Prevalence and characteristics of persistent smear positive at the end of intensive phase among pulmonary tuberculosis patients in Kelantan, Malaysia from 2012 till 2014

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ABSTRACT

Introduction: Smear conversion at the end of intensive phase has been recommended by World Health Organization (WHO) as a monitoring indicator to ensure attainment of treatment success among pulmonary tuberculosis patients. The treatment success rate in Malaysia however, is still below the target rate of 85.0%. The current study aims to determine the prevalence and characteristics of persistent smear positive at the end of intensive phase among smear positive pulmonary tuberculosis patients in Kelantan from 2012 till 2014. **Methodology:** The study applied a retrospective cohort design, conducted in January 2016 using secondary data obtained from Kelantan Tuberculosis Information System (TBIS), a subset of national tuberculosis information system in Malaysia. Data were collected using proforma and were analysed using SPSS version 22.0. The descriptive, Pearson's chi-square test and Fishers exact test were applied. **Results:** Within a three-year period, there were 2,300 smear positive pulmonary tuberculosis patients registered, who received Directly Observed Treatment Short-course (DOTS). Simple random sampling was done to select 1,106 patients from 2,008 eligible patients. Most of the registered smear positive pulmonary tuberculosis involved adults, with mean (SD) age of 47.24 (17.28) years, male (65.2%), Malay (94.5%), and have secondary educational level (53.6%). Majority of them also were newly diagnosed (92.6%), non-smokers (58.6%), non-diabetic (64.3%), HIV negative patients (92.7%) with minimal chest x-ray finding (64.7%). Of these, 8.5% patients were found to have persistent smear positive at the end of intensive phase. Diabetes mellitus and moderate to far advanced chest radiograph were significantly associated with smear status after two months of intensive treatment (x^2 5.51; df 1; p=0.019) and (x^2 8.41; df 1; p=0.004) respectively. **Conclusion:** In conclusion, comprehensive management of smear positive pulmonary tuberculosis patients should be focused on patients with diabetes mellitus and advanced chest x-ray lesion for achieving higher smear conversion and better treatment outcome.

Prevalence of anaemia among elderly and its associated factors; are there any ethnicities differences?

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ABSTRACT

Introduction: Anaemia is common among the elderly and remains an under researched clinical condition. This study investigates ethnic differences in prevalence of anaemia and identifies potential factors associated with the ethnic differences. **Methods:** Data from National Health & Morbidity Survey 2015 conducted by Ministry of Health was analysed. Haemoglobin levels were measured using point-of-care testing, HemoCue® Hb 201+ System© from consenting individuals. Demographic information and other clinical information were obtained through a structured questionnaire. Descriptive and multivariate analyses were conducted and significant results were presented as adjusted odd ratio with p- value less than 0.05. **Results:** A total of 3794 participants aged 60 and older responded to this module with response rate 93.7%. In terms of ethnicity, Malays were 64.0%, Chinese; 21.6%, Indians; 6.1% and other ethnic; 8.3%. Overall prevalence of anaemia among older people was 36.9%. The highest prevalence of anaemia was among Indian ethnic (45.5%). The Indians ethnic (aOR: 1.72; 95% CI 1.26-2.34) and Malays ethnic (aOR: 1.25; 95% CI 1.04-1.49) were more likely to be anaemic compared to Chinese ethnic. Anaemia in older persons was also associated with increasing age, history of hospital admission and those who were having Diabetes Mellitus. **Conclusion:** Anaemia in the elderly is associated with Indian and Malay ethnic, increasing age, hospitalization and diabetes. Our study has identified important information on a common condition which will guide and assist future studies on reducing the burden of anaemia.