Activities of the ART Switch Committee at a PEPFAR-supported ART clinic in North-Central Nigeria: a two-year review

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Background:
Inappropriate antiretroviral therapy (ART) switch can jeopardize future treatment options. Therefore, ART Switch Committees ensure patients identified to be failing their first-line regimens to be reviewed and ultimately switched to an appropriate second-line regimens. We hereby present the results of a two years activities' review of the ART Switch Committee at the University of Abuja Teaching Hospital (UATH), North-Central Nigeria.

Methods:
This study is an implementation evaluation, conducted at UATH, a hospital hosting one of the largest HIV clinics supported by the Institute of Human Virology in Nigeria (IHVN) and PEPFAR, which follows around 10,000 HIV-infected patients on ART. ART patients who were reviewed by the ART Switch Committee and entered into the Register between July 1, 2010 and June 30, 2012 were included in this evaluation. To be eligible for review by the Committee, usually, a patient must have been on ART for at least 6 months and must meet at least one of the criteria for virologic, immunologic, or clinical failure. A data abstraction form was utilized for abstracting the required information from the folders of all eligible patients. Descriptive data including patients' characteristics, recommendations of the Committee and commonest second-line regimens recommended were reviewed.

Results:
Over the period of 2 years, a total of 111 patients comprising 59 (53%) females were reviewed. Sixty-eight (61%) patients were between 26 and 45 years of age while 13 (12%) patients were below 15 years of age. Of the 111 patients, 72 (65%) were switched to second-line regimens while 39 (35%) were not switched. Of those switched, 27 (38%) were females, 10 (14%) were below the age of 15 years while 45 (63%) were between the age of 26 and 45 years. Three of the 4 patients above the age of 65 years reviewed were switched. The commonest second-line regimens prescribed were LPV/r/TDF/AZT/FTC or 3TC (39%) followed by LPV/r/AZT/3TC (32%). Only 2 (3%) patients were placed on ATV/r-based regimen. Out of 39 patients who were not switched, 14 (36%) were referred for intensified adherence counseling, 4 (10%) for repeat of HIV viral load, while 2 (5%) were to be screened further for tuberculosis.

Conclusion:
All the patients switched were on protease inhibitor-based regimens according to the recommendations in the Nigerian ART Guidelines. However, about one third of the patients thought to be failing their regimen actually had adherence issues.

Neurocognitive Impairment among ART-naïve HIV-infected Individuals in Abuja, Nigeria

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Background:
Neurocognitive Impairment (NCI) in HIV infection results from direct or indirect effects of HIV and related factors on the CNS and it impairs ability of an individual to function in society If NCI is untreated, it results in increased HIV-related morbidity and mortality. We hereby report initial findings from longitudinal studies examining the impact of monocyte-derived virus on the development of NCI among HIV-infected individuals in Nigeria.

Methods:
Antiretroviral therapy (ART)-naïve HIV-seropositive (SP) and seronegative (SN) control participants are recruited at two antiretroviral treatment clinics in Abuja, Nigeria, where they have baseline, 6 month and three annual visits. Evaluations consist of standardized questionnaires, a general medical assessment and neuropsychological testing that assesses 20 ability domains. Test raw scores are converted to age, education, and sex-adjusted T-scores that are used to generate deficit scores (DS). These are averaged to compute a global deficit score (GDS), which reflects performance across the entire test battery and in the individual ability domains. DS were compared for the SP and SN groups using t-tests.

Results:
300 (200 SP and 100 SN) patients have been recruited. Analysis of baseline neuropsychological test scores has been performed on 211 participants (134 SP and 77 SN). Among SP patients, 87% had asymptomatic infection, as determined by WHO scale scores, and the group median CD4 count was 350 [IQR 125-497]. Overall test performance was worse for SP patients (GDS Cohen's d=.42, CI: .14 - .71, p=.0014), including worse Learning, Delayed Recall, Verbal Fluency, Speed of Information Processing, and Executive Function. The differences in cognitive abilities involve multiple cognitive domains but whether such differences are linked to specific viral strains is unclear at this time.

Conclusions and Recommendations:
Significant HIV-related neurocognitive abnormalities were frequent in this generally asymptomatic treatment-naïve HIV-infected patient group. Impact of ART and analyses of monocyte-associated HIV quasi-species and plasma markers are in progress as analysis of the specific HIV subtypes that are found in Nigeria suggested a possible association for specific strains with the presence of NCI.