"Advances in HIV Ag/Ab diagnosis: ALINITY vs ARCHITECT"



Amani Elhouderi, Yvonne Obiajulu, Panagiotis Pantelidis, Graham Pickard
North West London Pathology, Charing Cross Hospital, Infection and Immunity Department, London, W6 8RF

Objective: To compare and validate the performance of the new Abbott ALINITY i HIV Ag/Ab Combo assay against the current ARCHITECT HIV Ag/Ab Combo.

Method: 123 patients samples, previously tested on the ARCHITECT i2000 analyser, were tested on the ALINITY i system. Both instruments use **chemiluminescence immunoassay technology** for the qualitative detection of HIV p24 antigen and antibodies HIV type 1 and 2. All reactive and discrepant results were confirmed using a third platform (**Vidas immunoassay analyzer).**

Findings: 119 of the 123 HIV samples (96.7%) matched the ARCHITECT and the ALINITY. The remaining 4 discrepant samples (3.3%) were analysed by the Vidas, all of which yielded negative results, verifying the ALINITY results. Furthermore, testing of HIV on the ALINITY met the laboratory and manufacturer acceptance criteria (stated specificity of 99.89% (95%CI: 99.67% to 99.98%)). A good correlation found between the two instruments (R^2=0.9926). Analysis of External Quality Assessment NEQAS HIV samples on the ALINITY did not deviate from the expected results.

Conclusion: The ALINITY HIV Ag/Ab Combo assay performed well and met the manufacturer and laboratory acceptance criteria. The ALINITY assay demonstrated a better sensitivity and specificity. In addition, the ALINITY's ease of use is anticipated to have positive implications in meeting turnaround, subsequently enhancing the quality and efficiency of the service. This shows advances in diagnostic methods for the detection of HIV and other viruses could potentially improve diagnosis and treatment for patients due to more accurate results.

Biography

Amani Elhouderi is a Biomedical Scientist (BMS) in the department of Infection and Immunity (I&I) at North West London Pathology. In her current role in I&I, she worked in various areas in the laboratory including the virology, autoimmune and micro serology sections and validating new laboratory instruments from Abbott, BioRad and DiaSorin. Amani is a member of the Institute of Biomedical Science and is a registered BMS with the Health and Care Professions Council in the United Kingdom. She holds a Bachelor's degree in Biomedical Sciences from Royal Holloway University London and a Master's degree in Immunology of Infectious Diseases from London School of Hygiene and Tropical Medicine. Amani is fluent in English and Arabic.

Presenting author details

Full name: Amani Elhouderi
Contact number: 00447765270817
Twitter account:
Linked In account: linkedin.com/in/amanielhouderi
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