

AIRBORNE INFECTION ISOLATION ROOM FOR TUBERCULOSIS IN JAPAN

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Abstract [Background] In Japan, all sputum smear positive tuberculosis patients are admitted to the hospital for the reduction of risk of infection to the general public. For the reduction of the risk of hospital acquired infection, airborne infection isolation (AII) room has come to be used. However, current situation of AII room for tuberculosis in Japan has not been investigated.

[Objective] To clarify the current situation of AII rooms for tuberculosis in Japan.

[Method] A questionnaire survey to the hospitals with beds for infectious tuberculosis under the infectious diseases control law (TB beds), hospitals without beds for infectious tuberculosis but with public support for AII rooms for the treatment of tuberculosis (model beds), hospitals with beds for infectious diseases except for tuberculosis under the infectious diseases control law (infectious diseases beds), and other large scale general hospitals. The number of AII rooms at each prefecture was compared with the number of necessary beds for infectious tuberculosis.

[Result] Among 196 hospitals with TB beds, 92 hospitals (47%) replied the survey. Among 80 hospitals with model beds, 32 hospitals (40%) replied. Among 264 hospitals with infectious diseases beds, 124 hospitals (47%) replied and among 1433 other hospitals, 123 hospitals (9%) replied. Among 1827 beds for tuberculosis in the 92 hospitals with TB beds, 1328 beds were AII rooms. Among 32 hospitals with model beds, 70 beds in 26 hospitals were beds in AII rooms. Among 124 hospitals with infectious diseases beds, 104 hospitals were with AII rooms and among these 104, 165 beds in AII rooms in 35 hospitals were ready to treat infectious tuberculosis cases. In 123 other hospitals, 31 hospitals were

with AII rooms and 35 beds in AII rooms in 7 hospitals were ready to treat infectious tuberculosis cases.

In 2017, the number of sputum smear positive tuberculosis was 6359 and the number of necessary beds for infectious tuberculosis by prefectures was calculated to be 1598 and this number was equal to the number of beds in AII rooms where tuberculosis can be treated with reply to our survey. In 30 prefectures, beds in AII rooms in hospitals where tuberculosis is treated were more than necessity, but in six prefectures, the number of beds was estimated to be less than the necessity even after adjustment of the incompleteness of the survey. In the 92 hospitals with beds for tuberculosis, four hospitals were not treating infectious tuberculosis cases and 12 hospitals planned to stop treatment of infectious tuberculosis.

[Discussion] Although the number of beds for infectious tuberculosis in AII room is overall more than necessary, there are prefectural diversity and increase of stopping admission treatment of infectious tuberculosis cases among hospitals with beds for tuberculosis and with AII rooms is alarming. Discussion is necessary for the future of tuberculosis beds in AII rooms.

Key words: Tuberculosis, Airborne infection isolation room, Resource allocation

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