Table 1: Characteristics of 71 children with pre-immigration diagnosis of latent tuberculosis infection (LTBI), separated by post-immigration TB impression

| LTBI (n=13) | No TB (n=58) |
|-------------|--------------|
| Mean years of age, (range) | 10.8 (3-14) | 8.7 (1-15) |
| Median mm induration by TST, (range) | 12mm (10-21) | 12mm (10-30) |
| QFT positive, n (%) | 9 (69%) | 0 (0%) |
| Documented BCG vaccine (confirmed), n (%) | 7 (54%) | 46 (79%) |

| Place of birth, n (%) |  |
|----------------------|---|
| Asia | 10 (77%) |
| Africa | 2 (15%) |
| Latin America | 1 (8%) |
| Eastern Europe | 0 (0%) |
| Close contact with infectious TB, n (%) | 0 (0%) |

| Immunosuppressed, n (%) | 0 (0%) |

Note: Providers waited until 2 years of age to obtain Quantiferon
Abbreviations: LTBI: latent tuberculosis infection; TB: tuberculosis; TST: tuberculin skin test; QFT: Quantiferon; BCG: Bacillus Calmette-Guerin

Background: Latent tuberculosis (TB) is an infection caused by reactivation of Mycobacterium tuberculosis. Decreasing host immune system plays an important role in pathophysiology especially in patients with human immunodeficiency virus (HIV) infection and transplant recipients. Exposure to immunosuppressive agents among patients with solid and hematologic malignancy is likely to increase risk of TB. However, characteristics of TB in this population remain scarce.

Methods: A single-center, retrospective descriptive study was conducted at King Chulalongkorn Memorial Hospital. Adult patients who developed TB between January 2008 and October 2018 after diagnosis of solid or hematologic malignancy were identified using ICD-10 code. Baseline, clinical characteristics, and treatment outcomes were collected.

Results: A total of 114 patients developed TB after diagnosis of malignancy including, 67 (58.8%) with solid tumor and 47 (41.2%) with hematologic malignancy. Lung cancer was the most common solid malignancy with TB (17.9%) followed by head and neck carcinoma (14.9%) and colorectal cancer (14.3%). For hematologic malignancies, non-Hodgkin’s lymphoma was the most common malignancy (53.2%) followed by leukaemia (29.8%) and multiple myeloma (14.9%). Among patients who received immunosuppressant treatment, the mean onset of TB was 4.97 months (range 0.25 to 57 months) and 2.55 months (range 0.1 to 18 months) after treatment of solid and hematologic malignancies. Pulmonary and pleural involvement remained the most common site of infection in both groups. Mortality was highest among patients with hematologic malignancies (40.4%) while mortality in solid malignancies was 11.9%.

Conclusions: TB in patients with solid and hematologic malignancies contained substantial morbidity and mortality. Immunosuppressive agents and chemotherapy may play an important role especially in the endemic area.