

**Discussion/conclusion** Despite a robust and clear guideline on epididymo-orchitis our results show that antibiotic prescribing is often incorrect. Furthermore, the work-up for an STI as a cause of epididymo-orchitis is incomplete.

#### P13 WHAT TO DO IN A SYPHILIS OUTBREAK

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**Background/introduction** In Autumn 2014 a surprising number of patients were being diagnosed with early syphilis, in the sexual health clinic, Reading. From January 2014 to January 2015 twenty-one early syphilis cases arose. Whereas 2013 totalled 5 cases, which was an average year.

**Aims/objectives** To identify if this constituted an outbreak. Determine why increasing numbers of early syphilis were arising and which patients groups were at risk. To prevent further cases.

**Methods** January to September cases were reviewed retrospectively and then new cases prospectively. Public Health England was notified and an action meeting ensued. Patient behaviours and contact tracing data collected. Letters written to inform healthcare services. Clinic information boards and website updated. Social media and appropriate charity organisations approached to reach target groups.

**Results** Eight presented with primary syphilis, ten with secondary and three with early latent. Eighteen cases were men who have sex with men (MSM), highlighting the main at risk group. Seven of the MSM were HIV positive with three being newly diagnosed. The average number of sexual contacts was twelve with one third using social networking apps to meet.

**Discussions/conclusions** Syphilis outbreak confirmed. MSM patients are the main risk group with one third HIV co-infection, which is a concern. Common usage of social networking apps identified to meet sexual partners, which can involve serosorting. Collaboration between sexual and Public Health teams resulted in raising awareness. Hopefully these measures will reduce the number of cases but it will require close monitoring.

#### P14 TESTING FOR PHARYNGEAL GONORRHOEA IN WOMEN: AN IMPORTANT RESERVOIR OF INFECTION, OR EXCESSIVE FALSE POSITIVE DIAGNOSES

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**Background** In 2012 we reported that 30% of heterosexual women attending our service had a positive gonorrhoea (GC) NAAT on pharyngeal sampling, without infection elsewhere. A PPV of 87% has been reported for our pharyngeal samples, but confirmatory GC NAATs remain routinely not available locally. Due to concerns about false positives, we subsequently restricted pharyngeal testing to women at higher risk of infection at this site only and reviewed the findings.

**Methods** All positive GC NAATs in women attending our service from October 2013 to March 2014 were reviewed. Findings were compared to the data from January to July 2012. All NAATs were performed on Roche Cobas 4800.

**Results** There were 36 women in the 2014 sample, compared to 40 in the 2012 sample. Of these, 19 (53%) had a positive GC NAAT on a pharyngeal sample, compared to 17 (43%) in the

2012 sample ( $p = 0.38$ ). 13 (36%) of women with a positive GC NAAT had the infection detected on pharyngeal swab only in the 2014 sample, compared to 12 (30%) in the 2012 sample ( $p = 0.56$ ).

**Discussion** By restricting testing to women at higher risk of pharyngeal only infection, we found 36% women had an isolated positive pharyngeal GC NAAT, and would not have been diagnosed if pharyngeal sampling was not taken. Further work is needed assessing the performance of the Roche Cobas 4800 in this population in order to evaluate the proportion of false positive diagnoses versus the extent of this potential reservoir of infection.

#### P15 AORTITIS REQUIRING CARDIOTHORACIC SURGERY IN A CASE OF SECONDARY SYPHILIS

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**Background/introduction** Cardiac complications of syphilis typically occur 10–30 years after being infected. There has been a recent case of aortitis in secondary syphilis in the literature.

**Aim(s)/objectives** To report a case of syphilitic aortitis in a patient recently infected with syphilis.

**Methods** Case report.

**Results** A 37-year-old white British female was found wandering the streets semi-clothed by paramedics. Background: bipolar/schizoaffective disorder with previous psychosis and known substance misuse. A loud early diastolic murmur was found on examination. An ECG revealed anterior T wave changes. Troponin was  $>2000$  ng/L and echocardiogram (ECHO) revealed a dilated left ventricle with severe aortic regurgitation (AR). Transoesophageal ECHO demonstrated an oedematous, thickened aortic root. CT aortogram confirmed aortitis. Syphilis serology was positive (RPR 1:256). She had a male partner of 5 years and had never had a syphilis test before. Due to penicillin allergy she was commenced on Doxycycline for 28 days with adjuvant. Three weeks into treatment she developed heart failure and was admitted to intensive care. ECHO revealed an ejection fraction of 30% and progressive valvular pathology. Following desensitisation she commenced on benzylpenicillin plus probenacid for 17 days. Two weeks into treatment she underwent an aortic valve replacement and coronary artery bypass graft (x2). After a protracted recovery she was discharged two months later and remains under cardiology follow up.

**Discussion/conclusion** Whilst it is not exactly clear when this patient acquired syphilis the high RPR titres suggest that infection was recent. This case demonstrates a rare but serious and life-threatening complication of early syphilis.

#### P16 LGV-AN INNER CITY COHORT

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**Background/introduction** LGV is hyperendemic amongst MSM in the UK. There is a strong association with HIV and hepatitis C infections.

**Aim(s)/objectives** To assess the background, demographics, presentation and follow up of patients with confirmed LGV infection in an inner London cohort. To analyse compliance with BASHH auditable measures surrounding follow up testing including HIV and hepatitis C.

**Methods** A retrospective case note review was conducted of all PCR confirmed LGV infections from 01.01.2005–31.07.14. Data was extracted looking at the demographics, presentation, risk factors, concurrent STIs and follow up of patients as per BASHH audit standards.

**Results** 44 patients were identified. 43 were MSM and 1 a heterosexual female with a bisexual partner. 80% (35) presented with symptomatic LGV infection and 20% (9) had had a previous infection with LGV. 43% (19) were diagnosed with concurrent STIs; of which only 4 had extra rectal chlamydia (3 urethral and 1 eye). 64% (28) were known to be HIV positive at LGV diagnosis. Only 69% (11) of the remaining HIV negative patients had a documented HIV follow up test within 12 months of LGV diagnoses. 36% (4) of these were newly diagnosed with HIV. Out of the 24 documented hepatitis C tests within 12 months of LGV diagnosis there were 2 new cases of hepatitis C.

**Discussion/conclusion** Our cohort largely reflects the UK epidemic and reinforces the strong association with HIV infection. The audit reveals poor adherence to BASHH standards for repeat testing, which will be addressed with a specific active recall process.

#### P17 ENHANCED SEXUAL HEALTH SERVICES IN COMMUNITY PHARMACIES – PILOT

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**Background/introduction** STI screening via community pharmacies (CPs) has traditionally been very low.

**Aim(s)/objectives** To increase STI screening in young people (15–24 years) in a London Borough with high rates of infection using a new self-test kit (testing for Chlamydia and Gonorrhoea (CT/GC), and HIV) alongside condom distribution via the pan-London condom scheme.

**Methods** Nine CPs were selected based on high rates of Emergency Contraception provision and condom distribution in 2013. Frontline staff were trained and care pathways established. Ongoing monthly support was provided by site-visit and phone. Results were notified by text. Positive results, partner notification and follow-up were managed by a Level 3 GUM clinic. Evaluation was by user/CP survey.

#### Results

- 8 CPs were active during the pilot which ran January–December 2014.
- 214 self-test kits were distributed; 108 CT/GC tests and 96 HIV tests were returned/tested (return rates of 50.5% and 44.9% respectively). At the start 1 CP removed HIV tests from packs.
- 4,476 condoms were distributed.
- 7 Chlamydia positives were identified (positivity 6.5%).
- Quarter 1 2014 saw a 700% increase in numbers of STI tests processed) in the 9 CPs compared to Quarter 3 2013 (pre-pilot levels). This significantly increased activity continued throughout 2014.
- All users were very or quite satisfied with the service and were very or quite likely to use the service again.
- 66% were very likely to recommend the service to others

**Discussion/conclusion** With adequate training and support, community pharmacies provide an engaged, accessible and convenient venue for STI testing (including HIV) and condom distribution.

#### P18 EXPLORING QUANTITATIVE RELATIONSHIPS BETWEEN SEROLOGICAL RESULTS AND STAGE OF SYPHILIS

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**Background/introduction** There has been little published regarding quantitative results of newer serological assays in infectious syphilis. Previous studies have shown an association between VDRL and TPPA titre and stage of syphilis; with higher titres in secondary syphilis.

**Aim(s)/objectives** To examine quantitative relationships between serological results and stage of syphilis including newer assays.

**Methods** Early syphilis cases diagnosed March 2011–August 2014 were identified from a sexual health clinic database. Cases classified as primary, secondary and early latent by clinical diagnosis. Serology results were recorded including TPPA, VDRL (used until 01/03/2012), RPR (used from 01/03/2012), IgG (Abbott Architect Total Antibody Test), and IgM (lab21 IgM EIA).

**Results** 155 patients included. 149 male, 6 female. Average age 38. 92% men were MSM. 32% HIV positive. 33% classified as primary, 21% secondary, 46% early latent. 64% new diagnoses, 36% re-infected.

Abstract P18 Table 1 Syphilis stage and serology

	RPR (n = 110) Median (range)	VDRL (n = 45) Median (range)	TPPA (n = 155) Median (range)	IgM (n = 122) Mean	IgG (n = 155) Mean
Primary	4 (0–64)	4 (0–64)	2560 (0– >5120)	4.06	20.44
Secondary	32 (4–128)	64 (16–256)	>5120 (2560– >5120)	10.09	37.28
Early Latent	8 (0–128)	16 (0–512)	5120 (40– >5120)	3.84	29.58

**Discussion/conclusion** Results confirmed the quantitative relationship between syphilis stage and VDRL and TPPA titre identified previously. Additionally this study showed that IgM and IgG values, using Lab 21 IgM EIA and Abbott Architect Total Antibody Test assays, are also linked to stage of syphilis. Unsurprisingly, IgG titres were highest in secondary and lowest in primary syphilis. IgM values were lowest in early latent and highest in secondary syphilis.

#### P19 MEASURING THE IMPACT OF SUPPLEMENTARY TESTING OF NEISSERIA GONORRHOEA POSITIVE NUCLEIC ACID AMPLIFICATION TESTS ON THE RATE OF EXTRA-GENITAL NEISSERIA GONORRHOEA DIAGNOSIS AND CONCORDANCE OF NAATS WITH BACTERIAL CULTURE

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**Background/introduction** Nucleic-acid amplification tests (NAATs) are more sensitive in the detection of Neisseria Gonorrhoea (NG)