recognised epidemic strain, harbouring resistance to cephalexin. ST12302 was newly recognised in 2015 and identified in two provinces, Quebec and Ontario.

Conclusion N. gonorrhoeae isolates in Canada show a significant increase in azithromycin resistance in 2014–2015. Azithromycin resistance in Canadian N. gonorrhoeae isolates are approaching the 5% level at which the WHO states an antimicrobial should be reviewed as an appropriate treatment. Continued surveillance of antimicrobial susceptibilities and sequence types of N. gonorrhoeae is necessary to identify clusters, inform treatment guidelines and mitigate the impact of resistant gonorrhoea.

P3.155 ASSESSMENT OF ATOPOBIUM VAGINAE AND GARDNERELLA VAGINALIS CONCENTRATIONS IN A COHORT OF PREGNANT SOUTH AFRICAN WOMEN

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Introduction: Atopobium vaginae and Gardnerella vaginalis are bacterial species that are present in the vagina in increased concentrations during bacterial vaginosis (BV). Numerous studies have proposed a molecular diagnosis of BV by targeting several BV-related bacteria in a polymerase chain reaction (PCR); however, these studies evaluated separately the threshold concentrations of these bacteria. The purpose of this cross-sectional study was to assess A. vaginae and G. vaginalis concentrations in pregnant women of different age groups, gestational age groups, vaginal flora categories and HIV status and also to determine which combination of DNA threshold concentrations, rather than individually, best discriminated between bacterial vaginosis (BV) and non-BV categories.

Methods Pregnant women attending an antenatal clinic of a tertiary academic hospital in Pretoria, Gauteng, South Africa were enrolled in a cross-sectional study from July 2012 to December 2012. Self-collected vaginal swabs were obtained to detect BV with the Nugent scoring system and quantify A. vaginae and G. vaginalis DNA with a duplex quantitative real-time polymerase chain reaction (PCR) assay.

Results In 220 pregnant women, median concentrations of A. vaginae and G. vaginalis were not significantly different among various age groups (A. vaginae p=0.98 and G. vaginalis p=0.18) or different trimesters (A. vaginae p=0.31 and G. vaginalis p=0.19) but differed significantly among the vaginal flora categories (A. vaginae p<0.001 and G. vaginalis p=0.001) and HIV status (A. vaginae p<0.001 and G. vaginalis p=0.004). An A. vaginae DNA concentration of ≥10^3 copies/mL together with a positive G. vaginalis result (≥10^3 Copies/mL) (i.e. AV-GV) best discriminated between BV (39/220) and non-BV categories (181/220) with a sensitivity of 85% (95% CI 0.70 to 0.94) and a specificity of 82% (95% CI 0.76 to 0.88).

Conclusion Threshold concentrations for BV detection should be established for specific populations to ensure the development of tailored, sensitive molecular assays.

P3.156 CORRELATION OF THE EXPRESSION OF THE P16INK4A PROTEIN AND HPV DNA IN INDIVIDUALS WITH PENILE CANCER IN THE STATE OF GOIÃS, BRAZIL

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Introduction Penile carcinoma (PC) is a rare disease, however it is still considered a serious public health problem. The expression of p16INK4a, a protein associated with tumour suppression, can be used as a marker for the presence of high risk HPV DNA. The upregulation of this protein is understood to be an attempt to stop uncontrolled cellular proliferation in response to HPV infection.

Objectives The goal of this study was to estimate the prevalence of HPV DNA and evaluate the expression and correlation of p16INK4a with HPV DNA in patients with PC in Goiás, Brazil. Methods: this retrospective cohort study involved 190 patients with PC treated in the UroOncology service of Hospital Araújo Jorge (HAJ), a unit of the Association Against Cancer in Goiás (ACCG), from January 2003 to November 2015. The paraffin blocks containing the cancerous tissue fragments were subjected to extraction of viral DNA, subsequently subjected to polymerase chain reaction testing with short PCR fragment (SPF PCR) primers to detect HPV DNA. The marking of the p16INK4a protein was performed with immunohistochemistry, using a commercial kit (Mach 4 Universal HRPPolymer Detection System – Biocare Medical, CA, USA). The slides were evaluated independently by two pathologists.

Results Of the 190 samples tested, 89 (46.8%) (CI 95%: 39.8%–53.9%) showed positive HPV DNA and 98 (51.7.0%) (CI 95%: 33.2 to 53.2) showed expression of p16INK4a. The correlation between the presence of HPV DNA and p16INK4a was 63.6% (CI 95%: 46.3 to 78.6). Although there is no expression of p16INK4a in 100% of cases positive for HPV DNA, there was statistical significance between the presence of viral DNA and expression of p16INK4a (p<0.003).

Conclusion Some studies suggest that the standard knowledge of the expression of the p16INK4a protein may be a useful marker for HPV activity in patients with penile cancer. The results of this study showed that there are significant differences between the expression of this protein in positive and negative HPV DNA samples.

P3.157 DOES THE EUROPEAN GONOCOCCAL ANTIMICROBIAL SURVEILLANCE PROGRAMME (EURO-GASP) ACCURATELY REFLECT THE TRUE ANTIMICROBIAL RESISTANCE SITUATION IN EUROPE?

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Introduction Prevalence and incidence of gonorrhoea continue to rise across Europe. In the EU and EEA, N. gonorrhoeae ceftazidime resistance is increasing, and amoxicillin-clavulanate resistance continues to rise. "Multi-drug resistant" (MDR) N. gonorrhoeae isolates have been reported in multiple countries within the last year, with resistance to ceftriaxone and azithromycin seen in Sweden and MDR isolates with resistance to ceftriaxone, azithromycin, and ciprofloxacin seen in Portugal.

Methods Data from the last five years of the Euro-Gasp programme were evaluated. Krogh’s formula was applied to the data from each participating surveillance programme to estimate the true prevalence of resistance.

Results Of 2254 isolates, 1458 were susceptibilities for MDR. The data collected by each surveillance system can include isolates from different sources, e.g. urinary, genital, etc. Consequently, the proportion of MDR cases identified from these surveillance systems will be different. For example, a surveillance programme collecting isolates from the bloodstream will have a lower proportion of MDR cases than one which collects genital isolates. In this study, we have attempted to get an estimate of the true MDR situation in Europe based on the proportion of MDR cases identified by each surveillance system.

Conclusions The results of this study suggest that the true MDR prevalence is lower than the data collected by the Euro-Gasp programme. The proportion of MDR cases identified by each surveillance system will be different, and this study attempts to get an estimate of the true MDR situation in Europe based on the proportion of MDR cases identified by each surveillance system.