment data were available for 5910 (96%) of 4066 reported GC cases; 2087 (53.4%) were treated with CFX, 931 (23.8%) with cefixime, 535 (13.6%) with cefpodoxime, and 559 (9.2%) with another drug. Of 1464 persons receiving an oral cephalosporin, 507 (34.6%) also received AZM. Abstract P3-S1.40 table 1 displays the distribution of single and multidrug therapies for the three most common therapies observed. In a multivariate model, treatment with CFX was associated with male gender (prevalence ratio (PR): 1.23, 95% CI 1.14 to 1.32), Asian/Pacific Islander race (PR: 1.10, 95% CI 1.00 to 1.20) and other/multiple races (PR: 1.13, 95% CI 1.04 to 1.22) (vs White race). Compared to persons treated by private sector medical providers, CFX use was more common among persons treated in STD clinics (PR: 1.65, 95% CI 1.53 to 1.77), ER/urgent care clinics (PR: 1.37, 95% CI 1.25 to 1.50), other hospital settings (PR: 1.27, 95% CI 1.12 to 1.44), or community health centers (PR: 1.14, 95% CI 1.00 to 1.29), and less common among those treated in family planning clinics (PR: 0.88, 95% CI 0.76 to 0.98).

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Abstract P3-S1.40 Table 1

Conclusions Approximately half of all persons with gonorrhea in WA do not receive CFX and over 20% receive an oral cephalosporin alone, which is not recommended in WA guidelines. Efforts to increase CFX should focus on identifying and surmounting barriers to the use of CFX, particularly in places such as family planning clinics and other settings where use is now low.
P3-S1.39 Comparison of strategies for empiric *Chlamydia trachomatis* (CT) treatment in the Denver Metro Health Clinic: treat MPC vs increased WBC on wet prep

K Peterson and T Mickiewicz

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