

Rotavirus vaccine administration and trends of rotavirus infection of patients attending at the referral hospital-KNH (2006-2018)

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Introduction

Rotavirus is the most common cause of severe diarrhea worldwide. Children <1 year of age account for majority of all rotavirus hospitalizations. Approximately 453,000 global deaths occur due to rotavirus diarrhea in children <5 years of age, and more than half of these (230,000) deaths occur in African children. Rotavirus vaccine was introduced in the routine immunization program of Kenya in July 2014

Methods

During rotavirus surveillance period 4443 stool samples were collected from young children < 5 years of age admitted due to acute gastroenteritis at Kenyatta national hospital, Nairobi, Kenya from 2006 to 2018. The stool samples were processed and tested for rotavirus group A using ProSpect (a WHO recommended Elisa kit). Data was also analysed from the hospital's vaccination centre for trends in Rotavirus vaccine administration (Synflorix, GlaxoSmithKline)

Result

Among the 4443 children, 1669 (38 %) were positive for rotavirus group A, with decreasing frequency. Rotavirus vaccine administration increased rapidly then plateaued at a steady administration level.

Conclusion

The study highlights the reduction of hospitalization due to rotavirus gastroenteritis after vaccine introduction in Kenya 2014. This data provides valuable information which is important as Kenya has introduced rotavirus vaccine in the public immunization program of the country which is helping in reducing the high burden of rotavirus disease. Vaccine uptake has been well received in the hospital, with an average of 80% completing immunization. There is a need to continue monitoring the impact of new rotavirus vaccines and monitor disease burden post rotavirus vaccine introduction.