Review of: "Misdiagnosis of Dengue Fever as Malaria and Typhoid Fever and Their Co-infection in Rural Areas of Southwest Nigeria"

Ramakanta Rana[1]

1 Regional Medical Research Center

Potential competing interests: No potential competing interests to declare.

Reviews: Misdiagnosis of Dengue Fever as Malaria and Typhoid Fever and Their Co-infection in Rural Areas of Southwest Nigeria.

Qeios ID: CJ7D8I

Dear

Lawrence Okoror and team Emmanuel Olufemi Bankefa, Oluchi Mariam Ukhureigbe, Evelyn Olubumi Ajayi, Samuel Osanyilusi, Bryan Ogeneh, I am wishing and heartily congratulation and appreciation for this article.

Meassage-My wishes: This study seems important not only for the Nigerian public health but also for global public health and it would be a high cited article worldwide.

This is an intriguing article that describes possible underdiagnoses and misdiagnosis of dengue fever in areas where diagnostic resources may be limited and where the disease is endemic for malaria and other febrile illnesses. The study's findings and conclusions are pertinent to raising practitioners' understanding of the significance of prompt and precise diagnosis.

Here are minor observations from my side, if it can be edited just one or two lines then malaria part can be more beautiful

In Methods

Study Design:

Manuscript: As per your manuscript-“This study is a cross-sectional research conducted in several health facilities in rural areas of Southwest Nigeria. A cross-section of the patients seeking diagnosis for malaria **#** and typhoid were tested for dengue virus (DENV) NS1, IgM, and IgG using ELISA and Reverse Transcriptase Polymerase Chain Reaction (RT-qPCR). The DENV RT-PCR test was done independent of whether the patients were positive for malaria and typhoid or not, and to capture any samples missed by the ELISA technique.

It can be written as:

My Suggestion:

1. **Edit after the symbol # for malaria screening** a cross-section of the patients seeking diagnosis for malaria (For malaria section-Malaria was screened among the symptomatic and asymptomatic cases suspected for malaria by the WHO evaluated -----Rapid Diagnostic Test Kit (RDT) using finger-prick blood. The patients found to be positive for malaria by RDT and given consent for participation were enrolled in the study.
2. **Ethical Approval**

One separate subsection as **Ethical Approval** of Methods should be inserted before sample collection and can be written as the ethical committee of Joseph Ayo Babalola University has approved the study (mention state, country: Nigeria) of the University that approved this study and provide the ethical committee clearance certificate number like (IEC No.).

Provide the detailed consent of patients. And, most importantly, before the enrolment of samples > 18 years of age, the purpose of the study was explained in the local language, and verbal consent was obtained for blood sample collection and testing. In case of children less than 18 years of age, consent was obtained from their parents or head of the household members. (Double consent)

As you have collected 5 ml of blood samples, please provide details of ethical clearance from the concerned institution in a separate subsection of the methods section and one or two lines about the consent of the volunteers who attended this cross-sectional study

Malaria

Malaria testing was done in the clinics using Rapid Diagnostic Testing (Diagreat Biotechnology, Beijing, China), and tests were carried out as recommended by the manufacturer, after which samples were immediately shipped to the laboratory and confirmed using the Giemsa staining technique through thin and thick film preparation.

My Suggestion: Edit the “Malaria” subsection as “screening of malaria samples,” provide the name of the RDT kit written on the kit and whether it is bivalent or trivalent as per manufacturer instructions. And, more importantly, the targeted antigens for the malaria parasites and WHO Malaria Rapid Diagnostic Test Performance should be provided along with the specificity and sensitivity of Plasmodium sp. antigens

Write as-

Sample text you may refer: Malaria Pf/PAN RDT kit (Diagreat Biotechnology, Beijing, China), used to screen malaria during the present study, qualitatively analyses *Plasmodium falciparum* and *Plasmodium* species antigens in whole blood using immunochromatography. The target antigen is Histidine-Rich Protein II (HRP-II) of *Plasmodium falciparum* and *Plasmodium* lactate dehydrogenase (*p*LDH) of *Plasmodium* species. The screening test result can be obtained within 15 minutes with a specificity and sensitivity of ---% and --%, respectively (WHO Malaria Rapid Diagnostic Test Performance, (year)).

Reference: Follow proper citation style or one uniform style, i.e., APA, NLM, AMA, etc.

I agreed with the suggestions from other respected reviewers who posted it as **4/5 stars out of 5.**

Wish you all, the authors and co-authors, the very, very best

Regards,

Ramakanta Rana (PhD)

Division of Molecular Epidemiology and Public Health

ICMR-Regional Medical Research Centre

Bhubaneswar, 751023, Dist-Khordha, Odisha, India