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WANPEN BOONPRASERT: EVALUATION OF A SCREENING TEST FOR PULMONARY TUBERCULOSIS AMONG PRISONERS IN A BANGKOK METROPOLITAN PRISON. THESIS ADVISORS: KANITTHA NITATPATTANA, M.Sc. (Epid.), DUSIT SUJIRARAT, M.Sc. (Biost.), VALLOP PAYANANDANA, M.D., SOMSAK RIENTHONG, M.Sc. (Med. micro.) 86 p. ISBN 974-661-880-6

This cross-sectional study was conducted in Thonburi Remand Prison, Bangkok, Thailand during 21-28 September 1998, to identify and evaluate a screening test for early detection of pulmonary tuberculosis among prisoners in order to apply this test with other risk groups. Eight hundred ninety five prisoners were screened for pulmonary tuberculosis (six prisoners who were taking anti-tuberculosis drugs were excluded from the study).

By using multiple logistic regression analysis, only 4 significant variables (p -value < 0.05) were found to be predictors of pulmonary tuberculosis; chronic cough with sputum production, Body Mass Index, age and cell occupancy. These 4 predictors were used as the basis of a risk score model. In this model the optimum cut off point for determining risk of pulmonary tuberculosis was a risk score of 3. At risk score of 3, the adjusted Odds Ratio was 19.13 (95 % CI = 6.68-54.75) times more likely to develop pulmonary tuberculosis (p -value < 0.05) with a sensitivity of 88.75 %, a specificity of 71.16 %, a positive predictive value of 11.11 %, a negative predictive value of 99.35 % and an accuracy of 71.84 %. The risk score of 3 was the optimal cut off point for this screening study and was useful in early detection infectious pulmonary tuberculosis cases only in these subjects. The risk scores model resulting from this study may not applicable elsewhere in Thailand.