

Dependence of rotavirus diarrhea on nutritional status in hospitalized children, Central Uganda, 2012/13

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Introduction

Rotaviruses are a major cause of acute diarrhoea in infants and young children worldwide. Uganda introduced rotavirus vaccination into the routine immunization program in June 2018. This study aimed at investigating the epidemiology of rotavirus disease and associated factors in central Uganda during the pre-vaccination era.

Methods

A cross-sectional study of 712 children aged below 5 years, hospitalised with acute diarrhoea was carried out from September 2012 to September 2013 in four hospitals in Central Uganda. Demographic and clinical data were collected, and the children's stools were tested for the presence of rotavirus using ProspectT ELISA test. Data were analyzed using STATA version 13.1. The nutritional status of the children was determined using the anthropus software. Multi-variable generalized linear models, using family (Poisson) and link (log), were used to estimate prevalence ratios and determine the relative contribution of individual risk factors.

Results

Rotavirus infection was present in 37% of the children. The nutrition status of the children was: underweight in 32.4%, stunting in 39.4% and wasting in 28.7%. Wasting and hospitalization for more than 5 days were negatively associated with rotavirus infection with adjusted prevalence ratios of 0.66 (95% CI: 0.45,0.96) and 0.60 (95% CI:0.38,0.95), respectively.

Conclusion

Children presenting with wasting and diarrhoea need to be investigated for other causes of diarrhoea other than rotavirus infection.