

# Rotavirus incidence and genotype distribution before and after national rotavirus vaccine introduction in Cameroon

Boula Angeline<sup>1</sup>, Ngoh Rose<sup>1</sup>, Valantine Ngum Ndze<sup>2</sup>, Njiki Kinkela Mina<sup>1</sup>, Kemajou Grace<sup>1</sup>, Ngoya Ebiguide Roger<sup>1</sup>, Nkolo Mviena Gaston<sup>1</sup>, Baonga Ba Pouth<sup>3</sup>, Nimpa Marcellin<sup>4</sup>, Mwenda Jason<sup>5</sup>, Koki Ndombo Paul<sup>1</sup>.

<sup>1</sup>Mother and Child Centre, Chantal BIYA Foundation Yaoundé, Cameroon

<sup>2</sup>Faculty of Medicine and Biomedical Sciences

<sup>3</sup>Expanded Programme on Immunization, Ministry of Public Health, Cameroon

<sup>4</sup>WHO, Country office, Cameroon.

<sup>5</sup>WHO- AFRO, Brazzaville, Congo

## Introduction

In Cameroon, a monovalent rotavirus vaccine based on an attenuated human G1P [8] strain, (Rotarix<sup>®</sup>, GSK Biologicals) was introduced into the Expanded Program on Immunization (EPI) in 2014. This study compares the incidence of rotavirus genotype before and after vaccine introduction

## Methods

Diarrheal children <5 years admitted to four sentinel site of Yaoundé during 2012-2014 and 2015-2017 were include in the study. Stool specimen collected from children were examined for rotavirus antigen by enzyme immunoassay. Rotavirus positive specimen were G and P genotyped by reverse transcription polymerase chain reaction

## Results

Rotavirus antigen was found in 930/2199(42%) and 385/1867 (21%) samples during the two study periods. G1P[8],G3P[6],G2P[6] were common strains during the pre-vaccine era with 19%,9% and 5% detection respectively. Whereas,G3P[6] (13%),G2P[4](12%) and G12P[6] (11%) were common after vaccine introduction. During the post vaccine era, we note the emergence of G12P[6] and the disappearance of G1P[8]

## Conclusion

Our data demonstrate that the rate of rotavirus detection decrease during the post era vaccine and the emergence of G3P[6] and G12P[6] after the introduction of rotavirus vaccine from 2015 to 2017

**Keys words: sentinel site,rotavirus vaccine,genotype,polymerase chain reaction**