reduces the risk of developing an abacavir hypersensitivity reaction. The carriage rate of HLA-B*5701 has not been studied in Georgia before 2009. Objective of the study was to determine HLA-B*5701 prevalence in HIV-infected patients in Georgia.

Methods: One hundred and sixty HIV-1 positive patients attending Georgian Infectious Diseases, AIDS and Clinical Immunology Research Center in 2009 within the national treatment and care program were recruited for the study. None of the patients had previously been treated with abacavir. Blood samples were collected and screened for HLA-B*5701 prior to abacavir prescription. Statistical analyses were performed using SAS 9.1. Proportion with exact 95% confidence interval (CI) and median with interquartile range (IQR) are reported.

Results: Of 160 patients recruited 108 were male (67.5%) and 42 (32.5%) - female. Median age of subjects was 32 years (IQR 27—36). Nine patients tested HLA B*5701 positive — 5.6% (95% CI: 2.6—10.4%). Out of these nine patients 7 were males (male prevalence: 6.5%, [95% CI: 2.6—12.9] %) and 2 females (female prevalence: 4.8% [95% CI: 0.6—16.2%]).

Conclusion: The first prospective study of HLA-B*5701 prevalence in Georgia show similar results to the results of other studies conducted in Caucasians. Abacavir still remains one of the key drugs of antiretroviral regimens in Georgia and other resource limited countries. Therefore, prospective HLA-B*5701 screening should be implemented in all settings where abacavir is widely used to guide selection of ART regimens and to reduce the risk of potentially life threatening hypersensitivity reaction.

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55.009

Efficacy of multivitamins containing phosphatidyl choline in the mananegment of hepatotoxicity from antiretroviral and/or antituberculous drugs

N. Ladep[1,*], N. Shehu[2], A. Muazu[2], P. Ugoagwu[2], F. Kakjing[2], B. Badung[2], C. Daniyan[2], J. Idoko[3]

[1] *St George's University, St George's, St George's, Grenada*
[2] *AIDS Prevention Initiative Nigeria, Jos, Plateau, Nigeria*
[3] *National Agency for the Control of AIDS, Abuja, FCT, Nigeria*

Background: When hepatotoxicity develops in the course of treatment with anti-tuberculosis and anti-retroviral drugs, early improvement is important in order to continue specific treatment as early as possible. We aimed to determine the efficacy, safety and effect on quality of life of phosphatidyl choline-containing multivitamin in the management of antiretroviral and anti-tuberculosis hepatotoxicity.

Methods: This was a randomized, single blinded placebo-controlled pilot study. Included in the study were subjects that had been enrolled to access drugs in the ARV programme of Jos University Teaching Hospital (JUTH), who had signed consent to participate in the parent PEPFAR protocol and have started ARVs or antituberculous drugs. Subjects received phosphatidyl choline-containing multivitamin or antiretroviral medications. Subjects on each arm were reviewed fortnightly or earlier if they had worsening of symptoms. The liver function tests including ALT, AST improvements and deteriorations were noted and appropriate clinical decisions were taken according to standard guidelines during the four weeks of each recruitment. The data were analysed and displayed in proportions and appropriate representations.

Results: Sixteen subjects completed the study. Five and eleven subjects were on placebo and livolin respectively. The placebo recruitment was stopped after the fifth subject due to deteriorations in liver function with associated increased mortality in that group. Nine subjects were co-infected with Hepatitis B or C infection and one had triple infection of all three viruses. The baseline means ALT for the livolin group and placebo arms were 313.19 mM/L and 239.76 mM/L respectively. There was significant decline of the mean ALT in the livolin group to 49.21 mM/L and 38.17 mM/L compared to placebo group 227.74 mM/L and 129.24 mM/L at two and four weeks respectively. While joint pains reduced from 73.3% through 6.7% to 0% at the end of the study period in the Livolin group; the placebo arm showed a fluctuating course of 33.3%, 83.3% and 16.7% respectively.

Conclusion: Phosphatidyl choline-containing multivitamin demonstrated moderate benefits to HIV infected patients who develop hepatotoxicity to anti-tuberculosis or antiretroviral drugs when introduced early in their management.

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55.010

Prevalence of minor populations of drug-resistant HIV-1 in newly-diagnosed treatment-naïve individuals in Singapore

Y.-J. Sun[1,*], P. Kaur[1], Y.S. Leo[2]

[1] *Tan Tock Seng Hospital, Singapore, Singapore*
[2] *Communicable Disease Centre, Tan Tock Seng Hospital, Singapore, Singapore*

Background: Primary drug-resistance in HIV-1, whether in major viral populations or minor populations, is a significant clinical and public health concern. Previous studies based on conventional direct sequencing of virus samples have shown that HIV-1 primary drugresistance was insignificant in Singapore. But it is not clear whether this is also true to the minor HIV-1 populations of the samples because direct sequencing usually cannot detect resistance mutations in these populations. We performed this study to determine the prevalence of primary drug-resistance in minor HIV-1 populations.

Methods: Twenty-four PBMC-associated virus samples from 24 newly-diagnosed treatmentnaïve patients were analyzed. PCR products of pol gene that encompass the entire protease gene and two-third of the reverse transcriptase gene were amplified using an in-house method. The PCR products were then column-purified for direct sequencing and gel-purified for clonal sequencing. The viral gene cloning was performed using the TOPO TA cloning kit (Invitrogen).