

Development of tuberculosis disease among infected close contacts in 2019-2021

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ABSTRACT

Introduction: World Health Organization (WHO) estimated the global prevalence of Latent Tuberculosis Infection (LTBI) is almost $\frac{1}{4}$ of the world's population. It was shown that 5-10% of LTBI patient will develop TB and the chances of developing tuberculosis (TB) is up to 50% within the first two years after being infected. **Objective:** To determine the incidence rate of TB disease among infected (LTBI) close contacts in 2019-2021. **Materials and methods:** This is a retrospective cohort study that utilized the data on TB contacts from the national Information System (TBIS) and LTBI registry from year 2019 – 2021. The samples selected were those 5 years old and above and were registered as TB contacts from the date of 1st July 2019- 31st December 2019 and have undergone and tested positive for Interferon Gamma Release Assay Test (IGRA). The data from these respondents were followed up for two years until 31st December 2021 to see the development of TB and their socio-demographic characteristics. **Results and conclusion:** A total of 15581 contacts were registered from July to December 2019 that undergone IGRA testing from all over Malaysia. A total of 3494 (22.4%) contacts were positive for IGRA test and listed in LTBI registry. Of these, 92 (2.6%) patients developed TB over the two years follow-up. Only 14 (15.2%) of them developed TB in 2019, 8 (8.7%) in 2020 and 70 (76.1%) of them in 2021. The incidence of tuberculosis among infected contacts is relatively low in Malaysia. However, contact tracing and investigations still needs to be done promptly to identify and treat latent infection to prevent the tuberculosis disease.