Preventing and Protecting Against Tuberculosis – Healthcare

What's at Stake?

Tuberculosis (TB) is a serious and infectious condition that can affect different parts of the body but is most commonly considered to be a disease of the lungs. People often develop TB if their immune system is lowered due to conditions such as aging, major illness, and surgery.

TB is prevalent in the HIV community as well as the aged care population with a large proportion of the TB population being aged 65+. People living in poverty or on the streets are also at high risk of developing TB.

What's the Danger?

People with latent TB are not infectious and do not show any signs of having the condition unless they are tested. While latent TB is treatable, it does require a strict regime of a high number of drugs over a period of time until tests are negative. This regime is not easy for people to follow and non-completion of the treatment course is a problem. If latent TB is not fully treated, the person can go on to develop active TB, becoming ill themselves and infectious to others.

The two biggest risks of TB are lack of awareness of symptoms if someone develops TB and the ease with which it can spread to others through droplets carried in the air through coughing, sneezing and even just talking.

For these reasons, healthcare workers are screened before they start work in a facility and if they are exposed to TB during their work. Employers must implement strict infection control

protocols if a known TB sufferer either latent or active, is identified. This includes the provision of fitting, training, and wearing of respirators in high risk areas.

How to Protect Yourself

1. Know the signs of active TB

A person with active TB may have one or more of these symptoms.

- You feel sick and/or a bad cough that lasts 3 weeks or longer.
- Pain in the chest or coughing up blood or sputum.
- Weakness or fatigue.
- No appetite and weight loss.
- Chills, fever, and night sweats.

2. Be prepared to wear the N95 or higher respirator

- Be trained to:
    - know when you need it;
    - put it on correctly; and
    - check filters are changed/cleaned as per the manufacturer’s instructions.
- Make sure it fits.
- Wear it when:
    - entering a room housing individual with suspected or confirmed infectious TB;
    - present during high hazard procedures or services; and
    - transporting an individual with suspected or confirmed TB in a closed vehicle.
- Dispose of the respirator correctly after use.

3. Be tested

- If exposed to airborne droplets from a known TB sufferer:
    - report as per your facility’s exposure control plan;
    - get tested; and
    - take medications as prescribed.
- Have regular testing, as offered by your facility.

4. Keep in isolation

- If a patient is confirmed as having active TB either,
    - provide all care in a respiratory acid-fast bacilli (AFB) isolation room; or
    - arrange transfer to a suitable facility with a full exposure control plan in place to cover the transfer and settling into new facility.
- When providing care in a respiratory AFB isolation room (a room with negative pressure or superior ventilation to minimize escape of airborne droplets) follow these precautions:
    - Keep doors closed except for the purpose of entering or exiting to help maintain negative pressure in room.
    - Limit access to these rooms to specific employees.
    - Combine tasks to prevent excessive traffic in the room.
        - For example: Rather than having the dietary aide bring in food, the nurse could combine tasks by bringing in food with medications and bedding as she performs morning care for the patient.
    - Locate air intake ducts away from doors.
    - Warning signs shall be posted outside the respiratory isolation or treatment room.
        - g. “STOP”, “HALT”, or “NO ADMITTANCE”.
        - Biological hazard symbol and a descriptive message (e.g., ” No Admittance Without Wearing a Type N95 or More Protective Respirator” or “See Nurses’ Station Before Entering This Room”).
    - The precaution sign must remain after someone who was infectious left the room and respirators must be used if entering the room, until the area is ventilated for the time necessary to obtain 99.9% removal efficiency.
- Ensure biological hazard tags are on any air transport components (e.g., fans, ducts, filters) that may contain air infected with M. tuberculosis

5. Clean up when room/area vacated

- Normal cleaning procedures can be used, i.e. an EPA approved

germicide/disinfectant. (It does not need to be tuberculocidal for routine cleaning of a TB isolation room.)
- Follow isolation practices and wear a Class N95 or more protective respirator, while cleaning rooms of an infectious patient.
- For final cleaning of the isolation room after a patient has been discharged, PPE is not necessary if the room has been ventilated for the appropriate amount of time.

6. Take note
   - Facilities where a member of staff is diagnosed as having TB after workplace exposure need to notify the appropriate agencies.

Final Word

Active tuberculosis infection is a highly infectious, serious, and increasingly fatal condition. The risk of healthy individuals developing an active TB infection after being exposed to the bacteria is relatively low, but they are at risk of developing latent TB. Although this is not infectious and causes no problems while it is latent, everyone with it is at risk of it developing into the infectious active form, causing the individual to become ill and putting their families and members of the community at risk of developing TB.