

Abstract

The Human Immunodeficiency virus (HIV) is the pathogen of Acquired Immunodeficiency Syndrome (AIDS). The infectivity of this virus is high, and there is a very long latency period. It influences public health seriously. The number of reported cases of AIDS infection is up to 6,552 till the end of November 2004 in Taiwan area, and the infection rate increases approximately 20% every year, so it is really a significant health subject in Taiwan now. According to this situation, the Center for Disease Control, Department of Health, the Executive Yuan (to hereafter refer to as our center) aims at the specific associations to implement quality-control surveillance of HIV antibody testing every year in order to understand and improve the quality of HIV antibody testing of domestic medical examination institutes through the regular surveillance and irregular spot-check.

The tests were held twice in this April and mid-August respectively. Our center determined and designed the test unit. Each test unit we distributed contained five samples to be tested. We did not define the standard testing methods, but the reagents selected should be limited to what the Department of Health authorized. The institutes which accepted the test may chooses one or more than one kinds of testing methods based on the difference of the application and the examination procedure, and carried on preliminary screening according to the reagent operating instructions. They were asked to mail the test results back during ten days. We compared their results to the standard answer and processed the peer-groups comparison. Then we found out the possible reasons of incorrect testing results that we could use as the reference for improvement.

The participating rate of proficiency testing approximately is 87% this year. The statistics demonstrates that the sensitivities and specificities of particles agglutination (PA) and enzyme immunoassay (EIA) reach the certain standard, and the specificity of PA is better than it of EIA. The performance of rapid testing is not as good as others, and the main reason of inconsistent testing results is the technical flaw due to the manual handling method. A common shortage of testing report is incomplete testing document record. Therefore, the quality of HIV antibody testing is supposed to be improved by intension of personnel training and the realization of interior quality control and the standard operational procedure.

Keywords : AIDS ; HIV ; PT