SUMMARY

Objectives: To compare the performance of rapid diagnostic test (paracheck pf) and microscopy in the diagnosis of malaria among children.

Study design/setting: A randomized controlled trial involving 276 children age 6 months to 144 months attending the Emergency Paediatric Unit and the General Outpatient Departments of Jos University Teaching Hospital, Jos.

Methods: Subjects were randomly allocated to the RDT and RMIC group. Both groups had their blood samples examined for plasmodium species and any subject that was positive was treated with artemether-lumefantrine (co-artem). Data collected from the subjects include sociodemographic data, history of malaria, signs of malaria and the results of the investigations.

Results: The mean age of the subjects was 52.6±40.1 months. Mean weight was 16.2±12.6 kg. The sensitivity and specificity of RDT were 91.7% and 97.8% respectively. The PPV and the NPV were both 95.7%. The sensitivity and specificity of RMIC were 90.5% and 100% respectively. The PPV and NPV was 100% and 96% respectively. These results showed that there was no significant difference between the RDT and RMIC groups.

Conclusion: Rapid Diagnostic Test (paracheck pf) ($\chi^2 = 112.7, P < 0.001$) was comparable to Microscopy ($\chi^2=119.5, P< 0.001$) in the diagnosis of malaria among children and can be used in clinical practice in Jos environment.