

## A Cluster of Tuberculosis at a Hotel in Southern Taiwan, 2015

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### Abstract

During February and July 2015, two employees working at the same department in Hotel X were diagnosed as tuberculosis (TB) with bacterial strains of the same genotype. Case 1 was highly infectious with the positive result of sputum acid-fast stain and a cavitary pulmonary lesion. Some suspicious TB lesions on the chest-X-ray film were found, which were performed in a routine employees' health examination two months earlier before the onset of symptom, but neither medical evaluation nor treatment had been provided afterwards. Case 2, as a contact of Case 1, began to have the symptoms of active TB (fever and cough) 4 months after Case 1 was diagnosed as TB, although the first-month chest-X-ray for contact screening did not show evidence of active TB. The office of the department, located at the basement of the hotel building, was not well-ventilated. The control measures, including detection and treatment for contacts with latent TB infection, the use of air exhausting device to improve indoor ventilation and the integration of tracking mechanism into Employee Health Management Program, were implemented. Up to October 2017, no TB case was identified among the hotel employees after the abovementioned intervention.

**Keywords:** tuberculosis, cluster, ventilation, environment

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