

## **SEROLOGICAL DIAGNOSIS OF HUMAN IMMUNO-DEFICIENCY VIRUS IN BURKINA FASO: RELIABLE AND PRACTICAL STRATEGIES USING COMMERCIAL TEST KITS**

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### **BACKGROUND**

In Burkina Faso the problem of HIV test is very acute in terms of efficiency and reliability. A cross-sectional study has been undertaken in order to identify analyse all serological tests available in the country in various combination. The results of each strategy are compared to a golden standard.

**METHODS:** Fourteen commercial test kits were available: five mixt enzyme-linked immunosorbent assays (ELISA), six mixt rapid tests, and three additional tests including specific HIV-1 and HIV-2 rapid tests. The reference strategy utilized a combination of one ELISA or rapid test with WB, and was conducted following WHO criteria.

**RESULTS:** At all 450 blood serum samples which were tested; 34 of them gave indeterminate results and were excluded from the analysis. In the remaining 416 sera, the prevalence of HIV by WB was 51.4% ([CI 95%: 48.2-55.3]. Within these 202 positive tests, 179 (88.61%) were infected by HIV-1, 4 (1.98%) by HIV-2, and 19 (9.4%) by both HIV-1 and HIV-2. All ELISA tests showed sensitivity between 98.0 % and 99.5% and specificity between 91.1 and 97.7%; excepted the Murex HIV1.2.O with 99.5% sensibility and 95.8% specificity. Genscreen test had 99.5% sensibility, 91.1% specificity with a negative predictive value of 95.5%. Ortho test and Human ELISA had the highest positive predictive value. Among the mixt rapid tests, Determine ac

**CONCLUSION:** Our results indicate that the serodiagnosis of HIV in Burkina Faso is possible by using reliable, less expensive strategies which do not require Western Blot testing.