

First Screening and Treatment Campaign for Latent Tuberculosis Infections in a Mountainous Township, Taiwan, 2016–2017

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Abstract

Tuberculosis (TB) incidence has declined in Taiwan. However, TB incidence in mountainous townships is still higher than non-indigenous townships. In order to reduce the incidence, treatment of latent tuberculosis infection (LTBI) is one of the cornerstones of TB control. In this article, we conducted screening for LTBI and implementing a 3-month treatment course of Isoniazid and Rifapentine (3HP) to LTBI patients in a mountainous township.

Residents of the mountainous township in Nantou, which TB incidence was 278 per 100,000 in 2015, were recruited in this study. All residents, except pregnant women, underwent chest X-ray screening. Children under 5 years of age underwent tuberculin skin test (TST) and others underwent interferon gamma release assay (IGRA). Active TB patients were reported and treated; LTBI patients were evaluated and treated with 3HP.

Among 780 residents screened, we found 8 active TB patients and 316 (43%) residents with positive IGRA results. Among them, 209 was eligible for LTBI treatment and 139 (67%) of them underwent treatment. One hundred and thirty-seven residents underwent 3HP; among them, 118 (86%) completed treatment.

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Screening for LTBI to all residents in the mountainous township help us identify active TB patients and LTBI residents early and reduce the risk for TB transmission. LTBI treatment using 3HP regimen is cost-saving with high completion rate. Health authorities should intervene and provide assistance early if residents have doubts about side effects of treatment to avoid bandwagon effects.

Keywords: latent tuberculosis infection, isoniazid, rifapentine