

Antenatal syphilis is a major cause of perinatal morbidity and mortality. Programmes to control syphilis in developing countries are hampered by lack of laboratory services, delayed diagnosis and doubts about the accuracy of the current screening methods. In Kenya, the Venereal Disease Research Laboratory (VDRL) test is currently used as the primary screening test for syphilis in health facilities. This method is labour intensive in the screening of large numbers of serum specimens and is carried out in a laboratory setting resulting in delays in identification and treatment of infected pregnant mothers. In addition, the reagents for the VDRL test require cold storage and electricity to operate a centrifuge, most of which are unavailable at the periphery of the health care systems. The limitations associated with VDRL testing at clinics have led to the development of technologically simple immunochromatographic strip (ICS) tests. This study sought to evaluate the performance of a rapid simple point-of-care ICS test and the VDRL test as a gold standard with *Treponema pallidum* haemagglutination assay (TPHA) as a confirmatory test to screen antenatal clinic attendants for syphilis. One hundred and fifty women were drawn from a population of pregnant women aged 18 years to 42 years old making their first antenatal visit or follow-up visits but without a previous syphilis test during that pregnancy. Using a gold standard of the VDRL test, the prevalence rate of syphilis was shown to be 3%. In addition, the results of this study demonstrate that there was no significant difference between the ICS and the VDRL tests ($P > 0.05$). The sensitivity and specificity of the ICS test was 80% and 98.62% respectively while the negative predictive value (NPV) and positive predictive value (PPV) were both 100%. In conclusion, the diagnostic accuracy of the ICS compared favourably with the gold standard. The use of the ICS test in Kenya may improve the diagnosis of syphilis in health facilities with or without laboratories and allow community health care workers to make rapid diagnosis of the disease and consequently make immediate therapeutic decisions