

# P471 LYMPHOGRANULOMA VENERUM IN QUEBEC, CANADA: FIVE YEARS OF EPIDEMIOLOGICAL SURVEY, 2013–2017

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**Background** Reported cases of lymphogranuloma venereum (LGV) were unusual in Quebec before 2005, when a first epidemic occurred (25 cases in 2005, 44 cases in 2006). This was followed by a low-endemicity period between 2007 and 2012 (2 to 13 cases/year). Since 2013, the number of reported LGV cases strongly increased with a peak in 2016 (2013: 49, 2014: 61, 2015: 105, 2016: 124 and 2017: 105). We hereby report on enhanced LGV surveillance between January 1st 2013 and December 31st 2017.

**Methods** We used data from the notifiable diseases records, epidemiological investigation questionnaires and genotyping to describe the evolution of this resurgence. Since June 2016, all Chlamydia-positive anorectal samples are sent to the *Laboratoire de santé publique du Québec* for genotyping. Collected information includes demographics, risk factors (for the past year unless otherwise indicated), clinical manifestations, laboratory tests and treatments.

**Results** All male reported cases (442, 97% confirmed) were analyzed (399 with available questionnaire). Most cases were L2b genotype (98%) and lived in Montreal (81%). Mean age was 40 years. Almost all (97%) were men who have sex with men (MSM), 94% reported past sexually transmitted infection (STI) and 78% were HIV-infected (243/311). LGV-specific symptoms were reported by 69% of cases, 11% mentioned non LGV-specific symptoms and 21% were asymptomatic. Sex partners outside Quebec were reported by 37% of cases, 51% have had more than 10 sex partners and 58% have used recreational drug. LGV reinfection occurred among 45 persons (11%): 36 had 2 episodes, 9 had 3 episodes and 1 had 4 episodes. In 2017 (first complete year of routine genotyping on Chlamydia-positive anorectal samples), 100/1591 (6.3%) were LGV genotypes.

**Conclusion** The LGV epidemic is still ongoing. Cases are mostly from urban regions, are almost exclusively MSM and frequently report past STIs, a high number of sex partners and drugs use.

**Disclosure** No significant relationships.

# P472 DO CHLAMYDIA TESTING PATTERNS IN NEW ZEALAND EXPLAIN THE HIGH DIAGNOSIS RATES?

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**Background** Diagnosis rates of *Chlamydia trachomatis* (CT) are high in New Zealand (NZ), affecting 4.1% of women and

1.5% of men aged 15–29 from national laboratory surveillance in 2014. National data also shows high rates of testing in women. We sought to understand CT testing by demographic and behavioural characteristics, information not available in routine surveillance.

**Methods** CT testing in the past year, sexual behaviour and demographic characteristics were self-reported by participants in the nationally representative 2014/15 NZ Health Survey (N= 10,198 adults aged 16–74). Those aged 16–44 who had an opposite or same-sex sexual partner in the past year were included in this analysis. The prevalence of testing was calculated and Poisson regression used to investigate associations.

**Results** Of 3,917 eligible participants, 5.5% (95% CI 4.2–7.2%) of men and 16.6% (14.7–18.8%) of women had tested in the past year, higher among 16–29 year-olds (11.2% [7.8–15.7%] of men and 29.5% [24.5–35.1%] of women). Having multiple partners (adjusted relative risk 3.79, 95% CI 1.50–9.54) and condomless sex (2.98, 1.49–5.96) were associated with more testing in men. For women, testing was positively associated with multiple partners (2.46, 1.71–3.53) and pregnancy (1.67, 1.22–2.27) and negatively associated with lower income and Asian ethnicity. Men and women reporting a same-sex partner had elevated, but not statistically significantly, testing rates. A general check-up was the most common reason for testing; however, 18.1% of men tested because their partner was diagnosed (versus 2.2% of women,  $p < 0.001$ ).

**Conclusion** The study confirms men are much less likely to be routinely tested than women in NZ, and more likely to test due to risk factors. A lack of routine CT testing among NZ men is one potential reason for ongoing high incidence and diagnosis rates among both sexes.

**Disclosure** No significant relationships.

# P473 EPIDEMIOLOGY OF CHLAMYDIA TRACHOMATIS IN ONTARIO AND IMPLICATIONS FOR CHANGES TO PRACTICE GUIDELINES

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**Background** Similar to other regions, CT remains the most common reportable infection among teenagers and young adults in Niagara. Females, in general, have higher reported incidence than males; however, this may be at least partially due to their higher health seeking behavior. Most guidelines recommend annual screening of young women. Data supporting routine screening of men is limited. The objective of this study is to analyze and summarize the epidemiological data of chlamydial infections in Niagara Region and to provide support for routine testing of young men.

**Methods** We extracted CT data and the number of CT tests from the provincial databases. Using SaTScan, we examined spatiotemporal clusters of CT within Niagara Region. We examined how the rates of CT differed by deprivation index using ON-MARG.

**Results** The incidence of chlamydia in Niagara Region was higher in females with rates of 2535 and 2772 per 100,000 in 15–19 and 20–24 years old, respectively, in 2018. Likewise, rates of 811 and 1691 per 100,000 were seen in males aged 15–19 and 20–24, respectively. We also saw 12% and 9% of CT test positivity in females in these age groups during 2018.

For males, 12% and 12% of tests were positive that year. We estimated that screening uptake was 12% and 14% among females, and 4% and 8% among males aged 15–19 and 20–24 in 2018. There was also a gradient of CT rates by ON-MARG quintile, indicating that those with lower SES had higher rates of CT. We also observed a large cluster of CT infection in the vicinity of a local post-secondary institution.

**Conclusion** There is a need for gender-neutral screening guidelines and changes to the primary care practices to increase routine screening of CT among young males, along with targeted interventions based on the local epidemiology, to curb the epidemic of CT.

**Disclosure** No significant relationships.

#### P474 CASES OF LYMPHOGRANULOMA VENEREUM IN CHICAGO, IL, JULY 2016 – APRIL 2017

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**Background** Lymphogranuloma venereum (LGV) is caused by *Chlamydia trachomatis* (CT) serovars L1–L3. The most recent US outbreak of LGV was in 2016 in Michigan in men who have sex with men (MSM) living with HIV.

**Methods** To better understand LGV epidemiology in Chicago and increase provider awareness, in 2016, the Chicago Department of Public Health (CDPH) introduced a case-based reporting system for MSM with suspected LGV proctitis. Providers were asked to complete standard forms for adult MSM demonstrating symptoms of proctitis. Demographic/clinical and behavioral risk factors data were abstracted from 7/21/16 – 4/30/17. Rectal specimens found to be positive for CT on nucleic acid amplification testing were submitted for LGV laboratory confirmation.

**Results** A total of 50 suspect LGV cases were reported to CDPH; 47 specimens were submitted to for further molecular testing: 19 were confirmed to be LGV, 10 were non-LGV/CT positive, 2 had indeterminate results and 16 were CT-negative. All confirmed cases were from rectal swabs: 21% (4/19) were non-Hispanic Black, 42% (8/19) were non-Hispanic white, 32% (6/19) were Hispanic, and 5% (1/19) were non-Hispanic Asian. The median age was 35 years (range = 21–46 years). Of 19 confirmed cases, 84% (N=16) were HIV (+), and in two cases, HIV was diagnosed at the time of LGV infection. The median CD4 count was 613 cells/ml (range = 311–1170 cells/ml, IQR=238); HIV RNA was <40 copies/ml in 58% (11/19) of cases. Amongst the confirmed cases for which treatment information was available (N=17), all had been empirically treated with doxycycline for 21 days.

**Conclusion** LGV may be suspected in MSM presenting with proctitis symptoms. These data likely underestimate the true local prevalence of LGV in Chicago since reporting was restricted to symptomatic MSM. Improvements in chlamydia case-based surveillance in key populations are critical given the association with LGV and HIV.

**Disclosure** No significant relationships.

#### P475 CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEAE: PREVALENCE AND FACTORS ASSOCIATED AMONG WOMEN WITH HIV IN SÃO PAULO, BRAZIL

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**Background** Our goal was to estimate the prevalences of and risk factors for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) among women with HIV.

**Methods** Cross-sectional study of women with HIV, who were receiving care from sixteen public health services in São Paulo (October/2013 to March/2014). Participants answered a questionnaire including demographic, behavioral, and clinical data. A urine sample was tested for CT and NG, using a polymerase chain reaction. The chi-square test and a logistic regression model were used to test the associations with CT or NG infections.

**Results** 836 women were included. The mean age was 40.5 ± 0.34 years, and the prevalences of CT and NG infections were 1.8% and 0.5%, respectively. The highest prevalences of CT infection were among who were 18–25 years old (15.9%), had black skin color (2.6%), had ≥2 sexual partners during the last year (7.3%), had a partner who had been imprisoned (3.3%), and not used condoms during the last 6 months (4%). According to clinical characteristics, the highest prevalences were among who had a spontaneous abortion (3.5%), prior STD (3.7%), had been diagnosed with HIV infection during the last year (4.8%), had a CD4+ <350 cells/mm<sup>3</sup> (4.8%), had atypical squamous cells/glandular cells of undetermined significance in their last Pap smear (11.1%), and had positive NG test results (25%). CT infection was associated with CD4+ <350 cells/mm<sup>3</sup> [adjusted odds ratio (ORadj): 24.5], age of 18–25 years (ORadj: 23.2), the non-use of condoms during the last 6 months (ORadj: 10.2), prior STI (ORadj: 9.4), and having ≥2 sexual partners during last year (ORadj: 6.1).

**Conclusion** Although we observed a low prevalence of CT infection among women with HIV, younger age was associated with a strong risk of infection. Therefore, it may be appropriate to include screening for CT as part of the routine care for this population.

**Disclosure** No significant relationships.

#### P476 PREVALENCE OF CHLAMYDIA AND GONORRHEA AMONG YOUTH IN LOS ANGELES AND NEW ORLEANS RECEIVING FREQUENT TESTING

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**Background** *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) disproportionately affect adolescents, however,