(44.8%) described that they had never used condoms. In 2013, 838 men were attended, 84 (10.02%) were diagnosed with HIV. 5 patients (5.9%) reported having between 1 and 3 years of complete school education, 32 (38%) had between 4 and 7 years of school education, and 36 (42.8%) between 8 and 11 years. 45 (53.6%) described having experienced previous STDs. 7 patients (8.3%) reported effective condom use, but 33 men (39.3%) have never used condoms.

Conclusion It has been analysed that, after 10 years, an infection growth has taken place among individuals with a higher educational level, an increase of concomitant or past STDs in the previous year before the test, corroborating with the reduction in condom use. This study shows the need of the health professional assistance regarding, not only the pre-and post-test counselling, but also the educational activities within the communities in order to carry out awareness-raising strategies and guidelines aimed at STD/HIV prevention among male individuals.

P3.212 ANTIBIOTIC RESISTANCE DETECTION IS ESSENTIAL FOR GONORRHOEA POINT-OF-CARE TESTING: A MATHEMATICAL MODELLING STUDY

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Introduction Antibiotic resistance threatens to make *Neisseria gonorrhoeae* untreatable. Point-of-care tests (POC) that detect antimicrobial resistance (AMR) would allow individually tailored treatment. But rapid access to test results might lead to more treatment overall, resulting in higher resistance levels. We investigated the impact of different clinical pathways for gonorrhoea diagnosis on the spread of AMR gonorrhoea.

Methods We used data about the prevalence and incidence of gonorrhoea in men who have sex with men (MSM) and heterosexual men and women (HMW) to calibrate a mathematical model that describes the transmission of *N. gonorrhoeae*. With this model, we simulated four clinical pathways for the diagnosis and treatment of gonorrhoea: POC test for *N. gonorrhoeae* with AMR detection (POC+R), POC without AMR detection (POC-R), culture with antimicrobial susceptibility testing (culture), and laboratory-based nucleic acid amplification tests without AMR detection (NAAT). We calculated the proportion of resistant infections, the cases averted after 5 years, and compared how fast resistant infections spread in the populations.

Results After 30 years, the proportion of resistant *N. gonorrhoeae* infections is lowest for POC+R (median MSM: 0.18%, HMW: 0.12%), and increases for culture, NAAT, and POC-R. After 5 years, NAAT leads to a total of 36 366 (median MSM) and 1228 (median HMW) observed cases per 1 00 000 persons. POC+R results in the largest number of cases averted after 5 years (median MSM: 3,353, HMW: 118 per 1 00 000 persons) compared with NAAT. POC tests with intermediate sensitivity for the detection of AMR slow the spread of resistance more than NAAT. POC tests require very high sensitivity to detect AMR to reduce the spread of AMR more than culture.

Conclusion POC tests with high sensitivity to detect AMR can keep gonorrhoea treatable for longer than either culture or NAAT. POC tests that do not detect AMR reliably should not be introduced because they result in higher levels of empirical treatment for gonorrhoea and accelerate the spread of AMR.

P3.213 A TOOL FOR EVALUATING THE IMPACT OF THE NATIONAL CHLAMYDIA SCREENING PROGRAMME IN ENGLAND: *C. TRACHOMATIS* ANTIBODY PREVALENCE IN YOUNG WOMEN IN ENGLAND (2007–2015)

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Introduction Genital infection with *Chlamydia trachomatis* (CT) is the most commonly-diagnosed bacterial sexually transmitted infection in England. The National Chlamydia Screening Programme (NCSP) was implemented nationwide in 2008, offering opportunistic CT testing to people under 25. Not all chlamydia infections result in a lasting antibody response, however, monitoring age-specific seroprevalence of antibodies against CT over time may offer insights into the impact of this intervention. We explored trends in seroprevalence from 2007 up to 2015.

Methods Samples were obtained from the PHE Seroepidemiology Unit, which collects unlinked, anonymous, residual sera submitted to laboratories in England for routine investigations. Samples known to come from GUM clinics were excluded. Sera from 2007–2015 from women aged 15–30 (n=9,798) were tested using an indirect IgG ELISA for chlamydia Pgp3 antibody. Women in 2007 had limited exposure to the NCSP, increasing over time. Age-standardised seroprevalence was calculated for 17–24 year-olds using 2015 population data. Samples were classified by the number of years individuals were eligible for the screening programme, based on year of birth.

Results Age-standardised seroprevalence among 17–24 year-olds varied, being highest at 20.3% (95% CI 17.2–23.4) in 2007 and lowest at 15.5% (95% CI 10.0–20.9) in 2015, although no clear trend was seen. Although incomplete data were available for those with 'limited' and 'high' exposure to the NCSP, age-specific seroprevalence did not vary by exposure to NCSP.

Conclusion There was no evidence that age-specific seroprevalence varied by exposure to the NSCP. Interpretation of this is complicated by the potential effects of antibody prevalence waning over time, and being affected by factors such as treatment and re-infection. Other limitations include a high number (86.2%) of specimens from 'unknown' source which could have been from GUM clinics. Multi-parameter evidence synthesis models are being developed to explore the use of these data to estimate incidence.

P3.214 TRACKING THE USE AND RE-EMERGENCE OF SEROLOGICAL TECHNIQUES FOR *CHLAMYDIA TRACHOMATIS* ANTIBODY DETECTION: A SYSTEMATIC REVIEW

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