

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

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Potential competing interests: No potential competing interests to declare.

Generally, it is a well-thought-out and valuable research study that can significantly improve malaria and typhoid fever treatment in the Southwest region of Nigeria and correct misdiagnosis of dengue fever. However, it needs more scientific backing, especially in the method section, and clear writing. The authors used "present" and "past tense" interchangeably, which made it confusing for readers. Some paragraphs need to be rewritten to make absolute sense to the reader.

The authors' result section is rather convoluted and hard to understand. It may be helpful for them to rewrite it in a more coherent manner, using the infection cases as subheadings rather than the methods. In the fourth paragraph of the results, the authors stated that 6.7% of the samples were co-infected. However, they also mentioned in the first paragraph that 29.4% of the samples confirmed the presence of a combination of malaria parasite, typhoid, and dengue virus. This discrepancy should be addressed to avoid confusion.

It's puzzling that the ELISA test detected DENV protein while the same protein was not amplified using RT-PCR, even with specific primers.

Study design

1. Please specify the number of facilities involved. For example, "Samples were collected from 4 different tertiary hospitals in Southwest Nigeria."
2. Which year was the study conducted?

Inclusion Criteria

1. The inclusion criteria section is too long. Some information is not needed; if you can, please shorten it.

Sample collection

1. It is always advisable to start a sentence with words and not numbers.
2. For example, "A total of 1074 patients seeking diagnosis for malaria and/or typhoid in rural health institutions in Southwest Nigeria had 5 ml of blood samples aseptically collected from them between October and September ---year (Which year). A trained phlebotomist performed the blood collection using a sterile needle and syringe, and the blood samples were immediately transported in the cold chain to the Microbiology Laboratory in EDTA bottles. Each bottle was appropriately labelled with the participant's age, sex, and location. The blood samples were divided into two EDTA

bottles, one for DENV ELISA and the other for malaria and typhoid testing.”

3. Mention the laboratory that performed the confirmatory test.
4. Were all samples screened for malaria parasite, typhoid fever, and dengue virus simultaneously?

Results

1. From results, 1074 samples were collected. 714 had malaria, 333 had typhoid fever. What about the remaining 27 samples?
2. Cross-check your calculation: is the actual malaria rate 69%?
3. There are conflicting results—the first paragraph states a coinfection rate of 29.4%, while the fourth paragraph states a coinfection rate of 6.7%.