

Retrospective evaluation of the Vidas HIV DUO test for simultaneous detection of anti-HIV antibody and p24 antigen

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SUMMARY

A fourth generation screening assay Vidas HIV DUO (bioMérieux, Lyon, France) which permits a simultaneous detection of anti-HIV-1/2/O antibodies and HIV-1 p24 antigen was evaluated on 927 serum samples with previously determined anti-HIV-1/2 status in a retrospective manner. The Vidas HIV DUO yielded sensitivity, specificity, positive and negative predictive value of 100%, 99.27%, 94.69% and 100%, respectively. The Vidas HIV DUO is a highly specific and sensitive anti-HIV screening assay, suitable for the implementation in the routine laboratory diagnostics of HIV infection.

Introduction

Current laboratory diagnosis of human immunodeficiency virus (HIV) infection is mainly based on the detection of anti-HIV antibodies (1). Since the introduction of anti-HIV screening assays in 1985, their performance has continued to improve. Recently, fourth generation screening assays which permit the simultaneous detection of anti-HIV antibody and HIV-1 p24 antigen have been developed. They are reported to reduce the diagnostic window by at least 6 days compared to third generation assays in cases with symptomatic infections (2-5). Five commercially available fourth generation anti-HIV screening assays are available at the moment: Vidas HIV DUO (HIV4) (bioMérieux, Lyon, France), Vironostika HIV Uni-Form

II Ag/Ab (Organon Teknika, Boxtel, Netherlands), Enzymun-Test® HIV Combi (Roche Boehringer Mannheim, Penzberg, Germany), Enzygnost HIV Integral (Dade Behring, Mannheim, Germany) and Genscreen plus HIV Ag-Ab (Biorad, Hercules, USA). According to the results of the first evaluations of the fourth generation HIV screening assays, they represent an important step towards earlier serologic diagnosis of HIV infection (2-5).

Because of an extreme genome variability of HIV-1 and HIV-2, each new anti-HIV screening test or even its variant should be evaluated in local settings before approval is granted by the government and the test is introduced in a routine work (1). Thus, the aim of the

KEY WORDS

anti-HIV antibody, p24 antigen detection, simultaneous Vidas HIV DUO test

