**Reviewer's report**

**Title:** False positive malaria rapid diagnostic test in returning traveler with typhoid fever

**Version:** 2  **Date:** 17 April 2014

**Reviewer:** Hugh Kingston

**Reviewer's report:**

- **Discretionary Revisions** (which are recommendations for improvement but which the author can choose to ignore)
  1. Line 67 – is in present tense, whereas the others are past tense (‘He is otherwise healthy…)
  2. If a HIV test was done it would be interesting to include the result of this. HIV is commonly associated with false positive serological tests, although there is no evidence that this is associated with false positive HRP2 (antigen) tests.
  3. The authors might consider citing Bell et al, who discuss causes of ‘false’ positive RDT.; Am J Trop Med Hyg. 2005 Jul.;73(1):199-203. False-positive results of a Plasmodium falciparum histidine-rich protein 2-detecting malaria rapid diagnostic test due to high sensitivity in a community with fluctuating low parasite density. Bell DR1, Wilson DW, Martin LB.

- **Minor Essential Revisions** (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
  1. Are references 2,3,4 cited in line with the journal’s recommended format? It might be nice to include ‘accessed on’ for the internet references. Also the publisher for ref 2.
  2. In the background (line 56) the authors state that ‘diagnosis of malaria relies both on rapid diagnostic tests followed by thick and thin film microscopy for confirmation’. This is just one diagnostic approach. Isolated use of blood film and rapid tests are frequently used approaches too. The text could be changed to state this.
  3. The sentences (starting line 145) about the patient also having a dengue IgM and IgG positive rapid test/PCR negative should be in the case presentation as opposed to the conclusion.

- **Major Compulsory Revisions** (which the author must respond to before a decision on publication can be reached)
  1. Please state explicitly if the patient took drugs with antimalarial activity in the 1 to 2 months preceding day 0 of laboratory testing, or that this is not known.
  2. Line 149 – it is stated that interfering antibodies ‘reside within the buffy coat’. Surely they are in the serum/plasma, not the buffy coat? Perhaps they can
provide a reference for this statement. There should also be a comma after ‘performed’.

3. Line 150 – the authors mention that S.typhi strains inoculated directly do not cause RDT positivity. It is not clear if they did these experiments or someone else has? This should be in the results/case presentation section if they did.

4. Figure 2 does not add much to the case – the test is designed to be read by eye. If the authors want to include it then they should include densiometry for the whole strip – the t2 region as well (currently this is not shown).

**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.