Supplement 2

Newcastle–Ottawa Scale adapted for cross-sectional studies/registry data source

Selection: (Maximum 6 stars)

1. Representativeness of the sample:
    a. Truly representative of the average in the target population. *(all subjects or random sampling)
    b. Somewhat representative of the average in the target population. *(nonrandom sampling)
    c. Selected group of enrolled/registered patients
    d. No description of the sampling strategy.
2. Sample size:
    a. Justified and reported*
    b. Not reported.
3. Data source
    a. The data were obtained from valid TB registry book, and the study period of the study was clearly defined*
    b. The data were obtained from valid TB registry book, and the study period of the study was not clearly defined*
    c. No description of the data source and study period.
4. Ascertainment of the exposure (risk factor):
    a. Climatic and altitude measurements were obtained from valid data source**
    b. Unit of measurement is available or described*
    c. No description of the measurement tool.

Comparability: (Maximum 2 stars)

1. The subjects in different outcome groups are comparable, based on the study design or analysis. Confounding factors are controlled.
    a. The study control for confounder factor*
    b. The study considers latent variable*.

Outcome: (Maximum 3 stars)

1. Assessment of the outcome:
    a. Assessment of the outcome was described clinical factors in combination with diagnostic test
    b. Assessment of the outcome was described by clinical factors/symptoms**

c. Record linkage**
d. No description.

2. Statistical test
   a. The statistical test used to analyze the data is clearly described and appropriate, and the measurement of the association is presented, including confidence intervals and the probability level (*P* value)*
   b. The statistical test is not appropriate, not described, or incomplete.

This scale has been adapted from the Newcastle–Ottawa Quality Assessment Scale for observational studies to perform a quality assessment of cross-sectional studies for the systematic review, "Effect of Temperature and Altitude Difference on Tuberculosis Notification."

Because of most studies consider latent variables, we have selected as a confounder variable for comparability. Thus, there is no principal factor for each study.

In our scale, we have adopted the outcome assessment elements based on the acceptable measure of TB. Self-reported outcomes and independent blind assessment are excluded, because infection of TB did not report without clinical or tuberculin skin test/acid-fast bacilli/culture/radiological/histological diagnosis. Two stars are given to the studies that assess the outcome with clinical symptoms, because clinicians could diagnose by considering previous history and family history of TB in the absence of diagnostic methods.