type 2 (HSV-2). Additional genital specimens collected were tested for *Chlamydia trachomatis* (CT), *Neisseria gonorrhoeae* (NG), *Trichomonas vaginalis* (TV), and *Mycoplasma genitalium* (MG) using polymerase chain reaction (PCR). Proportions, medians and interquartile ranges (IQR) were calculated using STATA 9.0.

Results A total of 130 MSM were enrolled. Of these, 64.7% self-identified as gay/homosexual, 32.3% as bisexual, and 2.9% as transvestite/transgender. Median age was 26 years old (IQR 22–31.5). Overall, 37.6% reported sex with a woman in the last 12 months. Consistent condom use with occasional, client, and commercial male partners in last 12 months was reported by 64.4%, 75.0% and 50.0%, respectively. HIV prevalence among MSM was 13.8%, HSV-2 was 27.9%, followed by genital *CT* 6.9%, anal CT 4.3%, *NG* anal 2.9%, *MG* genital 2.8%, and syphilis and active syphilis < 1%.

Conclusions Our findings show high prevalence of HIV in MSM in Belize. Despite the low STI prevalence observed, we found high rates of risky sexual behaviour. Development of strategies for HIV and STI prevention in sexual health services, focusing on improved condom access and promotion are urgently needed.

P3.148 HIGH BURDEN OF EXTRA-GENITAL *NEISSERIA GONORRHOEAE*, *CHLAMYDIA TRACHOMATIS* AND *MYCOPLASMA GENITALIUM* INFECTIONS IN MEN WHO HAVE SEX, ESPECIALLY IN HIV-POSITIVE

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Background Since June 2009 we have routinely tested MSM in the drop-in clinic for *Mycoplasma genitalium* (MG), *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) infections using nucleid acid amplification tests (NAAT) in both first void urine (FVU) and an anal swab from the same patient. In addition, a throat sample was tested for NG. The prevalence and sites of infection of these pathogens was determined in a retrospective study.

Methods We included 2408 MSM who have been registered for 4314 new visits from June 2009 to December 2012, of whom 188 (7.8%) patients representing 589 visits were HIV-positive. Two third were asymptomatic and asked for a self-taken anal swab, in addition to a throat sample taken by a nurse. One third was examined by a physician, who performed the sampling. A FVU was collected.

Results 372/4265 (8.7%) were positive for *N. gonorrhoeae* using a targeted NAAT (porA gene), 428/4314 (9.9%) were positive for *C. trachomatis* using COBAS® TaqMan® CT Test, v2.0 (Roche), and 223/4222 (5.3%) were positive for *M. genitalium* using an in-house real-time PCR.

The prevalence of any positive test in HIV-negative and HIV-positive patients was 19% and 34%, respectively.

Out of all positive samples in HIV-positive, FVU identified only 16% (13/82) CT, 19% (13/67) MG and 19% (13/67) NG. In HIV-negative, FVU identified 36% (122/335) CT, 34% (52/153 MG and 32% (94/293) NG.

Conclusion Our results supports that the MSM population carry a high burden of extra-genital STIs and that testing the ano-rectum and oro-pharynx, especially in HIV-positive, will identify a significantly higher percentage of infected patients than testing FVU alone. In addition to *N. gonorrhoeae* and *C. trachomatis*, anal *M. genitalium* may be a risk factor for HIV transmission.

P3.149 HIGH-RISK DRUG PRACTISES ASSOCIATED WITH *SHIGELLA FLEXNERI* SEROTYPE 3A INFECTIONS AMONGST MEN WHO HAVE SEX WITH MEN (MSM) IN ENGLAND

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Background Sexual transmission of *Shigella flexneri* serotype 3a infection amongst MSM has emerged as a health concern. Control has been challenging as risk factors associated with transmission have not been determined. Interviews were undertaken to explore and understand the lifestyle and sexual behaviour of MSM diagnosed with *S. flexneri* between October 2012 and February 2013 and inform intervention strategies.

Methods All males ≥ 18 years diagnosed with *S. flexneri* 3a were asked to participate in enhanced surveillance. Those who consented were invited to take part in semi-structured face-to-face interviews.

Results Of 35 men diagnosed with *S. flexneri*, 27 were interviewed, of whom 21 were sexually active MSM (4 heterosexuals and 2 MSM without recent sexual activity were excluded from the analysis). High numbers of sexual partners were reported (median = 40) in the previous year; most were casual encounters met through internet sites (13/21) or saunas (7/21). Mephedrone, ketamine, crystal methamphetamine and GBL had been used by 62% (13/21) during sexual encounters and appeared linked to disinhibiting behaviour. A third (9/21) had attended sex parties and 3 reported 'slamming' (injecting recreational drugs) at these events. All reported oral-anal contact, fisting was common (10/21), scat play less so (4/21). Over half (11/21) were HIV-positive and actively sought positive partners. Condom use was rare. Many had had gonorrhoea (13/21) and chlamydia (10/21). Syphilis, lymphogranuloma venereum and hepatitis C infections were also reported.

Conclusions Recreational drug use appears strongly associated with sexual risk taking and transmission of *S. flexneri*. The potential for further infectious disease outbreaks and HIV transmission is clear. MSM whether HIV positive or negative need to be aware of the adverse impact of certain recreational drugs on their sexual health. HIV and sexual health clinicians should discuss recreational drug use with their patients and refer them to appropriate treatment services where indicated.

P3.150 ALTERNATIVE SEXUAL PRACTISES AND PREVALENT STI/HIV AMONG STD CARE-SEEKING MEN WHO HAVE SEX WITH MEN

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Background STI/HIV prevention messages targeting men who have sex with men (MSM) include recommendations to avoid unprotected anal intercourse. Beyond anal intercourse, MSM may engage in a range of alternative sexual practises, yet associations between these practises and STI/HIV have not been carefully examined.

Methods We are currently conducting a cross-sectional study of MSM who present to an urban, public STD clinic in the midwestern United States. Using a tablet computer, all participants self-administer a confidential survey capturing sexual behaviour data. Results of STI/HIV testing are abstracted from medical records after the visit.

Results Results are preliminary because data collection will continue through May 2013. To date 132 men have enrolled. Participants' median age is 26 years. Most are white (70%) or black (30%), and 80% identify as gay. The median number of lifetime sex partners is 20. The majority (85%) report lifetime experience with

unprotected anal sex. Endorsement of alternative sexual practises is also common, with men reporting lifetime history of sounding (5%), felching (10%), autoerotic asphyxiation (11%), fisting (12%), use of a sex sling (26%), oral exchange of semen between partners (27%), and group sex (66%). Experience with recreational drugs is also common, particularly methamphetamines (14%), poppers (24%), cocaine (29%), and marijuana (71%). STI/HIV results have been abstracted for 44 men to date: 11% had urethral *N. gonorrhoea* (GC), 9% had rectal GC, 9% had urethral *C. trachomatis* (CT), and 14% had rectal CT. Nearly one-quarter (23%) had tested positive for HIV previously, and another 7% were newly diagnosed at the clinic visit.

Conclusion In this preliminary analysis, endorsement of alternative sexual practises was common and the prevalence of HIV/STI was high. Analysis of the complete sample will permit robust, quantitative characterizations of associations between previously uninvestigated sexual practises and prevalent HIV and STI.

P3.151 WITHDRAWN BY AUTHOR

P3.152 PREVALENCE OF NEISSERIA GONORRHOEAE INFECTION IN TWO DISTINCT MEN-WHO-HAVE-SEX-WITH-MEN (MSM) POPULATIONS IN SLOVENIA IN 2012

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Objectives Infection with Neisseria gonorrhoeae represents a serious public health problem. According to the national reported incidence surveillance system in Slovenia, gonorrhoea is disproportionately more common in the MSM population. However, estimates of the prevalence of N. gonorrhoeae infection in the general MSM population in Slovenia are lacking. Herein, we present the prevalence of N. gonorrhoeae in two distinct MSM populations in Slovenia in 2012.

Methods Culture-based screening for N. gonorrhoeae infection was performed in two MSM population settings. In the first one (population (a), pharyngeal swab cultures were offered to attendees of two gay clubs and one Non-Governmental Organization based anonymous STI testing point. In the second one (population (b), asymptomatic MSM seeking for preventive STI screening at the specialised MSM clinic were comprehensively examined with pharyngeal, urethral and rectoscopy-guided rectal swab cultures. A short behavioural questionnaire was obtained in both settings.

Results A total of 306 MSM were investigated. The overall prevalence of N. gonorrhoeae infection from any site was 4.3% (95% CI; 2.5–7.1%). The overall prevalence of pharyngeal infection was 2.3% (95% CI; 1.1–4.7%). In population A (n = 239), aged 16–60 years (mean age: 29 years), the prevalence of pharyngeal gonorrhoea was 2.5% (95% CI; 1.2–7.3%). In population B (n = 67), aged 19–62 years (mean age: 35 years), the prevalence of pharyngeal, rectal and genital gonorrhoea was 1.7% (95% CI; 0.3–8.9%), 9.2% (95% CI; 4.3–18.7%) and 0% (95% CI; 0–6.6%), respectively.

Conclusion In two Slovenian MSM populations a relatively high prevalence (4.3%) of pharyngeal and rectal gonococcal infections, which are usually known to be asymptomatic, was identified. This prevalence may also be underestimated, since the culture diagnostics being used is known to display a suboptimal sensitivity compared to NAAT diagnostics, particularly for pharyngeal and rectal specimens. These results might warrant a 3-site testing (urogenital, pharyngeal and rectal) of all MSM in Slovenia.

P3.153 CLINICAL FEATURES AND TREATMENT RESPONSES IN 300 PHARYNGEAL *CHLAMYDIA TRACHOMATIS* INFECTIONS IN MSM

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Background In men who have sex with men (MSM), orogenital sexual practises and an increase in triple site testing have resulted in detection of pharyngeal *Chlamydia trachomatis* (CT) infections. Clinical features are not well-described and there are no evidence-based treatment guidelines for this site of infection. We describe a cohort of MSM with pharyngeal CT seen in a large urban GUM clinic.

Methods Retrospective analysis of 300 MSM with pharyngeal CT seen from 2009–2012; 31% were HIV positive, > 50% on antiretroviral therapy. Diagnosis was by CT RNA detection by Aptima Combo2 (Gen-Probe).

Results Of 300 cases, 11.6% of patients described throat symptoms. Concurrent rectal CT was seen in 53%; urethral CT in 12%; 21 patients had CT at all 3 sites. Of 133 CT-positive specimens tested for lymphogranuloma venereum (LGV) DNA, 3 were positive (2.3%); only 1/3 had severe throat symptoms. The other two had symptomatic rectal LGV.

Patient Treatment comprised ≥ 7 days doxycycline (100mg bd) for 77% or azithromycin (1g stat) for 31%. Only 68% of patients (185/272) returned for pharyngeal test of cure (TOC) at a median 48 days. There were 5 positive TOCs; however 4 of these were likely re-infections rather than treatment failure, due to high levels of ongoing sexual risk (3 had received 7 days and one 14 days doxycycline). One patient had persistent chlamydial infection and CT conjunctivitis despite having received azithromycin 1g stat 5 weeks prior.

Conclusions With the use of dual NAAT screening of throat swabs, pharyngeal CT detection will occur in 1–2% of MSM. It is a source of onward transmission and can occasionally cause throat symptoms. Both azithromycin 1g or 7+ days of doxycycline seem to be efficacious treatment, although with high rates of concurrent rectal CT infection doxycycline is preferred. An association with CT conjunctivitis needs further study.

P3.154 ANATOMIC SITE DISTRIBUTION OF SEXUALLY TRANSMITTED DISEASES IN MEN WHO HAVE SEX WITH MEN AND HIGH RISK FEMALES BY ROUTINE TESTING, INCLUDING ANORECTAL AND OROPHARYNGEAL TESTING

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Introduction Insight in the anatomic site distribution of sexually transmitted diseases (STDs) is important because it is assumed that present anorectal/oropharyngeal STD are coincidentally treated with urogenital STD. However, it is not clear whether this anorectal STD control strategy is effective. Furthermore, there is ongoing debate on the appropriate treatment for extragenital STD and whether this may differ from genital STD. We evaluated the anatomic site distribution of STDs by routine testing in high risk females (hereafter females) and men who have sex with men (MSM).