

Author's response: False-positive results with rapid diagnostic test for dengue in Thailand

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I thank Javelle et al. for the methodological remarks [1] they made about my recent paper describing a cluster of chikungunya cases among visitors to Thailand [2]. Their letter concerns the positive dengue rapid diagnostic test (RDT) results recorded for two of our patients at the local hospital at their holiday destination. Unfortunately, no details are available on the RDT that was used, yet—as Javelle et al. point out—those commonly applied in dengue diagnostics lack sensitivity and specificity [3].

The dengue virus (DENV) IgG determination carried out at HUSLAB, Helsinki University Hospital, which is responsible for most of the dengue diagnostics in Finland, is based on an in-house immunofluorescence assay (IFA) that, together with a commercial IgM EIA testing, would have shown DENV antibody response at the time of sampling in Finland [4]. Moreover, the IgG test is strongly cross-reactive between flaviviruses. An early case of congenital Zika virus (ZIKV) infection, for example, has been identified using this DENV-IgG-IFA test [5]. Similar IgG titres are typically obtained for both the DENV and ZIKV antigens, regardless of the infecting virus [6]. Strong cross-reactivity is also seen with other mosquito-borne flaviviruses. For these reasons, I am confident that the negative DENV-IgG IFA results rule out a recent mosquito-borne flavivirus, particularly DENV or ZIKV infection, confirming that the patients did not have a DENV/ZIKV co-infection with CHIKV. Nevertheless, clinicians should be reminded about the possibility of co-infections with ZIKV, DENV and CHIKV, as they all cause broadly similar symptoms and circulate in the same areas [7,8].

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Conflict of interest

None declared.

Authors' contributions

AK wrote the manuscript.

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