

Session: P090 Sexually transmitted infections

**Category: 2d. Abdominal/gastrointestinal, urinary tract & genital infections**

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**Prevalence of *Chlamydia trachomatis* serovars L1-L3 (lymphogranuloma venereum) in a high-risk patient collective in Germany**

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**Background:** Lymphogranuloma venereum (LGV) is a rare sexually transmitted disease which is caused by *Chlamydia trachomatis* serovars L1, L2 and L3. The disease is endemic in parts of the tropics. Since 2003, the disease has spread across Europe and other industrialised countries, mainly affecting homosexual men (Men who have sex with men, MSM) of which most are also coinfecting with syphilis, HIV and HCV. Early and accurate diagnosis and treatment are essential to cure the infection and prevent further damage to tissues. In contrast to *C. trachomatis* infections caused by serovars A-K infections caused by serovars L1-L3 require a prolonged treatment with doxycycline for three weeks. However, up to now no data about the prevalence of *C. trachomatis* serovars L1-L3 in Germany are available.

**Material/methods:** Between March 2014 and October 2016 652 urogenital and anal swabs were tested for the presence of *C. trachomatis* using a commercial PCR system (GeneXpert®, Cepheid). Samples derived from 365 male patients from the age of 17 to 78 years (median 39 years) who reported to our HIV polyclinic at the University Hospital Essen. DNA from samples tested positive for the presence of *C. trachomatis* serovars A-K was subsequently extracted using a semi-automatic nucleic acid extraction platform (Maxwell16®, Promega). An inhouse realtime PCR detecting specifically *C. trachomatis* serovar L1-L3 was performed later on. DNA of *C. trachomatis* serovars LGV II (DSM-19102) purchased from the Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH (DSMZ, Braunschweig) was used as positive control in all runs.

**Results:** 79 samples (12.1%) were tested positive for the presence of *C. trachomatis* serovars A-K. The result for three samples (0.5%) was invalid. 14 samples (17.7%) were tested positive for the presence of *C. trachomatis* serovars L1-L3 and one sample (1.3%) was invalid.

**Conclusions:** To the best of our knowledge the data we present here are the first data available about the prevalence of *C. trachomatis* serovars L1-L3 in Germany so far. Based on a positive rate of 17.7% of *C. trachomatis* serovars L1-L3 detected in a high-risk patient collective at our clinic we strongly recommend more clinics to establish molecular assays on-site for this analyte in order to start early and accurate treatment of LGV.