

## LETTER TO THE EDITOR

## Severe Diarrhea outbreak in Islamabad

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## ABSTRACT

Diarrhea caused by enteric infections is one of leading causes of morbidity and mortality across the world. Several bacterial pathogens are known to cause diarrhea including *Vibrio cholera*, *Clostridium difficile*, *Shigella* and selected strains of *Escherichia coli* (*E. coli*). Clinical features of acute infectious diarrhea include abdominal cramps, nausea, fever, vomiting and blood and mucus in the stool. Islamabad, the capital territory of Pakistan has recently come into a wrap of an outbreak of infectious diarrhea which is affecting the masses and is still continuing to do so. Islamabad health care system came collapsing during the last major outbreak of Corona Virus and showed areas that needed improving, thus this endemic should be taken seriously while it is in its bud. This letter addresses the latest outburst of diarrhea that demands an urgent and immediate attention. Letter also provides with precautionary measures and management techniques that should be picked up the relevant authorities and public.

Dear Editor

Acute diarrhea, is defined as an increased frequency of defecation ranging from three or more times per day or at least 200 g of stool per day which can last up to 14 days, which may be accompanied by vomiting, nausea, abdominal cramping, systemic symptoms, or malnutrition<sup>1</sup>. Acute infectious diarrhea is acquired mainly through the fecal oral route or could be by the ingestion of food and water contaminated with microorganisms which can potentially be pathogenic. Host defense mechanisms which include local and systemic immune mechanisms including gut associated lymphoid tissue, immunoglobulins, and defensins, which provide protection against microorganisms and gastric acid (the acidic pH of the stomach is bactericidal for most of the bacterial pathogens) need to be overcome by the ingested pathogens to cause the pathogenesis of the disease thereby causing diarrhea<sup>2</sup>.

Diarrhea outbreak has emerged as an endemic in the capital territory of Islamabad as 2157 cases have been reported in the last 30 days of July 2022, as reported by the National Institute of Health (NIH) sources. Most of the cases have been hailing from rural areas of Islamabad. According to the sources, 991 cases were reported to the polyclinic hospital, Islamabad in 4<sup>th</sup> week of July, 2022 out of which a large proportion was of children<sup>3</sup>. According to the NIH sources, no causality has been reported yet due to Diarrhea. Poor sanitation, the non-availability of clean drinking water and rise in environmental pollution are major factors contributing to the outbreak of diarrhea in the city. There have been previous outbreaks of diarrhea in Islamabad<sup>4</sup> but this one seems to be more severe and thumping, and thus require immediate attention of the authorizes to take appropriate actions. Most infectious diarrhea only requires supportive management and is thus self-limiting. Causative agents of sporadic and endemic diarrhea are viral agents are mostly viral and thus are more infectious. In developing countries like Pakistan, infectious diarrhea

is one of the prominent and leading causes of mortality and morbidity across the especially in children<sup>5</sup>.

The Islamabad health authorities must alert and inform the public about dangers of the disease and act briskly to make sure that rapid rehydration treatment is easily available. A clinical assessment of the degree of dehydration guided by oral rehydration therapy, is simple, cheap and effective mainstay of management for diarrhea. To educate the masses about food safety, and proper sanitization techniques, immediate awareness campaigns are required, which should also focus on how to cope with the first signs of the disease. Moreover, disease surveillance should be strengthened and carrying out extensive testing of patients presenting with the symptoms to judge the extent of the outbreak. This outbreak must be contained rapidly, because it will be tremendous load on the health system of Islamabad if it continues to spread.

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