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Background Homosexual men have high rates of anal cancer but an understanding of the epidemiology of HSIL, the presumed precursor, is lacking. We aimed to describe the epidemiology of anal HSIL, and association with human papillomavirus (HPV), in a community-recruited cohort of homosexual men.

Methods The Study of the Prevention of Anal Cancer is a three-year prospective study of anal HPV infection and cancer precursors in homosexual men aged ≥ 35 . At each visit all men receive an anal swab for cytology and HPV genotyping (Roche Linear Array), and high resolution anoscopy with biopsy of suspected lesions. Anal HSIL was defined as having either intraepithelial neoplasia grade 2/3 on histology and/or HSIL on cytology.

Results 293 men were recruited by December 2012. Median age was 49 and 28.3% were HIV-positive. The baseline prevalence of anal HSIL was 44.6% and 34.8% in the HIV-positive and -negative respectively ($p = 0.119$). Among those without HSIL at baseline, HSIL incidence was 30.0 and 20.0 per 100 person-years in the HIV-positive and -negative ($p = 0.467$). Among those with HSIL at baseline, the clearance rate was 37.0 and 44.1 per 100 person-years in the HIV-positive and -negative ($p = 0.771$). Men who tested HPV16 positive on their anal swab at baseline were more likely to develop incident HSIL (58.1 vs 16.1 per 100 person-years, $p = 0.002$), and less likely to clear prevalent HSIL (15.9 vs. 65.9 per 100 person-years, $p = 0.006$).

Conclusion Anal HSIL were highly prevalent. Incidence and clearance were common and closely associated with HPV16 status. The high rate of clearance is consistent with the observation that anal HSIL progress to cancer less commonly than do cervical HSIL. The close association of persistence with HPV16 status suggests that HPV testing should be investigated as a means of identifying those with HSIL who are at highest risk of developing cancer.

P3.136 EPIDEMIC OF LYMPHOGRANULOMA VENEREUM (LGV) IN EUROPE

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Background Since 2003, outbreaks of lymphogranuloma venereum (LGV), caused by *Chlamydia trachomatis* genotypes L1-L3, have been described in men who have sex with men (MSM) in Europe. Awareness increased and enhanced surveillance systems were implemented and several countries in the European Union (EU/EEA) reported high numbers of LGV cases.

Methods Surveillance for chlamydia, including LGV, in EU/EEA is coordinated by the European Centre for Disease Prevention and Control (ECDC). Since 2009, outbreak information across EU/EEA is shared via the Epidemic Intelligence Information System for STI (EPIS STI) hosted by ECDC. Data reported by Member States covering the period 2009–2012 were analysed. Individual countries were invited to update detailed information on LGV cases.

Results In 2009–2011, 1642 cases of LGV were reported by 7 Member States: 1630 in men (61% MSM). Median age was 39 years (range: 18 – 69). Overall, 909 LGV cases (55%) were HIV-positive. Through EPIS STI, 279 male and 2 female cases from additional 6 countries were reported, mainly in capital areas. Symptoms were reported for 132 cases: 105 cases with and 27 without symptoms.

Proctitis was most commonly reported in men. Among those with known HIV status, 80% were HIV positive. 45% of cases in Spain were in migrants and 20% of the UK cases reported sexual contacts abroad.

Conclusions LGV remains to be primarily found in HIV positive MSM. Asymptomatic presentation hampers case detection and screening and routine genotyping among MSM were suggested to reduce further transmission of LGV. Screening practises differ across countries which results in diversity in number and nature of reported cases. Countries reported individual and clustered LGV cases in EPIS STI with more detailed information than in routine surveillance reports to ECDC. Efforts were made to increase European collaboration to get a better understanding of the evolving LGV epidemic in Europe.

P3.137 RECTAL LUBRICANT USE & INCIDENT STI INFECTIONS AT 9 US STD CLINICS

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Background Lubricants (lube) used during receptive anal intercourse (RAI) may affect the acquisition of rectally sexually transmitted infections (rSTIs). We assessed the association between lube use during RAI and rSTI among men who have sex with men (MSM).

Methods In Project Aware, a randomised controlled trial of HIV testing and counselling at 9 US Sexually Transmitted Disease clinics, in 2010 at a 6 month visit 951 MSM completed a web survey on lube use and testing for syphilis and rectal chlamydia and gonorrhoea (rSTIs/syphilis). We used multivariable logistic regression (MVL) to assess the association of proportion of RAI using lube and rSTIs/syphilis.

Results 589 (61.9%) of 951 men reported having receptive anal intercourse, of whom 12.9% ($n = 76$) were diagnosed with rSTI/syphilis. In the prior month, men reported using lube during a mean of 83% of RAI acts (median 1.0) and condoms during 54% (median 67%). The mean/median number of unprotected sex partners in the last 6 months (Upartners) was 2.64/1.0. Lube use was not directly associated with rSTI/syphilis (OR = 0.99 95% CI(60.1.66)). In MVL adjusting for education, Upartners and condom use, the association between rSTI/syphilis and lube use increased with age and proportion of RAI with lube (interaction $p = 0.02$); among men age 32, the lube use during 50% and 75% of RAI acts was associated with adjusted odds ratios of 3.98 (95% CI 1.07, 14.81) and 5.03 (95% CI 1.01, 25.07), respectively and risk increased at ages greater than 32.

Conclusions Although these findings provide further evidence that frequent lubricant use during RAI can facilitate the acquisition of rectal STIs/syphilis among MSM it suggests the risk is only for older MSM. Further research is needed to assess differential risk by types of lubricants across age groups and provide rapid advice to the community who practise RAI on use of safe products.

P3.138 INCREASING ASYMPTOMATIC LYMPHOGRANULOMA VENEREUM INFECTION IN THE UK: RESULTS FROM A NATIONAL CASE-FINDING STUDY

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Background Lymphogranuloma venereum (LGV) infection is now endemic among men who have sex with men (MSM) in the UK. Control of the outbreak has relied on LGV typing and treating of symptomatic patients since previous UK data indicated only 6% of cases were asymptomatic. However, emerging evidence suggests there may be a significant reservoir of asymptomatic infection.

Methods Twelve UK Genitourinary Medicine clinics that routinely screen all MSMs for *Chlamydia trachomatis* (CT) at the pharynx, urethra and rectum participated in a case-finding study. All CT-positive specimens in MSMs during the study period (24/09/12–07/12/12) were referred for LGV typing and clinical data collected. Descriptive and logistic regression analyses were done.

Results 71 (9%) LGV and 742 (91%) non-LGV CT serovars were confirmed. Clinical data were available for 49 (69%) LGV and 545 (73%) non-LGV cases. LGV detection was higher in Brighton (10%), London (10%) and Manchester (11%) than in Glasgow (4%).

11/49 (22%) LGV infections detected were asymptomatic at first presentation; 91% (n = 10) of these were rectal. 3/11 (27%) LGV infections were 'pre-symptomatic' (asymptomatic at first attendance but symptomatic after the second attendance for treatment). Compared to non-LGV cases, LGV cases were older (median age 39 vs 32 years), more likely to have rectal infection (87% vs 60%; urethral 4% vs 28%; pharyngeal 4% vs 23%) and to be symptomatic (78% vs 44%). In univariate analysis, older age (OR = 16.9, p < 0.01; 35–44 vs 18–24 years), rectal infection (OR = 5.98, p < 0.0001) and symptomatic infection (OR = 4.20, p < 0.0001) were significantly associated with being an LGV case.

Discussion Asymptomatic rectal LGV is considerably more common than previously reported in the UK. This could reflect changing screening practises for MSM, or evolving LGV epidemiology. LGV typing in asymptomatic rectal CT may be warranted to reduce ongoing transmission. The effectiveness of current CT treatment regimens in asymptomatic LGV needs assessment

P3.139 **EARLY INCUBATING GONORRHOEA AND CHLAMYDIA INFECTIONS IN MSM WITH AN INDICATION FOR HIV POST EXPOSURE PROPHYLAXIS (PEP)**

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Introduction A PEP indication is an ideal opportunity for safe sex promotion and STI screening. Since 2010 the STI outpatient clinic in Amsterdam, the Netherlands, offers PEP to HIV negative men who have sex with men (MSM) who had unprotected receptive anal intercourse within the last 72 hours. If STI screening is performed at the moment of PEP request, early incubating chlamydia and gonorrhoea infections acquired during the unsafe sex act, are possibly missed. We aimed to determine if chlamydia and gonorrhoea screening should be repeated in MSM 2 weeks after a PEP indication.

Methods We included all MSM visiting the STI clinic with a PEP request in the period from April 2010 until December 2012. STI testing was offered to all MSM during the PEP evaluation visit. Men were screened for urethral, anal and pharyngeal infections based on their practised sex techniques. If PEP was indicated a visit was planned 2 weeks later to repeat gonorrhoea, and chlamydia screening.

Results 447 consultations MSM requested PEP and in 325 (72.7%) PEP was indicated. In 50/325 (15%) cases at least one STI was diagnosed at the moment of PEP indication. 172 (52.9%) cases returned after 2 weeks of whom in 9 (5.2%) cases at least one previously undiagnosed infection was found (3 rectal chlamydia, 3 rectal gonorrhoea, 2 rectal chlamydia/gonorrhoea double infections, and 1 pharyngeal chlamydia).

Conclusion Repeated chlamydia and gonorrhoea screening 2 weeks after a PEP indication in MSM revealed 5.2% additional, possibly early incubating, infections. Yet, 47.1% of MSM did not show up for the second screenings visit. Therefore STI screening should be offered at the PEP indication visit and preferably repeated after 2 weeks to exclude early incubating chlamydia and gonorrhoea infections.

P3.140 **LYMPHOGRANULOMA VENEREUM AMONG MEN WHO HAVE SEX WITH MEN IN THE NETHERLANDS: AN UPDATE ON THE CURRENT SITUATION**

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Background Since 2003, an epidemic of Lymphogranuloma venereum (LGV) among men who have sex with men (MSM) in Europe has been on-going. This study determined how the epidemic of LGV in MSM visiting STI clinics in the Netherlands has evolved since 2006.

Methods Data on MSM from the national STI surveillance system for 2006–2011 were analysed. LGV testing and positivity rates were calculated and multivariable logistic regression analysis was applied to study risk factors for LGV. In addition, data on the number of cases and positivity rate for the first six months of 2012 were analysed.

Results Between 2006 and 2011, 75% of cases of anorectal chlamydia in MSM were tested for LGV, but this varied between regions from 7% to 97%. In this period, 414 LGV cases were diagnosed, with a mean positivity rate of 8.7%. Positivity rate decreased from 14% in 2007 to 6% in 2011. However, results from the first half year of 2012 showed that positivity rate increased sharply to 14.7% (n = 106 new cases). In multivariable analyses on all cases, risk factors for LGV were HIV positivity (OR = 4.1; 95% CI: 3.2–5.3), STI symptoms (OR = 4.1; 95% CI: 3.1–5.4), > 50 sex partners in the past 6 months (OR = 3.7; 95% CI: 1.1–12.4), older age (40–44: OR = 2.1; 95% CI: 1.5–2.8), no condom use with last partner (OR = 2.2; 95% CI: 1.2–3.9) and exclusively having sex with men (OR = 2.2; 95% CI: 1.1–4.2). No significant changes over time were found in risk behaviour.

Conclusions Since 2006, the annual incidence for LGV fluctuated but was consistently higher than before 2003 and is increasing sharply in the first half of 2012. Regional differences in LGV testing rates limit nationwide LGV surveillance, leading to an underestimation of the real LGV incidence. Characteristics of MSM affected by LGV did not change over time, so prevention strategies and timely and adequate diagnostic towards this specific high-risk group should be intensified.

P3.141 **CORE WITHIN A CORE? ANALYSIS OF LGV PATIENTS WITH A KNOWN REPEAT INFECTION**

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Background Lymphogranuloma venereum (LGV) is a re-emergent STI that particularly affects HIV-positive men who have sex with men. During enhanced surveillance in the United Kingdom a number of individuals presented with LGV re-infection. Determining