Abstract:

HIV diagnostic testing has come a long way since its inception in the early 1980s with the CD4 cell count. Current enzyme immunoassays are sensitive enough to detect antibody as early as one to two weeks after infection. A variety of other assays such as Western blot, qualitative and antibody testing giving additional information for the clinician treating HIV-positive patients. Most diagnostic laboratories have complex testing algorithms to ensure accuracy of results and optimal use of laboratory resources. The choice of assays is guided by the initial screening results and the clinical information provided by the physician, both are integral to the laboratory's ability to provide an accurate laboratory diagnosis. Laboratories should also provide specific information on specimen collection, storage and transport so that specimen integrity is not compromised, thereby preserving the accuracy of laboratory results. Point of care tests provide rapid, on-site HIV results in a format that is relatively easy for clinic staff to perform. Laboratory quality assurance programs and the participation in HIV proficiency testing programs are essential to ensure that diagnostic laboratories provide accurate, timely and clinically relevant laboratory result. This paper attempts to highlight the technical aspect, pros and cons of the various diagnostic aids for the HIV infection.