

Outbreak of typhoid fever in North district / AL-Najaf AL-Ashraf province, 2017

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Abstract:

Background: During the analysis Of weekly report (W35), PHC department/surveillance unit noticed that there is an increase in number of cases of typhoid fever in North Najaf district. A team visited the area to investigate the increase in these cases.

Objectives: To determine epidemiological characteristic of this outbreak, source of infection, risk factors and implement preventive and control measures.

Methods The team reviewed health district's records, and develop a case definition: a probable case defined as a resident with fever, headache, and abdominal pain with positive Widal test, confirmed case defined as probable case with lab confirmation using blood culture. Basic demographics, clinical and epidemiologic data gathered from all cases who attend Al sadder and AL Hakeem hosp. and double number of healthy controls, resided in the north najaf district, selected from the same hospitals to identify potential risk factors.

Results: The total number of probable cases was 181 while the confirmed cases were 84, about 51% male. The outbreak started from 19 \ 8 \ 2017 and end in 29 \ 12 \ 2017. About 51% of cases reported during 4-21/September. About 67(80%) were at age group (15-44). About 88% of the cases reported fever, 73% had malaise, and 60% had anorexia. Geographic distribution of the cases revealed that 45% of the cases were from Al milad area



and 25% from Al Naser area, where there was low chlorine level in pipe water, the remaining were from nearby areas with low chlorine in water network. Two cases were admitted to the hospital, and one case died (CFR 1.2%). most patients (57%) were students. Significant risk factors include Using Pipe water (OR 3.53 95%; CI 1.81-6.88), history of unsafe food (OR 74.86 95%; CI 9.93- 564) Swimming in river/pool (OR 18 95%; CI 4.11-78.71) and low chlorine level (OR 233 95%; CI 31- 1731).

Conclusions: This investigation revealed a prolonged and widespread outbreak of typhoid fever that affected many people in 4 areas of North najaf district over four months, which appeared to have been caused by consuming contaminated pipe water due to low chlorine level. The other important risk factors were history of unsafe food and swimming in river/pool.

Keywords: outbreak, Typhoid fever, North Najaf district, Iraq.