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**NEGLECTED TROPICAL & INFECTIOUS DISEASES**

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## **Evaluating the gaps in cryptococcal antigen (CrAg) screening in the reduction of HIV associated cryptococcal meningitis in Uganda**

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*Cryptococcus neoformans* is the most common cause of meningitis among HIV infected adults in sub-Saharan Africa, and it is responsible for approximately 20-25% of AIDS-related deaths in the region (Uganda HIV ART Addendum report 2014). The 6-month case fatality rate for cryptococcal meningitis (CM) in Uganda is 40%, compared to 9% the US, Oceania, and Western Europe, thus more fatal than HIV/TB co-infection. Asymptomatic patients with a positive cryptococcal antigen (CrAg) test in the blood (antigenemia) typically develop meningitis in approximately 3 weeks. This provides a window of opportunity in which treatment with fluconazole as pre-emptive therapy can prevent progression to cryptococcal meningitis. Unlike T.B, *Cryptococcus* routine screening hasn't been emphasised or evaluated much in number of facilities despite its inclusion in guidelines 1 year back by MoH, HIV positive patients are indeed presenting with meningitis even shortly after ART initiation, with 57% 10 week survival even with effective treatment (article by Boulware DR et al.) and incurring the expensive treatment strategy for cryptococcal meningitis. Through review of CrAg registers and patient open MRS (charts), and doing in-depth interviews with the Nurse in-charges ART clinic and infectious disease wards, lab personnel concerned with CrAg testing, in 7 sample facilities in Kampala city and 7 from the rural setting, plan to assess, how many; facilities are currently using a standard CrAg register, do patients who are ART naive or CD4 <100 go through the CrAg screening cascade, how many complete it, how long it takes to know their results, and the final outcome of whether they developed the CM or not. Through the interviews we intend to assess whether there was any CME on HIV/CM, Staffing of the facility, and supplies of CrAg kits, follow up the process of patients, and any gaps and successes of the screening program. There is clear evidence of cost-effectiveness and straightforward recommendations for the integration of CrAg screening and CM pre-emptive therapy into routine HIV care. Results of the study will be used to generate a standardized tool for evaluating the screening by Uganda Ministry of Health and groups that may be involved in funding the program, including but not limited to CDC. Our goal is to improve clinical practice and thus, reduce morbidity and mortality among HIV/CM patients.

### **Biography**

Kagimu Enock is 25 years, completed his bachelor's degree in medicine and surgery at Makerere University, college of health sciences (MAKChs), principal investigator of study on evaluation of CrAg screening program in reduction of HIV associated cryptococcal meningitis in Uganda, research assistant of the study on determining effectiveness of vitamin-c in management of tetanus, and an active member of Day of lung science on implementation science MAKChs.

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