

17.

**Assessment of immunity against HBV among children aged 2-17 years in Nnewi, Anambra state**

Dr Chukwurah S. N<sup>1</sup>, Dr Jisieike-Onuigbo N.N<sup>1</sup>, Dr Onubogu C.U<sup>2</sup>, Dr Kalu S.O<sup>3</sup>, Dr Ufoaroh C.U<sup>1</sup>, Dr Onah S. K<sup>2</sup>, Dr Ezejiyor O. I<sup>1</sup>, Dr Eleje G.U<sup>4</sup>, Dr Mbanuzuru V. A<sup>5</sup>, Dr Okpara H. C<sup>6</sup>, Dr Ezeude C.M<sup>1</sup>, Dr Onah CE<sup>6</sup>, Mrs Nweje S. I<sup>7</sup>, Dr Ekwebene O.C<sup>8</sup>, Prof Eze KC<sup>9</sup>, Prof Ugochukwu E.F<sup>2</sup>, Prof Ibe C. C<sup>5</sup>.

<sup>1</sup>Internal Medicine Department, NAUTH Nnewi

<sup>2</sup>Paediatrics Department, NAUTH Nnewi

<sup>3</sup>HIV Care Department, NAUTH Nnewi

<sup>4</sup>Obstetrics and Gynaecology Department, NAUTH Nnewi

<sup>5</sup>Community Medicine Department, NAUTH Nnewi

<sup>6</sup>Chemical Pathology, NAUTH Nnewi

<sup>7</sup>Nursing Department, NAUTH Nnewi

<sup>8</sup>Medical Officer, NAUTH Nnewi

<sup>9</sup>Radiology Department, NAUTH Nnewi

**Correspondence:** Dr. Shirley N. Chukwurah Email: nasfic2@gmail.com

**Objective:** To assess the prevalence of HBsAg, the presence of anti-HBs among vaccinated children aged 2-17 years and the titre levels of anti-HBs among those who have anti-HBs.

**Methodology:** This was a cross-sectional study of consecutive children aged between 2 - 17 years seen at the outpatient clinic of NAUTH, Nnewi. Five (5mls) of venous blood was collected from each of the study participants into plain vacutainer tubes and transported to the laboratory for processing. The samples were analyzed for HBV serological markers and anti-HBs titre. Titre of anti-HBs of  $\geq 10$  IU/L was considered protective while titre less than  $< 10$  IU/L unproductive.

**Results:** A total of 60 children were used for the study. There was equal male and female distribution (1:1). Most of the respondents (36.7%) were between 10-14 years. 15% of the respondents had their immunity assessed following immunization using panel test. Anti-HBs titre was  $< 10$  iu/l in 56.7% of the children and  $\geq 10$  iu/l in 43.3% of the respondents.

**Conclusion:** After 18 years of introduction of the HBV vaccine into the National program of immunization and routine infant immunization against hepatitis B virus in Nigeria, it appears that most children are not protected against HBV after completing three doses of the vaccine. A large scale study would be desirable to confirm this finding.

DOI: 10.5281/zenodo.7263421