

**Thesis title** Tuberculous Infection Among Nursing Personnel at  
Hat Yai Hospital

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**Abstract**

The increasing number of patients with tuberculosis in every region of Thailand at present has led to enhance risk of occupational exposure among nursing personnel. This descriptive study aimed to determine the prevalence of tuberculous infection among nursing personnel at Hat Yai hospital and to determine the characteristics of nursing personnel infected with tuberculosis. The samples were consisted of 247 nursing personnel including 142 professional nurses, 93 technical nurses, and 12 practical nurses. Tuberculous infection was tested by tuberculin skin test and chest x-rays during May 15 to July 15, 1996. The tuberculin skin test was carried out using Thai Red Cross Society PPD-TRC by Mantoux technique. The skin induration of 10 mm. or more was identified as having tuberculous infection. The questionnaire was used to collect demographic data, exposure experience with tuberculous patients in the hospital, problems and obstacles of caring for tuberculous patients,

and suggestions for prevention of nosocomial tuberculous infection. Data were analyzed by using descriptive statistics, Chi-square test, and Fisher's exact test.

The results showed that the prevalence rate of tuberculous infection among nursing personnel was 75.7%. Practical nurses had the highest prevalence rate which was 83.3%, followed by the prevalence rate among professional nurses and technical nurses which were 76.1% and 74.2% , respectively. The result of chest x-rays showed that three nursing personnel had previous tuberculosis. The subjects who worked in anesthetic department had the highest prevalence rate of tuberculous infection which were 94.4% followed by the subjects who work in obstetric & gynecology department, medical department, surgical department, and emergency department which were 90.0%, 81.4%, 78.9% and 76.9 % respectively. There were statistically significant relationship between tuberculous infection and the following characteristics of the samples ( $P < 0.05$ ) including previous BCG vaccination, working in the hospital for more than 5 years, exposed tuberculosis from co-worker, and performing or helping physician to perform endotracheal intubation and anesthetic procedures with tuberculous patients. Problems and obstacles of preventing the nosocomial transmission of tuberculosis including no isolation room, poor ventilation in work places, inadequate and inappropriate masks, and lack of information or knowledge on prevention of tuberculous infection.

This study indicated that it is needed to prevent nosocomial tuberculous infection among nursing personnel. The hospital should have good ventilation in patient units, appropriate isolation room for tuberculous patients, sufficient respirator used for the prevention of tuberculosis. Tuberculous infection surveillance among hospital personnel, and inservice education regarding preventing tuberculous infection for hospital personnel should be established.