



Suggestions for external quality assessment to assure the quality of diagnosis for infectious diseases

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1. Purpose and Motivation

Diagnosis of infectious disease needs to be based on promptness, accuracy, and reliability. For this reason, we need standardization for diagnostic test, proficiency tests and distribution of standard materials. In order to promote accurate and rapid diagnosis of infectious disease, we have surveyed the state of art of diagnostic conventions within and outside Korea, and hope to provide standardized diagnostic methods, proficiency test systems, and guideline for standard materials that suit the local environment.

2. Contents and Results

- Standardized diagnostic methods for infectious diseases
 - State of art of diagnostic methods for infectious diseases
 - Comparative analysis of validation methods across institutions
 - Suggestions for methods of internal quality control
- Suggestions for proficiency test systems
 - Comparative analysis of proficiency test systems
 - Suggestions for localization
 - Case study of the suggested guidelines using one bacteria and one virus
- Suggestions for guidelines regarding standard materials
 - Survey of standard materials guidelines for different infectious diseases
 - Comparative analysis of standards regarding standard reference materials and standard materials
 - Suggestions to facilitate stable production and distribution of standard materials
 - Suggested list of standard materials and budget

3. Conclusions

By surveying the current conventions of diagnosis of infectious diseases at public and private institutions, we were able identify their limitations. We have devised suggestions to improve the response systems to infectious diseases through such analyses. Most suggestions pertain to standardization of diagnostic tests, materials, and establishing a system of quality control. These suggestions will allow the Korean centers for disease control and prevention(KCDC) and the Korean association of external quality assessment service(KEQAS) to carry out proficiency tests on public laboratories