Abstracts

011.4 CLINICIAN-TAKEN EXTRA-GENITAL SAMPLES FOR GONORRHOEA AND CHLAMYDIA IN WOMEN AND MSM COMPARED WITH SELF-TAKEN SAMPLES ANALYSED SEPARATELY AND SELF-TAKEN POOLED SAMPLES

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Introduction Extra-genital tests for gonorrhoea (NG) and chlamydia (CT) are important in MSM and increasingly in women as vulvovaginal swabs (VVS) alone can miss infections but rectum, pharynx and urogenital swabs treble the diagnostic cost. Self-sampling is frequently used despite no robust RCT assessing its efficacy. We compared clinician-taken extra-genital samples with self-taken samples analysed both separately and as pooled samples for diagnostic accuracy.

Methods Women and MSM attending a sexual health clinic were recruited. Clinician and two self-samples (analysed separately and pooled) from the pharynx and rectum (plus VVS or FCU in MSM) tested for NG and CT using Aptima Combo 2. Sampling order was randomised. Patient infected status was defined as at least two positive confirmed samples.

Results 1795 (1284 women, 509 MSM) recruited. Overall prevalence: NG 9.0%, VVS/FCU 4.2% (75), rectum 4.6% (83), pharynx 4.0% (72); 9.4% females and 66.7% MSM were VVS/FCU negative. CT 15.4%, VVS/FCU 12.1% (217), rectum 13.9% (249), pharynx 3.5% (63); 13.1% females and 71.8% MSM were VVS/FCU negative. Sensitivities, specificities, PPVs and NPVs of NG: Rectum Clinician: 93.98, 98.84, 98.73, 99.71 NG Rectum Self: 96.39, 99.77, 95.24, 99.82 NG Pharynx Clinician: 93.06, 99.94, 98.53, 99.71 NG Pharynx Self: 95.83, 99.94, 98.57, 99.83 NG Self Pooled: 98.25, 99.94, 99.12, 99.88 CT Rectum Clinician: 95.95, 99.87, 99.16, 99.35 CT Rectum Self: 97.17, 99.81, 98.77, 99.55 CT Pharynx Clinician: 92.06, 99.94, 98.31, 99.71 CT Pharynx Self: 93.65, 99.83, 95.16, 99.77 CT Self Pooled: 96.01, 99.60, 97.79, 99.28. There was no difference between clinician and self-taken extra-genital samples or between self-taken analysed separately or pooled by McNemar test.

Conclusion This is the first RCT showing self-taken extra-genital samples are comparable to clinician-taken and can be analysed accurately as a pooled sample. High levels of infections are missed with just VVS/FCU. Trebling diagnostic costs would be unaffordable for many health systems but a pooled sample has the same cost as the current VVS/FCU.

011.6 EXPRESS TESTING IN URBAN STD CLINICS HAS NO IMPACT ON GONORRHOEA TREATMENT COMPLETION RATES COMPARED TO CLINICAL EXAMINATION AND TESTING AMONG PATIENTS NOT RECEIVING PRESUMPTIVE TREATMENT

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Introduction The impact of testing asymptomatic patients for sexually transmitted infections without a clinical examination (CE), i.e., Express Testing (ET), on treatment completion has varied, in part due to differences in presumptive treatment practices. Our objective was to determine whether patients diagnosed with gonorrhoea (GC) through ET were as likely to return for treatment within 30 days compared to those who had a CE but were not presumptively treated for GC at the date of visit in two publically funded U.S. urban STD clinics.

Methods We analysed STD clinic records of patients diagnosed with GC and who did not receive presumptive GC treatment at the initial visit from January 2014-July 2016. Treatment completion was defined as receiving dual therapy regimen (ceftriaxone plus azithromycin or doxycycline) within 30 days of being tested for GC. We used logistic binomial regression to compare treatment completion rates by visit type (ET vs. CE).

Results Between January 2014-July 2016, 1893 persons were diagnosed with GC, 74% of whom were presumptively treated at the initial visit. Among the 395 men and 234 women not presumptively treated, 54% and 68% completed treatment within 30 days, respectively. Among women, CE vs. ET was not associated with treatment completion [Adjusted relative risk (ARR): 1.14, 95% CI (0.95–1.37)], adjusting for year, clinic, age, and presumptive azithromycin treatment. Men diagnosed through CE vs. ET were 24% less likely to complete treatment [ARR 0.76, (0.65–0.91)], adjusting for the same factors. Men presumptively treated with azithromycin treatment alone were 46% less likely to complete treatment [ARR 0.54, (0.41–0.70)].

Conclusion Among patients who did not receive presumptive treatment at the initial visit, ET vs. CE had no effect on GC treatment completion among women and increased treatment completion among men. Men presumptively treated with azithromycin were significantly less likely to return for recommended GC treatment, suggesting that ET may reduce incorrect presumptive diagnoses leading to under-treatment of GC patients.

Oral Presentation Session 12

Antimicrobial Resistance

012.1 ESTABLISHING A DEPARTMENT OF DEFENSE (DOD) GONOCOCCAL RESISTANCE SURVEILLANCE EFFORT, REFERENCE LABORATORY AND REPOSITORY FROM A POPULATION OF AT-RISK UNITED STATES DOD BENEFICIARIES

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Introduction Gonorrhoea (GC) has been identified as an urgent antimicrobial resistance treat, yet its prevalence is not well characterised in all risk groups. We were interested in establishing an ongoing surveillance effort to identify the prevalence of GC resistance and associated factors in at-risk U.S. DoD beneficiaries.

Methods We identified DoD military treatment facilities (MTFs) where sexually transmitted infections are diagnosed that had both high rates of GC and a local champion. Upon assessment, culture testing capacity was low and not standard of care. The study protocol required a sample for culture and a confidential, self-administered questionnaire. Standard
CO-INFECTION AND MACROLIDE ANTIMICROBIAL
THE EMERGENCE AND SPREAD OF ANTIMICROBIAL
Sex Transm Infect
2017;

plasma genitalium (MG), surveillance. While U.S. dual therapy is currently effective, the slow rise in may be acceptable for identifying population level resistance. 10 new NG-Multi fied at Navy sites. 3/5 (60%) of these isolates also have reduced susceptibility to Azithromycin. 10 new NG-Multi

Cefixime and Azithromycin was indentified in CA. Ceftriaxone

internet, and 66% did not use a condom. 90 plates had encounter, 70% was with a civilian partner, 29% met on the

reference laboratory and respository. Study participants

Virginia, Washington) and project expanded to include a GC

Neisseria gonorrhoeae (NG) is of particular concern because treat-

tively tested for, whereas MG is not. Undiagnosed MG co-

infection threatens and complicates empirical therapy of CT

in all groups (females: 0.3%, 0–1.8; MSM 2.3%, 0.9–5.8; MSM 7.0%, 3.1–15.5). MG-NG CT-infection was found in females (0.7%, 0.2–2.4), representing 16.7% (4.7–44.8) of NG-CT infections. 64.9% (37/57) of MG samples sequenced were macrolide resistant (67.0% (21/31) from

Conclusion With 13.0% and 2.4% of CT and NG infections respectively being co-infected with MG, and two-thirds MG infections displaying macrolide AMR, use of azithromycin for symptomatic CT/NG treatment in the absence of MG testing should be reconsidered.

Co-infection and macrolide antimicrobial resistance (AMR) of Mycoplasma genitalium with Neisseria gonorrhoeae and Chlamydia trachomatis, in females, heterosexual males, and men-who-have-sex-with-men

Introduction In England, men who have sex with men (MSM) who are HIV-positive are disproportionately affected by STIs, in part probably due to HIV sero-adaptive behaviours. Neisseria gonorrhoeae (NG) is of particular concern because treatment is threatened by antimicrobial resistance (AMR). In England, AMR NG has typically spread rapidly within sexual networks of MSM. We investigated whether the emergence and/or spread of AMR NG was associated with HIV-positive status.

Methods The prevalence of NG decreased susceptibility (DS) to ceftriaxone (MIC (mg/L) ≥0.015), cefixime (≥0.125), and azithromycin AMR (≥1) from 2004–2015 was plotted by HIV status to investigate the emergence of DS/AMR using data from England and Wales collected within the Gonococcal Resistance to Antimicrobials Surveillance Programme. Differences were assessed using the Kolmogorov-Smirnov (KS) test. Logistic regression was used to model the association between HIV status and susceptibility to these antimicrobials in separate models adjusting for year.

Results Among all 5,630 MSM with NG, 25% of samples had DS to ceftriaxone (MIC (mg/L) ≥0.015), cefixime (≥0.125), and azithromycin AMR (≥1) from 2004–2015 was plotted by HIV status to investigate the emergence of DS/AMR using data from England and Wales collected within the Gonococcal Resistance to Antimicrobials Surveillance Programme. Differences were assessed using the Kolmogorov-Smirnov (KS) test. Logistic regression was used to model the association between HIV status and susceptibility to these antimicrobials in separate models adjusting for year.

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