

MRC/UVRI PUBLICATIONS DIGEST – JUNE 2016

Acceptance of Treatment of Sexually Transmitted Infections for Stable Sexual Partners by Female Sex Workers in Kampala, Uganda.” Yunia Mayanja, Aggrey David Mukose, Susan Nakubulwa, Gloria Omosa-Manyonyi, Anatoli Kamali, David Guwatudde. PLOS ONE | DOI:10.1371/journal.pone.0155383 May 12, 2016

BACKGROUND:

The prevalence of sexually transmitted infections (STIs) among female sex workers (FSWs) in sub-Saharan Africa remains high. Providing treatment to the affected FSWs is a challenge, and more so to their stable sexual partners. There is scanty research information on acceptance of STI treatment for stable sexual partners by FSWs. We conducted a study to assess acceptance of STI treatment for stable sexual partners by FSWs, and to identify factors associated with acceptance.

METHODS:

We enrolled 241 FSWs in a cross sectional study; they were aged ≥ 18 years, had a stable sexual partner and a diagnosis of STI. Factors associated with acceptance of STI treatment for stable sexual partners were analysed in STATA (12) using Poisson regression. Mantel-Haenszel tests for interaction were performed.

RESULTS:

Acceptance of partner treatment was 50.6%. Majority (83.8%) of partners at the last sexual act were stable partners, and 32.4% of participants had asymptomatic STIs. Factors independently associated with acceptance were: earning \leq \$4 USD per sexual act (aPR 0.68; 95% CI: 0.49-0.94) and a clinical STI diagnosis (aPR 1.95; 95% CI: 1.30-2.92). The effect of low income on acceptance of partner treatment was seen in those with less education.

CONCLUSION:

Acceptance of STI treatment for stable sexual partners was lower than that seen in other studies. Interventions to improve economic empowerment among FSWs may increase acceptance of partner treatment.

Immunology in Africa. Cose S, Bagaya B, Nerima B, Joloba M, Kambugu A, Tweyongyere R, Dunne DW, Mbidde E, Kaleebu P, Elliott AM. Trop Med Int Health. 2015 Dec;20 (12):1771-7. doi: 10.1111/tmi.12599. Epub 2015 Oct 12.

Africa is a continent with a large burden of both infectious and non-communicable diseases. If we are to move forward as a continent, we need to equip our growing cadre of exceptional young scientists with the skills needed to tackle the diseases endemic to this continent. For this, immunology is among the key disciplines. Africans should be empowered to study and understand the diseases that affect them, and to perform their cutting-edge research in their country of origin. This requires a multifaceted approach, with buy-in from funders, overseas partners and perhaps, most important of all, African governments themselves.

The Use of Interferon Gamma Inducible Protein 10 as a Potential Biomarker in the Diagnosis of Latent Tuberculosis Infection in Uganda. Biraro IA, Kimuda S, Egesa M, Cose S, Webb EL, Joloba M, Smith SG, Elliott AM, Dockrell HM, Katamba A. *PLoS One.* 2016 Jan 15;11(1):e0146098. doi: 10.1371/journal.pone.0146098. eCollection 2016.

BACKGROUND:

In the absence of a gold standard for the diagnosis of latent tuberculosis (TB) infection (LTBI), the current tests available for the diagnosis of LTBI are limited by their inability to differentiate between LTBI and active TB disease. We investigated IP-10 as a potential biomarker for LTBI among household contacts exposed to sputum positive active TB cases.

METHODS:

Active TB cases and contacts were recruited into a cohort with six months' follow-up. Contacts were tested for LTBI using QuantiFERON®-TB Gold In-Tube (QFN) assay and the tuberculin skin test (TST). Baseline supernatants from the QFN assay of 237 contacts and 102 active TB cases were analysed for Mycobacterium tuberculosis (MTB) specific and mitogen specific IP-10 responses.

RESULTS:

Contacts with LTBI (QFN+TST+) had the highest MTB specific IP-10 responses at baseline, compared to uninfected contacts (QFN-TST-) $p < 0.0001$; and active cases, $p = 0.01$. Using a cut-off of 8,239 pg/ml, MTB specific IP-10 was able to diagnose LTBI with a sensitivity of 87.1% (95% CI, 76.2-94.3) and specificity of 90.9% (95% CI, 81.3-96.6). MTB specific to mitogen specific IP-10 ratio was higher in HIV negative active TB cases, compared to HIV negative latently infected contacts, $p = 0.0004$. Concentrations of MTB specific IP-10 were higher in contacts with TST conversion (negative at baseline, positive at 6-months) than in those that were persistently TST negative, $p = 0.001$.

CONCLUSION:

IP-10 performed well in differentiating contacts with either latent or active TB from those who were uninfected but was not able to differentiate LTBI from active disease except when MTB specific to mitogen specific ratios were used in HIV negative adults. In addition, IP-10 had the potential to diagnose 'recent TB infection' in persons classified as having LTBI using the TST. Such individuals with strong IP-10 responses would likely benefit from chemoprophylaxis.

Exit interviews administered to patients participating in the COSTOP placebo controlled randomised trial in Uganda. Andrew Nunn, Zacchaeus Anywaine, Janet Seeley, Paula Munderi, Jonathan Levin, Ronnie Kasirye, Anatoli Kamali, Andrew Abaasa, Heiner Grosskurth. [doi:10.1016/j.conctc.2016.05.008](https://doi.org/10.1016/j.conctc.2016.05.008)

Introduction

COSTOP was a randomised controlled trial designed to assess the risks and benefits to HIV-infected participants stabilised on anti-retroviral treatment of stopping cotrimoxazole (CTX). In order to assess

the extent to which patients may have had access to and used CTX other than that supplied as study drug it was decided to conduct an exit interview.

Methods

A structured interview was administered by interviewers who were not associated with the COSTOP trial team in order to make it easier for participants to respond truthfully to sensitive questions about adherence to the study protocol.

Results

A total of 1993 participants were interviewed. Only 29 (1.7%) said they had taken their left over CTX; 101 (6.1%) had kept supplies at home. When asked about obtaining open label CTX during the trial 92 (4.7%) participants said they had done so, in contrast to only 12 who admitted doing so when asked at trial visits. The questions participants found most difficult to answer honestly at clinic visits were those concerning adherence to trial drugs (15.6% of participants) and whether they had slept under the insecticide treated mosquito nets (14.9%).

Discussion

The exit interview demonstrated that there was some evidence of open label drug being taken by the participants. However, the results from the interview do not suggest that the trial results would have been seriously compromised. We would recommend the exit interview as a valuable way of assessing adherence to trial procedures.
