P22 ARE WE USING THE BEST TESTS TO DIAGNOSE TV IN GUM CLINICS IN THE UK?

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Background The Aptima TV NAAT test has been approved for use for the detection of *Trichomonas vaginalis* (*TV*) and is more sensitive (~100%) than wet mount microscopy (50%) or culture (75%). Asymptomatic women attending GUM clinics are often not tested for TV as the prevalence is assumed to be too low for testing to be cost effective.
Aims To determine

- TV positivity rate among GUM attendees with and without symptoms
- How many additional cases are identified with the new test
- Whether self-taken vaginal swabs are of equivalent sensitivity in symptomatic GUM patients.

Methods Patients were tested using the Aptima TV NAAT alongside existing testing methods. Test performance was compared using the McNemar test.
Results The positivity of TV determined by TV NAAT was 4.2% (22/519) in symptomatic and 1.8% (28/1599) in asymptomatic women. 9/20 NAAT positive patients, where all test were performed, would not have been identified on wet prep or culture. Overall TV NAAT outperformed currently used methods (p = 0.004), clinic wet prep vs NAAT (p = 0.038), culture vs NAAT (p = 0.002). Self-taken vaginal swabs were equivalent in sensitivity to clinician taken swabs; of patients who tested positive on either NAAT test, 19 tested positive on self-taken swab and 17 tested positive on clinician taken swab (p = 0.625).
Conclusions Testing all women attending GUM clinics with the APTIMA TV NAAT test will identify additional cases and is therefore likely to be cost-effective, and should be considered to replace conventional microbiological testing methods.

P23 INVESTIGATION OF THE ECONOMIC IMPACT OF IMPLEMENTING NATIONAL GUIDELINES TO RETEST YOUNG PEOPLE (AGED 16–24) WHO TEST POSITIVE FOR CHLAMYDIA

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Background The National Chlamydia Screening Programme (NCSP) updated its guidelines in 2013 to recommend retesting for all chlamydia positive individuals around three months after treatment, due to the risk of reinfection.
Objectives Investigate the impact of implementing new retesting guidance on chlamydia screening activities and the economic cost of updating current testing practice.
Methods We developed a spreadsheet tool to calculate the additional costs of implementing new retesting guidance. We collected data from pilot evaluations of retesting to estimate the number of tests performed and the cost of administering retesting within existing services. We used these to estimate the national impact of the new guidelines, and to inform future updates to guidelines.
Results The baseline scenario is based on findings from pilot evaluations: for every 10,000 chlamydia tests, this will generate 750 positives (assuming 7.5% positivity), of whom 40% (300) would be retested within 6 months. This would identify an additional 30 positives (10% positivity at retest). In this scenario, only 3% of all tests performed are retests, which would have minimal impact on the overall cost of the screening programme. The slight increased cost of retesting, associated with active recall of positive individuals is offset by the higher positivity observed at retest.
Conclusions The new guidelines to retest chlamydia positive individuals within 6 months appear feasible within the context of current programmes and will identify individuals at continued risk of infection with relatively low resource and time input.

P24 OUTBREAK OR ILLUSION: CONSEQUENCES OF "IMPROVED" DIAGNOSTICS FOR GONORRHOEA

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Background/introduction The service introduced gonorrhoea nucleic acid testing (NAATs) using the BD Viper LT™ System in August 2012. Since then rates of gonorrhoea have increased threefold (Table 1). Concerns were raised by Public Health England in 2014 that this increase represented an outbreak.

Abstract P24 Table 1 Gonorrhoea rates

	% all males	% MSM	% all females
July–Dec 2011	40/4789 (0.8%)	11/283 (3.9%)	7/5546 (0.2%)
Jan–June 2012	43/4783 (0.9%)	15/249 (6%)	18/5474 (0.3%)
July–Dec 2012	89/5002 (1.8%)	50/377 (13.2%)	17/5499 (0.3%)
Jan–June 2013	94/4957 (1.9%)	60/525 (11.4%)	25/5445 (0.4%)
July–Dec 2013	102/4838 (2.0%)	63/557 (11.3%)	42/5702 (0.7%)
Jan–June 2014	115/5221 (2.2%)	N/A	53/5936 (0.8%)

Aim(s)/objectives To ascertain if there was an outbreak.
Methods We reviewed all 153 gonorrhoea (GC) cases seen from January to June 2014.
Results Of 45 female cases, 16 (36%) were not known GC contacts, and were culture negative: all were NAATS positive at the cervix. Of 43 cases in heterosexual men, 4 were positive by NAATs only and not known contacts of GC: one had a single partner who tested negative for GC. There were 65 cases in MSM. Of 36 (55%) NAATS positive only who were asymptomatic and not a known GC contact, 32 had isolated pharyngeal infection, 3 rectal infections only and 1 dual rectal and pharynx infection.
Discussion/conclusion At an incident control meeting with the local authority, PHE and local GUM service, it was agreed there was insufficient evidence to confirm a cluster of cases and that at least some of the increase could be attributable to the introduction of NAATs testing. It was agreed to prospectively audit GC cases, until March 2015 and to send NAAT positive/culture negative samples to reference laboratory for confirmatory testing. Initial results from the first 2 months suggest that a significant number of cases are not confirmed. The full data will be

presented and the implications for GC testing in our clinic population discussed.

P25 INVESTIGATING FACTORS FOR INCREASED GONORRHOEA RE-INFECTION IN MSM ATTENDING A GU CLINIC: A QUALITATIVE STUDY

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Background/introduction In 2013, 63% of gonorrhoea infections in England were in men who have sex with men (MSM), in whom the annual incidence increased by 26% (PHE). In our clinic, annual incidence increased by 28.8% (2013) and re-infection (a second infection within 1-year of initial infection) rose from 6.7% as a proportion of total infections (2009) to 19.4% (2013). This is concerning given increasing reports of antibiotic resistant gonorrhoea.
Aim(s)/objectives The aim of this study was to explore reasons for repeat gonorrhoea infections among MSM.
Methods We interviewed 16 MSM about knowledge of gonorrhoea, attitudes to safe sex and antibiotic resistance.
Results Mobile applications were used to meet casual sex partners and arrange impromptu group-sex parties with partner anonymity making contact tracing difficult. The use of recreational drugs was widespread and could result in unsafe sexual practices. Participants felt their behaviour was unlikely to change despite knowing there was increased gonorrhoea prevalence and frequently felt resigned to repeat infections. Participants thought global antibiotic resistance was concerning, but felt behaviour would change only if there was local evidence of this. It was highlighted that new technologies could increase awareness around local STI trends and services for those at risk.
Discussion/conclusion MSM's use of geosocial networking applications to arrange sex could also be harnessed to increase awareness and advertise testing opportunities. Enhanced interventions at initial diagnosis may also be beneficial. In some cases risk-taking behaviours are unlikely to change and for these men regular sexual health screens should be encouraged.

P26 HOW VALUABLE IS LUMBAR PUNCTURE IN THE DIAGNOSIS OF NEUROSYPHILIS?

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Background/introduction UK syphilis incidence is rising. There are no national data on neurosyphilis prevalence. The CDC defines confirmed neurosyphilis as positive CSF VDRL at any syphilis stage and presumptive neurosyphilis as non-reactive CSF VDRL, raised CSF protein or WCC, positive serum VDRL and clinical symptoms/signs of neurosyphilis in the absence of any other causes. VDRL and RPR perform the same function; however, sensitivity of VDRL in CSF is poor (30–70%) and RPR even poorer.
Aim(s)/objectives To identify and characterise patients referred and treated for neurosyphilis in a London HIV/GUM service.
Methods We reviewed all cases referred for investigation of possible neurosyphilis September 2012–September 2014.
Results 1615 new diagnoses of syphilis were identified. 34 were referred for suggestive symptoms. 24(71%) were treated although only 6(25%) met CDC criteria for confirmed or presumptive neurosyphilis. Of those treated, 67% were HIV+, 4 had positive RPR (2 had no other CSF abnormality), 10 had positive TPPA only and 3 had no CSF abnormality.
Discussion/conclusion No single laboratory test is both sensitive and specific making diagnosis challenging. CSF interpretation may be particularly difficult in HIV+ individuals as HIV itself can cause pleocytosis and elevated protein concentrations. Conversely, Marra *et al*. showed that in 32% of HIV+ patients with neurosyphilis, the only CSF abnormality was a positive VDRL. We suggest that given the poor sensitivity of CSF RPR, and that CSF may be normal in neurosyphilis, most decisions to treat for neurosyphilis should be based on clinical symptoms/signs rather than CSF findings.

P27 EXTRA-GENITAL CHLAMYDIA TESTING IN HETEROSEXUAL PATIENTS. IS IT WORTH IT?

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Background/introduction Current clinic policy is to offer extra-genital testing to all patients reporting a history of active oral sex and/or receptive anal sex. These swabs are analysed using the Aptima Combo II platform for *Chlamydia trachomatis* (CT).
Aim(s)/objectives With analysis costing £6.20 per swab we sought to explore the cost effectiveness and review positive case with collateral contact information and symptoms history to support a positive diagnosis.
Methods Inclusion criteria were heterosexual patients with exclusively extra-genital CT who did not present as CT contact. We performed retrospective case note review of 63 sets of notes to determine symptom history, concurrent STI diagnosis and contact diagnosis.
Results Over the year, a total of 12076 throat swabs were sent in this group. There were 39 confirmed positive results giving swabs sent per positive result ratio of 310:1. Or a cost of £1922 per positive result. For rectal swabs; a total of 1156 were sent. There were 24 positive results giving swabs sent per positive result ratio of 48:1, or a cost of £297.60 per positive result. 5% of patients with a positive extra-genital swab result gave a history of throat or rectal symptoms. 4% had a concurrent STI diagnosis, 40% of those with traceable contacts had at least one positive contact.
Discussion/conclusion Routine extra-genital screening is costly but this review demonstrates its value for detection of individual cases which would have been missed. In addition the high proportion of positive contacts adds weight to the debate for extra-genital testing of all contacts.

P28 EXTRA-GENITAL GONORRHOEA TESTING IN HETEROSEXUAL PATIENTS. IS IT WORTH IT?

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10.1136/sextrans-2015-052126.72

Background/introduction Current clinic policy is to offer extra-genital testing to all patients reporting a history of active oral