

ABSTRACTS FOR ORAL PRESENTATIONS

## Systematic Screening of Tuberculosis Using Mobile Digital Chest Radiography in Sabah

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**Background:** Chest radiography, or chest X-ray (CXR), is not only an important tool for triaging and screening for pulmonary tuberculosis (TB) but is also useful in aiding diagnosis when pulmonary TB cannot be confirmed bacteriologically. Sabah is a state with high TB burden with the incidence rate of 124/100,000 population in 2015. Access to chest radiography is limited in many settings in Sabah. In 2016, the TB and Leprosy Control Unit of Sabah State Health Department started systematic screening for TB with the help of a mobile digital X-ray unit. **Objective:** The aim of this study was to describe the contribution of the mobile digital X-ray in early detection of TB through systematic screening. **Methods:** This was a descriptive study using program data reported between January 2016 and December 2016. The population screened were those living in institutions and TB hotspots around Sabah. The screening algorithm of the case detection included screening patients by symptoms and chest X-ray, then by sputum microscopy followed by sputum culture for MTB or GenXpert for confirmation. **Results:** The screening outcome gave an overall yield of 0.73%, whereby 0.20% of cases were diagnosed based on symptoms and sputum smear, 0.39% of cases diagnosed based on symptoms, CXR and sputum smear (+0.15% asymptomatic) and another 0.34% were diagnosed after confirmation by sputum for MTB culture and GenXpert. **Conclusion:** The mobile digital X-ray unit aids in the early detection of TB cases through systematic screening and is useful in a state with high TB burden such as Sabah where there is limited access to radiography facilities.

