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O01 Antimicrobial resistance in pharyngeal Neisseria gonorrhoeae infection: A cross-sectional study in England

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Abstract

Background: The pharynx is an important anatomic reservoir for the development of antimicrobial resistance in *Neisseria gonorrhoeae* (NG) due to the potential for exchange of genetic material between NG and other commensals of this niche. We investigated the association between anatomical site of NG infection and reduced susceptibility (RS) or resistance to antimicrobials in sexual health clinic attendees in England and Wales (E&W).

Methods: Logistic regression adjusting for demographic and behavioural factors was used to determine the association between RS or resistance to azithromycin (minimum inhibitory concentration (MIC) >0.5 mg/L), ceftriaxone (MIC ≥ 0.015 mg/L) or cefixime (MIC >0.125 mg/L) by site of infection (pharyngeal *vs.* genital) using data from all NG isolates in the Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) in E&W from 2012–2017. Men who have sex with men (MSM) and heterosexuals were analysed separately.

Results: Of 5,448 isolates retrieved from MSM, 729 (13.4%) were pharyngeal and 2,354 (43.2%) genital samples. Of 1,807 isolates from heterosexuals, 75 (4.2%) were pharyngeal and 1,641 (90.8%) genital samples. Pharyngeal infections were significantly associated with azithromycin resistance among both MSM (adjusted OR (aOR):1.62, 95%CI: 1.13–2.31, $P<0.001$) and heterosexuals (aOR:4.19, 95%CI: 1.52–11.56, $P<0.006$) and RS to ceftriaxone (aOR:1.25, 95%CI: 1.03–1.52, $P=0.023$) among MSM, compared to genital infections. No significant association was found between site of infection and cefixime resistance.

Discussion: Pharyngeal NG infections are more likely to harbour resistance to azithromycin among MSM and heterosexuals and RS to ceftriaxone only among MSM compared to genital infections. Poor pharyngeal tissue drug penetration may lead to a lower antibiotic concentration than required to kill the organism, causing persistent infections, and increased time for exchange of genetic material that confer AMR, as well as de novo mutations. These results highlight the importance of extra-genital tests, antimicrobial susceptibility testing, and test of cure, especially among MSM, to reduce treatment failure and onward transmission of resistant strains.

O02 Utility of Real-Time Whole Genome Sequencing in Partner Notification and Control of *Neisseria gonorrhoeae* Infection

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Abstract

Background: Gonorrhoea is a sexually transmitted infection of global public health concern. We investigated whole genome sequencing (WGS) as a partner notification (PN) tool in gonorrhoea management.

Methods: Between May-November 2018, all N. gonorrhoeae isolated from patients attending Leeds Sexual Health, UK, underwent WGS. Sequences were compared with historical isolates from Leeds, 2016 onwards. Reports listing sequences within 20 single nucleotide polymorphisms (SNPs) were issued to clinicians. Patient and

PN data were reviewed; numbers of partners routinely verified and testing positive were determined. Reports were reviewed to identify plausible links using criteria based on a transmission nomogram and epidemiological match (gender, sexual orientation, timing). Confirmation using medical records was attempted for all plausible links. Links verified by routine PN and WGS were compared. Clusters of cases within 20 SNPs were examined for patterns.

Results: Overall 380 isolates from 377 cases were successfully sequenced, reporting 434 traceable partners. Of these, 171 were verified and 86 tested culture positive. Routine methods achieved PN completion in 79 links, of which WGS confirmed 73. Among these, 64 were from mutually reporting couples and 9 involved non-disclosure of partners. WGS allowed PN completion for five additional links involving non-disclosure of partners. From WGS reports, 382 plausible links were identified, allowing ten links that were otherwise inapparent to be verified. In total, WGS permitted PN completion in 15 additional links. Examination of clusters highlighted gaps in partner finding, including clusters containing heterosexual females with identical strains but no males; heterosexual males with identical strains who reported female sex worker contact; and 35 cases with multiple partners but no genetically related case.

Discussion: WGS has the potential to improve gonorrhoea PN and control by identifying new links and clusters with significant gaps in partner finding, where PN can be enhanced. Its utility will improve with larger databases.

O03 A. Emergence of extended-spectrum beta-lactamase (ESBL) producing *Shigella sonnei*, UK 2018; a cluster investigation by Public Health England (PHE)

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Abstract

Introduction: Shigellosis has emerged as a highly-infectious sexually transmissible enteric infection (STEI) among men who have sex with men (MSM). MSM-associated strains often carry antibiotic resistance genes, which can spread globally via sexual networks. In 2018, PHE were notified of an outbreak of ESBL-producing *Shigella sonnei* in the USA with genetically-linked UK isolates; we present findings of the subsequent cluster investigation.

Methods: Cases were identified and extracted from the PHE database containing reference laboratory confirmatory-typing results for *Shigella* species. Detailed exposure information from cases (UK-residents with laboratory-confirmed *S. sonnei* within the whole genome sequencing single linkage 10-SNP cluster CC152 1.3.197.460.1360.%) was gathered through questionnaires.

Results: Between 03/2018–03/2019, 23 geographically dispersed cases (n = 20 English) were identified. The cluster was predominantly (78%) adult-male, median age 44-years (range 2–95-years), and, where sexual orientation was recorded, 8/8 identified as MSM. Cases included those at high-risk of onward transmission (e.g. healthcare workers and food handlers). Recent cases among children and the elderly indicated spill-over into the wider population.

This strain is multidrug-resistant; it is an ESBL-producer (genotype CTX-M-27) and carries resistance markers to six different antibiotic groups, including a *gyrA* mutation associated with quinolone failure. The majority of isolates were also resistant to azithromycin, severely limiting oral treatment options. 4/17 cases were hospitalised and 8/10 experienced prolonged symptoms (> 7 days).

Genetically-linked cases were reported in the USA, Netherlands and Republic of Ireland and cases with a similar phenotypic resistance profile in Finland.

Discussion: Clinicians should be aware of the potential for *S. sonnei* to cause severe infection in MSM and other patient subgroups and provide appropriate prevention advice. The resistance profile of this particular strain emphasises the importance of *S. sonnei* treatment to be guided by antibiotic susceptibility testing. Antimicrobial resistance surveillance of STEIs can be used to inform treatment guidelines and the development of interventions for their control.

O03 B. The changing epidemiology of *Shigella* species among men who have sex with men (MSM) in England: 2016 to 2018

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Abstract

Introduction: The epidemiology of shigellosis has changed over the past decade after intensified levels of sexual transmission of *Shigella flexneri* and *Shigella sonnei* in MSM. We reviewed changes in the distribution of *Shigella* species among presumptive MSM in England.

Methods: Diagnoses of *Shigella* spp. were extracted from primary diagnostic laboratories using the Second

Generation Surveillance System. Data on *S. flexneri* serotypes were extracted from PHE's Gastro Data Warehouse (microbiological typing results from reference laboratory samples). Descriptive analyses were restricted to presumptive MSM, defined as: male, English residents, aged $\geq$16-years, without recent history of foreign travel and whose faecal specimens were received between January 2016-December 2018.

Results: Between 2016–2018, 2414 *Shigella* spp. diagnoses from presumptive MSM (median age 38-years: range 16–94) were made. Of these, 41% (n = 997) were *S. sonnei,* 28% (n = 674) were *S. flexneri* and 29% (n = 691) were unspeciated. 63% (n = 1522) were from the London and South-East regions.

Overall, diagnoses increased by 55% from 2016 (n = 660) to 2018 (n = 1024), due largely to an 88% increase in *S. sonnei* (253 to 475 cases). A species shift occurred in 2017: the proportion of all speciated diagnoses attributable to *S. sonnei* rose from 49% (2016) to 69% (2018).

Of *S. flexneri* diagnoses that underwent further typing, serotypes 2a and 3a fell by 41% (144–85 cases) and 56% (34–15 cases) respectively. Conversely, serotype 1b rose 61% (18–29 cases), comprising one-fifth of all *S. flexneri* diagnoses in 2018.

Discussion: A sustained increase in notifications of *Shigella* spp. in presumptive MSM has been seen despite a fall in diagnoses of *S. flexneri* 2a and 3a. Diagnoses of serotype 1b are increasing and *S. sonnei* has emerged as the most common cause of shigellosis in this population. Given the circulation of multidrug-resistant strains of *S. sonnei* in England, routinely assessing sexual history of cases is recommended to monitor at-risk groups and inform public health actions.

O04 Very high prevalence of macrolide resistance mutations in *Mycoplasma genitalium* in men presenting with non-gonococcal urethritis in London

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Abstract

Introduction: *Mycoplasma genitalium* (Mgen) is an established cause of non-gonococcal urethritis (NGU). Azithromycin susceptibility is decreasing due to the acquisition of macrolide resistance mutations (MRAMs) with an estimated UK prevalence of 40%. We test all men with acute and persistent NGU for Mgen. We introduced a genotypic resistance test to detect MRAMs. We report MRAM prevalence and outcomes in the first two months of use.

Methods: The clinic database was interrogated to derive positive Mgen results from men presenting with acute or persistent NGU, Jan–Feb 2019. Data analysed: demographics, indication, antimicrobial therapy, azithromycin pre-exposure (in preceding six months), and test-of-cure (TOC) result.

Results: Mgen was detected in 46 men. 37/46 (80%) had acute NGU and 9/46 (20%) persistent NGU. 21/46 (46%) were heterosexual (median: 30yrs [range: 19–41yrs]) and 25/46 (54%) MSM (median: 30yrs [range: 25–59yrs]). The prevalence of MRAMs overall was 36/46 (78%). MRAMs were observed in 15/21 (71%) heterosexuals and 21/25 (84%) MSM, and in 29/37 (78%) men with acute NGU, and 7/9 (77%) with persistent NGU (all of whom had received doxycycline first-line). Eleven men were azithromycin pre-exposed and all had MRAMs detected. All men had received antimicrobial treatment in line with BASHH NGU guidelines. All were recalled for further treatment in light of the positive Mgen result. 40/46 (87%) attended and 37/40 (93%) received therapy appropriate to the MRAM result. Seven men have attended for TOC of which 6/7 (86%) were negative. The one patient with positive TOC received azithromycin despite the presence of MRAMs.

Discussion: These data demonstrate an extremely high prevalence of MRAMs in men with acute NGU, the majority of whom were azithromycin naïve. The proportion of men with persistent NGU with MRAMs was similar. This suggests a high level of transmitted MRAMs or pre-induced MRAMs. Antimicrobial therapy was largely informed by MRAM result.

O05 Unintended consequences: the potential impacts of the BASHH 2019 gonorrhoea guidelines

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Abstract

Introduction: In the 2019 BASHH guidelines for the management of gonorrhoea, epidemiological treatment is reserved for symptomatic contacts presenting within 14 days of exposure, with consideration in asymptomatic patients for delaying treatment and repeat testing 2 weeks after exposure. Those presenting after 14 days of exposure should only be treated following a positive test. The aim of this evaluation was to determine the potential impact of the 2019 guidelines on services.

Method: For this retrospective service evaluation of all gonorrhoea contacts presenting to a UK level 3 sexual health service in 2018, patients were identified using the GUMCAD code PNG. Demographics, clinical characteristics and outcome data were collected from the electronic patient records. The 2019 guidelines were retrospectively applied to evaluate their impact.

Results: For 207 patients seen as gonorrhoea contacts in 2018, gonorrhoea prevalence was 43.0% (89/207), and chlamydia prevalence 18.4% (38/207). In those presenting within 14 days of exposure, prevalence in symptomatic patients was 53.6% (22/41), and asymptomatic patients was 47.1% (41/87, $p = 0.49$). 27.6% (24/87) of contacts presenting over 14 days after exposure were gonorrhoea positive. Heterosexual men were significantly less likely to have gonorrhoea than women or men who have sex with men ($p < 0.001$). In contacts with positive NAATs and cultures ciprofloxacin sensitivity was 79.1% (38/48), azithromycin sensitivity 70.8% (34/48), and ceftriaxone sensitivity 100% (48/48). Test of cure attendance was 53.9% (48/89).

Discussion: Not giving empirical treatment to gonorrhoea contacts in line with the 2019 BASHH guidance would have resulted in 65/207 (31.4%) patients returning for treatment once results were known, with delays in treatment potentially increasing risk of transmission, complications and cost. Absence of symptoms in those presenting as a gonorrhoea contact within 14 days of exposure does not decrease risk of gonorrhoea infection. Poor test of cure attendance may contribute to increasing prevalence of antimicrobial resistance.

O06 Clinical evaluation of the SpeeDx ResistancePlus MG assay at a UK sexual health clinic

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Abstract

Introduction: As rates of macrolide (MR) and quinolone resistance (QR) in *Mycoplasma genitalium* (Mgen) continue to rise, there is an urgent need for robust clinical pathways. BASHH guidelines recommend that Mgen-positive specimens are concurrently tested for macrolide resistance-associated mutations (MRAM). We evaluated the SpeeDx ResistancePlus™MG assay with respect to clinical outcomes and measured resistance rates.

Methods: Clinical samples from men with urethritis and women with pelvic inflammatory disease (PID), and their contacts were tested using the SpeeDx assay. Data were collected and compared to an earlier dataset of Mgen-positive patients managed before evaluation of resistance testing. Samples were batch-tested for QR-associated mutations (ParC) at a later timepoint; these results did not influence treatment. Fisher's exact test and Mann-Whitney U were used to obtain p-values.

Results: Forty-eight Mgen-positive patients were tested (22 urethritis;15 PID;11 contacts). Prevalence of MR was 35/48 (72.9%). Seventeen (35.4%) attended for test of cure (TOC); treatment failure rate was 1/17 (5.9%), lower than 15/45 (33.3%) observed before resistance testing ($p = 0.048$). For urethritis, time to microbiological cure was 54.8 (95% CI 37.8–71.7) compared to 86.7 (70.5–102.09) days ($p = 0.059$). For PID, time to microbiological cure was 87.2 (32.8–141.6) compared to 91.7(55.2–128.1) days. Due to TOC lost-to-follow-up, last antibiotic was used as a proxy for cure ($n = 34$). For urethritis, time to last antibiotic was 16.4 (12.0–20.8) compared to 38.2 (25.1–51.3) days before resistance testing ($p = 0.08$); for PID, this was 28.5 (11.1–45.8) compared to 39.0 (9.2–68.8) days ($p = 0.44$). ParC mutations were found in 3/31 (9.7%).

Discussion: MR is higher than previous UK reports and higher than expected. This pilot study demonstrates that resistance-guided therapy of Mgen reduces time to microbiological cure and antibiotic failure. QR is prevalent and will continue to rise with increasing quinolone use. RGT is critical to direct appropriate azithromycin use and prevent overuse of moxifloxacin.

O07 Increase in quarterly HIV testing and UAI amongst MSM in London with decrease in anxiety: updates from a longitudinal online survey

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Abstract

Introduction: The GMI Partnership has been using online surveys to promote HIV prevention information since 2015 amongst MSM as part of the London HIV Prevention Programme and Do it London campaign. Within London, these surveys are promoted through online dating services. This paper aims to demonstrate that while delivering HIV prevention messages through the survey, major behavioural changes were observed.

Methods: Clients were asked the same questions relating to risk factors for HIV transmission including HIV testing behaviours, chem usage, PEP & PrEP knowledge and use, and UAI frequency with monogamous and causal partners. Clients were also asked whether they are worried about the risks or getting support on the risks they are taking. Data from the last quarter of each year, from 2015 to 2018, was compared to examine any changes over time.

Results: From 2015 to 2018, reported quarterly HIV testing increased from 20% to 35% ($p = 0.000$). However, reported UAI with casual partners also increased from 48% to 65% ($p = 0.000$), and frequent UAI increased while the anxiety decreased. At the same time, awareness of PrEP steadily increased from 66% to 98% ($p = 0.000$), and reported PrEP usage increased from 2% to 26% ($p = 0.000$), suggesting a potential relationship between these variables.

Discussion: There is evidence that a behaviour change has been emerging amongst MSM using dating apps in London, whereby frequent HIV testing and reported UAI with casual partners is increasing while anxiety is decreasing. Knowledge of PrEP, and PrEP use have risen significantly over the same period. Nonetheless, there is little existing evidence that PrEP knowledge could account for the reported behaviour change. Further research is required to understand whether the reported increase of UAI and decrease in anxiety within MSM in London will persist, and whether this can realistically be understood through the lens of HIV campaign messaging and PrEP innovation.

O08 Chemsex and sexual health clinic use among men who have sex with men (MSM): results from a large online survey in England

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Abstract

Introduction: Chemsex, the use of select psychoactive drugs to enhance sexual experience, typically among MSM, is associated with STI risk behaviours. Understanding characteristics of MSM who engage in chemsex and their use of sexual health (SH) clinics is important for developing interventions.

Methods: Between 5/2016–5/2017, 3,358 MSM (aged $>$ 15years; no known HIV infection) completed an online survey, largely via 4 gay social-networking apps. We described patterns of chemsex and differences in demographics, awareness of 8 common STIs, STI risk behaviour, and SH clinic attendance between those engaging in chemsex and those not. We used a composite measure 'high STI risk' comprising condomless anal sex (CAS) with $>$10 men/past 3months, of whom $\geq$1 had unknown HIV status. We used logistic regression to investigate the association between chemsex and clinic use/past 3months.

Results: 8% of respondents reported chemsex/past year. Among them, 70% had used $\geq$2 different chemsex drugs, with mephedrone (68%) most popular. A greater proportion of MSM who reported chemsex, compared to those who did not, were university graduates (63% vs 52%), $<$40years (51% vs 43%), aware of all 8 asked-about STIs (34% vs 22%), reported CAS/past 3months (73% vs 47%), and were classified as 'high STI risk' (26% vs 8%). MSM who reported chemsex were more likely to have attended a SH clinic/past 3months vs those who did not (63% vs 34%), including after controlling for sociodemographics: adjusted odds ratio: 2.97, 95%CI: 2.26–3.90. Of those at 'high STI risk' ($n = 317$), 75% of MSM reporting chemsex, vs 48% of those not, had been to clinic/past 3months.

Conclusion: A minority of MSM engage in chemsex. Those that do appear to be at greater STI risk but engage more actively with SH clinics. More targeted STI prevention efforts are needed to improve access to services for all MSM at high risk of STIs.

O09 An evaluation of the outcomes of an online HIV testing service to inform risk communication and future online testing policy

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Abstract

Introduction: Online HIV self-sampling using 5th generation Ag/Ab assay can increase access to testing and may therefore engage lower prevalence populations. Little is known about the rate of false positive results and positive predictive value (PPV) of testing in these populations, which may influence testing policy.

Methods: A retrospective review of HIV tests in the online service SH:24 in July 2015-November 2018 was completed to assess HIV reactivity rate. All HIV reactive results were referred to clinic for confirmatory testing and at least three attempts made to contact each user to ascertain the results of their confirmatory test. Results from confirmatory tests were used to assess the performance of the HIV test to derive false positive rate and PPV.

Results: During the study period, 99,319 adequate HIV tests were returned, of which 1,041 were reactive (1.05%, 95%CI 0.99–1.11%). Outcome of the confirmatory test was confirmed in 773 (74.2%) reactive users, of which 3% had a new HIV diagnosis, 46.8% were negative and 22.3% already had a known HIV diagnosis. The overall HIV positivity rate was 0.03%. The false positive rate was 0.5% if those with unknown outcomes were assumed to be true positives, and 0.8% if they were assumed to be false positives. The PPV was 6%, excluding those with a known HIV diagnosis.

Discussion: This evaluation showed that HIV reactivity is low in the population tested and the false positive rate was consistent with known test specificity. However the PPV was only 6%. This is an important message to convey to service users at the time of testing and service providers when giving results. Strategies to address this issue include selective testing to target higher-risk groups in line with BHIVA guidance, and reporting and quantification of the level of reactivity rather than a binary reactive/non-reactive outcome.

O10 Measuring unmet demand for sexual and reproductive health services in inner South East London: a cross sectional survey

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Abstract

Introduction: The aim of this research was to assess the extent of unmet demand for sexual and reproductive health services (SRH) at clinics based in inner South-East London and identify inequalities. This builds on a pilot study undertaken in November 2017.

Methods: All service users who attended any of nine clinics based in three local authorities as a walk-in between April 16 and April 29 2018 were asked to complete a questionnaire. Reception staff subsequently recorded, on the questionnaire, whether the service user was offered a clinical service (clinic, appointment, online) or was unable to be seen at that visit. We conducted multivariate logistic regression analysis to investigate the association between the visit outcome and selected variables covering demographics, indication and symptoms.

Results: In total, 1,471 service users were eligible for inclusion in the analysis. These service users sought: STI testing, treatment and prevention services (57.75%); contraception services (32.8%); and other sexual health services (9.5%). In total, 209 (14.2%) service users were asked to come back another day when they attended clinic without appointment. There was considerable variation in unmet demand by service provider, but no difference across service type and few demographic inequalities. Symptomatic service users did not have significantly different odds of being seen compared to non-symptomatic service users.

Discussion: This was the first study to measure unmet demand for SRH services in clinics by surveying service users. In the context of increasing demand for SRH services, clinics provided services to the vast majority of service users who attended without an appointment and there was little evidence of inequalities. These results do suggest opportunities to provide more effective triage to ensure those with the greatest need are promptly seen.

O11 Evaluating Online and Clinic-Based STI Screening Services: A Case Study of Umbrella Sexual Health Services, UK

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Abstract

Background: Digital technologies are increasingly being adopted to increase STI screening uptake. From August 2015, the sexual health service in Birmingham, UK has provided free online home-based sampling in addition to a clinic-based service.

The objectives of the study were to:

- assess whether there were differences between the groups accessing screening online and in clinic;
- evaluate the health outcomes associated with screening by setting;
- analyse the interactions between online services and clinic-based services in terms of patient usage, and changes in access over time.

Methods: A retrospective analysis of the clinic and online databases was undertaken to identify patients who undertook home-based and clinic-based testing between January and December 2017. Statistical analyses were undertaken to assess the uptake of screening by population group and identify predictors of screening uptake in different settings.

Results: Overall 31,901 online testing kits were requested, with 18,087 returned, which equated to 14,667 patients. In the same period, 44,047 appointments were conducted in clinic, for 36,209 patients. A higher proportion of patients accessing online screening compared to clinic-based services were female (66.3% vs 52.1%, $p < 0.001$), aged <25 (52.5% vs 41.5%, $p < 0.001$), white (74.4% vs. 40.1%, $p < 0.001$), asymptomatic (79.6% vs. 49.4%, $p < 0.001$), and a lower proportion were from the two most deprived socio-economic groups (38.8% vs. 50.5%, $p < 0.001$). There were also differences in positivity rates for chlamydia and gonorrhoea (7.25% vs. 9.98% and 1.53% vs 3.47%, $p < 0.001$).

Discussion: This study provides valuable insights into differences in patient characteristics between those accessing online and clinic based services. This knowledge will allow those involved in planning and delivering services to understand how different service elements can complement each other. Our findings can be used to ensure that digital health services are integrated effectively alongside other types of services, in the context of limited resources, both in the UK and internationally.

O12 HIV risk and prevention practices of bisexual men in a Treatment as Prevention (TasP) environment

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Abstract

Introduction: Bisexual men often experience worse health outcomes than gay men, including more substance use, higher sexual risk behaviour, and poorer mental health. In spite of this, most HIV risk and prevention studies group gay, bisexual, and other men who have sex with men (gbMSM) together, ignoring the unique health needs and challenges bisexual men face.

Methods: From 2012–2015, the Momentum Health Study used respondent-driven sampling to recruit gbMSM into a bio-behavioural, cohort study in Vancouver, Canada. Every 6 months for 4 years, participants completed a computer-assisted self-interview including psychosocial, health, and behaviour measures, and nurse-administered HIV/STI testing. Summarized results from multiple analyses will be presented.

Results: Of 774 gbMSM, 14.7% (RDS-adjusted; 95% CI:10.4,18.7) self-identified as bisexual, 33.4% (95% CI:27.9,39.2) reported bisexual sexual attraction, and 22.7% (95%CI:17.1,28.1) reported sexual behaviour with men and women in the past 2 years. Compared with gay men, bisexual men reported less community connectedness, higher levels of anxiety and depression, greater social isolation, and worse perceived current health. They also reported elevated substance use, unique substance use patterns, and were more likely to smoke cigarettes daily. Bisexual men reported being less aware of PrEP and TasP, and were less likely to consider TasP effective. HIV-negative bisexual men were also less likely test for HIV. Despite these risk factors, bisexual men reported fewer anal sex partners than gay men and were less likely to be the receptive partner. There were no differences in condom use or HIV prevalence. Among those living with HIV, there were no differences in rates of viral load suppression.

Discussion: Compared with gay men, bisexual men in the Momentum Health Study experience numerous negative health outcomes and elevated rates of some HIV-risk factors. However, they also report fewer anal sex partners, less receptive anal intercourse, and similar HIV prevalence and viral load suppression levels.

O13 Do Sexual Health Practitioners Experience Vicarious Trauma?

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Abstract

Introduction: Vicarious Trauma (VT) is a change in the psychological state of a person as a result of regularly witnessing or hearing about traumatic experiences of others. It often affects those in caring professions, particularly those working in emergency medicine or mental health. There is little research examining VT in sexual health practitioners. If not addressed, VT may impact on a person's ability to work effectively and maintain caring relationships within and outside of work. The aim of this survey was to assess whether VT affects clinicians working within sexual health.

Method: An anonymous self-completed survey was offered by email to all members of the British Association of Sexual Health and HIV and the Society of Sexual Health Advisers. Members were requested to circulate the survey to practitioners within their teams. Participation was voluntary, and restricted to people currently working in sexual health.

Results: There were 120 responses to the survey. 60/120 (50%) nurses, 25/120 (20%) health advisers, 24/120 (19%) doctors, 6/120 (5%) health care assistants and 7/120 (5%) 'Other' roles. 69/120 (59.4%) Had experienced symptoms of vicarious trauma. 82/120 (70%) Had attended work feeling unwell in the previous 12 months. 73/120 (62%) Struggle with the emotional impact of their work. 83 /120 (27.4%) Found it difficult to 'switch off' from work, and 34/120 (29%) felt their job had a negative impact on their relationships. Coping strategies included humour and informal support, exercise and self-care. Recreational drugs and alcohol, however, were also widely used.

Discussion: Sexual healthcare workers are at risk of experiencing VT. Sexual health services should develop supportive systems to protect staff from the negative emotional impact of this work, and encourage clinicians to share experiences of VT, to help negate the impact this may have on their ability to work effectively.

O14 Trans men and smear test outcomes: results from ClinicQ

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Abstract

Background: ClinicQ provides specialist sexual health services for trans people, including cervical screening tests (CST) for trans men. We present our CST data, using liquid-base cytology (LBC), from this service.

Method: Descriptive analysis of routine data from trans men attending between June 2017-May 2018 for CST in ClinicQ. Variables included general demographics, CST outcomes, HIV status and hormonal therapy.

Results: 35 patients had 38 CSTs in a 12 month period. Median age was 29-years (range 25–55 years old), all patients were HIV negative and 1 patient was taking pre-exposure prophylaxis. 15 (39.5%) CST were inadequate for 13 (37.1%) patients and subsequently:

- 3 (23.1%) have not re-attended
- 2 (15.4%) re-attended but had no further CST or referral
- 8 (61.5%) await referrals or follow-up

ClinicQ detected 12 (34.3%) patients requiring CST; 4 >25-years requiring first smear and 8 >36 months since previous CST. Only 8 patients had testosterone levels performed hence results are not presented.

Discussion: CSTs can be inadequate due to infection, poor cell count or poor cell clarity. Rates of inadequate CSTs using LBC are reported between 0.3–2.8% compared to 39.5% in this cohort. A review of American national cervical cancer screening found trans-men had 8.3 times higher prevalence of inadequate results (10.8%). Peitzmeier *et al.* suggested reasons are multi-factorial including increased number of atrophied cell samples and difficult speculum examinations. The major limitation to our data is the lack of controls to ensure results are specific to this population and not related to staff abilities in taking smears.

O15 Clinic in a van: An accessible service for street sex workers

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Abstract

Introduction: Street sex working women have remained poor users of sexual health services within our local area, despite previous targeted work. BASHH outreach guidelines encourage breaking down barriers by taking services to the community. Since May 2017 we have provided a weekly night time clinic directly in the women's area of work from a van in partnership with a sex workers' outreach charity; previously it ran from the charity's premises. Women can access clothing, food and drinks and information about Ugly Mugs, housing, drugs services. Contraception, condoms, STI and BBV screening are offered. Formal history taking is modified to accommodate the women's chaotic presentation and reduce the impact on their work.

Methods: A retrospective case review to determine the number of women identified and tested from May 2017-May 2018 was then compared with data from the previous year to determine whether engagement had increased.

Results:

	2017–2018	2016–2017
Number of women accessing service	42	5
% white British women	98	100
Mean age (years)	33.2	28.2
% Class A drug users	100	100
Chlamydia diagnosed	9 (21%)	2 (40%)
Gonorrhoea diagnosed	2 (4%)	
HIV diagnosed	1 (2%)	
Hepatitis C identified	17 (40%)	

A high level of condom use was reported but women often declined contraception as they did not identify sex work as putting them at risk of pregnancy.

Conclusion: Partnership outreach working has been a successful way of providing an accessible sexual health clinic which has notably increased the uptake of screening. The move to dry blood spot screening from venepuncture has both been acceptable and has reduced potential needle stick injuries. Engaging women to return for STI treatment remains a challenge but has been successful. Direct referral pathways to hepatology and gynaecology have been developed. LARC and smear uptake still remains low and a targeted approach is being considered to address these areas.

O16 Insufficient PrEP monitoring and HIV drug resistance

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Abstract

Background: Tenofovir disoproxil fumarate (TDF) and emtricitabine (FTC) are highly protective against HIV infection when used as pre-exposure prophylaxis (PrEP). Recent data found an association of lamivudine associated mutations in those diagnosed with HIV with prior PrEP use. We present a review of newly diagnosed HIV patients with a documented history of PrEP use and M184 I/V mutation from baseline genotypic resistance testing, from one sexual health clinic.

Methods: Retrospective case review of newly diagnosed HIV patients with a baseline M184V/I and/or K65R and documentation of PrEP use within the last six months, between May 2015-January 2019.

Results: 5 of 991 new HIV diagnoses who had previously used PrEP had a M184V/I mutation, and no K65R mutations were seen on baseline testing. All were male ($n = 5$), age range 28–45 years old. Before starting PrEP, four failed to obtain a baseline HIV test and one patient reported baseline testing elsewhere. None were part of the IMPACT trial or the sexual health centre's private prescription service. Duration of PrEP use was $\leq$3 m months for four patients and recent infection testing algorithm (RITA) indicated acquisition of HIV infection within four months for three patients. Four patients presented with a HIV viral load of less than 2500 cpm and CD4 range 434–1483 c/ul. All patients started TDF/FTC and for the third agent; four patients were given Darunavir/Cobicistat and one patient started Dolutegravir as the third agent due to potential drug-drug interactions.

Conclusion: Our data highlights the importance of baseline testing prior to starting PrEP.

O17 Population-based trends in HIV incidence shortly before the introduction of PrEP: insights into the baseline need in non-MSM groups

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Abstract

Introduction: Since 2014, Public Health England has undertaken testing for recent infection with HIV among people newly diagnosed using the Limiting Antigen Avidity Assay (Sedia BioSciences). Here, we estimate trends in HIV incidence in UK sub-populations.

Methods: Aliquots of newly diagnosed persons were tested and results linked to the national HIV database. An incident case was defined as avidity result < 1.5, no antiretroviral treatment or AIDS, and viral load ≥ 400 copies/mL and CD4 > 50cells/mm^3 at diagnosis. The stratified extrapolation approach was used to weight the data to obtain incidence estimates for the whole population. Missing data were imputed with multiple imputation.

Results: Between 2014 and 2017 approximately 50% of new HIV diagnoses were tested for recent HIV infection each year, with test coverage broadly similar across exposure categories. The estimated annual number of new incident HIV infections decreased by 26% (although non-significantly) from 454 (95% C.I. 332–576) in 2014 to 335 (95% C.I. 244–426) in 2017 among heterosexual women, and significantly by 53% from 543 (95% C.I 418–669) in 2014 to 253 (95% C.I. 166–341) in 2017 in heterosexual men. For comparison, the decrease in MSM was by 45% with a drop from 2827 (95% C.I. 2598–3056) to 1539 (95% C.I. 1399–1679) new infections over the period.

Conclusion: There was evidence of a decline in the number of new HIV infections among all UK sub-populations prior to the start of the pre-exposure prophylaxis (PrEP) Impact trial. The availability of PrEP is expected to accelerate this decline. Analysis of data post 2017 by additional exposure categories (e.g. age and ethnicity) will indicate whether PrEP is likely to benefit all sub-populations equitably.

O18 Reaching hepatitis C elimination targets among MSM in UK in the era of HIV pre-exposure prophylaxis

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Abstract

Background: Routine HIV pre-exposure prophylaxis (PrEP) and HIV care appointments provide opportunities for screening men who have sex with men (MSM) for hepatitis C virus infection (HCV). However, screening requirements for achieving the WHO elimination target of reducing HCV incidence by 90% by 2030 among all MSM are unknown.

Methods: An HCV/HIV transmission model was calibrated to UK prevalence of HIV (5·9%) and chronic HCV infection among HIV-positive MSM (10·0%). Assuming 12·5% coverage of PrEP among HIV-negative MSM, we evaluated the impact on HCV incidence (2018–2030) of HCV screening every 12/6/3-months (and completing treatment within 6 months of diagnosis) in PrEP users and/or HIV-diagnosed MSM. We estimated the additional screening required among HIV-negative non-PrEP users to achieve a 90% reduction in overall incidence by 2025/2030. The effect of a 50% reduction in condom use among PrEP users (risk compensation) was estimated.

Results: Without risk compensation, PrEP scale-up decreases HCV incidence by 9·5% by 2030, whereas it increases by 26·5% with risk compensation. Screening and treating PrEP users for HCV every 12/6/3-months decreases HCV incidence by 41/46/48%, respectively, increasing to 74/81/83% if HIV-diagnosed MSM are also screened at the same frequencies. Risk compensation reduces these latter projections by $<5\%$. To achieve a 90% reduction in HCV incidence by 2030 (values in bracket are with risk compensation), HIV-negative MSM not on PrEP require screening every 5·2 (4·5) years if MSM on PrEP and HIV-diagnosed MSM are screened every 6-months, decreasing to every 2·6 (2·3) years for the 2025 target. For 25% PrEP coverage, then the 2030 HCV elimination target may be reached without screening HIV-negative MSM not on PrEP.

Discussion: Increased screening of all MSM (particularly HIV-diagnosed MSM and MSM on PrEP) is required to achieve the WHO HCV-elimination targets for MSM in the UK.

O19 Preventable HIV diagnoses on PrEP waiting lists: an unacceptable financial and individual cost

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Abstract
Introduction: Since November 2017 consenting patients eligible for PrEP were added to a database awaiting PrEP trials. We reviewed patients diagnosed with HIV while on this list and any missed opportunities in a metropolitan sexual health clinic.
Methods: We searched HIV diagnoses among waiting list patients and reviewed demographics, risk-factors and missed prevention opportunities.
Results: 536 patients were listed, of which 43 were unidentifiable. 493 records were reviewed and 15(3.0%) HIV diagnoses were identified. 6(40.0%) tested positive on day of referral to list. 9(60.0%) were negative at referral but subsequently tested positive prior to obtaining PrEP. All 9(100%) were male and homosexual, mean age 26 (range 19–41). Mean days on list 192(range 45–576). Risk factor information: table 1.
Discussion: It is disastrous that 9 preventable HIV diagnoses were made in patients eligible and motivated to take PrEP. This is an underestimate due to variation in waiting list referrals. 6 patients were ineligible (e.g. unprotected anal sex in last 3 months) having been eligible at referral, demonstrating fluctuations in sexual risk taking. The individual lifetime cost of treating HIV is £360,800. This amounts to £3,247,200 for these 9 infections notwithstanding the psychological and physical burden.
Our findings support the immediate role out of universal PrEP for those who need it on the NHS. While this decision is delayed harm is coming to those who wait despite advice to access online resources. Broadening eligibility criteria and reviewing commissioning decisions should be considered in light of our findings.

Table 1 HIV risk factors and prevention opportunities

Chemsex	5/9 (4/5 injected)
STIs	3/9 (2/9 rectal infections)
Prior PEP use	4/9 patients (often multiple times)
Safe-sex advice	9/9
Signposted to online PrEP	9/9

3/9(33.3%) did not respond to phone-calls for trial recruitment. 6/9 (66.7%) did not meet trial eligibility at point of contact.

O20 An online PrEP Assessment Tool: assessing the safe use of PrEP in existing users

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Abstract
Introduction: In England, there is limited access to HIV pre-exposure prophylaxis (PrEP) through the PrEP Impact Trial. People have been purchasing generic PrEP on the internet since October 2015 and continue to do so. We devised an online self assessment tool to help existing PrEP users establish if they were taking PrEP correctly.
Methods: The 'I'm already taking PrEP, am I doing it correctly?' online quiz asks about source of PrEP, baseline HIV and renal testing, type of HIV test on initiation of PrEP (clinic or self-test), regularity of STI screening and usual dosing preference. Data were collected from 14th December 2018 to 14th February 2019.
Results: 983 people completed the quiz. 527 (54%) were purchasing PrEP online; 321 (33%) were accessing PrEP through the NHS or a trial and 111 (11%) through private prescription. Before starting PrEP, 820 (83%) tested for HIV at a clinic; 125 (13%) used a self-testing kit and 34 (4%) did not test. 672 (68%) had baseline renal testing. 676 (69%) tested for HIV and STIs every 3 months; 189 (19%) tested less often, while 71 (7%) tested more often. 47 (5%) people tested rarely or never. 544 (55%) took daily PrEP; 272 (28%) used PrEP on-demand and 157 (16%) people took PrEP at least 4 times a week.
Discussion: Only a third of those taking PrEP sourced it from the NHS. The majority of users take an HIV test before starting, but 13% did not test with the recommended 4th generation test and a few did not test at all. Worryingly a third of respondents did not have renal tests at baseline and a similar proportion were not testing for HIV and STIs as recommended. Our data supports the need for new, equitable models of PrEP access and delivery to ensure those on PrEP use it safely.

O21 Awareness of PEP, PrEP and U = U in a high-risk urban population

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Abstract

Introduction: Public understanding of modern HIV-prevention strategies is essential in the global effort to end HIV transmission. We aimed to assess awareness of Post-Exposure Prophylaxis (PEP), Pre-Exposure Prophylaxis (PrEP) and undetectable equals untransmittable (U = U) in a high-risk population, and determine factors affecting awareness.

Methods: Voluntary questionnaires were distributed to 2570 clients accessing point-of-care HIV testing in high-risk community settings in London, UK between July 2017 and November 2018. Sexual history data was collected as part of the testing process.

Results: 948 respondents completed the questionnaire, including 479 Gay/Bisexual men (GBM) respondents and 305 Black, Asian and minority ethnic (BAME) respondents. Overall 66.0%, 62.2% and 38.6% of respondents were aware of PEP, PrEP and U = U respectively. Awareness of all three statements was significantly increased between November 2017 and November 2018.

White respondents were significantly more aware of PEP, PrEP and U = U than BAME respondents (PEP: 67.8% vs 60.3%, $p = 0.026$*, PrEP: 65.9% vs 54.1%, $p = 0.0006$*, U = U: 41.2% vs 33.4%, $p = 0.025$*).

GBM respondents were significantly more aware of PEP, PrEP and U = U than heterosexual respondents (PEP: 84.8% vs 44.9%, $p < 0.0001$*, PrEP: 87.3% vs 33.2%, $p < 0.0001$*, U = U: 53.0% vs 21.0%, $p < 0.0001$*).

Respondents practising all or mostly safe sex were significantly more aware of PEP, PrEP and U = U than respondents practising all or mostly unsafe sex (PEP: 68.2% vs 57.9%, $p = 0.013$*, PrEP: 65.5% vs 54.7%, $p = 0.011$*, U = U: 40.4% vs 27.7%, $p = 0.003$*).

Discussion: Our data show awareness of PEP, PrEP and U = U is increasing, however significant knowledge gaps remain, particularly around U = U. Addressing knowledge in BAME communities should be a priority, alongside increasing awareness of U = U to help reduce HIV stigma. We believe a strategic approach involving community organisations could be considered to achieve this.

*Chi-squared test

O22 Clinical supervision for the 21st century sexual health nurse-is it fit for purpose?

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Abstract

Background: Following service integration, with expanded responsibilities, and in a resource-poor climate, sexual health nurses manage short term, in depth and increasingly complex patient interactions. It is unclear if current clinical supervision (CS) adequately addresses this changing environment. Our cross-sectional, mixed methods study examined sexual health nurses' experiences of CS.

Methods: All sexual health nurses in mainland Scotland (n = 205) were offered an online questionnaire including the Manchester Clinical Supervision Scale (MCSS), based on Proctor's model. Inferential analysis examined demographic and workplace factors related to CS effectiveness. Thematic analysis of semi-structured interviews with n = 11 nurses and n = 6 trainee specialty doctors provided organisational context and depth.

Results: From 109 (53% response rate) nurse participants, 61 (56%) currently received CS. Two-thirds (64%, n = 39) completed the MCSS. The domains most often rated effective in participants' experience of CS were the 'CS importance and value' (75.5%, SD = 16) and 'Supervisor trust and rapport' (75.5%, SD = 18), with 'Finding time for CS' the least effective domain (56%, SD = 18.75). Those receiving at least some individual supervision rated CS as significantly more effective for the total MCSS** and across all 3 sub-domains; normative (everyday practice)*, restorative (emotional support) **, formative (knowledge and skills) ***. Interview themes highlighted desire for clear definitions of CS, consistency of delivery, and safety within groups. Key relationships and control of the CS structure were considered central to ideal CS; the flexible, dynamic arrangements doctors experienced indicating a potential solution. Barriers to effective CS included 1) resources, 2) organisational ethos and 3) supervisory skills.

Discussion: As the central resource in sexual health care, it is vital that nurses are adequately supported to maintain consistent high standards and longevity of wellbeing in a dynamic, yet frequently challenging, environment. This Scotland-wide study highlights both deficits in current

CS provision and evidence to support innovative future interventions tailored to nurses and other similar groups. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

O23 Trends in activity and complexity in a level-3 London sexual health clinic – a useful approach for evidence-informed commissioning

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Abstract

Background: In the last five years, cuts to public health funding have resulted in a reduction in spending on STI testing and treatment, despite an increasing number of new attendances. The aim of this project was to evaluate the volume and complexity of cases attending Croydon sexual health clinic and use trends to direct future commissioning.

Methods: Activity data on new attendances were analysed from May and June 2016 to 2018. Each activity code was assigned one of five levels of complexity based on the average time taken and physical and human resource required. Individual cases were assigned to groups based on whether their presentation was: Testing only, Simple ($\leq$3 simple codes) or Complex ($>$3 simple codes or any complex).

Results: The total number of new cases increased from n = 1830 in 2016 to n = 2002 in 2018. The total number of activities coded also increased (mean 2.3 per person in 2016 to 2.6 in 2018). There was no change in attendances for testing only or simple presentations. However, there was an increase in the number of complex presentations over the three year period (17.7% (n = 317) in 2016 to 23.0% (n = 447) in 2018). On average, 69.7% (n = 1373) of cases presenting for testing only may have been suitable for management with an e-service, which is 24.6% of all attendances. For every complex case, the number of activities they required also increased. Non-clinical complexity, such as requirement for safeguarding and counselling (e.g. for domestic violence and female genital mutilation), showed the greatest change (from n = 61 in 2016 to n = 171 in 2018).

Conclusions: This analysis has demonstrated increasing volume and complexity of cases over time. In addition to analysis of cases that present outside of the borough, this presents a novel approach to commissioning by enabling targeted interventions.

O24 How many attendees with STI related needs are offered and tested for HIV in sexual health services in England?

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Abstract

Introduction: National guidelines recommend that all sexual health service (SHS) attendees with sexually transmitted infection (STI) related needs should be offered an HIV test. As genitourinary medicine and community contraception services are being increasingly integrated, more people may be attending SHSs that do not require HIV testing. We explored a new way of calculating HIV testing rates among people attending SHSs to more accurately reflect attendances by people who have STI related needs.

Methods: Data on all SHS attendances in England in 2017 were obtained from the GUMCAD STI Surveillance system. Current HIV testing rate calculations exclude attendances coded as being for sexual and reproductive health reasons; as 'HIV test are not appropriate'; or amongst people known to be HIV positive. This new analysis further restricted the denominator to attendances by people having an STI test as a proxy for STI-related needs. The association between gender/sexual orientation and HIV testing was determined using simple logistic regression.

Results: In 2017 HIV tests were offered in 89% (1,479,764/1,665,856) of attendances by people with STI related needs, and HIV testing was carried out in 77% (1,277,799/1,665,856) of these attendances. Overall, 34% of SHS in England achieved the BASHH standard of testing 80% of attendances by people with STI related needs for HIV. Heterosexual women were the least likely to be offered a test (89%) compared to heterosexual men (94%, p-value < 0.001) and men who have sex with men (95%, p-value < 0.001).

Discussion: This preliminary analysis explores a new methodology for calculating HIV testing rates in SHS. Development of stricter criteria to define the denominator showed that the overwhelming majority of SHS attendees with STI related needs were tested for HIV. However, there were still 186,092 missed opportunities for HIV testing in 2017.

O25 Partner notification: Increasing effectiveness with modern communication technology

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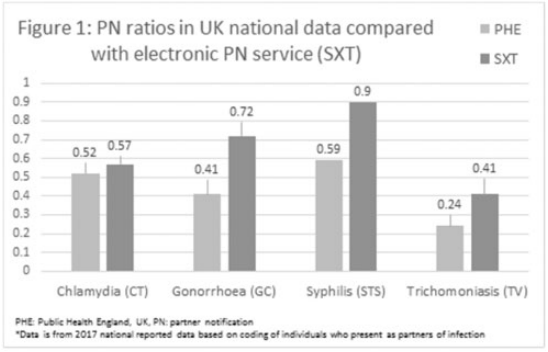
Abstract

Introduction: Prevalence of sexually transmitted infections (STIs) in STI contacts are high. UK standards recommend 0.6 partners tested per index case (0.4 in large conurbations), however partner notification (PN) is time and labour intensive. Online platforms may reduce costs, expand coverage and increase efficiency although data remains limited. SXT is an electronic PN tool using interactive digital contact slips. This study aimed to assess effectiveness with number of contacts tested per index case compared to national data and examine factors associated with successful PN.

Methods: A retrospective analysis of PN initiated via SXT in the UK between 01/12/17–31/07/18 was performed using anonymised data on index case demographics, STIs and PN. Number of contacts screened per index case were compared to national data. Factors associated with testing at least one partner were examined using multivariable logistic regression. Analyses were performed using STATA 12.

Results: 6414 index cases initiated PN via SXT across 13 sexual health providers, median age 25 (IQR 21–32) years, 66% white ethnicity, 58% male and 26% men who have sex with men (MSM), with 6779 STIs; the majority chlamydia (CT) (65%), gonorrhoea (GC) (21%) syphilis (STS) (5%) and trichomonas vaginalis (TV) (4%). Number of verified tested partners per diagnosis via SXT vs. national data were higher for CT, GC, STS and TV (Figure 1). Compared to testing $\geq$ 1 partner, black vs. white ethnicity (adjusted OR [95% CI] black African 0.75 [0.58–0.96], black Caribbean 0.70 [0.56–0.89] and black other 0.77 [0.61–0.97]), male vs. female (0.74 [0.61–0.90]), and a diagnosis of TV vs. CT (0.57 [0.40–0.81]) were associated with fewer partners tested.

Discussion: An electronic PN tool demonstrated increased PN, exceeding national targets for CT, GC, STS and TV. Being male, of black ethnicity and having a diagnosis of TV was associated with fewer partners tested, highlighting areas to target for future improvement.



O26 WHAT DO SEXUAL HEALTH ADVISERS DO BEHIND CLOSED DOORS? : The Development of Local and National Codes for Complex Patient Interventions by Sexual Health Advisers

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Abstract

Introduction: In 2010, three Sexual Health Adviser (SHA) teams started using a locally devised coding system designed to capture the complex patient interventions carried out by SHAs not captured by existing coding. New coding was developed covering topics such as herpes, sexual assault, drug/alcohol use, safeguarding. In 2018 we promoted our system to UK SHA teams, encouraging use of this tool. 12 SHA teams across England/Ireland are currently using the coding.

Method: Using a quantitative and qualitative survey, we evaluated the experience of the 12 SHA teams setting up/using the local codes.

Results: All SHA teams in the 12 participating clinics completed the survey. 10/12 (83.33%) reported no difficulties/some difficulties in setting up the technical side of the coding. 11/12 (91.67%) had no negative comments from other staff groups. 12/12 (100%) said their SHA team had been supportive of the codes being set up and 12/12 of respondents said that the SHA team were very supportive of the continuing coding use. In the qualitative questions, 3/12 (25%) teams wanted further categories and 11/12 teams made positive comments about the coding.

Discussion: The coding of complex interventions has been integrated well within the SHA teams and clinics. All staff groups in the MDT have been supportive, and the coding has been welcomed, particularly by SHAs, who believe that being able to code complex interventions enhances their work and enables their work to be more auditable and well recognised. We hope that the positive outcome of use within these 12 clinics will enable a further roll out of SHA coding for complex interventions to other clinics and lead to a national audit of SHA complex interventions in 2019/20.

O27 From frying pan to fire? Have cuts in Sexual health services affected A&E?

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Abstract

Background: In October 2015, Sexual health services (SHS) in [city] discontinued walk-in appointments for adults over the age of 18. Nurse-delivered triage was initiated to identify those needing emergency appointments, with walk-ins otherwise discouraged. The local Accident and Emergency (A&E) department anecdotally described an increase in 'sexual health' attendances.

Objectives: To identify differences in the number or nature of sexual health related attendance in A&E pre and post October 2015.

Methods: We undertook a retrospective review of all A&E attendees aged >14 years, with a sexual health related code between November 2014 and 2015 and November 2017 and 2018. The A&E EPR was reviewed by a single sexual health clinician who removed all patients who were incorrectly coded and those with legitimate reasons for A&E attendance (e.g. testicular torsion, sepsis). Hospital admissions were excluded.

Results: During the 2014/15 year, 154 patients were coded with sexual health diagnoses of whom 69 should have been treated in sexual health. During 2017/18 333 patients were coded with sexual health diagnoses, 131 of whom should have been treated in SHS. Only 51.5% of those with legitimate sexual health problems had any sexual history taken and only 8.5 % had STI screening done. 52.6% were referred to SHS 2014/15 compared to 45% in 2017/18. The nature of attendances and demographics will be presented.

Conclusion: There has been an increase in attendance in A&E for sexual health issues in [city]. Other than the impact on an already over-stretched A&E, this may also lead to poorer health outcomes for patients not managed in accordance with national sexual health standards[1]. An ongoing prospective survey of sexual health attendees accessing A&E may confirm a suspected link with reduction in access to SHS and help establish improved referral pathways.

References

1. BASHH Standards for Sexual Health services (2014)

O28 What is the risk of HIV following refusal of an HIV test by MSM attending sexual health services in England?

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Abstract

Introduction: HIV testing guidelines in England focus on the promotion and facilitation of HIV testing, but none addresses the clinical management of patients following test refusal. Given the lack of data supporting such recommendations, we determined the risk of HIV following HIV test refusal in men who have sex with men (MSM) attending sexual health services (SHSs) in England.

Methods: Data were extracted from the pseudo-anonymised GUMCAD STI Surveillance System on MSM who were offered an HIV test at an SHS at >2 attendances between 2009–2017. Cohort entry was defined as the 1st attendance with an HIV negative test and censorship occurred either at the time of a new HIV diagnosis (first report of seropositivity) or the end of the study period. We determined the incidence of HIV using a multivariable survival analysis adjusted for age, ethnicity, UK-birth, and bacterial STI history. Adjusted rate ratios (aRRs) with 95% confidence intervals (95% CIs) are reported.

Results: From 2009–2017, 209,612 eligible MSM were identified, most of which were white (79.9%) and UK-born (66.7%): 9,001 (4.3%) were later diagnosed with HIV, of which 350 (3.9%) had refused HIV testing at their most recent prior attendance. The HIV diagnosis

rate in those who refused testing was 3-times higher than those who had accepted testing previously [aRR (95%CI) 3.1 (2.7–3.6)]. Among newly diagnosed MSM, the median time between diagnosis and prior attendance was nearly twice higher in those who refused, compared to those who accepted, testing [178 days (IQR: 67–427) vs. 98 days (IQR: 14–339)].

Conclusions: The incidence of HIV in repeat attending MSM is substantially higher in those that refused, compared to those who accepted, an HIV test at their most recent prior attendance. The active management of MSM after test refusal can provide opportunities for health promotion and minimise missed opportunities for testing.

O29 BASHH National Trainee Survey 2018

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Abstract

Introduction: Sexual health services are under well documented pressures and in 2018 there were only 22 applications for 33 GUM trainee posts nationwide.

Methods: An online survey was sent to all GUM trainees in the UK to highlight current concerns and opportunities.

Results: Fifty-eight responses were received; half of all trainees. Ten percent did not plan to become a Consultant in the UK. Trainees reported a wide range in their confidence at securing a Consultant post. Seventy-nine percent of trainees had concerns around location of consultant posts, with over 60% having concerns about the ability to combine GUM and HIV, funding of posts, and competition with dual GUM/general internal medicine trainees.

Half would not have applied for GUM if it had involved dual training with GIM; 89% did not plan to dual accredit in the future.

Trainees had multiple ideas to encourage recruitment including encouraging sub-specialisation and highlighting the varied nature of GUM, securing funding and job security, and ensuring that the specialty is not undermined in public forums. Trainees felt improved exposure to the specialty would result in increased recruitment.

Almost all trainees were concerned about funding cuts and the impact on GUM posts and clinic closures, particularly around marginalised groups, drug resistance, and a decreased focus on preventative medicine. Other concerns were about reduction in training opportunities and fragmentation of GUM and HIV particularly in the context of tendering and commissioning. The introduction of dual accreditation was a concern to many including the impact on recruitment when the focus of GUM training was becoming more ambiguous.

Discussion: GUM is facing unprecedented recruitment concerns with the second lowest 2018 competition ratio of all specialties. Current trainees have suggested possible solutions but also require reassurance about their own futures. We are recommending that all stakeholders work together to address this situation.

O30 Increase in antenatal syphilis diagnoses in Wales

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Abstract

Introduction: New syphilis diagnoses in Wales has been increasing in recent years. Most of this increase was amongst men-who-have-sex-with-men, but in 2017 there was an increase in antenatal syphilis reports. This project aimed to confirm and investigate this signal in order to make recommendations for prevention and control.

Methods: National Enhanced Surveillance of Infectious Syphilis Scheme (NESS) data (2001–2017), laboratory data (2016–2017) and Sexual Health in Wales Surveillance Scheme (SWS) data (2016–2017) were examined to describe numbers and demographics of women and pregnant women diagnosed with syphilis in Wales. Discussions with stakeholders were conducted to ascertain opinions regarding current syphilis screening and service provision and areas for improvements.

Results: In 2017, 6 new antenatal syphilis cases were reported through NESS, compared to only 4 between 2001–2016; laboratory data confirmed this increase. All the women were between 21–31 years old and white British ethnicity. None appeared to have any traditional risk factors for syphilis, but often had social vulnerabilities. Laboratory and SWS data confirmed the increase amongst pregnant women and also showed an increase in syphilis diagnoses in women generally between 2016–2017. Furthermore, a case of congenital syphilis in 2017 was discovered that had not previously been reported to Public Health Wales.

Discussion: In 2017 antenatal syphilis diagnoses increased in Wales. Whilst overall numbers are still low, any increase is concerning. Various pontential areas for improvements were highlighted, including: improving antenatal and congenital syphilis surveillance; attempting to improve syphilis control, particularly amongst MSM;

increasing syphilis case-detection amongst all women; strengthening syphilis screening amongst pregnant women; and strengthening antenatal and postnatal care pathways.

O31 CD4 Countdown: A Quality improvement project

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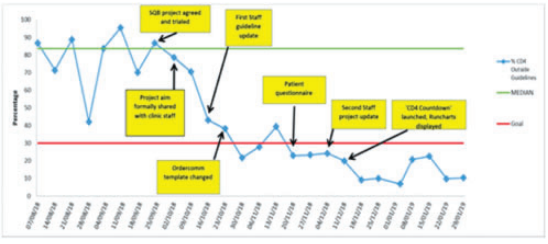
Abstract
Background: Standard practice for monitoring patients with HIV has historically relied on sending both CD4 counts and HIV-1 viral load (VL) on all patients at each clinic visit. A recent change in British HIV Association (BHIVA) guidelines advising no further CD4 counts if >350 twice >1yr apart. Our project has focused on reducing numbers of CD4 counts sent outside of guidelines.
Aim: To reduce the percentage of CD4 tests requested outside of guidelines to 30% by January 2019.
Methods: Using Quality Improvement (QI) methodology, a team collected weekly baseline data, applied Plan, Do, Study, Act (PDSA) cycles and monitored results. PDSA cycles included: Staff education with guideline updates and education sessions, Reconfiguring test ordering systems and patient Involvement with focus groups for education on test/results and to promote U = U campaign.
Results: Baseline data on current practice before change showed up to 83% CD4 tests sent were outside of guidelines. The run chart shows the weekly change in response to PDSA cycles. CD4 tests cost £38.24, estimated saving is £3928/mth.



Discussion: There was a dramatic reduction in percentage of CD4 tests taken outside of guidelines from median of 83% to 21%. Reducing these tests means less phlebotomy for patients, less results management for staff and reduced laboratory costs. This project achieved the aim within the timeframe with a shift of more than 6 data points below the goal line. Success of the QI project was multifactorial: getting a project aim decided early ensured it remained on schedule. Efficient data collection allowed real-time tracking of progress. Regular, short team briefs enabled early response to each PDSA cycle. This led to a real improvement in guideline driven test requests.

O32 Syphilitic Balanitis ... is it an atypical manifestation of Syphilis?

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Abstract
Introduction: Primary syphilis classically presents with a single painless chancre however there have been case reports of Syphilitic Balanitis We report a case series of early syphilis in heterosexual and gay men presenting with balanitis/balano-posthitis. 22% of early Syphilis cases presented with features of balanitis. Syphilis serology was either positive at this point or became positive shortly afterwards.
Methods: A retrospective review of case notes of every male patient coded for primary, secondary or early latent syphilis in the year 2017 was undertaken. A literature search for relevant case studies was also performed.
Results: 25 male patients (4 heterosexual and 21 MSM) were identified as having presented with Syphilitic Balanitis out of 112 cases reviewed (22%). 7 of these were treated for fungal balanitis and 1 was treated for anaerobic balanitis. In addition 7 patients were treated for primary HSV however all vital PCR swabs were negative for HSV. 17 patients were diagnosed with primary syphilis and 8 were diagnosed with secondary. 23/25 patients had an RPR

higher than 1:32. There was resolution of the balanitis in each case following treatment with Benzathine Penicillin.
Discussion: Syphilitic balanitis is likely to be an atypical manifestation of early syphilis and delays in treatment may contribute to onward transmission. It is suggested that where risk factors are present Syphilis should be considered in the differential diagnosis of balanitis.

O33 Syphilis- The Great Pretender: Four cases of early syphilis presenting outside the GU setting

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Abstract
Introduction: Though syphilis is routinely tested for in GU setting it is often overlooked in other specialities. Syphilis has always been regarded as the great pretender mimicking other disease processes. With the rise in early syphilis in the UK we are seeing more cases presenting through other healthcare services.
Methods: We review 4 cases of syphilis that presented via different services in Lincolnshire to the Sexual Health clinic.
Results: Case 1 is a 64 lorry driver who initially presented to ophthalmology with acute onset of loss of vision, initially diagnosed as retrobulbar neuritis. He was then referred to gastroenterology after developing pancytopenia, lymphadenopathy and splenomegaly.
Case 2 is a 27 year old man who was referred to urology with recurrent posthitis and a "traumatic" non-healing painful sore. A circumcision was performed; on the table a diagnosis of syphilis was considered and histology confirmed this.
Case 3 is a 39 year old lady who presented to her GP with soreness in the anal area which was initially treated as piles. She later developed a rash and a diagnosis of viral infection was made. On re-presentation, examination revealed multiple painful ulcers in the anal area and she was referred to the GU clinic with suspected HSV.
Case 4 is a 32 year old lady who was under review by her GP with memory issues and tinnitus. She was referred to the GU clinic when she developed a classical rash.
Discussion: With the rising incidence of early syphilis we can predict an increase of syphilis presenting to other services. This may lead to delayed or missed diagnosis and inappropriate treatment, which may potentially increase transmission and the rates of tertiary syphilis in the future. We need to increase awareness of the current epidemic by educating fellow clinicians and normalising sexual history taking and testing in other specialities.

O34 An atypical case of Neurosyphilis – The great pretender is back

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Abstract
Introduction: Neurosyphilis is notorious as a mimic of a variety of neurological conditions. The incidence of syphilis in Scotland is increasing, rising by 12% in 2017 to a total of 397 cases. The condition is most prevalent in men (94% of cases), of whom men who have sex with men are the majority (84%). 15% of infection is acquired heterosexually. It is important that we recognize these presentations and instigate treatment early.
Methods: We describe the case of a 31 year Lithuanian man with no significant medical history who presented with a 1 year history of progressive right lower limb pain and numbness. He also reported urinary hesitancy and poor flow and occasional faecal incontinence. He described cognitive symptoms with a poor short term memory and attention span.
Examination findings were consistent with lower limb lower motor neurone signs suggesting cauda equina syndrome. Formal neuropsychological assessment showed significant impairment in immediate memory as well as delayed memory and attention.
Sexual history was unremarkable in that he was in a monogamous relationship with a female partner for 7 years.
Results: Testing was negative for HIV, viral hepatitides serum ACE, Borrelia and autoimmune encephalitis screen. Syphilis serology was positive with a serum RPR at its highest at 1:8. He had an MRI scan performed which showed diffuse brain atrophy and right Amygdala high signal of unknown significance. MRI scanning of his spine with contrast showed no spinal lesion or abnormal enhancement
His CSF analysis showed a raised white cell count and protein.
Discussion: He was treated for neurosyphilis with 14 days of Benzyl penicillin which led to significant improvement in all symptoms and he remains under neurological review with a repeat MRI scheduled. More results will be available later. This case illustrates the need for being vigilant of Syphilis as a potential cause in unexplained neurological presentations.

O36 Dequalinium chloride vaginal tablets for recalcitrant Trichomonas vaginalis (TV)

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Abstract
Introduction: Treatment for TV is often ineffective. Even very high-dose tinidazole has 8–10% failure and subsequent treatment options have limited evidence and efficacy. Vaginal dequalinium, a quaternary ammonium compound, is licensed for bacterial vaginosis treatment. It is well tolerated, safe and has in-vitro activity against TV, but clinical experience is limited.
We present the case of an 18-year old female with a 12-month history of persistent TV despite standard and 'resistant' treatments, which finally responded to prolonged dequalinium.
Case history: The patient was white British with no significant medical history. The presumed source of infection was a male living in Dubai. There was no risk of reinfection and adherence was self-reported as excellent throughout. Initial and subsequent presentations were with typical symptoms of vulvovaginitis and purulent vaginal discharge. Investigations were with onsite microscopy and TV nucleic acid amplification tests (NAAT).
Treatment initially followed the BASHH TV Guideline. She received: several courses of 7-day and very high dose oral metronidazole/tinidazole (once with concurrent ampicillin and clotrimazole pessaries); intravenous metronidazole administered alongside vaginal metronidazole gel; oral tinidazole with intravaginal metronidazole. All nitroimidazole courses were 7–14 days duration.
Her vulvovaginitis symptoms settled during antimicrobial therapy, but recurred soon after cessation of treatment. At each follow-up TV was confirmed by microscopy and NAAT.
We retreated with 4-weeks of metronidazole 400 mg twice daily with dequalinium intravaginal pessaries nightly. Symptoms were controlled, but TV microscopy and NAAT remained positive. As there was symptomatic relief from dequalinium, this was continued as monotherapy for a further 14 weeks pending sourcing alternative treatments. Her symptoms remained controlled and microscopy and NAAT became negative. She remained asymptomatic with negative microscopy and NAAT two months after stopping dequalinium.
Discussion: Prolonged dequalinium may offer an accessible and safe alternative treatment option for recalcitrant TV, when high-dose systemic antibiotics have been unsuccessful.

UG1 The impact of the quadrivalent human papillomavirus vaccine on the presentation of young people with genital warts to Sandyford sexual health services in Scotland

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Abstract
Introduction: Human papillomavirus (HPV) is one of the most common sexually transmitted infections in the UK. HPV types 6 and 11 are responsible for the occurrence of most anogenital warts. The current HPV immunisation programme in Scotland offers the quadrivalent vaccine, Gardasil®, which confers protection against HPV types 6, 11, 16 and 18. This was introduced for females in S1-S3 in 2012 and for men who have sex with men (MSM) aged 15–45 in 2017. Research in England and Australia has shown a decline in genital wart diagnoses since the implementation of the quadrivalent HPV vaccination. This study aimed to assess the impact of the Gardasil vaccine on presentations of young people with genital warts in a Scottish context. Furthermore, the trends in genital wart treatments over the past six years were of interest.
Methods: Data was collated from the National Sexual Health System (NaSH) for people aged 19 years and under who had received a prescription for any brand of genital wart treatment in 2012 and 2018.
Results: The proportion of young people presenting with genital warts in this service has reduced by 77% from 2012 to 2018. The use of home-based treatments has increased by 11% since 2012 although liquid nitrogen is still the main modality of therapy (43%).
Discussion: This study revealed a 77% reduction rate in the number of people aged 19 and under attending our services with genital warts since the introduction of the quadrivalent HPV vaccine in Scotland.

UG2 Informed Consent and Sex: Is Disclosure of Herpes Diagnosis a Moral or Legal Obligation?

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Abstract
Introduction: David Golding was found guilty of transmitting herpes to his girlfriend, however the evidence was contested and equivocal at best. Being the apparent last sexual partner of the plaintiff and diagnosed with herpes led to his conviction, as the plaintiff claimed to have not consented to the risk of this transmission. This paper considers whether disclosure of a sexually transmitted infection, primarily Herpes Simplex Virus (HSV), should be a moral or legal requirement in consensual sexual activity.
Methods: 74 relevant sources were found through EMBASE, PubMed and LawTeacher. Legal cases from outside of the UK and articles not written in English were excluded, and 32 of the initial sources were screened and identified as potentially relevant. 17 journal articles, cases and websites were reviewed, and *R v Konzani [2005] EWCA Crim 706* and *R v Dica [2004] EWCA Crim 1103* concerning HIV transmission were key comparators.
Results: Autonomy, beneficence, non-maleficence and justice are key principles to consider moral and legal implications of STI transmission. Applying these principles to 'The Golding Case', *Dica* and *Konzani*, there appear to be more reasons to consider diagnosis sharing a moral rather than a legal obligation. Whilst there may be a moral obligation to share diagnosis and not infect others, it cannot be a legal duty in HSV as there is no scientific method to prove definitively that one individual infected another.
Discussion: Notwithstanding the technical difficulties around proving transmission of herpes, there is no basis for herpes to be criminally sanctioned in the event of unintentional transmission. However, there may be scope to claim a moral obligation to inform partners before sexual contact.

UG3 Delayed clearance of Mycoplasma genitalium following azithromycin treatment

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Abstract
Introduction: High levels of antimicrobial resistance are seen globally with Mycoplasma genitalium (Mgen) infection and test of cure (TOC) is crucial to determine infection clearance following treatment. BASHH Mgen guidelines recommend that TOC is undertaken for all patients 5 weeks after starting treatment. Whilst there is some evidence that performing TOCs before 3 weeks may give false negative results, there is little evidence for the optimum time to TOC. The aim of this study was to determine if additional time to TOC improved Mgen clearance rates following azithromycin, without need for further treatment.
Methods: At our service TOC was performed routinely and resistance testing was unavailable during the study period. An additional sample for Mgen testing was requested for patients attending with a positive TOC following azithromycin treatment, at the time of moxifloxacin treatment.
Results: 12 patients with a positive TOC (8 males [6 NGU, 2 proctitis], 4 females [2 PID, 2 contacts]) gave the additional sample for Mgen testing (TOC2). 6/12 patients (all male) received doxycyline before azithromycin. Mean time from starting azithromycin to TOC1 was 42.7 days and from TOC1 to TOC2 was 25.83 days. In total, mean time from starting azithromycin to TOC2 was 68.53 days. 33%(4/12 -3 male, 1 female) tested negative at TOC2 and received moxifloxacin unnecessarily. 4/4 negative patients and 5/8 positive patients were asymptomatic at TOC2. 2/12 patients with reinfection risk were negative at TOC2.
Discussion: These results indicate that some patients can experience delayed infection clearance and may not need further antibiotics. Absence of symptoms may correlate with low organism DNA load and clearance of infection can occur spontaneously with additional time. Although extending time to TOC may result in fewer unnecessary treatments, this must be weighed against the practicalities of prolonged time to TOC and the need to treat to reduce risk of onward transmission.

UG4 An evaluation of the changes in services for Sex Workers in London over the past 23 years

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Abstract
Introduction: Sex workers are a vulnerable group in society that face many barriers to care. Services for Sex Workers have been identified as key to protecting sex workers health and wellbeing, however, there is little data on current services. This audit aimed to identify current provisions in London and how services have changed over the past 23 years.
Methods: Data of services for sex workers was available for 1995 and 2007. Current services were then identified through 4 methods; UKNSWP website, Google search, SAAFE Forum and word of mouth. These three timepoints were then compared assessing the change in number and comprehensiveness of services. Key informants were contacted to explore the feelings and opinions around these changes. Geographical distribution of services was conducted and any changes were determined.
Results: 13 current services were identified compared to 17 and 37 in 1995 and 2007 respectively. The number of comprehensive services reduced from 7 in 1995, 4 in 2007 and 1 in 2018. Key informants identified funding as a major concern and cause of the reduction in service provision for sex workers in London, however, other factors such as increased policing were also highlighted as to have damaged relationships between sex workers and the public sector. Geographical distribution showed increased focality of services in central London over time.

Year	Total No. Services	Comprehensive
1995	17	7
2007	37	4
2018	13	1

Discussion: A reduction of services in London for sex workers has been seen since its peak in the noughties. This has included a decrease in the number of comprehensive services available for sex workers. These changes have had unknown consequences on the sexual, physical and mental wellbeing of sex workers in London but will have resulted in greater difficulty in accessing and caring for this vulnerable group.

UG5 Online sexual health testing – saint or sinner?

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Abstract
Introduction: As demand on sexual health services has increased, many service providers have introduced online screening for asymptomatic patients. Although widening access, there have been concerns whether patients most at need can access services. Hampshire introduced a county-wide online service in 2015. Using asymptomatic chlamydia infection as a marker, this study aimed to establish whether online testing created an inadvertent barrier to access.
Methods: Demographics including gender, age and social deprivation of 5688 patients diagnosed with chlamydia infection before and after online testing was introduced, were reviewed. 2847 patients before online testing was introduced (September 2014-March 2015), were compared with 2841 after online testing introduction (September 2017-March 2018) representing 2066 patients diagnosed in clinic and 775 diagnosed online.
Results: A greater proportion of patients diagnosed with chlamydia infection were >25 years in 2017/18 than in 2014/15 ($p = 0.004$), however there was no difference in age between clinic and online testing in 2017/18 ($p = 0.208$). Females, non-heterosexuals and white ethnicity patients were more commonly diagnosed online than in clinic ($p < 0.001$, $p = 0.001$, $p = 0.027$ respectively). However, there was no significant difference in level of social deprivation in either cohort ($p = 0.449$), nor comparing those tested online vs. those tested in clinic ($p = 0.138$). Patients diagnosed online more likely to be seen for treatment <48 hours from diagnosis compared with patients diagnosed in clinic ($p = < 0.001$), and were less likely to need retreatment ($p = 0.043$).
Discussion: Concern suggesting that online testing is missing 'hard to reach' groups is not supported by this study. Although the majority diagnosed with chlamydia infection were younger patients, the proportion of patients >25 years increased in line with national trends. More patients diagnosed online were seen <48 hours from diagnosis than those diagnosed in clinic, which may be due to differences in the messaging process. This study supports online testing as an acceptable measure to increase capacity for services.

UG6 Lessons from a Quality Improvement Project in *Mycoplasma genitalium* testing in clinically indicated conditions

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Abstract

Introduction: Recent BASHH Guidelines recommend testing for MG in the following clinically indicated conditions (CIC): non-gonococcal urethritis (NGU); epididymitis; pelvic inflammatory disease (PID). The aim of our project was to increase appropriate MG testing in CIC to 100% across three trust clinics by March 2019.

Methods: We measured the number of MG tests per CIC by randomly selecting up to 10 patients per CIC/week. As a balancing measure, the number of inappropriate MG tests were collected at intervals throughout the QIP. This was done by looking at all patients tested for MG in 1 week, and reviewing their electronic notes to assess if the test was indicated according to guidelines.

Our project consisted of three PDSA cycles:

1) IT access to the order set for all staff

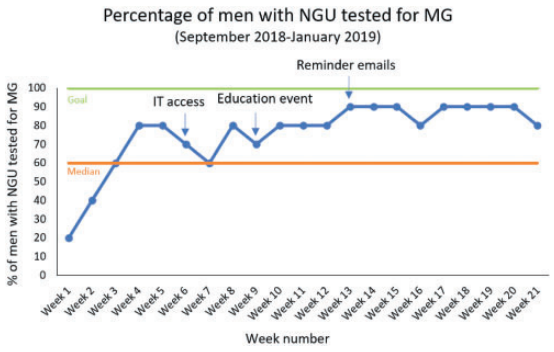
2) Educational event with subsequent posters in clinical areas and

3) Reminder emails to clinicians not testing when indicated.

Results: The median percentage of MG tests increased from 60% to 90% for NGU between September 2018 and January 2019. The table below demonstrates the median percentage of MG tests for NGU pre and post interventions.

	Median % of NGU patients tested for MG	Number of MG tests performed/Total number of NGU cases
Pre-intervention	60	28/50
After PDSA 1	70	21/30
After PDSA 2	80	31/40
After PDSA 3	90	79/90

There was a sustained increase (shift) in the number of NGU cases appropriately tested for MG following PDSA 1. No increase in MG testing was seen in PID and epididymitis, however, the median number of patients each week was low (8 PID and 2 epididymitis). Numbers of inappropriate MG tests were high at: 13% (10/75), 7% (4/57), 15% (7/45) and 8% (5/62) at weeks 8, 10, 13 and 21 respectively.



Discussion: We have demonstrated a sustained improvement in MG testing in NGU patients but not other CICs, with substantial numbers of inappropriate tests being performed. Continued staff engagement will be crucial to the sustainability of this project, and in addressing the high numbers of inappropriate tests.

P001 Men who have sex with men (MSM) with symptomatic secondary syphilis: Treat empirically or await microbiology results?

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Abstract

There has been a significant increase in MSM with symptomatic syphilis. Men who have sex with men (MSM) with secondary syphilis present with characteristic symptoms including rash, fever, lymphadenopathy and headache. In the absence of a point of care test, a clinical conundrum often exists –treat empirically or wait for definitive microbiological confirmation?

Anonymous electronic notes of MSM coded for symptomatic secondary syphilis between November 2016 and November 2018 were reviewed with respect to patient demographics, timing of treatment and VDRL.

Electronic records of 44 MSM with a diagnosis of secondary syphilis were analysed. 7/44 were diagnosed in primary care and referred for treatment and 1/44 was a syphilis contact and these patients were treated at presentation.

Of the 36 remaining symptomatic MSM, the median age was 46 years (25–61) and 19/36(53%) were HIV positive. All presented with a rash, 8/36 were documented to have a fever, 6/36 lymphadenopathy, 5/36 headache and 6/36 genital symptoms. The modal VDRL was 1:64(1:1–1:512). 16/36(44%) were treated empirically and 20/36 (56%) had delayed treatment awaiting microbiology. The median treatment delay was 7-days (3–14). Treatment was delayed significantly longer in HIV negative MSM (10 days) than HIV positive MSM (5 days) (t-test = -2.26, p = 0.01). More than half the MSM with secondary syphilis in this small sample received delayed treatment (until microbiological confirmation) particularly in HIV negative MSM. Data was unavailable on MSM treated empirically for syphilis but subsequently were found to have negative microbiological tests. Introduction of validated, specific and sensitive point of care testing will prevent delaying treatment and the potential increase in transmission.

P002 What do UK sexual health clinicians think about saliva as a transmissible vector for Neisseria Gonorrhoeae?

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Abstract

Introduction: Oropharyngeal gonorrhoea (GC) is usually asymptomatic, and is an important reservoir of GC and potential contributor to the development of antimicrobial resistance. BASHH guidelines recommend all men who have sex with men (MSM) are offered testing from extra-genital sites, irrespective of sexual history. Recent evidence demonstrates that GC may be transmitted via oral sex, kissing and saliva when used as lubricant for anal sex, and that mouthwash may treat GC and prevent transmission.

Methods: We conducted an anonymous online survey between August and September 2018 of sexual health clinicians to ascertain current practice, knowledge and expert opinion about saliva and oropharyngeal GC in MSM.

Results: A total of 127 responses were received, primarily from sexual health consultants (55.1%), other doctors (26.7%), nurses (10.2%) and health advisors (4.7%). Most respondents reported feeling confident in providing advice regarding oropharyngeal GC and no barriers to testing. A minority reported not routinely testing all MSM. 55% believed saliva could be a transmissible vector of GC during oral sex and/or when used as lubricant for anal sex. 28% believed this was the case for kissing. 24% reported discussing with patients the possibility of transmission via kissing and 18% did so for use of saliva in anal sex. 12% reported routinely providing advice regarding mouthwash as an aid to prevention.

Discussion: There is increasing evidence suggesting saliva as a transmissible vector of GC, although further studies are needed to establish a definitive link. Clinicians should consider this within consultations and when discussing risk-reduction strategies.

P003 Service Evaluation of the newly introduced 'Quick Test' service (express STI testing) within a large urban sexual health service

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Abstract

Introduction: The "QuickTest" service (Express STI testing) was introduced to 3 sites within a large urban Sexual Health Service in 2017 to address the increasing demand of STI testing in an area with no access to online STI testing services. The testing pack contains a registration form and self-taken swabs or urine collection for self-declared asymptomatic patients aged over 18. The packs are processed by band 3 support workers and results generated by text message. No face to face consultation occurs in the process.

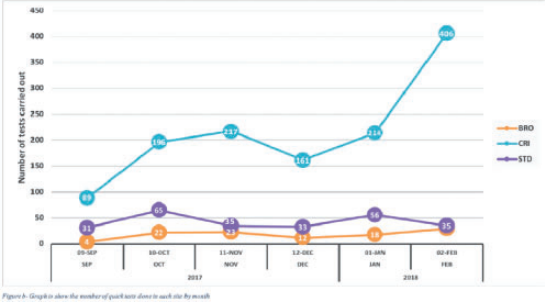
Methods: Data was obtained by the SHHAPT coding system and analysed based on multiple demographics between September 2017 and February 2018. Data was analysed and submitted to the Department and towards undergraduate medical students 'student selected module'.

Results: 1648 tests were processed in this time period, of which 61.4% were undertaken by those aged 18–22. 143 tests were positive for Chlamydia (8.9% positivity rate, cf 10% rate nationally). 79% of chlamydia infections in under 25-year olds. 3 patients had gonorrhoea (0.4% positivity rate cf 1% rate nationally) and 4 patients had both infections. 100 users returned to do multiple tests during this time frame, however only 23 had a positive result. On average 400 extra Chlamydia and gonorrhoea tests are processed each month via the "Quicktest" service.

Discussion: Overall, "QuickTest" has increased access for patients wanting STI testing in an express streamlined

process and the feedback has been highly regarded with patient recommending it Future development ideas that are currently being considered include adapting the process to involve a blood test for HIV/Syphilis and Hepatitis and placing the tests in areas of high risk populations such as Universities.

Demographic		%
Gender	Female	58.7
	Male	41.3
Age	<18	0.8
	18-22	61.4
	23-27	22.5
	28-32	6.9
	33-37	3.9
	38-42	1.9
	43-47	1.4
	>48	1.1
Sexual Orientation	Heterosexual	88.7
	Homosexual	1.6
	Bisexual	2.2
	Not known	7.5
Site accessed	CRI	78
	BRO	7
	STD	15
Ethnicity	White British	60.8
	Not Known	31.9
	Any other ethnicity	6.55
	Black - other	0.61
	Chinese	0.18



P005 Memory problems in elderly patients with low RPRs: Is investigation and management of possible neurosyphilis something to forget?

Natasha Hazlerigg Bell
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Abstract

Introduction: Neurosyphilis is severe and complex complication of syphilis (1) and is thought not to be adequately detected in the elderly population (>65 years). A prevalence of 0.133% has been suggested (2). Investigation and treatment for neurosyphilis comprise of CT/MRI head scanning and lumbar puncture (LP) followed by either 14 days of IV Benzylpenecillin or 4 weeks of Doxycycline 200 mg BD (3). Patients can be treated empirically if neurological signs but they refuse LP.

Method: Cases are collected from the syphilis clinic at St Mary's Hospital, a tertiary syphilis referral centre.

Results: In three months, five elderly patients with memory problems were diagnosed with a positive syphilis test by their GPs on dementia screening. Four patients had RPRs of 1:2 or less and all had no memory of having symptoms of syphilis. All were frail and two did not have any support.

Two patients were deemed unable to tolerate investigation or treatment, one underwent LP which was negative and two declined LP but opted for empirical treatment with monitoring and support from their GPs.

Discussion: Each case must be discussed and treated individually, however patient circumstances and frailty must be considered prior to offering LP or high dose Doxycycline. The practicalities and feasibility of investigation and treatment and the possible side effects of treatment must be weighed against the possible advantages, particularly since an extremely small number of patients investigated will be found to have neurosyphilis. Treatment can involve hospital admission with associated deconditioning and the subsequent problems with getting the patient home again and high dose doxycycline is not tolerated well particularly in the elderly with side effects of dyspepsia, abdominal pain and nausea and puts the patient at increased risk of C. Difficile infection. No investigation or treatment must be considered a viable option for these patients.

P006 Pharyngeal chlamydia screening – should we be offering to young women as well as men who have sex with men?

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Abstract

Introduction: Highly sensitive and specific nucleic acid amplification testing (NAAT) have enable screening of Chlamydia Trachomatis (CT) at extra genital sites. Pharyngeal infections are thought to be a potential reservoir for infections and may be a risk for increasing antibiotic resistance. Current STI testing guidelines focus on MSM with regards extra genital site testing yet the highest burden of Chlamydia is amongst young people. Since 1/01/17 our service introduced routine pharyngeal screening for MSM and other high risk groups according to sexual

history: sexual assault, sex worker, gonorrhoea contact, young people (under 25), single (oral) site of unprotected sex. Our aim was to review practice and determine prevalence of pharyngeal CT in those screened.
Method: Review of electronic patient records for patients receiving a positive pharyngeal CT result 1/1/17 to 31/12/18, total 78 patients. Gender, sexual orientation, age, sexual behaviour, sites tested and co-infection were recorded.
Results: 2.4% (30/1273) women and 1.7% (48/2875) MSM screened tested positive for pharyngeal CT. Women were younger (80% under 25, MSM 31% under 25). All, except 1 woman had genital testing, in addition 85% MSM had rectal testing. 14 women and 28 men tested positive at the pharynx alone. Overall 28% (14 men and 8 women) also received a positive test result for Gonorrhoea at one or more of the sites tested.
Discussion: Although more infections were detected among MSM due to the greater numbers tested, pharyngeal CT prevalence was highest amongst young women. Within the audit population genital testing alone would have resulted in 50% of pharyngeal infections remaining untreated. We recommend that an offer of pharyngeal chlamydia screening be made to young women as well as MSM.

P008 Sex with bisexual men – a risk factor for infectious syphilis among British women?

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Abstract
Introduction: Syphilis diagnoses have increased across the UK in recent years. A local outbreak in 2016 predominately involved men who have sex with men (MSM), with 20% of diagnoses were in bisexual or heterosexual (HS) men. This raised concern regarding the risk to women, who had not been a focus of prevention efforts as part of the outbreak.
Method: Retrospective review of electronic patient records for those women receiving a new diagnosis of syphilis between 1/1/2016 – 31/12/18. Age, ethnicity, sexual partners, treatment and partner notification (PN) details were recorded.
Results: 31 cases identified 11 early infectious syphilis and 20 late latent infections, 11 referred following antenatal screening. 14 women were from overseas: 6 Romanian, 1 Polish, 1 Lithuanian, 1 Moldovan, 3 African, 1 Jamaican, and 1 Turkish. Of the 17 British women, 7 disclosed male sexual partners who had previously had sex with men, 4 women had HS male partners who disclosed other female partners and 6 women had male HS partners whose details were unknown. Full adherence to an appropriate treatment regime was achieved in 97%. One neonate required assessment for congenital syphilis following poor maternal compliance with treatment. 36 contacts were given, 19 of these were subsequently confirmed as attending the service.
Discussion: 45% (n = 14) of women diagnosed with syphilis were from overseas, all but one having late latent disease, with Eastern European countries accounting for 57%. Importantly we identified 11 cases of infectious syphilis over 3 years compared with only 1 case in 2015. 10 cases were in young British women of whom 40% disclosed a male bisexual partner. We speculate that syphilis diagnoses amongst women in the future may be influenced by both trends amongst MSM and EU migration affecting representation of these ethnic groups in our local population. Prevention activity needs to include women and antenatal screening remains important.

P009 Local Neisseria gonorrhoeae susceptibility testing and reporting practice

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Abstract
Introduction: British Association for Sexual Health and HIV (BASHH) guidance recommends ceftriaxone as first line treatment for Neisseria gonorrhoeae (NG). As cases of multidrug resistant NG are identified in the UK, clinicians' use of alternative antimicrobials is likely to increase. Informed decisions about patient treatment are based on laboratory reporting.A survey of NG susceptibility testing and reporting practice in laboratories across the northwest of England was completed.
Methods: A questionnaire was sent to northwest regional laboratories in November 2018.
Results: Six out of 9 laboratories responded.

Azithromycin disc susceptibility testing is done by the majority of laboratories (5/6) with 60% (3/5) using in-house minimum inhibitory concentration (MIC) testing and 40% (2/5) referring isolates to Public Health England (PHE) reference laboratory for MIC testing. All

laboratories refer isolates with reduced susceptibility to cefuroxime/ceftriaxone and high level resistance to azithromycin to PHE. Table 1 shows agents routinely tested and reported regionally. All laboratories (6/6) report isolates with reduced susceptibility to cefuroxime/ceftriaxone and most (5/6) report both resistant and intermediate azithromycin isolates to clinicians. Azithromycin reporting nomenclature varies i.e. "sensitive/intermediate/resistant" or "sensitive/resistant". MICs are not routinely reported. Trust antibiotic guidance for NG management was reported by 50% (3/6) of laboratories.

Discussion: Regional consistency is seen in management of cefuroxime/ceftriaxone reduced susceptibility and high level azithromycin resistance. Standardisation of routine testing and reporting antibiotic susceptibilities with links to BASHH guidance and developing resistance patterns may better inform clinical practice.

Table 1

Agents	Laboratories testing routinely testing agents as first line for GC	Laboratories routinely reporting agents to clinicians
Total number of northwest laboratories responding to questionnaire	6	6
Azithromycin	6	6
Penicillin	6	6
Ceftriaxone/Cefuroxime	6	6
Tetracycline	6	5
Ciprofloxacin	5	5
Cefixime	3	3
Cefotaxime	3	0
Nalidixic acid	2	1
Spectinomycin	2	1
Gentamicin	0	0

P010 MYCOPLASMA HOMINIS-MENACE OR MICROBIOME?

Owen Spiller[1], Daniel Morris[1], Christopher Rees[1], Keith Morris[2], Rebecca Davies[3] and Lucy Jones[3,1]

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Abstract

Introduction: *Mycoplasma hominis and Mycoplasma genitalium* belong to the Mollicutes class of bacteria. *Mycoplasma genitalium* is associated with urethritis, cervicitis, fetal chorioamnionitis and adverse pregnancy outcome (De Francesco et al., 2009; Horner et al., 2001; Kafetzis et al., 2004; Lu et al., 2001; McGowin and Anderson-Smits, 2011).

However, testing patients for *Mycoplasma hominis (M.hominis)* has not been recommended, as it was thought that asymptomatic carriage of these bacteria is common. However, advanced diagnostics and larger studies have brought new evidence to light that suggests this may not be entirely accurate. The MYCO WELL D-ONE study, was the first large prospective clinical study in the UK using molecular/culture methodology to detect *M.hominis* in genitourinary samples and their antimicrobial resistance.

Methods: Ethics for this study was granted (IRAS ID:230693 and IRAS ID:253889), 1000 participants recruited and vulvovaginal swabs/urine samples collected. Samples were processed for investigation by culture/molecular methods. Antibiotic resistance tested using CLSI guidelines. Clinical notes of participants were retrospectively examined. Clinical/Sexual behavioural parameters for each participant were recorded and collated with *M.hominis* test results and statistical analysis was performed.

Results: Data analysis showed very low prevalence of *Mycoplasma hominis* in male patients, 4.26%.

In female patients the prevalence of *Mycoplasma hominis* was also low, 16.6%.

Almost all male patients with *Mycoplasma hominis* were symptomatic (94.1%). The most common symptom was dysuria.

97.6% of female patients with *Mycoplasma hominis* were symptomatic. Commonly symptoms were vaginal discharge.

Discussion: The very low prevalence of *M.hominis* infection in male patients suggest it is not a commensal.

As a high percentage of males positive for *M.hominis* were symptomatic (94.1%), this suggests that *M.hominis* may be pathogenic.

The low prevalence of *M.hominis* infection in female patients suggest that it is not a vaginal commensal.

A high percentage of female patients positive for *M.hominis* were symptomatic (97.6%). This suggests that *M.hominis* may be pathogenic in the GU tract.

P011 Trichomonas Vaginalis Molecular Detection in Women- From validation to routine Practice. A first for Scotland

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Abstract
Introduction: Trichomoniasis is caused by the parasitic protozoan *Trichomonas vaginalis (TV)*. Symptoms in women include an offensive discharge with vulvovaginitis but asymptomatic infection is common.
Most clinics and laboratories use various microscopic techniques such as wet mount preparation and a variety of staining methods to detect TV.
These techniques, though easy to perform are time consuming and influenced by various factors reducing their sensitivity.
Methods: We conducted a pilot study comparing testing for TV by microscopy with molecular Nucleic Acid Amplification Test (NAAT) using Becton-Dickinson ProbeTec™ QxAmplified DNA Assay using Strand Displacement Amplification (SDA). All genital samples from women were processed for Chlamydia Trachomatis, Gonorrhoea and TV simultaneously as a triplex test. Samples positive for TV by SDA were processed by an alternative method to determine whether they were a true positive. If a charcoal swab was received, this was examined by microscopy for TV and where positive, was reported as present. If no charcoal swab was received or if positivity could not be determined by microscopy, then the BD Probetec diluent was sent to an independent laboratory for TV PCR by a UKAS accredited in house method.
Result: A total of 4021 samples were tested for the presence of Trichomonas vaginalis by SDA. The method detected 31 positives of which one was unconfirmed and 30 were confirmed positive either by microscopy in the laboratory or by an alternative NAAT. Routine microscopy alone detected 14 positives and missed 7. The other 10 samples did not have charcoal swabs submitted suggesting individuals were asymptomatic as laboratory protocol requests a charcoal swab in all females with a discharge so no microscopy was performed. These samples were confirmed as positive by an independent laboratory.
Discussion: Results indicated higher sensitivity of NAAT testing compared with microscopy. NAAT testing for TV has been successful in increasing the detection of asymptomatic infection.

P012 Staff, Associate Specialist & Specialty (SAS) Doctors' National Audit on the Management of Non-Gonococcal Non-Chlamydial Urethritis (NGNCU)

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Abstract
Introduction/Aims: 1. To determine adherence to auditable outcomes in the 2015 BASHH NGU Guidelines. 2. To assess the degree to which objective diagnostic criteria are used in the diagnosis of NGNCU.
Method: SAS Doctors on the BASHH database were invited to participate. Each participant was asked to submit a minimum of 20 cases of males aged over 16 years with a GUMCAD diagnostic code of C4N and complete an online audit tool. The auditable time frame was 1/9/17–31/8/18.
Results: 3423 data entries were submitted representing 86 sexual health services across the UK. The median age group was 25–34 years (41.5%). 86.2% were first presentations.
Results for BASHH auditable outcomes:

1. Patients with NGU should be screened for Chlamydia and gonorrhoea. Target 97%. Audit result:97.8%

2. Patients with NGU should receive first-line treatment or reasons for not doing so documented. Target 97%. Audit:95.8%.

3. Patients with NGU should have a documented oer of written information. Target 97%. Audit:35.6%

4. Patients with NGU should have partner notification (PN) carried out in accordance with the BASHH statement on PN. Target 97%. Audit:76.2%

95.2% of patients were examined. Diagnosis by the findings of neutrophils on microscopy was 87.7%.3.1% of patients received treatment without either urine dip or microscopy performed.
Mycoplasma testing was undertaken in 8.4% of which 26% were positive.
Discussion: Only one of four auditable outcomes was reached. A missed target for first-line treatment is concerning in an era of anti-microbial resistance. Poor results for provision of written information could be due to poor documentation, but for PN may indicate a knowledge gap

or reluctance to treat partners in absence of a proven microbe.
BASHH guidance advises against empirical treatment. A small but significant group received anti-microbials without objective diagnostic criteria. There is a strong case for increasing Mycoplasma testing.

P013 Performance of Gonorrhea culture using Amies swab and culture plates: In-house comparison

Venkateshwaran Sivaraj, Azraan Ahamed, Ruslan Artykov and Anatole Menon-Johansson
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Abstract
Introduction: Performing gonorrhea culture is an essential part of clinical management of gonorrhea. Sexual health clinics in our trust perform direct plating of specimen on gonorrhea culture plates at the central clinic (Burrell street) and Amies transport swabs at satellite clinic sites. A quality improvement project was conducted to look at performance of direct plating method and Amies transport swab in yielding a growth from N gonorrhea NAAT positive sites.
Methods: A retrospective review of all gonorrhea cultures performed during the month of February 2018 at our sexual health clinics were analysed for the site of gonorrhea NAAT positivity, culture plate and transport medium used and growth of N gonorrhea on culture in the laboratory.
Results: A total of 164 cases of gonorrhea were included (128 Male, 36 Female) for the study.
Among male urethral gonorrhea culture samples (n = 41) collected from confirmed urine NAAT positive cases, 13 (86.6%) out of 15 directly plated samples and 18 (69%) out of 26 Amies swab samples grew N gonorrhea.
Among endocervical gonorrhea culture samples (n = 21), 8 out of 8 directly plated samples (100%) and 8 out 13 (61%) Amies swab samples grew N gonorrhea.
17 Rectal gonorrhea culture samples were sent. 7 (77%) out of 9 directly plated culture and 2 (25%) out of 8 Amies swab grew N gonorrhea.
18 Pharyngeal Gonorrhea culture were sent. 2 (18%) out of 11 directly plated sample and 1 (14%) out of 7 Amies transport swab grew N gonorrhea.
Discussion: Direct plating on culture plate performed better than Amies transport swabs for both Urethral gonorrhea and endocervical sample. Gonorrhea culture was known to have sensitivity between 85–95% for urethral and endocervical specimens in most laboratories in UK (BASHH). This performance is achieved only on direct culture plating in our clinics.

P014 Neisseria gonorrhea resistance profile in a central London sexual health clinic cohort

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Abstract
Introduction: Performing Neisseria gonorrhea culture from NAAT positive sites along with antibiogram is a requirement for clinical management of gonorrhea infection. Stat dose of Azithromycin for chlamydia and as an adjunct for Ceftriaxone for gonorrhea infection was not widey used as a first line choice in our trust even before the recent changes in BASHH guidelines. Analyses of antibiotic sensitivity of our clinic gonorrhea culture isolates in comparison with national data (GRASP,2016) would help in understanding the local epidemic.
Methods: Gonorrhoea culture samples sent to the lab from sexual health clinics of our trust during the month of February 2018 were analysed for antibiotic sensitivity results and compared with the national data from GRASP (2016).
Results: A total of 89 culture specimen from our clinics grew N gonorrhea and antibiotic sensitivity test was performed on all samples. 100% of isolates were sensitive to Ceftriaxone and Spectinomycin, 98.8% (n = 88) isolates were sensitive to Azithromycin, 63.3% (n = 57) isolates were sensitive to Ciprofloxacin and 41% (n = 37) were sensitive to Doxycycline.
On comparison with GRASP data (2016) of national gonococcal isolates sensitivity pattern in England and Wales, our clinic cohort had a better sensitivity for Azithromycin (98.8% vs. 95.3% of GRASP), Similar sensitivity for Ceftriaxone (100%) and Ciprofloxacin (63.3% vs. 66.3% of GRASP) and lesser sensitivity to Doxycycline (41% vs. 59.1%of GRASP).
Samples from heterosexual population (n = 29) had better sensitivity to Ciprofloxacin than MSM population (n = 60) (72% vs. 62%).
Discussion: N gonorrhea isolates from our clinics differed from national sensitivity data (GRASP 2016) for Azithromycin and Doxycycline. Higher sensitivity for Azithromycin and lesser sensitivity for Doxycycline of our clinic N gonorrhea isolates reflects local antimicrobial

pressure on our clinic cohort. Further studies are needed to investigate similar observations in other clinics.

P015 Disparity in antibiotic resistance profile between N gonorrhea isolates cultured from different sites of MSM

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Abstract
Introduction: Sporadic cases occurred in our clinics among MSM with isolates of gonorrhea cultured from different exposed sites exhibiting dissimilar antibiogram. We investigated the implications of such results in clinical management of gonorrhea.
Methods: Retrospective data of gonorrhea cases identified among MSM in the month of February 2018 and July 2018 were reviewed. Individual cases with isolates from different anatomical sites expressing different antibiogram were included for the study and analysed for their demographics and differences in antibiogram.
Results: Out of total 194 cases, 5 were eligible for the study (Mean age 30 years, 3 symptomatic at urethra, 2 asymptomatic). All men had multiple partners (Range 2 to 16) in 3 months prior to the diagnosis. All 5 men had their gonorrhea culture sample taken from urethral and oropharynx and 4 of them had rectal swab performed. All urethral swabs, 4 throat swabs and 3 rectal swabs grew Neisseria gonorrhea on culture.
3 men had isolates with different antibiotic sensitivity in urethra and oropharynx. Among them, one case had ciprofloxacin resistant gonorrhea in oropharynx which differed from his urethral ciprofloxacin sensitive isolate. One man had azithromycin resistant isolate in oropharynx which differed form azithromycin sensitive isolate from his urethra. There was one case of ciprofloxacin resistant isolate from urethra which differed from ciprofloxacin sensitive isolate from his throat.
There were 2 cases of differing antibiotic sensitivity among rectal and urethral isolates in respect to sensitivity to Doxycycline.
Discussion: Isolation of gonorrhea expressing different antibiotic sensitivity at different sites from the same individual could be due to infection from different source or individual isolate variations. This has clinical significance when considering quinolones and Azithromycin for treatment. This observation re-emphasizes the importance of obtaining culture from all exposed sites among gonorrhea positive individuals as isolates can exhibit different antibiotic sensitivity at different sites.

P016 Epididymitis and its etiologies : A central London clinic cohort review

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Abstract
Introduction: Epididymorchitis is a common cause of testicular pain presentation in sexual health clinics. A review of etiologies causing epididymitis in our clinic cohort was conducted to understand this epidemic for better clinical management.
Methods: We conducted retrospective data analysis of all cases of epididymitis diagnosed from January 2018 to December 2018 in our trust sexual health clinics for age, sexuality, investigations conducted, pathogen identified and symptom resolution on two weeks follow up. Epididymitis symptoms were presumed to be resolved if patient did not attend his 2 weeks clinic follow up.
Results: A total of 127 cases of epididymitis (Mean age 32 years, Heterosexual 97, MSM 30) were diagnosed in our trust sexual health clinics in 2018. Among them 24 cases (18%) of sexual transmitted infection (<35 years $n=14$; >35 years $n=10$) were diagnosed. There were 10 cases of chlamydia, 8 Gonorrhoea, 7 Non gonococcal urethritis, 3 Syphilis, 1 LGV and 1 Trichomonas vaginalis. There were 3 cases of urinary tract infection and 1 epididymal cyst diagnosed.
89 (70%) of them had a urine dipstick test performed and 54 (42%) had MSU sent as a part of investigation. 3 grew urinary tract pathogen on MSU culture.
All were treated with antibiotics recommended by BASHH guidelines. At 2 weeks follow up post treatment 12 (9%) were symptomatic and 91% did not attend for follow up.
Discussion: Sexually transmitted infections were causative of epididymitis only in 18% of our study cohort. This is a significant information during counselling of patients diagnosed with epididymitis. Urinary tract pathogens and other non infective causes should be explored when STI tests are negative.

P017 Mycoplasma Genitalium Testing and Treatment Pilot in Sexual Health Clinics in the East of England: Presentation of Data from March 2018 to August 2018. Is Azithromycin the correct first line regime and does empirical Doxycycline make a difference in treatment outcomes?

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Abstract

Introduction: We present pilot data from March to August 2018 for Peterborough, Cambridge, Huntingdon and Norwich iCaSH clinics for the testing and treatment of Mycoplasma Genitalium (MG).

Methods: Contacts of MG, males with NGU, and females with PID and/or Cervicitis were MG tested, treated as appropriate, recalled for a test of cure (TOC) at 4 weeks and if required given second line treatment.

Results: Excluding TOCs 713 tests for MG were carried out. 120 (16.8%) were positive for MG, of these 71 (59%) were males presenting with NGU, and 26 (21%) female MG contacts.

120 individuals tested positive for MG, 109 (91%) returned for treatment. 104 were treated with 5 days of Azithromycin as first line treatment. Of those treated with Azithromycin, 79 (76%) returned for a TOC and of these 34 (43%) were cured as evidenced by a negative TOC with 45 (57%) remaining MG positive.

The table below shows the time in days between the end of empirical Doxycycline treatment (If given) and the commencement of Azithromycin treatment for MG stratified by TOC result.

Doxycycline	Positive TOC	Negative TOC
No Doxycycline	13 (29%)	10 (29%)
Day 0	13 (29%)	10 (29%)
Day 1–4	7 (16%)	4 (12%)
Day 5–7	2 (4%)	2 (6%)
Day 8–21	6 (13%)	6 (18%)
>21 Days	4 (9%)	2 (6%)

Of the 45 individuals with positive TOCs 37 (82%) were treated with Moxifloxacin with a 100% cure rate in those who returned for a TOC.

Discussion: There was a poor treatment response to 5 day Azithromycin. In addition pre-treatment with Doxycycline did not increase Azithromycin treatment success.

Contrastingly Moxifloxacin had a 100% cure rate and may be a more appropriate first line antibiotic.

We switched to the BASHH recommended treatment regimes in August 2018, we will analyse to see if 3 day Azithromycin is more successful.

P018 Managing chlamydia contacts: should clinics implement a test and wait process as recommended for gonorrhoea?

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Abstract

Introduction: BASHH standards for partner notification recommend epidemiological treatment for all chlamydia contacts during the look back period. The 2019 BASHH guidelines for gonorrhoea now recommend a test and wait process for those presenting after 14 days of exposure. Some UK sexual health clinics and Brook (a UK charity providing sexual health care to those <25 years old) now follow a similar test and wait process for chlamydia contacts. The aim of this evaluation was to determine the potential impact of implementing such a process for chlamydia contacts <25 years at our clinic.

Method: For this retrospective service evaluation of all chlamydia contacts aged <25 years presenting to a UK level 3 sexual health service between 01/12/17-30/11/18, patients were identified using the GUMCAD code PNC. Demographic and clinical characteristics data were collected from the electronic patient records.

Results: For 275 chlamydia contacts aged <25 years seen in the 1 year evaluation period, chlamydia prevalence was 52.0% (143/275). Prevalence was 54.1% (86/159) in those presenting within 14 days of exposure prevalence and 48.8% (41/84) in those presenting after 14 days of exposure ($p = 0.43$). It was not possible to determine time since exposure in 32 patients. There were no significant differences in chlamydia prevalence between women 54.4% (56/103), heterosexual men 52.3% (79/151) and men who have sex with men 38.1% (8/21, $p = 0.39$). All patients were offered epidemiological treatment which was accepted by 97.5% (268/275) patients.

Discussion: Chlamydia prevalence in contacts aged <25 years is high. Not giving empirical treatment to

contacts presenting after 14 days of exposure would result in 14.9% of the cohort needing to return for treatment once results were available. Epidemiological treatment is accepted by the vast majority of chlamydia contacts. Antibiotic stewardship benefits in avoiding unnecessary antibiotics must be balanced against potential risks for transmission, complications and cost.

P019 Burgers, Bars and Benzathine – Local Syphilis for Local People

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Abstract
Introduction: Early syphilis rates continue to rise, the epidemic has been mainly seen in MSM, accounting for 78% of early syphilis diagnosis in 2017 in the UK, with only 6% of diagnosis in women. We have noticed a significant increase in the number of heterosexual clients presenting with early syphilis in Lincolnshire.
Methods: We identified the early syphilis outbreak in a low risk, low prevalence population. This prompted a retrospective review of all cases and a continuing proactive analysis of new cases in 2018. We looked at contacts, networks, mode and location of meeting partners to identify emerging behavioural patterns and themes within the cohort.
Results: In 2017 there were 48 cases of early syphilis in Lincolnshire, 54.1% reported as heterosexual, compared to 16.7% from UK figures. This trend continues into 2018 with the first 3 quarterly figures showing 56.6% of cases in heterosexuals.
Though small numbers (n = 10) there has been a 400% rise in early syphilis in women from 2013 to 2017 compared to 181% increase in the East Midlands over the same time period, thus suggesting a local situation.
There was no evidence of risk factors regarding group sex, CSW or foreign travel. These cases were seen in a network of heterosexual white British clients with a low number of sexual contacts. Cases linked to internet dating, specific nightclub and a fast food chain carpark.
55% (11/20) had multiple painful ulcers, misdiagnosed on initial presentation. 2 clients were asymptomatic screens with no contact history.
Discussion: This outbreak has triggered a specific campaign to target this perceived low risk group, highlighting the potential seriousness and increase in frequency of syphilis in Lincolnshire.
With continued pressures to streamline services and care including tests offered, ignoring syphilis in low risk groups could potentially have serious consequences.

P020 Unable to stay on pointe. Neurosyphilis following adequate treatment for secondary infection

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Abstract
Background: The UK recommendation for management of uncomplicated early syphilis infection is a single dose of intramuscular benzathine penicillin, followed by serial serological testing to confirm treatment response. We present a case of an HIV negative MSM who developed neurosyphilis following appropriate treatment for secondary syphilis in the absence of new sexual exposure.
Case: A 45yr old retired ballet dancer presented to the GP with binocular diplopia, loss of balance and worsening sensory disturbance to his bladder, lower limbs and face progressing over a 10-month period. He gave a history of secondary syphilis treated 28 months prior at a different genitourinary medicine (GUM) clinic with intramuscular benzathine penicillin, with subsequent satisfactory serological response following which he was discharged. He denied any sexual contact following that diagnosis.
He was assessed in ophthalmology, neurology and urology clinics, however no further investigation for syphilis were performed. The patient requested repeat testing for syphilis which showed RPR 1:32, a 4-fold rise from his post treatment titre. He was referred to the GUM clinic where he underwent an STI screen, imaging and lumbar puncture. CSF results showed: 45 white cells/cmm, protein 1.18 and RPR 1:4, TPPA 1:2560, with paired serum RPR of 1:256. STI screening including HIV serology was negative. The MRI brain and spine suggested mild myeloradiculitis with enhancement of third and fifth cranial nerves. He was treated with 3 doses of daily prednisolone and 14 days of intravenous benzylpenicillin 2.4g every four hours, and received neurological physiotherapy. He reported significant improvement in his balance at completion of treatment however continued to experience significant sensory disturbance. He has been referred for immunological assessment.
Discussion: This case highlights the importance of considering recrudescence of syphilis in the differential

diagnosis for patients presenting with suggestive symptoms despite apparent adequate past treatment and absence of new risk for syphilis infection.

P021 An Audit of Molecular Trichomonas vaginalis testing – The experience of a Sexual Health Service in Scotland

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Abstract
Introduction: Trichomonas vaginalis (TV) is a flagellated protozoan which is transmitted sexually and can cause offensive discharge with associated vulvovaginitis in women and dysuria and urethritis in men. A significant proportion of infection, however, is asymptomatic. Traditionally, wet preparation microscopy of vaginal discharge in sexual health clinics and various staining methods have been used by laboratories to diagnose infection. These methods require highly skilled staff, are time consuming and lack sensitivity. Commercial molecular testing methods can improve detection rates, particularly in asymptomatic cases. These tests are simple to use and can be carried out by lower grades of staff.
Methods: Data will be presented from a teaching hospital which has been performing routine molecular Nucleic Acid Amplification Test (NAAT) method of detection on all female genital swab specimens sent for sexual infection testing since July 2017 using the VIPER Qx (BD) machine. The test for TV runs as a triplex along with chlamydia and gonorrhoea.
Results: 44230 samples were tested between 29/07/17 and 31/01/19, two thirds of which were from General Practice 12494 (28%) were from the sexual health service. 433 individuals tested positive for TV giving a total prevalence of infection of 1% with 118 (27%) of these coming from sexual health, showing the positivity rate was no higher in this cohort. Demographic data will be presented along with symptoms and treatment outcomes for all individuals diagnosed with TV. The prevalence of co-infection with Chlamydia and/or Gonorrhoea will also be determined.
Discussion: Molecular testing for TV is a sensitive and convenient method for screening female genital swabs for TV infection in combination with screening for Chlamydia and Gonorrhoea. It has superseded traditional lab based testing methods that are both labour intensive and lack sensitivity.

P022 Double Trouble: Disseminated Gonococcal infection and Primary HIV infection: changing the epidemiology of DGI in England?

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Abstract
Introduction: With the increasing incidence of gonococcal infection in MSM, still a most-at-risk group for new HIV, changing patterns of clinical presentation and epidemiology of DGI (lacking the classical DGI triad and male-predominant) may now be seen in England, as has been reported elsewhere in Europe.
We present two cases of MSM presenting with DGI (one was proven, one was probable as no joint aspiration done) and Primary HIV within one year at a provincial English city.
Cases: Case 1: A 24 year old MSM who made multiple attendances to GP and the Emergency Department with a small abscess at the flexor tendon of the left great toe which failed to respond to systemic antibiotics. Abscess aspirate grew a sensitive N. gonorrhoea. Sexual health screening confirmed urine and pharyngeal NAAT GC only positivity and Primary HIV with a history of recent seroconversion illness.
Case 2: A 26 year old MSM recently moved to the UK a month after a Primary HIV diagnosis in the US. On registering for HIV care, he complained of an acute monoarthritis affecting the left knee. Sexual health screening confirmed urine and rectal NAAT GC only positivity and rheumatology ultimately chose not to aspirate with clinical resolution in response to 7 days intramuscular injection of 1 g Ceftriaxone.
Discussion: We note the typical lack of mucosal gonococcal symptoms in our DGI cases and postulate that Primary HIV seroconversion lymphopenia may enable the bacteria to overcome host immunity and disseminate. Extensive drug-resistant (XDR) gonococcal cases identified in England further sharpen the concern regarding potential complications from disseminated disease.

P023 Mycoplasma genitalium: A year in a Rural Sexual Health Service

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Abstract

Background: *Mycoplasma genitalium* (MG) has been understood to be a cause of urethritis and associated with Pelvic inflammatory disease for some time. However, widespread technology for its testing has only recently become available, leading to BASHH issuing guidance about who to test in 2018. Our service covers a rural population of approximately 500,000 people and we wished to understand the profile of people who had been tested for MG in the previous twelve months.

Methods: Our electronic patient record was searched for all patients over twelve months who had had an MG test performed. The notes were then reviewed to look at the characteristics and symptoms of those who had been tested, as well as previous antibiotic use.

Results: 28 records were returned as having had an MG test, of which 21 (75%) were negative, and 7 (25%) were positive. In the negative cohort, 14 were male and 7 were female. 20 identified as heterosexual and 1 as gay. 20 identified as white British and 1 as Black Caribbean. The most common symptom in men was dysuria (7) and in women dyspareunia (7). 12 (60%) had had previous antibiotics and 8 (40%) had not. In the positive cohort, 4 were men 3 were women. 5 identified as heterosexual, 1 as gay and 1 as bisexual. All identified as white British. 2 were asymptomatic contacts and 5 had symptoms.6 of the 7 isolates were macrolide resistant, and 6 had been successfully recalled and treated with moxifloxacin.

Conclusion: *Mycoplasma genitalium* is an important cause of morbidity. In our very small sample, a quarter of individuals tested were positive, and the majority of those already had macrolide resistance. We wonder if we are looking at the tip of an iceberg.

P024 The prevalence of rectal lymphogranuloma venereum (LGV) infection: a double centre case finding study

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Abstract

Background: The estimated proportion of asymptomatic LGV infection in the UK ranges from 3.8 – 95% and is thought to be higher in HIV positive individuals. Current UK guidelines advise LGV testing in those with rectal symptoms and treatment with three weeks of doxycycline 100 mg bd. Although recent data suggests that one week of doxycycline may be sufficient.

Method: Over a six-month period all chlamydia positive rectal samples from separate HIV and sexual health outpatient clinics were tested for LGV, using real time PCR, regardless of symptoms. The HIV status and symptom profile of each patient was noted.

Results: There were 107 chlamydia positive rectal samples. 28 patients were HIV positive (26%). There were three positive LGV results (2.8%). Of those three patients, one was HIV positive (3.8% of HIV positive cohort [95% CI 0.6 – 17%]) and two were HIV negative (2.5% of HIV negative cohort [95% CI 0.7 – 8%]). All three patients were MSM and were asymptomatic. All three received treatment prior to receiving the positive LGV result. Two patients received 7 days of doxycycline and the other received azithromycin 1g stat. All three had a negative test of cure.

10 of the LGV negative patients had rectal symptoms (9.6%). 16 patients' symptoms were undetermined.

Discussion: LGV remains an uncommon infection. There was no evidence of increased prevalence in the HIV positive cohort. Rectal symptoms were not a useful indicator for LGV infection and all LGV positive patients had a negative test of cure following treatment with a shorter course of antibiotics than is recommended. Given the higher cost of LGV PCR compared to chlamydia NAAT, the authors suggest that it would be more cost effective to pursue test of cure in patients who are treated for rectal chlamydia, rather than testing symptomatic patients for LGV, as the current guidance suggests.

P025 Welsh Sex Superbugs: Large scale prospective study to determine *Mycoplasma genitalium* and AMR prevalence in Wales

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Abstract

Introduction: *Mycoplasma genitalium* (Mgent), the smallest self-replicating bacteria discovered to date, lacks a bacterial cell wall making them inherently resistant to most

classes of antibiotics. The inability to culture makes resistance testing to remaining effective antimicrobials near impossible. Yet globally increasing clinical antimicrobial resistance is apparent.

Methods: Urine and/or swab samples from 1000 patients attending Sexual Health Clinics at CwmTaf University Health Board (IRAS ethics 230693; MycoWell D-One study): 600 female patients (including 122 matched urine/swab samples) and 400 male patients. DNA was extracted from 2ml urine or swab-resuspension saline pellets and interrogated with SpeeDx MG resistance plus to detect Mgent and identify macrolide-resistance mutations. Genomic copy number was determined by primer/probes specific for MgPa gene using qPCR.

Results: 17/600 females (2.8%) were Mgent (+) (range: 140–26,750 genomes/ml) and 11.8% of these contained macrolide-resistance mutations. For matched samples 3 were Mgent (+) for both swab and urine and only 1 was Mgent (+) for swab only. The majority of Mgent (+) patients were symptomatic (asymptomatic unrelated to bacterial load). 13/400 males (3.3%) were Mgent (+) (range: 80–60000 genomes/ml) and 30.8% contained macrolide-resistance mutations and 92.3% were heterosexual males. The majority were symptomatic (no correlation to bacterial load), asymptomatic patients had the highest number of sexual contacts and higher risk sexual behaviour.

Conclusions: Population screening of patients attending walk-in GUM clinics, unbiased by clinical presentation (some attending for routine screening) in one of the most socioeconomically deprived areas in Wales identified an average Mgent infection rate of 3% prevalence with average 20% macrolide resistance rates. No advantage to detection was observed in female swab or urine samples and Mgent was absent from all but one MSM in this cohort. SpeeDx assay Cq shows complete agreement with genome copy/ml determined by new optimised MgPa gene primer/probe set ($R^2 = 0.93$) which was determined by qPCR assay.

P026 Neurosyphilis: A Costly Complication

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Abstract

Introduction: Diagnoses of syphilis in the UK have increased by 150% since 2008. Syphilis infection can cause neurological or ophthalmic complications necessitating parenteral antibiotics and inpatient management. The aim of this study was to determine the burden of complicated syphilis on hospital bed days in the current era.

Methods: A retrospective case note review of all persons treated for neuro/ocular syphilis at a large London level 3 GUM service between Jan 2017 and February 2019 was performed. Data collected included demographics, clinical information, investigations, number of bed days and cost.

Results: 19 persons were treated for neuro/ocular syphilis during the study period. They were male (19, 100%), MSM (16, 84%) with median age of 48 years (range 33–71). 9 (47%) were HIV positive: mean CD4 471cells/ul, mean viral load 229,453 copies/ml, 6 (67%) undetectable. Presenting symptoms included visual or hearing impairment, headache, dizziness, cranial nerve palsy, paraesthesia and hallucinations. Patients presented to the GUM/HIV service (12, 63%), tertiary eye hospital (6, 32%) or other settings (1, 5%). Mean serum RPR was 1:128 (range negative-1:1024). Investigations included CT (14, 74%), MRI (6, 32%), LP (18, 95%): cerebrospinal fluid results were abnormal for white cell count (8, 42%; mean 7.6/cmm), protein (12, 63%; mean 0.56/gL), RPR positive (maximum titre 1:4); TPPA range $<$1:40–1:2560.

Patients were admitted to hospital for a mean of 14 days (range 4–20) to receive intravenous benzylpenicillin. 3 (16%) completed treatment with outpatient intravenous ceftriaxone.

The total cost of inpatient treatment for complicated syphilis during the study period was estimated at £90,000.

Discussion: The burden of complicated syphilis infection on the NHS is significant, and particularly alarming in the context of public health cuts. Open access to specialist GUM services to enable prompt diagnosis and treatment of those at highest risk is critical in the current era.

P027 Determination of the prevalence of Mycoplasma genitalium (MG) and its resistance to macrolide antibiotics in the Cork region of Ireland

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Abstract

Introduction: *Mycoplasma genitalium* (MG) is a sexually transmitted bacteria which is a common cause of non-gonococcal, non-chlamydial urethritis (NCNGU) in males, and urethritis, cervicitis, endometritis, and pelvic inflammatory disease in females. MG is detected in 1%–

3.3% of men and women in the general population, however its prevalence ranges from 10%–35% in men with NCNGU. Treatment failure with azithromycin is common due to high levels of resistance to macrolide antibiotics, therefore concurrent detection of macrolide resistance mutations is optimal for first line treatment.

Methods: Urine (n = 200) samples in cobas PCR media were analysed with a new multiplex quantitative PCR assay, SpeedX ResistancePlus MG with the Roche LightCycler 480 for the combined detection of MG and azithromycin resistance markers. Samples were selected from patients attending GUM clinic in Cork from November 2018 to March 2019, where 5 or more polymorphonuclear leucocytes (PMNLs) were seen per high power microscopic field (averaged over five fields with the greatest concentration of PMNLs) on gram stain of cervical or urethral smears. Samples were previously tested for *Chlamydia trachomatis* and *Neisseria gonorrhoea* by commercial multiplex PCR and positive samples were excluded from MG testing.

Results: Prevalence rate for MG in this population and the percentage resistance to macrolides will be determined.

Discussion: MG is not part of routine STI testing in Ireland. Awareness of MG as an STI is low among clinicians and the general public. The Health Protection Surveillance Centre (HPSC) has no data relating to MG outside of its association rates for non-specific urethritis. This study, which establishes the presence of MG in the population is critical to highlight its importance as a cause of urethritis and cervicitis. SpeedX ResistancePlus MG has been shown to offer a screening approach for selected patients and has the advantage of treatment guidance, one of the main challenges in the management of MG.

P028 Mycoplasma genitalium in recurrent non-gonococcal urethritis (NGU)

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Abstract

Introduction: Mycoplasma genitalium (MG) is well established as a cause of urethritis in men. Testing for MG is not widespread due to cost restrictions. We found a number of patients presenting repeatedly with NGU in our clinic and felt that MG may be the putative cause.

Methods: In May 2016 we introduced a restricted testing protocol (requiring consultant approval) for those patients who had failed to respond to first line treatment for NGU using a urine MG NAAT test from the STRBL service at Colindale.

Results: 86 patients with recurrent NGU were tested between May 2016 and March 2018.

13 patients (15%) had a positive MG NAAT test. Of these patients, 9 patients had extensive histories of NGU (up to 3 years) and extensive prior antibiotic prescribing.

Macrolide resistance testing was implemented in September 2017. There were 6 positive MG NAAT tests between September 2017 and March 2018. Of these 4/6 were macrolide resistant and 1/6 subsequently developed macrolide resistance after prolonged azithromycin treatment and required moxifloxacin for cure.

Test of cure was performed in 8/13 of which 2 were positive due to 1. evolving resistance and 2. inadequate treatment.

Conclusion: 15% of men presenting with recurrent NGU in our cohort had mycoplasma genitalium. Restricting testing to those men who fail first line treatment may represent a more cost effective way of diagnosing MG in these cash-strapped times but also uncovers worryingly high levels of macrolide resistance.

P029 Positively sharing! A way to provide high standards of care for those diagnosed with an STI outside sexual health services

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Abstract

Introduction: There is inconsistent management of sexually transmitted infections (STI) in non-sexual health service (SHS) settings. There have been several incidences of untreated infections and delayed referral into sexual health and HIV service, particularly from antenatal services.

The SHS was fragmented in 2016 as a result of tendering and split between two providers. This raised further concern that pathways to different providers could have an impact on the management of positive results.

A shared drive was set up with Microbiology in September 2017. It was agreed all Chlamydia positives for the Trust and all Syphilis, HIV, Trichomonas and Gonorrhoea positives would be included.

The drive is checked daily. The testing clinician is contacted to support timely and correct treatment and referral into the relevant SHS if necessary. The first full year's data has been analysed 1/1/2018 – 31/12/2018.

Results: 239 patients were logged on the Drive. The majority of tests were in females 188(78.6%). The breakdown of STIs was 105 Chlamydia, 51 Gonorrhoea, 23 Trichomonas, 4 Syphilis and 13 HIV diagnoses.

The positive outcomes were:

1. New HIV diagnoses were either seen within hours of diagnosis or offered an appointment within 7 days.
2. It has safety netted those patients with STIs who failed to walk in to the SHS.
3. Time from testing to treatment has been reduced without the need for written or telephone referrals.
4. Updating tester with regard to current management of STIs/ partner notification.
5. Providing clinical governance for the STI testing clinicians.

Conclusion: The shared drive has been well received by colleagues in both Primary and Secondary care. The effectiveness of the drive will continue to be reviewed and training needs identified to optimise the management of STIs. It has identified STIs diagnosed outside SHS to ensure timely, correct treatment providing a gateway into the service.

P030 Quantifying unnecessary ceftriaxone use in Neisseria gonorrhoeae contacts at a large urban sexual health centre

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Abstract

Background: Antibiotic stewardship is becoming increasingly important, especially in the current climate of antimicrobial resistance and a potentially significant issue emerging for Gonorrhoea in the UK.

Methods: A retrospective case note review was conducted from May-July 2018, to assess how many contacts of *Neisseria gonorrhoeae* (GC) were treated with first line antibiotics (ceftriaxone/azithromycin at the time of review) were outside the recommended window period ($>$ 2weeks) and how many were subsequently negative for GC. These patients could have warranted awaiting test results and potentially avoiding unnecessary antibiotic treatment. Data were collected on gender, HIV PrEP use, window periods and symptoms.

Results: There were n = 305 ceftriaxone prescriptions; of these n = 62 (20%) were subsequently GC negative by Nucleic Acid Amplification Test (NAAT). Of these 62, 61% were men who have sex with men (MSM); 20% were taking HIV PrEP. 19% presented with symptoms requiring immediate treatment, e.g. proctitis. A further 12% were diagnosed with presumptive GC on microscopy and therefore required treatment. 11% of patients were within the window period at the time of presentation and therefore required treatment. A total of n = 31 (50%) presented as asymptomatic GC contacts out with the window period for testing. The majority of these were unverified contacts.

Discussion: Half of those with a subsequent negative NAAT following sexual contact with GC were unnecessarily exposed to antibiotics. Moving forwards, we need to empower staff to feel they can suggest deferring epidemiological treatment and focus on patient education regarding the risks of unnecessary exposure to antibiotics.

P031 Management of Gonorrhoea and Anti-microbial Resistance

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Abstract

Introduction: Gonorrhoea, one of the oldest known sexually transmitted infections is becoming a pathogen of growing concern and significance due to emerging antimicrobial resistance. This audit evaluates the management of gonorrhoea across services in a home county, looking specifically at antimicrobial resistance.

Methods: Electronic case notes of all patients diagnosed with gonorrhoea during a 3 month period (01 July – 30 September 2018) were reviewed. Data was collected, collated and analysed using MS excel.

Results: Fifty four cases; 20 heterosexual women, 16 heterosexual men and 18 MSM were diagnosed with gonorrhoea using the Genprobe NAATs assay. Median age 26 (range 15–68 years). Amongst women, 20/20 (100%) tested positive on vulvo-vaginal swab, 3/7 (43%) oropharynx and 0/1 (0%) rectally. Amongst MSM 5/17 (29%) tested positive on urine, 12/17 (71%) oropharynx and 12/16 (75%) rectal. Amongst heterosexual men, 16/16 (100%) tested positive on urine and 3/4 (75%) oropharynx. Of the 19 cultured isolates, 11 (58%) were fully sensitive (ciprofloxacin, azithromycin, ceftriaxone and spectinomycin), 4 demonstrated ciprofloxacin resistance and 5 had intermediate MIC to azithromycin. Fifty patients attended for treatment and received ceftriaxone, four patients were managed at other clinics. 33/50 (66%) attended for test of cure (TOC) and all were negative.

Discussion: This cohort had a higher number of heterosexuals; 67% vs 50% nationally in 2017. It is reassuring that

all isolates were sensitive to ceftriaxone and all TOC were negative. However 34% of patients did not attend TOC and patients must be encouraged to attend. Sampling rates of extra-genital sites in heterosexuals were low and needs to be increased. Antimicrobial resistance pattern suggests that current BASHH guidelines of using ciprofloxacin when sensitivities are known will be a suitable option for many patients. A re-audit is planned after introduction of the new BASHH guidelines in 2019.

P032 STI events after syphilis diagnosis: one year follow up of a subset cohort

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Abstract
Introduction: There is an ongoing epidemic of syphilis among London MSM cohort. It is known that MSM diagnosed with syphilis are at high risk of HIV infection. BASHH guidelines recommends to do follow up RPR titre after treatment for syphilis until serofast or sustained 4 fold decrease in RPR titre.STI incidence in this cohort of patients on follow up after syphilis diagnosis indicates ongoing high risk sexual practices.
Methods: A subset of patients diagnosed with early syphilis (A1,A2,A3) in our sexual health clinics in the month of September and October 2017 were followed up for 1 year duration for STI events, follow up attendance for RPR at 3,6 and 12 months.
Results: 32 patients were included for the study (32 Male, 31 MSM, Mean age 37 years ; Range 21 to 75 years), 11 were HIV positive.
6 out of 32 patients attended all three follow up visits (3,6.12 months) post treatment, 9 attended two follow up visits, 6 attended one follow up visits post treatment. 15 out of 32 men had serological evidence of syphilis cure at 12 months follow up and 1 out of 32 men did not achieve four fold decrease in RPR at twelve months. Serological evidence of cure was unknown for 16 (50%) out of 32 men.
10 (31%) out of 32 men in our study cohort developed bacterial STI during 1 year follow up (6 chlamydia, 6 Gonorrhoea, 1 LGV)
Discussion: Our study observed high percentage (31%) of bacterial STI for MSM during follow up period post syphilis treatment. There is an opportunity for effective health promotion including PrEP for MSM cohort during their follow up attendance for RPR monitoring at sexual health clinics. There is a low rate of attendance for follow up RPR tests post treatment in our study cohort. Attendance in other GUM/HIV clinics is unknown.

P033 A 12 month review of chlamydia trends at a community contraception clinic in North West London pre and post the introduction of self-testing STI kits

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Abstract
Introduction: At this community contraception clinic, women of all ages are welcome to attend for contraceptive and sexual health advice. Until October 2019, male and female patients aged 24 years or under were offered gonorrhoea and chlamydia testing. Following the introduction of self-testing kits ordered online, testing was offered to those who were deemed vulnerable or required a test prior to an IUD/IUS fitting. Patients aged 16 and 17 were offered the option of seeing a clinician. The following review examines the number of tests and rate of chlamydia infection pre and post the implementation of self-testing kits.
Methods: A notes review of all testing for gonorrhoea and chlamydia between March 2018 and February 2019 was carried out.
Results: The number of tests dropped with the introduction of self-testing kits from an average of 186 tests per month, to an average of 50 tests per month. Interestingly, the positivity rate of chlamydia increased post the introduction of self-testing kits from an average of 9.7% to an average of 12 %.
Discussion: The results demonstrate the need for the clinic to continue to test certain patients based on risk. This includes those unable to use the self-testing kits, for example, patients aged 13–15 years, or those deemed high risk such as patients whose partner has an infection.
An added benefit of the reduction in samples being processed in clinic and results management is that staff have been able to increase their clinical hours allowing more patients to be seen each session.
Overall, the introduction of self-testing has been met positively by patients, especially as the option of collecting the kit in clinic is available.

P034 Role of Mycoplasma genitalium testing in patients with recurrent symptoms

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Abstract
Introduction: M. genitalium belongs to the Mollicutes class, and with a genome of only 580 kilobases in size is the smallest known self-replicating bacterium. Current evidence suggests that the majority of people who are infected with M. genitalium in the genital tract do not develop disease. M. genitalium infection is unequivocally and strongly associated with non-gonococcal urethritis (NGU). Typically, in men with NGU the prevalence of M. genitalium is 10–20% and in men with non-chlamydial non-gonococcal urethritis (NCNGU) is 10–35%[1].
We undertook a review of the positive results for Mycoplasma genitalium infection in our sexual health attendees between July 2016–December 2018.
Methods: We used urine NAAT testing for male patients with recurrent NGU and low vaginal swabs for women with recurrent symptoms suggestive of MG.
Results: Overall there were 11 cases of positive Mycoplasma tests. 6 male and 5 female. All men had been treated for NGU with no response to Doxycycline and subsequent mycoplasma testing proved to be positive. One of the cases had been treated with several antibiotic regimens with no success prior to availability of Mycoplasma testing. They were all re-treated with Moxifloxacin 400 mg OD for 10–14 days with good response to treatment. Out of 5 female patients 2 were Mycoplasma genitalium contacts,2 had recurrent vaginal discharge (with one also diagnosed as positive for Trichomonas vaginalis) and 1 patient had severe cervicitis with PCB and abdominal pain.
Discussion: Mycoplasma genitalium testing proves to be an important part of STI testing in more complicated symptomatic patients. Improved access to affordable testing will optimise the management of symptomatic patients, minimise need for repeat courses of antibiotics and reduce onward transmission.

Reference
1. British Association for Sexual Health and HIV national guideline for the management of infection with *Mycoplasma genitalium* (2018).

P036 Does Being Diagnosed with Chlamydia Trachomatis Result in Increased Risk of Subsequent Bacterial STI Diagnosis? A Longitudinal Analysis of Young Adults in England 2012–2018

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Abstract
Background: Empirical evidence has shown those with a chlamydia (CT) diagnosis to be at risk of reinfection. Infection with a different bacterial sexually transmitted infection (STI) however, has not been extensively explored. Here we determine the risk of gonorrhoea and syphilis amongst young people, following a chlamydia diagnosis at a sexual health service.
Methods: We used GUMCAD STI surveillance system data between January 2012 and September 2016 to separately evaluate subsequent gonorrhoea and syphilis diagnoses amongst first-time CT testers aged 15–24 years in England, over 24-months from first attendance. Survival-time methods were used to derive incidence rates (IRs), and multivariable Poisson regression with random-effects to adjust for age and ethnicity. Analyses were performed separately for men who have sex with men (MSM), heterosexual men, and women. Rate ratios (RRs) and 95% confidence intervals (CIs) are reported.
Results: Amongst 1,891,927 individuals, 10.4% were diagnosed with CT at first attendance. Subsequent gonorrhoea incidence per 100 person-years was higher amongst those CT-positive (IR = 4.75; 4.60–4.91) compared to CT-negative (IR = 2.96; 2.91–3.00). This pattern was observed amongst all sexual orientation groups, particularly MSM. After adjusting for age and ethnicity, MSM with a history of CT were at greater risk of both gonorrhoea (aRR = 1.47; 1.35–1.59) and syphilis (aRR = 1.64; 1.32–2.03) than those CT-negative at baseline. Increased risk of gonorrhoea was also observed for those CT-positive who were heterosexual men (aRR = 1.66; 1.53–1.79) and women (aRR = 2.09; 1.97–2.22). Risk of syphilis amongst CT groups was not significantly different for heterosexual men (aRR = 0.68; 0.44–1.06) and women (aRR = 1.00; 0.57–1.77).
Conclusion: Young adults previously diagnosed with chlamydia experienced higher rates of bacterial STI reinfection than those CT-negative at baseline, particularly MSM. Maximising partner notification and health promotion initiatives at the point of diagnosis may be useful in reducing

reinfection rates overall, particularly amongst those accessing services for the first time.

P037 Management of gonorrhoea in Europe: the 2019 International Union against Sexually Transmitted Infections (IUSTI) European Clinical Collaborative Group (ECCG) Survey

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Abstract

Introduction: The IUSTI ECCG is a network of sexually transmitted infection (STI) specialists in Europe which conducts questionnaire based research. Gonorrhoea antimicrobial resistance remains a concern internationally. The aim of this survey was to determine the current management of gonorrhoea across Europe.

Methods: STI specialists who were ECCG members or their nominated colleagues from 34 European countries were invited to complete an anonymous online questionnaire over 3 months in 2018–2019. The survey included questions on resources and clinical scenarios.

Results: 79 questionnaires were completed with participants from 22 countries. 95% (74/78) had access to microscopy for the immediate diagnosis of gonorrhoea in symptomatic patients. 91% (71/78) had access to gonorrhoea culture with 86% (65/76) laboratories producing gonorrhoea antimicrobial resistance profiles.

92% (72/78) routinely screen for gonorrhoea in symptomatic low-risk heterosexuals and, when screening asymptomatic men who have sex with men, 94% (73/78) would test urine/urethra, with 83% (65/78) also screening the pharynx and rectum. 88% (69/78) had access to NAATs for screening. Positive NAATs were confirmed in 57% (40/70) using a 2nd NAAT target in 62% (16/26) and culture in 38% (10/26). Antibiotic treatment regimens and doses vary with 67% (49/73) using ceftriaxone (0.5–1g), with 54% (39/72) also giving azithromycin (1–2g). 79% (56/71) requested tests to ensure microbiological cure following treatment of gonorrhoea, with NAATs being used for test of cure by 90% (56/65) in patients who have become asymptomatic. 89% (64/72) undertook contact tracing for patients with confirmed gonorrhoea, with 64% (44/69) using a look back period of at least 3 months.

Discussion: Management of gonorrhoea across Europe continues to vary. A significant minority of STI specialists do not have access to laboratory facilities for culture, antimicrobial resistance profiling or NAAT confirmation. With the increasing global impact of gonorrhoea antimicrobial resistance, clear adherence to national or international guidelines is of great importance.

P038 Examining the clinical utility of *Trichomonas vaginalis* (TV) testing in women using the Xpert TV nucleic acid amplification test (NAAT) assay via Cepheid GeneXpert

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Abstract

Introduction: BASHH guidelines (2014) recommend testing symptomatic women for TV using microscopy, culture, or NAAT.

Our clinic employs light microscopy and culture in symptomatic women. Sensitivity of microscopy is low (45–60%). Culture is reported at 3–5 days. Asymptomatic women are not tested. A study of a TV NAAT offered to all attendees yielded an overall prevalence of 1.2%; 54% of infections in symptomatic women, 73% in women of black ethnicity. The Xpert TV Assay is a qualitative in-vitro assay using PCR to detect genomic TV DNA. Self-taken vaginal swabs have specificity 99.6%/sensitivity 96.4%. We evaluate whether a targeted programme using the Xpert TV assay yielded a higher detection rate.

Methods: Over two months, with verbal consent, we offered the Xpert assay to: (i) asymptomatic women identifying as NHS ethnic code groups D, E, M, N, P and (ii) all symptomatic women with Hay/Ison criteria Grade 2/3, but a negative wet slide (for whom a TV culture was also sent).

Results: Of 3290 unique female attendances by during the study period (median age 27 yrs (range: 14–71)), 551 (16.7%) were of target ethnicities (TE). 260 women underwent testing for TV, with 116 (44.6%) from TE, representing 25% of all women from TE. Of 260 tested, 12 were positive for TV (prevalence: 5% [95%CI 2.7–7.9%]). 9/12 (75%) presented with symptoms, primarily vaginal discharge. Of these, 4/12 (44%) had only a positive NAAT (with negative microscopy and culture). 11/12 (92%) were

treated on the day, either for TV or for bacterial vaginosis. 3/12 (25%) were asymptomatic. Median time to treatment was 6 days.

Discussion: A targeted programme yielded a higher detection rate. The Xpert assay improved detection in symptomatic women, and targeted screening of asymptomatic women detected infections that would have been missed. A cost effectiveness analysis will inform the sustainability of this approach.

P040 Is testing for gonorrhoea according to reported symptoms and history of exposure good enough? A sub-analysis from the Gentamicin versus ceftriaxone for the treatment of gonorrhoea (GToG) study

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Abstract

Introduction: Extra-genital testing for gonorrhoea for men who have sex with men (MSM) and women is recommended in current guidelines, guided by symptoms or a history of exposure at individual sites. However, data reporting the prevalence of gonorrhoea at extra-genital sites in the absence of reported exposure or symptoms is limited. Literature implicates kissing, use of saliva as a lubricant and possibly cunnilingus in the transmission of gonorrhoea. Transfer of infection from vagina to rectum has also been proposed in chlamydial infection. Therefore the current approach to testing for gonorrhoea may be sub-optimal.

Methods: MSM and women with gonorrhoea who enrolled in the GToG trial and underwent routine 3-site testing were included in this analysis. Demographics, sexual history, symptoms and site of infection were recorded. The relationship between infection site and reported exposure, and the likelihood of remaining undiagnosed and untreated if routine 3-site testing had not been performed, was determined.

Results: 353 MSM had 563 site infections, of whom 200 (56.7%) had only extra-genital infection. 101 women had 210 site infections of whom 14 (13.9%) had only extra-genital infection. MSM reported receptive-oral (99.2%), receptive-anal (92.4%), insertive-anal (66.3%) and insertive-oral intercourse (87.6%). Women reported receptive-oral (90.1%), receptive-anal (28.7%), and receptive-vaginal intercourse (98%). The proportion of infections missed by history and symptom guided testing were; for MSM: 0.7% genital, 0.5% pharyngeal and 6.0% rectal infections; for women 1.1% genital, 4.8% pharyngeal and 72.8% rectal infections.

Discussion: Using prospectively collected data, the currently recommended testing strategy based on sexual history and reported symptoms will identify the large majority of GC infections in MSM. However, a large proportion of rectal gonorrhoea in women is likely to be missed. It is uncertain whether this represents inaccurate reporting of receptive-anal sex in women or non-sexual infection transmission to the rectum, possibly from the vagina.

P041 Persistence of endocervical *Neisseria gonorrhoeae* DNA in women with an intrauterine system

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Abstract

Introduction: Nucleic acid amplification testing (NAAT) for *Neisseria gonorrhoeae* (GC) has a high sensitivity and is recommended in UK guidelines. Test of cure (TOC) following treatment is recommended at 14 days. Positive TOC may be due to re-infection, treatment failure due to antimicrobial resistance or residual non-viable bacteria. We present 3 cases of GC DNA persistence at the endocervix/vagina in women with an intrauterine system (IUS).

Cases: 3 women presented to GUM clinics (2 symptomatic) and were diagnosed with GC on endocervical or vaginal NAAT (BD ProbTec™ assay, Roche Amplicor and Cepheid respectively). All had an IUS in situ. GC showed sensitivity to ceftriaxone in one case but failed to culture in 2 cases. The culture negative cases were confirmed positive on GC PCR testing at the reference laboratory. All received treatment including intramuscular ceftriaxone. Subsequent endocervical and/or vaginal GC NAAT was repeatedly positive following treatment in 2 cases up to 23 days and 2 months; the third case had a negative GC NAAT after initial treatment, followed by further repeatedly positive GC NAAT up to 5 months (1 indeterminate GC NAAT at 2 months). Patients reported contact with a regular partner only (2), or 1 new casual partner (1) from the time of initial treatment. Regular partners received treatment, however tested negative

for GC. Endocervical/vaginal GC NAAT was eventually negative at 46 days, 3- and 7-months following treatment. In the latter 2 cases, the NAAT became negative following change or removal of the IUS. 1 IUS tested for GC was positive on NAAT but culture negative.

Discussion: Persistent endocervical GC DNA following adequate treatment may be due to infection of or adherence to a biofilm associated with an IUD/IUS, however further research is needed to understand the mechanism. Removal of the device may need consideration where DNA clearance does not occur.

P042 Moxifloxacin use for the treatment of *Mycoplasma genitalium* in South West London and Hertfordshire

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Abstract

Introduction: *Mycoplasma genitalium* (MG) is associated with recurrent non-gonococcal urethritis (NGU) and epididymitis in men and pelvic inflammatory disease (PID), post-coital bleeding and cervicitis in women. MG can be treated with combined doxycycline and azithromycin, but with 40% macrolide resistance in the UK, moxifloxacin provides the highest microbiological activity. The BASHH guidelines for MG provide clear guidance on moxifloxacin use. We investigated the use and appropriateness of moxifloxacin in our service against these guidelines.

Methods: We conducted a retrospective case notes review of moxifloxacin use between 1st October 2018 and 31st January 2019 in our sexual health clinics in SW London and Hertfordshire. Cases were identified using Sexual Health and HIV Activity Property Type (SHHAPT) coding for MG (testing, diagnosis and contact), NGU, PID and prescribed moxifloxacin. Cases were assessed for MG testing and diagnosis, and whether MG results were available prior to moxifloxacin prescribing. Moxifloxacin use was assessed for indication and dose. Appropriateness was deemed using the BASHH recommendations.

Results: 32 cases (SW London: 25, Hertfordshire: 7) identified, with 17/32 (53%) female. MG testing performed in all but one case. MG positive cases: 23/31 (74.2%). Indications for use: NGU (40.6%), PID (37.5%), MG contact (15.6%) and other (2/32, 6.3%: 1 for ongoing urethral symptoms, 1 for cervicitis). Although 400 mg od dose was correctly prescribed, the course length was incorrect in 5 cases. Appropriate moxifloxacin use: yes (75%), no (21.9%) and undecided (1/32, 3.1%: moxifloxacin prescribed after negative MG result). Macrolide resistance associated mutation (MRAM) testing was not available. Tests of cure (TOC) at 5 weeks are ongoing.

Discussion: Although moxifloxacin has been mostly prescribed appropriately for MG treatment, further education and training is required to ensure patients receive optimal treatment, in particular, correct course length depending on the indication. Addition of MRAM testing and TOCs will help further determine correct usage of moxifloxacin.

P044 What LARCs? Students' knowledge of Long Acting Reversible Contraception

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Abstract

Introduction: Long Acting Reversible Contraceptives (LARCs) are highly effective forms of contraception with no user failure. Despite this, uptake in 16 – 49-year-old women is only 12% in the UK[1]. This may result from misconceptions and concerns regarding their use. Thus, students' knowledge and experience of LARCs was investigated to suggest why LARC uptake is low, and subsequently consider how this could be increased.

Methods: 76 semi-structured interviews were conducted. This informed the structure of our quantitative online survey, which achieved 100 participants. Data was then collated and analysed to form statistics and informative diagrams.

Results: Participants had reduced knowledge of the different LARCs as compared to the pill and condoms. Students' estimations of efficacy of different forms of contraception was found to be higher with the pill and condoms, but lower with all LARCs (Figure 1). Qualitative results revealed participants reported factors such as fear, preconceptions, and personal experience affected willingness to consider LARC usage.

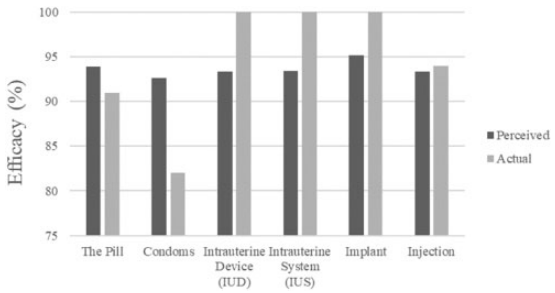

Figure 1: Perceived vs. Actual Knowledge of LARCs' Efficacy

Discussion: LARCs are less well-known than condoms and the pill, and their efficacy is underestimated. LARC usage was discouraged by misconceptions regarding irreversibility, efficacy, fertility and weight gain. Once informed of their efficacy and safety, participants reported willingness to use LARCs, thus suggesting that further education would increase their uptake.

References

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P045 Offer and acceptance of intrauterine device (IUD) in patients presenting to Umbrella Community Pharmacies for Emergency Contraception (EC)

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Abstract

Introduction: This is a retrospective re-audit of Umbrella community pharmacies dispensing EC via face to face consultation using a bespoke electronic proforma on Pharmoutcomes (a widely used pharmacy software package). IUD is the most effective method of EC and should be considered for all women who are eligible. We look at the percentage of women offered and accepting offer of IUD when presenting for EC, assessing against the FSRH standard (1). Initial audit of 4431 patients in 2016 showed only 66.5% of patients were being offered IUD, and 3.6% accepting the offer which led to a change to the proforma and additional training.

Methods: Data on age, ethnicity, offer and acceptance of IUD and referral outcome of any client who had emergency hormonal contraception (EHC) dispensed between April and September 2018 was extracted from Pharmoutcomes.

Results: 9114 patients were included across 112 pharmacies; the age range was 14 to 56 years (mean 28.1). 100% of patients were offered an IUD. 416 patients (4.6%) accepted offer for IUD. Of these only 19% of patients had an appointment made for fitting, with most patients' choosing to self-refer.

Discussion: Offer of IUD was increased to 100% compared to previous audit following change in electronic proforma but acceptance of offer remains low. We surveyed the pharmacists and possible reasons for this include time limitations, consultation skills, lack of method knowledge and resources to counsel patients.

We propose improving pharmacist training for IUD counselling including creating a training video, practise consultation skills and providing resources such as sample IUD models.

References

1. Faculty of Sexual & Reproductive Healthcare Clinical Guidance – Emergency Contraception Clinical Effectiveness Unit August 2011 (Updated January 2012) ISSN 1755–103X

P046 Kyleena® IUS: the experience of an early adopting clinic

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Abstract

Introduction: With Kyleena® 19.5 mg levonorgestrel intra-uterine system (IUS) introduced to our service, clinicians now choose between two 5-year IUSs, Kyleena® and Mirena® (52 mg levonorgestrel), and 3-year Jaydess® (13.5 mg levonorgestrel). A decision-aid was created to facilitate selection of most appropriate and cost-effective intra-uterine system/device (IUS/IUD). Factors considered included menstrual patterns and perceived side effect profile. Ease and subjective comfort of Kyleena® insertion was compared to other devices.

Methods: A senior physician created the decision-aid and circulated it electronically to all IUS/IUD fitters in the service. Clinicians were encouraged to use it with patients to help inform device choice. By comparing IUS/IUD proforma results to device chosen, decision aid use was assessed.

An additional questionnaire was added to the standard IUS/IUD insertion proforma record, allowing clinicians to easily complete relevant information during the

consultation, and prompting them to ask patients about discomfort experienced with insertion, assessed using a 5-point Likert scale. Data from 100 Kyleena® insertions over six months was compared to one month of all non-Kyleena® IUS/IUD insertions.
Results: 134/143 (93.7%) of devices inserted as per decision aid suggestion. 98/100 Kyleena® insertions (98.0%) were reported as easy to fit, compared to 40/43 (93.0%) of all other devices. Kyleena® was associated with minimal discomfort at or after insertion. 8/100 (8.0%) of Kyleena® insertions associated with moderate to severe discomfort, compared to 6/43 (14.0%) of all other devices, relative risk reduction 13.4%.
Discussion: Kyleena® proved easy to fit for both clinician and patient, with the decision aid well received. Kyleena® therefore represents a cost-effective and well-tolerated 5-year IUS, but may yet be challenged, at least on cost, by Levosert® (not used during this audit period) which has recently obtained its 5-year licence.

P047 Improving knowledge and access to the Copper Intrauterine Device (Cu-IUD) for emergency contraception (EC)

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Abstract
Introduction: The Cu-IUD is the most effective form of emergency contraception; 10 times more effective than ulipristal acetate and offers 10 years of hormone-free contraception at a low cost to the provider. However, studies show only 40% of women are aware of the Cu-IUD as an option for EC, and as a result 80% of EC continues to be delivered orally.
Aims: Our aim is to increase awareness of the Cu-IUD as a form of EC by encouraging use of an EC calculator.
Methods: We used a quality improvement project framework, with 3 PDSA cycles and analysed booking data and type of EC used after each cycle.
Results: CYCLE 1 (14/11/18): Number of appointments increased from 1 to 2 per day across 3 sexual health clinics.
CYCLE 2 (29/11/18): Trust webpage on EC updated and number of individuals using the trust page link tracked.
CYCLE 3 (11/02/19): Awareness campaign and social media campaign to promote use of EC calculator and Cu-IUD as a form of EC.
Conclusions: Preliminary data is promising, with an increase in both EC calculator use and the percentage of high-risk women booking appointments at clinics. This is reflected in the steadily increasing number of Cu-IUD insertions and proportion of Cu-IUDs fitted compared to other forms of EC. In time we hope this will translate into the continued greater provision of the Cu-IUD for EC, as more women will present already aware of their risk and that the Cu-IUD is an option for them.

P048 Exploring the reasons why women have their intra-uterine contraceptive devices removed

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Abstract
Introduction: The intra-uterine device is a popular method of contraception. They need to be retained least for a year for them to be cost effective. An apparent increase in the number of devices being removed was noted. Therefore it was decided to ascertain the reasons for removals and explore if they could be retained longer.
Method: A retrospective case note analysis was performed on the electronic patient records for a 6 month period beginning in January 2018. Data collected included

Month	EC calculator use	Average EC calculator use per day	Number high risk (%)	Number high risk booked an appointment (%)	Cu-IUD insertions (% of EC provided)
December	195	6.2	52 (27)	22 (42)	22 (18)
January	281	9.1	67 (24)	30 (45)	26 (19)
February	255	9.4	55 (24)	32 (58)	34 (27)

the source of fitting, the number of years retained, reasons for removal and alternative contraception chosen.

Results: During the period selected 78 devices were removed. Of these 42 were intra-uterine systems containing either Mirena or Jaydess and 36 were Copper devices. Forty two of the devices were retained for more than 4 years whilst 60 of the devices were retained for more than a year. Only 11 of the devices were removed within one year period.

Of those removed, 23 patients were replaced with a new device, 9 patients wished to conceive, 6 were not sexually active, 2 were sterilised and 4 patients requested a change of method. Six were fitted for menorrhagia and not for contraception. Four were post-menopausal. Sixteen patients had side effects which included heavy bleeding and pain.

Discussion: Twenty three women were erroneously coded as removals. A further 21 women did not wish to have any contraceptive method. Of those with side effects the majority were due to bleeding but were not offered any treatment to reduce the bleeding such as a short course on the contraceptive pill or the use of tranexamic acid. Local policy was changed to ensure that all such women were counselled and given measures to alleviate their symptoms. It was also decided not to book patients who had their devices fitted for non contraceptive reasons.

P049 The effect of assertive follow up of under 18's on contraception uptake rates and unplanned pregnancies in the Homerton Sexual Health Service (HSHS)

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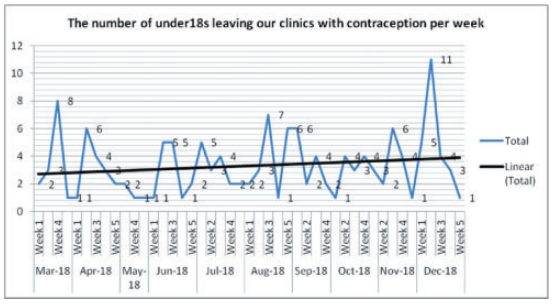
Abstract

Introduction: Despite recent improvements, the UK continues to have the highest teenage conception rate in Western Europe [1]. Hackney has a higher rate (13/1000) than the average for England (9.9/1000). [2] Conceptions most likely to lead to abortion are those <16 [3][4]. Pregnancy and contraception outcomes for <18's attending HSHS who decline contraception are unknown. Our aim is to understand pregnancy and contraception outcomes for <18's leaving HSHS without contraception and to see if assertive follow up is an effective method of improving uptake of contraception.

Methods: We identified females <18 years, leaving HSHS without a method of contraception using patient demographics and national SRHAD codes, and collected data on current methods of contraception; emergency contraception; conception and termination of pregnancy recorded at that clinic appointment. March-May 2018 was the baseline period with 99 encounters, and June-December 2018 the intervention period with 265 encounters. From June, patients were followed up by telephone. Any patients still at risk of unplanned pregnancy were offered another appointment to discuss choices.

Results: Our baseline data showed that 51/99 (51.5%) patients attending HSHS were using contraception, 44.3% left not using contraception and 4% were pregnant. After our intervention, 172/265 (65%) patients were using contraception, 32.5% weren't and 2.3% were pregnant. The proportion of <18s leaving with contraception increased by 13.5% post-intervention. 4% of patients were pregnant at baseline compared to 2.3% post-intervention. The proportion leaving with contraception but were non-coded post-intervention increased 13.5%.



Discussion: Contraception uptake increased, and pregnancies in <18s decreased. Although the results are convincing, more data on outcomes specifically for patients who were telephoned is required to evaluate whether calling patients is an effective intervention. It was harder and took much more time to perform the intervention for non-coded encounters, impacting on the cost effectiveness of implementation, identifying coding as an area for improvement.

P050 Low uptake of sexual health screening: An audit comparing the use of Intrauterine Contraception (IUC) in an integrated sexual health service (ISHS) against the Faculty of Sexual and Reproductive Health (FSRH) guidelines

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Abstract
Introduction: STIs are associated with an increased risk of pelvic inflammatory disease, which further increases with IUC insertion. The current FSRH guidelines suggest three auditable outcomes for women receiving IUC. We aimed to audit our practice against the National Standards and evaluate the uptake of STI screening.
Methods: We collected information about women who had an IUC device inserted from June 2018 to November 2018, identified from our electronic database.
Results: 259 women received IUC with 167 (64%) receiving intrauterine device and 92 (36%) intrauterine system. The median age was 30 (15–56) and 42.9% were white British. We surpassed the National Standard in 2 of the outcomes, however failed to achieve the target for offering STI screening (Table 1).
Of 239 women offered STI screening, only 123 (51.5%) accepted any testing and 22 (9.2%) accepted both bloods and swabs.103 (40%) individuals were identified being at risk of STI, as outlined in the guidance. Of these, 100 (97.1%) were offered screening but uptake of swabs was 78%, and only 16% had blood tests.
Discussion: Whilst we achieved the auditable standards in 2 outcomes, further work is required to ensure that all sexually active women are offered STI screening. We are concerned by low uptake of STI and HIV testing within this cohort. We plan to compare uptake of STI and HIV screening within our service between different clinics, to address low uptake in this group. We propose that 'STI screening uptake' should be considered amongst the auditable outcomes, as we may miss infection in a significant proportion of women in this cohort.

Table 1:

	COMPLIANCE	
STANDARD	TARGET	RESULTS
Number of women who had a bimanual examination/ultrasound scan before IUC insertion.	97%	98.1%
Appropriately trained assistant present during IUC insertion.	97%	98.8%
Proportion of sexually active women offered STI screening requesting IUC	97%	92.3%

P051 Mental health and cervical screening in the My Body Back clinic

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Abstract
Introduction: It is estimated that over 70% of women who have experienced sexual violence have either not attended or have delayed cervical screening (Jo's Cervical Cancer Trust, 2018). Uptake of cervical screening is also lower in those with mental health problems. My Body Back (MBB) is a multidisciplinary clinic which aims to support women who have been sexually assaulted to engage in cervical screening and sexual and reproductive health services.
Methods: The aim of the audit was to investigate whether there was an association between mental health difficulties and the ability to have a cervical screening test. We undertook a retrospective case note review for 75 patients who attended the MBB clinic between July 2016 and December 2018. Data collected included demographic details, mental health problems, level of engagement with support services and whether cervical screening was successfully performed.
Results: The median age was 31 years old (range 24–70). The majority (52/75; 69%) of patients had mental health difficulties with complex PTSD or PTSD (21/75; 28%), depression (21/75; 28%), a history of self-harm/suicidal ideation (14/75; 19%) and vaginismus (8/75; 11%) most commonly reported. Over half (53%) of patients attending the MBB clinic were currently or previously engaged in psychological therapy. Eighty-one percent (42/52) of those with mental health problems had a smear test at their first visit, with 77% of patients (58/75) overall successfully completing cervical screening at their first visit.

Discussion: The majority of patients attending the MBB clinic report complex mental health difficulties. Despite the prevalence of mental health difficulties in this population, most patients had successful cervical screening at their first visit, with no clear association between mental health difficulties and ability to undergo cervical screening. Cervical screening programmes should consider the needs of women with mental health difficulties with a view to providing enhanced support for this population.

P052 Characteristics of frequent users and impact of introduction of automated order management – a service evaluation in an online sexual health service

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Abstract
Introduction: Online sexual health services can increase access to testing, however unmanaged access could promote excessive/inappropriate testing. In 2017 we introduced Order Management (OM) to our online service – reorders within 6 weeks were refused unless there was a clinical need.
Methods: Orders June 2017-May 2018 were analysed. Frequent users were defined as $\geq$3 orders/year. Logistic regression was used to identify characteristics associated with being a frequent user, adjusted for age, gender, sexuality and ethnicity.
The number of and reason for orders refused was identified. STI positivity in 2nd-5th completed tests was compared between users with and without a prior refused order. Median time to STI diagnosis was calculated in users testing after refusal.
Results: Over 12 months 78,465 users ordered 104,899 times, 5679 (7.1%) ordered $\geq$3 times.
In adjusted analysis, frequent users were more likely to be aged under 25 (OR 1.57, 1.22–2.01), female (1.63, 1.50–1.78), of black/mixed ethnicity (1.37, 1.25–1.49) and MSM (3.22, 2.88–3.62).
Over 12 months 8,510 (8.1%) orders were refused, which would have cost approximately £220,000 if dispatched.
Reasons for refusal included recent order (37.1%), duplicate order (28.2%) and recent chlamydia treatment (10.7%).
Subsequent test positivity was not significantly different in those with a previous refusal compared to those without (7.9% vs 7.0%, p = 0.60). Median time to next STI positive/reactive after refusal is shown below.

	Median/IQR (days)
Chlamydia (n = 21)	78 (63–107)
Syphilis (n = 19)	86 (75–109)
HIV (n = 11)	61 (47–145)

Discussion: Over 12 months 7% of users ordered 'frequently', these users were significantly more likely to have characteristics associated with STI risk.
OM was not associated with higher STI positivity after refusal and was associted with reduced online costs. However, median time to positive/reactive after refusal was <90 days for all STIs. Increasing the restriction on repeat testing to 3 months could lead to delayed diagnosis.

P053 Patient information leaflets: Our clinic experience in using QR codes and bit.ly for STI and contraception leaflets

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Abstract
Introduction: An innovative approach to deliver patient information leaflets for STI and contraception through QR code to smart phones was initiated as a quality improvement project in our sexual health clinics.
Methods: A survey was conducted among sexual health clinic staffs on tools used for distribution of patient information leaflets and acceptability of QR code and short url for usage. QR codes linking to official BASHH and FPA online patient information leaflets were created from trust Microsoft word software and displayed as small stickers at clinic rooms for usage.
Results: On initial baseline survey of our clinic staffs (n = 22, 9 Doctors, 7 Nurses, 2 Health Advisers, 4 Receptionist) on their practice of distributing information leaflets, 28% were showing websites on computer monitor, 24% mentioned name of the website verbally, 9% gave handwritten website information, 19% were using other methods. Survey also showed 81% agreed for bit.ly and 76% agreed for QR codes as tools to distribute patient information leaflets.

Feedback from staff on QR code usage (n = 10) revealed QR code an acceptable tool which is easy to use, faster, secure, reliable during consultation for distribution of patient information leaflets. It worked only in clinic area with good mobile network and if patient using a smart phone. On second stage of the project, bit.ly codes were created for different clinic sites (bit.ly/srhbs, bit.ly/srhwr, bit.ly/srhsh) and were incorporated to second version of QR codes. Virtual monitoring of leaflet distribution was created through bit.ly portal. The total budget for this project was zero.

Discussion: Newer generation smart phones have camera with built in QR code scanner. Bit.ly codes are widely used by NHS trusts. Both these tools can be safely and effectively used for distribution of patient information leaflets in sexual health clinics with no additional cost to the service.

P054 Improving staff compliance in performing gonorrhoea culture: Role of on screen prompts

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Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom

Abstract

Introduction: BASHH recommends performing gonorrhoea culture before antibiotics administration. Higher rate of compliance in taking gonorrhoea culture is needed to monitor antibiotic resistance in the community. A quality improvement project was undertaken in our trust sexual health clinics to improve staff compliance in performing gonorrhoea culture before administering treatment.

Methods: A retrospective audit was conducted reviewing all cases of gonorrhoea diagnosed in february 2018 from our sexual health clinics. Number of gonorrhoea cultures performed for gonorrhoea NAAT positive cases were audited. Results were presented at the departmental meeting and a reminder was created for prescribers on IMS platform to **"Please do GC cultures"** when prescribing Ceftriaxone, Azithromycin 2g and Ciprofloxacin doses. This instruction could be read both during prescribing and dispensing. 3 months post intervention, re-audit was conducted in July 2018 and results reviewed.

Results: On primary audit, A total of 164 cases of gonorrhoea were diagnosed by NAAT in february 2018 [128 Male (Mean age 31y; R16-58); 36 Female (Mean 30 years; R 17 – 48 y]. 140 (85%) clinic attendees had their Gonorrhoea cultures performed before treatment administration. Re-Audit was conducted in July 2018. 206 out of 208 Gonorrhoea positive patients (99.1%) had gonorrhoea culture performed prior to treatment administration.

Discussion: Electronic platform in sexual health clinics helps in data management and monitoring. Our QIP has demonstrated that a simple prompt at decision point of prescribing antibiotics for gonorrhoea, helped in reminding the prescriber and dispensing clinic staff to take gonorrhoea culture prior to drug administration. This has improved our performance in taking gonorrhoea culture. Sustainability of such significant improvements post QIP should be re-audited periodically.

P055 Assessing the Immediate Impact of the Introduction of Free Cervical Screening on Uptake and Diagnosis of Moderate Dyskaryosis, Severe Dyskaryosis and Invasive Cancer in Jersey, Channel Islands

Jade Wright and Shan Morgan
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Abstract

Introduction: Jersey is a Channel Island with a population of approximately 110,000. In Jersey, primary care is private; patients pay to be seen by General Practitioners (GPs), and thus women previously had to pay for cervical screening.

In August 2018, a campaign was introduced which made cervical screening free.

This study aims to evaluate the outcome of this campaign, in terms of uptake and also diagnosis of moderate dyskaryosis, severe dyskaryosis and invasive cancer (significant pathology.)

Methods:

The number of smears sent to the laboratory between August 2017 and December 2017 were compared with the number sent between August 2018 and December 2018. The results of the smears were also compared in this 5 month period. This compares a 5 month period when cervical screening in primary care incurred a cost to the user, against 5 months after screening became free.

Results:
Before the removal of cost-to-user, 2,132 smear samples were received. 1,293 (60.6%) of these were from smears done at GP, and 510 (23.9%) of smears were done at the community sexual health clinic. Of these smears, 12 (0.57%) showed significant pathology. In August 2018 to December 2018, 2,594 smear samples were received. 1309 (50%) of these were from GP, and 622 (23.9%) were from the sexual health clinic. Of these smears, 18 (0.71%) showed significant pathology. 462 more smears were sent in the period studied of 2018 than 2017. 6 more cases of significant pathology were picked up.
Discussion: In the immediate period following free access for cervical screening, there has been an increase of smears received by 21% from previous, with 6 more cases of significant pathology. This demonstrates the impact of a financial barrier to women accessing cervical screening and the diagnosis of premalignant and malignant states. However, despite this barrier being removed, uptake of smears in Jersey is not universal; this highlights the role of other barriers in accessing cervical screening within a health-resource rich area such as Jersey, and indeed the UK, and these require further investigation to evaluate and address them.

P056 Pitstop+ – Delivering a sexual health walk-in service for men who have sex with men (MSM)

Matthew Harrison
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Abstract
Introduction: Since 2015, the Pitstop+ service has provided timely access to sexual health support for men who have sex with men (MSM) in Sheffield. Providing HIV testing and STI screening, along with health promotion and risk reduction interventions, the aims of the service include:
- Reduction in late diagnosis of HIV and other STIs
- Earlier engagement with MSM not accessing traditional clinic services, having difficulty accessing appointment based systems, and those engaging in higher risk sexual activity
- Encourage routine screening and access to vaccination programmes
- Increased awareness and access to risk reduction interventions including PrEP

Methods:
Delivery of a weekly two-hour walk-in service offering:
- Venous sampling for HIV, Syphilis, Hepatitis B and Hepatitis C
- Three site screening (urine/vaginal, throat, rectal) for chlamydia & gonorrhoea
- Specialist sexual health promotion support
- Triage referral of symptomatic patients

Results:
For period January – December 2018
- 51 clinic session
- 312 walk-in appointments
- 288 STI screens
- Positivity across all STIs (positivity rate of 10%)

Discussion: The Pitstop+ walk-in is a well-utilised service amongst MSM– particularly younger/student populations. The service has a positivity rate comparable with other clinic services and is consistently well evaluated by patients with comments including:
'Consistently good service, makes you feel comfortable, short wait times. Amazing service.'
'Really friendly staff. . .got seen straight away. [staff member] was very friendly and made me feel very comfortable'
'Really friendly staff. . .Opening times are good for people working office hours.'
Pitstop+ provides additional, walk in access for MSM combining health promotion, access the Vaccination programmes, STI screening and links to treatment.

P057 Delivering Community Based STI Screening: A Pilot Project

Matthew Harrison
Sexual Health Sheffield, Sheffield, United Kingdom

Abstract
Introduction:
Working in partnership with Sheffield City Council, Sexual Health Sheffield delivered a Sexual Health Month campaign throughout November 2018 to coincide with the national HIV Testing Week campaign. Activity included the delivery of a pop-up clinic service offering asymptomatic screening for sexually transmiited infections (STIs) within Sheffield's busy indoor market in the city centre. With strategic social media messaging throughout the month – utilising the hashtag #sheffgetchecked – the aims of the campaign included:
- Reduction in late diagnosis of HIV and other STIs
- Engagement with most at risk population groups not accessing traditional clinic services, having difficulty accessing appointment based systems, and those engaging in higher risk sexual activity, including: men who have sex with men (MSM), people from black African and Minority Ethnic (BAME) communities, and vulnerable young people.

Methods:
Delivery of pop-up sexual health stall offering:
- Venous sampling for HIV, Syphilis, Hepatitis B and Hepatitis C
- Three site screening (urine/vaginal, throat, rectal) for chlamydia & gonorrhoea
- Specialist sexual health promotion support

Results:
For the period November – December 2018
- 21 sessions delivered
- 287 direct contacts
- 226 STI screens carried out
- 78% of all contacts accepting offer of STI screening/ HIV testing
- 61% of those screened were new to service
- Detection of STIs (positivity rate of 5.3%)

Discussion: The campaign successfully encouraged earlier access to STI screening and HIV testing within a range of communities. The availability of walk-in testing was also well received –attendees commenting on the ease of access. Uptake of service exceeded expectations to the point that it was extended throughout December 2018.

P059 Pre-exposure prophylaxis (PrEP) use, STI diagnoses and sexualised drug use among men who have sex with men in the UK

Matthew Hibbert, Caroline Brett, Lorna Porcellato and Vivian Hope
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Abstract
Introduction: Previous research on PrEP use among MSM has been focused on acceptability and clinic based samples. This research explores socio-demographic and sexual factors associated with PrEP use among community recruited MSM in the UK.
Methods: A national online cross-sectional study recruited MSM through Facebook advertising and community organisations' social media accounts between April-June 2018. A multivariate logistic regression was used to investigate factors associated with PrEP use. Bivariate analyses compared engaging in condomless anal intercourse (CAI) under the influence of specific drugs and recent STI diagnoses (past 12 months) between MSM who were taking PrEP and those who were not.
Results: 6% (99/1,581) MSM reported current PrEP use. Factors associated with PrEP use were increases in age, recent GUM attendance (95% vs. 45%, aOR = 6.25, 95%CI 2.05, 19.03), having an HIV test in the past three months (89% vs. 23%, aOR = 14.22, 95%CI 6.76, 29.90), and recent engagement in chemsex (21% vs. 4%, aOR = 3.56, 95%CI 1.78, 7.11). MSM taking PrEP were signficantly more likely to report having CAI at most recent sexual event whilst under the influence of alcohol or cannabis, and taking poppers or viagra immediately before or during sex. MSM taking PrEP were significantly more likely to have been diagnosed with an STI (42% vs. 8%, $p < 0.001$), most commonly chlamydia (26% vs. 3%, $p < 0.001$) and gonnorohoea (25% vs. 4%, $p < 0.001$).
Conclusions: Whilst MSM taking PrEP are engaging in more sexual risk behaviours, it is encouraging to see a high engagement with sexual health services, which can help prevent onward transmission of STIs.

P060 The ongoing experience of managing a PrEP cohort with significant levels of renal impairment in a Integrated Sexual and Reproductive Health Service setting

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Abstract
Introduction: In July 2017, we set up a Pre-Exposure Prophylaxis for HIV (PrEP) service delivered via our Integrated Sexual and Reproductive Health (SRH) open access drop-in service. We initially encountered unexpectedly high levels of renal impairment which led to a change in service delivery from drop-in to booked appointment PrEP clinics run by the HIV team. We discuss our further findings after 18 months of PrEP provision.
Methods: We set up the PrEP service in line with national guidance. Patients could self- refer or be referred from open access SRH clinics following an initial pre- PrEP work up to PrEP clinics. Patients were seen at 1 month after commencing PrEP and then 3 monthly.
Results: 278 patients attended for pre-PrEP work up and had appointments in PrEP clinic of whom 3 were female, two of whom were transgender. 275 were MSM. A quarter lived outside our area. Mean age was 35 years (range 15 to 76 years). 192 (69%) commenced daily PrEP, 5 were diagnosed with HIV on pre- PrEP work up. 42 (15%) did not attend their appointment, the reminder declined PrEP. 32 of the 278 (11.5%) patients had renal impairment, with eGFRs of 60–70ml/min or with eGFRs 60- 80ml/min and with co-morbidities impacting on renal function. These patients were referred into our pre-existing virtual HIV

renal clinic. 57% of patients commenced on PrEP attended for follow- up at the expected 3 monthly intervals.
Discussion: Significant levels of renal impairment are a sustained finding in this PrEP cohort. We developed a PrEP pathway for managing renal impairment and co-morbidities that may impact adversely on renal impairment. Staff report that booked PrEP appointments allow closer monitoring and management of renal issues. The high level of patients on daily PrEP lost to follow up or attending at extended intervals (over 3 monthly) is concerning.

P061 HIV PrEP offer and uptake in an Australian metropolitan sexual health centre

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Abstract
Introduction: HIV pre-exposure prophylaxis (PrEP) was subsidised in April 2018 through the Australian Pharmaceutical Benefits Scheme (PBS). PrEP is recommended in national guidelines for eligible patients (positive for syphilis, rectal chlamydia or rectal gonorrhoea in the last 3 months) to reduce HIV transmission. This audit examined these questions: What percentage of eligible clients at Adelaide Sexual Health Centre (ASHC) is offered PrEP? Of these, what percentage takes up PrEP? For those who don't, what are the reasons?
Methods: A retrospective case notes review was conducted of 170 positive diagnoses of rectal chlamydia/gonorrhoea and syphilis, between 1 July and 31 December 2018, to ascertain if eligible patients were offered PrEP and if they took up PrEP.
Results: There were 146 unique clients – 15 female and 131 male. 47 males were already on PrEP, and 11 were HIV positive/ineligible. Of the remaining 72 males, 50 (69.4%) were offered PrEP either at screening visit or at results/treatment visit. Of these, 29 (58%) accepted and took up PrEP, while 21 (42%) either declined PrEP or did not accept the offer. Of those who declined, some said they would consider (8; 38.1%), others agreed but did not make an appointment (4; 19%), some declined due to side effects (3; 14.3%) or were not interested (3; 14.3%), 2 had no reason documented (9.5%), and 1 cited cost as a reason (4.8%).
Discussion: This audit found an acceptable PrEP offer rate to eligible clients. However, this can be increased further by staff training and enhanced documentation of eligibility. More than half of eligible clients who were offered PrEP took it up, which is essential for HIV prevention. Nevertheless, patient education & information around PrEP and how it can be taken, and text reminders may help increase PrEP uptake.

P062 IS OUR PEPSE PRESCRIBING IN A SAFE PLACE? – The use of PEPSE following sexual assault

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Abstract
Introduction: PEPSE is a well-established emergency method of HIV prevention that is an important consideration following sexual assault.
Objectives: Review the outcome of referrals for PEPSE from sexual assault referral centre, Safe Place (SARC), to Axess Sexual Health clinic at Royal Liverpool University Hospital (RLUH)
Methods: Retrospectively reviewed 40 case notes of SARC referrals for continuation of PEPSE between 01/08/17 and 31/07/18, comparing against BASHH 2015 PEPSE guidelines.
Results: Auditable outcomes from guidelines:-

Outcome	Aim	RLUH Result
Proportion of PEPSE patients having a baseline HIV test within 72 hours of presenting for PEPSE	100%	75%
Proportion of PEPSE prescriptions that fit within recommended indications	90%	83%
Proportion of PEPSE prescriptions administered within 24 hours of risk exposure	90%	**44**% given within 24hs**, 50**% by 48hrs and **50**% not documented
Proportion of individuals completing 4-week course of PEPSE	75%	63%
Proportion of individuals seeking PEPSE undergoing testing for STIs	90%	94%
Proportion of individuals completing 8–12 week post-exposure HIV test	75%	44%

Discussion: Recommended standards were not met for the provision of PEPSE in terms of treatment initiation at Safe Place. There was not always clear, documented evidence that PEPSE had been commenced after an

appropriate indication, that the treatment was started within 48 hrs or why it was continued.
Overall health advisors made 15 documented attempts at contacting those who didn't attend initially or didn't attend for some aspect of agreed follow-up.
Of those that attended full follow-up 71% presented with greater risk (MSM assault, safeguarding issues, sex worker) suggesting higher risk indications might motivate follow-up compliance.
Conclusion: The importance of the continuation and follow up of PEPSE needs to be stressed to patients at initiation but a more pro-active follow up system may be required improve continuation rates.

P063 Preventable HIV infections in England – failing to make an IMPACT

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Abstract
Introduction: PrEP is a highly effective in preventing HIV. The IMPACT trial aims to inform NHS PrEP commissioning. We report three cases of recent HIV acquisition in MSM who could not access PrEP through IMPACT.
Methods: Patient history and clinical records, including testing history and PrEP discussions were reviewed to identify recently acquired HIV and missed opportunities to initiate PrEP.
Results: The three cases were all confirmed recent acquisition between May 2018 to Jan 2019: all were symptomatic and had confirmed negative HIV tests within the previous 3–6 months; one had an avidity index consistent with recent acquisition and one was p24 Ag+, Ab negative. Demographics: 45, 40 and 21 years old, White British, Latin American and Black British. Two had a history of anxiety/depression. Attempts to enrol on the IMPACT study were 2–8 months prior to diagnosis; in one case within the same service. All had been informed that no study places were available at the time of testing negative in clinic or were unable to get an appointment. One had bought PrEP online but did not have a continuous supply. CD4 counts were 384, 232 and 231, viral loads 5.7log, 6.7log and 6.3log, consistent with very recent acquisition. In one case, partner notification resulted in a new diagnosis in a regular male partner.
Discussion: These cases illustrate avoidable HIV infections in people presenting in need but where clinics were unable to respond with the most effective intervention. It is likely that they represent only a fraction of the true avoidable number. Limited study places, staggered site opening and other barriers to access will inevitably result in preventable infections and transmission, affecting evaluation of the impact of PrEP. Of concern, more vulnerable people might have been disadvantaged by being less able to navigate access to services.

P064 Pre-Exposure Prophylaxis (PrEP) provision in an area where rates of HIV acquisition and mental health problems remain high

Suzanne Todd, Yvonne Wilson, Say Quah and Carol Emerson
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Abstract
Background: Funding for HIV Risk Reduction Clinics (RRC), to include PrEP provision and behavioural interventions, was available in our area from July 2018. Expected numbers accessing this service were calculated using estimates of both risk and likely demand giving 262 eligible patients (range 232–294). Referrals to the RRC were from all GUM services in the area.
Method: Prospective data was collected from patients referred to RRC from 17/07/2018-31/01/2019 including eligibility assessment, sexual risk, medical, drug and vaccine history, STI and renal parameters. Risk questionnaires were completed by attendees.
Results: 320 new individuals assessed, 176 of these reviewed by 31 January 2019. Mean age 35yrs (range: 19–75). All were MSM or TGW, 3 also had HIV positive partner with detectable Viral Load. Baseline mean eGFR was 103 mLs/min (range 62–161) with 60 (20%) having eGFR <90 mLs/min. 204 (69%) reported any other medical history, 43 (15%) depression/low mood, 21 (7%) anxiety. 294 (92%) started PrEP, currently 80% daily, 9% Event-based, 11% stopped. 260 (81%) seen by Health Advisors. 63/291 (21%) had not attended GUM in the last 5 years. 26/291 (9%) had never attended GUM. 85/268 (32%) respondents reported previously self-sourcing PrEP. 42/212 (20%) reported chemsex and 85/189 (45%) used sauna within previous 6 months. 3 patients were diagnosed with HIV at baseline testing. No-one on PrEP has seroconverted in this time period but 4 syphilis, 28GC (9Rec, 3Ur, 16Th) and 21CT (16Rec, 5Ur) diagnosed.
Discussion: There is significant demand for PrEP in our area, exceeding the expected estimates. There is high reported risk among this cohort and considerable incidence of mental health problems. There have been no cases of HIV on PrEP, patients are tolerating it well and the clinic is bring new patients to GUM.

P065 Baseline liver function tests in patients starting post-exposure prophylaxis: are they needed?

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Abstract
Background: Current UK guidelines recommend checking baseline alanine transaminase (ALT) in patients starting Truvada and Raltegravir for post-exposure prophylaxis following sexual exposure to HIV (PEPSE). Further ALT monitoring is recommended if baseline results are abnormal or where clinically indicated such as hepatitis co-infection. The aim of this project was to determine prevalence of abnormal baseline liver function tests (LFTs) in patients prescribed PEPSE and impact on clinical management.
Methods: A retrospective notes review of the last 70 patients coded for PEPSE between February and April 2018 was performed. Demographic data, clinical information and laboratory results were collected and analysed. LFTs performed during each episode of care were recorded, along with action taken.
Results: The patients were mostly young (median age 30, range 18 – 64 years) MSM (56, 80%) with no significant co-morbidities or co-medications expected to significantly affect liver function. Recreational drug use was reported in 19 (27%) subjects, and 8 (11%) consumed over 8 units of alcohol weekly.
13 (19%) patients had baseline LFT abnormalities (excluding 1 patient with known Gilberts syndrome): elevated ALT (9, 13%), bilirubin (5, 7%), 1 both. Mean abnormal ALT was 68 (range 48 – 95U/L). 10 (14%) had repeat LFTs performed once (1 patient had LFTs repeated twice), and in all but 1 patient, repeat LFTs were improved from baseline. No patients required modification or cessation of PEPSE due to abnormal LFTs or referral for further investigation. Syphilis or hepatitis infections were not diagnosed earlier as a consequence of abnormal LFTs.
Conclusion: In this small cohort of patients initiating PEPSE baseline LFT abnormalities, whilst not uncommon, were mild and did not alter patient management suggesting that routine LFT testing may be unnecessary. This approach in combination with access to STI self-testing kits may reduce the need for routine clinic follow up visits for patients taking PEPSE.

P066 Is a "PEP" talk of any benefit?? – a case review of PEPSE over a decade

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Abstract
Introduction: The use of PrEP (pre- exposure prophylaxis) and PEPSE (post exposure prophylaxis after sexual exposure) are recognised as effective interventions to reduce HIV acquisition and transmission.
These discussions present ideal opportunities to identify indicators of risk and consider implementation of relevant behaviour changes.
We wanted to determine whether historical use of PEPSE influenced future risk behaviour and impacted on HIV diagnosis.
Methods: A retrospective case note audit was undertaken to identify patients who accessed PEPSE in the last 10 years.
Those identifying as MSM – the highest risk group for HIV transmission, were reviewed for evidence of a future HIV diagnosis through the use of GUM CAD coding and attendances to the HIV specialist services.
Patients who used PEPSE for reasons other than sexual exposure were excluded from further analysis.
Results: A total of 87 men were identified as accessing PEPSE in the last 10 years. The average age of patients was 33 years of age (range 17- 60 years).
Of these 62 (71%) identified as MSM of which 61 (70%) presented post sexual exposure.
28/61 (46%) attended for PEPSE as their first attendance.
46/61 (75%) identified as White British.
7 (11%) of the MSM presenting for PEPSE accessed the service in the future for HIV related care.
Further details will be presented including STI rates and future PEPSE use.
Discussion: PEPSE continues to offer the opportunity to deliver risk reduction strategies to patients accessing sexual health services. In those accessing PEPSE within our service over the time surveyed, there was a 11% seroconversion rate, which may be reduced further by the increasing availability of PrEP and TasP (treatment as prevention).

P067 A systematic review into PrEP-stigma amongst MSM taking PrEP a narrative synthesis

Richard Hobbs, Dougal Hare and Amiee Pudduck
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Abstract
Aim: This paper is a report of a systematic review of qualitative research exploring PrEP related stigma in Men who have Sex with Men (MSM). Background: PrEP is a biomedical method of HIV prevention. To date a review has been completed into PrEP-stigma as a barrier MSM contemplating taking PrEP. No such systematic review has been completed for MSM taking PrEP.
Method: A narrative synthesis was used, with quality appraisal guided by the Critical Appraisal Skills Programme method. The data was analysed thematically, exploring MSM PrEP users experience of PrEP-stigma. This allowed for both descriptive and narrative synthesis to occur.
Results: Eight articles met inclusion criteria for the final review. The themes identified were: 1 Stigma directly associated with PrEP, 2 Imposed stigma from others, 3 Internalised Stigma, 4 Acts to mitigate stigma, 5 Sex related stigma.
Conclusion: MSM taking PrEP experience PrEP-stigma on multiple different level. PrEP stigma can both be imposed on the individual by others. That PrEP can be internalised by PrEP users. There are various strategies that could be developed to overcome PrEP stigma experienced by MSM PrEP users.

P068 Variable renal monitoring of patients accessing PrEP online – a multisite review

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Abstract
Introduction: Monitoring of renal function when taking PrEP is recommended by BHIVA/BASHH. We conducted a multi-centre (5 site) review of patients taking PrEP to standardise local management.
Method: A retrospective review of 50 patients accessing PrEP online between 1/1/2018 and 28/2/2019. Demographics, risk factors and renal investigations were collected.
Results: All identified as MSM. Median age 34.4 years (range 22–64). 18(36%) and 2(4%) reported recent recreational drug or steroid use respectively. (5)10% report regular gym supplement use. Median length of PrEP use 11.8 months. 37(74%) patients used daily PrEP.

	Baseline	3/12	6/12	9/12	12/12
Urinalysis	n = 28	n = 37	n = 28	n = 17	n = 16
• Normal	19(63%)	12(32%)	16(57%)	9(53%)	12(75%)
• Proteinuria	5(18%)	7(19%)	4(14%)	4(24%)	5(21%)
Renal Function	n = 33	n = 22	n = 22	n = 9	n = 14
• eGFR > 90	21(64%)	8(36%)	8(36%)	5(56%)	10(71%)
• eGFR60-90	12(36%)	14(64%)	14(64%)	4(44%)	4(29%)
• eGFR < 60	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)

No patients with dipstick proteinuria had an abnormal uPCR. Comparing baseline to 9+ months, 3/50(6%) patients had a decline in eGFR (mean 4.3 range 4–5) whilst 2/50(4%) registered an improvement (mean 11.5 range 11–12). Discussion occurred with renal specialists because of proteinurea in 6(12%) cases or decline in eGFR with proteinurea in 4(8%) cases, all normalised on repeat testing. No patients were asked to stop PrEP due to tolerability issues.
Discussion: The extent of renal monitoring was variable and seeking specialist renal advice was subjective. Renal monitoring was complicated by concomitant protein and creatine supplements and raised muscle mass. This has led to the development of a local pathway outlining the appropriate investigations and referral criteria in patients with renal impairment. Rollout of PrEP on the NHS would streamline monitoring and management.

P069 Changes in eGFR on PrEP: is frequent monitoring required?

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Abstract
Introduction: FTC/TDF as PrEP has been available in Wales since July 2017 and Welsh guidelines recommended that eGFR be repeated at every 3 monthly PrEP review. PrEP studies have reported only minor, non-progressive and largely reversible decreases in eGFR. We aimed to investigate real-world changes of eGFR in individuals receiving PrEP in our locality.
Methods: Individuals who attended at least one PrEP clinic appointment in our service and had at least

1 eGFR reading between July 2017 and June 2018 were included. A sustained significant decline in eGFR was defined as a decline of 10mL/min or more from pre-treatment levels, in at least 2 readings without resolution at the most recent visit.

Results: Of the 123 individuals included, 121 (98%) identified as male, with an age range of 19–74 (median 32). 10 (8%) were taking event-driven PrEP. 42 (34%) had co-morbidities and 32 (26%) were taking other medication. Baseline eGFR was >90 mL/min in 95/121 (79%) individuals, and 60–90mL/min in 23 (19%). 3 (2%) individuals had a baseline eGFR <60 mL/min and were not prescribed PrEP.

73 individuals had at least one subsequent eGFR. The average change from baseline eGFR to the most recent reading in those with a baseline of >90 mL/min was -0.4 mL/min and in those with a baseline of 60–90 mL/min was +2.12 mL/min. 2 (2.7%) individuals met the criteria of a sustained significant decline in eGFR (change from >90 to 79ml/min, and 78 to 67mL/min, respectively). Neither individual demonstrated any progression in the decline in their eGFR on subsequent visits.

Discussion: This real world data is in line with that reported from studies in other areas and is reassuring. More recently, Welsh guidelines have been updated and are in line with BASHH guidance regarding frequency of eGFR measurement in those prescribed PrEP.

P070 A Health Adviser Centric Model for the Delivery of Pre-Exposure Prophylaxis

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Abstract

Introduction: Pre-exposure prophylaxis (PrEP) is known to be an effective defence against catching HIV. It's uptake has been particularly popular amongst men who have sex men who have been either been self-sourcing it or have secured places on PrEP trials. This has created a new cohort of patients who need additional input and monitoring and are may not be appropriate to direct to online services. This could potentially put additional pressures on sexual health services. A central London clinic has utilised the Health Adviser team to manage those patients initiating PrEP and attending for follow up.

Method: The Health Adviser team all received training in phlebotomy, urinalysis and 'Good Clinical Practice' in research. They also attended additional teaching sessions on PrEP and specific trial protocols. Work has also begun on a Standard Operating Procedure so that non-nurse Health Advisers can issue prescribed Tenofovir/Emtricitabine as part of clinical trials.

Results: Patients who now attend clinic wishing to initiate self-sourced PrEP are now directed to the Health Adviser team who can fully discuss PrEP including adherence, efficacy, side effects and interactions. Patients are also seen by the Health Advisers for trial recruitment and follow up. The Health Adviser also perform all the appropriate tests and are able to offer behavioural change interventions relating to sexual risk reduction and drug/alcohol use in accordance with NICE guidelines. The Health Advisers also now provide additional training and support to other staff groups around PrEP including targeted training at recruiting high risk women and trans* individuals.

Discussion: The model of Health Advisers delivering PrEP has been successful. It has minimised impact on the availability of clinic appointments, it provides a more holistic approach to patient care and has improved a patient's experience by cutting down the number of clinicians seen and length of time in clinic.

P071 PrEP Shop – Making generic PrEP more accessible

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Abstract

Introduction: PrEP is not available on the NHS in England. Whilst large numbers of patients have been able to access PrEP through the Impact trial, there is still unmet demand. Generic PrEP has been available online since October 2015. However, many patients express they would be more comfortable buying PrEP from an NHS provider.

In November 2015, 56 Dean Street set up a dedicated private clinic to sell branded Truvada at cost price. However, it was too expensive for most people.

In response, we developed a new service model which integrated 'Additional Private Care' into our routine GUM clinics. PrEP Shop launched in February 2018 supported with online materials (www.dean.st/prepshop).

Methods: Patients sign up for "Additional Private Care" in clinic. 'Additional Private Care' is a way to buy treatment not available on the NHS (PrEP), while remaining

eligible for NHS care (advice and monitoring). Baseline screening is performed according to national guidelines. Patients email their prescription request (maximum 7 months' supply at one time). A doctor checks the results and writes the prescription. Patients are texted to inform them when their prescription is ready.

Patients pay for generic PrEP using a credit or debit card. (Currently £55 for 30 pills). The prescription is screened and dispensed by pharmacy.

Further supplies of PrEP are only prescribed if people attend for the monitoring recommended.

Results: 2300 patients had registered for 'Additional Private Care' by the end of February 19.

Numbers of packs dispensed:

March–May 18	956
June–August 18	1841
September–November 18	2128
December 18–February 19	2274

Discussion: "PrEP Shop" has demonstrated significant demand for in-clinic generic PrEP provision. An advantage is that this model ensures patients have appropriate screening and monitoring in line with national guidelines. It could easily be replicated elsewhere.

P072 Developing a risk score to target PrEP and other HIV preventions to those most at risk of HIV acquisition in a UK sexual health clinic

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Abstract

Introduction: Full NHS implementation of PrEP (pre-exposure prophylaxis) poses a challenge to stretched sexual health services with limited resources.

We used routine clinical data to apply an individualised HIV risk-acquisition score to all men/transgender/nonbinary persons who have sex with men (MSM/TPSM) who attend clinic, to evaluate the potential to target HIV prevention strategies including PrEP to those most at risk.

Methods: We performed retrospective data analysis of clinic records for patients attending a UK Sexual Health Service between 01/12/16 and 28/02/19. MSM/TPSM attendees were identified using a combination of routine demographic and activity data codes.

We extracted recent diagnosis of syphilis, rectal chlamydia or gonorrhoea, previous use of post-exposure prophylaxis, chemsex and >5 recent sexual partners. The relative risk of HIV acquisition for each of these was obtained from current literature.

We constructed a compound HIV risk-score by multiplying the relative risks and applied the score to all MSM/TPSM attendees. Individuals with no reported risk factors scored 1. Individuals with a score of >10 were classified as 'at-risk' (corresponding to 2–3 additional risk behaviours)

Results: There were 72,667 clinic attendances of whom 10,918 were MSM/TPSM. We excluded 236 visits from HIV positive individuals and 527 duplicate records leaving 10,518 attendances (3,407 individuals). At first visit, 38.6% (1316/3407) met NHS PrEP eligibility criteria and 9.3% (315/3407) were classified as 'at-risk', scoring >10 (between 10–317) of whom 86.4% (272/315) reported recent condomless anal intercourse.

Conclusion: Our novel methodology quantifies sexual risk taking in PrEP eligible MSM/TPSM and could be used to target delivery of HIV prevention including PrEP to individuals most at risk. This is important in the context of limited resources and to ensure equity of access based on need for those at risk of HIV acquisition.

P073 High prevalence of new HIV diagnosis in Lambeth: An analysis of the current profile

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Abstract

Introduction: In 2017, the Lambeth borough reported the highest number of new HIV diagnoses. Among adults aged 15–59, the proportion was 42.2 new diagnoses per 100,000 people.

This is an old public health problem that Lambeth has been facing, and by 2014, Lambeth, Southwark and Lewisham (LSL) have teamed up to form a strategy plan to improve the profile of local sexual health outcomes.

Aim: Compare the plan developed for 2014–2017 with the results of the Public Health profiles for sexual health of 2017.
Methods: Analyse the plan Sexual Health Strategy LSL, focusing mainly on the target profile, on the understood challenges, on the priorities addressed, and on the objectives required.
Data collection of newly diagnosed key HIV population in London in general and Lambeth as specific.
Results: The LSL strategy for 2014–2017 was prioritized in the risk group evaluated by the area: MSM (same-sex men), Black African community and young people.
Although Lambeth's borough records the highest rate of new HIV cases in 2017, the number of cases was the lowest recorded since 2011, at a value of 120.4 dropped to 42.2, the best results in 6 years.
Discussion: Health needs need to be based on local reality. The literature indicates that benefits of engaging community members as frontline health workers are well documented and include extending the workforce, bringing services closer to people and, benefiting from the intimate knowledge these workers have of their communities. When analysing the results of 2017, even Lambeth is still a locality with high incidence of new HIV cases, it is evident that this number has been decreasing and represents the best rate since 2011. Several actions were done to improve this index, but certainly the community involvement is the key to the beginning of a steady and significant improvement.

P074 Failure to consider reproductive health needs of women living with HIV: an evaluation of cobicistat-boosted regimens in women of potentially reproductive age

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Abstract
Introduction: Pharmacokinetic and safety data in pregnancy for cobicistat-boosted regimens demonstrate low cobicistat exposure during the second and third trimesters. British HIV Association guidelines therefore recommend that women receiving antiretroviral therapy (ART) containing darunavir/cobicistat who become pregnant should be switched to an alternative such as darunavir/ritonavir. This evaluation aimed to identify reasons for use of cobicistat in our cohort of women of potentially reproductive age, and whether potential impacts on reproductive health had been documented as discussed.
Methods: For this retrospective service evaluation at our UK HIV centre, all women receiving cobicistat aged <55 years not identified as post-menopausal were identified by a search of the electronic patient records. Data were collected on the rational for the cobicistat-boosted regime, potential pregnancy risk, and documentation of discussions around ART in the context of conception plans, pregnancy and contraception.
Results: Data from 76 patients were analysed, with the most commonly used cobicistat-boosted regimen being Genvoya 36.8% (28/76). The main reasons for commencing a cobicistat-boosted regimen were simplification 44.7% (34/76), side effects 18.4% (14/76) and drug resistance 13.2% (10/76). Contraception was documented as discussed in 32.9% (25/76), with the method used documented in 6.5% (5/76). ART in pregnancy and conception plans were discussed in 2.6% (2/76) patients. Relationship status was documented as in a relationship 42.1% (32/76), single 18.4% (14/76) with no documentation 39.5% (30/76).
Discussion: 81.6% (62/76) patients were sexually active and therefore at risk of pregnancy, with poor documentation of conception planning, contraception use and discussion around ART issues in pregnancy. Failure to consider the reproductive health needs of women living with HIV denies them the opportunity to actively engage in decision making around choice of ART regimen, potentially leading to women conceiving on ART which is lacking safety data, or requiring an ART switch in pregnancy.

P075 Back to the breast? An increase in breast feeding by HIV positive mothers

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Abstract
Introduction: BHIVA guidelines still recommend formula feeding for all infants born to HIV positive mothers but offer guidance for supporting mothers who choose to breast feed. Over the past few years we have had an increase in interest in breast feeding often arising from U = U publicity or through knowledge of what is happening in Africa.
Results: In a four year period 17 women have breast fed 19 babies (1 twins and 1 mother currently feeding for second time). This represents 24% of live births to positive women in our hospital. None of the women breast fed a first baby and 4 had breast fed older children prior to their HIV diagnosis. All women had been HIV diagnosed at least

a year prior to the pregnancy which resulted in breast feeding (range 1–18 years). No woman newly diagnosed during pregnancy breast fed. In 3 cases the father was not aware of the mother's HIV status.
Duration of breast feeding was from 2 days -15 months, 2 mothers' breast feeding after 6 months, following UNICEF/WHO rather than BHIVA guidelines. One woman stopped feeding immediately after a viral blip of 170 copies when her baby was 10 weeks old, no other mother had a detectable viral load whilst feeding. 5 women are breast feeding at the time of submission.
The frequency of infant testing has been very little different to the standard 0, 6 weeks and 3 months in the first instance, though for babies breast fed beyond 3 months continued PCR tests every 6–8 weeks have been obtained but this has meant an increased workload for the paediatric team and inevitably some mothers miss their own or their infant's appointments.
We will discuss why this change has happened and how we support positive mothers however they choose to feed their babies.

P076 A Spike in HIV Diagnoses – Who are we Still Diagnosing?

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Abstract
Introduction: Public Health England figures show that rates of HIV diagnoses have been steadily dropping since 2006. However, in 2017 there were still over 4000 people diagnosed with HIV with a central London clinic had an approximate 105% increase in HIV diagnoses over November/December 2018. It is important for services to understand their newly diagnosed population in order to better inform local testing strategies and promotion of services.
Method: A retrospective review of new HIV diagnoses from the 01/11/18 to the 09/01/19 was conducted and information around gender, ethnicity, age, sexuality, date of last test and CD4 count at diagnosis was recorded.
Results: There were sixteen recorded HIV diagnoses between the 01/11/18 and the 09/01/19. The demographics showed:
- 2 females (both heterosexual, one white British and one Iranian), 16 males
- Of the men: 4 were heterosexual (one white British and three black and minority ethnicities (BME)), 10 were MSM (one white British, five white other and five BME)
- 10 patients had not tested for at least 18 months, with 4 of those having never tested in their lifetime
- Median CD4 count was 250 (excluding outliers)
- The median age was 43 and 25% were aged 25 and under
- 13 were of 'White Other' or of BME communities

Discussion: The majority of the new HIV diagnoses still remain amongst MSMs but over a third was amongst heterosexuals, most of which were from BME communities. Of the MSMs, 80% had not tested for at least six months or longer with all but one of the heterosexuals having not tested for several years (or ever). Combining this information with a low median CD4 count, it suggests that these people don't routinely access GUM clinics. Therefore greater efforts should be put into supporting other areas of medicine and community services, such as GPs, to offer HIV testing.

P077 HIV Testing Uptake varies considerably by clinician

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Abstract
Introduction: The aim of this re-audit was to assess HIV testing uptake in our department over a 6 month period. Two previous audit cycles had been completed. We analysed uptake by clinician to identify potential training needs.
Methods: Data was obtained from 01/07/18 to 31/12/18 for all new and re-registering patients. In line with the Public Health England (PHE) definition of HIV testing uptake, all episodes coded as SRH, H, H2, P3 and P1C were excluded. This data was then separated into two categories, those coded as T1, T2, T3 only and those coded as T4, T7, P1A. HIV testing uptake was calculated as dividing those that had a HIV test (T4, T7, P1A) by the total screening potential for HIV testing (a total of the two categories). Further sub-analyses were performed to assess reasons for declining a HIV test and uptake by each clinician.
Results: A total of 11392 attendances occurred in the period analysed, of these 9415 episodes had the potential for HIV testing. Of the 9415 patients, a total of 7705 had HIV testing performed (coded as T4, T7, P1A). Overall uptake was calculated as 81.8%.
Discussion: In this re-audit the HIV testing uptake was 81.8%. Comparison with previous audit cycles shows a consistently high uptake rate above 80%. Uptake by

clinician varied from 66% to 96% indicating significant variability. Additionally, the highest uptake was seen with doctors and health care assistants, compared to nurses (83%, 83%, 79% respectively).

Most patients declining HIV testing had no specific reason documented. How the test is offered impacts acceptance and all patients should have a consistent offer clearly explaining the benefits.

Table 1. Comparison to previous audit cycles

Audit cycle date	HIV testing Uptake
01/07/18 – 31/12/18	81.8%
01/06/17 – 31/12/17	83.0%
01/06/16 – 31/03/17	80.1%

P078 HIV Screening in A High Prevalence Urban Population – What prompts primary healthcare workers to offer HIV testing?

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Abstract

Introduction: In Croydon, 53% of new HIV diagnoses qualified as "late" in 2011 (CD4 <200). The borough accounted for 4% of new diagnoses in London. There has been an increase of 32% of people living with HIV in Croydon, from 2007 to 2011 (PHE, 2013). The borough is young and diverse, with the largest population of under 24 year olds in London. Of deaths occurring among HIV-positive adults in the UK in 2006, 24% were directly attributable to the diagnosis of HIV being made too late for effective treatment (Lucas et al 2008). Many of these 'late presenters' had been seen recently, with failure to make the diagnosis (Sullivan et al., 2005). UK National Guidelines for HIV testing (2008) suggest testing should be considered for all patients registering in general practice in high prevalence populations. Pre-test counselling should be documented with any relevant discussion.

Methods: Audit was registered locally with the practice manager, at a General Practice based in North Croydon. It sought to establish rationale for HIV testing, in primary healthcare, and the quality of documentation of pre-test counselling. The cohort was identified through population searches for "HIV" using Emis Web.

Results: Over a twelve-month interval, seventy-five HIV tests were performed. On evaluation, 21% of patients were tested for HIV due to atypical or recurrent infection, 16% for routine antenatal screening, 13% following presentation with non-specific symptoms, 12% for routine infertility screening. It was noted that the majority (73.3%) of clinical documentation preceding HIV testing did not record pre-test counselling or consent. Only nine clinical notes documented pre-test counselling *and* consent.

Conclusion: Routine HIV testing remains low, with testing of 0.70% of the registered population over twelve months. Main reasons for testing were atypical infection, non-specific symptoms and routine antenatal or fertility screening. Documentation of pre-test counselling and patient consent was poor.

P079 Quality improvement project investigating HIV testing in an A&E department within an area of low HIV prevalence and a high rate of late diagnosis

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Abstract

Introduction: St Helens and Knowsley NHS Trust is an area with a low prevalence of HIV but has a high late diagnosis rate of 70.6%. Benefits of early diagnosis include: early medical intervention; avoiding inappropriate tests; partner notification; U = U (undetectable = untransmittable) and the potential for a normal life expectancy. Therefore, opportunistic HIV testing in A&E following NICE guidelines is vital.

Methods: The first 100 patients aged 15–59 years old who attended Whiston Hospital A&E department on the 8th January 2018, were analysed and observed to see if a HIV test was clinically indicated following NICE guidelines. In addition, a questionnaire to explore the A&E doctor's knowledge on HIV testing was created and evaluated. The results of this were presented in a local audit meeting. After this, a poster displaying the NICE guidelines on clinical indications for HIV testing was circulated in the department, and several teaching sessions were given. Following the interventions, a further 100 patients were analysed on the 8th June 2018.

Results: The first cycle found 7 patients had indications for testing, however none were tested. Following the interventions, a second cycle found 6 patients with indicators for a test, and again none were tested. The questionnaire showed a varying level of knowledge of the NICE guidelines for HIV testing.

Discussion: There continues to be barriers around HIV testing, possibly secondary to time pressures of A&E, and lack of knowledge of the HIV clinical indicators/'at risk' groups in a low prevalence area. Future changes in the appropriate age groups include: adding a reminder to the

sepsis pathway and flu swab orders to consider HIV testing. Also include HIV testing lectures to the A&E induction teaching and create a more streamline referral to GUM if a test is positive.

P081 Bilateral optic neuritis in a HIV patient: Could Dolutegravir be the cause?

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Abstract
Introduction: Bilateral optic neuritis is not known to be associated with HIV. We present a HIV infected patient, who reported progressive loss of vision after commencing abacavir/lamivudine/dolutegravir containing single pill (Triumeq). We aim to investigate the cause and management of this patient's optic neuritis.
Methods: The information used was collected from our UK HIV centre's electronic medical records, the patient's own account of events and clinic letters.
Results: We present a 52 year old HIV positive MSM, who was HLA-B*5701 negative and virologically suppressed with a CD4 count of 1290 on Triumeq. 12-months post treatment, he reported a 6-months history of progressive loss of vision, itching, pain and redness in both eyes. He was reviewed by multi-disciplinary teams including ophthalmology and neurology, who found evidence of bilateral papilloedema. Following a normal CT-head and other investigations, he was diagnosed with idiopathic optic neuritis and commenced on oral steroids for 3-months, Triumeq was discontinued and treatment reverted to his previous regime. 3-months later his symptoms resolved. This was assumed to be due to steriods. The patient was switched back to Triumeq. 48-hours later he experienced these visual symptoms again. Triumeq was discontinued again and his symptoms resolved within 1-week. Lumbar puncture was contraindicated, as the patient was warfarinised for a prosthetic valve.
Discussion: The patient had previous exposure to antiretrovirals including abacavir for over 12-months, without any visual disturbance. The only new drug in Triumeq was Dolutegravir. This in combination with the appearance of visual symptoms within 48-hours into the re-challenge with Triumeq and reversal of symptoms after withdrawal of Triumeq, leads us to suspect whether Dolutegravir could be the offending agent. While optic neuritis is not a known side-effect, we propose that Dolutegravir could be the cause of this patient's optic neuritis, resulting in permanent reduction in visual acuity.

P082 The value of baseline chest radiography in HIV-infected patients

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Abstract
Introduction: The British HIV Association (BHIVA) recommends performing routine chest radiography (CXR) on HIV-infected individuals with a history of pulmonary disease, those at increased risk of tuberculosis (TB) and those who use/have used drugs intravenously. This audit aimed firstly to identify the prevalence of abnormal CXRs in HIV-infected individuals at a local HIV clinic set in a city of high HIV prevalence and secondly, to assess correlation between radiological features and CD4 count.
Methods: Baseline CXR reports for 144 newly diagnosed (73/144) or transferring (71/144) HIV-infected patients at the HIV clinic were collected (dated 2013–2018), and stratified by gender, age, HIV risk, CD4 count and history of pulmonary disease.
Results: Of 144 patients recruited, 69 (48%) had a baseline CXR. Forty-eight (69%) had normal reports, 15 (22%) had abnormal reports and 6 (9%) were unreported.
Abnormalities included ground glass change (1), atelectasis (1), pleural effusion (1), hilar prominence (3), bronchopneumonia (5), nodularity (2), granuloma (1), emphysema (1), generalised broncho-vascular prominence (2), pleural thickening (1) and lymphadenopathy (1).
Nine of those with abnormal CXRs (60%) had further investigation and/or treatment for various pathologies including bronchopneumonia, TB and/or pneumocystis jirovecii pneumonia.
Of those with abnormal CXRs, 12 (80%) had a CD4 count $<$ 350cells/mm3. Seven (64%) severely immunocompromised patients (CD4 count $<$ 200cells/mm3) had normal CXRs, of which 3 (43%) had CT scans and 2 (28%) required treatment.
Conclusion: Over two-thirds of HIV-infected patients who had CXRs had normal results.
Seventeen (45%) immunocompromised patients had abnormal CXRs, or normal CXRs requiring further investigation/treatment. Bronchopneumonia was the commonest pulmonary abnormality associated with HIV infection. We conclude that baseline chest radiography may be of greatest value in identifying possible AIDS- and non-AIDS-defining pulmonary pathology in immunocompromised patients. It may also be beneficial to study other sociodemographics such as smoking, to assess correlation with CXR features.

P083 A case report of Leishmaniasis in a HIV positive male

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Abstract
Introduction: Leishmaniasis is the clinical manifestation of infection from the protozoan diseases caused by parasites from more than 20 *Leishmania* species. The main route of transmission is via the bite of an infected female phlebotomine sandfly. It is found in the tropics, subtropics and southern Europe. The broad classification is cutaneous or visceral leishmaniasis, the latter being potentially life threatening without treatment.
Methods: We report the case of a 34 year old white British MSM diagnosed with HIV infection with CD4 count 14 cells/mm^3 (10%), VL >10,000,000 copies/ml. He presented with fever, weight loss, fatigue, night sweats, dysphagia and shortness of breath. He was pancytopenic with a normal LDH. A CT scan showed multiple abdominal lymphadenopathy along the mesenteric root and splenomegaly measuring 18cm in diameter. A duodenal biopsy demonstrated positive AAFB staining, subsequent culture and PCR was negative. MAI treatment was commenced with rifabutin, ethambutol and clarithromycin. He was transfusion dependent 4 weeks later and a bone marrow biopsy and trephine was performed.
Results: Histopathological examination of the bone marrow trephine revealed large collections of histiocytes, full of organisms, morphologically having a 'dot and dash' appearance, these were thought to be Leishmania amastigotes. Blood PCR screen was negative for Leishmania, blood IFA leishmania was positive 1:32, leishmania IT was negative suggesting equivocal results. However in advanced HIV, antibody testing can produce false negatives. Species confirmation was requested however the sample was too small to be analysed.
Discussion: Daily liposomal amphotericin B for 10 days was started, then weekly maintenance dose until CD4 count remained >250 cells/mm^3. A thorough travel history revealed he had completed archaeological digs in Egypt, Turkey and Israel. Co-infection of Leishmaniasis and HIV intensifies the burden of both visceral and cutaneous leishmaniasis. Leishmaniasis also accelerates HIV replication and progression to AIDS highlighting the importance of prompt diagnosis and treatment.

P084 Evaluation of an online service offering HIV self-test kits for UK-based sex workers identifying as female

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Abstract
Introduction: It is estimated a third of indoor-based sex workers are migrant. These, and trans women sex workers, may be at increased risk of HIV compared to other UK sex workers. Sex workers (SWs) experience stigma wait times and distance from sexual health services which may preclude from regular HIV testing.
Aim(s)/objectives: To assess the acceptability and uptake of web-based ordering for (BioSURE) HIV self-test (HIVST) kits for sex workers, identifying as female, based in the UK
Methods: A website was designed and promoted and the pilot incorporated a mixed method evaluation including web analytics, order data, online survey and qualitative data for HIVST users. Outcomes: kit orders; views of web content; order process and HIVST experience; themes arising from interviews about experience and motivations to use website and HIVST kits.
Results: From Jul-18 to Feb-19: 114 HIVSTs ordered; 43 (37%) surveys completed and 9 (21%) of these were interviewed. Orders placed by 5% trans women SWs and from SWs across the UK. 60% had HIV test in last year, 16% never tested. 14% of survey participants identified as migrant and 73% were aged 18–30. Survey and interview feedback indicated overwhelmingly positive feedback on website, order process and using HIVSTs. SWs also wanted the option to order other self-testing sexual health kits from this site.
Discussion: This project demonstrated the feasibility, acceptability and uptake of HIVSTs for SWs offered via a bespoke website. Although we attracted around 20% of orders from those who were migrant and/or trans women, this would probably increase if the evaluation time was extended. This pilot was time limited, but we strongly recommend the adoption of this service by a national HIV prevention organisation.

P085 Use of Vaginal Swabs in Gynaecology: A Clinical Audit at Frimley Park Hospital

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Abstract
Introduction: Approximately 800 vaginal swabs are processed by Frimley Microbiology Department each year, costing £7,000. Is there is a value of vaginal swabs in gynaecology? We aim to evaluate their appropriateness and follow up.
Methods: Women (n = 162) and their swab data (n = 166) from between October 2017 – January 2018 were collected. Positive swabs and 1-in-5 negative results, were investigated further (n = 86). Data was compared with NICE/RCOG literature, organised into themes and used to calculate novel frequencies.
Results: Of swabs investigated, **80% were potentially/ not indicated**; this equate to **£2,731.62 loss/year. 27% of patients had >1 swab results not reviewed** – this accounted for 22% of swabs collected, equating to **£1,826.40 loss/year.**
74 patients had HVS+ECS performed – 70% ECS showed the same results as HVS. In 28% HVS was positive but ECS showed no growth. **ECS were not indicated and provide information that can be attained from PCR swabs or HVS**. This equates to **£1,666.59 loss/year.**
Conclusions: The 'automatic' practice of 'triple swabs' is outdated and not appropriate, or indicated. There is substantial potential for saving with the altered practice of clinicians.

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P086 Analysis of complaints, incidents and changes in workforce pre and post tender-Are there any lessons to be learnt?

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Abstract
Introduction: The county wide semi urban sexual health service was the successful applicant in a tender exercise albeit with a reduction in the financial envelope by 12.5%. Since then, the hosting Trust had noted an increase in patient complaints or enquiries (PALS). Have there been changes in other quality indicators e.g. incident reporting, workforce reduction and total attendances that could be triangulated?
Methods: PALS (pre and post tender) were analysed as regards number and type, as well as a) reported incidents and b) a workforce analysis. In addition, clinic attendances were analysed.
Results: As regards PALS- these rose over a 3 year period from 17 to 59. Access to services accounted for **35/59 (59%)** in 2018 of PALS compared to **4/17 (23%)** pre tender). Reported incidents reduced from 139 to 86. The proportion of incidents related to violence abuse and harassment of staff increased from **5/139 (3%)** to **15/86 (17%).** As regards staffing numbers there was a minimal change in numbers of nursing staff in Band 4 or below. In contrast – there was a **26%** reduction in the number of nursing staff at band 5 and above. Furthermore there was a **34%** reduction in the number of administration and clerical staff. There was **33%** reduction in clinic attendances.
Discussion: Access to services accounted for the majority of the increased PALS which would correlate with the 33% reduction in attendances and possibly with the rise in incidents related to violence, abuse and harassment. Despite the reduction of the financial envelope, staff redeployment was kept to a minimum although some had their working hours reduced – this may not account for the 34% loss of non-clinical and 26% of clinical staff.. Should there be a further tender; consideration should be given as regards engagement and to how to retain both clinical and non-clinical staff.

P087 An Audit of Patient Outcomes in a joint GUM/Dermatology Clinic

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Abstract
Introduction: A monthly joint clinic with Dermatologists established in 2015 primarily for males with Genital Dermatology problems but also females and HIV co-infected, was held within the SH clinic for internal referrals.

Methods: Retrospective case notes review audit of last 100 pts seen 2016–2018. Aims of this audit were to a/ Establish the clinical spectrum seen and gender differences.b/Highlight any variations in usage of topical steroids before and after joint clinic.c/ Follow -up rates/repeat attendances. d/Range of skin conditions in HIV co-infected and other outcomes including referral for specialist investigations.
Results: Mean age-38.6 yrs, 25% females. Average duration of symptoms prior to GUM contact-12months. Referral -Self-82%, GP-18%.STI co- infection rate 28%, Warts > Herpes > Molloscom. HIV co-infection -17%. Clinical spectrum- Eczema was the commonest seen,34%, with females more affected, and lichen sclerosis and lichen planus 2nd, 12% each. Miscellaneous (eg hidradenitis and infective causes such as scabies) accounted for 20% overall,with 1 case of penile intraepithelial neoplasia. The clinical correlation between provisional GUM and final diagnosis was 60%. Biopsies-25% undertaken mainly prior to attendance at joint clinic with 10% subsequently. Topical Steroid use-Increase of potent /v potent following joint clinic from 10% to 50% and reduction of mild steroids/antifungals from 43% to16%. Follow up rates-Reduction of 50 % post- attendance at joint clinic up to 18/12 follow-up period. HIV associated conditions-In 18 pts a broad range of dermatoses with seborrhoeic eczema and pigmentary changes the commonest. Specialist Referral-Of the 19 pts, 40% were referred to specialist clinics for eg patch testing and 60% for further local investigations such as mycology samples.
Discussion: This audit demonstrates the clear value of multdisciplinary joint clinic resulting in more accurate diagnosis, treatment with potent/v potent topical steroids and onward specialist referral in addition to marked reduction in follow- up attendances and freeing up more SH clinic capacity.

P088 Collaborating with community pharmacists to deliver sexual health services – a multidisciplinary, patient-centred approach

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Abstract
Introduction: We describe a collaborative approach with community pharmacists to improve accessibility to sexual health services across a city facing significant health, social and wellbeing challenges.
Methods: We developed a stakeholder working group, comprising clinicians, managers (Business, health promotion, finance and education managers) and Local Pharmaceutical Committee (LPC) representation. Service-users and third sector organisations from hard-to-reach communities were involved via surveys and workshops focusing on case-based studies of individuals with sexual health needs. The service model comprised a Tier 1 service (T1) (emergency hormonal contraception (EHC), condom distribution, dispensation of online STI kits) and an advanced Tier 2 service (T2) (T1 plus initiation of STI testing, STI kit provision, Chlamydia treatment, initiation of regular contraception). We utilised an EPR (PharmOutcomes), which community pharmacists already used. Communication pathways comprised regular forums, meetings with the LPC and email. Examples of good practice were shared amongst pharmacists. We established a training program for Pharmacists with an online and face-face component (quality assurance). Our health promotion team produced materials for display in pharmacies and clinics to promote sexual health awareness.
Results: 163 community pharmacies (100 T1, 63 T2) contract with us and deliver sexual health services. Service activity in community pharmacies continues to increase. Monthly activity in October 2018 confirms provision of: 2040 EHC, 123 chlamydia screens, 1022 condoms, 323 STI kits, 46 chlamydia treatments, 182 progesterone-only pill, 33 Sayana Press injections. There is wide variation in service activity levels across different pharmacies; reasons for this are being explored further.
Discussion: Providing opportunities for face-face contact has been vital for building relationships with stakeholders. Investment in training and health promotion at the outset improved awareness and enabled us to remain up-to-date with ongoing training requirements. Reflection on feedback from stakeholders has enabled pathways to be streamlined. Recognition and sharing of examples of good practice has supported providers.

P089 Innovation to Promote Self-Management of Simple Vulvovaginal Candidiasis

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Abstract
Introduction: Many patients attend Cambridge sexual health clinic for simple thrush treatment. Not only does

this mean that the service pays for treatment which is already available over the counter, but it also uses up valuable and limited appointments.

Methods: To address this, we introduced a change in service whereby patients diagnosed with simple thrush were given relevant clinical information and then directed to pharmacies to purchase an appropriate over the counter treatment. As well as saving money for the clinic, the objective of this change was to also encourage patients to try and self-manage thrush first before attending for future episodes. This would then create appointment space for more urgent infections (sexually transmitted), which also carries a public health benefit. If their symptoms failed to improve patients were advised to return to clinic for review. More complicated thrush was managed in the usual way with a private prescription. Treatment was still provided for any cases of thrush linked to a sexually transmitted infection.

Results: Attendance reports since the introduction of this change reflect a decrease of 29% in the number of patients attending clinic for simple thrush. There were also monetary savings in the cost of providing thrush treatment with an overall 79% decrease for first line treatments. A patient questionnaire revealed that the change had been well accepted with most patients finding self-management more convenient.

Discussion: The initial concerns regarding patient acceptability of the innovation were abated by the positive results from a patient questionnaire. These results suggest patients are motivated to self treat a condition which they recognise and have received appropriate advice regarding symptoms and treatment. This change may have a positive effect on GUM services by allowing more appointment time for other more complex conditions, whilst also improving patient convenience.

P090 Is MOCA useful or should we have a coffee instead? – an analysis of assessments within our service

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Abstract

Introduction: Since 2018 all patients accessing HIV care are required to complete a self -completed assessment of their cognitive and psychological wellbeing when attending their first clinical appointment of the year.

EACS (European AIDS Clinical Society) screening questions were initially used to ascertain whether patients required further cognitive assessment with a consultant in a follow up appointment. For those who self-identified as having cognitive issues, a MOCA (Montreal Cognitive Assessment) was undertaken at an additional double clinic slot by a clinician.

Methods: A retrospective note review was undertaken of the HIV patients who had been assessed using the MOCA screening tool during 2018. The result of the assessment (score) and any areas of failure were noted for each patient.

Other factors were documented for each patient including: drug and alcohol use, mental health history, CD4 (current/nadir), current /previous antiretroviral regimes, length of time on treatment and whether the patient had history of anaemia.

Results: All HIV patients within the service seen in 2018 were offered a cognitive screening assessment ($n = 800$). Of those who completed the assessment, 15 (1.9%) were identified as requiring further evaluation with the MOCA tool. All were well controlled on antiretrovirals.

Patient's scores ranged from 24–30/30 (mean and median 27/30).

Further results will be presented.

Discussion: MOCA was easy to perform, though time consuming for clinic staff and patients. High levels of confounding factors existed among the cohort screened. In this cohort, MOCA did not identify any patient requiring referral for further neurocognitive assessment.

We will evaluate whether addressing confounders before performing the MOCA would limit the number of evaluations required in an already overstretched service.

P091 Patient held steroid alert card: assessment of utility and acceptability

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Abstract

Background: The activity of ritonavir and cobicistat as potent inhibitors of CYP3A4 and their potential for interaction with steroids is well recognised. University of Liverpool HIV iChart is an excellent resource which we routinely share with patients and their GPs. Despite this, two cases of clinical Cushings syndrome in known HIV patients on boosted regimes presented to our hospital in 2017, precipitating review of procedure and development of a patient-held steroid alert card.

Method: From October 2018, all attendees at our outpatient HIV service on ritonavir or cobicistat containing regimes were offered the steroid alert card and asked to complete a brief questionnaire about prior knowledge of the interaction and acceptability of the card. A follow-up questionnaire at 6 month review will revisit awareness, acceptability and utility of the card.

Results: Our cohort of 230 includes 56 individuals on boosted regimes (35 ritonavir, 21 cobicistat)

From October 2018 to February 2019, 23 of these attended clinic and were offered steroid alert cards with no refusals.

	Yes	No
Were you aware of the potential interactions of your medicine with steroids?	6	17
Is the information clear and easy to understand?	21	2
Would you be willing to carry this card on your person?	21	2
Would you look at the card before starting new medication?	19	4

Free text comments included some concern about the mention of HIV on the card.

Discussion: HIV is now a chronic condition with patients on medication for decades and increasing likelihood of presentations across a range of medical specialties with conditions for which steroids are indicated. HIV iChart is a valuable resource, details of which we routinely share with all patients and their GPs. However, patients appear still to be unaware of this important interaction and are open to carrying an alert card to support safer use of medications.

P092 Use of Unannounced Standardised Patients (USPs) to evaluate and inform training for sexual health services delivered through Community Pharmacies (CPs)

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Abstract

Introduction: In light of Birmingham City Council's aim to improve sexual health provision, Umbrella sexual health service was commissioned in 2015 to include service delivery through community pharmacies.[1] Unannounced standardised patients (USPs) have been used for health service evaluation in community pharmacies (CPs), however research on its validity as a formative assessment tool is limited. This project explores the role of USPs to inform training for health-care professionals (HCP) in CPs in addition to service evaluation.

Methods: An evaluation form was devised for USPs to provide qualitative and quantitative feedback on two scenarios presenting to CP for either condoms or emergency contraception. Feedback was separated into three parts; service promotion, initial enquiry and consultation and results were analysed using descriptive statistics and thematic-based qualitative analysis. HCPs were then e-mailed individualised feedback and action plans. General themes were utilised for generic training and contract-holder feedback.

Results and Discussion: Of 57 attempted CP visits, only 34 (59.6%) were provided with an Umbrella service, the majority (88.2%) of which were for condoms. Most USPs (70.6%) felt they were treated well overall (good/excellent) but there were missed opportunities for effective signposting when the Umbrella service could not be offered (33.4%). Scores were associated with common themes including professionalism, service knowledge and the CP environment. No association was found between length of consultation and consultation score but there was an association between the initial enquiry score and consultation score.

Conclusion: USPs enabled specific individualised feedback for HCPs and identified important areas to address in future Umbrella training and with contract-holders, however further research is required to gauge the effectiveness of the USP as a formative assessment tool.

References

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P093 Rapid repeat – a service to improve access to repeat pill supplies

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Abstract

Introduction: Oral contraception remains the most popular choice of contraceptive in the UK with 44% of women in England using this method. In 2017 our service saw at least 1700 women to continue their pill. Approximately

50% of these are attending for contraception only. With access to general practice sexual health clinics becoming increasingly difficult we sought to provide a solution. Our service designed a paper-based pill triage to identify patients who could continue on their pill without seeing a healthcare professional (HCP).

Method: Initially the service was evaluated against HCP taken histories to ensure safety. Following roll out the service was assessed for demographics, safety, usage and patient satisfaction. To use the service patients had to be over 18, have a good understanding of written English and be established on a contraceptive pill.

Results: 25 self taken medical histories were assessed against a HCP taken history, all patient forms matched clinician taken histories. The full service has seen 456 patients in 6 months. 4 patients were medically ineligible and required HCP review. The patients ranged in age from 18 to 52, with 2/3 of patients under age 25. 22 patients were surveyed about the service and all were pleased with the service and would recommend to friends.

Conclusion: A paper based system is a safe and cheap way to provide repeat prescriptions of contraceptive pills. It is efficient and requires no additional investment from individual services unlike online models.

P094 ISH or ISHn't? How integrated are we?

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Abstract

Introduction: A training programme is underway to improve integrated clinical skills in our new Integrated Sexual Health Clinic. One target is to offer all patients a comprehensive sexual health screen and provide contraception, if required, whatever the reason for attendance. A baseline audit was undertaken to ascertain current assessment and provision, in order to provide specific recommendations for ongoing staff training and improve clinical standards.

Methods: One week retrospective case review of 193 female patients, attending for new symptomatic screens (GUM) or contraception (CASH). Details of sexual history and contraception risk assessment, sexual infection screening, contraception provision, and current training of staff were collected.

Results: 119 patients attended for contraception (CASH) and 74 for sexual health screening (GUM). Sexual infection history was recorded in 115 (96.7%) CASH and 70 (94.6%) GUM patients, and sexual contact history in 102 (85.1%) CASH and 70 (94.6%) GUM patients. Thirty seven (31.1%) CASH and 60 (81.1%) GUM patients underwent blood borne virus risk assessment, with 27% (20) CASH and 67.6% (50) GUM patients testing for HIV. Forty (33.6%) CASH and 66 (89.2%) GUM patients had chlamydia and gonorrhoea testing.

All current contraception was recorded, with 17 (14.3%) CASH and 21 (28.4%) GUM patients using no method. All CASH patients had a contraception discussion, with provision in 12 (70.6%) cases, the remainder declining. For GUM patients using no method, 7 (33.3%) eligible patients were provided suitable contraception.

A total of 45 clinicians saw these patients. Nineteen clinicians were primarily GUM trained and 26 contraception trained. Thirty clinicians had undergone dual training.

Discussion: To provide a meaningful "one stop shop approach" further training is needed to increase integrated skills knowledge, sexual infection testing and contraception provision. Further audit against BASHH STI standards is planned to monitor progress.

P095 A Service Evaluation of Sample Taking and Handling Practices in Level 2 and 3 Sexual Health Services

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Abstract

Introduction: Patients attending sexual health (SH) services expect sexually transmitted infections (STIs) that they carry to be identified. Studies show that sample taking and handling technique impacts laboratory detection of infections. This service evaluation was designed to assess the current STI sampling practices in a large SH provider, across six Level 2 and 3 SH centres, with the aim of establishing needs for future training and quality improvement programs.

Methods: A service evaluation tool was developed using existing guidelines and a review of current literature. The tool was used to assess the sample taking and handling practices of staff members under direct observation. Specifically, sample taking practices in the categories of infection control, swabbing technique and microscopy were assessed and compared for doctors ($n = 19$) and nurses ($n = 30$) across all clinics, as well as variation among all staff between all six clinics. Scores were recorded as percentages per category and descriptive

statistical analysis was performed on SPSS Version 25. After observation, staff were provided with immediate individualised feedback on their performance and directed to appropriate resources to improve practice.

Results: The mean performance score for infection control, swabbing technique, and microscopy was 85%, 67%, and 85% respectively. Principal areas of improvement include contamination, pharyngeal and vulvo-vaginal swabbing technique and preparation of wet mount vaginal microscopy samples.

Discussion: Clinicians are generally performing well in infection control and microscopy. However, this study has revealed a need for improvement in specific areas of sample taking including swabbing technique. Standardised protocols and focused training is necessary for quality improvement. In the future, this study and our service evaluation tool could be used to replicate and evaluate services in other regions of the UK.

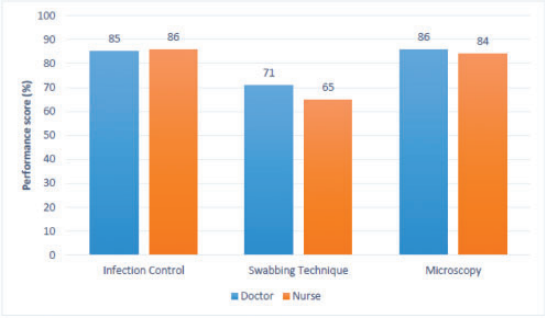

Figure 1: Sample taking performance of doctors and nurses in SH Services.

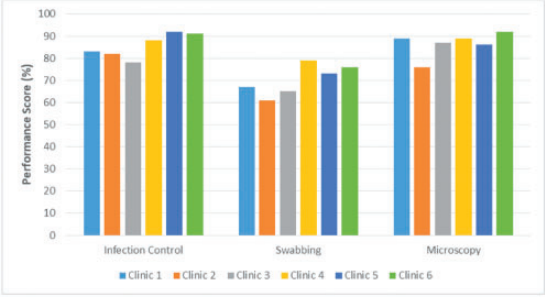

Figure 2: Sample taking performance in SH Services.

P096 Online history taking prior to remote prescribing of antibiotics for uncomplicated genital *Chlamydia trachomatis*– testing the safety of three remote communication strategies

Hannah McCulloch[1], Jonathan Syred[1], Gillian Holdsworth[2], Chris Howroyd[2] and Paula Baraitser[1]

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Abstract

Introduction: Online services for testing of sexually transmitted infections are widely available across the UK. Online prescriptions with medication posted home may support prompt treatment, however absence of face-to-face contact with clinicians raises clinical safety issues since medical history may not be accurately provided online.

We tested the safety of three remote communication strategies within an online service offering remote prescriptions of antibiotics, delivered by post, for uncomplicated genital *Chlamydia trachomatis*. User acceptability of service and time from diagnosis to treatment were also obtained.

Methods: We compared three iterations of the service where medical history was collected by text message, telephone and online form prior to prescription. We contacted users after their prescription and completed the medical history a second time by telephone. The primary safety measure was agreement in medical information between pre and post prescription assessment, using univariate, and multivariate, analysis.

Results: From 15/02/17 to 24/10/2017, 321 users chose and were eligible to receive postal treatment for chlamydia. 199 (62.0 %) participated in the post-prescription audit. Those who were assessed for prescription via text were less likely to have an agreement in safe prescribing information than those assessed by telephone (AOR 0.22 (CI 95% 0.08 – 0.61, $p = 0.004$)). We found no statistically significant difference in odds of agreement between online form and telephone assessment (AOR 0.50 (CI 95% 0.17 – 1.43, $p = 0.199$).

Over 98.0% of users reported understanding remote communication and 89.9% would use the service again. Median time-to-treatment was 4 days (IQR 3 -5.5).

Discussion: Online postal treatment is an acceptable, fast option for uncomplicated genital chlamydia. Assessment through text message does not appear to be a safe remote assessment of medical eligibility. Whilst we didn't yield statistically significant findings about the safety of

assessment via an online form, further work should investigate medical history taking processes prior to online prescribing.

P097 Improving the healthcare response to domestic violence and abuse in sexual health settings: Developing a commissionable model and guidance for the IRIS ADViSE intervention

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Abstract

Introduction: Sexual health services are an important setting for domestic violence and abuse (DVA) interventions. The *A*ssessing for *D*omestic *V*iolence in *S*exual health *E*nvironments (ADViSE) intervention – a modification of the *I*dentification and *R*eferral to *I*mprove *S*afety (IRIS) general practice programme – aimed to improve identification and management of DVA in sexual healthcare settings.

Methods: The intervention included all staff training, patient information materials, an enquiry prompt in the electronic patient record and a simple referral pathway to a named specialist based in a local, DVA advocacy service. An adaptive mixed method pilot study was conducted in two sexual health clinics (London and Bristol) to assess the feasibility and acceptability of the intervention. Following the pilot, the intervention design was refined, and three stakeholder workshops were convened with sexual health clinicians, commissioners, patients and DVA agency representatives. At each workshop findings from the IRIS ADViSE pilot were presented along with the refined IRIS ADViSE design; feedback was sought to develop commissioning guidance.

Results: DVA enquiry rates were 267 In the London clinic over seven weeks and 1,090 In the Bristol clinic over 12 weeks, with 8 women from each clinic referred to DVA advocacy services. Three months before the pilot, there were no referrals at either site. Sexual health clinic staff reported in qualitative interviews that the intervention was valued, and they felt more confident about asking about DVA and managing disclosures following the training. The interviews and stakeholder workshops identified further refinements to the intervention e.g. further training in relation to how and when to ask about DVA, reinforced the need for DVA interventions to respond to patients of all genders and highlighted information required in guidance to enable commissioning of the intervention.

Discussion: The IRIS ADViSE intervention is acceptable and feasible to implement. The process undertaken has been invaluable in developing commissioning guidance.

P098 A service evaluation assessing the delivery of Chlamydia treatment in community pharmacies

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Abstract

Introduction: As part of the sexual health transformation project for Birmingham, sexual health services were developed in collaboration with community pharmacies. The aims of this evaluation were:

- to assess whether Chlamydia was managed in accordance with local Patient Group Directions (PGDs) for treatment and referral elsewhere when indicated
- to measure rates of repeat Chlamydia treatment
- to measure variation in service activity across pharmacies and by individual pharmacists

Methods: Retrospective analysis of electronic patient records between 1st November 2017 and 31st October 2018. Assessment of patient demographics, treatment given, external referral rates, and levels of service activity.

Results: 546 attendances (500 patients) for Chlamydia treatment occurred over 12 months. 46 (9.2%) were repeat attendances for either a second (40) or third time (6). 205/500 (41%) of patients were White British. 320/500 (62%) of patients were aged between 16 and 25 years. 34/44 (77%) of eligible pharmacies provided at least one Chlamydia treatment during the study period. 456/500 (91%) of patients reported a postcode within the service commissioned area. Patient attendance for pharmacy treatment of Chlamydia varied across the week (Sunday 2.7%, Monday 11%, Tuesday 15.6%, Wednesday 15.8%, Thursday 17.2%, Friday 19.4%, Saturday 18.3%). 526/546 (96%) of attendees received chlamydia treatment in the pharmacy – 468/526 (89%) were treated with doxycycline and 58/526 (11%) were treated with azithromycin. 23/546 (4.21%) attendees were referred elsewhere in accordance with PGDs – 19 to sexual health clinic only; 3 to sexual health clinic and GP; 1 to GP. Service activity varied from

0–111 attendances per pharmacy store, and 0 to 59 attendances per individual pharmacist over 12 months.
Discussion: The large majority of patients who attended community pharmacists for Chlamydia treatment were managed appropriately. There was wide variation in activity between different pharmacies and individual pharmacists, which requires further exploration.

P099 Be The Best – Get a Chlamydia Test! Twelve Months' Experience Delivering a Sexual Health and Contraception Clinic for Military Personnel and Their Dependents

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Abstract
Introduction: We previously identified high chlamydia rates in local military patients. A clinic was created for this population, increasing in size due to relocation of personnel to the UK.
Methods: A once-a-week, walk-in enhanced Level 2 clinic staffed by a consultant / experienced band 7 nurse was opened in primary care premises. Attendances from February 2018 to February 2019 were reviewed.
Results: We saw 419 patients in 551 attendances (average number of attendances 1.32 per patient; range 1 to 9 attendances in 12 months). 70.9% of attendees were male, 100% of male patients were military compared with 59.0% of females. 97.9% were heterosexual, 90.0% were white British, 43.7% were under 25 years old. There were 49 positive tests for chlamydia (421 tests; positivity rate 11.6% of tests done). 30 (61.2%) of these patients were under 25. There were 9 positive tests for gonorrhoea (421 tests; positivity rate 2.3%). 7 (77.8%) of these patients were aged under 25. 27 patients attended for management of genital warts, 6 patients attended for genital herpes. No new diagnoses of syphilis / HIV were made. Median clinic attendance was 10.5 patients per 3 hour clinic (range 1 to 20 patients) increasing steadily over the year. 56.6% of female patients attending were prescribed contraception, 49 patients prescribed LARC (71.0% of all contraception). Of 69 patients prescribed contraception, 43 (62.3%) were tested for chlamydia and gonorrhoea. 3 patients (7%) were positive for chlamydia with one coinfection with gonorrhoea.
Discussion: Our clinic is popular with patients and has diagnosed a substantial number of chlamydia and gonorrhoea cases. Providing a sexual and contraceptive health service close to where they live/work has enabled us to see and treat at-risk patients. We plan to extend the service to longer hours and a second venue, providing opportunities to train military colleagues in sexual health and contraception.

P100 Refining rectal *Chlamydia trachomatis* management – a quality improvement project

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Abstract
Introduction: The BASHH 2015 guideline for the management of *Chlamydia trachomatis* (CT) advocates test of cure (TOC) for asymptomatic Men-who-have-Sex-with-Men (MSM) and pregnant women, who test positive for rectal CT, unless they have a 3-week course of doxycycline. The rationale for this is to avoid under-treating asymptomatic *Lymphogranuloma venereum* (LGV).
Methods: We designed a quality improvement project to determine: the number of positive rectal CT results between January and July 2018; the proportion of patients with rectal CT who presented for TOC; the rates of positive TOC; and conduct a case analysis of those with positive TOC to determine likelihood of treatment failure or re-infection. Following data collection and analysis, the clinic protocols were refined after approval from the multidisciplinary clinical team.
Results: $n = 204$ patients tested positive for rectal CT. $n = 149$ (73.0%) returned for TOC. 18/149 (12.1%) had a positive TOC, however 12/149 (8.1%) of these were performed prior to 6 weeks and so may have been false positives due to low-level residual DNA. The remaining 6/149 (4.0%) patients all had clear risk of re-infection. $n = 9$ positive LGV results were found, 6 of these were in HIV positive MSM. The remaining 3 were taking PrEP and had proctitis.
Discussion: All of the positive TOC results >6 weeks were either false positive or presumed reinfection. Those with LGV were detected through routine LGV testing of either HIV positive patients or due to symptoms of

proctitis. As a result of this our clinic has opted to cease TOC for rectal CT for all other MSM.

P101 Rapid Sexually Transmitted Infection testing, diagnosis and treatment: Qualitative evaluation of implementing a new sexual health service

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Abstract

Introduction: Unity Sexual Health in Bristol re-designed its service to improve access and delivery of care. This includes a Panther (Hologic Inc) system at the point of care to provide rapid STI tests, allowing Nucleic acid amplification testing results for STIs including gonorrhoea and chlamydia to be available within four hours. Previously patients waited over a week for these results.

Methods: A qualitative evaluation is running alongside the implementation of the new service, to understand experiences, and inform its iterative development.

Fourteen semi-structured interviews with staff and patients, and notes from 25 hours of observation of the service in operation, were analysed thematically.

Results: Implementation of the new service required co-ordinated changes in practice across multiple staff teams. Patients also needed to make changes to how they accessed the service. Multiple small 'pilots' of process changes were necessary to find workable options. For example, the service was introduced in phases beginning with male patients. This responsive operating mode created challenges for delivering comprehensive training and communication in advance to all staff. However, staff worked together to adjust and improve the new service, and morale was buoyed through observing positive impacts on patient care. Early patient feedback indicated that while increased certainty in advance regarding service access was desired, patients valued faster results highly. Patients reported that when consulting with a specific concern, they were willing to drop off samples and return for a follow-up appointment the same/next day, to receive treatment in accordance with test results.

Discussion: Implementation of service changes to improve access and delivery of care in the context of stretched resources can pose challenges for staff at all levels. Early evaluation which provides opportunities for prompt feedback and adjustment is valued. Visibility to staff of positive impacts on patient care is important in maintaining morale. The service was acceptable to patients.

P102 Evaluation of the effectiveness of online STI testing on reducing face to face attendances and raising of the number of tests in high risk groups

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[1]YorSexual Health, York, United Kingdom; [2]PHE, Leeds, United Kingdom

Abstract

Introduction: As an integrated Sexual Health Service we deliver contraception, STI testing and treatment. From 2016 this includes online STI testing. We used a generic evaluation logic model (LM; a simple planning tool that describes the relationship between each element in an intervention and the likely direction of change) and adapted this to reflect local needs.

Methods: We used local data to evaluate the number of tests performed before and in the two years (2016–17 and 2017–18) following the introduction of online STI testing overall and by three key population groups (BAME, MSM and those under 25 years).

Results: Data in figure 1 shows the total number of tests performed has risen by 11% since the implementation of online testing. This coincided with a fall of face to face tests performed, which means that the rise in numbers of tests performed can be attributed to the online provision. There has also been a reduction in face to face attendances to clinic of 32%.

	2015/16	2016/17 Post online testing	2017/18 Post online testing	% change
Number of face to face tests	31,752	32,034	28,234	- 11%
Number of online tests	Not available	4,484	7,527	+ 40% (from 16/17)
Total tests	31,752	36,518	35,761	+ 11%
Number of face to face attendances	21,575	19,845	14,694	- 32%

(Figure 1)

Data in figure 2 show that as a proportion, testing of MSM and BAME has increased in 2017/18 compared to 2015/16. This increase has predominantly been realised in the online testing service for MSM. The proportion of under 25s testing has not changed significantly over the past three years.

		2015/16	% of all face to face tests	2016/17	% of all face to face tests	2017/18	% of all face to face tests
Face to face tests	total	31752	-	32034	-	28234	-
	MSM	2473	8%	2862	9%	3117	11%
	BAME	1683	5%	2171	7%	2742	10%
	under 25 year olds	18388	58%	18296	57%	17076	60%
Online tests	total	not available		4484	-	7527	-
	MSM			369	8%	780	10%
	BAME			450	10%	592	8%
	under 25 year olds			2415	54%	3580	48%
Total tests	Total	31752		36518	-	35761	-
	MSM	2473		3231	9%	3897	11%
	BAME	1683		2621	7%	3334	9%
	under 25 year olds	18388		20711	57%	20656	58%

(Figure 2)

Discussion: Total numbers of tests performed has increased but face to face attendance numbers have reduced by 32% over 2 years. Numbers of the under 25 population testing has increased but this has not shown a percentage rise, although the percentage was already high at 58%. The percentage of other high risk service users testing has increased and so demonstrates that online testing has successfully met the aims.

P103 Evaluation of the effectiveness of online STI testing on increasing testing rates in rural areas

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[1]YorSexual Health, York, United Kingdom; [2]PHE, Leeds, United Kingdom

Abstract

Introduction: As an integrated Sexual Health Service we deliver contraception, STI testing and treatment. From 2016 this includes online STI testing. We used a generic evaluation logic model (LM; a simple planning tool that describes the relationship between each element in an intervention and the likely direction of change) and adapted this to reflect local needs.

Methods: We used local data to evaluate the number of tests performed before and in the two years (2016–17 and 2017–18) following the introduction of online STI testing overall and by three key area groups (Rural, Urban and Mixed).

Results: 2016–17 (first year of online testing) demonstrated a 24% rise tests performed. At this time there was also an expansion of face to face services in rural locations. In 2017–18 there was an additional rise of 7% that can all be attributed to online testing. Over 2 years there was a 30% rise in numbers of tests performed. Although the proportion of rural tests did not rise, the number of tests performed rose by 704, demonstrating a 47% increase in 2017–18.

Data from figure 1 show that the number of tests from rural areas in 2017/18 has increased by 58% from 4173 to 6603 tests. This mainly reflects an overall increase in testing, although the proportion of all tests from rural areas increased by 2 % from 17% in 2015/16 to 19% in 2017/18.

	2015/16	% of total	2016/17	% of total	2017/18	% of total
Number of face to face tests	24595		29285		29395	
from rural areas	4173	17%	5150	18%	5096	17%
from urban areas	16870	69%	19572	67%	19128	65%
from mixed areas	3268	13%	4226	14%	4572	16%
unknown	284	1%	337	1%	599	2%
Number of online tests	not available		2929		5810	
from rural areas			803	27%	1507	26%
from urban areas			1460	50%	2948	51%
from mixed areas			659	22%	1213	21%
unknown			7	0.2%	142	2%
Number of clinic and online tests	24595		32214		35205	
from rural areas	4173	17%	5953	18%	6603	19%
from urban areas	16870	69%	21032	65%	22076	63%
from mixed areas	3268	13%	4885	15%	5785	16%
unknown	284	1%	344	1%	741	2%

(Figure 1)

Discussion: A rise in percentage of tests performed demonstrates that access to services has increased. The total number of tests from rural areas increase, therefore it can be concluded that online testing has successfully met our intended aims.

P104 Risk to patients, risk to staff: A Service Evaluation of Counselling Records in Genital Herpes

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Abstract

Introduction: A diagnosis of genital herpes can be distressing for patients. Careful counselling can help patients adjust to the new diagnosis and improve awareness of key issues. BASHH guidelines outline information to be documented in patient notes after counselling a patient with herpes. The aim of the evaluation was to assess the documentation of herpes counselling by clinical staff in three large UK level 3 sexual health services.

Methods: Each centre reviewed the first 100 patients with GUMCAD code C10A (a new diagnosis of genital herpes) between 1st July 2017–28th February 2018.

Records without laboratory confirmation were excluded and all patients had been diagnosed for over six months, allowing for multiple counselling opportunities. A data collection tool based on the 2014 BASHH guidelines was used to assess patient records around key counselling topics. The topics assessed were: natural history, therapy options, transmission, condoms, selective abstinence, suppressive therapy, asymptomatic shedding, pregnancy and disclosure.

Results: Disclosure was most frequently documented in 60% (181/300) of records, whilst suppressive therapy, recorded in only 15% (44/300) of records, was least documented. Additionally, only 16% (47/300) of records included pregnancy documentation and 75% (224/300) of records documented less than half of the recommended advice. 20% (59/300) of records documented providing a general herpes leaflet and 16% of reviewed records were found to be incorrectly coded as herpes.

Discussion: The documentation surrounding herpes counselling is poor and carries potential medico-legal consequences. The documentation of pregnancy complications and suppressive therapy were particularly poor. To improve this, clinics could consider using a standard recording proforma to ensure all information is discussed and recorded for patients with a new herpes diagnosis. The development of a recommended standard patient information leaflet for herpes may also be beneficial and improve awareness. Finally, there may be a national overestimation of herpes prevalence by 16% due to incorrect coding.

P105 Trichomonas Vaginalis testing- a service evaluation

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Abstract

Background: Our department has been using rapid antigen testing (OSOM TV; Genzyme Diagnostics) to test for Trichomonas Vaginalis (TV). OSOM compares favourably to culture and transcription mediated amplification (TMA) for the detection of TV, but studies were done in high prevalence countries (18.5%)[1]. Prevalence in the UK is low (0.3%)[2].

TV nucleic acid amplification tests (NAATs) (Aptima, Hologic) have recently become available through our laboratory. Validation testing found a TV prevalence of 1.2% in the community (8/650 vulvovaginal swabs).

This service evaluation compared TV NAAT and OSOM . Clinical indications for testing were compared to British Association of Sexual Health and HIV (BASHH) guidance.

Method: Patients with a clinical indication for TV testing had an OSOM and a NAAT over a 3 month period.

Results: 92 vulvovaginal samples were compared.

TV OSOM	TV NAAT positive	TV NAAT negative	Total
Positive	1	0	1
Negative	0	91	91

Symptoms were experienced in 98% (90/92) of patients tested for TV and 87% (78/90) of these of these were vulval/vaginal symptoms i.e. discharge/itch. One patient tested positive for TV, but other conditions were diagnosed in 68% (61/90) of symptomatic patients, usually bacterial vaginosis (BV) (62% (38/61)).

Discussion: In this sample 1.1% (1/92) patients tested positive for TV, in line with prevalence found in community. The negative predictive value of OSOM seems good with 91 confirmed by NAAT. Not testing for TV in women with positive microscopy on stained slide may reduce unnecessary testing in this population.

References

1. Huppert JS et al. Rapid antigen testing compares favorably with transcription-mediated amplification assay for the detection of Trichomonas vaginalis in young women. Clin Infect Dis.
2. Field N et al. Trichomonas vaginalis infection is uncommon in the British general population: implications for clinical testing and public health screening. Sex Transm Infect. 2018 May;

P106 UTI or STI, should BASHH have a guideline?

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Abstract

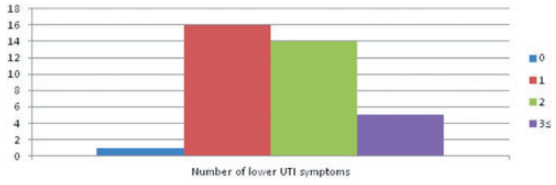
Introduction: Urinary tract infection (UTI) is a frequent and challenging presentation to genito-urinary clinics due to overlapping symptoms with sexually transmitted infections (STIs). Subsequently, patients are investigated for both, resulting in frequent and inadvertent antibiotic prescribing, based on symptoms alone, while awaiting results. Currently there is no national guidance and a survey within our region revealed individuals use different guidance. Our trust antibiotic stewardship audit identified cases of broad spectrum antibiotic prescriptions for

UTIs. Based on this after educational sessions to staff, a repeat audit was conducted on management of UTIs.
We aimed to evaluate the appropriateness of diagnosis and management of acute uncomplicated lower UTIs in our Sexual Health Clinic.
Methods: Retrospective audit was conducted on patients presenting with lower urinary symptoms over a three month period. Data was extracted from INFORM software from patients coded 'D2A' or prescribed Nitrofurantoin, Trimethoprim or Co-Amoxiclav.
Results: Total of 36 patients included; all women, median age of 22 (range 16 – 68 years). Dysuria was the most common presenting complaint (Table 1). Majority of patients presented with 1 or 2 urinary symptoms (Figure 1). 33 patients had urine analysis, 16 of which only had one symptom. 75% had cultures sent. Only 37% were positive but 97% of patients were treated empirically with antibiotics.
Interestingly 14% of patients had a STI diagnosed at the same time, exemplifying the difficulty in distinguishing between UTI and STI.
Discussion: 47% of patients were inappropriately given antibiotics as they did not have a UTI. We feel specific national guidelines on UTI diagnosis and management is vital to promoting good antibiotic stewardship.

Table 1: Frequency of presenting symptoms

UTI Symptom	Frequency
Dysuria	53%
Frequency	31%
Discharge	17%
Suprapubic/loin pain	11%
None	3%
Other	25%

Figure 1: Number of lower UTI symptoms



P107 An audit of the management of gonorrhoea in the North-West of England

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Abstract
Introduction: From 2016 to 2017 there was a 22% increase in *Neisseria gonorrhoeae*(NG) diagnoses in England. Increasing gonococcal antimicrobial resistance is a recognised public health concern. We audited the management of NG across 13 genitourinary medicine services in the North-West (NW) of England.
Methods: We performed a retrospective review of the first 40 patients diagnosed with NG at each service from 1/1/2018. Data including demographics, testing and management were collected to compare regional practice against BASHH auditable outcome measures (performance standard 97%).
Results: Of 485 patients included, 303 (62%) were male, of whom 185 (61%) were MSM. Median age was 28.6 years (range 16–78). Culture was performed prior to treatment in 90% (n = 437) of whom, 57% (n = 250) had at least one positive result with ciprofloxacin and azithromycin [including intermediate] resistance reported in 21% (n = 52) and 6% (n = 15) of these respectively. Test of cure (TOC) was performed in 71% (n = 343) of which 4% (n = 14) were positive. First-line treatment with 500 mg IM ceftriaxone and 1g azithromycin, or reasons documented where alternative treatment was given occurred in 97% (n = 470). Testing for all STIs occurred in 85% (n = 484). An additional STI was diagnosed in 38% (n = 183) with a chlamydia co-infection rate of 30%. Written or digital information was offered to 52% of patients and 93% had health adviser review for partner notification (PN).
Discussion: First-line treatment or documentation of reasons for not using was the only audit standard met across the NW. With increasing concerns around antimicrobial resistance in NG, improvement across the standards but in particular cultures, TOC uptake and PN will be critical. Innovative ideas such as utilisation of postal testing kits for TOC and PN software may need to be considered in the current financial pressures.

P108 Intervention and implementation strategies to increase chlamydia testing in primary care: A qualitative investigation and meta-theoretical framework

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Abstract

Introduction: Currently in the UK there is a drive to shift low-cost, high-volume testing (i.e., asymptomatic chlamydia testing) into primary care to free up resources in more expensive specialist settings. However, primary care testing rates remain low. The Behaviour Change Wheel (BCW) is a meta-theoretical framework for developing behaviour change interventions. It has three tiers: the first tier describes a model for understanding behaviour, the second tier outlines nine possible intervention strategies (or functions), and the third details seven implementation strategies (or policy categories). The aim of this study was to explore methods to increase chlamydia testing in primary care using the BCW as an analytical framework.

Methods: Twenty-seven semi-structured interviews were conducted with 16–24 year olds. Participants were recruited from across the UK via youth organisations, charities, youth groups, online platforms (e.g., social networking sites), and through chain-referral sampling. An inductive thematic analysis was first conducted, followed by thematic categorisation using the BCW.

Results: Potential intervention functions raised by participants included: education (e.g., increase awareness of chlamydia consequences); persuasion (e.g., use of imagery/data to alter beliefs); environmental restructuring (e.g., alternative sampling methods); modelling (e.g., credible sources such as celebrities); and, enablement (e.g., testing normalisation). Potential implementation strategies and policy categories discussed were: communication and marketing (e.g., social media); service provision (e.g., introduction of a young person's health-check); guidelines (e.g., standard questions for primary care providers); regulation (e.g., non-judgemental behaviour principles for staff); and environmental /social planning (e.g., toilet locations).

Discussion: The BCW provided a useful framework for conceptually organising the data and identifying a wide range of possible intervention functions and policy categories. The methods identified by this study should be targeted by interventions to increase chlamydia testing in general practice, and consequently reduce chlamydia transmission and its associated negative sequelae. Study limitations, as well as clinical and policy implications will be discussed.

P109 Development of a framework to evaluate the delivery of online STI testing

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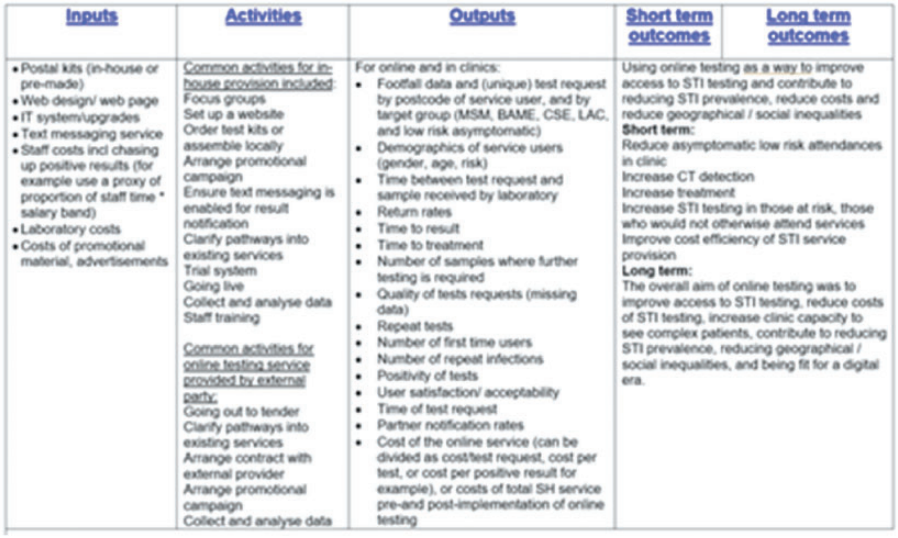
Abstract

Introduction: There has been an increase in the provision of online STI services in England over the past few years. Motivations to provide online services include anticipated financial savings, increasing capacity in physical services for those with more complex needs, and improving access to testing for some key populations who may find it challenging to attend physical services. It is vital to evaluate any changes to service delivery to ensure the anticipated aims have been achieved.

We used the PHE Evaluation of interventions in sexual health, reproductive health and HIV services toolkit to create a standardised logic model (LM; a simple planning tool that describes the relationship between each element in an intervention and the likely direction of change) to facilitate the evaluation of online STI services.

Methods: We worked with three local providers and used the PHE Evaluation Toolkit to co-create a general LM for online STI testing programmes by identifying the inputs, activities, outputs and outcomes for these services. This LM was then adapted by providers to evaluate differing local priorities.

Results: Diagram 1: General logic model to evaluate online STI testing programmes



Inputs	Activities	Outputs	Short term outcomes	Long term outcomes
• Postal kits (in-house or pre-made) • Web design/ web page • IT system/upgrades • Text messaging service • Staff costs incl chasing up positive results (for example use a proxy of proportion of staff time * salary band) • Laboratory costs • Costs of promotional material, advertisements	Common activities for in-house provision included: Focus groups Set up a website Order test kits or assemble locally Arrange promotional campaign Ensure text messaging is enabled for result notification Clarify pathways into existing services Trial system Going live Collect and analyse data Staff training Common activities for online testing service provided by external party: Going out to tender Clarify pathways into existing services Arrange contract with external provider Arrange promotional campaign Collect and analyse data	For online and in clinics: • Footfall data and (unique) test request by postcode of service user, and by target group (MSM, BAME, CSE, LAC, and low risk asymptomatic) • Demographics of service users (gender, age, risk) • Time between test request and sample received by laboratory • Return rates • Time to result • Time to treatment • Number of samples where further testing is required • Quality of tests requests (missing data) • Repeat tests • Number of first time users • Number of repeat infections • Positivity of tests • User satisfaction/ acceptability • Time of test request • Partner notification rates • Cost of the online service (can be divided as cost/test request, cost per test, or cost per positive result for example), or costs of total SH service pre-and post-implementation of online testing	Using online testing as a way to improve access to STI testing and contribute to reducing STI prevalence, reduce costs and reduce geographical / social inequalities **Short term:** Reduce asymptomatic low risk attendances in clinic Increase CT detection Increase treatment Increase STI testing in those at risk, those who would not otherwise attend services Improve cost efficiency of STI service provision **Long term:** The overall aim of online testing was to improve access to STI testing, reduce costs of STI testing, increase clinic capacity to see complex patients, contribute to reducing STI prevalence, reducing geographical / social inequalities, and being fit for a digital era.	

Discussion: A generic logic model has been developed to evaluate online STI testing which can be adapted according to local priorities. This uses standardised output and outcome measures which are available to services through existing local and national datasets. This LM can be used by services to plan evaluations alongside planning changes to services or applied retrospectively to an existing online service.

P110 Factors associated with inter-patient variation in injection site pain following treatment of gonorrhoea

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Abstract

Background: A single dose of antibiotic administered intramuscularly (IM) is recommended for uncomplicated gonorrhoea. However, pain associated with intramuscular injection reduces the acceptability of treatment to both the prescriber and patient, and there are limited data on which to base advice on who is at highest risk of severe pain following an injection. We therefore sought to identify factors associated with increased injection site pain.

Methods: A multivariable analysis was performed on demographic, anthropometric and clinical data collected prospectively from participants in the GToG trial. Self-reported injection site pain was measured using a visual analogue scale (VAS) between 0–100, in participants randomised to receive an IM injection of either ceftriaxone or gentamicin.

Results: 688 (82% male) participants aged between 16–70 years were included. The median self-reported pain score was 23.5 (range 0–100). 96% (660/688) reported injection site pain which was moderate-severe (VAS score >30) in 38% (262/688) of participants. Ethnicity, previous history of gonorrhoea, HIV status, and the presence of symptoms were not related to the reported level of pain. Age (aOR 0.86 per 5 years, [0.77–0.98]), gender (women cf. men – aOR 1.63, [1.03–2.56]), BMI (aOR 0.80 per 5 kg/m^2, [0.66–0.98]) and antibiotic regimen (gentamicin cf. ceftriaxone – aOR 3.92, [2.76–5.57]) were associated with moderate-severe injection pain.

Discussion: Self-reported pain intensity following intramuscular injection is highly variable. Younger age, being female, lower BMI and the use of gentamicin cf. ceftriaxone were associated with greater pain following injection. This knowledge will help clinicians to counsel patients prior to prescribing or administering intramuscular treatment for gonorrhoea.

P111 Routine syphilis screening in low risk populations – is it needed?

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Abstract

Introduction: Sexual health services are under pressure to cut costs while delivering high quality services. In low risk populations for syphilis it might be safe to stop screening for low risk individuals as recently demonstrated[1]We aimed to assess how many syphilis cases would be missed if we applied a screening protocol to reduce testing in our low risk population, and to assess potential cost savings.

Method: Syphilis screening tests between 1st Jan 2010 and 31 July 2018 were reviewed. All positive tests were assessed against a potential screening protocol identifying high risk individuals, to determine any cases that would have been missed.

Results: Between 1st Jan 2010 and 31st July 2018, 94553 syphilis tests were undertaken (78.9% of patient attendances). 5553 were MSM (5.9%). 385 (0.41%) had a positive diagnosis of syphilis; 75/385 (19.4%) primary, 25/385 (6.49%) secondary, 47/385 (12.2%) early latent and 181 /385 (47.0%) for late latent syphilis. Patients who were symptomatic, MSM, HIV positive, IVDU, a syphilis contact, born outside the UK or had a partner born outside of the UK, or tested elsewhere were excluded. Using these criteria as a screening protocol, 2 heterosexual male patients would have had their diagnosis missed. One patient, initially denied contact with a non UK born partner, one did not initially disclose sex with men. In our service seeing approximately 22,000 patients a year, with an estimated syphilis prevalence rate of 0.4% and an 80% testing rate, we would save approximately £90,000/year by implementing this testing protocol.

Discussion: In our population, it is feasible and safe to stop routine syphilis screening for low risk individuals, provided that appropriate risk assessment questions to identify those at higher risk are asked, and that patients disclose all relevant information. Cessation of routine screening is associated with potentially high cost savings.

Reference

1. A Parr O10 BHIVA/BASHH 2018

P112 Mental health burden amongst HIV-infected individuals – Prevalence and Gaps in Service Provision in one of the most Deprived Local Authority Districts in England

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Abstract

Introduction: Social deprivation is associated with greater mental health burden, and this is reflected within our locality. Furthermore, mental ill health is prevalent within HIV-infected individuals. Nationally we are in the midst of a mental health crisis, and threats of funding cuts locally may result in a perfect storm for mental health disease.

An audit of our HIV service found 20% of deaths in 5 years were related to mental health issues. Half may have benefitted from earlier mental health intervention. These concerning findings highlighted a service gap, and prompted review of our mental health support services.

Methods: A cross-sectional descriptive study using electronic records of 303 HIV-infected individuals from 1. 10.18–1.1.19. Mental health problems (MHPs) were defined as a confirmed diagnosis, or suggestive symptoms requiring referral to mental health services. Data were analysed using SPSS-23.

Results: MHPs affected 33% (101/304) of our cohort, 64% being male. 74% were of white ethnicity followed by black (24%) and other (2%) ethnicities. Mean age was 46 years (SD = 12 years). Depression was the most frequent MHP (17.8%), followed by low mood (9.2%) and anxiety (3.3%).

14% of those with MHPs had a prior AIDS diagnosis. 85% had been referred to mental health services. Referrals were equally distributed amongst in-house counsellors, community services and GPs. Referral outcome was recorded in 70% of cases.

Discussion: Mental health issues affected a third of our reviewed cohort. Depression accounts for the overwhelming majority. Unaddressed, this may result in poor ART adherence and non-engagement in care. Patients wait up to 6 months for review by in-house counsellors. This is a clear service gap as we recognise patients benefit most from timely intervention regarding their mental health needs. Commissioning constraints will further detrimentally affect our ability to provide mental health support in an already deprived area, thus widening health inequalities affecting the most vulnerable.

P113 Four years on: the evolution of a cross-trust HIV-endocrinology Multidisciplinary Team (MDT) meeting

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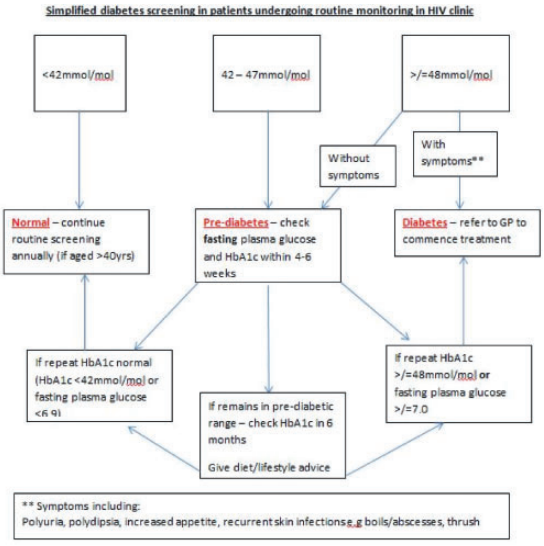
Abstract



Introduction: Endocrine and metabolic disease is prevalent within the HIV-infected cohort, with discussion around metabolic profile and lifestyle modification becoming the norm. Recognising the complexities in managing such conditions, particularly with regards to antiretroviral drug-drug interactions, a regular HIV-endocrinology MDT meeting was established in April 2015. Initial observations were presented at BHIVA in 2017.

Four years post-inception, we reflect on how our MDT meeting has evolved, and review the wider benefits of this unique set-up.

Methods: A retrospective review of all HIV-endocrinology MDT discussions between April 2015 and March 2019.

Results: 91 patients have been discussed, with ages ranging 27–74 years. All are established on antiretrovirals with CD4 counts between 35–1200 cells/mm^3. 98% (89/91) were undetectable.

The majority had dyslipidaemia and accounted for 42% (38/91) of discussions. 32% (29/91) had diabetes-related concerns. Other issues included thyroid disorders (9%), hypertension (5%), and pituitary/adrenal disorders (10%). Recommendations made included: initiation of statin, DEXA scanning, complex diabetes clinic review, and endocrine clinic referral.

BHIVA guidelines recommend HbA1c and lipid monitoring annually in those aged >40 years. As a result we have instituted a diagnostic algorithm to ensure appropriate management of HbA1c results (attached). Although only 3% (3/91) of patients were diagnosed with adrenal suppression secondary to inhaled fluticasone-ritonavir interaction, we recognise a local steroid induction protocol in these patients would be useful. Other significant drug-drug interactions observed included that between dolutegravir and metformin, resulting in symptomatic hypoglycaemia and a low HbA1c.

Discussion: Established links between two different trusts in true MDT working has not only facilitated timely management of patient presentations, but also opened up access to other services, including the regional pituitary MDT. There has also been mutual educational benefit, with greater awareness of endocrine/metabolic disorders amongst HIV clinicians. Moving forward, as we continue to manage an increasingly comorbid population, MDT discussion will prove invaluable.

P114 Teesside experiences of STI postal testing and the impact upon 'in-clinic' activity 2017/18

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Abstract

Introduction: Sexual Health Postal Testing is being introduced nationally with a view to reducing clinical attendance, support behavioural changes and to encourage more people to take ownership of their own health care. We established three key objectives in reviewing the first full year of postal testing for STI, with a view to looking at effectiveness, efficiency and efficacy.

Methods: We collected all data regarding 2017/18 activity, reviewed costs compared between postal and in clinic services, looking to see if postal testing had an impact on costs, positivity rates and changes in behaviour.

Results: Overall, the number of kits/tests returned responded to 3247 additional patients who completed over 9000 tests. This service development didn't impact heavily upon In-Clinic activity as numbers seen in 2017/18 was 31271 as compared to 2016/17 of 31725. Kit return rates of 67% were higher than anticipated and perhaps illustrate public acceptance of this type of service provision.

Discussion: The introduction of the provision of online testing has not seen any significant reduction in face to

face clinical attendances. This may also indicate we are meeting unmet need rather than seeing patients shift from one service delivery model to another. All commissioners seem keen to expand online facilities, and the public appears to have embraced the ability to use online services – there is no going back! The ongoing cost effectiveness of online testing needs to be reassessed if it is simply being used to meet unmet need – it isn't creating the overall efficiencies expected. All integrated sexual health services have capped and finite budgets that are coming under greater pressure due to reductions in public health budgets, with additional commissioner expectation regarding both efficiency and impact. The expectation of commissioners for continual enhancement and expansion of online testing may impact heavily upon core integrated sexual health service budgets.

P115 A re-audit of the management of Erectile Dysfunction within a Psychosexual Service

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Abstract

Introduction: The Umbrella sexual health service in Birmingham provides a Psychosexual Therapy and Medicine service (PSTM) for patients with erectile dysfunction (ED). Advice on medical management is provided to the patient's GP, via a generic letter. An audit in 2015–2017 assessed the service provided by the PTSM against the Sexual Dysfunction Specialist Interest Group (SDSIG) auditable outcomes and whether the GP letter was being utilised appropriately. Not all standards of practice were met. Quality improvement measures were implemented following the PSTM multidisciplinary meeting. This re-audit assesses whether these measures resulted in an improvement in outcomes.

Methods: Electronic records for patients with ED presenting for their first appointment in the PSTM between 08.02.18 and 05.12.18 were evaluated against the SDSIG audit standards and quality improvement measures implemented following original audit. Cases were identified by electronic and manual search.

Results: 19 patients were included compared to 35 in the original audit. The median age was 37.3 years (range 21–65). 13 (69%) were seen by a clinician and 6 (31%) by a psychotherapist. 100% of patients had a sexual, relationship and psychological history taken in both audits. Overall, 78.9% had evidence of a drug history vs. 97.1% in the original audit. Recreational drug and alcohol history was recorded in 52.6% vs. 71.4% previously.

Genital examination was completed in 100% who saw a clinician vs. 50% in the previous audit. Blood pressure and BMI were recorded in 36% consultations vs. 2.9% previously. A treatment plan was documented in 100% patients in both audits.

The PSTM GP letter was sent to 84% patients vs. 28.6% in the original audit.

Discussion: Following the original audit quality improvement measures were implemented after MDT discussion. Several audit measures improved including genital examination and provision of the ED GP management. However, the re-audit also demonstrated other areas that continue to need development.

P116 Neisseria gonorrhoeae (GC): Changing Pattern of Antibiotic Sensitivity and Persistence of DNA detection 2007 – 2018

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Susceptibility to Antibiotic groups	2007 (%)	2009 (%)	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2017 (%)	2018 (%)
Fully sensitive to antibiotic testing panel	46	67	59	49	79	59	43	55	42	60
Reduced susceptibility to 1	27	15	20	38	10	20	23	23	26	22
Reduced susceptibility to 2	15	10	16	8	6	13	21	15	15	6
Reduced susceptibility to 3	12	2	5	3	2	8	5	6	15	11
Reduced susceptibility to 4								1	2	1
Number with Reduced Susceptibility to Cefuroxime								1	3	2

TOC with NAAT was performed between 11 and 130 days post-treatment with a mean, median and mode of 20, 14 and 14 days respectively.

Abstract

Introduction: Nucleic acid amplification testing (NAAT) is used in GUM clinics to diagnose GC infection; however its in-built sensitivity potentially detects DNA from non-viable organisms following successful treatment. The British Association of Sexual Health & HIV (BASHH) guidelines stipulate that test of cure with NAAT (TOC) should take place 2 weeks post-treatment. This study aims to determine whether this is an adequate time interval to perform TOC. We also analysed the changing pattern of antibiotic sensitivity between 2007–2018.

Methods: All GC cases at our clinic between 01/01 and 30/06 in 2007–2018 were identified, assessed for antibiotic sensitivity and analysed for TOC data from 2013–2018.

Results: In 2018 there were 170 cases; culture and sensitivities were available for 144, with TOC in 101 cases.

Conclusions: Reduced susceptibility to Cefuroxime is a worrying sign that needs further investigation. However overall we have seen a reduction in multidrug resistant N. gonorrhoea. Our data supports BASSH guidelines for TOC 2 weeks post-treatment.

P117 Sexual health safeguarding nurse – who needs one? A review of the outcomes of a dedicated safeguarding nurse working in a sexual health department

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Abstract

Introduction: National guidance has put safeguarding firmly on the sexual health agenda whilst funding is decreasing and workload increasing. We asked: Is the role of a dedicated safeguarding nurse valuable?

Unity Sexual Health formed in 2017 after a tendering process and is made up of an NHS Trust and 6 subcontracted partners. The role of safeguarding nurse was introduced in 2017 to support this new organisation, working with our Trust's safeguarding team and gathering information from different agencies.

Methods: All safeguarding concerns and discussions are recorded on a paper record by clinicians, and details and outcomes recorded on an Excel spreadsheet. An electronic questionnaire was used to canvas staff opinion on safeguarding developments and the role of the safeguarding nurse. A comparison was made between the first year of post (2017/8) versus the previous year.

Results: Safeguarding interventions increased by 40% (199 versus 118). Themes included: Domestic Abuse; Child Sexual Exploitation; Female Genital Mutilation; sexual assault; vulnerable young people. Correspondingly, social care referrals increased by 20% (38 to 47). Results from the staff questionnaire are still outstanding.

The success of this post has meant that the temporary, part-time position is now permanent and full-time.

Discussion: A local Serious Case Review on Child Sexual Exploitation highlighted the importance of "ask, ask and ask again". Sexual health services are in a unique position to build non-judgemental relationships with patients so they feel safe disclosing abuse. The role of a safeguarding nurse allows that individual to gain confidence and specialist skills in advising clinicians; provides an "on call" service for outreach staff; provides departmental training and ensures the resolution of all referrals made to social care. This has resulted in clinicians feeling empowered to ask the challenging questions necessary to ensure safeguarding of patients.

Good safeguarding underpins good patient care.

P118 UK Survey on Sexual Health Care for Transgender and Non-binary Service Users

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Abstract

Introduction: Excluding a small number of clinics, provision of dedicated sexual health services for transgender and non-binary people in England is currently limited. It is therefore essential that clinics which are not exclusively for transgender and non-binary service users do not provide barriers to accessibility. At present there is no formal transgender and non-binary medical education provided in the undergraduate medicine curriculum and only one e-learning for health module on Gender Variance is available for staff to undertake independent learning.

Methods: To assess whether clinicians working in sexual health services received any dedicated training for transgender and non-binary service users, and whether they felt their clinic was gender neutral. Data was collected using an online survey distributed to clinicians working within sexual health clinics via the BASHH newsletter. A total of 100 participants submitted anonymous responses from a background of fourteen roles.

Results: More than fifty percent of respondents had been working within the field for over ten years. 91% of respondents had contact with service users who were

transgender or non-binary. Only 63% had attended specific training of which 59% had been in the last three years, only 40% of respondents felt that the sexual health service where they worked was gender neutral, 26% answered that they were unsure, 57% of respondents were not aware of any specialist provisions within their clinic.

Discussion: Delivering the highest standard of care for transgender and non-binary service users needs to be supported by staff training and service design. It is essential that adequate, frequent and up to date in-house training is provided to staff working in sexual health clinics as it is very unlikely training will have been undertaken whilst studying for clinical qualifications.

P119 Devising a local policy for online repeat testers

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Abstract

Introduction: In 2017, we capped our online testing provision of Chlamydia (CT) and Gonorrhoea (GC) to service users who are aged 16–25. However, the number of tests they can order in this age bracket is unlimited. We aim to devise a local policy for patients who repeatedly test online outside of guidelines.

Methods: The online and electronic patient records (EPR) were reviewed of the top 40 repeat testers between 1/7/15 – 31/12/18.

Results: Median age was 21; 30/40 (75%) female; 38/40 (95%) heterosexual; 35/40 (87.5%) white British. 20/40 (50%) were in the 1st quintile of Indices of Multiple Deprivation (most deprived). The median number of tests was 16 (IQR 11 – 21). The median time between retesting was 40 days (IQR 22 – 78). The Chlamydia positivity rate was significantly lower in the repeat testers in comparison to the overall online testing cohort ($p < 0.05$). In 2018, 10/40 (25%) came to clinic independent of online testing (total visits 20; range 1–5 visits per person). Reasons for coming to clinic included symptomatic Chlamydia/ Gonorrhoea, PEP, genital warts, and partner notification of HIV. 0/10 (0%) had repeat online testing discussed at their clinic visit.

Discussion: While repeat online testing may indicate STI anxiety in some, in others it might potentially represent high-risk individuals seeking anonymous and easily accessible testing. Following this review, a clinic policy has been derived. We now proactively identify online repeat testers and put an alert on their clinic EPR, ensuring that when they attend clinic in the future, they can be offered a referral to the health advisor to discuss potential risk-taking behaviour and/or health anxiety.

Table 1: Online positivity rates between 1/7/15-31/12/18: top 40 online repeat testers vs overall online cohort

Cohort	Tests processed	CT +ve (%)	GC +ve (%)
Repeat testers	679	44 (6.5%)	8 (1.2%)
Non- repeat testers	54617	4777 (8.7%)	374 (0.7%)

P120 Achieving Improved Clinical Standards in GU Medicine by Consistent & Continuous Audit: One Year after a Decade of Neisseria Gonorrhoeae Audit

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Abstract

Background: We present a retrospective analysis of clinic performance in 5 domains of management and treatment of Neisseria gonorrhoeae (GC) according to current BASHH guidelines which recommend 97% compliance with their 5 criteria.

Methods: All cases of GC diagnosed at our clinic between 1st January and 30th June 2018 were identified. The case notes were assessed against current BASHH criteria, and compared to data from previous clinics for the same six months (1st January to 30th June) in 2007–2018.

Results: Criterion 1: 89% of GC treated patients were recommended to have a test of cure. Criterion 2: 100% of GC patients were screened for Chlamydia trachomatis and received presumptive treatment for this. Criterion 3: 100% of GC patients had partner notification done. Criterion 4: 86% of patient's received GC written information. Criterion 5: 100% of patients with GC received 1st line treatment or reason for not doing so was documented. See table for comparison with previous years' results.

Conclusions: We have demonstrated an improvement in all 5 domains with a consistent 100% screening of chlamydia in patients with gonorrhoea. The most marked improvement was in domain 4; offering patients written

Table:

Criterion	2007	2008	2009	2011	2012	2013	2014	2015	2016	2017	2018
1.	–	–	–	(36)	91 (66)	84.6 (52.9)	82 (60)	91 (61)	87 (61)	88 (57)	89 (151)
2.	100	100	100	98.6	100	100	100	99.3	100	100	100
3.	82	95	92	92	88	90.4	92	96.7	88	99	100
4.	32	64	81	61	50	66	27	74	56	77	86
5.	77	96	100	97	88	100	96	93.4	97	99	100

advice. All domains were addressed in the quality improvement project with good effect.
Continued staff training and engagement in the management of N.gonorrhoeae will be addressed on a continuous basis and a re-audit is recommended.

P121 The People's Vote in a Nurse-delivered Integrated Sexual Health Clinic: Immediate vs Deferred Treatment for Gonorrhoea Contacts

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Abstract
Introduction: Judicious antibiotic use in gonorrhoea (GC) contacts could reduce unnecessary intramuscular injections, drug costs and most importantly reduce contribution to increasing antimicrobial resistance (AMR).
Methods: For an 8-week period (pre2019 BASHH guidance) GC contacts seen >14 days since last sexual contact (LSC) were offered immediate epidemiological treatment or deferral to results, following a discussion around antibiotic stewardship. Contacts presenting within 14 days were recommended immediate treatment. A GC contact form prospectively recorded clinical risk assessment including LSC, index patient (IP) results if verified, previous GC and reasons for option. Microscopy was performed on all GC contacts.
Results: 25/39 contacts attended >14 days since LSC. 13/25 (52%) had immediate treatment, citing difficulty returning to clinic or anxiety around previous infection. 3/13 subsequently had GC confirmed: two were already identified on microscopy, one extragenital with past GC history. 12/25 (48%) deferred treatment: only 1/12 had GC confirmed, treated within 8 days with no sex in the intervening period. 14/39 contacts presented within 14 days (range 1–9 days) and all treated. GC was confirmed in 9/14: 8/14 had ≥1 of the following factors – verified contacts (6), positive microscopy (3), past GC history (2). 1/14 with none of these had LSC only one day previously.
Discussion: Microscopy on GC contacts proved a useful guide to treatment decisions and we would confidently advise deferral (LSC >14 days) with negative microscopy. Only 2/25 patients would have needed to reattend if treatment had been deferred in all contacts (>14 days) with negative microscopy. The importance of providing accurate contact information, sexual abstinence and need to reattend if tests were positive was emphasised. For those presenting within 14 days (particularly ≥5 days and >age 16), if these conditions and a willingness to re-test are met, it may be reasonable to consider treatment deferral if microscopy negative, no recent history of GC and infection is not verified in the IP.

P122 Understanding Young People's Priorities for Sexually Transmitted Infection (STI) Screening

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Abstract
Background: It is important that STI screening provision reflects the priorities of young people, as they bear the greatest burden of disease. Such provision has become possible in a wider range of settings but there are constraints due to budget pressures.
The objectives of the study were:
- To assess how young people prioritise different characteristics of STI screening;
- To analyse whether there are differences across socio-demographic groups;
- To predict participation rates for different service configurations.

Methods: Eight focus groups were used to design a survey to analyse the choices made by young people in

relation to screening. The survey involved a discrete choice experiment which is an attribute-based method where respondents make choices between alternative hypothetical scenarios for service provision.

The experiment included the following service characteristics: waiting times for appointments, waiting times for results, type of consultation, staff attitude, type of screening test, STIs tested for, and setting. The survey was administered to 2000 young people who were part of an online panel in the UK, with quotas set to ensure inclusion of minority ethnic groups.

Results: Analyses indicated that all seven service characteristics investigated were statistically significant factors for participants. Feeling that staff were non-judgemental was the most important characteristic to young people. Being tested for all STIs, having a full consultation and getting results quickly were also characteristics identified as important. Further analyses revealed some heterogeneity in priorities by gender, ethnicity and age group.

Conclusion: This study provides valuable insights into the service characteristics that are seen as the most important by young people. This knowledge will allow those involved in providing and designing screening services to understand the relative importance of different service characteristics. At a time when sexual health services are facing pressures, such findings can be used to inform service development to ensure that decision-making is informed by young people's priorities.

P123 Improving antibiotic stewardship in contacts of chlamydia: the benefit of near patient molecular diagnostics

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Abstract

Introduction: Epidemiological treatment is a traditional management strategy in sexual health clinics. In an era of antimicrobial stewardship, many have questioned this approach. The adoption of near patient molecular diagnostics (NPMD) has been shown to reduce time to results, which may mean contacts of infections (outside window periods) are more willing to await their results. Having introduced NPMD for chlamydia and gonorrhoea in mid-2016, we were keen to review how its use affected the prescription of antibiotic therapy in contacts of infections.

Methods: Using the GUMCAD code PNC (contact of chlamydia) the first 40 contacts presenting to clinic were identified in 2016, 2017 and 2018. Data collected: demographics, whether the contact with the index patient was within the window period of our chlamydia test (14 days), whether epidemiological treatment was offered and/or accepted, and time to and result of the chlamydia test.

Results:

Discussion: Following the introduction of NPMD, we have substantially reduced our offer rate of antibiotics to contacts of chlamydia outside of the window period. This may be as a result of clinician-driven antimicrobial stewardship and/or increased acceptability to patients through more timely notification of results as a consequence of NPMD.

	2016 (n = 40)	2017 (n = 40)	2018 (n = 40)
Age (yrs; median [range])	25 [16–37]	25 [18–56]	26 [16–63]
Female	19 (47.5%)	14 (35%)	17 (42.5%)
Attending within 14 days of contact with index (in window period "WP")	22 (55%)	29 (72.5%)	29 (72.5%)
In WP and offered treatment	22/22 (100%)	29/29 (100%)	29/29 (100%)
Outside WP and offered treatment	18/18 (100%)	6/11 (54.5%)	3/11 (27.3%)
In WP and treated	22/22 (100%)	24/29 (82.8%)	29/29 (100%)
Outside WP and treated	18/18 (100%)	6/11 (54.5%)	3/11 (27.3%)
Time to results (days; median [range])	7 [5–12]	0 [0–1]	0 [0–1]
Outside WP, treated, and chlamydia test negative	12/18	4/6	2/3

P125 Women presenting with symptoms of painful sex at a Level 3 Integrated Contraception and Sexual Health Service. How often is psychosexual therapy required?

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Abstract
Introduction: To investigate how common superficial and deep dyspareunia symptoms are in women attending an open access sexual health clinic, and review the diagnosis and management of these complaints.
To discover if there is an unmet need for psychosexual therapy in this group.
Method: Patients were identified using the triage sheets during an 8 week period. The clinical records were reviewed. All women were examined by dual trained nurses or doctors, microscopy and sexually transmitted infection (STI) tests were carried out when indicated.
Results: We identified 23 women: age range 16 – 62 years old, median age 25 years, mean age 26.9 years. Commonest complaint was superficial dyspareunia caused by vaginal infections N = 11/23 (47.8%): acute Candida, recurrent Candida, Bacterial Vaginosis (BV), Candida and BV simultaneously. One woman had a UTI, one had a first episode of genital herpes. Two older women had symptoms/signs of vulvovaginal atrophy. One woman already had diagnosis of vulvodynia, three women had non-specific pain possibly related to previous sexual assault, depression and difficulties using Depo-provera. Two women had deep dyspareunia/ heavy periods: IUD removed/ ultrasound scan ordered.
Consultant in SRH diagnosed vaginimus twice, one woman received advice about self help strategies and one received an appointment for psychosexual therapy with the consultant.
Our service has c1000 patient contacts per month; this sample represents 1.15% of attendances.
Conclusion: Genital pain just before, during or after sexual intercourse has many causes and it is not surprising that over half our sample had a vaginal infection, STI or UTI.
Our local area does not have a commissioned psychosexual service to externally refer patients to, one consultant has a small case load of sexual health patients. This sample shows that the need for psychosexual therapy within our service is small but is likely to be much higher in women attending primary care.

P126 Two week wait cancer referrals in a community integrated sexual health clinic

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Abstract
Introduction: The universal availability of the 'two-week wait' referral ensures that presentation to any clinician with symptoms or signs suggestive of underlying malignancy are referred to relevant specialists in a timely manner. We sought to evaluate how frequently this service is being accessed in our community integrated sexual health clinic, thus informing our future service needs.
Methods: A retrospective case note review of all two-week wait referrals submitted over a three year period from 2015–2018.
Results: 20 referrals were identified. Of these, 16/20 (80%) were female and 4/20(20%) male. 12/20 (60%) were aged over 40. The majority of referrals were to gynaecology (70%), but also included urology, colorectal and ENT specialties. 3 cases were confirmed vulval intra-epithelial neoplasia in-house following biopsy, and were referred on for further management. 3/20(15%) had vulval changes noted on examination, with subsequent review confirming the presence of malignancy (vulval squamous cell carcinoma (SCC) and extra-mammary Paget's disease) in all 3 cases. One referral to the colorectal team with a rectal mass confirmed an anal SCC in-situ. All cases, with the exception of one, were HIV negative. A HIV positive patient with a persistent submandibular node was referred to the ENT team and diagnosed with papillary thyroid cancer. Interestingly, only 2/20(10%) reported seeking GP advice prior to attendance at clinic.
Discussion: Nearly half of the referrals made in our cohort under the two-week wait resulted in a diagnosis of malignancy. This is significant finding, particularly as this review also highlights a patient reluctance in seeking GP advice. This is attributed partly due to difficulties in accessing care, partly due to the nature of their condition, and only further emphasises the vital role our open-access service provides in ensuring potential life-limiting conditions are not missed.

P127 Young people accessing online sexual health testing: the population and outcomes

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Abstract

Introduction: Sexual health London (SHL) provides online sexual health testing kits for young adults, defined as 16 and 17 year olds. Trigger questions are in place to ensure safeguarding issues are assessed prior to requesting a test kit. We present data between 8th January 2018 and 8th January 2019.

Method: This is a descriptive analysis of retrospective routine data for young people, including general demographics and service outcomes for first time use of the service, and safeguarding triggers over 12 months.

Results: 1,107 young people registered online, of which 655 people were sent a test kit. 25.95% (n = 170/655) were 16 years old; overall 65.04% female (n = 426/655), 34.5% male (n = 226/655), 0.46% trans (n = 3/655); 79.69% (n = 552/655) heterosexual, 4.27% (n = 28/655) homosexual and 10.99% (n = 72/655) bisexual.

435 test kits (66.41%) were returned (by 1st March 2019) for Chlamydia trachomatis (CT) and Neisseria gonorrhoea (NG) nuclear acid amplification testing. CT positivity for first time testing was 14.7% (n = 64/435) and 2.1% (n = 9/435) for NG. 41.37% (n = 271/655) users have triggered 326 safeguarding flags from 1329 triages, over 12 months.

Discussion: These results provide an insight into the needs of young people accessing online sexual health testing kits and the proportion of safeguarding issues that might arise from first time users. The CT test positivity of 14.7% with SHL is important for future planning of the service, which is higher than the 9.7% CT test positivity from the National Chlamydia Screening Programme (2016–2017) among 15 to 24 years old in England.

P127 Sexual Health London online testing; a review of service users and outcomes

Victoria Tittle[1], Tim Alston[2], Sophie Jones[1], Gary Whitlock[1], Chris Scott[1], Sara Day[1] and David Asboe[1]
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Abstract

Background: Sexual Health London (SHL) provides online asymptomatic sexual health testing. We present data from commencement on the 8th January to 31st October 2018 from this service.

Methods: Descriptive analysis of retrospective routine data from registered users, including general demographics, service metrics of test kits, infection results and outcomes of kits (returned by 18th January 2019).

Results: 82,806 registered users ordered 81,542 kits. 80.3% (n = 65,460/81,542) kits were returned from 51,039 unique users. Proportion of sufficient samples in return kits: blood samples = 77.24% (n = 50482/65361), nuclear acid amplification samples (vaginal and urine) = 99.3% (64907/65363). Median age 27 years old (range 16–99).

Demographics of unique users (n):

Heterosexual: female = 54% (27560), male = 27.13% (13848), trans = 0.05% (24)

Homosexual: female = 0.45% (232), male = 11.56% (5898), trans = 0.03% (14)

Bisexual: female = 4.29% (2190), male = 2.41% (1231), trans = 0.08% (42)

Reactive infection results from sufficient samples: Chlamydia 4.39% (2850/64907), Gonorrhoea 1.12% (726/64907), HIV 0.35% (173/49889), Syphilis 0.58% (283/48692), Hepatitis B 0.73% (n = 69/9430) and Hepatitis C 0.56% (n = 54/9635).

100% of patients with a reactive HIV result have been contacted by a health advisor. Of 54 'high level' reactive results, 32 were true positives and 18 patients were new positive patients.

99.3% of reactive results were communicated within three days of receiving the sample. 97.2% (n = 4454) of reactive Chlamydia results were confirmed to have transferred care to a clinic.

Conclusion: These results provide an indication of service usage and outcomes of sexual health testing using online services.

P128 Sexual health provision by community pharmacies in North East London – A pilot PGD training programme

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Abstract
Introduction: In 2017, Barts Health was awarded a sexual health contract that included training for pharmacists contracted to deliver sexual health locally enhanced services (LES) in North East London.
Training was required by over 200 individual pharmacists working in nearly 80 different pharmacies in 3 boroughs in a 4 month time frame.
Methods: The training programme consisted of two live broadcast webinars and an online quiz broadcast in June 2018. This was followed by an evening of face to face assessed workshops focussing on consultation skills and complex scenarios. Pharmacists had to watch the webinars and pass the online quiz before attending the workshops. Four such workshops were held between June and October 2018. Participants were asked to complete feedback surveys.
Results: Overall, 216 pharmacists undertook some element of the PGD training. 129 pharmacists from 79 pharmacies were subsequently signed off as fully trained.
95% respondents said the webinars met the training objectives; all respondents rated all the speakers as good with 78% rating the speakers as excellent or very good 89% respondents thought that webinar training was better than traditional classroom teaching; none thought it worse.
The face to face workshop sessions were also highly rated with an average score of 4.8 out of 5
All respondents thought that the training programme was appropriate for delivery of the LES; by the end of the training all participants felt confident to deliver the LES with 97% feeling extremely or very confident to do so.
Conclusions: The combination of webinar and face to face training was highly valued and achieved the learning objectives, enabling the delivery of training to a large number of pharmacists while facilitating an assurance of competency not possible with lecture format. Furthermore the webinars are available on- demand, providing a valuable resource for pharmacists.

P129 Squaring the circle in the GDPR era: How can we inform patients about non-consented use of their data for research? Achieving good practice in the LUSTRUM chlamydia partner notification RCT

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Abstract
Introduction: Low-risk interventions spanning an entire clinical system can be granted research ethical approval at "service-level" without the need for individual consent. However, as GDPR now mandates that individuals must have the option to choose whether their data (even anonymised) can be used for research, this presents new challenges. We developed a compliant solution to this consent paradox for LUSTRUM (lustrum.org.uk), a partner notification RCT which routinely offers all patients novel interventions, while supporting patients to withhold their individualised data from trial analyses.
Methods: We consulted the ethics committee, drew on current practice and sought relevant national examples of non-consented data collection to establish a model of good practice for informing patients about data uses. We developed procedures for consent at the service level compliant with GDPR and NHS approval (July 2018: 18/LO/0773).
Results: Patient data is held securely on RELAY a bespoke, web-based platform compliant with NHS data storage requirements. Posters and leaflets explaining "opt out" from individual data being used in the trial are displayed prominently in clinic waiting areas. Patients who wish to opt out inform reception staff, who then notify the trial data manager using a unique trial identifier. Corresponding data is removed from trial analysis. At March 2019, only three patients had opted out of the study (similar to a range of health settings).
Discussion: This opt-out model for non-consented data is GDPR compliant and can be operationalised in sexual health research and service evaluations.

P130 Vulvovaginal Candidiasis: What's Happening?

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Abstract

Introduction: Candidiasis is one of the most common diagnoses seen in females attending genitourinary clinics in the United Kingdom. With the increasing challenge of azole-resistant Candida species our aim was to identify the Candida species and resistance patterns in our local population along with the factors associated with the development of Non-*albicans* species.

Method: This retrospective review included all patients who had high vaginal swabs sent for Candida speciation between 01/01/16 and 31/12/18 at a Level 3 genitourinary clinic in the North West of England. Data identified via a search of the electronic patient records included; Candida species and sensitivities, patient demographics, smoking status, comorbidities, regular medications including hormonal contraceptives and previous anti-fungal use.

Results: The number of samples sent for speciation and the proportion of fluconazole resistant isolates increased from 2016 to 2018; 5.9% (1/17 2016), 3.3% (1/30 2017) and 31.8% (14/44 2018).

Results showed that having co-morbidities ($P = 0.001$), diabetes mellitus ($P = < 0.001$) or being over 40 years old ($P = 0.034$) were significantly associated with the development of a Non-*albicans* species. In line with previous evidence we found a significant correlation between fluconazole resistance and the Non-*albicans* species ($P = < 0.001$).

No associations were found between the development of a Non-*albicans* species and ethnicity, smoking, hormonal contraceptive use, genital dermatoses, polypharmacy or previous anti-fungal use.

Of the 16 species that were fluconazole resistant all were sensitive to the echinocandins; caspofungin and micafungin. Nystatin sensitivities were reported in one case.

Discussion: With an ageing population we are likely to be faced with increasing cases of azole-resistant vulvovaginal candidiasis. The development of new treatment strategies must be prioritised in order to ensure we are effectively able to manage these patients in future.

Table 1 Candida Species and Fluconazole Resistance

Candida Species		Fluconazole Resistant
Total	92	16
C.albicans	85	10
C.glabrata	6	6
C.parapsilosis	1	0

P131 Non-toxigenic Corynebacterium *diphtheriae* pharyngitis in an HIV positive man with Ulcerative Colitis

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Abstract

Introduction: Diphtheria is an infection of the pharynx or skin caused by C. *diphtheriae* or C. *ulcerans*, however only toxin producing corynebacteria cause diphtheria.

We describe an unusual case of non-toxigenic C. *diphtheriae* pharyngitis in an HIV positive man on immunosuppression for ulcerative colitis.

Case Report: A 29 year old man with well controlled HIV infection presented to a sexual health clinic in the North of England reporting a sore throat. He took mesalazine for ulcerative colitis and had last received infliximab three months previously. On examination there was a small ulcer on the right palatopharyngeal arch. A bacterial throat swab of the ulcer isolated C. *diphtheriae*. This was sent to the National Reference Laboratory (NRL) for *tox* gene testing by real-time PCR. In the interim, the man had moved to Newcastle to start university, living in private rented accommodation with seven others. He was urgently referred to the Infectious Diseases department for further assessment. The sore throat had resolved, but the ulcer remained. There were no features of fever, neck lymphadenopathy or pseudo-membrane. He had no history of travel to a high risk area for diphtheria, and thought he had completed routine childhood immunisation. The result from the NRL confirmed non-toxigenic C. *diphtheriae* pharyngitis. There were no necessary infection control measures. A 10 day course of azithromycin was given, with subsequent ulcer healing.

Discussion: At the time of assessment it was unknown whether or not the patient had toxigenic C. *diphtheriae*. It was paramount to assess the patient for symptoms and signs consistent with diphtheria and consider the need for implementation of infection control measures.

It is unknown whether non-toxigenic C. *diphtheriae* causes pharyngitis or is a colonising organism. There is no data for an association with immunosuppression.

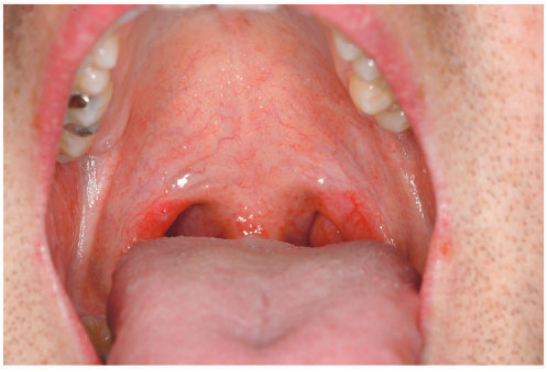

Figure 1: Erythema of bilateral anterior faucial pillars, with a small right sided ulcer.

P132 Integrating Patient and Public Involvement into the very beginning of the sexual health research process

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Abstract

Introduction: Patient and public involvement (PPI) is defined as '*research being carried out 'with' or 'by' members of the public rather than 'to', 'about' or 'for' them*'. PPI is increasingly important in health research with funders encouraging greater priority to be given to PPI.

For sexual health research PPI can be a challenge due to a lack of an established community or visible patient groups, as exists with other conditions such as HIV or diabetes. In addition, prior to funding researchers often lack the resources to incentivise PPI.

Method: In 2017 BASHH, in partnership with Terrence Higgins Trust, set up a lay research panel, designed to facilitate PPI in sexual health research pre-funding. When panel members were recruited great consideration was given to the demographic diversity of members. We provide full induction training on research processes and specifics of PPI, along with annual refreshers.

The review process involves a written application by the researcher, followed by a review meeting where members of the panel give their prepared feedback. Panel feedback focusses on: language; feasibility and acceptability of study design; and recruitment, contact and incentives. These reviews are provided at no cost to researchers who are still at the pre-funding stage.

Results: Since its inception the panel has recruited and trained 12 members, eight of whom are still active members. The panel has conducted six reviews on topics including novel settings for HIV testing, online sex therapy, and drug resistant gonorrhoea. A PrEP study has also recruited membership for their stakeholder group. The panel has received positive feedback from both researchers and panel members.

Discussion: This format for PPI review is acceptable and valuable, especially at pre-funding stages of research. Key aims moving forward are to ensure panel diversity, maintain contact with reviewed research, and to increase awareness of the panel among sexual health researchers.

P133 Chronic Pelvic Pain Syndrome (CPPS) in Men: Review from a specialist clinic

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Abstract

Introduction: CPPS presents a major healthcare burden in men, with a prevalence of 8.2% (range 2.2–9.7%). It can have a significant impact on patients' quality of life. The aetiology is poorly understood, which poses a challenge to effective management and often leads to unsatisfactory treatment outcomes. This study reviews outcomes from a specialist male chronic pelvic pain clinic which utilises pharmacological, physical and psychological treatment modalities to manage these often complex cases.

Method: 47 patients were randomly selected from the period of October 2015 until March 2017. We recorded each patient's symptom profile, mental health history, examination findings, investigation results, management and referral pathways. Patient outcome was quantified by the difference between the NIH Chronic Prostatitis Symptom Index (NIH CPPS) at the first and last visit.

Results: The mean age of the patients reviewed was 41 years. The mean time from presentation to specialist clinic referral was 24 weeks. The most common presenting symptoms were testicular pain (70%), urinary frequency (62%), urinary flow disturbance (57%) and dysuria (27%). 30% of patients had a history of anxiety or depression. On digital rectal examination 64% of patients had increased pelvic floor tone. 68% had a negative urethral smear and

there were no cases of Mycoplasma genitalium. Antibiotics were prescribed in 51% of cases with three weeks of clarithromycin being the most commonly used (47%). The other, most commonly, used pharmacological treatment was an alpha blocker (71%). Referrals were made to specialist pelvic floor physiotherapists in 47% cases. 26% of patients were referred to urology. The mean reduction in NIH CPPS score was 9 with 56% experiencing $\geq$33% improvement, with an average of four visits per patient.

Discussion: Men with CPPS can be effectively managed through a specialist clinic which uses a range of treatment modalities that are tailored to the patient's symptom profile.

P134 Investigation into the effects of reverse transcriptase inhibitors on β-cell function

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Abstract

Background: Long-term highly active anti-retroviral therapy use is associated with metabolic abnormalities, like T2DM. Studies show non-nucleoside reverse transcriptase inhibitors (NNRTIs) have direct damaging effects on endothelial cells and hepatocytes via increased cellular oxidative stress. However, their direct effects on β-cell function and survival is not yet established, and may contribute to β-cell loss in diabetic HIV patients. This study investigates the direct effects of Efavirenz and Rilpivirine (commonly used NNRTIs) and Doravirine (newest class member), on β-cell function.

Methods: Rat insulinoma-derived cell line, INS-1E, was exposed to Efavirenz, Rilpivirine or Doravirine (0–30 μM) for 24 hours before assessing β-cell function via glucose (20 mM)-stimulated insulin secretion (GSIS). MTT assay determined cell viability and specific cytoplasmic histone ELISA determined apoptosis levels. Oxidative stress was measured directly using NBT assay and indirectly using ABTS assay. Data is expressed as mean $\pm$ SEM and analysed using Student's *t* test.

Results: Efavirenz and Rilpivirine exposure inhibited GSIS; 20 μM reduced secretion to 45.8 $\pm$ 5.8% and 37.6 $\pm$ 6.1% of insulin release from untreated cells respectively ($p < 0.01$, n = 3, 3 replicates per experiment). Both dose-dependently decreased cell viability with 20 μM, reducing viability from 100 $\pm$ 1% to 59.7 $\pm$ 5.4% and 54.1 $\pm$ 2.8% respectively ($p < 0.01$ vs untreated cells, n = 5, 6 replicates per experiment; Figure A). Efavirenz only increased apoptosis incidence at 30 μM; Rilpivirine increased β-cell apoptosis levels significantly at all concentrations greater than 10 μM. Both drugs increased cellular oxidative stress (Figure B). oravirine had no inhibitory effect on GSIS while ß-cell viability and apoptosis levels were unaffected.

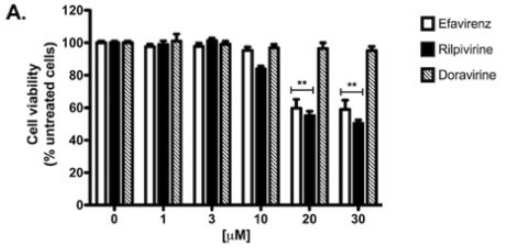

Figure A. The effect of 24-hour exposure of Efavirenz, Rilpivirine and Doravirine on INS-1E cell viability. **p<0.01 vs untreated cells

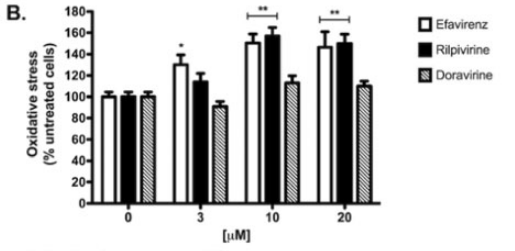

Figure B. The effect of 24-hour exposure of Efavirenz, rilpivirine and doravirine on cellular oxidative stress in INS-1E cells. **p<0.05, *p<0.01 vs untreated cells

Discussion: Efavirenz and Rilpivirine, but not Doravirine, have damaging effects on β-cells. Increased cellular oxidative stress, previously shown to cause β-cell dysfunction, may mediate these effects. This study supports concerns that long-term exposure to some NNRTIs may accelerate progression to insulin dependency in patients with HIV and diabetes, increasing complexity of care.

P135 Service evaluation of Trichomonas Vaginalis (TV) NAAT testing and test of cure follow up in females in a high prevalence area

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Abstract

Introduction: VVS TV NAAT is the standard test locally for females who are symptomatic or a contact of TV. Wet mount (WM) microscopy is available in some clinics. A test of cure (TOC) is advised with ongoing symptoms or pregnancy. Local team meetings have highlighted variation

in practice regarding who to test for TV and when a TOC is indicated. We aim to evaluate our current practice of TV testing and TV TOC.

Methods: Retrospective review of electronic records of females with a positive TV NAAT identified through laboratory results between 1/12/17 – 30/11/18.

Results: 4183 female TV NAATs were processed, 202/4183 (4.8%) were positive. 136/202 (67.3%) were any white and 23/202 (11.4%) any black ethnicity. 75/202 (37.1%) had WM microscopy, with 52/75 (69.3%) microscopy positive. 147/202 (72.8%) were symptomatic; the most common symptom was discharge (117/147; 79.6%). 55/202 (27.2%) were asymptomatic; of these 25/55 (45.5%) were sex workers. 88/202 (43.6%) of confirmed TV NAAT positives had a TOC; 33/88 (37.5%) were still positive. The reasons for TOC are outlined in *Table 1*. The partner was not concomitantly treated in 14/33 (42.4%) positive TOCs.

Discussion: The majority of our patients are having appropriate TV testing and TOC follow up. However, there were higher rates of TV positivity at TOC than expected. Alongside improving partner notification, further work is needed locally into our asymptomatic TV prevalence, TV treatment efficacy, and optimum timing for NAAT TOC.

Table 1: Reasons for TOC

	n (% of TOC performed)	TOC +ve (%)	Median time to TOC (days)
Potential false positive	3 (3.4%)	0 (0%)	21 (IQR 11 – 52)
Pregnant	9 (10.2%)	6 (66.7%)	27 (IQR 17 – 69)
Non-compliance	14 (15.9%)	3 (21.4%)	44 (IQR 25 – 137)
Symptomatic	34 (38.6%)	17 (50%)	21 (IQR 14 – 55)
No reason identified	28 (31.8%)	7 (25%)	22 (IQR 20 – 38)

P136 Factors associated with risky sexual behaviour among the general population in nasarawa state, nigeria: data analysis of a cross-sectional survey

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Abstract

Introduction: Most previous studies on risky sexual behaviours were concentrated on adolescents, young adults and other at-risk populations. The analysis was aimed at determining the factors that predict risky sexual behaviour among the general population in Nasarawa state, Nigeria.

Methods: Data analysis was carried on a total of 801 respondents randomly sampled from the general population of Nasarawa State, Nigeria. The primary outcome variable was risky sexual behaviour. The exposure variables include Sociodemographic characteristics, residence, sun stance use and HIV knowledge. Chi square test and regression analysis were used to determine the association between the outcome and exposure variables.

Results: A Close to two third of the respondents engage in risky sexual behaviours (65.9%) but only 4.7% considered themselves to be at high risk of HIV. The multivariable regression analysis showed that factors associated with risky sexual behaviour included: been male sex [OR: 0.63; 95% CI: 0.436–0.915], married [OR: 0.26: 95% CI: 0.163 – 0.419], rural resident [OR: 1.20; 95% CI: 0.775 to 1.871], age 20–24 [OR: 1.93, 95% CI: 1.113 – 3.360] and 25–29 years [OR: 2.34; 95% CI: 1.267–1.308]. Other factors included been Christian [OR: 1.49; 95% CI: 1.78 – 2.047] and surprisingly knowledge of HIV [OR: 1.49; 95% CI: 1.056–2.108].

Discussion: The level of risky sexual behaviour among the general population of Nasarawa State Nigeria was high. There is need to urgently intensify media campaigns, community based interventions including one on one communications to reduce risky sexual behaviours.

P137 Experiences and perspectives of pharmacy staff and users on the delivery and impact of pharmacy-based sexual health services: a systematic review

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Abstract

Introduction: Sexual health is a public health priority and delivering additional health services through pharmacies may offer a cost-effective approach to improve access and convenience for patients. This systematic literature review evaluated the perspectives and experiences of pharmacy users and staff on the delivery and impact of sexual health services concerned with contraception and sexually transmitted infections.

Methods: Qualitative, quantitative and mixed methods studies were searched across seven databases for relevant studies published after 2007 and carried out in OECD countries. A narrative synthesis was conducted and the Mixed Methods Appraisal Tool used to provide context to the synthesised results.
Results: Of 8965 identified studies, 19 met the inclusion criteria. Of these studies, eleven investigated only the views of pharmacy staff, four included only pharmacy users, and the remaining four assessed both users and staff. Service users reported the easy accessibility of pharmacy based sexual health services to be particularly beneficial. Likewise, pharmacy staff felt that extending their public health role was positive and benefitted their profession. However, both staff and users had concerns about limited privacy to raise sexual health issues within a pharmacy setting. Further, several factors were identified which influenced whether services were consistently delivered by pharmacy staff including logistical constraints, and personal beliefs and attitudes.
Discussion: The delivery of sexual health services in pharmacies was generally supported by both pharmacy users and staff. However, issues around how pharmacies can provide privacy, as well as the influence of pharmacy staff's personal beliefs and attitudes of service delivery, can have a negative impact. New approaches are needed to address these issues and maximise the contribution of pharmacies to improving sexual health.

P138 Period Poverty

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Abstract
Introduction: Period Poverty refers to 'being unable to access menstrual products because of financial challenges'. It is a worldwide problem that also affects the UK. This poster aims to establish the extent of the UK problem and explore methods being employed to tackle it.
Methods: As stated above the aim of this work is twofold. The first aim is to establish the extent of the problem and the second is to discover what is being done about it. To meet the first aim an electronic search was carried out for descriptive studies, specifically survey (cross sectional) studies with 'period poverty' +/- 'UK'. 'England', 'Wales', 'Scotland', 'Northern Ireland'. To achieve the second, descriptive qualitative studies with the same search criteria were sought.
Results: Charity Plan International UK has produced the only UK-wide estimate. The survey of 1000 females aged 14–21 states:
One in ten girls (10 per cent) have been unable to afford sanitary wear
One in seven girls (15 per cent) have struggled to afford sanitary wear
One in seven girls (14 per cent) have had to ask to borrow sanitary wear from a friend due to affordability issues
More than one in ten girls (12 per cent) has had to improvise sanitary wear due to affordability issues
One in five (19%) of girls have changed to a less suitable sanitary product due to cost'
Multiple articles demonstrated that many movements have been set up to address the problem and that the government is now intervening.
Discussion: Limitations of the work are that only one relatively small survey was found. There is room for a wider, more far reaching study that takes into account geographical variation and highlights regional health inequalities. However, despite a lack of more quantitative evidence, a movement has been set up to tackle the problem which has now reached government levels.

P139 An exploration of the views and risk perceptions of syphilis among men who have sex with men (MSM) aged between 18–34 in Nottingham City

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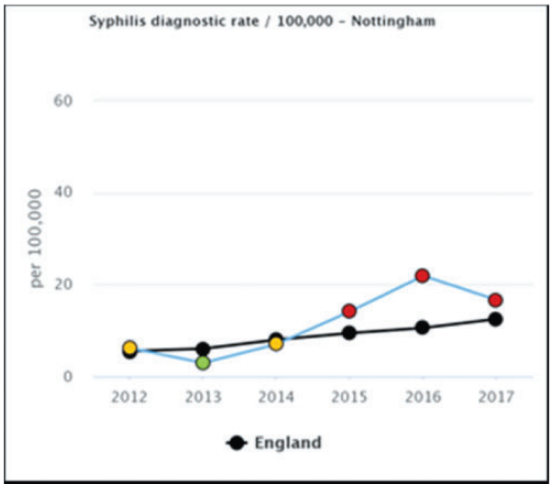
Abstract
Introduction: Syphilis is a sexually transmitted infection (STI) caused by the bacterium *Treponema pallidum* and infection rates are increasing in England with MSM disproportionally affected. This has made syphilis an important public health concern. In 2016 there was a significant increase in syphilis observed in Nottingham City (See Figure 1) mainly observed in MSM aged 18–34. There is a paucity of qualitative research attempting to understand knowledge about syphilis in MSM.

Figure 1: PHE Fingertips, Sexual and Reproductive Health Profiles: Syphilis diagnostic rate/100,000 Nottingham. 2018



Methods: A qualitative study was designed to explore the knowledge, awareness and risk perceptions of syphilis among MSM aged 18–34 that live in Nottingham City. Ethical approval was obtained from the University of Nottingham in 2017. Convenience and snowball sampling strategies were used to recruit participants. Five individual semi-structured telephone interviews were undertaken between October 2017–February 2018. The data was analysed using thematic analysis.

Results: Four main themes and twelve subthemes were identified (See Figure 2)

All participants knew more about other STIs compared to syphilis. Syphilis was referred to in a historical context and its symptoms were mistaken for other infections. Participants wanted to know more about the symptoms of syphilis.

Discussion: This study provided a unique insight into the views and risk perceptions about syphilis among a small group of MSM in Nottingham City. Sexual health, community clinics and LGBT organisations should maximise opportunities to raise awareness of how to reduce the risk of acquiring syphilis and increasing the knowledge of the symptoms of the infection. Mixed method research using survey and qualitative data should be conducted with MSM that have been diagnosed with syphilis to explore their knowledge and understanding of risk prior to their infection and their subsequent health seeking behaviour.

Figure 2: Themes and Sub-themes

P140 What is the optimum method for collecting robust data to understand Britain's sexual health needs? Lessons learned to inform the next wave of the National Survey of Sexual Attitudes and Lifestyle (Natsal)

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Abstract

Background: Accurate information on a nation's sexual health is essential to plan and evaluate services, inform prevention, and contribute to societal understanding. In Britain, sexual health data arise from surveillance systems, convenience surveys of key populations, and the decennial National Surveys of Sexual Attitudes and Lifestyles (Natsal). Natsal has employed 'gold-standard' population survey methods: probability sampling, trained fieldworkers conducting detailed computer-assisted-personal-interviewing, and biosampling. However, this approach is resource-intensive and limitations include declining response rates and concerns about non-response bias. In designing Natsal-4, we reviewed whether alternative methods could meet the needs of data-users and the wider community.

Methods: We evaluated methods used by major UK general population surveys and sexual health surveys internationally. Key considerations were: general population representativeness; sample size; breadth and depth of information collected; data quality; biosampling; the possibility for sub-group 'boost' sampling, and data linkage.

Results: Five alternative methods were assessed: (1) random-digit dialling phone surveys: considered unsuitable due to inadequate sample frame and response rate; (2) inviting participants from existing probability surveys to a follow-up sexual health interview: unsuitable because of additional non-response bias, difficulty achieving required sample size, and minimal cost-saving; (3) adding a sexual health module to existing probability survey (s), and (4) conducting a probability survey with fieldworker-selected individuals asked to self-complete a sexual health web-survey: both considered unsuitable due to much-reduced questionnaire; (5) 'web-first' mixed-mode survey, involving postal invitations to complete a web-survey with non-responding addresses followed-up by post and/or field-worker visit: unsuitable due to concerns about response rate, unmeasurable and measurable response bias, and selection bias.

Conclusions: Given major drawbacks of the alternatives considered, the design used for previous Natsals was judged the best option currently for achieving a representative sample, enabling detailed data collection, enhancing survey data with biological/routine data, and retaining Natsal's time-series; together maximising Natsal's utility and impact.

P141 Evaluation of new cases of early syphilis in patients attending a sexual health clinic in Sheffield between 2014 and 2018

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Abstract

Introduction: Annual data for 2017, released by Public Health England, demonstrates 20% increase in new syphilis cases relative to 2016 in England. Yorkshire and the Humber has also seen increases (11%) over the same time frame. This has been part of a 10 year upward trend, the impact of which has been greatest amongst bisexual and other men who have sex with men (MSM).

Aim: We aim to evaluate the pattern of new syphilis cases identified by Sexual Health Sheffield. We will measure the prevalence of new cases by year and assess changes in distribution with respect to sexual orientation.

Methods: Data from all new early (primary, secondary and early latent) syphilis case diagnoses made by Sexual Health Sheffield between 2014 and 2018 was collated. A retrospective analysis of the whole data was made for

numbers diagnosed per year and evaluated according to documented sexuality.

Results: 263 new cases of early syphilis were diagnosed at Sexual Health Sheffield between 2014 and 2018. Three quarters of total diagnoses were made amongst bisexual and other MSM. Over this time period total new early syphilis diagnoses increased by 89%. Increases were seen amongst both bisexual and other MSM (79%) and heterosexual (122%) individuals. The greatest percentage increase was seen in total heterosexual diagnoses for 2017 compared to the previous year (250%). In 2014 the burden of cases diagnosed in heterosexuals was 24%, rising to 29% in 2018.

Discussion: This data from Sheffield mirrors the upward trend in new early syphilis diagnoses previously reported in England. The largest proportion remains in bisexual and other MSM. There has been an increase in the proportion of new diagnoses amongst heterosexuals with the greatest rise seen in 2017. This data analysis will aid local service planning and resource allocation to meet demands from increased prevalence and changing distribution of syphilis infection.

P142 Utility of Patient-Completed Questionnaires in Partner Notification and Control of *Neisseria gonorrhoeae* Infection

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[1]Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom; [2]University of Leeds, Leeds, United Kingdom; [3]Leeds Sexual Health, Leeds, United Kingdom; [4]University of Oxford, Oxford, United Kingdom

Abstract

Introduction: Partner notification (PN) is an essential component in controlling gonorrhoea. We investigated the use of patient-completed questionnaires for improving PN.

Methods: Between July-September 2018, a standardized questionnaire was distributed to patients diagnosed with gonorrhoea at Leeds Sexual Health, UK. Questions elicited partner identification, contact information, and behavioural characteristics. Filled questionnaires were identified with medical record numbers and collected by clinicians. Questionnaires reporting verifiable partners (i.e. with enough information for potential notification, including full name or mobile number) were reviewed to determine if any additional data were obtained compared with medical records. Behavioural characteristics were tabulated to identify areas for potential intervention.

Results: Of 106 questionnaires, 101 questionnaires from 100 patients were analyzed (five were unidentified). Respondents were mainly men who have sex with men (53/100). By questionnaire, 65 respondents reported 135 partners, with 36 respondents reporting 54 verifiable partners. Nine respondents revealed new information via questionnaire, including four reporting 10 new verifiable partners and five recording new information (e.g. mobile number) on partners also reported routinely. In addition, six respondents reported new partners without enough information for potential verification. Ten respondents reported using saunas, with four naming the same location. Four respondents reported paying for sex, three of whom did not reveal this in their medical records. Only 26 respondents reported using condoms consistently with casual partners.

Discussion: Overall, 15/101 (15%) of questionnaires contained new information, with verifiable details for 15 partners. High-risk locales and behaviours were identified as targets for intervention. We identified that simple changes to the question formatting may enhance the yield of questionnaire responses even further. The additional labour required for reviewing and responding to the questionnaire data is a potential barrier, but individual sexual health services may consider the implementation of this low-cost, simple intervention according to their own cost/benefit analysis.

P143 Sexualised drug use and specialist service experience among men who have sex with men attending urban and non-urban genitourinary medicine (GUM) clinics in England and Scotland: results of the Drugs and Sex Survey

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Abstract

Introduction: Sexualised drug use (SDU) or chemsex has mainly been described in men who have sex with men (MSM) in larger urban centres. However, it has been reported that SDU consultations also occur in rural areas, and that provision of interventions is geographically variable. This BASHH/PHE Fellowship survey examined

the service experience in urban and rural areas of MSM self-reporting SDU. Understanding the level of unmet need will inform service planning, service provision and commissioning processes.
Methods: Adult male attendees at 16 urban and 13 rural sexual health clinics in England and Scotland were invited to self-complete a questionnaire between 02/08/2018 and 21/12/2018. Data on demographics, sexual behaviours, STI diagnoses, PrEP/PEP use and SDU were collected. Descriptive analysis was used to examine factors associated with SDU, and estimate unmet need for specialised support in urban versus rural clinics. Patient groups were involved in survey development.
Results: Of 2743 responses (1899 urban, 844 rural), 2693 were included in the final analysis; 871 were MSM (705 urban, 166 rural). SDU in the last 6 months was reported by 16.5% of urban and 17.5% of rural MSM. Reported bacterial STIs were significantly higher among MSM reporting SDU in urban (43.1% vs 29.6%) and rural clinics (41.4% vs 22.3%). PrEP use was higher in urban MSM (21.6% vs 16.3%) and in both settings higher in those reporting SDU (non-significant). In urban clinics, 11.2% of MSM reporting SDU felt they needed support but could not get or did not try to get it compared to 20.7% in rural clinics.
Discussion: This is the first study designed to assess event-level drug use across urban and rural sites in the UK. It supports previous work suggesting that SDU occurs in both settings, and that there is currently an unmet need for SDU support, particularly in rural sexual health clinics.

P144 Are we offering our MSM patients the HPV vaccine on an opportunistic basis?

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Abstract
Background/introduction: High risk Human Papilloma Virus (HPV) types such as 16, 18 are known to cause cancer, low risk types, 6 and 11 are known to cause genital warts. In 2012, the Gardasil vaccine was introduced for girls aged 12–13, with coverage exceeding 85%. Recent Public Health England guidance has extended the vaccine to the MSM (men who have sex with men) population under 45.
Aim(s)/objectives: Standard: 100% of eligible MSM patients should be offered the vaccine opportunistically at outpatient clinic.
Methods: Data search for Eligible patients and analysis data, including all MSM patients attending nurse-led, HIV and STI clinics, and also for asymptomatic screening between 24/1/19 and 7/2/19.
Identified:
Which clinic attended?
Whether the vaccine was offered.
Whether the vaccine was accepted and given within 2 weeks of being seen. If not, why not.
Results: 117 eligible patients identified. These patients were seen in HIV clinic (19), STI clinic (39), nurse-led clinic (27), asymptomatic screening (29) and health advisors only (3).
Of these; 77 were offered the HPV vaccine, 62 received the HPV vaccination within 2 weeks. The lowest figure was HIV clinic at 26%; highest was STI clinic at 79%.
Discussion/conclusion: Rates were below what we would expect. Interventions included posters in clinic rooms and waiting areas and also making more leaflets available to staff. A case presentation was delivered at MDT to highlight the health impact of HPV. HIV clinic has instigated a process to identify eligible patients in the pre-clinic MDT meeting and a HPV champion made responsible for updating records.
A re-audit will take place in March.

P145 An analysis of clients choosing to access sexual health services outside of their borough of residence – a useful approach for evidence-informed commissioning

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Abstract
Introduction: A number of Croydon residents choose to access sexual health services outside of the borough in which they live; with almost 40% of Croydon's sexual health spending being recharged by out-of-borough providers. The aim of this analysis was to describe the out-of-borough clinical activity and resulting spend, and use data to inform future commissioning and service provision within Croydon.
Methods: Financial and activity data was used from April 2017-March 2018. Age, sex, deprivation index, location of residential address, frequency of attendance, number of

activities per visit and the type of clinical activity was determined. Descriptive comparisons were made between the three most popular providers outside of the borough and Croydon Health Services NHS Trust provision.
Results: Over half of all out-of-borough clinical activity was undertaken at one of three Trusts; Guy's and St Thomas's NHS Foundation Trust, Chelsea and Westminster Hospital NHS Foundation Trust, and King's College Hospital NHS Foundation Trust. Activities per attendance and average cost per attendance were higher outside of Croydon. Each of these services were used by clients with dissimilar age and sex profiles, and the interventions accessed at each of these providers varied when compared to in-borough provision. Mapping of residential address (LSOA) revealed clustering of clients using each of the three most popular out-of-borough services.
Discussion: Geographical clustering of those accessing out-of-borough services is hypothesised to be a result of transport links, area demographics and/or recent relocation from neighbouring boroughs. A similar analysis is planned to explore the residential address of clients who use Croydon services. This approach may be used to inform future location of awareness-raising campaigns and/or outreach/satellite clinics; offering specific services in localities where demand has been identified; with the aim of facilitating a client-centered approach to meeting the needs of local residents.

P146 Exploring the experience of Specialist Sexual Health Nurses (SSHNs) in delivering health promotion, prevention and partner notification (PN) to patients with syphilis infection

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Abstract
Introduction: Syphilis is most commonly transmitted sexually. Numbers have significantly increased in the United Kingdom, predominately amongst men who have sex with men. Untreated syphilis can lead to long-term neurological and cardiovascular complications.
There has been an increase of syphilis due to risky sexual behaviour, condomless sex, multiple sexual partners and combining sex with substance misuse.
PN is integral when managing syphilis. Effective PN potentially prevents re-infection and transmission reduction, which is the goal of management, identification and control of syphilis.
Identify examples of best practice to assist with future approaches to nursing practice and advice and education on syphilis.
Methods: 10 SSHNs were interviewed, using semi-structured questions. Interviews were audio recorded and transcripts analysed, using 'thematic coding'. Ethics approval was obtained from the University of Glasgow ethics committee and NHS Research and Development department.
Results: SSHNs face obstacles when managing and treating syphilis infections. Analysis of the transcripts identified four emerging themes: 1) Patient journey when attending Genitourinary Medicine and Family Planning. 2) Sexual risk taking and prevention. 3) Behaviour change. 4) Service evaluation. Further sub themes: sexual risk taking, prevention strategies and sex relationship education (SRE). PN was the biggest challenge, due to geosocial networking, anonymous sexual partners and substance misuse, which makes it extremely difficult to contact sexual partner (s) and reduce transmission of infection.
Discussion: SSHNs suggest that risky sexual behaviour, condomless sex, use of geosocial networking and substance misuse, have led to increased syphilis transmissions. Promoting the use of digital technologies appears to be an effective public health intervention. Rapid testing, improved laboratory turnaround time, treatment, regular sexual health screening, specific targeting of groups and digital PN, have been associated with verified PN and outcomes. Improving SRE at schools, with SSHNs involvement may help in engaging young people and see a decrease in STIs.

P147 Factors associated with the use of condom in university students in Veracruz, Mexico

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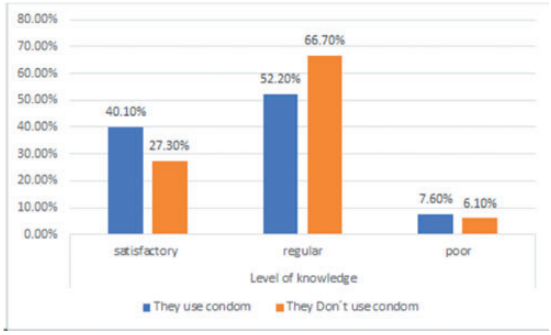
Abstract
Introduction: The state of Veracruz, is among the first nationwide in prevalence of death from cervical cancer, HPV, HIV and pregnancy in adolescents, so it is important

to identify the factors associated with condom use in college students

Methods: A cross-sectional, prospective, observational and analytical study was conducted, including female students enrolled in the Faculty of Medicine, Pedagogy and Accounting of the Universidad Veracruzana (UV), aged between 18 and 25 years, with active sexual life; the sample size calculation was 160 patients, using non-probabilistic sampling. An instrument validated by experts was carried out to evaluate knowledge by HPV; This study was approved by the Research Ethics Committee of the Faculty of Medicine of the UV.

Results: We included 190 participants. Participants had satisfactory knowledge of HPV in 72 (37.9%) Cases, regular at 104 (54.7%) and deficient in 14 (7.4%); 157 (82.63%) Participants indicated using condoms during their sexual intercourse, the main reasons for using the condom were as contraceptive method and protection of STDs (47.8%), followed by a use only as a contraceptive method (40.1%); The reasons for not using The condom was for having a stable and safe relationship (27.3%), considering it unpleasant (12.1%) and for pleasure reduction 6.1%. Of those non-users of condoms who indicating a stable and safe relationship, 24% indicated that they had sex without a condom with another couple in the last two months on one or more occasions. Factors associated are showed in table 1.

Discussion: According to the results, the knowledge about HPV having had an STD are not associated factors in the use of condoms in young people, something contrary to their behavior sexual behavior, for which, we consider should be conducted research to identify new factors of risk in them to be able to generate directed actions that have a direct impact on public health.



P148 Factors related to the use of contraceptive methods in medicine students

Evelyn Flynn Ferreyra[1], Jorge Eugenio Morgado Espinoza[1], Genesis Samantha De La Rosa Inclan[1], Martha Aurora Mariano Quintero[2], Alistair Jimenez Triana[1] and Josue Eli Villegas Dominguez[1,3]

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Abstract

Introduction: Veracruz, Mexico is a state with high rates of teenage pregnancies and HIV within Mexico, so identifying the use of contraceptive methods and the factors

		Do you use a condom when you have sex?				
		Yes		No		P value OR (IC95%)
Marital status	Single	97	61.8%	14	42.4%	0.04
	In a couple	60	36.9%	19	51.5%	2.1(1.02-4.6)
Career	Medicine	60	38.2%	10	30.3%	0.3
	Accountancy	50	31.8%	10	30.3%	0.8
	Pedagogy	47	29.9%	13	39.4%	0.2
Level of knowledge	satisfactory	63	40.1%	9	27.3%	0.1
	regular	82	52.2%	22	66.7%	0.1
	poor	12	7.6%	2	6.1%	0.7
Have you ever heard about the Human Papillomavirus (HPV)?	Yes	155	98.7%	32	97.0%	0.4
	No	2	1.3%	1	3.0%	
Has a sexually transmitted disease been diagnosed by a doctor?	Yes	0	0.0%	3	9.1%	0.007
	No	157	100.0%	31	93.9%	(---)
With how many different men / women have you had sexual contact in the past (vaginal, oral or anal)?	Lees than 5	143	5.1%	26	3.0%	0.04
	5 or more	14	8.9%	7	21.2%	2.75 (0.9-1.7)
Have you had sex with a man / woman in the last two months (vaginal, oral or anal)?	Yes	111	70.7%	30	90.9%	0.01
	No	46	29.3%	3	9.1%	0.2(0.07-0.8)
With how many men / women have you had sex in the last two months?	More than 1 couple	54	34.3%	2	6.06%	0.003
	One couple	103	65.6%	29	87.9%	7.6(1.7-33.0)

Table 1. Factors associated with the use of condoms

that affect them is of utmost importance to establish interventions from the area of public health. The aim is to identify predisposing factors for the use of contraceptive methods in medical students from public and private universities.

Methods: An observational, analytical, cross-sectional and prospective study wascarried out. Medical students from a public university and a private university in Veracruz, who studied first or second grade, were included. An instrument validated by experts at the National Autonomous University of Mexico was used to evaluate sexual life, use of contraception and care of sexual and reproductive health. The study was conducted between August and December 2019. It was approved by the research and ethics committee of the Universidad Veracruzana medical school

Results: There was a participation of 119 (53.4%) students from public universities and 104 (46.6%) from private universities; the participants were 53.4% women and 46.6% men; 75.2% of the students reported having started sexual life, of which 82.8% mentioned having used some form of contraception and 54.4% of the students who mentioned having an active sex life used emergency contraception; The knowledge of contraceptive methods stood at 65%. Table 1 and 2 describe the factors associated with the use of family planning methods.

Discussion: The factors that favor the use of FPM resulting in this research, differ from those reported in the literature, since none of the factors studied was significant, which leads us to propose new studies that evaluate additional factors that may be influencing our young people, including qualitative situations, such as behavior or acceptance of consequences.

		Condom use		Others		OR	IC 95%	P value
		Si	%	no	%			
Gender	Male	64	48.5	19	51.4	0.8	0.4-1.8	0.9
	Female	68	51.5	18	48.6			
Sexual orientation	heterosexual	120	90.9	30	81.1	1	1	1
	homosexual	4	3.0	2	5.4	0.5	0.08-2.8	0.7
	bisexual	7	5.3	4	10.8	0.4	0.1-1.5	0.3
	Others	1	0.8	1	2.7	0.2	0.014-4.1	0.8
Religion	Catholic	107	81.1	26	70.3	1	1	1
	Christian	9	6.8	1	2.7	2.1	0.2-18.0	0.7
	Atheist	9	6.8	6	16.2	0.3	0.1-1.1	0.1
	Mormon	1	0.8	0	0.0	-	-	1
	Others	6	4.5	4	10.8	0.3	0.09-1.3	0.2
First sexual contact	betwenn 18 and 19 years old	51	38.6	13	35.1	1	1	1
	betwenn 14 and 17 years old	80	60.6	24	64.9	0.8	0.3-1.8	0.8
	Before 13 years old	1	0.8	0	0.0	-	-	1

Tabla 1. Factors associated with condom use during the first sexual intercourse. The association was calculated by square chi test or Fisher's exact test. Significance p<0.05.

P149 Collaboration between GP & Sexual Health Services on chlamydia management

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Abstract

Introduction: Since an outbreak of gonorrhoea in Sheffield (2015), Sexual Health Sheffield (SHS) has collaborated closely with GPs in managing results to improve partner notification. Chlamydia positive results detected by microbiology labs are dually reported to GPs and SHS. Patients are contacted by SHS to arrange treatment. The patient has the option to book with SHS or GP for treatment. Patients selecting GP treatment discuss partner notification by telephone phone.

Methods: Assess effectiveness of SHS's management of chlamydia results from GPs. Numbers of GP chlamydia referrals July-December 2018 will be compared with chlamydia diagnosis from SHS. Review of number of contacts informed as a result of HA discussion with index patients diagnosed by GP. Discussion of advantages and disadvantages.

Results: During the 6 month period, 370 GP diagnosed chlamydia positive results referred to SHS. Total diagnosed

		Whit family planning method		Without family planning method		OR	IC 95	P value
		Si	%	No	%			
Gender	Male	74	52.1	9	33.3	2.1	0.9-5.1	0.1
	Female	68	47.9	18	66.7			
Sexual orientation	heterosexual	127	89.4	23	85.2	1	1	1
	homosexual	4	2.8	2	7.4	0.3	0.06-2.0	0.5
	bisexual	9	6.3	2	7.4	0.8	0.1-4.0	1
	Others	2	1.4	0	0.0	-	-	0.5
Religion	Catholic	113	79.6	20	74.1	1	1	1
	Christian	10	7.0	0	0.0	-	-	0.3
	Atheist	12	8.5	3	11.1	0.7	0.1-2.7	0.8
	Mormon	0	0.0	1	3.7	-	-	0.3
	Others	7	4.9	3	11.1	0.4	0.09-1.7	0.4
First sexual contact	betwenn 18 and 19 years old	52	36.6	12	44.4	-	-	0.6
	betwenn 14 and 17 years old	89	62.7	15	55.6	1.3	0.5-3.1	0.5
	Before 13 years old	1	0.7	0	0.0	-	-	1
University	UV	72	50.7	11	40.7	1	0.6-3.4	0.4
	UVM	70	49.3	16	59.3			
Economic status		6	4.2	1	3.7	1	1	1
	Medium	132	93.0	21	77.8	1.0	0.1-9.1	1
	Low	4	2.8	5	18.5	0.1	0.01-1.6	0.2
Current Relationship	Yes	86	60.6	14	51.9	1.4	0.6-3.2	0.5
	No	56	39.4	13	48.1			
Previous academic studies	Public	62	43.7	12	44.4	0.9	0.4-2.2	1
	Private	80	56.3	15	55.6			
Sex education in previous studies	Yes	133	93.7	25	92.6	1.0	0.7-1.3	0.8
	No	9	6.3	2	7.4			
Sexual contact under the influence of alcohol or drugs	Yes	53	37.3	11		0.8	0.3-2.0	0.9
	No	89	62.7	16				
knowledge	high,	3	2.1	2	7.4	0.2	0.04-1.7	0.4
	Medium	41	28.9	7	25.9	1.0	0.8-1.1	0.8
	Low	98	69.0	18	66.7	1	1	1
Low knowledge	bajo	98	69.0	18	66.7	1.1	0.4-2.6	0.9
	otros	44	31.0	9	33.3			
High knowledge	alto	3	2.1	2	7.4	0.2	0.04-1.6	0.3
	otros	139	97.9	25	92.6			

Table 2. Factors associated with current use of FPM. The association was calculated by square chi test or Fisher's exact test. Significance p<0.05.

at SHS 657. The HA team obtained details of, on average 2 partners per GP patient.

Discussion: Advantages to patients include access to testing closer to home, specialist advice from SHS; information on chlamydia, support on relationship issues, assessment of relevant safeguarding risks & BBV screen. Treatment from SHS is exempt from prescription fees.

From a public health perspective this system enables greater scope in monitoring STI trends, ensuring quality partner notification. This facilitates access to a patient groups that may not normally engage with SHS clinic (due to geography, cultural barriers)- thus creating opportunities for risk reduction, avoidance of reinfection. A disadvantage for the SHS is an increased workload for the health adviser team. For GPs, managing STI workload externally is clearly an advantage to workload. Reduced involvement in STI management may reduce confidence in dealing with sexual health.

SHS management of GP chlamydia testing increases partner numbers tested & treated due to HA involvement in partner notification, contributing to reducing chlamydia infections.

P150 Knowledge about HPV: No impact on prevention for the spread of the virus

Martha Aurora Mariano Quintero[1], Genesis Samantha De La Rosa Inclan[1], Alistair Jimenes Triana[1], Evelyn Flynn Ferreira[1], Jorge Eugenio Espinoza[1] and Josue Eli Villegas Dominguez[1,2]

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Abstract

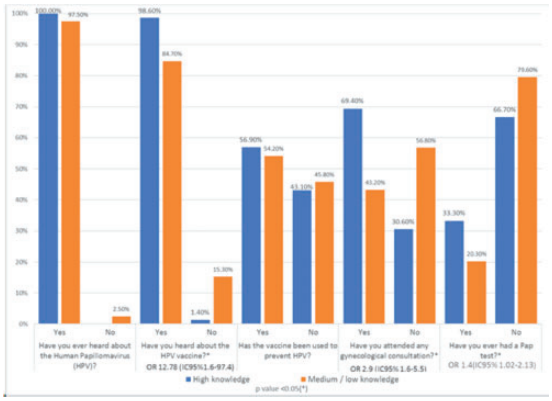
Introduction: The state of Veracruz is among the first nationwide in the prevalence of cervical-uterine cancer mortality, which aims to identify the association between the level of knowledge about HPV and the application of methods for prevention .

Methods: A cross-sectional, prospective, observational and analytical study was conducted, including female students of the Universidad Veracruzana, aged between 18 and 25 years; We excluded people who did not agree to participate in the study. The knowledge was evaluated by a 27-item instrument validated by experts. A sample size

was calculated obtaining a minimum of 160 subjects, using non-probabilistic sampling.

Results: We included 190 participants, who had high-knowledge for HPV in 72 (37.8%) cases and low-knowledge in 14 (7.4%). The participants with high-knowledge use condoms always in 61.1% and never 8.3%, they go to the gynecologist mainly by periodic control (29.2%), and those who do not attend, is because they have not had problems (16.7%) or can not pay for the consultation (8.3%); patients report not getting the vaccine against HPV because they did not find a vaccine when they requested it (22.2%) and in 2.8% because they did not want to be vaccinated, while in patients with medium/low-knowledge, always use condoms in 53.4% and never 11.8%; they go to the gynecologist for periodic check-up (18.6%); the vaccine is not given for the same reasons as in the high-knowledge ones in 13.6%, 16.9% and 6.8% respectively ($p > 0.05$).

Discussion: The results show that the career, as well as being in higher semesters facilitates the acquisition of knowledge about HPV; On the other hand, high knowledge favors cervical cytology, gynecological examination and identification of HPV vaccine. However, it does not show differences in the application of the vaccine, the number of doses applied, or the periodicity in which they are performed cervical cytology.



		High knowledge		medium / low knowledge		p value OR (IC95%)
		Total	%	Total	%	
Marital status	Single	45	62.5%	66	55.9%	0.4
	In a couple	27	37.5%	52	44.0%	
Career	Medicine	54	75.0%	16	13.6%	<0.001 19.1(9.0-40.4)
	Accountancy	9	12.5%	51	43.2%	<0.001 0.1(0.08-0.4)
	Pedagogy	9	12.5%	51	43.2%	<0.001 0.1(0.08-0.4)
Semester	Second	9	12.5%	15	12.7%	0.9
	Fourth	6	8.3%	39	33.1%	0.002 0.1(0.07-0.4)
	Fifth	0	0.0%	1	0.8%	0.4
	Sixth	12	16.7%	42	35.6%	0.008 0.3(0.1-0.7)
	Eighth	16	22.2%	9	7.6%	0.007 3.4(1.4-8.3)
	Tenth	20	27.8%	3	2.5%	<0.001 14.74(4.1-51.8)
	Eleventh	1	1.4%	0	0.0%	0.8
	Twelfth	1	1.4%	0	0.0%	0.8
	no responde	7	9.7%	9	7.6%	0.6
How many doses of the HPV vaccine was applied?	One	15	20.8%	28	23.7%	0.8
	Two	17	23.6%	20	16.9%	
	Three	8	11.1%	14	11.9%	
	Non	30	41.7%	49	41.5%	
	Not specific	2	2.8%	7	5.9%	
How long was the last dose of the vaccine?	I did not get the vaccine	31	43.1%	52	44.1%	0.1
	One year or less	1	1.4%	9	7.6%	
	1 – 3 years	9	12.5%	18	15.3%	
	3 – 5 years	18	25.0%	14	11.9%	
	More than 5 years ago	13	18.1%	14	11.9%	
	Not specific	0	0.0%	11	9.3%	
How long ago was the cervical cytology test performed?	One year or less	18	25.0%	20	16.9%	0.5
	More than one year	54	75.0%	98	83.1%	
Why is cervical cytology not performed?	I do not think that it's necessary	12	11.5%	7	8.1%	0.2
	problems associated with the procedure	27	26.0%	22	25.6%	
	lack of knowledge	18	17.3%	7	8.1%	
	Other	14	13.5%	12	14.0%	

Table 1. Characteristics of the population according to their level of knowledge

P151 Online vs. clinic Chlamydia trachomatis testing in under 25s- are we targeting the right groups?

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Abstract
Introduction: With online testing, we aim to target asymptomatic screening in <25's to increase clinic capacity for complex cases. In 2018, we changed our young person's clinic to only <18's to improve access to a group where there may be more complex needs including safeguarding. We aim to evaluate our online and clinic provision of Chlamydia testing.
Methods: Retrospective review of clinic and online Chlamydia rates between 1/4/18 – 30/9/18.
Results: Overall, there were significantly more patients testing Chlamydia positive in clinic ($p < 0.0001$). There were significantly more patients under <18 choosing to test in clinic ($p < 0.0001$).
Discussion: Since integration, we have noticed a 79.2% increase in our online testing. We need to continue to adapt to the needs of <18's to ensure that in-clinic testing remains desirable for this potentially vulnerable group.

P152 Trends in Attendances at Sexual Health Services in England: 2009–2017

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Abstract
Introduction: Understanding attendance trends at sexual health services (SHSs) is important for monitoring effective provision of testing, diagnosis and treatment of sexually transmitted infections (STIs), an essential component of prevention. Recent patterns in attendances corresponding to a period of change in epidemiology, service delivery and prevention programmes, were examined at specialist SHSs in England over time.
Methods: We performed descriptive analyses, by demographic and clinical characteristics, of attendances by individuals aged 15–64 years at specialist SHSs in England using data from the GUMCAD STI Surveillance System. Attendances without STI-related codes (testing, diagnoses or immunisation) or coded 'sexual and reproductive health' were assumed to be for reproductive health.
Results: Attendances increased steadily by 33% (to 2,889,449) between 2009–2017; the rate of increase slowed from 6% (2010–2011) to 0.6% (2015–2016). Between 2016–2017, attendances increased by 4%. Between 2009–2017, annual attendances increased by 109% (to 351,518) among men who have sex with men (MSM); 106% (to 1,509,489) among heterosexual women;

Table 1: Online and clinic Chlamydia positivity rates by gender

	Male				Female			
	Online		Clinic		Online		Clinic	
Age	Tests	+ve (%)	Tests	+ve (%)	Tests	+ve (%)	Tests	+ve (%)
<16	0	0 (0%)	18	0 (0%)	1	0 (0%)	139	16 (11.5%)
16	28	2 (7.1%)	45	2 (4.4%)	64	2 (3.1%)	191	29 (15.2%)
17	33	3 (9.1%)	80	8 (10.0%)	119	20 (16.8%)	243	24 (9.9%)
18	133	15 (11.3%)	102	19 (18.6%)	299	37 (12.4%)	249	40 (16.1%)
19	226	23 (10.2%)	217	34 (15.7%)	610	71 (11.6%)	367	55 (15.0%)
20	293	31 (10.6%)	255	44 (17.3%)	849	65 (7.7%)	363	46 (12.7%)
21	357	38 (10.6%)	253	25 (9.9%)	1067	82 (7.7%)	341	33 (9.7%)
22	322	21 (6.5%)	296	33 (11.1%)	830	47 (5.7%)	330	26 (7.9%)
23	393	29 (7.4%)	255	23 (9.0%)	788	47 (6.0%)	296	30 (10.1%)
24	610	42 (6.9%)	245	19 (7.8%)	1204	66 (5.5%)	277	12 (4.3%)
Total	2395	204 (8.5%)	1766	207 (11.7%)	5831	437 (7.5%)	2796	311 (11.1%)

and 29% (to 735,444) among heterosexual men. A greater rate of increase in attendances by heterosexual women compared with heterosexual men has been observed since 2010. Approximately 35% of heterosexual female attendances were for reproductive health, increasing from 26% in 2009 to 41% in 2017. The peak-age groups for attendances by heterosexuals and MSM were 20–24 years and 25–29 years, respectively. Between 2009–2017, attendances increased by 82%, 76%, 35% and 11% among those of Asian, Mixed, White, and Black ethnicity, respectively. Increases varied by region between 2009–2017 from 12% in East of England to 45% in North West.

Discussion: Although attendances at SHSs have increased between 2009 and 2017, especially among heterosexual women and MSM, there are marked variations regionally and in different population subgroups. Interpreting patterns of the total footfall at SHSs can be used to assess whether attendances are in line with local need.

P153 Behind the Headlines: making sense of soaring STI rates

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Abstract

Introduction: Recent PHE reports detailing a rise in syphilis and gonorrhoea (GC) rates have been well documented. An associated decrease in chlamydia (CT) diagnoses has been linked to reduced screening. The syphilis and GC data prompted calls for 'higher risk individuals' to undergo regular testing, increased delivery of successful prevention strategies and highlighted concerns regarding the impact of funding cuts and a suspected rise in 'condomless sex'. As a large UK sexual health service, we were keen to review the changes in local syphilis, GC and CT rates within the clinic attendees.

Methods: The database was interrogated to identify the number of cases of GC, early syphilis and CT in 2016, 2017, 2018. Cases were identified using the relevant GUMCAD codes: B, B(0), B(R), C4, C4(0), C4(R), A1, A2.

Results:

	2016	2017	2018	Percentage change from 2016-2018 (to nearest %)
Chlamydia	13,263	14,431	15,816	19%
Gonorrhoea	11,259	13,621	16,844	50%
Syphilis	1,241	1,375	1,557	25%
Total attendances	250,529	257,552	236,686	-6%

Discussion: In line with national data, there has been an increase in STI diagnoses which pre-date increased access to PrEP and the U = U campaign, despite a reduction in overall attendances. In contrast to PHE reports, an increase in chlamydia diagnoses has been documented suggesting that where testing is available, there is no decrease in CT rates.

Some of the rises may be attributable to altered patterns of attendance observed following the relocation of one of our clinics, targeting of high risk populations, redirection of low risk cohorts to the eservice platform, adoption of innovative technology such as near patient NAAT testing coupled with rapid serology result turnaround.

This rise in STI rates serves to highlight the need for consistent investment in sexual health services ensuring prevention, access, screening and treatment strategies are protected.

P154 HSV and syphilis are important causes of symptomatic proctitis in men who have sex with men

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Abstract

Introduction: Sexually transmitted proctitis is a common presentation to sexual heallth clinics in men who have sex with men (MSM) and caused by Gonorrhoea, Chlamydia including Lymphogranuloma Venereum (LGV), Herpes Simplex Virus (HSV), syphilis and possibly *Mycoplasma genitalium* (Mgen). However there is a paucity of data on proctitis in MSM.

Methods: We conducted a retrospective notes review of MSM attending GUM clinics in Brighton with symptomatic proctitis from October 2015 to October 2018.

Results: There were 78 MSM diagnosed with a symptomatic proctitis out of 24,126 MSM attendances during the

study period (3.23/ 1000 MSM attendances). The mean age was 40.8 years (range 21–77), 57/78(73%) were of white ethnicity and 37/78(47%) HIV-positive. No organisms were found in 22/78(28%). In total, there were 69 organisms identified (19 Gonorrhoea, 14 Chlamydia, 12 LGV, 12 HSV-1, 4 HSV-2, 6 syphilis and 2 Mgen). 46/78(59%) had a single organism (12 Gonorrhoea, 10 LGV, 10 HSV-1, 7 Chlamydia, 2 HSV-2, 4 syphilis, 1 Mgen). 10/78(13%) had multiple organisms identified (8 = 2 organisms, 1 = 3 organisms and 1 = 4 organisms). Interestingly 17/19(89%) cases of gonorrhoea were culture positive and all ceftriaxone and azithromycin sensitive.

Discussion: Over the 3 year period we found a high number of pathogens associated symptomatic proctitis in MSM with increased rates of HSV, particularly HSV-1, and syphilis compared to historical series. The role of Mgen in proctitis is unclear although Australian data suggest this occurs. Locally we routinely treat symptomatic proctitis in MSM for Gonorrhoea and LGV however the high rates of HSV suggest we should also be using empirical acyclovir. As rates of STIs increase in MSM due to HIV treatment and pre-exposure prophylaxis, access to testing, geo-spatial apps and recreational drug use; so it appears has symptomatic proctitis. A review of national and international guidelines are currently needed.

P155 The City Clinic: evaluating a new clinic for men who-have-sex-with-men (MSM)

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Abstract

Introduction: The Cardiff service opened an MSM evening clinic due to high demand for STI testing and PREP referrals in November 2017. STIs diagnoses in MSM in Wales are increasing, particularly gonorrhoea and syphilis. The new service included self-collected histories including chemsex questions.

Methods: Clinic attendance figures were reviewed alongside a retrospective case note review comparing MSM attendance and demographics before and after introduction of the service, evaluating the first 50 MSM patients who attended in 2017 and in 2018.

Results: There was a 9.8% increase in MSM attendance after the new service was introduced (445 in January 2018 and 405 in January 2017). This included increased non-white-British and bisexual attendances. 91 (20.4%) MSM attending in January 2018 were seen within City Clinic. Of the 50 notes reviewed from 2018, 11 were seen in City Clinic.

The median age of MSM attending City Clinic was the same as those attending general clinics. There was a lower percentage of bisexual patients in the City Clinic group but a higher percentage of non-white-British attendees.

Since introducing the service, there has been a reduction in positivity of STI tests in MSM but greater testing overall. More data is collected on recreational drug use and PREP referrals.

Discussion: The improvement in non-white-British attendance suggests that the clinic has improved accessibility in a previously untested population. The drop in STI positivity suggests more asymptomatic testing as local data suggests overall STI rates are increasing. Further patient and staff evaluation would be beneficial.

P156 Associations with recent sexual health clinic attendance and ever having an HIV test among trans people in the United Kingdom

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Abstract

Introduction: Trans people face health services access barriers not experienced by cisgender people, resulting in unmet sexual health needs. Factors associated with sexual health clinic attendance and HIV testing among trans people are explored.

Methods: Facebook advertising and community organisations' social media posts invited UK trans people to participate in an anonymous online survey (April-June 2018). Psychosocial and sexual factors associated with sexual health clinic attendance in the past 12 months, and ever testing for HIV were examined using multivariate logistic regression.

Results: 500 trans participants completed the survey (147 trans men, 88 trans women, 244 non-binary people, 21 who identified in another way); they were less likely to report sexual health clinic attendance (27% vs. 36%, $p < 0.001$) and ever testing for HIV (49% vs. 63%, $p < 0.001$) than cisgender participants ($n = 3,117$). One

trans participant reported living with HIV and three currently taking PrEP. Factors associated with trans sexual health clinic attendance were: living in London, having a relationship with multiple partners, condomless anal intercourse, greater life satisfaction, and having alcohol and/or drugs before sex. Being unemployed was a barrier to attendance. Being a person of colour, aged 25–49, having a relationship with multiple partners, condomless anal intercourse, lower body dissatisfaction, and having drugs before sex were associated with ever testing for HIV among trans participants.

Discussion: Despite sexual risk factors being associated with clinic attendance and HIV testing, trans people still faced barriers in accessing healthcare. Sexual health services need to be more accessible to and inclusive of trans people, as HIV testing and sexual health service uptake are low.

P157 Review of sexual health care of MSM in an integrated sexual health clinic – room for improvement?

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Abstract

Introduction: The care of MSM attending our clinic was reviewed against the 2016 BASHH audit standards for the sexual health care of MSM.

Methods: Electronic patient records of 100 consecutive patients self-identifying as MSM who attended clinic from 1 October 2018 were reviewed with respect to age, HIV status, symptoms, STI screening and recall, condom use, history of alcohol and drug use, immunizations and information giving around risk reduction.

Results: The average age was 35 (range 17 to 69). 17% of patients had symptoms. 5% were known HIV positive. All patients were offered full STI screening and 84% accepted. 30% of patients screened were diagnosed with STIs (chlamydia, gonorrhoea, syphilis, warts, HSV, pubic lice). 95% with bacterial STIs were recalled for HIV testing at 3 months. 90% of patients reported anal intercourse in the last 3 months. 14% reported always using condoms.

98% of patients reporting condomless anal sex with more than 1 partner in the last 3 months were advised on PrEP.14% of patients were enrolled in the PrEP Impact Trial and 3% bought PrEP online. 99% of patients were asked about alcohol, recreational drug use, IVDU and chemsex. 17% of patients reported drug use; none reported IVDU. 91% of patients non-immune to Hepatitis A and B accepted vaccination. 83% of those eligible for HPV vaccination started a vaccine course. 73% of patients were documented to have received advice on condom use.

Discussion: The high prevalence of STIs seen in MSM attending clinic highlights MSM as high priority public health group. This review demonstrated good offer of full STI screening, recall for repeat screening and discussion around alcohol and drug use as well as availability of PrEP. Team learning has been implemented to try and improve clinic uptake of full STI screening, vaccination uptake and discussion of risk reduction including condom use.

P158 How can we facilitate online disclosure of safeguarding concerns in under 18s to support transition from online to face-to-face care?

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Abstract

Introduction: Sexual health services (SHS) routinely screen service users aged 17 and under for safeguarding concerns and provide support after disclosure. SHS are increasingly available online to 16 – 17 year olds. However, evidence is limited on translation of established face-to-face safeguarding procedures to online services, presenting a challenge for service innovation. We aimed to establish factors that would encourage users to disclose a safeguarding concern online and facilitate appropriate response to disclosure.

Methods: 4 semi-structured in-depth interviews based around example safeguarding cases were completed by young people (YP) aged 16 – 21 years (n = 2) and safeguarding experts (n = 2). These complemented a workshop attended by YP aged 16 – 18 years (n = 7) (6 boys, 1 girl) and key stakeholders (n = 9), exploring factors that would encourage or inhibit disclosure. Results were analysed using a matrix-based 'framework' approach.

Results: Four key themes emerged: 1. What is normal? YP lack understanding about 'normal' sexual relationships and may not know they are being exploited. 2. What happens to my data? Confidentiality is a key concern for YP. Clarification around limitations of confidentiality, consequences of disclosure and safety of personal data are required. 3. Keeping control of the process. YP felt

online services may be convenient and avoid embarrassment, providing control. However, they feared online disclosure might set off an uncontrollable chain of events. 4. What can you offer? After disclosure, YP wanted certainty of help, versus being considered another 'statistic.'
Discussion: To facilitate online disclosure, we recommend SHS provide: 1. Information about 'what is normal,' assisting YP to recognize concerns. 2. Information about why we ask questions and clarification that confidentiality cannot always be assured. 3. Transparency about processes following disclosure. 4. Examples of the benefits of disclosure. Further collaborative work to test and refine improvements are required going forward.

P159 Review of a counselling service for young people (YP) within a large inner-city sexual health service

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Abstract
Introduction: Umbrella sexual health service was commissioned in 2015 to include a young peoples (YP) counselling service for 13- 25-year olds to help address issues associated with poor sexual health. YP are more likely to be diagnosed with a sexually transmitted infection (STI) than those over 25 years. A review of the service was necessary to inform future service needs.
Method: A retrospective case note review by trained counsellors was undertaken between August 2017 and end of July 2018. Data was collected on age, ethnicity, sexuality, gender, presenting issue/s, outcome and number of sessions. The presenting issue/s were grouped into pre-set themes.
Results: 163 clients were seen. 79% identified as female, 15% male, 3% transgender female, 2% transgender male and 1% as non-binary. The female ethnic mix was more diverse than the males. 94% were over 16 years old.
91% presented with mental health issues. The six next commonest issues included; rape & sexual assault (29%), sexuality (25%), pregnancy related (19%), child abuse (13%), risk-taking behaviour (10%) and gender (6%). The outcomes were as follows; 32% improved, 25% referred elsewhere, 34% disengaged, 9% still in counselling. The mean number of sessions was 5.
Discussion: The review emphasised the number of YP seen within the sexual health service with complex issues that have the potential to impact on their sexual health. Nearly all YP report mental health issues and a large number report previous sexual assault and issues with sexuality. Fewer males with less ethnic variation are seen compared to females, suggesting the service may not meet their needs. Over half of the YP seen had evidence of improvement or were signposted to appropriate services. The review identified training needs for the counsellors and potential gaps in the service worth further exploration.

P160 An Audit of STI Screening and Vaccination of MSM Attending Umbrella Sexual Health Services

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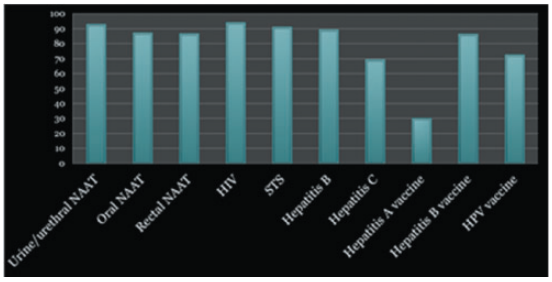
Abstract
Introduction: We aimed to determine whether MSM attending Umbrella are appropriately tested and vaccinated for STIs. This is vitally important given the significant burden of STIs in MSM.
Methods: The tests considered were chlamydia/gonorrhoea NAAT, HIV, syphilis, hepatitis B and hepatitis C (if history of rectal trauma, recreational drug use, LGV or HIV). Local guidelines recommended testing MSM for chlamydia/gonorrhoea based on sexual history, whereas recent national guidelines recommended standard triple site testing (BASHH 2016 UK national guideline on sexual health care of MSM). Both practices were considered appropriate. Vaccination for hepatitis A, B and HPV (age $\leq$45) were also considered. Data capture was performed from electronic patient records for all male patients reporting history of sex with another man attending any umbrella clinic (encompassing 9 clinics across Birmingham and Solihull) during 2017. More detailed manual data analysis was performed on 200 case notes to illicit reasons for deviation from guidelines.
Results: In 2017 our service had 3982 new patient episodes from 2968 different patients. The table shows percentage appropriately screened/vaccinated according to initial data capture.



From case notes review 2.5%, 2% and 4% were not appropriately tested with urine/urethral, oral or rectal NAAT respectively without explanation. 1%, 1%, 4% and 11.5% were not appropriately tested for HIV, syphilis, hepatitis B and hepatitis C without explanation. 64.5%, 4% and 14.5% were not appropriately vaccinated for hepatitis A, B and HPV without explanation.

Discussion: Clear problem areas were identified, particularly hepatitis C testing, Hep A and HPV vaccination. Guidelines are unclear or have recently changed in these areas. Subsequently a new local guideline was produced with a section on sexual health care of MSM clarifying tests and vaccinations required and bringing local guidelines in line with national chlamydia/gonorrhoea testing recommendations. This will be re-audited once this guideline is introduced.

P161 Contraception in women living with HIV (WLWH) – An audit review

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Abstract

Introduction: The number of people in the UK living with HIV continues to grow. There is an increasing importance of provision of holistic HIV services including reproductive, preconception, fertility and antenatal services. This is particularly important because of complexity of interactions between antiretroviral therapy (ART) and contraceptive medications. We explored the suitability of contraception methods in accordance to medical history and ART in WLWH in our HIV clinics in a large centre.

Methods: We audited 142 cases (n = 8 excluded) randomly selected, from a total of 432 WLWH aged between 18 and 49, reviewed between January and December 2016 in our centre. Information on demography, existing and previous uses of contraception, the rates of offer, decline and re-offer of contraception the following year were reviewed. Data was collected using patient letters, notes and laboratory results via hospital patient management systems.

Results: One hundred and thirty-five (96%) of WLWH were asked about contraception during their clinical consultation, of those only 60% of patients accepted or were already on contraception (including barrier methods). Drug interactions between ART and contraception were identified in three women. Fifty-five women declined any method of contraception, as many declared not in a relationship and denied intentions for pregnancy. Fourteen (25%) of those women had plasma HIV viral load (VL) count >100 copies/mL in 2016. Five (9%) of those women became pregnant within a year. All fifty-five women had been re-offered contraception in 2017 and sixteen (29%) agreed to start on hormonal methods of contraception.

Discussion/conclusion: This audit identified the importance of reviewing contraception needs for WLWH, in particular with the 5 unplanned pregnancies. Cases of significant interactions between ART and contraception medications were identified in this audit. Women not taking ART with high levels of plasma HIV VL count should be encouraged to use condoms and a hormonal method.

P162 Can sex work services survive? Outreach to Netreach

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Abstract

Introduction: Increases in online-based sex work and changes in sexual health commissioning have affected sex worker (SW) healthcare delivery. Netreach (the use of digital technologies to provide SW information and support) is increasingly used in place of traditional outreach methods. For our inner-city sexual health clinic, the loss of an off-street outreach service necessitated increasing netreach work. We reviewed patient numbers and demographics to assess the impact of moving from outreach to netreach.

Methods: Attendances coded 'SW' at two SW and one general clinic were compared the year before and annually after the outreach loss. Gender data was also collected.
Three-months of smartphone-messaging were analysed.
A translated service-related questionnaire was provided to SW clinics attendees 02/02/18-08/03/18.

Results: Total SW attendances fell by 11.5% (869 to 769) the year following redesign and 3% the year after (769 to 746). However, attendances are forecast to increase 1.6%, assuming current patterns continue (316 attendances in the last five months).
Pre-redesign 0.92% (8/869) attendees were cis-male and 0.23% (2/869) trans or non-binary. In the year following redesign, 2.6% (20/769) attendees were cis-male (182.6% increase) and 1.3% (10/769) attendees trans or non-binary (110% increase). In the last five months, 5.7% (18/316) attendees were cis-male (519.6% increase).
Smartphone records showed preferential use of Internet-based messaging.
23/55 (41.8%) SWs completed the questionnaire offered. 18/23 (78.3%) found the service by word-of-mouth and 2/23 (8.7%) online. 21/23 (91.3%) were non-UK born.

Discussion: Staffing changes initially adversely affected services, however reduction in attendances stabilised and may reverse. Netreach has increased gender diversity, likely reflecting heterogeneity of online SWs. The majority of SWs were non-UK born and may use non-UK numbers, preferring Internet-based messaging. Assuming adequate administration time and involvement of SWs in service redesign, netreach methods can lead to successful delivery of SW healthcare outside of a traditional outreach setting.

P163 Sexual dysfunctions: A qualitative study of perceived consequences and treatment seeking behaviour among adult men and women in rural Sri Lanka

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Abstract

Introduction: Sexual dysfunctions (SDs) are a group of disorders which hinder a person's ability to respond sexually, engage in sexual intercourse or to experience sexual pleasure. We explored perceived consequences and treatment seeking behaviour among adult men and women who had SDs in rural Sri Lanka.

Methods: We conducted in-depth interviews with 12 adult men and women who had SDs, and nine service providers who treated patients with SDs. The age range of patients was 24–41 years. Four suffered from lack or loss of sexual desire, two from vaginismus and one from orgasmic dysfunction. The age range of service providers was 33–57 years. Three general practitioners (GPs), four medical specialists and two pharmacists were among them. Interviews were audio-recorded and the content of transcripts were thematically analysed.

Results: Perceived consequences of SDs among women included psychological distress, depression, suicidal attempts, violence, neglecting children, subfertility and marital separation. Men experienced low self-esteem, reduced work efficiency, deliberate abstinence of sex, and substance misuse. All had encountered difficulties in seeking treatment.

Women with vaginismus attributed the cause of it to "Karma" and sometimes sought help from astrologers. Women reported that the Public Health Midwife is a trustworthy person to discuss their SD concerns, and preferred to seek treatment from female GPs. Men frequently sought treatment from pharmacists, who issued Sildenafil over the counter.

Barriers for seeking treatment for SDs included stigma, discrimination, and gaps in service provision, including a lack of expertise among healthcare professionals in managing SDs.

Discussion: SDs impact adversely on individuals, families and society. Treatment-seeking behaviour of females with SDs appears to be culturally-biased and gendered. Among males, treatment approaches appear to be more self-directed, rather than professionally assisted by the health system. There is also a need to build capacity of service providers in managing SDs.

P164 A project to describe the use and impact of 'Chemsex' in the Birmingham population, and to ascertain improvements and developments required in the current service

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Abstract

Introduction: The use of psychoactive substances by men who have sex with men (MSM) to enhance sexual experience is well established. Chemsex describes the use of mephedrone, Gamma-hydroxybutric acid (GHB) and crystal methamphetamine in this context and has been associated with high risk sexual activity. The prevalence and impact of Chemsex is not well defined in the MSM population of Birmingham, the UK's second largest City. Further study was prompted by anecdotal reports of increased Chemsex disclosure at Birmingham sexual health and HIV services and a desire to develop appropriate support services.

Methods: This was a cross-sectional observational prevalence study of MSM attendees at 4 Umbrella sexual health services and an HIV clinic in Birmingham. An anonymous patient questionnaire was given to all men attending over two periods between July-December 2018. Only questionnaires completed by MSM were included. Data was collected on demographics, Chemsex practise, risk taking behaviour and the medical and psychosocial impact of Chemsex.

Results: There were 500 valid responses from MSM. 74 (14.8%) of respondents reported Chemsex. Of those, 40.5% reported injecting and 32.4% report this was done by someone else to them. Analysis using Kendall's tau-b test demonstrates those who report using all three types of Chems as opposed to one are more likely to have injected, 62.5% vs 8.3% respectively ($p < 0.001$).
High risk sexual activity included condomless sex in 84.5%, multiple partners in 78.9% and sex parties lasting more than one night in 49.3%. Acquisition of a Sexually Transmitted Infection (STI) was reported in 44.9%. 28.4% reported a negative impact on their working life.
Discussion: This survey provides evidence that there is a significant amount of Chemsex reported by MSM in Birmingham. It is linked to high risk sexual and drug-taking activity and negative psychosocial consequences. Efforts to improve access to support services are warranted.

P165 Characteristics associated with men who attended a sexual health clinic for care after a sexual assault

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Abstract
Introduction: The Crime Survey of England and Wales estimates that 4% of men over the age of sixteen have experienced sexual assault. However, male sexual assault is frequently underreported.
Methods: We reviewed electronic records of patients who identified as male, and had been electronically coded as having disclosed sexual assault from 1st January 2015 – 31st December 2018 in an urban sexual health clinic. We collated and anonymised demographic data, information on alleged assailant, type of assault, police reporting and medical care.
Results: 38 self-identified males were electronically coded as disclosing sexual assault during this period. The median age was 28(IQR 20.5–32.5). 29/38(76%) were White British. 3/38(8%) were living with HIV and one was diagnosed at this attendance. The majority identified as MSM 23/38(61%), 8(21%) as heterosexual, 5(13%) as bisexual and 2(7%) did not give their sexuality. 1(3%) patient was a trans man. 2(5%) patients were taking PREP. 17 (45%) received PEP as a result of the assault. 16/38(42%) reported mental health issues. 13/38(34%) reported the assault to the police. In six cases (16%), SARC attendance had been documented. Drug use/chems or alcohol use was documented in 22(58%) cases with 6/38(16%) stating that they believed that they had experienced drug facilitated sexual assault (DFSA). The assailant was unknown to the patient in 18(47%) cases, known in 15(39%) cases and this was not documented in 5(13%) records. In 8(21%) cases, multiple assailants were involved. 24/38 (63%) reported receptive anal sex.
Discussion: Few males were coded as having been sexually assaulted over a four year period after accessing care at a sexual health clinic. One third reported the assault to the police. 6/38(16%) had an STI. 6/38(16%) reported DFSA and 8/38(21%) reported multiple assailants.

P167 NHS Healthcare Charging for Migrants in the United Kingdom: Awareness and Experience of Clinicians within Sexual and Reproductive Health and HIV

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Abstract
Introduction: Forced migration is currently at the highest level recorded. Many European countries are seeking to deter immigration. The United Kingdom has introduced upfront healthcare charging for patients not 'ordinarily resident' in the country, with exceptions for certain groups and services. Confusion over these regulations amongst healthcare professionals risks care being delayed or denied to eligible patients. This is particularly significant within sexual and reproductive health (SRH) and HIV care, where sensitive management is essential.
Objectives: To investigate SRH and HIV clinicians' understanding of healthcare entitlement amongst migrant groups in the UK and their confidence in dealing with this topic, and use this to clarify regulations, target training and optimise access to care.
Method: We conducted a survey to explore clinicians' confidence on this subject, understanding of terminology and regulations, and ability to synthesise knowledge through case-based scenarios. This was disseminated via relevant social media/websites and open for voluntary participation for seven days.
Results: 351 respondents met inclusion criteria, and 77% reported encountering refugees, asylum seekers or undocumented migrants in clinic. Only 39% felt confident

in their understanding of healthcare charging. Terminology was correctly defined by 66%, and 70% and 64% identified refugees and asylum seekers as being exempt from healthcare charges respectively. Free services were correctly identified by 53%. In 53% of case-based scenarios respondents correctly ascertain whether charges would apply. 71% reported needing further training in this area, and many comments indicated a desire for educational resources.
Conclusion: This sample of healthcare professionals in SRH and HIV demonstrated limited knowledge of healthcare charging regulations, despite many of them working with migrant groups. Knowledge is essential for clinicians to advise patients appropriately regarding potential charges and advocate on patients' behalf.

P168 New University clinic reaches untested young people

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Abstract
Background: As STI's continue to increase in our region, the most vulnerable groups are young people (<25yrs) and men who have sex with men (MSM). Funding was provided to initiate a local university clinic to reach this target population.
Methods: A weekly term time walk-in clinic started in the Students Union from January 2018. Patients are assessed and offered full STI testing, condoms and sexual health advice. Testing includes triple site PCR for Chlamydia/Gonorrhoea and serological tests for HIV, syphilis and hepatitis B/C. Level 2 treatments including emergency hormonal contraception is available. Students are signposted for treatment or other needs. Student Welfare promote the clinic via various media.
Results: From January 2018 – February 2019 756 students were assessed, 84 more than once, over 41 sessions. 270 (36%) male, 484 (64%) females (1 transgender male, 1 transgender female) of these 649 (86%) identified as heterosexual, 102 (13%) MSM/WSW and 5(1%) bisexual. 547 (72%) of the students had never accessed sexual health services before. 230 (30%) of the students were using Apps or social media to meet partners. 92 (12%) reported recreational drug use, none reported injecting drug use. 39 cases of Chlamydia, 13 Gonorrhoea, 3 HSV and 1 HIV have been diagnosed. All were signposted to GUM for treatment and follow up. Post coital contraception has been provided to 24 (5%) students.
Discussion: This clinic provides a large number of young people with information, support and a clinical service in a convenient venue. It is targeting at risk young people 72% of whom have never previously attended GUM. Significant levels of infection 56/756 (7%) have been diagnosed and treated, reducing the risk of onward transmission. Feedback from students has been extremely positive; they felt their needs had been met. This is an important new service reaching high risk young people.

P170 Sexual health care of trafficked women

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Abstract
Introduction: In the UK, people are exploited for sex work, forced labour, illegal adoption and forced marriage. Surveys have shown that many NHS professionals do not feel sufficiently trained to deal with victims of trafficking and victims themselves report numerous barriers to accessing healthcare.
In 2016, a local charity providing safe housing and support for victims of trafficking (Medaille Trust) began regularly referring women for sexual health screening to our service.
Method: Data was collected retrospectively using case note review over the period July 2016–2018 focusing on history taking, safeguarding, confidentiality, STI testing and follow up.
Results: 29 women were seen and their notes reviewed. Consultations with trafficked patients should be sensitive to their experiences and comprehensive, given relevant legal and psychosocial factors. Medical notes highlighted that important information on sexual history was not fully recorded from 25% of patients. According to local and national safeguarding policies, children at risk of harm must be identified and located but this was only sufficiently recorded in 38% patients' notes. Ensuring the confidentiality required to help these patients regain control of their lives and make informed choices proved to be challenging as most women were unable to speak English fluently and attended with support workers. Only 17% of patient notes documented a discussion about patients' wishes about who was present during consultations and how results would be communicated. 100% of women were screened for STI's and diagnoses of HIV, Hepatitis B and C and chlamydia were made in 12 patients.

Conclusion: The referral pathway from Medaille Trust into our service has been successful but following this audit we have made changes to our proforma with prompts to ask about whereabouts of children, a more appropriate sexual history and details of how results can be shared. We would also welcome further national guidance on management of this vulnerable group.

P171 Risk Factors for Child Sexual Exploitation among under 18's attending a Sexual Health Clinic

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Abstract
Introduction: Young people attending sexual health clinics may be at risk of Child Sexual Exploitation and professionals should be alert to safeguarding flags in order to manage concerns. We aimed to identify the prevalence of safeguarding risk factors amongst under 18's attending an inner-city clinic.
Methods: Retrospective case notes review of 80/183 randomly selected patients aged <18 years attending over a 3 month period, including review of an electronic safeguarding proforma.
Results: Median age was 16 years (range 13–17), 95% female, 99% heterosexual. 36% Black Caribbean ethnicity, 21% White. 46% of patients were attending for the first time. 42.5% attended for routine contraception, 7.5% for emergency contraception, 41% for sexual health, 9% for pregnancy concerns. 13 patients were aged 15 years or under; one was assessed not to be Fraser competent.
Median age of first sex was 15 years (range 12–17 years), median number of lifetime partners was 2 (range 0–13). 80% of patients were in a relationship, 60% of whom met through friends and 27% met at school. 7% reported feeling scared and uncomfortable by their partner, 10% reported being forced to have sex and 7% reported sending text messages of a sexual nature.
6% were not attending school or college. 19% were known to social services. 15% reported mental health problems. 17% and 20% reported using drugs and alcohol respectively; 4% felt this affected sexual activity choices.
Overall prevalence of safeguarding concerns was 15%.
Of 47 accepting an STI screen, 14 patients (30%) tested positive for chlamydia and 2 (4%) for gonorrhoea.
Discussion: A high prevalence of safeguarding concerns was identified during routine enquiry using an electronic safeguarding proforma, highlighting importance of routinely screening under 17s attending sexual health clinics. High chlamydia positivity was seen. Low numbers of male adolescents attended and more work is needed to engage this population.

P172 Screening for sexually transmitted infections in HIV positive men who have sex with men – a review

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Abstract
Introduction: Although the incidence of new HIV diagnoses among men who have sex with men (MSM) has declined recently, the prevalence of other sexually transmitted infections (STIs') remain a cause for concern. We decided to find out if we are continuing to meet the standards for STI screening among the MSM and to assess any differences between past reviews.
Method: A retrospective case note analysis was performed on HIV positive MSM seen in the clinic in the year 2018. Data collected included Hepatitis B vaccination, screening for Hepatitis C, syphilis, chlamydia and gonorrhoea. This was compared to similar data collected from age matched HIV negative MSM screened during the same period.
Results: One hundred case notes were reviewed in each category. Among the HIV positive and negative MSM, sixty per cent were vaccinated and were immune to Hepatitis B. Similar number were found to be non- responders in each group. Hepatitis C was screened in 86 per cent of HIV positive MSM. Syphilis serology was performed in 90 per cent of HIV positive MSM. Of those who had screening, 41 cent in the HIV positive group and 31 per cent in the negative group had an STI. Number of STIs' were more in the HIV positive MSM. Gonorrhoea was diagnosed in 15 of HIV negative MSM with 32 in the positive group.
Discussion: Compared to previous review, there was no difference in those vaccinated against Hepatitis B in the HIV positive MSM but more in the negative group. Hepatitis C screening uptake had improved overall. Interestingly the incidence of STIs' and the number of STIs' diagnosed were more among the HIV positive MSM compared to the negative group. This highlights the importance of effective prevention strategies among HIV positive MSM. Further data will be presented.

P173 Prevalence of sexual dysfunctions and associated factors among women aged 21–60 years in rural Sri Lanka

AWIP Ranasinghe[1], VA De Silva[2] and A Pathmeswaran[3]

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Abstract

Introduction: The prevalence of female Sexual Dysfunctions (SDs) and associated factors based on community samples have not been researched adequately in Sri Lanka. This study was undertaken to determine the prevalence of SDs and associated factors among women aged 21 to 60 years in a rural community in Sri Lanka.

Methods: We conducted a community based cross-sectional analytical study. 922 women were selected using probability proportional to size, multi stage cluster sampling. A pretested interviewer administered questionnaire based on ICD-10 and DSM-5 diagnostic criteria was developed. Interviews were conducted by trained, pre-intern female medical graduates and data entered to an online database using smartphones and tablet devices in real-time.

Results: Based on ICD-10 criteria, overall prevalence of SDs was 44.6% (95% CI = 40.7–48.6). Lack or loss of sexual desire was the commonest dysfunction with a prevalence of 30.5% (95% CI = 26.7–34.5). Prevalence of orgasmic dysfunction 27.8% (95% CI = 24.2–31.8), dyspareunia 6.9% (95% CI = 4.9–9.6) and vaginismus 1.7% (95% CI = 0.8- 3.5).

Based on DSM-5 diagnostic criteria, overall prevalence of SDs was 7.5% (95% CI = 5.5–10.1), Female Sexual Interest/Arousal Disorder 4.9% (95% CI = 3.4–7.0), Genito-Pelvic Pain/Penetration Disorder 4.0% (95% CI = 2.6–6.2), and Female Orgasmic Disorder 1.0% (95% CI = 0.5–2.5).

Diabetes mellitus and menopause showed significant associations with Female Sexual Desire Disorders (FSDD) irrespective of the diagnostic criteria ($p = 0.02$). There was a significant ($p < 0.001$) positive association between overall female SDs and age according to ICD-10 but not so according to DSM-5 criteria.

Discussion: Prevalence of female SDs was high according to ICD-10 but not so according to DSM-5 reflecting the fact that only DSM-5 assesses the presence of psychological distress owing to SD and therefore DSM-5 is likely to be more specific than ICD-10. Prevention and control of diabetes should be a priority concern with regard FSDD. The association between psychological distress of SDs and aging may be context specific and needs further exploration.

P174 'Clinic in a bag' – providing a sexual health service in prisons

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Abstract

Introduction: Our local sexual health (SH) service provides in-reach sexual health and HIV care to 3 adult male prisons in the East Midlands. Although the patients are essentially the same, the provision of services in a prison environment poses unique logistical challenges. A SH service is offered via a 'clinic in a bag' approach – we arrive with all our necessary equipment, with the aim of delivering a comprehensive and confidential SH service as would be expected outside prison.

Methods: Routinely collected GUMCAD and SHRAD data and case notes were reviewed for all prison clinics from 1.1.2018 – 31.12.2018.

Results: A total of 86 nurse and doctor-led sessions were delivered in 3 large category B or C adult male prisons. 576 appointments were booked, with 359 appointments attended by 298 prisoners aged between 21 and 69. Full STI screening includes chlamydia, gonorrhoea, HSV, HIV, syphilis, hepatitis B and C. A range of acute bacterial STIs, viral STIs, genital dermatoses, and HIV were diagnosed and treated.

Conclusion: Communication is a key hurdle in the delivery of this in-reach service. IT systems in the prison and NHS do not link together, so it is impossible to communicate directly with prisoners from outside the prison. Notification of results is on a 'no news is good news' basis, with positive results being given face to face at the next prison clinic visit. This on occasion incurs a delay in notification, treatment and initiation of partner notification, which is neither ideal nor equivalent to provision of care outside prison. As a result, a named prison nurse has been set up as a link nurse to help combat these hurdles. People in contact with the criminal justice system face significant health inequalities, and it's key that we attempt to try to redress these, and offer an equivalent healthcare service to offenders.

P175 Biopsychosocial Predictors of Risky Sexual Behaviours: The Influence of Drug Use, Attachment patterns, Well-being, Loneliness, Social support, and Sexual Hyperactivation on Risky Sexual Behaviours among the Gay Men in the UK

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Abstract
Introduction: The prevalence of HIV and STDs is higher among gay men than in any other demographic group. In the UK 54% of new HIV cases were diagnosed in gay males and men who had sex with men (MSM). In many cases, the spread of HIV and other STIs is due to risky sexual behaviour (RSB). In light of these statistics, an important question that needs to be addressed is why gay individuals subsequently choose to engage in RSB. With this in mind, this study examined the influence of drug use, attachment patterns, well-being, loneliness, social support, and sexual hyperactivation on risky sexual behaviours (RSB) among gay men in the UK.
Methods: This research is based on the responses of the target sample to the questions of a survey questionnaire designed to identify the study's primary variables. The sample consisted of 443 male respondents of whom 46% of the participants gay men and the rest 54% were heterosexual men.
Results: The studied criteria predicted RSB only for the heterosexual respondents and did not predict RSB among the gay participants. Nevertheless, among the gay respondents, sexual hyperactivation was found to be predicted by substance use and loneliness. Gay males who experience subjective loneliness, smoke and sniff substances for recreational purposes report higher levels of sexual hyperactivation. However, higher sexual hyperactivation was not found to be a predictor of sexual relationships or RSB per se.
Discussion: The research hypotheses were only partly supported. The findings gave a new insight into the study's variables and their relationships with RSB. Also, in terms of the study variables, gay and heterosexual participants had more in common and similarities than differences, especially in terms of "loneliness", which was the only common predictor of hyperactivation in both groups.

P176 Why risky sexual behaviours? An in-depth understanding of risky sexual behaviours based on gay individual's subjective experiences

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Abstract
Introduction: Despite the increasing rates of HIV testing and diagnosis, the new STI prevention techniques such as the promotion of condom use, and the assurance of access to effective STI treatment, the fact is that RSB among gay men and MSM individuals remains an ever-present issue. Therefore, the most important question that needs to be asked is why gay individuals subsequently choose to engage in RSB. The current research adopts a qualitative approach to answer this question and identify the factors that contribute to risky sexual behaviours among gay men.
Methods: To expand our knowledge of sexual health and risky sexual behaviours, gay men described their own experiences in defining safe and unsafe sex. Transcripts of the interview of 8 gay men were subjected to analysis using Thematic analysis.
Results: The key themes that emerged as contributing factors to risky sexual behaviours were: Belief and knowledge; Identity; Substance use; Attachment; and Well-being.
Discussion: From analysing the data, it appeared that all these areas of an individuals' life influence their sexual behaviours. However, most of the factors seemed to be linked and overlapped on each other and identifying one factor without considering other factors was not completely possible.

P177 Sexual Violence seen in a UK Sexual Health

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Abstract
Introduction: The first and only SARC within Northern Ireland (NI) opened in 2013. Whilst this has improved care for victims of sexual violence (SV) large numbers of those reporting recent incidents are seen within local sexual health services.

The sexual offence crime figures for NI 2018 show a trend upwards and figures for 2017/18 are almost three times higher than 2000/01.
Methods: A retrospective notes review of all cases coded for SV from Jan – October 2018. (GUMCAD code 40 acute < 7 days or 41 non-acute >7 days).
Data collected included number of cases, accuracy of GUMCAD coding and a focus on those coded 41; whether they pertained to recent incidents or historic disclosures of SV.
Results: In total 28 cases of SV were recorded, 27 female and 1 male; 46% were aged 18–24 years (range 15–54).
27 patients were coded 41 and 1 patient as 40. Those coded as '41' represented SV occurring from 14 days ago to many years prior.
43% attended SARC but chose follow up in a Sexual Health Clinic. The remainder had no contact with SARC. Of those offered follow up at 3 months, 43% did not attend.
Conclusion: Rates of SV within NI appear high compared to UK/ROI and many reporting SV are still seen within the local clinic. There is need for staff training and development of appropriate pathways for managing SV given geographical distance to the only SARC within NI.
The use of GUMCAD code '41' was interpreted differently by different team members. Some felt unclear if 41 should be also used for all reporting of SV including historical reports. We have added a new local code to help differentiate incidents that have occurred outside 7 days but < 3 months from historical events and this will enable us to easily audit and review these data.

P178 Frequently encountered but commonly overlooked – vulval intraepithelial neoplasia (VIN) in an integrated sexual health clinic: a case series

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Abstract
Introduction: Human papilloma virus (HPV) is associated with significant physical and psychosocial morbidity. Although overall incidence of genital warts has decreased, and is expected to decline further with HPV vaccination programmes, malignancy/pre-malignant change associated with high risk HPV infection remains a concern. Notably, in our clinic we have observed patients living with troubling symptoms for prolonged periods of time prior to a diagnosis. This appears to be particularly true with regards to VIN.
Methods: Retrospective case-notes review of biopsy-proven VIN cases presenting to clinic with extensive disease.
Results:
Case 1
A 44 year old female presenting with a five-year history of itching affecting the left vulva, associated with thickening of the skin and a history of abnormal cervical smears. Biopsy confirmed VIN 3 for which a partial vulvectomy was undertaken.
Case 2
A 32 year old female presented with a year-long history of persistent warty tissue affecting the right labia, with a 20-pack year smoking history. Biopsy confirmed VIN 3 for which she underwent wide local excision.
Case 3
A 37 year old female with a background of spinal surgery with residual lower limb sensory deficit, presented with a year-long history of vulval discomfort and soreness. Examination revealed extensive bilateral vulval changes, with biopsy confirming VIN 3. She underwent a radical vulvectomy.
Discussion: These cases highlight protracted symptomatology in cases subsequently confirmed as VIN, often with overlooked subtle symptoms. Although we recognise reluctance in seeking GP advice as a possible contributory factor, as well as difficulty in accessing appointments, most importantly none of these patients had carried out self-examination prior to attendance.
All cases were confirmed following biopsy performed in our sexual health clinic. With ongoing commissioning constraints resulting in ever-increasing cuts to sexual health services, it is crucial that our genital dermatology services are preserved.

P179 Therapeutic use of Gardasil in Treatment-Resistant Ano-Genital Warts (AGW): Audit & Qualitative Survey

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Abstract
Introduction: Treatment resistant AGW can have damaging psychosocial impact related to self-esteem, stigma and deterioration of sexual relationships. Treatment regimens are both painful and costly and remission rates are poor. HPV 6 & 11 account for 90% of AGW and several case reports have shown improvement in AGW after

administering Gardasil vaccine however evidence for the therapeutic efficacy of Gardasil remains poor quality.
Aims:
1) to identify the number of clients treated with Gardasil for AGW indication in a sexual health centre in Scotland; 2) Assess efficacy of Gardasil vaccine as AGW treatment
Methods: Electronic records were searched from 2015–2018; questionnaires were sent to identified clients.
Results: 15 clients received Gardasil for resistant AGW with a median age of 31. Majority of clients were female. Clinical improvement was documented in 27% of cases at follow up with 40% of survey responders reporting both improvement in symptoms and QoL after Gardasil treatment.
Discussion: Low quality evidence suggests that therapeutic administration Gardasil may be of benefit in treatment-resistant AGW. Given the availability and safety profile of the vaccine therapeutic potential should be further investigated to improve management. Higher quality evidence is needed from RCTs and funding considerations must be considered.

P180 Recovery from Vaccine Shortage: Hepatitis A seroprevalence and vaccination

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Abstract
Introduction: PHE enhanced surveillance confirmed MSM as high-risk group associated with the Hepatitis A outbreak in Europe in 2016–2017. Following global vaccine shortage between August 2017 and June 2018, PHE recommended Hepatitis A vaccine to all MSM unless documented evidence of 2 vaccines or immunity. We aimed to check the seroprevalence, the offer and the uptake of Hepatitis A vaccination after the shortage in our clinic to ensure it was in keeping with PHE recommendation.
Method: Data regarding previous Hepatitis A vaccination or immunity, testing for immunity before vaccination and offering of Hepatitis A vaccine were collected retrospectively by reviewing EPR, GUMCAD coding and local laboratory records of MSM attending our service in July 2018.
Result: 114 MSM attended our service in July 2018. Hepatitis A seroprevalence was 49% (26/53), 61 had never tested nor had 2 documented vaccines. Of 17 with prior documented immunity and 9 with two documented vaccines, none were erroneously vaccinated. Of the 88 eligible for vaccine offer, 32(36%) were vaccinated, 1 declined. Of the 55 not offered 33 had immunity tested at that attendance and 22 were immune. 34 had unknown Hepatitis A immune status and were not vaccinated. Given our estimated seroprevalence, 17 patients may have left clinic without adequate immunity that month.
Discussion: 49% seroprevalence is lower than the recommended level of herd immunity (70%) to prevent sustained outbreak. Previous national guidance of only vaccinating HIV Negative MSM in outbreak situations has led to a low seroprevalence community. Although testing for prior exposure before vaccination is cost effective, testing should not delay vaccination in this low seroprevalence high-risk community. With the recent introduction of nationwide HPV vaccination programme, setting up vaccination clinics in sexual health services could increase opportunistic Hepatitis A and B vaccination of high risk MSM.

P181 Quadrivalent human papillomavirus detection in residual samples from STI tests in men who have sex with men

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Abstract
Introduction: Anorectal swab specimens, either alone, or pooled with first catch urine (FCU) and pharyngeal swab specimens, are used to test for STIs in MSM. Use of residual sample material, after routine STI testing, has been proposed to monitor prevalence of quadrivalent human papillomavirus (qHPV) vaccine genotypes 6/11/16/18 in this population, but the sensitivity of HPV detection in such specimens is unknown.
Methods: MSM attending a UK sexual health clinic were consented to collect additional specimens to evaluate HPV detection in a dedicated swab compared with residual anorectal and pooled specimens. All subjects provided 3 specimens: (i) anorectal swab (for chlamydia (CT)/gonorrhoea (GC) testing); (ii) pooled anorectal/pharyngeal/FCU specimen (for CT/GC); (iii) dedicated anorectal swab for HPV. Specimen (iii) and residual material from specimens (i) and (ii) were tested for type-specific HPV DNA (19 confirmed/possible high-risk (HR) genotypes and genotypes 6/11). HPV detection was by in-house multiplex PCR and Luminex-based genotyping assay.

Results: 129 MSM were recruited.
92/129 (71%) had type-specific HPV DNA detected in ≥1 specimen; 49/129 (38%) had qHPV.
35/123 participants (28%) with sufficient residual pooled specimen, and a dedicated HPV specimen had detectable qHPV on both and 79 (64%) were qHPV-negative on both; overall concordance 93% (95%CI 86,97). qHPV prevalence in pooled samples was 0.8% (-4.2,5.9) higher than dedicated samples.
38/125 participants (30%) with sufficient residual anorectal specimen, and a dedicated HPV specimen had detectable qHPV on both and 80 (64%) were HPV-negative on both; overall concordance 94% (88,97). qHPV prevalence in residual anorectal samples was 2.4% (-2.0,6.8) higher than dedicated samples.
Discussion: Residual anorectal and pooled STI test specimens offer comparable sensitivity to anal HPV swab samples, which are typically used in prevalence studies. This supports use of residual samples to monitor qHPV prevalence to evaluate the impact of the targeted MSM HPV vaccination programme.

P182 Is it the flowers?

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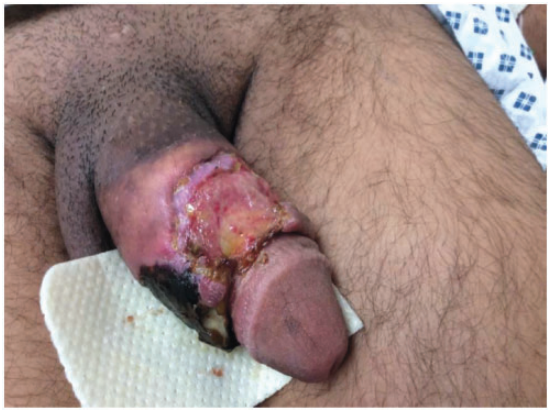
Abstract



A 31 year old Eastern European male seasonal flower picker was admitted following a one week history of an extensive localised pruritic penile rash which rapidly ulcerated. He had no significant past medical problems, no medications or allergies. He had two female partners in the last year. On examination he had extensive circumferential deep ulceration with necrotic areas and granulation tissue on the distal shaft. He was circumcised but there was no involvement of the glans. Please see image 1. Observations were stable. He was initially diagnosed with phytodermatitis with secondary cellulitis and commenced on intravenous Tazocin and Metronidazole. However, investigations showed normal full blood count and CRP. Serology for both HIV and syphilis were negative. An ulcer swab showed mixed growth of anaerobes and HSV PCR was negative. Penile MRI displayed diffuse subcutaneous induration and oedema along the shaft with associated bilateral groin lymphadenopathy but with preservation of internal structures.
An auto-inflammatory cause such as pyoderma gangrenosum was considered and Clobetasol propionate 0.05% ointment (Dermovate) once daily was started while awaiting the result of the diagnostic punch biopsy. This showed generalised inflammation with granulation tissue and fat necrosis with vacuolated macrophages. Prednisolone was initiated and antibiotics stopped. The ulcerative lesion failed to improve despite two weeks of high dose oral corticosteroids and the diagnosis was questioned.
With an interpreter present the patient was then asked if he had ever injected anything into his penis. He revealed that he had self-injected his penis with paraffin eight years previously and Vaseline four years ago, suggesting a diagnosis of a delayed necrotic reaction secondary to penile augmentation injections. He was referred for penile reconstructive surgery.

P183 Anti-NMDA receptor encephalitis in an elite controller of HIV presenting as acute psychosis

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Abstract

Introduction: Anti-NMDA receptor encephalitis is a rare autoimmune encephalitis, seldom seen in the general population or in HIV positive individuals.
A 47 year old female was initially admitted to a psychiatric institution with behavioural disturbance, subsequently deteriorating with a reduced conscious level, catatonia and pyrexia. Unbeknownst to the family or local

institutions, the patient was an elite controller of Human Immunodeficiency Virus (HIV) who had repeatedly refused antiretroviral therapy (ART).

Case Description: The patient presented to the Emergency Department of a distant district general hospital with acute confusion, generally unkempt and mute. After assessment she was transferred to a local psychiatric institution before deteriorating with pyrexia, reduced conscious level and catatonia. Following admission to the acute medical unit, inflammatory markers were raised, with further rigidity, agitation and tachycardia. Initially treated with electroconvulsive therapy for possible catatonic depression, she later displayed myoclonus and dystonic movements, and was transferred to the Intensive Care Unit (ICU). A reduction in conscious level required intubation and magnetic resonance imaging revealed right parietal lobe and bilateral hypothalamic inflammation suggestive of encephalitis. HIV testing identified a high viral load (4677 copies/mL) and low CD4 count (100 cells/mm^3), later it became apparent that this patient was known to a distant HIV team and 9 months previously had an undetectable HIV viral load and high CD4 cell count. Cerebrospinal fluid contained lymphocytes and serum anti-NMDA-receptor antibodies were identified. ART was commenced, intravenous immunoglobulins, monoclonal antibody therapy and plasmapheresis followed. Imaging later revealed reduced cerebral inflammation. The patient remains on ICU with continued multidisciplinary team input.

Discussion: This case illustrates the importance of including encephalitis in a differential for behavioural disturbance: such consideration may have prevented further deterioration. Knowledge of a patient's HIV status is also indispensable. ART use in an elite controller of HIV may have prevented the development of encephalitis.