

## Co-Relation of Standards of Sanitation with Severity and Rotavirus Positivity in Children Having Diarrhea - A Tertiary Care Center of Gujarat, India

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### Abstract

**Introduction:** The contribution of rotavirus gastroenteritis to diarrheal morbidity and mortality in developing countries is due to the epidemiologic profile of the disease. Sanitation improvement and hygiene education, can have significant improvement. **Aims & Objectives:** To find out the correlation co-efficient between Standard of sanitation using Briscoe scale and rotavirus positivity, and between Standard of sanitation using Briscoe and severity using Vesikari Clinical Severity score. **Methods:** A co- relation survey was conducted in a tertiary care center over a period of 3 years in 450 children less than 5 years of age diagnosed with acute gastroenteritis (> 3 unformed stools in last 24 hours) and requiring in-patient treatment. Children hospitalized for more than 48 hours and those with primary diagnosis other than acute gastroenteritis were excluded. Those fulfilling the selection criteria and willing to participate were assessed for Standards of sanitation( using Briscoe scale), Severity of diarrhoea( Using Vesikari scale) and Rotavirus positivity( by PCR). Statistical analysis was done & level of significance was set at 5%. **Results:** A negative linear co-relation was found between standardsof sanitation and rotavirus positivity( $r=0.481$ ) andbetween standardsof sanitation and severity ( $r=-0.65$ ); former indicating that higher score on Briscoe scale shows lower rotavirus positivity and latter indicating less severity in those with higher levels of sanitation. **Conclusion:** Higher levels of sanitation co-relates with less rotavirus positivity and severity of gastroenteritis, emphasizing the importance of appropriate sanitation in children among a tertiary care center in Gujarat, India.