

Integration of Surveillance and Investigation Systems of Fatal Infectious Diseases, Bioterrorism and Biocrime on Autopsy Cases in Taiwan

Abstract

To survey the covered urgent infectious diseases and bioterrorism in autopsy and inspection cases, Med-X surveillance system was created by New Mexico Office of Medical Investigators (NMOMI) in 2000. Med-X system is structured by setting case definition of “Clinical Surveillance Symptoms” to “screen” cases; and by setting case definition of “Pathology-based Surveillance Syndrome” to “confirm” pathologic diagnoses. The forensic investigators inspect and screen cases; the medical examiners and pathologists perform autopsies and make diagnoses. The pathologic diagnostic skills include the utilization of immunohistochemistry (IHC), in situ hybridization (ISH), isolation of micro-organisms, molecular biology and electronic microscope. Med-X system is spreading rapidly in US. Seven states, including NM, NH, OR, WI, LA, MN and GA, conduct this system currently.

About 2000 autopsy cases, 18800 forensic inspection cases and 16600 administration inspection cases performed in Taiwan CDC, Ministry of Justice and hospitals, District Prosecutors Offices, and Bureaus of Public Health respectively. Physicians, medical examiners and forensic technicians must abide by the laws about prevention and disease control of infectious diseases, and autopsy of human bodies, to notice and conduct the necessary disease controls when they discover infectious or suspicious cases. Unfortunately, there is no route to notice, and no way to sample and delivery specimens for diagnostic purposes.

Being differences in medical examiner system, facilities and capacities of autopsy, and purposes and scale of surveillance, Med-X system must be adjusted to meet the needs and demands of Taiwan. It will be the first time to conduct a national-wide survey of fatal infectious disease, if the adjusted “ Surveillance System of Fatal Infectious Diseases in Autopsy and Inspection Cases (Taiwan Med-X)” can be adapted. Taiwan Med-X will let the laws can be fulfilled, would be the landmark of surveillance system, and will widely and deeply benefits the public health, justice and national defense systems.

After four years of regular and stable testing, then merging Taiwan Med-X into formal surveillance system of Taiwan CDC is highly recommended.

Key words :

Taiwan Med-X, Med-X, surveillance, Clinical Surveillance Symptoms, pathology-based surveillance syndromes, fatal infectious diseases, bioterrorism