COMPARISON OF PERFORMANCE OF THREE IMMUNOASSAY TESTS: VIDAS MEASLES IGG, ENZYGNOST ANTI-MEASLES IGG AND CAPTURE EIA MEASLES IGG

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Background and aims: The recent measles epidemic in France has reinforced the interest of immunoassay tests for monitoring the serological status in order to administer vaccination. Specific anti-measles IgG screening is generally used for this purpose. In this context, we evaluated 3 automated immunoassay methods: VIDAS® Measles IgG (bioMerieux), Enzygnost® Anti-Measles IgG (Siemens) and CAPTURE® EIA Measles IgG (Microimmune).

Methods: 321 samples were collected. 76 samples were collected from patients with a typical clinical presentation of measles and the diagnosis was confirmed by the presence of specific anti-measles IgM and IgG (group A). 125 samples were from patients vaccinated or with a clinical presentation of measles but with no specific IgM (group B). 120 samples were obtained from healthy blood donors (group C). The international standard (NIBSC code : 97/648) was used to determine the detection limit of the tests.

Results: Data analysis showed more than 97 % global concordance between VIDAS and the other two methods. Relative sensitivity and concordance of VIDAS vs Enzygnost were respectively 100%, 97.5%, and 99%, 97.1% between VIDAS and CAPTURE® EIA Measles IgG. The detection limit of the VIDAS test was equivalent to the other methods (< 100 mUI/ml).

Conclusions: VIDAS Measles IgG shows equivalent performance to other automated immunoassay tests and fits the needs of small volume testing laboratories through its single-dose format.