1.12; respectively) or between the first and fourth week (RR 1.02, 95% CI 0.94 to 1.11; RR 0.93, 95% CI 0.84 to 1.03; respectively). Antibiotic treatment does not led to a lower recurrence (RR 1.28, 95% CI 0.68 to 2.43) in women, but increases the frequency of adverse events reported by sexual partners (RR 2.55, 95% CI 1.55 to 4.18).

Conclusion High quality evidence shows that antibiotic treatment for sexual partners of women with BV, does not increase the rate of clinical or symptomatic improvement and does not led to a lower recurrence rate into the women, but increases the frequency of adverse events reported by sexual partners.

### P2.04

### TITLE A CLINICAL INVESTIGATION TO IMPROVE REPRODUCTIVE HEALTH SERVICE DELIVERY IN PRIMARY CARE TO REFUGEES FROM BURMA

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10.1136/sextrans-2017-053264.181

Introduction In 2014–2015, Australia granted over 2000 humanitarian visas to people from Burma. During initial refugee health assessments conducted at local health centres, primary care practitioners (PCP) observed that these refugees are quiet, modest and polite; rarely acknowledge sexual health problems and typically answer in the affirmative. Consequently, PCP found it challenging to understand their health needs. Our study aimed to gain insight into how migration affected the reproductive health needs of this group, their ability to access an unfamiliar health system, and to identify elements of a sexual health service model for adaptation to refugee communities.

Methods As we targeted the sensitive needs of a marginalised population we selected qualitative techniques, and conducted 27 semi-structured interviews on sexual health consultations with PCP involved with refugees from Burma. Interviews were audio-recorded and transcribed. Research team members reached consensus on coding, content and thematic analysis and key results.

Results Preliminary analysis suggested six consultation related themes: interpretation, language and euphemisms, culture and beliefs, power dynamics, role of family and low levels of health literacy. Overall, effective communication was the key to successful reproductive health consults. For instance, picture a genital examination with an interpreter on the speaker phone at a distance from the examining couch and practitioner interpreter and patient speaking loudly to communicate the steps of speculum examination. Secondly community leaders often serve as interpreters raising serious privacy concerns in sexual health related problems.

Conclusion The needs of the refugee patient cannot always be ascertained through the biomedical lens. PCP need assistance to contextualise 'behind the scene' communication dynamics involved in sexual health consults. Humanising perspectives can assist in overcoming barriers. Patient's must be given a choice of interpreter in sexual and reproductive health consultations in refugee settings.

#### P2.05

# A SILENT EPIDEMIC: THE PREVALENCE, INCIDENCE AND PERSISTENCE OF MYCOPLASMA GENITALIUM IN YOUNG ASYMPTOMATIC WOMEN IN THE UNITED STATES

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10.1136/sextrans-2017-053264.182

Introduction: Mycoplasma genitalium (MG) is an emerging sexually transmitted infection (STI) associated with cervicitis, pelvic inflammatory disease, and adverse pregnancy outcomes in women, yet little is known regarding its natural history. We conducted a secondary analysis of specimens collected from young women enrolled in a multi-centre study of asymptomatic bacterial vaginosis (BV) in order to determine the natural history of MG and associated factors with infection.

Methods Sexually active women aged 15–25 years were recruited from 10 US clinical sites. Eligible women had asymptomatic BV at baseline, and >/=2 STI risk factors. Self-collected vaginal swabs were collected at enrollment, and by home-based testing at 2, 4, 6, 8, 10 and 12 months. MG nucleic acid amplification testing was performed using a transcription mediated assay (Hologic Inc, San Diego, California). Prevalent, incident and persistent MG were estimated with 95% confidence intervals (CI). Univariate analyses and logistic regression modelling were performed to assess associations between participants' baseline demographic, sexual, and clinical characteristics with prevalent MG infection.

Results Specimens were tested for MG from 1365 predominantly Black (85.4%) women. At baseline, 233 women were MG+ (prevalence 20.5% [95% CI: 18.2–22.9]); among 204 participants with follow-up specimens, 42 (20.6%) had persistent MG, remaining MG+ on all follow-up testing. Among 801 women who were MG negative at baseline with follow-up testing, 220 had at least one subsequent MG+ test for an incidence of 27.5% (95% CI: 24.4–30.7). Black race (adjusted odds ratio (AOR) 1.92, 95% CI: 1.09–3.38) and younger (15–21 years) age (AOR 1.40, 95% CI: 1.03–1.91) were significantly associated with prevalent MG infection.

Conclusions We identified high rates of prevalent, incident, and persistent MG infections among sexually active young women followed over 12 months. As national programs consider the impact of MG as an STI, the implications of asymptomatic infections should be considered among at-risk populations.

P2.06

TRENDS IN CD4 COUNT AND WHO STAGING AMONG NEWLY DIAGNOSED HIV PATIENTS ATTENDING AN ANTI-RETROVIRAL THERAPY CENTRE IN TERTIARY CARE HOSPITAL

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10.1136/sextrans-2017-053264.183

Introduction Patients diagnosed with HIV infection late in course of disease are usually more severely

immunocompromised and likely to present with co-morbidities like tuberculosis and have short-term mortality. Delay in diagnosis is significant to both disease prognosis at patient level as well as transmission at community level. An early diagnosis provides opportunities of reducing or halting further transmission. Present study was designed to determine proportion of late presenters and those with advanced HIV disease based on CD4 count and correlate same with socio-demographic characteristics of newly diagnosed HIV patients in Southern India. Methods This observational study was done by extracting data from medical records of all HIV patients who attended ART centre of tertiary care hospital, using a pre tested data extraction sheet. Diagnosis of HIV infection with CD4 count.

Results 475 HIV patients with mean age of 40.9±10.8 years were studied. Median CD4 count at initial presentation was 265 cells/mL.Main mode of transmission was heterosexual. Commonest opportunistic infection was tuberculosis.Total of 312 patients(65.9%) were late presenters and 218 patients (45.99%) had advanced HIV disease. Males, patients of higher age groups and unemployed patients tend to be late presenters.Majority of study population presented at stage I(66%). However, a significant number of patients present with stage IV disease(21.4%).

Conclusion Significant proportion of HIV patients were late presenters and had advanced disease at initial presentation. There was a significant association between gender, age group and occupation with late presentation as well as advanced disease. Health education and awareness generation about importance of early presentation is crucial to decrease mortality in HIV population.

P2.07

## ANAL HIGH-RISK HUMAN PAPILLOMAVIRUS INFECTIONS AMONG MEN WHO HAVE SEX WITH MEN LIVING IN THE CENTRAL AFRICAN REPUBLIC

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10.1136/sextrans-2017-053264.184

Introduction High-risk Human Papillomavirus (HR-HPV) infection is the causal agent of anal cancer in men who have sex with men (MSM). Herein, the prevalence of HR-HPV was evaluated by molecular biology in MSM living in Bangui, the capital of the Central African Republic (CAR).

Methods Forty-two MSM attending the Centre National de Référence des Infections Sexuellement Transmissibles et de la Thérapie Antirétrovirale (CNRISTTAR) were prospectively enrolled and tested for HPV. Genomic DNA was extracted using the DNeasy Blood and Tissue kit (Qiagen, CA, USA). Human beta-globin DNA was detected by PCR. Anyplex II HPV28 (H28) HPV Genotyping Test (Seegene, Seoul, South Korea) was used for HPV genotype distribution in human beta-globin DNA positive samples.

Results Among the 42 anal specimens, 29 (69% [95% CI: 55.0%–83.0%]) were positive for HPV DNA. Multiple genotypes infections were frequent in 86.2% (25/29; 95% CI: 73.6%–98.7%) of positive anal samples and 88% of them were infected by an average of 2.5 HR-HPV (range, 1 to 8 genotypes per anal specimen). 13.8% of anal samples were infected with a single type of HPV and all of them were high-risk types. HPV 31 was found in 65% of single HPV infection. HR-HPV type 35 was the most prevalent genotype

(27.5%), followed by HPV 42 and HPV 53 (24.1%), HPV 58 and 59 (20.7%) and HPV 31 and 61 (17.2%). Interestingly, HR-HPV type 16 and 18 were poorly represented in 13.8% (4/29) and 10.3% (3/29), respectively. Only one sample was simultaneously infected by HPV 16 and HPV 18. Low-risk (LR) HPV 6 and HPV 11 were observed in 2 and 3 anal samples, respectively.

Discussion HR-HPV 35, LR-HPV 42 and LR-HPV 53 were the most prevalent genotypes in anal samples. These findings suggest unusual and unique distribution of HVP genotypes in the MSM population of Bangui, and implies that the currently available 9-valent HPV vaccine would be poorly effective in this at-risk population.

P2.08

samples.

## MICROBIOLOGICAL FACTORS THAT CONTRIBUTE TO THE DEVELOPMENT OF BACTERIAL VAGINOSIS:A LONGITUDINAL STUDY

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Introduction The aetiology and pathogenesis of bacterial vagi-

10.1136/sextrans-2017-053264.185

nosis (BV) are unclear which has impacted greatly on efforts to improve the efficacy of current treatment approaches. We examined the microbial composition of the vaginal microbiota and factors associated with the development of BV, in womenwho-have-sex-with-women (WSW) who were participating in a two year cohort study, in order to gain insights into the microbial changes that occur around the development of BV. Methods 298 women self-collected high vaginal swabs and completed questionnaires detailing behavioural practices and symptoms three monthly for 24 months or until incident BV, whichever occurred first. BV was diagnosed by the Nugent method and women could only enrol in the cohort if they were BV negative on 3 weekly vaginal samples at screening. Fifty-one cases of incident BV occurred over 24 months (BV incidence rate, 9.75/100 woman-years). Vaginal swabs were stored at - 80°C. Available longitudinal vaginal specimens from the 51 cases who developed BV and 51 age-matched controls who did not, were included in this study to examine the vaginal microbial composition by 16S rRNA gene sequencing; 47 case participants and 50 control participants met the requirements for specimen submission and sequencing quality (353 swabs). Microbial factors associated with the development of BV were determined by multivariable analysis, adjusting for sexual behaviours. Microbial diversity and stability were assessed by the Shannon diversity index and Bray-Curtis

Results For each 1% increase in *Gardnerella vaginalis* abundance there was a 2% increased risk of developing BV (Adjusted Hazard Ratio [AHR]=1.02, 95% CI 1.01–1.03, p0.001). Detection of BVAB TM7 (uncharacterised bacterium of candidate division TM7) was associated with a 6 fold increase in risk of developing BV (AHR=6.06, 95% CI: 1.99, 18.43, p=0.002). In contrast for each 1% increase in *Lactobacillus crispatus* abundance there was a 1% reduction in the

dissimilarity scores between consecutive paired longitudinal