Summary Table

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<tbody>
<tr>
<td>RDT product(s):</td>
<td>Binax NOW, Binax, Portland, Maine, USA</td>
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<td>Target antigens:</td>
<td>HRP-2, Pan malaria aldolase</td>
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<td>Comparative standard(s):</td>
<td>Microscopy, real time PCR</td>
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<td>Trial type: Accuracy / Cost-benefits / public health impact / ease of use / behavioral:</td>
<td>Accuracy of malaria species detection; using microscopy and PCR comparators.</td>
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<td>*Usefulness of paper (rated by reviewers):</td>
<td>2/5</td>
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| Major findings/implications: | • Sensitivity for *P. falciparum* similar to microscopy  
• Binax NOW is not reliable for the detection of *P. ovale*  
• Diagnosis of malaria infection with *P. ovale* requires inspection of stained blood films |

**Country:** France

**Trial type**

A laboratory based evaluation of the accuracy of Binax NOW RDT as a rapid diagnostic tool for all species of malaria in French Military situations.

**Method**

Between Nov. 2002 and August 200, samples from 114 patients presenting with malaria were analysed at the French Military hospital, Begin, St-Mande France.

Thin and thick blood films, Binax NOW RDT and real time PCR were performed on all samples. Blood films were examined by 2 experienced microscopists for 20 minutes but no stratified parasitaemia counts were made.

RDT was used according to the manufacturers’ recommendation. No information on kit usage, expiry date, storage facility or pre-test instruction is recorded.

**Results and analysis:**

*Results of microscopy / Binax NOW RDT*

89 cases of *P. falciparum* were detected with microscopy and 92 cases of *P. falciparum* were detected by Binax NOW RDT with 2 false positives and 1 false negative.

With 22 cases of non-falciparum malaria, microscopy detected 9 with *P. vivax*, 12 with *P. ovale* and 1 with *P. malariae*. Binax NOW RDT detected as non-falciparum all 9 cases of *P. vivax*, 1 case of *P. malariae* but only 3 cases of *P. ovale*.

Real time PCR confirmed all microscopic findings, 93 cases of *P. falciparum* are recorded but no indication of a false negative microscopy result is noted.

*No analytical data is presented*
Possible reasons for failure to detect *P. ovale* with Binax NOW

- Low parasitaemia, (although no data is supplied to support this).
- Low production of aldolase by *P. ovale*
- Regional variations in genetic determinants of pan-malaria antigen

*Usefulness of paper (rated by reviewers): 2*

* 1. No direct relevance. 2. Very unlikely to influence current practice. 3. Likely to influence current practice in some settings. 4. Likely to influence current practice in many areas. 5. Highly likely to influence current practice in many areas.

Disclaimer:
The views expressed in this report are those of the independent reviewers and do not necessarily reflect the views or policies of the World Health Organization.