



a risk factor, especially for tuberculosis (5, 7). A study conducted in South Africa, noted that healthcare employees are at the forefront of the war against tuberculosis. There is now strong evidence that tuberculosis is a professionally acquired disease for healthcare employees due to prolonged exposure to tuberculosis patients, the inadequacy of infection control measures, and high prevalence of undiagnosed tuberculosis (8).

## 2. Knowledge Levels of Healthcare Employees About Tuberculosis

In many countries, healthcare employees receive regular training about infection control (1, 9). This training covers specific areas within the general infection control rules. However, specific infection training sessions do not yield the expected outcomes; due to the fact that the concept of infection is abstract in nature, and thus cannot be foreseen by people (9). In an extensive study where researchers interviewed with one hundred and thirty-eight assistant health workers, 96 community health workers and 39 nurse assistants; with 89 (66%) of participants interviewed in the last 10 years and 49 (36%) in the last 12 months, it was determined that 103 (76%) personnel lacked information on how to prevent contamination (6). Another study conducted in Turkey, which included 126 family physicians working in primary healthcare settings, found that tuberculosis knowledge did not meet the desired levels; the study researchers suggested that training programs were needed to increase awareness levels and to ensure that best practices are adopted (3). In this study, general practitioners were questioned regarding the following: duration of time spent by patients in the same waiting room as patients receiving tuberculosis treatment and their use of protective masks, approach to breastfeeding children with pulmonary tuberculosis, type and evaluation of the BCG vaccine, mask type that should be used, and initial treatment protocol for lung tuberculosis. Unfortunately, the researchers noted significant differences among the answers provided by individual healthcare practitioners. This emphasized that the education received in medical school was insufficient and that in-service training should continue (3). In another study that included 293 medical school students, it was found that students who received tuberculosis-related training had significantly more knowledge about how the disease was transmitted, risk factors, symptoms, diagnosis protocol, duration of treatment and because of this they were less concerned about being infected compared to students who did not receive such training (9).

## 3. Monitoring of Health Workers During Tuberculosis Infection

Healthcare employees can potentially be infected by patients with both diagnosed and undiagnosed Tuberculosis (1, 10). Within the scope of infection control measures, and as standard precaution, every patient who is admitted to any healthcare organization is considered to be infected. However, a patient infected with Tuberculosis should be approached with consideration to a number of rules, which are entirely unlike the standard approaches (1). The fact that it is not known what type of infection patients have upon hospital admission increases the risk of infection (1, 10). In this regard, it is important that respiratory isolation rules must be applied (1, 10). Since the tuberculosis bacillus is less than 5 microns and rapidly spreads in the air, the environment in which a tuberculosis bacillus carrier comes in contact with soon becomes infected. In order to protect against the rapid spread of particles in the environment in question, N95 enabled masks should be used. The fact that respiratory isolation rules are not applied in the triage area of hospitals leads to an increase in tuberculosis infections (10). Consider when a patient is admitted into the triage area, and healthcare professionals have completed all the necessary assessments, that single tuberculosis case has now infected numerous healthcare employees. When the presence of tuberculosis is confirmed in a patient, all healthcare employees in that entire treatment chain are screened for tuberculosis (1, 10, 11).

There are two main screening tools for tuberculosis, the tuberculosis skin test (PPD) and a chest x-ray, following which prophylactic treatment is started based on the condition of the person. The PPD test is done on the forearm of the test subject. If the person has previously encountered tuberculosis bacillus, hyperemia (redness) and induration (blistering) will occur at the test site within 2 - 3 days. Although the diameter of hyperemia is not important, the diameter of the relief (induration), which is determined by hardness, is important. The presence of induration (blistering) should be determined via inspection and palpation. The diameter of the induration is measured millimetrically with a transparent ruler 48 - 72 hours (2 - 3 days) after testing. Individuals that have a PPD test score at or above 15 mm are considered to be positive. At which point, the following treatment protocols are applied: 6 months Isoniazid, 9 months Isoniazid, 4 months RIF, 3 months RIF and Isoniazid or 3 months isoniazid and rifapentine (1). Training and support should be provided to individuals in order to maintain treatment adherence. If necessary, preventive treatment should be provided under direct supervision and should be continued without interruption. If any



