

MOST URGENT



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National Focal Point for International Health Regulations

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Subject: Advisory for Prevention and Treatment of Typhoid Fever

Increased number of typhoid fever cases in the country and isolation of multidrug resistant *Salmonella typhi* especially the Ceftriaxone resistant strains circulating in Hyderabad and other areas of Sindh. The situation demands immediate necessary measures to curtail further transmission, timely and prompt treatment of typhoid cases. The objective of this advisory is to sensitize health authorities to take in-time and appropriate actions for preparedness and prevention of typhoid fever. The disease is endemic in Pakistan and numerous outbreaks are reported during summer and monsoon seasons each year.

Case Definition:

Suspected Case: Any person with acute illness and fever of at-least 38°C for 3 or more days with abdominal symptoms like diarrhea, constipation, abdominal tenderness and prostration.

Probable Case: A suspected case with a positive sero-diagnosis but no *S. typhi* isolated **or** a clinical compatible case that is epidemiologically linked to a confirmed case in an outbreak.

Confirmed Case: A suspected/ probable case that is laboratory confirmed by isolation of *S. typhi* from blood/ stool or urine.

Mode of Transmission:

Typhoid infection occurs through feco-oral route and infection spreads through contaminated food, milk, frozen fruits and water or through close contact with already infected persons. The contamination of food and water usually occurs due to poor sanitation and mixing of sewerage water with drinking water

Incubation period depends on the inoculum size and host factors; 3 days to more than 60 days with a usual range of 8 to 14 days. Preschool children are at greater risk of developing disease and usually have milder symptoms than the adults do. Travelers to, or workers in endemic areas and care givers of the patient infected with *Salmonella typhi* are also at higher risk.

Diagnosis:

- *S. typhi* can be isolated from blood during the first week of illness or from stool and urine after the first week of illness.
- Widal and Typhidot have little diagnostic value for individual patient diagnosis due to limited sensitivity and specificity.

Treatment:

Patients having history compatible with case definition(s) should immediately report to the hospital. Antibiotics should be taken according to doctor's instructions and full course should be completed. Unnecessary use of antimicrobial agents should be discouraged to treat the patients presenting with fever.

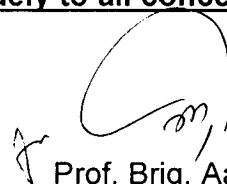
Preventive measures and Vaccination:

- Thorough hand washing with soap and water is recommended after using toilet, before and after attending patient, before handling, cooking and eating is highly recommended.
- Drink boiled, bottled or treated water. Use ice, made from clean drinking water preferably boiled water. Wash fruits and vegetable properly before eating them. Eat freshly cooked, hot served and home-made food.
- Avoid eating raw fruits or vegetables, market prepared or leftover food. Do not drink untreated or contaminated water and milk.
- Typhoid conjugate vaccine (Typbar-TCV®) is a new conjugate vaccine with longer immunity. WHO has prequalified the first conjugate vaccine in December 2017 to prevent typhoid fever.
- Vaccination should be considered for who are travelling to endemic areas, high risk group of people and those who are exposed to the disease. Typhoid fever vaccines do not provide 100% protection however they will reduce the severity of the illness.

Laboratory Diagnosis and NIH Support:

- Lab tests for typhoid fever should be recommended to those who fulfill criteria of suspected case definition available at NIH website (www.nih.org.pk).
- For any further assistance in this context, the Field Epidemiology & Disease Surveillance Division (FE&DSD) (051 – 9255237 and Fax No. 051-9255575) and 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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