

Investigation of a Suspected Cluster of Tuberculosis in a Respiratory Ward in a Veteran Hospital in I-Lan County

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Abstract

Tuberculosis is a chronic infectious disease caused by aerosol-borne *Mycobacterium spp.* It is the most lethal infectious disease in the world, caused by a single pathogen. Between February 8, 2006 and August 2, 2007, 22 suspected cases of tuberculosis were reported from the respiratory care ward in a veteran hospital in I-Lan County. Among them, there were 5 nurses working in the respiratory care ward, one foreign worker, and 16 patients of the same ward with histories of chronic diseases. Molecular examination showed that 9 of the 22 cases had bacteria of the same genotype. Based on Taiwan Centers of Disease Control's definition of tuberculosis cluster and microbiological evidence, these cases were a cluster. Because workers in hospitals and populous institutes are at high risk for contracting tuberculosis, without implementation of infection control measures, dissemination of tuberculosis in the ward was inevitable. After the implementation of infection control measures recommended by experts, the

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hospital improved in surveillance, early diagnosis and treatment of tuberculosis, and in educating its patients and employees on infection control. However, because infection by mycobacterium does not always result in immediate onset of disease, experts suggested that the ward should be monitored for additional cases over the next two years. This event shows that implementation of infection control measures is necessary for groups at high risk of contracting tuberculosis.

Keywords: tuberculosis, populous institute, infection control