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Prevalence of protective levels of anti-HBs antibodies among 15-17 year old adolescents at Kawempe division Kampala-Uganda

Liver related cancer and cirrhosis mortality rates have been reduced globally by the Hepatitis B vaccine however decay still happens. We aimed at determining the prevalence of breakthrough HBV infections (Exposure, Acute and chronic infections) and the prevalence of protective levels of vaccine specific antiHBs antibody titers amongst 15–17-yearold adolescents in Kawempe division, Kampala, Uganda. A cross sectional study . Sample size: 288 participants. The results showed; Males;149 (51.7%), Females;139 (48.3%). First dose recipients; 26 (9.0%) , Second dose recipients; 45 (15.6%) and Third dose recipients; 217 (75.4%). Combo test results: Participants at exposure (Combo susceptible);221 (76.7%), Acute infections; 4 (1.5%), Chronic infections; 3 (1.0%) and vaccine protected 60 (20.8%). Titer test results: Responders ; 22 (36.7%) and non-responders were 43 (66.2%). In conclusion: Hepatitis B vaccine 3 dose coverage was good at 75.4% due to introduction of the HBV birth dose and screening of pregnant mothers however more awareness programmes on benefits of immunisation to parents are encouraged and provision of medicines in all health centers. The study revealed an exposure rate of 76.7% for adolescents who had primarily been vaccinated owing this to genetics, Storage, Usage of overdue medicines and in-completion of HBV doses. The prevalence of acute and chronic infections in our study was moderately high at 1.5% and 1.0% respectively due to indulgence in sexual intercourse at a young age plus having many sex partners, Use of drugs, Body piercings and body tattooing plus not knowing the HBV status especially to young mothers. Our study recorded a low prevalence of protective anti-body titers at 33.8% possibly due to genetics.

Keywords: Prevalence, Antibodies, Hepatitis B virus and Hepatitis B virus vaccine.

Biography

Miss Nambafu Joan is a phd student at Makerere University. She has studied a master of science in immunology and clinical microbiology from the same university. She also holds a bachelor's degree in science technology biology from kyambogo University. She is an author and co-author. She enjoys doing scientific research.