

means of a questionnaire of the Specialized Attention Service of the State of Amapá, Brazil, from June to September 2017.

Results: A total of 1189 medical records of individuals with HIV/AIDS with ages varying from 0 to 82 years were analyzed in their diagnosis dates. Of these patients, 27.7% had already abandoned antiretroviral therapy (HAART) for more than six months at some time and 44.4% of patients had adherence problems with HAART, with reasons for poor adherence various justifications. The greatest cause reported was the difficulty of attending the SAE for the withdrawal of ART, corresponding to 26.3% of the reasons, due to the fact that the State of Amapá contains several municipalities that are located far from the SAE, in addition to many patients who do not have financial conditions to face this centralization of treatment. The second major cause was the side effects of antiretroviral medication, with 25.2%. The third one was attributed the complexity of the therapeutic regimen, with 10.3%, mainly due to the low educational instruction of the patients. And finally the fourth largest cause was the absence of social and affective support, with 6.5% cases that happen mainly with children who do not have a social and family support to continue adhering to the treatment.

Conclusion: Based on the data obtained, it is noted that these are high rates, so it is important to devise strategies that actively assist the patient in adapting to treatment, through health education, for example and through improved care, both through decentralization and in a biopsychosocial aspect.

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UMP. 380

Current status and future prospects of AIDS core hospitals in Japan

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Background: Japan has 381 designated AIDS core hospitals for the care of patients with HIV/AIDS. However, actual care they provide and their effectiveness has not been fully evaluated.

Methods & Materials: Cross sectional study was conducted by sending letters to all 381 AIDS core hospitals. They were given access to web based questionnaire using SurveyMonkey and were asked several questions regarding the current situation about HIV/AIDS care.

Results: Among 267 core hospitals among 381 (70.1%), which responded to our survey, 17 or 6.4% of the hospitals had never experienced HIV/AIDS care. While 27.6% of the hospitals stated that they take care of more than 50 patients as of the survey, 17.6% had only 1–4 patients to follow, and 14.8% had no patient to care. For the possibility of referral, 74.2% answered that they are able to accept new patients, 17.1% answered that they were not able to accept any new patients, and 13.1% answered that they were able to but not willing to accept new HIV/AIDS patients. The most common reasons for not being able to see HIV/AIDS patients was the absence of physicians who are able to take care of HIV/AIDS patients (50.9%), followed by lack of health care personnels such as social workers or counsellors (30.5%), and no aid from other subspecialties (20.3%).

Conclusion: While majority of AIDS core hospitals in Japan are actively engaged in and are committed to HIV/AIDS care, some lacked experience and expertise in this field, and some even expressed unwillingness to see the patients. There might need a reform of the system to harmonize expertise and will-

ingness of those core hospitals and needs of the community and patients. Restructuring or even abandonment of core hospital system needs to be considered since there needs more cooperation from other specialties (physicians and non-physicians) in care of AIDS/HIV patients in an era when the patients live longer and the needs for non-HIV issues such as primary care and cancer prevention/management are to be increased further.

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UMP. 381

Individualized Antiretroviral Therapy. Impact of pharmacogenetic and therapeutic drug monitoring in the safety and efficacy of first line antiretroviral therapy in patients with HIV infection. Preliminary report

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Background: Combination antiretroviral therapy has modified the natural history of HIV infection in an unprecedented manner in medical history. But up to 20% of patients discontinue first-line antiretroviral therapy at currently standard doses.

Methods & Materials: We explored the utility of prior pharmacogenetic (PG) analysis and ongoing drug monitoring (TDM) to individualize the dose of efavirenz or atazanavir in naive HIV patients.

We developed a multiplex approach including main polymorphisms of CYP2B6, CYP2A6, CYP3A4 and ABCB1 for efavirenz; and UGT1A1, ABCB1 and CYP3A4 for atazanavir. Drug plasma levels were analyzed with UPLC. Mean turnaround time for TDM was 30 days and median 23 days. For multiplex the mean turnaround time was 25 days and 23 days its median.

First 60 patients included in the protocol -coming from 4 clinical sites in Buenos Aires- were randomized to standard of care -SC-(34 patients) or pharmacological adaptation -PA:PG + TDM-(26 patients).

Results: The first TDM determination took place two weeks after starting antiretroviral therapy. All seven determinations of efavirenz resulted in serum concentration within regular limits. Following, three of four atazanavir determinations were above the maximum serum level. One of these patients had a genotype classified as high impact.

One patient in the PA arm received decreased individualized doses of Atazanavir with proper tolerance and maintaining treatment efficacy in 112 patients/months of follow up.



Two patients from SC arm had adverse events, and both of them had to discontinue therapy.

Conclusion: Pharmacological adaptation of initial and ongoing doses of first line antiretrovirals appears feasible and useful for the individualized therapeutic approach of patients with HIV infection starting treatment.

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UMP. 384

Knowledge, attitude, behaviour and beliefs of Sefako Makgatho Health Sciences University Undergraduate students regarding HIV and AIDS



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Background: Young adults in the age group 18–24 years have the highest incidence of HIV in South Africa. University students who fall in this age group, have poor knowledge about HIV and engage in risky sexual behaviours such as not always use condoms during sexual intercourse.

This study sought to explore health sciences students' self-reported beliefs, attitudes and knowledge about HIV/AIDS at the University of Limpopo.

Methods & Materials: This was mixed methods study using a questionnaire and stratified sampling of students.

Results: There were 143 participants. Most of the respondents (77%) were in the age range of 18 to 20 years, female (56%) and had good knowledge about risky sexual behaviour, with 86% of the students knowing that having sex with someone who has another sexually transmitted infection increases the risk and 93% of the students knew that there is an increased risk if an individual has multiple partners. Although most (93%) knew that using a condom can prevent the spread of AIDS, 31% said that they would feel uncomfortable buying condoms even though the majority reported knowing how to use a condom (78%). Most knew about safe sexual behaviour, with 65% stating that it is not too much trouble to practice safe sex, 88% said they knew how to have safe sex and 85% plan on being very careful with whom they have sex with in the future. Many students (71%) believe that Black homosexuals are more likely to have HIV/AIDS and 39% believe that once a person gets sexually excited, he or she loses all control of what happens next. The only significant difference between males and females was that more women thought that their friends knew that practicing safer sex decreases the spread of HIV/AIDS ($p = < 0.018$) which may imply that males think their friends engage in high risk sexual behaviours.

Conclusion: Although students have good knowledge about HIV transmission and high risk sexual behaviour, almost a third feel uncomfortable about buying condoms so they may not actually be using condoms. More males than females seem to think that most of their friends do not practice safe sexual behaviours.

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UMP. 385

Retention in Care and Adherence to Treatment among People Living with HIV in Secondary Level Hospitals in Anambra State Nigeria: A Comparative Study



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Background: Adherence to antiretroviral treatment (ART) and retention in care are critical to achieving the 90:90:90 UNAIDS vision. Nigeria implemented ART decentralization to increase access to treatment. This strengthened lower level hospitals to provide comprehensive antiretroviral treatment. Nigeria has over 800,000 people on antiretroviral treatment. We determined the level of retention and adherence to treatment and associated factors among private and public secondary level hospitals in Anambra State Nigeria.

Methods & Materials: We conducted a comparative cross-sectional study among 1,270 adult out-patients who had received antiretroviral treatment for at least one year prior to the study. A structured pre-tested questionnaire and checklist for patient's record review were used. Adherence to treatment was ascertained by patient self-report of missed pills 30 days prior to date of interview. Retention in care was ascertained using the 3-months visit constancy method reviewing the period spanning 12 months prior to study. Proportions, Chi Square and logistic regression analysis were conducted.

Results: Twenty-eight percent (359) were male and mean age of the participants was 40.1 ± 9.9 years. A comparable proportion of patient retained in care [private 81.1%, public 80.3%, $p = 0.722$]. The proportion of participants in the private hospitals who were adherent to their treatment were significantly more than those in public hospitals [private 95.3%, public 90.7%, $p = 0.001$].

Disclosing one's HIV status [adjusted odds ratio (AOR); 1.94, 95%CI: 1.09–3.46], being on first line regimen [AOR: 3.07, 95%CI: 1.27–7.41], being on once daily regimen [AOR: 0.58, 95%CI: 0.36–0.92], and currently married [AOR: 0.54, 95%CI: 0.32–0.91] were independent predictors of adequate retention in private hospitals. While in public hospital, disclosing HIV status [AOR: 3.12, 95%CI: 1.81–5.56], spending \leq N1000 on transport [AOR: 0.23, 95%CI: 0.07–0.78] and residing in rural area [AOR: 0.64, 95%CI: 0.41–0.99] were independent predictors adequate retention in care. None of the factors examined were associated with adherence to treatment.

Conclusion: Private and public secondary hospitals had comparable proportions of patient retention but not in adherence to treatment. Disclosure of HIV status should be encouraged to improve retention in care. Proportion of patient retained in care both hospital types was still suboptimum. Efforts should be targeted at improving retention in care among PLHIV.

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