

Abstract:

OBJECTIVE: To determine the seroprevalence of varicella zoster in paediatric patients at a high risk of developing complications. **DESIGN:** A cross-sectional study. **SETTING:** Paediatric general wards at Kenyatta National Hospital. **SUBJECTS:** Children with malignancies, severe malnutrition and were HIV positive. **INTERVENTIONS:** The sample size was calculated at 147 subjects. Venous samples were tested for varicella zoster virus (VZV) antibodies using enzyme immunosorbent assay (ELISA) technique at Kenya Medical Research Institute (KEMRI) laboratories, The data were analysed using the SPSS software and presented in form of tables and graphs. The prevalence of VZV antibodies was determined and 95% confidence interval computed. **RESULTS:** The overall seroprevalence of VZV antibodies in the three groups of children studied was 23.6% (95% CI = 17.4, 29.8). The seroprevalence of VZV antibodies in those with malignancies and severe malnutrition was 24.1 and 25.0% respectively. About 22% of HIV positive children had protective levels of VZV antibodies. Though the seroprevalence increased with age, it was not significantly associated with area of residence, size of residence, family size or income. **CONCLUSIONS:** The low prevalence of protective VZV antibodies among children with severe malnutrition, malignancies and HIV infection children at Kenyatta National Hospital warrants routine immunisation of the high-risk population