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

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Introduction
In Cameroon, a monovalent rotavirus vaccine based on an attenuated human G1P [8] strain, (Rotarix®, 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 included 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