TREATMENT RESPONSE AMONG CAMEROONIAN ADOLESCENTS RECEIVING ANTIRETROVIRAL THERAPY IN URBAN AND RURAL SETTINGS: PRELIMINARY FINDINGS FROM THE READY STUDY

1Joseph Fokam, 1Desire Takou, 2Maria Santoro, 1Amand Ngamgo, 1Samuel M Sosso, 1George Teo, 1Vittorio Colizzi, 2Carlos-Federico Perno, 2Alexis Ndjolo, 1Chantal BYA International Reference Center for Research on HIV/AIDS prevention and management (CIRCB), Cameroon; 2University of Rome Tor Vergata, Rome, Italy

Background Transitioning from paediatric to adult healthcare requires successful antiretroviral treatment (ART) for adolescents living with HIV (ADLHIV). Implementing such a policy implies monitoring ART response and selecting for therapeutic options for ADLHIV in resource-limited settings (RLS) like Cameroon.

Methods The Ready study (EDCTP-CDF-1027) is conducted amongst ART-experienced ADLHIV (10–19 years old) in the Centre region, Cameroon. WHO-clinical staging, CD4-counts and viraemia were determined; in case of virological failure [VF] (viraemia ≥1000 copies/ml), HIV drug resistance (HIVDR) and subtyping were performed, and p<0.05 considered significant.

Results Out of 279 ADLHIV (212 urban vs 67 rural), the gender distribution was similar (54.5% female); median age was higher in urban (15 [IQR: 13–17] years) compared to rural (13 [IQR: 11–17] years), as well as the median duration on ART (7 [IQR: 3–10] years compared to 4 [IQR: 2–7] years, respectively); and the majority was on first-line ART (79.4% [162/204] urban vs 98.5% [66/67] rural, p<0.0004).

Following treatment response, clinical failure (WHO-stage 3/4) was similarly low in both urban (5.7% [12/210]) and rural (4.5% [3/67]), p=0.938; CD4 increased similarly (p=0.298) from ART-initiation (370 cells/mm³[urban] vs 332 cells/mm³[rural]) to 6 years after initiation (938 cells/mm³[urban] vs 548 cells/mm³[rural]) and rate of immunodeficiency (<500 CD4 cells/mm³) was 41.0% (87/208) in urban vs 47.5% (29/61) in rural, p=0.428. VF was 43.2% (41/95) in urban vs 60.9% (14/23) in rural, p=0.126. Among nine (9) sequences available from those experiencing VF, overall HIVDR was found in 88.8%, with 77% NNRTI, 55.6% NRTI and 22.2% PI/r. All were HIV-1 group M, with 55.6% CRF02_AG, 22.0% F1 and 22.4% others.

Conclusion ADLHIV appear clinically asymptomatic, with considerable immune recovery overtime. Despite differences in ART duration between urban and rural settings, VF was similarly high, associated with HIVDR mainly to NNRTI-based regimens. Thus, NNRTI-sparing regimens might be highly convenient when transitioning ADLHIV to adult ART-regimens in RLS like Cameroon.

MULTIPLIED MOLECULAR DETECTION OF MALARIA IN SIERRA LEONE

1Raorah Ansumana, 2Joseph M Lamin, 3Joseph Lahai, 1Umaru Bangura, 1Mercy Hospital Research Laboratory, Sierra Leone; 2School of Community Health Sciences, Njala University, Sierra Leone

Background Despite several control measures and policy changes in Africa, malaria remains one of the most prevalent diseases in West Africa. The gold standard for malaria diagnosis is microscopy. However, due to low technical capacities in resource-poor countries, rapid immunochromatographic tests are commonly used. In Sierra Leone, P. falciparum-specific ICT with histidine-rich proteins2(HRP-2) are used. HRP2 is specific to P. falciparum and the kit cannot be used to detect other species of malaria which are also present in the disease ecology in Sierra Leone.

Methods In this study, we assessed 182 febrile subjects for malaria between April 2017–July 2018 at the Mercy Hospital