



WHO Representative's Office in Iraq

Daily Situation Report on Cholera Outbreak in Northern Iraq

Sitrep number: 14; Date of Reporting: 21th of September 2007

1. New Developments:

- a. **Baghdad and Basra:** It's the week end in Baghdad, we did not receive any update; however, CDC/Baghdad have no reports of new positive cases in Baghdad or Basra.
Diala: In addition to the 8 clinically diagnosed cholera cases reported in the previous 4 reports. An additional 4 suspect cholera cases were reported today from Khalis and Mohdadia districts. The 4 patients reached hospital suffering from severe dehydration one of them semi-conscious. 2 of the 4 cases belong to the same family living in Al Udhem area in Khalis district, Both reported to Salahaddin general hospital in Tikrit because the road to Diala is very risky. The other 2 cases are from Mogdadia district but admitted to Baldruz hospital. Today's report bring Diala's clinically diagnosed cases to 12 case, 10 adults and 2 children, no fatality was reported from Diala up to now. The DG of Health and Surveillance staff in Diala are on daily telephone contact with district and hospital staff, all health facilities have been alerted to out break within and out side diala.
- b. **Tikrit:** Nothing to add to yesterday's report. Except that 2 cases originally from Diala were admitted as suspect cholera to Salahaddin General Hospital. Stool samples were collected and Diala health authorities alerted to carry out response activities.
- c. **Mosul :** Nothing to add to yesterday's report..

2. OVERVIEW

As of 21th of September 2007, 24 districts of Northern Iraq and 4 districts in the south and center have reported laboratory-confirmed cases of cholera. 13 out of the 14 districts of Sulaymaniyah governorate, all five districts of Kirkuk governorate, 6 out of seven districts of Erbil governorate as well as one district in each of Mosul, Tikrit, Baghdad and Basra are now affected by this cholera outbreak. Preparations are being made to send a representative number of vibrio cholera isolates to a reference laboratory for further confirmation and genomic sequencing.

Up to this day 1897 lab confirmed cholera cases (all of the inaba serotype except 8 isolates of the ogawa serotype) were officially reported from Iraq.

99% of cases were reported from Sulymania and Kirkuk in north Iraq, the out break seems to be slowly spreading to the neighboring provinces of Erbil and Diala with 100 cases (out of which 12 cases from Diala diagnosed on clinical grounds) reported during last week.

Sporadic cases with definite history of travel and food consumption in Kirkuk were reported from Mosul and Tikrit provinces; however, isolated cases with no epidemiological link to north Iraq were also confirmed in Baghdad and Basra.

One of the important features in this out break is that most of the cases seen have mild to moderate signs and symptoms. The traditional signs and symptoms of severe dehydrating diarrhea were seen only very

occasionally, out of the 1652 lab confirmed cases; only 10 death were reported, all the deceased have another serious underlying cause.

During the last 5 days we received reports of a new focus in Diala province which is down to the south of the original focus in Sulymania and Kirkuk. In this new focus 12 patients presented to Baladruz, salahaddin and Baquba hospitals with severe dehydrating diarrhea with renal shut down in one of them. Unfortunately, specimens collection was done late in the majority of case, after patients received antibiotics except in last 2 and culture results -done by inexperienced staff in Baquba general hospital, one of the hottest areas of Iraq- were found negative for V cholera 7 cases, the results for 3 cases are still pending. It is not yet clear whether the organism is becoming more virulent or the population in this new focus is more susceptible to the disease.

WHO is working closely with MoH to send 10% of the positive isolates to the NAMRU3 reference Lab in Cairo for phenotypic characterization. This will consist of antibiotic susceptibility testing, minimal inhibitory concentration testing (E-strips), serotyping, and an API strip confirmation, to better characterize the outbreak.

Specific control measures to contain this ongoing outbreak and limit its spread to other areas have been reinforced by the health authorities of the affected provinces with technical support from WHO.

Table-1: Cases of laboratory confirmed cholera cases reported from Iraq

Province	No of districts affected	Date outbreak started	No of deaths reported	No of laboratory-confirmed case of cholera
Sulaymaniyah	13	23/08/07	9	556
Kirkuk	5	14/08/07	1	1243
Erbil	6	06/09/07	0	88
Tikrit	1	12/09/07	0	3 +1*
Mosul	1	15/09/07	0	1+1*
Baghdad-Resafa	1	19/09/07	0	1
Basra	1	19/09/07	0	1

*One case from Mosul and another from Tikrit are pending central public health lab confirmation

2. PATTERN OF TRANSMISSION IN SULAYMANIYAH PROVINCE

Nothing to add to yesterday's report..

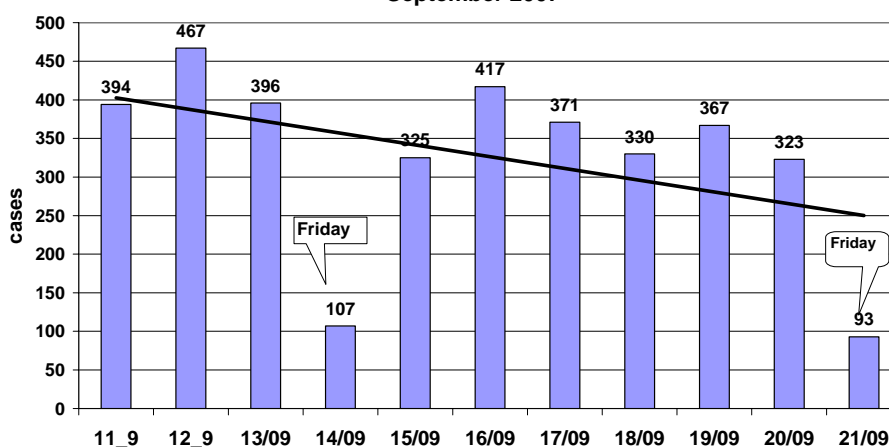
2. PATTERN OF TRANSMISSION IN KIRKUK PROVINCE

Nothing to add to yesterday's report..

4. PATTERN OF TRANSMISSION IN ERBIL PROVINCE

The below figure; show the number of Diarrhea by date of onset for the period 11-21 September 2007. Although it is too early to detect any pattern but the general trend show slight decrease in the daily reported cases, the low number of cases reported on 14 and 21 September reflects the Friday holiday effect.

Reported diarrhoea cases by date of onset , Erbil DoH, 11-21
September 2007



6 out of the 7 districts in Erbil governorate have reported 88 laboratory-confirmed case of *Vibrio cholerae*. The total number of cases of diarrhoeal disease reported from this province from 1st of September to 21 of September stands at 15227 with no death; 2767 stool samples were collected out of which 100 were positive; 88 for cases and 12 from contacts. Erbil seems to have a fairly sensitive diarrhea disease surveillance system that was able to pick up cholera cases very early and swiftly responded and seems to have succeeded in halting and limiting the spread and magnitude of the out break.

5. SITUATION IN REST OF IRAQ

Apart from three affected provinces of Northern Iraq, in addition to Baghdad, Basra, DIALA and Mosul; there is no sign that the disease has spread to any other part of Iraq. However, as the weather cools and become more favorable for transmission, the organism is expected to spread to other provinces.

All preventive measures have been taken to reduce the risk of transmission of cholera to other high risk areas. Epidemic preparedness for cholera has been geared up in all provinces. Surveillance system for diarrhoeal disease has been intensified in all provinces.

Operations rooms have also been set up in all these potentially high risk provinces and the prevailing situation, particularly the stock position of emergency drugs and medical supplies are being reviewed regularly by the local coordination committees.