

## Managing Outbreak of Pulmonary Tuberculosis in Military Setting: Issues and Challenges

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### ABSTRACT

**INTRODUCTION:** Tuberculosis is considered a curable and preventable infectious disease in the world. Malaysia is classified as a country with an intermediate Tuberculosis burden compared to other ASEAN countries and Malaysian Armed Forces are no exception. Apart from an Active Tuberculosis, Latent Tuberculosis is seen as another health problem and on the rise during the outbreak management of Tuberculosis. **METHODS:** There was a Tuberculosis outbreak occurred in the Malaysian military camp in October 2018 involving 111 students and trainers attending four months career course. All these students came from six different army camps around Malaysia. An outbreak investigation was conducted to look into the causes, issues and epidemiological link with another Tuberculosis outbreak happened in another military camp. **RESULTS:** The index case was diagnosed during the course and the contact tracing done diagnosed another two cases of Active Tuberculosis with another 15 students (13.5%) diagnosed with a Latent Tuberculosis. Active Tuberculosis management was conducted on three cases (2.7%) of Active Pulmonary Tuberculosis while chemo prophylaxis was commenced on all Latent Tuberculosis cases for 6-month duration. No epidemiological link can be seen related to a similar outbreak happened in another camp. Control and prevention were conducted by the medical element at the military camp and the patients were followed-up for six months after the completion of treatment. **CONCLUSION:** Vigorous Tuberculosis outbreak management involving government stewardship and accountability, with monitoring and evaluation at the military camp are needed to ensure prompt treatment and control can be delivered.

**KEYWORDS:** Malaysian Armed Forces, Pulmonary Tuberculosis, Latent Tuberculosis

## Measles Cases in Bintulu, a Sudden Surge in 2018

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### ABSTRACT

**INTRODUCTION:** Measles is one of the vaccine preventable diseases that is a public health burden in Bintulu, Sarawak. The main aim of this study is to describe the epidemiology of measles cases in Bintulu for 2018 including age group, ethnicity, immunisation status and type of residential area. **METHODS:** A descriptive study is done based on the database collected by the CDC unit of Bintulu Divisional Health Office using the standard Measles Investigation Form from the Ministry of Health. **RESULTS:** The prevalence rate of measles in Bintulu in 2018 was 58.66 per 100,000 populations. From 152 positive cases, 49 cases (32%) of positive measles occurred in children below 12 months, and 47 cases (31%) in adult age more than 20 years old. About 39 cases (26%) were ineligible for vaccination while 18% (27 cases) were unvaccinated. Only 16% (25 cases) of the cases were vaccinated and the remaining 40% (61 cases) status was unknown. Iban ethnicity has highest positive cases at 71.1% followed by Malays (14.5%), Chinese (6.6%) and Indonesians (5.9%). Approximately 11.2 % of cases happened in workplaces, while 81.6% of cases occurred in residential areas including housing areas, villages, long houses and government quarters. **CONCLUSION:** Measles cases has escalated up to 623% in Bintulu in 2018 compared to previous year.

**KEYWORDS:** Measles outbreak, ineligible children, adult