

Results Four key deficiencies were identified: 1. The degree to which sexual risk behaviours such as multiple partnerships and inconsistent contraception use predict adverse outcomes remains under-investigated; 2. Surveys frequently use composite measures with complex scoring systems; 3. Analyses often fail to report on non-response to individual items and the prevalence of exposures; 4. Sexual risk behaviours and morbidity are often reported without measures of absolute risk.

Conclusion There is a strategic need to exploit survey research better in order to embed investigation of risk factors in clinical risk prediction tools. Survey analyses should investigate which sexual risk behaviours warrant different sexual health interventions, and use measures of absolute risk. Researchers should favour questionnaire items that are concise and easy to score, and should report on item non-response and prevalence of exposures. These steps would facilitate the development of brief, acceptable and adequately predictive tools.

P3.163 DIFFERENCES BETWEEN WOMEN ATTENDING SPECIALIST SEXUAL HEALTH CLINICS AND THOSE ATTENDING GENERAL PRACTICES: IMPLICATIONS FOR TARGETING STI TESTING

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Introduction In Britain sexual health interventions are increasingly provided in community settings such as General Practices (GPs), while Genito-Urinary Medicine clinics have largely been replaced by Sexual Health and for Contraception clinics (SHACs). This study compared women attending GPs with those attending SHAC in an urban setting to investigate how much these populations differ and to assess the extent of sexual risk behaviour in GP populations.

Methods A convenience sample of women aged 16–44 years attending GP and SHAC services in the city of Brighton and Hove was invited to complete a short questionnaire about socio-demographic, psychosocial and sexual behavioural factors.

Results 1288 participated from GPs and 552 women from SHAC. 11.2% of GP participants and 3.4% of SHAC participants ($p < 0.0001$) reported no male sexual partners in the last year. GP participants were less likely than SHAC participants to report 2 or more male sexual partners in the last year (2PP) (21.5% versus 60.9% $p < 0.0001$) and to report non-use of condoms with two partners in the last year 6.9% versus 24.2% $p < 0.0001$. These associations remained after adjusting for the smaller proportion of women ≤ 24 years among GP participants compared to SHAC (21.7% v. 44.5% $p < 0.0001$). Binge drinking alcohol in the last week was associated with 2PP ($p < 0.0001$) and was more common among SHAC participants ≤ 24 years than GP participants ≤ 24 years (49.8% versus 37.9% $p = 0.009$). However, it did not differ across sites for women aged 25–44 years (33.3% versus 36.3% $p = 0.362$).

Conclusion Although women attending GPs are less likely than those attending SHAC to report sexual risk behaviour in the last year, a substantial minority may benefit from sexual health promotion, STI testing and alcohol awareness. This supports the development of a risk prediction tool to target sexual health and adjunct interventions in community settings among women aged 16–44 years.

P3.164 ANTIBIOTIC RESISTANCE AND MOLECULAR TYPING OF NEISSERIA GONORRHOEAE ISOLATED FROM THE THREE OVERSEAS SITES THROUGH THE GLOBAL EMERGING INFECTIONS SURVEILLANCE AND RESPONSE SYSTEM (GEIS)

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Introduction Increasing antibiotic resistance in *Neisseria gonorrhoeae* (GC) threatens treatment and control measures for gonorrhoea and can affect military readiness. The Global Emerging Infections Surveillance and Response System of the US Armed Forces Health Surveillance Branch supports a repository for GC isolated at US military treatment facilities in the continental US (CONUS) and at several overseas (OCONUS) labs. Here we report the antibiotic susceptibility and *N. gonorrhoeae* multi-antigen sequence types (NG-MAST) of isolates collected from three OCONUS sites: Republic of Georgia, Peru and Ghana in 2012–2016.

Methods GC was identified using standard biochemical and serological methods. Susceptibility to ceftriaxone, cefixime (Cfx), azithromycin (Az), gentamicin, penicillin (Pen), tetracycline (Tet), ciprofloxacin (Cip), and spectinomycin was determined by Etest. β -lactamase (BL) activity was determined by nitrocefin hydrolysis. NG-MAST was performed using standard methods.

Results Fifty-seven confirmed GC isolates were obtained from the three OCONUS sites. Cip resistance occurred in 74% (Ghana) and 89% (Peru) of isolates, with 63.2% (Ghana) and 28.6% (Peru) of isolates Cip^R, Pen^R and Tet^R. Two isolates with reduced susceptibility to Cfx were identified among isolates from Ghana and Georgia and 18 isolates with reduced susceptibility to Az were identified across the 3 sites. Over 65% of isolates from Ghana and Peru produced BL. Cip^R strains primarily encoded S91,D95A or S91F,D95G substitutions in GyrA, combined with S87R (Peru) or S87N (Ghana) substitutions in ParC. Interestingly, a high proportion of isolates from Ghana (36.8%) and Peru (85.7%) were of unique NG-MAST types.

Conclusion Multidrug resistant GC and BL production are common in these OCONUS sites. Several previously undescribed NG-MAST sequence types were identified in Peru and Ghana, suggesting the GC strains circulating in these countries are different from those in North America, Australia, and Europe. Further surveillance is needed to inform treatment recommendations in OCONUS sites.

P3.165 QUALITY OF LIFE IN WOMEN WITH GENITAL TRACT INFECTIONS BY HUMAN PAPILLOMAVIRUS (HPV)

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Introduction Human papillomavirus is sexually transmitted diseases (STDs) are among the most common public health issues

around the world. In women, HPV is strongly related to cervical, vaginal, vulvar, and anal cancers, and is also considered the agent responsible for precursor lesions.

Methods An observational, comparative study was conducted at the Clinic of Lower Genital Tract Diseases and Colposcopy, between January 2011 and January 2012. We included 75 patients who had genital lesions induced by HPV, already submitted to the respective treatments: 29 women with genital warts and 46 with cervical intraepithelial neoplasia with high histological grade (CIN 2/3). The patient's medical records were evaluated regarding the type of HPV infection-induced, as well as therapy. Patients included were initially asked about the epidemiological data, medical history, gynaecological, obstetric and sexual behaviours. Also, the impact of socioeconomic and sex-related disease and its treatment was recorded. After this initial interview, the SF-36v.2 and Quotient sex - female version (QS-F) was applied. Both women with genital warts as those with CIN 2/3 showed a reduction in their quality of life.

Results The results after evaluation of the SF-36 showed that patients with CIN 2/3 have the same score in the physical domain ($p=0.246$), pain ($p=0.677$), general health ($p=0.109$) and physical component ($p=0.087$) compared to patients with genital warts. However, patients with warts have statistically lower scores compared to patients with CIN 2/3 regarding the mental component ($p=0.003$), physical functioning ($p<0.001$), vitality ($p=0.003$), Social ($p=0.027$), emotional ($p=0.031$), mental health ($p<0.001$) domains.

Conclusion In relation to the sexual aspect it is important to say that patients with CIN 2/3 have statistically the same classification of sex ratio when compared to patients with genital warts ($p=0.115$). However, when performing specific questions about sexual parameters, warts caused a greater impact on sexual life of patients.

P3.166 HIGH CHLAMYDIA AND BACTERIAL VAGINOSIS BURDEN IN HIV EPICENTRE IN SOUTH AFRICA

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Introduction As long as syndromic management of sexually transmitted infections (STI) remains the main model of care in low and middle income countries, diagnostic surveillance is essential for STI control, especially in high HIV incidence settings. Here, we present the baseline data from the CAPRISA 083 cohort study that was conducted in a large urban primary health care clinic in KwaZulu-Natal, South Africa.

Methods Women aged 18–40 presenting for syndromic STI care at the facility were assessed for participation. HIV positive women (prevalence 39.1%), pregnant women (9.1%) or those engaging in sex work were excluded due to pre-determined eligibility criteria. Women consenting to the study completed a sexual risk questionnaire, were examined by a nurse, and underwent point-of-care testing for chlamydia and gonorrhoea (Xpert CT/NG), trichomonas (OSOM rapid test), and microscopy to assess for bacterial vaginosis (BV) and candida.

Gonorrhoea cases were further investigated for antibiotic resistance.

Results A total of 267 women, median age 23 (IQR 21–27), were enrolled and 88.4% reported to be symptomatic. All were sexually active and 75.7% stated that they used condoms with their partners, although only 3.7% used them consistently. 125 (46.8%) had abnormal pelvic examinations, including 106 (39.7%) women with vaginal discharge. STI testing revealed an 18.5% prevalence of chlamydia (20.5% in <25 year-olds), 5.2% gonorrhoea and 2.6% trichomonas. Two thirds of women (69.3%) had evidence of abnormal vaginal flora (33.7% BV and 35.6% intermediate flora) based on Nugent Score, and 17.6% were diagnosed with candida infection. A total of 52/267 (19.5%) reported symptoms, but had no STI or abnormal flora found. Of 9 specimen cultured for gonorrhoea resistance, 7 (77.7%) were resistant to penicillin and 4 (44.4%) to ciprofloxacin, but no cephalosporin resistance was identified.

Conclusion In this high HIV incidence setting, the burden of chlamydia infection and abnormal vaginal flora was concerning high, warranting enhanced STI management strategies at population level.

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P3.167 CHLAMYDIA TRACHOMATIS INCIDENCE AND SCREENING RATES IN FEMALE UNITED STATES ARMY SOLDIERS UNDER 25 YEARS, 2011–2015

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Introduction *Chlamydia trachomatis* (Ct) genital infection is the most commonly reported bacterial infection in the United States (US). High-risk groups include women <25 years. Untreated infections may lead to pelvic inflammatory disease and infertility. Most infections are asymptomatic, so screening high-risk women is important. The US National Commission on Prevention Priorities ranked annual Ct screening of sexually active women as one of the top 10 prevention strategies. The Army screens women <25 yearly, and Ct is reportable. Ct incidence dropped from 2011 ((109/1000 person-years (py)) to 2012 (86/1000 py). A search for artifactual contributions found the proportion of specimens submitted that tested positive remained stable, but screening rates dropped. Subsequently, screening rates improved. During 2012–2014, the reported Ct annual incidence stabilised, averaging 86/1000 py. However, Ct incidence for 2015 increased to 92/1000 py, prompting another review of the relationship between reported Ct incidence and screening rates.

Methods Incidence rates were compiled from Ct reports in non-deployed Soldiers submitted to the military Disease Reporting System-internet. Screening rates were obtained from the Military Health System Population Health Portal. To deal with variations in screening, modelled incidence projections were developed to reflect a theoretical 100% screening compliance.

Results Incidence projections confirmed a decrease in the 2011–2014 modelled incidence/1000 py: 2011–129,