

IMER Project Report
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My experience in Kampala, Uganda differed from what I had originally intended but this turn of events allowed me the opportunity to broaden my experience at the Infectious Disease Institute (IDI). I had planned on undertaking a small research project looking at the neuro-cognitive deficits in AIDS patients with Cryptococcal Meningitis (CM). It has been observed that such deficits exist, but there is little to no data. I would have performed neuro-cognitive testing on new patients enrolled in the CM IRIS trial using their regularly scheduled follow-ups to look for similarities amongst patients, changes over time and whether patients with IRIS (Immune Reconstitution Inflammatory Syndrome) related events had different outcomes than those without such events. My findings would help researchers for a proposed study looking more in depth at these questions.

It was revealed to me upon my arrival – to the Infectious Disease Institute on the campus of the Mulago National Referral Hospital in Kampala – that the CM IRIS study was no longer enrolling new subjects due to a shortage of funding. Only existing patients were being seen. As a result my project was put on the shelf until new funding was secured. Unfortunately new funding for the CM-IRIS trial did not arrive before my departure, however I filled up my time working on a number of projects.

I began helping out with the CM-IRIS trial doing various random tasks. I spent most of this time working on the database. The methods of recording data were quite disorganized, and I was tasked with updating various data from the paper files into the computer database. It was around this time that we learned that the proposed neuro-cognitive trial received funding approval.

I began working on various projects for the neuro-cognitive pilot study, and it was determined that I would be administering the neuro-cognitive exams until my time in Uganda came to an end. I developed many forms to be used in the study including neuro-cognitive assessment CRFs for the collection of data during patient visits; I also worked with the Datafax employees at the IDI to make a streamlined version of this form compatible with their system. Other projects I worked on for this study involved working on study protocol and standard operating procedure forms for various aspects of the study including the handling of cerebrospinal fluid and neuro-cognitive assessment. The funding from the US government did not arrive by the time I left Uganda leaving me responsible for helping organize the collaboration of our research group with another that would be performing the neuro-cognitive exams in my absence.

While helping to prepare the neuro-cognitive trial, I also began working on another proposed trial looking at the optimal timing of anti-retroviral therapy (ART) in ART-naïve AIDS patients with CM. I developed more forms including standard operating procedures for the flow of lumbar puncture samples through the hospital and microbiology lab as well as screening consent forms.

For a number of weeks I helped out another U of MN medical student, Ann Vogt, with her perceptions of lumbar puncture project. This time was spent in the infectious disease unit of Mulago Hospital interviewing patients and their attendants (often family members). The conversation involved lumbar punctures and their perceptions of the procedure before it was performed. Many refuse lumbar puncture, creating difficulties

for providers trying to discern the cause of illness and/or treating their patients following the standard of care for their illness. Enrolled patients' charts were checked daily for changes to their status as well as follow up interviews performed following the procedure.

My last project at the IDI involved working with the Makerere University Microbiology Lab in preparation for these clinical trials. Many things needed to be done to bring the lab up to the standards required by various groups involved with the approval of research projects. I worked on creating emergency exit maps, equipment log forms, equipment quality control and maintenance standard operating procedures.

I had many unique experiences during my time in Kampala. I was unable to begin my own project, but this allowed me the opportunity to work on many different projects that I wouldn't have otherwise. Having no experience in a research or lab setting definitely created some difficulties for me as I often felt lost trying to begin tasks assigned to me. I was able to overcome these fears by trusting my intellect and looking for help using different resources available to most anyone. It was an experience that I will never forget. Opportunities like this are few and far between. Most never even get the chance. I am fortunate and forever a changed man.