

# Prevalence of latent tuberculosis infection among medical students in a public university in Malaysia

Musa LH<sup>1</sup>, Ahmad A<sup>2</sup>, Ismail Z<sup>1</sup>, Mohamed NA<sup>1</sup>, Baharom N<sup>1</sup>, Ramli S<sup>1</sup>

<sup>1</sup>Faculty of Medicine and Health Sciences, Universiti Sains Islam Malaysia, Nilai, Negeri Sembilan, <sup>2</sup>School of Nursing, KPJ University College, Nilai, Negeri Sembilan

## ABSTRACT

**Introduction:** Exposure to *Mycobacterium tuberculosis* may result in latent tuberculosis infection (LTBI). A person may inhale the bacteria and become infected with *Mycobacterium tuberculosis* for many years without becoming ill or transmitting the organism to others. Medical students have high risk of exposure to active tuberculosis patients and are at risk of developing LTBI. Tuberculin skin test (TST) can be performed as a screening test to detect active tuberculosis infection or LTBI. A relatively newer test, the Interferon-Gamma Release assays (IGRAs) test, is recommended by WHO for countries with intermediate or high tuberculosis burden. IGRAs test was shown to be advantageous over TST with higher specificity and less cross reactivity with BCG vaccine. A previous study in Malaysia showed that the prevalence of LTBI among medical students was as high as 8%.

**Objective:** This study aimed at determining the prevalence of latent tuberculosis infection among medical students in a public university in Malaysia. **Materials and methods:** A cross sectional study was conducted among medical students in clinical years (Year 4, 5 and 6) using stratified simple random sampling. TST was administered and any induration  $\geq 10$ mm in diameter after 72 hours was considered as positive. Students with positive TST were further tested with IGRA test. **Results and conclusion:** A total of 171 medical students participated in the study. Six students (3.5%) had positive TST results. Out of this, one student had positive IGRA result. Further examination revealed no active tuberculosis infection. The prevalence of LTBI among medical students in a public university was 0.6%. The prevalence of latent tuberculosis infection among medical students in this public university is very low. Screening among medical students should continue as the exposure and risk of *Mycobacterium tuberculosis* infection are still high in Malaysia.