E-POSTER PRESENTATION ABSTRACTS

Evaluation of SD Bioline Malaria Antigen *Plasmodium Falciparum* / Panmalarial for Diagnosis of Malaria in Hospital Raja Permaisuri Bainun Ipoh

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ABSTRACT

Introduction: Rapid Diagnostic Tests (RDTs) for malaria has improved malaria management.

Objectives: This study was conducted to evaluate the performance of SD Bioline Malaria Antigen *Plasmodium falciparum*/Panmalarial compared to gold standard microscopy using Giemsa staining for diagnosis of malaria in Hospital Raja Permaisuri Bainun Ipoh.

Method: Microscopy and RDT diagnosis were performed on 377 blood samples. In this study, the SD Bioline Malaria Antigen *Plasmodium falciparum*/Panmalarial Rapid Diagnostic Tests (RDT) detecting Histidine Rich Protein II and Plasmodium lactate dehydrogenase antigens were used. Blood film malaria parasite examination was carried out as the reference.

Results: Malaria parasites were identified by microscopy in 61 individuals and RDT positively tested in 27 (44.3%) patients. The sensitivity and specificity of SD Bioline Malaria Antigen *Plasmodium falciparum*/Panmalarial was 44.2% (95% CI, 31.8 to 57.5) and 100% (95% CI, 98.6 to 100.0) respectively. The positive predictive value (PPV) for SD Bioline Malaria Antigen *Plasmodium falciparum*/Panmalarial was 100% (95% CI, 84.5 to 100) and the negative predictive value (NPV) was 90% (95% CI, 86.6 to 93.1).

Discussion: The SD Bioline Malaria Antigen *Plasmodium falciparum*/ Panmalarial test showed excellent results in the diagnosis of endemic *Plasmodium falciparum* infections. This SD Bioline Antigen *Plasmodium falciparum*/ Panmalarial loses validity for low parasitemia. These results confirm the validity of SD Bioline Antigen *Plasmodium falciparum*/ Panmalarial in malaria diagnosis must be complemented by microscopy.

Conclusion: This examination has demonstrated that the SD Bioline Malaria Antigen *Plasmodium falciparum*/ Panmalarial cannot be utilized as an elective strategy contrasted with the best quality level Giemsa staining (BFMP). These outcomes affirm that whenever supplemented by microscopy, SD Bioline Malaria Antigen *Plasmodium falciparum*/ Panmalarial are substantial in malaria analysis.

Keywords: Malaria, *Plasmodium*, Rapid Diagnosis Tests, SD Bioline Malaria Antigen *Plasmodium falciparum*/ Panmalarial