SUPPLEMENTARY MATERIAL

**Supplementary 1.** Full technical details of contact investigation, bacteriology and genotyping

**Contact investigation**

To exclude active tuberculosis (TB), contact investigation was done with the sputum test and chest radiograph. For contacts excluded from active TB, the latent TB infection (LTBI) test was first performed with a tuberculin skin test, followed by an interferon gamma release assay (IGRA) for contacts having a positive tuberculin skin test. This was the national guideline for diagnosis of LTBI, considering that Bacillus Calmette-Guérin vaccination is mandatory in Korea. A follow-up investigation was planned 3 months and 1 year after baseline examination. At the 3-month follow-up, a second tuberculin skin test and IGRA test were performed in those who were negative on initial LTBI tests.

Tuberculin skin tests were performed on the volar side of the forearm by administration of two units of tuberculin purified protein derivative-RT23, with any induration measured in millimeters between 48 and 72 hours, using the ballpoint method. A Quantiferon-TB Gold In-Tube test (Qiagen, Hilden, Germany) was done per manufacturer instructions. Cutoffs for positivity on tuberculin skin test and IGRA (corrected for nil response) were 10 mm and 0.35 IU/mL, respectively.

**Bacteriology and genotyping**

Close contacts submitted sputum, and specimens were microscopically examined for acid-fast bacillus with auramine-rhodamine fluorescent staining and confirmed by Ziehl-Neelsen staining. The Xpert/RIF test (Cepheid, Sunnyvale, CA, USA) was performed according to manufacturer instructions within 24 hours of sputum submission. Sputum culture was done with the national reference standard quality with solid culture on 3% Ogawa media for 8 weeks and liquid culture in BACTEC™ MGIT™ (Becton, Dickinson and Company, Franklin Lakes, NJ, USA) for 6 weeks. Confirmed diagnosis of TB was determined if *Mycobacterium tuberculosis* was isolated in at least one solid or liquid culture.

Drug susceptibility test and genotyping were performed at the supranational reference laboratory for TB, the Korean Institute of Tuberculosis. The resistance to each anti-TB drug was defined as greater than 1% bacterial growth in Lowenstein-Jensen medium (Thermo Scientific, Waltham, MA, USA) using the absolute concentration method with following critical concentrations: isoniazid 0.2 µg/mL; streptomycin 10.0 µg/mL; ethambutol 2.0 µg/mL; rifampicin 40.0 µg/mL; paraaminosalicylic acid 1.0 µg/mL; prothionamide 40.0 µg/mL; cycloserine 30.0 µg/mL; kanamycin 30.0 µg/mL; capreomycin 40.0 µg/mL; ofloxacin 4.0 µg/mL; levofloxacin 2.0 µg/mL; moxifloxacin 2.0 µg/mL; and rifabutin 20 µg/mL. Pyrazinamide susceptibility was assessed through a pyrazinamidase test. TB isolates were genotyped from index case and contacts with culture-positive TB, using spacer oligonucleotide typing (spoligotyping) and 24-loci mycobacterial interspersed repetitive unit–variable-number tandem repeat analysis (1).

**REFERENCE**