

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

<sup>1</sup>Lara Payne, <sup>1,2</sup>David Lawrence\*, <sup>1,2</sup>Suneeta Soni, <sup>1</sup>Carrie Llewellyn, <sup>1</sup>Gillian Dean. <sup>1</sup>Brighton and Sussex Medical School, Brighton, UK; <sup>2</sup>Brighton and Sussex University Hospitals NHS Trust, Brighton, UK

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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?

Ruth Byrne\*, Amy Dehn Lunn, Nneka Nwokolo. *Chelsea and Westminster Hospital, London, UK*

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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?

Laura Percy\*, Kate Langley, Emily Harrison, Nathan Sankar, Laura Michell. *New Croft Centre, Newcastle Upon Tyne, UK*

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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?

Laura Percy\*, Kate Langley, Emily Harrison, Nathan Sankar, Laura Mitchell. *New Croft Centre, Newcastle Upon Tyne, UK*

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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 *Neisseria gonorrhoea* (GC).

**Aim(s)/objectives** With analysis costing £6.20 per swab we sought to explore cost effectiveness, review culture results and partner notification results.

**Methods** Inclusion criteria were heterosexual patients with exclusively extra-genital GC who did not present as a contact of GC. We performed a retrospective case note review of 54 sets of notes asserting symptom history, concurrent STI diagnosis, culture results and any positive contacts.

**Results** Over the year, a total of 13123 throat swabs were sent. There were 50 confirmed positive results giving swabs sent per positive result ratio of 262:1, or a cost of £1624.40 per positive result. For rectal swabs; a total of 1362 were sent. There were 4 positive results (all female) giving swabs sent per positive result ratio of 341:1, or a cost of £2114.20 per positive result. 2% of patients with a positive extra-genital swab result gave a history of throat or rectal symptoms. 18% had a concurrent STI diagnosis, 0% had a positive culture result from the same site. 6% had at least one subsequent positive contact, all of which were pharyngeal positive.

**Discussion/conclusion** Extra-genital testing has detected cases which would otherwise have been missed with purely genital screening. However numbers are too small to advocate a change in practice to routine extra-genital screening in all asymptomatic individuals.

#### P29 AUDIT OF RE-TESTING AND REINFECTION IN LONDON MEN WHO HAVE SEX WITH MEN WITH ACUTE STIS IN A LARGE GUM OUTPATIENT CLINIC

Laura Williamson\*, Mauro Proserpio, Olamide Dosekun. *Imperial College Healthcare NHS Trust, London, UK*

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**Background** Men who have sex with men (MSM) in the UK are at relatively high risk of acquiring new STIs. The British Association of Sexual Health and HIV recommend active recall of MSM diagnosed with sexually transmitted infections (STIs) for retesting after 3 months.

**Objectives** An audit was undertaken to assess the incidence of bacterial STIs, and rates of re-screening and re-infection amongst MSM attending a large genitourinary (GU) outpatient clinic in London.

**Methods** A retrospective audit of GU coding data on MSM attendees aged >18 years between January and December 2014 was performed. Data was collected on patient demographics, STI tests performed and diagnoses.

**Results** 397 MSM were diagnosed with 826 new bacterial STIs during the audit period (762 STIs over 534 episodes occurred in the initial 9 month period). 145 (37%) patients were HIV infected. In 98/534 (18%) episodes, a repeat screen was performed within 3 months (excluding screening within the initial 6 weeks after an STI was diagnosed); in 21 (21%) of these episodes, a further 1 ≥ STI was diagnosed. Overall, the mean time to re-screening during the study period was 108 days (excluding initial 6 weeks; range 43–282). In 149/534 (28%) of STI episodes, no repeat STI screen was performed within the period analysed.

**Conclusion** The incidence of STIs and re-infection in this high risk group is high, however prompt re-screening rates are low, highlighting the need for active recall. Routine 3 month text recall of MSM with an STI has since been implemented.

#### P30 GONORRHOEA: A RISING TIDE

Kanchana Seneviratne, Ruth Taylor, Sophia Farnilo, Shereen Munatsi, Ashini Fox\*. *Nottingham University Hospitals NHS Trust, Nottingham, UK*

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**Background** The prevalence of gonorrhoea in England increased by 15% between 2012 and 2013. In contrast, there was a 62% rise in gonorrhoea in our local area in the same time period.

**Aim** To identify potential areas for management improvement that may help reduce infection rates.

**Methods** A retrospective case note review of positive patients between 1st January and 30<sup>th</sup> June 2013 was conducted. Positive agar-based gonococcal culture or BD ProbeTec™ GC Qx Amplified DNA Assay results were included.

**Results** The 201 individuals reviewed had a mean age of 24 (range 16–53). 53% were male, 80% Caucasian and 89% heterosexual. There was no geographical postcode pattern seen. 100% resolution of infection at test of cure (TOC) was achieved in the 39% that attended. 10% TOC attendees became re-infected. 100% received Partner Notification (PN), of whom 45% had contacts attending for treatment and 36% declined to provide contact details.

**Discussion** Unlike the epidemic elsewhere in the UK, our outbreak is predominantly amongst male and female heterosexuals. As the majority were in the age range 16–25, targeted screening and health promotion could be delivered using the same resources as the National Chlamydia Screening Programme locally. TOC attendance was poor and the use of automatic text reminders and TOC postal kits maybe beneficial. The quality of information provided for PN can be improved with novel methods of non-standard PN. The high re-infection rate suggests a large reservoir of undiagnosed disease in our local population which needs addressing on a larger public health basis.

#### P31 DIFFERENCES IN DISTRIBUTION OF PLANTAR SKIN RASH OF SECONDARY SYPHILIS AND KERATODERMA BLENORRHAGICA

Johnny Boylan\*, Peter Greenhouse. *Bristol Sexual Health Centre, Bristol, UK*

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**Background/introduction** Textbooks commonly assert that the most important cause of plantar skin rash is secondary syphilis (2°Syph), but there are many other possible differentials, the principal alternative STI diagnosis being keratoderma blenorragica (KB).

**Aim(s)/objectives** Observational study to quantify differences in distribution and character of plantar rash caused by 2°Syph or KB.

**Methods** We sourced colour photographs of confirmed 2°Syph and KB from personal slide collections, illustrated textbooks and online academic websites, checked for evidence of correct diagnosis and showing at least 80% of the full plantar surface. Lesion distribution was categorised between either the weight-bearing ball and heel or non-weightbearing arch of the foot with gradations shown in the Table 1.

**Results** We found 50 images of 2°Syph and 25 of KB with reliably attributable clinical diagnoses. The overwhelming majority of 2°Syph lesions were entirely or almost entirely (42/50) confined to the non-weightbearing arch of the foot: Conversely KS lesions were almost all (18/25) distributed over the thicker weightbearing areas.