

Appendix 2: Newcastle-Ottawa scale for assessing the quality of cohort studies

| Study                         | Selection  |   |   | Comparability | Outcome  |  |   | Rating  |                      | Quality  |
|-------------------------------|--|---|---|---------------|--|--|---|---|----------------------|----------|
|                               | Information on age composition of childhood cohorts with information on BCG <sup>a</sup> | Ascertainment of immunisation status <sup>b</sup> | Demonstration that mycobacterium tuberculosis infection (determined by IGRA) was not present before the BCG immunisation was given <sup>c</sup> . |               | Comparability of cohorts on the basis of the design or analysis <sup>d</sup> | Assessment of infection with Mycobacterium tuberculosis by interferon gamma release assay <sup>e</sup> | Was interferon gamma release assay done long enough after exposure for infection to be detectable in both immunized and not immunized groups <sup>f</sup> | Adequacy of follow up of children exposed to the patient with tuberculosis <sup>g</sup> | Overall Star Ratings |          |
| <b>Adetifa et al 2010</b>     | B*   | B*  | B*  | B*            | D  | C  | C   | 4*  | 44                   | moderate |
| <b>Altet-Gomez et al 2011</b> | A*   | B*  | C   | B*            | A*   | B  | B*  | 5*  | 55                   | moderate |
| <b>Bianchi et al 2009</b>     | A*   | B*  | C   | B*            | D  | C  | B*  | 4*  | 44                   | moderate |
| <b>Domingues et al 2008</b>   | B*   | B*  | C   | B*            | D  | C  | B*  | 4*  | 44                   | moderate |
| <b>Eisenhut et al 2009</b>    | B*   | B*  | C   | A*B*          | D  | C  | B*  | 5*  | 55                   | moderate |
| <b>Eriksen et al 2010</b>     | A*   | B*  | C   | A*B*          | D  | A*   | A*  | 6*  | 67                   | high     |
| <b>Ewer et al 2003</b>        | B*   | B*  | C   | B*            | D  | C  | D   | 4*  | 44                   | moderate |
| <b>Hill et al 2011</b>        | B*   | B*  | C   | B*            | D  | C  | D   | 3*  | 33                   | low      |
| <b>Neira-Munoz et al 2008</b> | A*   | B*  | C   | B*            | D  | C  | B*  | 4*  | 44                   | moderate |
| <b>Okada et al 2008</b>       | B*   | B*  | B*  | A*B*          | D  | A*   | A*  | 7*  | 77                   | high     |
| <b>Rutherford et al 2012</b>  | A*   | B*  | C   | A*            | D  | C  | C   | 3*  | 33                   | low      |
| <b>Soysal et al 2005</b>      | B*   | B*  | B*  | A*B*          | A*   | C  | B*  | 7*  | 77                   | high     |
| <b>Tsiouris et al 2006</b>    | B*   | B*  | C   | B*            | D  | C  | B*  | 4*  | 44                   | moderate |
| <b>Tsolis et al 2010</b>      | C  | C   | C   | A*B*          | D  | C  | B*  | 3*  | 33                   | low      |

<sup>a</sup>A Mean or median age provided\*; B Age range provided\*; C No information on age

<sup>b</sup>A Secure immunisation record\*; B BCG scar only or combination of good history and/or BCG scar and/or secure record\*; C Written self report; D No description

<sup>c</sup>A An IGRA test excluded infection with mycobacterium tuberculosis before BCG immunisation\*; B BCG immunisation was given at birth as reported in publication\*; C No demonstration of lack of mycobacterium tuberculosis infection before BCG immunisation.

<sup>d</sup>A Study provided adjusted odds ratio by degree of exposure to infectious case and or age\*; B Study provided odds ratio of infection\*; C Survey without knowledge of exposure.

<sup>e</sup>A Assesment of infection status blind to BCG vaccination status or record linkage (blind to vaccination status) as reported in publication\*; B Record linkage not blind to vaccination status or not described\*; C Self report; D No description

<sup>f</sup>A Yes (at least 6 weeks) after exposure to infectious patient with mycobacterium tuberculosis\*; B No; C Information not provided

<sup>g</sup>A All children exposed were tested for infection\*; B Similar losses to follow up in each group\*; C Some children not tested and no description who was affected or there was an indeterminate result in more than 10% and not equally distributed; D No record of untested children or whether there were indeterminate results of testing