

Review of Active Tuberculosis Screening Program Combined with Health Care Service Plan in Mountainous Townships in North Taiwan, 2017

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Abstract

People who live in mountainous townships are high-risk groups for tuberculosis infection. Taiwan Centers for Disease Control (TCDC) has been carrying on chest X-ray screening program in mountainous townships. Since 2017, TCDC mandated the local hospitals in the Integrated Health Care Delivery System (IDS) to carry out the chest X-ray program to promote the accessibility. The mandated program is aimed to integrate medical resources and avoid wasting, which helps the local public health departments to provide tuberculosis disease screening, diagnostics and treatments directly.

During the executive period in 2017, the local public health department found that the abnormal findings of the chest X-ray screening were remarkably lower than those in 2016 and decided to launch recheck mechanism and used the Kappa statistics to test inter rater reliability. The calculated result of Kappa was 0.7, indicating fair agreement. However, 5 tuberculosis cases were determined by recheck mechanism and 1 was determined by alert of public health workers. It revealed the public health sectors should regularly evaluate the service provided by the mandated IDS hospitals and the quality of X-ray interpretation. The quality of chest X-ray interpretation is the key factor of the effectiveness of active screening. Therefore, we suggested building a mechanism for

evaluation and review for the mandated hospitals to ensure the quality of X-ray interpretation. Meanwhile, the public health sectors should promptly follow cases with abnormal results and actively conduct screening among high risk populations to obtain the best screening effectiveness.

Keywords: Mountainous township, tuberculosis, chest X-ray screening, double check mechanism

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