

Evaluation of a dipstick test for the rapid diagnosis of imported malaria among patients presenting within the network TropNetEurop

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Lack of experience on the side of involved laboratory personal frequently complicates swift diagnosis of imported falciparum malaria in non endemic areas. Diagnostic tools based on the dipstick principle for the detection of plasmodial histidine-rich protein 2 (HRP-2) are marketed since several years and have been evaluated extensively. Recently, a test kit capable of detecting antigen of *P. falciparum* and *P. vivax* has been introduced. In order to evaluate this newly available tool, specimens from 664 patients were screened during a prospective multi-centre study within the European Network on Imported Infectious Disease Surveillance (TropNetEurop). Among the screened specimens, samples from 82 patients (12.3%) were positive for falciparum malaria by expert microscopy. Further 17 samples were positive for vivax malaria. The evaluated test kit performed with a sensitivity of 87.8.% and a specificity of 99% for detection of falciparum malaria. Respective values for vivax malaria were 76.5% and 100%. Dipstick tests have the potential of enhancing speed and accuracy of the diagnosis of falciparum malaria, especially if non-specialized laboratories are involved. However, decreased values of sensitivity and specificity against expert microscopy put still a clear limit to the usefulness of the currently available kits.

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