

[Ann Trop Med Parasitol](#). 2004 Jan;98(1):5-13.

## **A cost analysis of the use of the rapid, whole-blood, immunochromatographic P.f/P.v assay for the diagnosis of Plasmodium vivax malaria in a rural area of Sri Lanka.**

[Fernando SD](#), [Karunaweera ND](#), [Fernando WP](#), [Attanayake N](#), [Wickremasinghe AR](#).

### **Source**

Department of Parasitology, Faculty of Medicine, University of Colombo, PO Box 271, Kynsey Road, Colombo 8, Sri Lanka.  
deepfern@slt.lk

### **Abstract**

Between May 2001 and March 2002, a prospective study was conducted in a malaria-endemic area of Sri Lanka, to determine the cost implications of using the immunochromatographic P.f/P.v test to detect Plasmodium vivax infection. All consecutive subjects aged >5 years who presented with a history of fever were recruited. Each was checked for P. vivax infection by the standard microscopical examination of bloodsmears and by the immunochromatographic test (ICT). The costs of diagnosis using each method and the sensitivity, specificity and predictive values of the ICT (with bloodsmear examination used as the 'gold standard') were estimated, the costs/case detected being simulated for different slide positivity 'rates' and ICT sensitivities. In the detection of P. vivax, the ICT had a sensitivity of 70% and a specificity of 99%. The costs of the ICT per subject investigated and per case detected were, respectively, approximately 14 and 20 times more than those of bloodsmear examination. The costs of the ICT per case detected would fall as the sensitivity of the test increased. The ICT gave relatively few false-positive results. The current, relatively high cost of the ICT is the most important barrier to its routine operational use in the diagnosis of malaria. The test is already useful, however, in specific situations.