Reviewer’s report

Title: Economic loses due to irrational use of antimalarial drugs in rural areas of eastern Pakistan: A random field study

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Reviewer: Tido von Schoen-Angerer

Reviewer’s report:

The article addresses the important issue of irrational use of antimalarial drugs. Data on rational drug use in Pakistan are limited so this study is welcome. Comparing malaria prevalence with drug use as done in this study provides a good basis to arrive at valid conclusions about rational drug use.

Major compulsory revisions:

Methods are generally appropriate but should be described in more detail. Please clarify:

Mass blood survey: What does it mean “Emphasis was also given to children aged 5-11 years, who are more vulnerable to the disease”? Were all children with a history of symptoms tested or only children 5-11 years?

Active Case Detection (ACD) through house-to-house visits: how were houses selected / were all houses visited?

Passive case detection: “for PCD, all health facilities were visited regularly” – what does this mean, how often on average was each health facility visited?

Data on antimalarial drugs: the authors state “the owner of every medical store was interviewed” – how many medical stores were interviewed?

The results shown for antimalarial drugs: Drugs are shown by brand names, some may not be known to the reader. Drugs should be listed by generic name only (e.g. different versions of chloroquine be combined into one category).

No limitations of the study are mentioned. In particular methodological limitations such as in sample collection should be mentioned and explained.

Minor essential revisions:

Please provide the time that the RBM program and the policy change to confirmed malaria diagnosis was made and if the policy change was appropriately communicated to health providers and pharmacy stores.

All prices should be converted into US$ for easier comprehension.

The authors rightly state that money was wasted on malaria drugs but the total amount spent of US$1000 is not excessive (approx $0.04 per capita in a total
population of 23,359).

Quality of writing:

Needs further language editing.
Discussion section repeats background information and results from earlier sections - should be significantly improved.

Level of interest: An article whose findings are important to those with closely related research interests

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare I have no competing interests