

A Cluster of Tuberculosis Among the Crew of An Oil Tanker, 2017

Li-Chuan Wu*, Hsin-Chun Lee, Hui-Chen Lin, Chiou-Yue You

Abstract

During July and October 2017, two crew members of an oil tanker were diagnosed with pulmonary tuberculosis (TB). Bacterial strains from the two cases shared identical genotype, so a cluster of TB was confirmed. The index case, a 68-year-old male, had a cough for 5 months before diagnosis. The other case was identified through the contact investigation with the index case, remaining asymptomatic at diagnosis. Three of the other 12 contacts (crew members) were confirmed being latent TB infection (LTBI) by chest radiography and an interferon- γ release assay. Directly observed prevention therapy (DOPT) for LTBI was successfully completed through prescription of 12-week regimen (rifapentine plus isoniazid) and integration of onshore in-person observation and electronic device-assisted programs delivered at multiple seaports. This report demonstrated a flexible, individualized DOPT program achieved the public health goal while fulfilling patients' needs. It also highlighted the necessity of periodic TB screening for ship crew members because of the cramped working environment and some workers being at the ageing group (≥ 65 years) with an increased risk of TB.

Keywords: Tuberculosis, cluster, ship, environment

Kaohsiung-Pingtung Regional Center,
Centers for Disease Control, Ministry
of Health and Welfare, Taiwan
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Corresponding author: Li-Chuan Wu*
E-mail: hedywu@cdc.gov.tw
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