

Results The overall estimated HIV prevalence was 6.7% (95% confidence interval [CI]: 6.2%–7.2%) and the syphilis prevalence was 3.9% (95% CI: 3.5%–4.2%). In 2004, about 10.3% of the MSM were 18 and 19 year old; this proportion had significantly increased to 17.6% ($p < 0.01$) in 2011. Similarly, the proportion of MSM aged 35 years and above increased significantly from 2004 to 2011 (7.5% vs 12.8%, $p < 0.01$). The estimated HIV prevalence in 2004 was 10.6% (95% CI: 8.4%–12.7%), this reduced to 2.8% (95% CI: 2.1%–3.5%, $p < 0.01$). The prevalence of syphilis in 2004 was 11.4% (95% CI: 9.1%–13.6%), this reduced to 0.4% (95% CI: 0.1%–0.7%, $p = 35$ years, OR: 9.9, 95% CI: 6.7–14.6) and syphilis reactivity (OR: 3.1, 95% CI: 2.4–3.9).

Conclusions The HIV and syphilis prevalence declined over the eight year period. A higher proportion of younger (18/19 year old), and MSM older than 35 are accessing HIV testing services; thus we need to develop intervention programmes for them.

P3.120 RISK FACTORS, ANTIMICROBIAL SUSCEPTIBILITY PROFILES AND PUBLIC HEALTH IMPLICATIONS OF PATIENTS PRESENTING WITH PHARYNGEAL GONOCOCCAL INFECTION IN ENGLAND AND WALES

doi:10.1136/sextrans-2013-051184.0579

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Background Pharyngeal infection with *Neisseria gonorrhoeae* is usually asymptomatic and often under-diagnosed. It could therefore be an important source of ongoing transmission particularly among men who have sex with men (MSM). We investigated the prevalence and risk factors of pharyngeal infection among MSM diagnosed with gonorrhoea, and associated antimicrobial susceptibility profiles to cefixime and ceftriaxone.

Method Data from patients included in the national Gonococcal Resistance to Antimicrobials Surveillance Programme (GRASP) from 2007–2010 and self-identified as MSM were analysed. Risk factors for pharyngeal-only infection (POI) versus rectal and/or genital, infections, or a combination (RGI), were examined using multivariable logistic regression adjusting for age, clinic and year of attendance. Minimum inhibitory concentrations (MICs) of cefixime and ceftriaxone at different sites were compared using logistic regression.

Results Of the 2249 MSM in this analysis, 202 (8%) were diagnosed with a POI. They were significantly more likely to have multiple sexual partners (OR = 1.44, CI 1.0–2.1) and asymptomatic infection (OR = 13.4, CI 9.0–20.0); but less likely to report a history of gonorrhoea (OR = 0.61 CI 0.4–0.8); have a concurrent STI (OR = 0.50, CI 0.3–0.8) or be HIV-positive (OR = 0.47, CI 0.3–0.9), when compared to those with RGI. 168 (82%) of POI and 2047 (89%) of RGI cases had isolates retrieved for antimicrobial sensitivity testing. There was a two-fold increase in the geometric mean MIC of cefixime and ceftriaxone required to inhibit growth of *N. gonorrhoeae* resident in the pharynx compared to other sites (OR = 2.14; CI 1.2–3.8; OR = 2.21; CI 1.2–4.0; $p < 0.05$) although the proportion of isolates exhibiting decreased susceptibility to cefixime and ceftriaxone at MIC ≥ 0.125 mg/l did not vary significantly.

Conclusions Patients with POI have high rates of partner change and may be at increased risk of transmitting less sensitive gonococcal strains. Screening for pharyngeal infection should be intensified. Tests of cure should be performed routinely to ensure successful treatment.

P3.121 ARE WE SEEING A TRUE RISE IN NEISSERIA GONORRHOEA AND CHLAMYDIA TRACHOMATIS IN ENGLAND IN MEN WHO HAVE SEX WITH MEN?

doi:10.1136/sextrans-2013-051184.0580

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Background The Health Protection Agency (HPA) in England have reported the number of sexually transmitted infections (STIs) diagnosed in men who have sex with men (MSM) continues to rise. Of note, Genitourinary medicine (GUM) clinic data for 2011 showed gonorrhoea (GC) diagnoses in MSM had increased by 61% and chlamydia (CT) diagnoses by 48% compared to 2010 figures. A number of factors may have contributed, including increased MSM screening and wider use of highly sensitive nucleic acid amplification tests (NAATs), especially when testing rectal & pharyngeal sites in MSM. In our London clinic, extragenital testing with dual GC/CT NAATs has been routine since 2009 in MSM.

Aim We hypothesise there is no true rise in incidence in MSM and that recent changes are a reflection of increased testing and widespread use of NAATs.

Methods Retrospective annual comparison of all positive MSM GC & CT infections identified by Aptima Combo2 (AC2; Gen-Probe) between 2010 & 2012. The number of GC cultures and positivity rates were also compared.

Results

Abstract P3.121 Table 1 Comparison of total MSM GC and CT infections seen in 2010, 2011 and 2012.

	2010 (n = 5570)		2011 (n = 6292)		2012 (n = 6843)	
	CT	GC	CT	GC	CT	GC
Total number of CT and GC cases (infected at urethra, rectum and/or throat)	570	644	711	692	726	881
Positivity rate(% of MSM tested who were +ve for GC/CT)	12%	10%	11%	11%	11%	11%

When comparing the positivity rates of GC & CT in MSM seen for testing at our clinics there has not been a significant rise from 2010 to 2012. Actual numbers of MSM with infections are higher; however this seems to reflect an increase in testing episodes only.

Conclusion According to GUMCAD returns our clinic cohort accounts for 13% of GC and 8% CT cases seen in English MSM; thus we would expect any dramatic increase in incidence to be reflected in our data, at least for the London area. Using our somewhat crude analysis we suggest the true increases in GC and CT infections reported among MSM in 2011 are significantly more modest than the rise suggested by HPA data, and most likely reflects the uptake nationally of 3-site NAAT screening.

P3.122* HEPATITIS B INCIDENCE 2002–2012 AND FALLING LEVELS OF IMMUNITY IN MEN WHO HAVE SEX WITH MEN (MSM) AT SEXUAL HEALTH SERVICE, MELBOURNE

doi:10.1136/sextrans-2013-051184.0581

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Background Incidence of hepatitis B has not been well studied in men who have sex with men (MSM) recently despite increases in sexual risk practises and sexually transmitted infections (STI). We determined the level of immunity to hepatitis B and the incidence of hepatitis B infection among MSM attending a sexual health service during last 10 years.

Methods The study involved a cross sectional analysis of all MSM attending Melbourne Sexual Health Centre (MSHC) during 1st July 2002 – 30th June 2012 and a retrospective cohort study of MSM who had attended MSHC on multiple occasions and had hepatitis serology done more than once.

Results Of 10031 MSM attending MSHC, 58% (95% CI 57.4%–59.4%) (5655/9677) had hepatitis B surface antibody (HepBsAb), 11% (95% CI 10.0%–11.4%) (840/7888) had core antibody (HepB-cAb) and 4% (95% CI 3.0%–4.5%) (95/2577) had surface antigen (HepBsAg). The proportion decreased, with HepBsAb from 72% to 48% [P (trend) < 0.001], with HepBcAb from 12% - 8% [P (trend) = 0.039] and with either HepBsAb or HepBcAb, from 67% - 50% [P (trend) < 0.001] from 2002 to 2012 but no change for HepBsAg [P (trend) = 0.08]. Later year (2007–12) of being tested (adjusted odds ratio (AOR) 0.65, 95% confidence intervals(CI) 0.58–0.73), more partners in last 12 months (AOR 1.19, 95% CI 1.06–1.34) and previous HIV test being performed (AOR 1.63, 95% CI 1.43–1.81) were associated with immunity to hepatitis B. There incidence rate of hepatitis B (7 cases in 3540 per years of observation) in MSM over the period was 1.98 (95% CI 0.79 – 4.07) per 1,000 person years.

Conclusion The data suggest that the current level of immunity of about 50% has been sufficient to prevent any significant hepatitis B infection in the last 10 years. Maintaining adequate vaccination levels ($\geq 50\%$) in MSM is important if outbreaks are to be prevented.

P3.123 HEPATITIS C TESTING AND INCIDENCE IN HIV-POSITIVE MEN WHO HAVE SEX WITH MEN IN MELBOURNE, VICTORIA. A RETROSPECTIVE COHORT STUDY

doi:10.1136/sextrans-2013-051184.0582

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Background Over the past five years there have been increasing reports of HCV transmission in HIV-positive men who have sex with men (MSM) globally. It is unclear whether this increase is due to increased transmission or increased detection (due to increased testing). This paper investigated reasons for increased HCV notification in HIV-positive MSM.

Methods HIV viral load test records between April 2006 and December 2011 were used to identify all HIV-positive patients attending three high MSM caseload clinics in Melbourne, Victoria. Their HCV test records were retrospectively linked over the same period. The following were determined: frequency of HCV testing; proportion of HIV-positive men tested for HCV annually; and HCV prevalence and incidence rate (per 100PY). Poisson regression calculated trends over time.

Results 3007 HIV-positive men attended the clinics; 2190 (73%) were tested for HCV at least once, with 250 (11.4%) testing HCV positive over the study period. The prevalence of co-infection declined significantly from 11.9% in 2006 to 7.4% in 2011 ($p = 0.01$). The number of HIV-positive men tested for HCV increased each year although the proportion tested remained the same (approximately 75%) and testing frequency did not change (average 1.4 test/person/year). 187 HIV-positive men were identified with HCV on their initial test and 63 incident infections were observed. HCV incidence among HIV-positive men was 1.55/100PY with no significant change over the study period.

Conclusions We found that HCV incidence in HIV-positive MSM remained stable and that prevalence decreased in HIV-positive MSM throughout the study period. Our results suggest the increase in HCV case notifications among HIV-positive men may be explained by an overall increase in HCV testing in this population. The steady increase in the number of HIV-positive MSM who remain well and consequently routinely tested for HCV may be contributing the increase in HCV notifications.

P3.124 RISK FACTORS FOR HIV INFECTION AMONG MEN WHO HAVE SEX WITH MEN IN SEVEN CITIES IN COLOMBIA USING RESPONDENT-DRIVEN SAMPLING

doi:10.1136/sextrans-2013-051184.0583

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Background Men who have sex with men (MSM) are increasingly recognised as the principal core group for HIV transmission in Latin America. In Colombia, factors associated with HIV infection have not previously been assessed.

Methods A secondary analysis was conducted using data from a bio-behavioural surveillance study among 2567 MSM ages 18 and older, recruited using respondent-driven sampling from seven cities in Colombia in 2010 (N = 333 to 488 across cities). The study used a face-to-face survey and biological testing to assess risk behaviours and HIV infection. Factors with a bivariate association with infection were estimated from the pooled sample using a multilevel logistic regression framework, including random effects for recruitment tree and immediate recruiter, fixed effects to control for unobserved differences across cities, recruiter-level controls to account for recruitment patterns, and probability weights to account for differential personal and city-level estimated network size.

Results Estimated HIV prevalence ranged from 5.8% in Pereira (95% confidence interval [CI] 2.7%–9.5%) to 23.7% in Cali (CI 17.6%–29.9%). Recruiter's HIV infection was moderately related to participant's HIV infection (OR = 1.5, CI = 0.9–2.5, $P = 0.091$). Clustering by recruiter, recruitment tree, and city explained 10%, 10% and 2% of variance in the HIV outcome, respectively. Factors associated with HIV ($P \leq 5\%$) included age ≥ 40 (OR = 2.9) and 25–39 years (OR = 2.5) compared to 18–24 years, meeting casual sex partners at saunas (OR = 2.6), previous sexually transmitted infection (STI) (OR = 2.1), current employment (OR = 1.9) and age of sexual debut < 18 years (OR = 1.4).

Conclusion The distribution of HIV infection among MSM in Colombia's largest cities suggests an ageing epidemic. HIV testing and prevention interventions should be intensified, target MSM at highest risk as well as younger age groups and STI infection to stem transmission early. Future analysis of this sample should also control for the hierarchical sampling structure and recruitment patterns.

P3.125 INCREASING HIV INFECTION AMONG MEN WHO HAVE SEX WITH MEN IN SLOVENIA: SURVEILLANCE DATA FOR 2002–2011

doi:10.1136/sextrans-2013-051184.0584

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Background HIV surveillance in Slovenia is based on universal mandatory reporting of HIV/AIDS cases, monitoring HIV infection prevalence among several sentinel populations and behaviour surveillance in several sentinel populations. Our objective was to present HIV surveillance data for men who have sex with men (MSM) in order to inform HIV prevention and control policies.

Methods We collected information on annual reported HIV cases, CD4 counts at diagnosis, HIV prevalence among male clients of STI outpatient services tested for syphilis and in a sentinel population of MSM, as well as proportion reporting "condom use" and "HIV testing last year" in the same sentinel population of MSM.

Results In 2011, 35 of all 55 newly diagnosed HIV cases were reported among MSM. During 2002–2011, the annual reported incidence rate of HIV diagnoses among MSM increased from 12.6 to 48.0 per million men aged 15–64 years. The proportion of new HIV diagnosis among MSM that were late (CD4 counts < 350/mm³) varied between the