P.2.42 EVALUATION OF COTRIMOXAZOLE USE AS A PREVENTIVE THERAPY AMONG PATIENTS LIVING WITH HIV/AIDS IN GONDAR UNIVERSITY REFERRAL HOSPITAL, NORTHWESTERN ETHIOPIA: A RETROSPECTIVE CROSS-SECTIONAL STUDY

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Introduction Cotrimoxazole preventive therapy (CPT) is a feasible, inexpensive, and well-tolerated way for patients living with HIV/AIDS to reduce HIV/AIDS-related morbidities. The aim of this study was to evaluate the use of cotrimoxazole as a prophylaxis therapy among patients living with HIV/AIDS at Gondar University Referral Hospital (GURH), northwestern Ethiopia.

Methods A retrospective cross-sectional study was conducted at GURH, from September 2013 to October 2015. Medical records of 264 patients were selected by using systematic random sampling technique. Data were collected using the structured checklist and evaluated against World Health Organisation (WHO) guidelines. The quantitative data were analysed using the statistical packages for social sciences Version 20. Descriptive and binary logistic regression were used to assess the association between different variables.

Results Approximately 95 (36.0%) patients were at WHO clinical stage III at the start of CPT. The use of CPT was consistent with the guidelines in the rationale for indication 200 (75.75%) and dose 263 (99.62%), despite the presence of contraindications in 24 (9.90%) patients. The occurrence of cotrimoxazole-associated side effects was higher in the first month of therapy.

Conclusion Although the practice of discontinuation of CPT and follow-up for adverse drug effects were not consistent with WHO guidelines on the rational use of cotrimoxazole prophylaxis, the use of CPT among people living with HIV/AIDS at GURH was appropriate. Health professionals should adhere to the available updated guidelines to reduce the occurrence of adverse effects.

P.2.43 GENDER DIFFERENCES IN RISK FACTORS AND CLINICAL OUTCOMES OF PATIENTS RECEIVING ANTIRETROVIRAL THERAPY AT AN HIV CLINIC IN GUATEMALA CITY OVER A 9-YEAR PERIOD

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Introduction There is no consensus on gender differences in clinical outcomes of HIV-infected patients. Immunologic, virologic, and survival data for patients receiving antiretroviral therapy (ART) show an inconsistent presence and direction of a gender gap. Gender and sexual behavior-based outcomes analysis is lacking in Guatemala, which has largely sexual transmission of HIV. We examine outcomes of HIV-positive Guatemalans receiving ART over a 9 year period.

Methods Retrospective cohort analysis was conducted using a database of treatment-naive patients offered free ART at the Clinica Familiar Luis Angel Garcia in Guatemala City from 2004 to 2014. Multivariate Cox regression was used to study gender differences in all-cause mortality, immunologic failure (CD4 <100 cells/µL twice or CD4 < baseline) and virologic suppression (viral load <50 HIV-1 RNA copies/mL within 1 year of starting ART).

Results 4248 patients were included: 2605 men, 1617 women, and 26 transgender patients (analysed separately). Compared to men, women had higher median CD4 counts (198 vs. 126 cells/µL, p<0.001) and lower median viral loads (6.48 × 10^3 copies/mL vs. 11.27 × 10^3 copies/mL, p<0.001) at baseline. In multivariate analysis, mortality decreased with female gender (HR 0.52, 95% CI 0.29–0.93, p=0.029) while it increased with age (HR 1.02, 95% CI 1.003–1.04, p=0.02) and inconsistent condom use (HR 9.36, 95% CI 2.61–33.63, p=0.001). In women alone, these factors did not predict mortality. In men alone, mortality increased with inconsistent condom use (HR 23.26, 95% CI 2.89–187.3, p=0.003), and number of sexual partners (HR 1.02, 95% CI 1.001–1.039, p=0.04). Gender did not predict immunologic failure. Female gender predicted a lower rate of viral suppression (HR 0.6, 95% CI 0.41–0.85, p=0.005).

Conclusion Women receiving ART have lower mortality than men when adjusted for sociodemographic factors and sexual behaviours. Sexual risk factors affect genders differently and can predict treatment outcomes in previously infected patients.
HIGH BURDEN OF PERSISTENT ONCOGENIC HPV INFECTION IN HIGH- RISK, HIV-NEGATIVE MEN WHO HAVE SEX WITH MEN USING A NOVEL HPV E6/E7 mRNA ASSAY

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Introduction Persistent infection with high-risk human papillomavirus (hrHPV) is a necessary step in anal cancer’s pathogenesis. With no universally-accepted guidelines on screening, and given the suboptimal performance of cytology, anal HPV testing is increasingly recognised as an important, adjunctive screening tool for anal cancer precursors. mRNA-based HPV assays targeting the E6/7 oncoproteins are emerging as more specific tests for persistent HPV than the traditionally-used DNA-based tests. No data exists on serial monitoring of anal hrHPV in MSM using this novel assay. The objectives of this study are to describe HPV prevalence/persistence rates in a sample of high-risk, HIV-negative MSM enrolled in a PrEP demonstration project.

Methods Participants were drawn from PREPARATORY-5, which recruited HIV-negative MSM with high HIV risk as determined by a score ≥10 on the HIV Incidence Risk Index for MSM (HIRI-MSM) and a history of condomless receptive anal sex in the prior 6 months. Anal samples were tested for hrHPV via the mRNA-based Aptima HPV Assay at baseline, months 6 and 12. Logistic regression was used to assess characteristics associated with hrHPV infection.

Results 43 participants were recruited, with median age 33 years (IQR 28–37). 10 (23%) were current smokers, and median HIRI-MSM score was 28 (IQR 19.5–35.5). 24 (56%) participants had hrHPV at any timepoint, and 15 (35%) had persistent hrHPV, defined as hrHPV isolated at two different timepoints. In multivariable logistic regression, current smoking status (OR=9.2, 95%CI=1.16–72.59, p=0.03) and HIRI-MSM score (OR: 1.2 per 1-point increase, 95%CI=1.03–1.33, p=0.01) were associated with hrHPV infection.

Conclusion Using a novel HPV E6/E7 mRNA assay with higher specificity for persistent infection, this study demonstrated a high burden of overall and persistent hrHPV infection in high-risk, HIV-negative MSM. These findings support the inclusion of MSM at high risk of sexual HIV acquisition when considering interventions related to the prevention and screening of anal cancer precursors.