

partner, and condom use with them is significantly lower than with clients. Therefore, we can conclude that unprotected sex with non-commercial partners is the main risk factor to get STI for FSW in Armenia. These findings highlight the need for HIV prevention interventions that engage both FSW and their sex partners, especially non-commercial. Improvement of condom negotiation skills, provision of HIV/AIDS risk and transmission education should be the focus of interventions targeting FSW. Additionally, health care and other service providers should encourage routine HIV testing and STI screening for FSW and their partners.

P3.16 IMPACT OF RAPID SUSCEPTIBILITY PROFILING ON THE EMERGENCE AND SPREAD OF ANTIBIOTIC RESISTANCE IN GONORRHOEA

¹Ashleigh Tuite, ²Katherine Hsu, ³Thomas L Gift, ⁴Joshua A Salomon, ⁵Yonatan H Grad. ¹Harvard University, Boston, USA; ²Massachusetts Department of Public Health, Boston, USA; ³Centres for Disease Control and Prevention, Atlanta, USA; ⁴Harvard University, Boston, USA; ⁵Harvard University, Boston, USA

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Introduction Increasing antibiotic resistance limits treatment for gonorrhoea. We examined the extent to which a hypothetical point-of-care (POC) test reporting antibiotic susceptibility profiles could delay emergence of resistance and prolong effectiveness of existing antibiotics.

Methods We developed a deterministic compartmental model describing gonorrhoea transmission in a risk-stratified single-sex population with three different antibiotics available to treat infections. Probabilities of resistance emergence on treatment and fitness costs associated with resistance were based on characteristics of fluoroquinolones, azithromycin, and ceftriaxone, as inferred from a previous phylogenomic analysis. We compared strategies in which a POC test was used to guide therapy in varying proportions of cases against the current empiric approach (dual treatment with azithromycin plus ceftriaxone).

Results Based on current estimates of gonococcal susceptibility patterns in the United States, the model indicated that continued empiric dual antibiotic treatment without POC testing resulted in >5% of isolates being resistant to both azithromycin and ceftriaxone within 15 years. When POC testing was used in 10% of identified cases, this time was delayed by 4 years, while time to reach a 1% prevalence of triply-resistant strains was delayed by 5 years. With POC testing in >55% of identified cases, it took over 100 years for dual and triple resistance to exceed 1%, and with POC testing in $\geq 75\%$ of cases, strains resistant to azithromycin and/or ceftriaxone did not persist in the population. Results were sensitive to assumptions about fitness costs and test sensitivity only when POC test deployment was relatively low (<25%).

Conclusion Rapid diagnostics that indicate antibiotic susceptibility have the potential to extend the usefulness of existing antibiotics for treatment of gonorrhoea. More broadly, integration of evidence on fitness costs associated with resistance can enhance strategies for rational antibiotic selection and further delay emergence of resistance.

P3.17 QUALITY OF LIFE IN HIV/AIDS PATIENTS- AN EXPLORATION

Asmin Sha. Al Iqbal Hospital, Thrissur, India

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Introduction HIV/AIDS impacts heavily on the infected individual and the society at large, there is therefore a need to evaluate the quality of life of HIV-infected individuals.

Objectives: To assess the impact of HIV/AIDS on the Health related quality of life (HRQOL) of people living with HIV/AIDS (PLWHA), and to investigate the determinants of the QOL of PLWHA.

Methods A descriptive cross-sectional study design was used. One hundred and three (103) PLWHA accessing healthcare were consecutively selected. A questionnaire, containing data on socio-demographic and medical profiles, on the WHO-QOL-HIV Bref was used to assess each study participant. HRQOL was evaluated to assess quality of life domains that included physical and physiological health, level of independence, social relationships, environment, and spirituality/religion/personal beliefs. Means, standard deviations, and statistical tests for differences were performed.

Results The mean age of the respondents was 41.0 (range 21–73); 48 (46.6%) of the participants were males. The QOL mean scores were highest for the spirituality/religion/personal beliefs domain (16.88 ± 2.83) and lowest for the environment domain (14.08 ± 1.95). The overall QOL mean scores in the other four domains were similar: physical health (15.92 ± 3.05), psychological health (15.35 ± 3.20), level of independence (15.90 ± 3.52), social relationships (15.11 ± 2.26). Significant differences were observed in all domains among respondents with family support compared to those without family support. Similarly, asymptomatic patients had significantly higher QOL scores compared to symptomatic patients. Improved QOL was influenced by higher educational levels in all domains except the spirituality/religion/personal beliefs domain.

Conclusion The impact of HIV on the HRQOL was highest in the environment and social relationships domains. Also, HIV serostatus, presence of family support, and educational levels had significant effects on the QOL of PLWHA.

P3.18 MONITORING CHLAMYDIA TRACHOMATIS INFECTIONS AFTER TREATMENT FOR TEST OF CURE PURPOSES

¹B Versteeg, ^{1,2}SM Bruisten, ¹T Heijman, ¹W Vermeulen, ¹MS van Rooijen, ^{1,4}AP van Dam, ^{1,2}MF Schim van der Loeff, ^{1,2,3}HJC de Vries, ^{1,4}M Scholing. ¹Department of Infectious Diseases, Public Health Service Amsterdam, Amsterdam, the Netherlands; ²Centre for Infection and Immunity Amsterdam (CINIMA), Academic Medical Centre, University of Amsterdam, Amsterdam, the Netherlands; ³Department of Dermatology, Academic Medical Centre, University of Amsterdam; ⁴Department of Medical Microbiology, OLVG General Hospital, Amsterdam, The Netherlands

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Introduction Performing a test of cure (TOC) could demonstrate success or failure of antimicrobial treatment of *C. trachomatis* (CT) infection, but the value of using a nuclear acid amplification test (NAAT) based TOC after treatment is subject to discussion, as the presence of CT nucleic acids after treatment may be prolonged and intermittent without the presence of infectious bacteria. We used cell culture to assess if a NAAT positive TOC indicates the presence of viable CT.