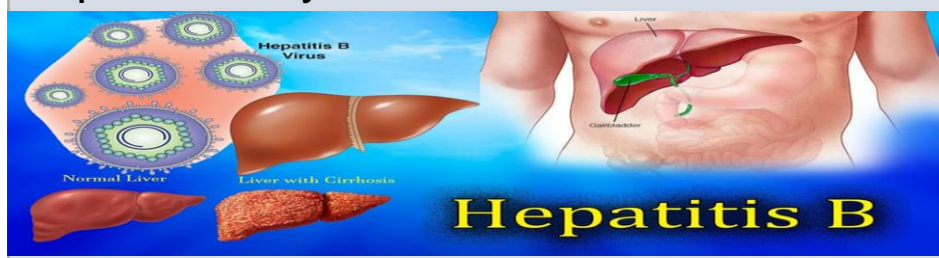


Knowledge, Serological markers and Risk factors associated with Hepatitis B virus infection among prison inmates in Kuje Federal Capital Territory Nigeria

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BACKGROUND

- Hepatitis B virus (HBV) infection is the 10th leading cause of death worldwide
- Globally >2 billion people are infected more than 350 million people are chronically infected
- HBV infection is hyper-endemic in Sub-Saharan Africa
- 18 million Nigerians are infected
- Prisons are high-risk environments for the spread of blood borne and STI
- Higher HBV prevalence among penitentiary individuals worldwide



OBJECTIVES

- To assess the knowledge of HBV infection among Kuje prison inmates
- To determine HBV sero-prevalence and HBV Markers – HBsAg, HBeAg, HBeAb, HBcAb and HBsAb among Kuje prison inmates
- To assess the risk factors associated with HBV infection among Kuje prison inmates



CONCLUSIONS

- There is poor knowledge and high sero-prevalence of HBV infection among Kuje Prison inmates
- Age group <25 years, history of alcohol use, and inmates ever married were found to significantly associated with HBV infection

PUBLIC HEALTH ACTIONS

- We advocated HBV vaccination for susceptible inmates and treatment for HBV positive inmates
- Health education on HBV infection

RECOMMENDATION

- FCT prison authority should introduce HBV preventive services by screening and vaccinating all inmates

METHODS

Study design: Cross-sectional study

Study period: January to June 2016

Study area: Kuje medium prison FCT



Figure 1: Map of Nigeria Showing FCT-Kuje

Study population: Kuje prison inmates at the time of study
824 Inmates (652 Awaiting Trial inmates and 172 Convicts)

Exclusion Criteria: Mentally unstable inmates

Sample size: 271 inmates

Sampling technique: Stratified sampling technique

Laboratory Analysis



- 5ml of blood samples were collected and analyzed for HBV markers-HBsAg, HBeAg, HBeAb, HBcAb and HBsAb
- Rapid lateral chromatographic immunoassay and ELISA

Data Analysis

- Univariate, bivariate and multivariate analysis
- HBV knowledge score Poor <50%, Fair 50-75% and Good >75%

Ethical Consideration

- FCT Health Research Ethics Committee
- Permission from Nigerian prison authority
- Oral consent obtained from all participants

REFERENCES

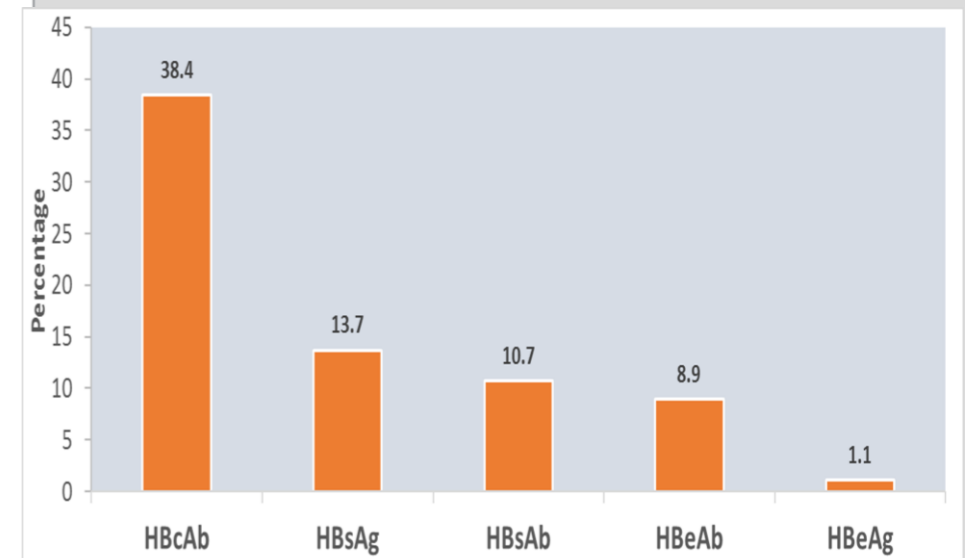
- .Adjei A A, Armah B A, et al. Prevalence of human immunodeficiency virus, hepatitis B virus, hepatitis C virus and syphilis among prison inmates and officers at Nsawam and Accra, Ghana. Journal of Medical Microbiology (2006), 55, 593–597
- Adoga P. M, et al Human immunodeficiency virus, hepatitis B virus and hepatitis C virus: sero-prevalence, co-infection and risk factors among prison inmates in Nasarawa State, Nigeria, J Infect Dev Ctries 2009; 3(7):539-547.

CONFLICTS OF INTEREST

The authors hereby declare no conflict of interest

RESULTS

- 116(42.8%) who had ever heard of HBV infection of which 114 (98%) had poor knowledge of HBV
- HBV Current infection -13.7%
- HBV Susceptible- 55.4%
- HBV Past/Resolved infection -20.7%
- HBV Immunity (Natural/ Artificial)-10.3%



Seroprevalence of HBV markers among Kuje inmates - 2016

Association between HBV infection and socio-demographic/risk factors among Kuje inmates - 2016

Variables	Positive (%)	OR(95% CI)	AOR(95%CI)
Age-group			
≤25	11 (29.7)	3.4(1.5-7.6)	8.0 (2.9-22.3)
≥25	26 (11.1)		ref
Marital Status			
Never married	12 (9.3)	0.5(0.2-0.9)	4.2(1.7-10.4)
Ever Married	25 (17.6)		ref
Religion			
Christianity	26 (14.4)	1.2(0.6-2.6)	
Islam	11 (12.1)		
History of alcohol use			
Yes	30 (17.1)	2.6(1.1-6.2)	3.4(1.3-8.4)
No	7 (7.3)		ref
Lifetime sexual partners			
0-1	4 (7.0)		1.0(0.9-1.0)
>1	33 (16.4)	0.4(0.1-1.2)	ref
Blood transfusion			
Yes	2 (8.7)		
No	35 (14.1)	0.6(0.1-2.6)	
Duration of incarceration			
<6 months	10 (13.2)		
>6months	27 (13.9)	1.0(0.5-2.3)	
History of illicit drug use			
Yes	20 (14.6)		
No	17 (12.7)	1.2(0.6-2.4)	

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