



3<sup>rd</sup> June 2024

Subject: **Advisory for Prevention and Control of Acute Watery Diarrhea (Cholera)**

#### **Introduction:**

Cholera is an acute, diarrheal illness caused by infection of the intestine due to bacterium *Vibrio cholerae*. It remains a global threat to public health and is a global indicator of inequity and lack of social development. Cholera infection is generally mild or without symptoms, but can sometimes be severe and life threatening if not managed promptly.

#### **Epidemiology:**

It is estimated that every year, there are 1.3 to 4.0 million cases of cholera, and 21,000 to 143,000 deaths worldwide due to the infection. Pakistan like other Asian countries is endemic to cholera with cases being reported from different parts of the country. Poor personal hygiene and lack of safe drinking water provide more favorable conditions for the pathogen to cause outbreak in the vulnerable areas. Humans and aquatic environment are reservoirs for *V. cholerae* O1 and O139. Humans are considered the primary reservoir and can be asymptomatic carriers. Although the disease may present throughout the year but peak of cases may be observed from May to November, in hot, humid and rainy season. Infection result from ingestion of organisms present in contaminated food and water or directly from person to person by the fecal oral route. Incubation period is from few hours to 5 days. The contagious period for cholera begins as soon as the organism is excreted in the feces. This can occur as early as about 6 to 12 hours after exposure to the bacteria and can last for about 7 to 14 days.

#### **Clinical Presentation:**

Most of the cholera patients show no or mild symptoms. Approximately 5-10% infected persons in the early stages will have severe disease characterized by profuse watery diarrhea, vomiting and leg cramps. In these people, rapid loss of body fluids leads to dehydration and shock. Delay in rehydration can also lead to acute renal failure.

#### **Specimen Collection and transportation:**

Fresh stool or rectal swab should be collected early within 24 hours of onset of illness and before administration of antibiotics. Cary Blair media is used to preserve and transport stool samples to the laboratory for testing.

#### **Laboratory Confirmation:**

Most preferred way of confirming cholera in the lab is by isolation and identification of *Vibrio cholerae* serogroup O1 or O139 through culture of a stool specimen. Rapid antigen tests can also be used for detection in outbreak situations.

#### **Case Management:**

Cholera patients should be treated symptomatically. Low osmolar ORS should be given orally and frequently. While rehydration, consumption of fluids with high sugar content (juices, soft drinks etc.) should be avoided as these can make diarrhea worse. Even with severe dehydration, intravenous electrolyte solutions should be used only for initial rehydration, including those who are in shock. Severely dehydrated patients require administration of intravenous fluids. Ringer's Lactate Solution



(Hartman's Solution) is the preferred fluid for intravenous rehydration. Antibiotics (Doxycycline, Ciprofloxacin, Cefixime, Co-trimoxazole, Erythromycin) reduce the duration of disease and period of excretion of *V.cholerae* in the stool of an infected patient. Children aged 6 months to 5 years, with suspected cholera, should be started with zinc supplementation immediately.

**Surveillance case definition:**

One suspected case of AWD (Cholera) is an alert and one lab confirmed cholera case or cluster of 6 or more cases of AWD in one location, is an outbreak. However, standard case definition is:

**Suspected case:** "Any patient presenting with three or more watery, non-bloody stools (rice watery stools) in last 24-hour, with or without dehydration or death from acute watery diarrhea is a suspected case.

**Confirmed case:** A confirmed case is any suspected case with isolation of *Vibrio cholera O1* or *O139* from the stool."

**Prevention and control measures:**

A multi-sectorial approach is required for preventing and controlling the cholera disease in the country. All the relevant stakeholders need to be informed timely regarding the situation of disease and safe drinking water for appropriate action. Following community-based actions can easily break the chain of infection:

- Ensure adequate safe drinking water supply and proper sanitation. To make water safe for drinking, either boil the water or chlorinate it.
- People (visitors or residents) in areas where cholera is occurring or has occurred, should observe follow these recommendations:
  - i. Drink only bottled, boiled, or chemically treated water and bottled or canned carbonated beverages. When using bottled drinks, make sure that the seal has not been broken.
  - ii. Avoid drinking tap water and consumption of raw/undercooked meat or seafood, unpeeled or unwashed fruits and vegetables. Similarly, commercially prepared ice of unknown purity can also be a source of spread.
  - iii. Wash hands with soap and clean water.
  - iv. If no water and soap are available, use an alcohol-based hand cleaner (with at least 60%ethyl alcohol).

**Vaccination:**

A single-dose live oral cholera vaccine called Vaxchora (lyophilized CVD 103-HgR) for adults 18 to 64 years old, who are traveling to an area of active cholera transmission is recommended. No cholera vaccine is 100% protective and vaccination against cholera is not a substitute or alternate for standard prevention and control measures.

For any further assistance in this context, the CDC (051 – 9255237 and Fax No. 051-9255099) and Microbiology Department of Public Health Laboratories Division (051-9255082), NIH may be contacted.

**The above 'Advisory' may please be circulated widely to all concerned.**

  
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**Distribution Overleaf**