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Susceptibility to Hepatitis B infection, Hepatitis B/HIV co-infections and Hepatitis B immunity in HIV positive patients starting HAART in Durban, South Africa

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Background: HIV/HBV co-infection remains a global threat to HIV management despite the available effective Hepatitis B vaccine and Hepatitis B covering Antiretroviral therapy. Many studies done in South Africa and internationally showed high prevalence of HIV/ Hepatitis B co-infection which mandated routine screening for both infections before initiating HAART. Fewer studies highlighted the prevalence of Hepatitis B susceptibility in the general population starting HAART and most of them were limited to children and high-risk groups. The aim of this study was to demonstrate the extent of Hepatitis B susceptibility, Hepatitis B/HIV co-infections and Hepatitis B immunity in the general HIV infected patients.

Method: This was a retrospective review of randomly sampled 1066 files of patients initiated on HAART between January 2012 and December 2014 at two Durban hospitals. Data collection included demographic characteristic, CD4 counts and Hepatitis B serology. Data was analysed for the prevalence of Hepatitis B susceptibility, HIV/HBV co-infection and Hepatitis B immunity, while correlations between age,

CD4 count and these three groups were demonstrated. Statistical analysis was performed using SAS version 9.3

Results: Total prevalence of HBV susceptibility was 69.7%, HBV immunity was 26.9% and true chronic HIV/HBV co-infection was 3.4%, while HBVsAg positivity accounted for 8.4% of the participants. Adults were more susceptible to HBV than children, with median age of 36 years. Stratified for age, children were more immune (90%) to HBV than adults.

Conclusion: This study demonstrated a significantly high number of HIV infected persons who were susceptible to Hepatitis B infection in Durban, South Africa, where both HIV and HBV are endemic, co-infection is high and safe and effective HBV vaccine is available. We recommend Hepatitis B vaccination of the Hepatitis B susceptible patients initiating HAART in South Africa to prevent further HIV/HBV co-infection.

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