Evaluation of the Rapid Immunoassay Determine HIV-1/2 for Detection of Antibodies to Human Immunodeficiency Virus Types 1 and 2

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Product Evaluated
Determine HIV-1/2

The study was carried out between July 1999 and May 2001, 1,160 consecutive patients of the Onze Lieve Vrouwe Gasthuis (OLVG) hospital, Amsterdam, were tested for HIV antibodies. Fresh serum samples were examined by both rapid test (RT) and a microparticle enzyme immunoassay (MEIA). In case of positivity of one or both tests, a line immunoblot assay was performed.

Abstract
We evaluated the reliability of a rapid human immunodeficiency virus type 1 test for quick clinical decision making, such as in needle-stick accidents. The test was evaluated with 1,160 patients. It proved to be a simple and useful test with 99.6% specificity and 99.4% sensitivity. One patient with late-stage AIDS had a false-negative result.

Results
Below is a summary of the data reported in the paper.

<table>
<thead>
<tr>
<th></th>
<th>Determine HIV-1/2</th>
<th>MEIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (%)</td>
<td>99.4</td>
<td>100</td>
</tr>
<tr>
<td>Specificity (%)</td>
<td>99.6</td>
<td>99.4</td>
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</tbody>
</table>

Discussion

“In summary, the HIV-1/2 rapid test had proven to be a rapid, simple, and useful test for the detection of HIV antibodies. Because of the ability to test immediately, the use of this test with needle-stick accidents has led to an impressive reduction in prescription of post-exposure prophylaxis and sick leave in our hospital. However, the clinical situation should be taken into account when interpreting the test result because of the possibility of false-negative results in late-stage AIDS.”