HIV/HBV, HIV/HCV, HIV/HBV/HCV CO-INFECTIONS, LIVER FUNCTION LEVELS ASSESSMENT AND T LYMPHOCYTE COUNTS AMONG HIV POSITIVE PATIENTS AT AMPATH, ELDORET

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DECLARATION

This research proposal is my original work and has not been presented for examination in any other University.

Signature ..... Date 24/9/2013

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We confirm that this proposal was written under our guidance as the University supervisors.

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ABSTRACT

Hepatitis B and C are blood borne viruses that cause chronic liver diseases leading to liver cirrhosis and hepatocellular carcinoma (HCC). HBV infections in childhood result in development of severe liver complications in over 90% of cases. More than 2 billion people have been infected with HBV with over 350 million being chronic carriers. About 3% of the world's population has HCV with about 170 million being chronic carriers. Co-infections of both hepatitis B and C with HIV occur regularly due to shared transmission routes. Co-infections with HIV impact on the natural history, progression and diagnosis of the disease as well as morbidity and mortality of those infected. It is postulated that co-infections results in the persistence of the diseases in the body resulting to higher viral loads as well as progression to severe liver diseases. These patients become chronic carriers hence persistence of the virus in the human population. This research aims at establishing HIV/HCV, HIV/HBV and HIV/HBV/HCV co-infections, the effects of the co-infections T lymphocyte counts in co-infected patients. This will be a descriptive, cross- sectional study at Ampath, Eldoret. An informed consent will be obtained from 123 study participants. 5ml of blood will be drawn from the patients in vacutainer tubes and used to determine the T lymphocyte counts by flow cytometry and liver function levels by spectrophotometry. Hepatitis B and C infections will be determined serologically using antibody capture ELISA. Data will be entered into the computer and analyzed using SPSS version 16.0. The HIV/HBV, HIV/HCV and HIV/HBV/HCV co-infections will be expressed in percentages. A chi-square test will be used to determine the associations between the presences of HIV/HBV, HIV/HCV and HIV/HCV/HBV co-infections. A p-value of ≤ 0.05 will be considered to be statistically significant. This study will provide more insights on the effects of the co-infections on Liver functions as well as on T lymphocyte counts. This information will be useful in the management of the patients.