

RESEARCH NOTE

QUANTIFERON[®]-TB GOLD IN-TUBE TEST FOR DIAGNOSING LATENT TUBERCULOSIS INFECTION AMONG CLINICAL-YEAR THAI MEDICAL STUDENTS

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Abstract. Persons with latent tuberculosis infection (LTBI) are at-risk for developing subsequent active tuberculosis (TB). Screening for LTBI is important, especially in healthcare workers (HCWs) who have increased risk of acquiring TB. The new LTBI screening test, QuantiFERON[®]-TB Gold In-tube Test (QFT-IT) is now available in Thailand. However, data on the rate of positive test and factors associated with test positivity are limited among Thai medical students. We conducted a cross sectional study among clinical-year medical students (fourth to sixth year students) at Thammasat University, Thailand. All students who consented to participate in this study had the QFT-IT and a LTBI risk assessment during June 2014 as part of a health screening program. A total of 204 subjects were included in the program; their median age was 22 years (range: 20-34 years), 52% were female, 94% had a history of Bacillus Calmette-Guérin vaccination. Twenty subjects (10%) had a positive QFT-IT test and were presumed to have LTBI. The median interferon- γ (IFN- γ) level was 0.01 (range: 0-7.37 IU/ml). Independent factors associated with QFT-IT positivity were a history of direct TB contacts [adjusted odds ratio (aOR)=3.78; $p=0.006$], being a sixth year student (aOR=2.76; $p=0.03$) and having a history of working on a ward with active TB patients without having direct TB contacts (aOR=2.69; $p=0.04$). The QFT-IT was useful in screening our study subjects and should be considered as a screening tool in this population due to the high incidence of QFT-IT positivity.

Keywords: QuantiFERON[®]-TB Gold In-tube Test, latent tuberculosis infection, clinical-year, medical students, Thailand

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