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Title: Serial QuantiFERON TB-2G testing for 4 years of health care workers in a city hospital

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Body: Objective: To evaluate the performance and practicality of the QuantiFERON TB-2G (QFT-2G) test for screening healthcare workers (HCWs) at a second health care level hospital in Japan without any tuberculosis (TB)-specific wards. Methods: Chart review of 951 HCWs (251 men and 700 women) at Iwata City Hospital who underwent QFT-2G testing as a part of their pre- or annual employee screening between April 2007 and March 2010. Results: The initial QFT-2G was interpreted as positive for 28 (2.9%) HCWs, negative for 884 (92.9%), and indeterminate for 39 (3.2%). During 4 years, 37 HCWs (9 men and 28 women; median age 47 years, range 22–64) were diagnosed as positive at least once. They consisted of 19 nurses (3.86% of total), 8 official staff members (7.55% of total), 5 medical doctors (3.31% of total), 3 medical technicians (3.37% of total), 1 pharmacologist (5.00% of total), and 1 midwife (2.86% of total). There were 923 HCWs with results that were interpreted as negative or indeterminate at initial testing, and 9 (0.98%) of these converted to positive results. No HCWs with a positive result had a history of TB or any apparent contact with active TB patients, and they did not opt for treatment of latent TB. Seven (25%) of 28 positive HCWs at initial test reverted to indeterminate or negative. Conclusions: In a series of annual serial QFT-2G tests, there were some cases with conversion and/or reversion. Therefore, caution is needed for interpretation of mild fluctuation in IFN- γ response.