Capacity development, training ans research uptake

**OC - (8494) - DRIVING REDUCED AIDS-ASSOCIATED MENINGO-ENCEPHALITIS MORTALITY**

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DREAMM is an implementation study aiming to reduce meningo-encephalitis related mortality. Delays in diagnosis and treatment through poor access to diagnostics and treatments are significant contributing factors to the ongoing high mortality of HIV-associated CNS infections, causing up to 25% of all HIV-related deaths in Sub Saharan Africa.

A before-after design is being implemented across 3 sites in Africa; Lilongwe, Malawi, Dar Es Salaam, Tanzania and Yaoundé, Cameroon. The study is composed of 3 phases; Observation, Training and Implementation.

The observation phase (audit of practice) happened between November 2016 - May 2017 in Malawi and Tanzania. Overall, 110 patients were included. Ten-week all-cause mortality was 64% (42/66) in Tanzania and 37% (13/35) in Malawi. Approximately 75% of patients were ART experienced. Across sites, 76.6% of patients presented with abnormal mental status, with a median baseline CD4 count of 50 cells/µL. Only 2/75 patients in Tanzania had a lumbar puncture ordered compared to 27/35 in Malawi. All patients in Tanzania received empirical Fluconazole monotherapy whereas almost 1/3 patients in Malawi (11/35) were treated with Amphotericin B which is not readily available in both countries.

The training phase (completed in November 2017 for Malawi and Tanzania) used the train-the-trainer approach. Interactive workshops on using rapid diagnostic tests (RDTs), performing basic microbiological techniques and safe administration of medicines were chosen as the most pertinent to reducing mortality. Patient and laboratory pathways were optimised afterwards by increasing the routine laboratory capacity, performing CSF analysis, providing infectious diseases mentorship for clinicians and procuring RDTs and reagents not locally available.

Implementation is underway in Malawi and Tanzania and the audit phase is scheduled for autumn in Cameroon. Upon completion, the project is expected to create a sustainable approach to reduce the high mortality of HIV-related meningo-encephalitis with the optimised patient and laboratory pathways embedded within routine care.