

## Epidemiological investigation of Norovirus in children and its associated risk factors in district Lahore, Punjab Pakistan

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### Statement of the Problem

Diarrheal diseases are responsible for a significant amount of children deaths. Although, rotavirus is recognized as a major cause for pediatric diarrhea, but the role of other viruses especially norovirus is still unrecognized for the Pakistani population. Norovirus is very contagious and can affect a vast range of species ranging from cattle, pigs, dogs, mice, cats, sheep, lions to humans. In humans it causes vomiting and diarrhea and can affect the people of all ages but mainly the children with less than five years of age. There is no significant data available regarding the prevalence and genetic variability of norovirus in Pakistan.

### Method

This study was based on hospital surveillance, from December 2019 to September 2020 for the detection of noroviruses in children of less than five years of age. Total 100 samples were collected with predesigned questionnaire to assess the risk factors and clinical characteristics related to noroviruses.

### Conclusion & Significance

Total 15% samples were detected positive by the confirmation of RT-PCR for genogroup GII (G2SK) which is most prevalent. From all the risk factors including age, gender, vomiting, fever, type of milk, water and meal consumption, habit of hand, vegetables and fruits washing; only the contact of patient with an acute gastroenteritis patient was found significant. The remarkable cases of childhood diarrhea associated with noroviruses calls for the large-scale epidemiological surveys to calculate the burden of noroviruses and assess the risk factors. As it is a food borne pathogen so there is also a need to follow the strict hygienic measures during the processing of food items.

### Recent Publications

Ahmed, T., Hussain, S., Rinchen, S., Yasir, A., Ahmed,

S., Khan, W. A., ... & Ricketson, R. (2020). [Knowledge, attitude and practice \(KAP\) survey of canine rabies in Khyber Pakhtunkhwa and Punjab Province of Pakistan](#). BMC public health, 20(1), 1-12.

### Biography

Ammar Yasir is working as a research associate in the Department of Epidemiology and Public Health, at the University of Veterinary and Animal Sciences, Pakistan. Recently, he has also completed his MPhil Degree in the same department.

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