

## **FAMILY-BASED HIV VOLUNTARY COUNSELING AND TESTING IN PATIENTS AT RISK FOR TUBERCULOSIS**

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### **PROJECT DESCRIPTION**

This study will test the efficacy of an intervention utilizing HIV rapid testing and integration of HIV Voluntary Counseling and Testing (VCT) into Tuberculosis (TB) evaluation and home-based VCT for family members, to overcome identified logistical and psychological barriers to HIV VCT among new TB patients and their family members.

The specific aims of the study are:

- Determine the uptake of and barriers to HIV VCT among a cross-sectional sample of 2,000 TB evaluation patients offered same-day results HIV counseling and testing at the Uganda National TB and Leprosy Programme outpatient TB clinic at Old Mulago Hospital in Kampala, Uganda.
- Conduct a randomized trial of HIV VCT among 600 households comparing VCT uptake between home-based VCT and TB clinic-based VCT for family and household members of TB evaluation patients.
- Investigate the effectiveness of home-based and TB clinic-based VCT in linking HIV+ persons to HIV medical care and social support.

### **SIGNIFICANCE**

The global call for the rapid introduction of HIV antiretroviral therapy to sub-Saharan Africa urgently requires improved identification of HIV+ persons and successful linkage to HIV medical care and social support. VCT for HIV has been shown to be effective in helping individuals learn their HIV status and get into care. TB patients present one of the greatest opportunities for VCT to identify HIV infections and link individuals into HIV-specific care. In the developing world, the HIV epidemic overlaps significantly with pre-existing epidemics of TB. The HIV prevalence among individuals newly diagnosed with TB is greater than 50%. Family and household members of TB patients, especially spouses and young children, also have a greatly elevated prevalence of HIV infection compared to that of the general population. However, VCT use among all these groups is low (<10%).

From our pilot data we have evidence to suggest that a strategy like the one proposed here could be up to ten times more efficient in detecting HIV infection than current generalized HIV testing strategies. This strategy also builds on significant pre-existing TB control infrastructure making it easier to implement across the region in the absence of much needed improvements in healthcare infrastructure. Through this study's results dissemination plan and the proposed policy and community forums, information on a successful model could be made rapidly available to key stakeholders responsible for setting national policy and local HIV/AIDS control programs.

### **INTERESTING FINDINGS**

Among TB suspects in Uganda, we determined HIV prevalence, risk behaviors, and willingness to refer family for VCT. Consenting adult patients presenting for evaluation at a referral TB clinic received same-day VCT. TB diagnosis data were abstracted from clinical records. Among 665 eligible patients, 565 (85%) consented to VCT. Among these, 238 (42%) were HIV+. Of the HIV+ patients, 37% had received a non-TB diagnosis. HIV seroprevalence was higher in patients with a non-TB diagnosis (49%) than those diagnosed with TB (39%) ( $P = 0.02$ ). Fewer than 6% of HIV+ patients reported always using condoms with sexual partners. The majority of patients (86%) reported being 'very willing' to refer family members for VCT. Over 35% of HIV+ cases in our population would have been undetected if HIV testing was limited to cases with diagnosed TB. The high HIV seroprevalence in both TB and non-TB cases merits HIV testing for all patients evaluated at TB clinics. HIV+ TB suspects reporting high-risk behavior are at risk for HIV transmission, and should receive risk-reduction counseling. (excerpted from "*Elevated HIV seroprevalence and risk behavior among Ugandan TB suspects: implications for HIV testing and prevention.*" *Int J Tuberc Lung Dis.* Feb 2007)

**PROJECT END DATE:** March 2011