Reviewer’s report

Title: An Epidemiological Analysis of Acute Flaccid Paralysis and its Surveillance System in Iraq, 1997-2011

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Reviewer: Mehar Angez

Reviewer’s report:

This manuscript contains the important information on AFP surveillance system in Iraq and illustrates the kind of detailed surveillance data information available from WHO and preventive Health department Iraq. It is important that these findings be reported to the wide scientific community. However, the current manuscript requires further analysis, editing etc. before this data published in BMC Infectious diseases.

I have following observations with the data presented:

Major Essential Revisions:

• The objective of the study is to estimate the incidence, etiology, distribution and surveillance performance of AFP in Iraq but authors mainly describe the AFP surveillance system and the data which is presented regarding the epidemiology is not enough. It should be elaborated in better fashion.

• Results are discussed very poorly. They must be discussed properly with reference to the aims of the study.

• Introduction only covers the global polio situation but nothing is stated about Iraq that should be mentioned in few statements. It will be also better if geography of Iraq is briefly described. It will facilitate the reader in better understanding.

• In figure “4” and in the text confirmed WPV count is 166 that depicts that all clinically diagnosed polio cases (166; 3.3%) were only confirmed as WPV while in other diagnosed cases like GBS, CNS infections etc. no polio virus was isolated which is very strange??? It must be checked very carefully because this normally does not happen.

Minor Essential Revisions

• The study period 1999-2011 is mentioned but no detail about the prevalence of AFP cases is found in text and if mentioned in Figure 1, it’s very poorly labeled. This figure only depicts that cases reported from 1997 to 2000 but after this no case is seen in chart. There is no bar labeling etc. that can give better understanding to the reader.

• The stool sample (including adequate and inadequate) accounted in Results 4808 while it’s mentioned earlier that 4974 samples were reported in Iraq during study period. Similarly, only percentage of CNS infections mentioned but no number included as for other clinical diagnosis. It is stated that other conditions
like brain tumors, intracranial hemorrhage, and electrolyte imbalance…..accounted for 459 (9.4%) of cases while in table 1 Myopathy and hypokalemia also mentioned that should be included in the text and no need to give Table 1.

- One statement mentioned that 96% cases were reported from the public hospitals but after few paragraphs in the manuscript reader confused to read that “ AFP cases in Iraq are often reported from pedicatricians, orthopedic surgeons, physical therapists, and primary care physicians independent of clinical settings (hospitals, clinicas,…….)”.

- It is reported in manuscript that all cases were of Iraqi nationality. This is very strange? Please check it carefully.

- In table 2 Timeliness indicators is below the target i.e. 63 while inadequate sample count is only 523? It should be checked?

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.