For Staff /Patient Education

Mycobacterium Tuberculosis

February 2014

What is it?

- ***Mycobacterium tuberculosis*** (MTB) is a pathogenic bacterial species in the family Mycobacteriaceae and the causative agent of most cases of tuberculosis (TB).
- *MTB* has an unusual, waxy coating on its cell surface (primarily mycolic acid), which makes the cells impervious to Gram staining. Acid-fast detection techniques are used instead. The physiology of *MTB* is highly aerobic and requires high levels of oxygen. Primarily a pathogen of the mammalian respiratory system.
- TB germs (MTB) can live in your body without making you sick. This is called latent TB infection. This means you have only inactive (sleeping) TB germs in your body. The inactive germs cannot be passed onto anyone else. However, if these germs wake up or become active in your body and multiply, you will get sick with TB disease.
- When TB germs are active (multiplying in your body), this is called TB disease. These germs usually attack the lungs. They can also attack other parts of the body such as the kidneys, brain or spine.
- TB disease may spread the germs to people they spend time with everyday.
- Symptoms of TB disease include: a bad cough that lasts 3 weeks or longer, pain in the chest, coughing up blood or sputum, weakness or fatigue, weight loss, no appetite, chills, fever, sweating at night.

How is it spread?

- Person -to -person spread by infectious aerosols
- TB germs are passed through the air when someone who is sick with TB disease of the lungs or throat coughs, speaks, laughs, sings or sneezes. Anyone near the sick person with TB disease can breathe TB germs into their lungs.

Where is it found?

- Humans are the only natural reservoir

Prevention and Control:

- AIRBORNE PRECAUTIONS for all suspected or confirmed TB Disease of the lungs, airway or larynx.
- Patient is placed in a single negative pressure room. Ensure that doors & windows are closed at all times to maintain negative pressure. Signage is placed on the door written in Arabic & English.
- If negative pressure room is not possible, patient is placed on isolation, away from other patients. Ensure that the door is closed at all times but may open the windows. Patient is transferred to a facility where infectious disease unit is available.
- All person entering the Airborne Infection Isolation (AII) room should wear at least N95 disposable respirator.
- Limit number of individuals entering the room. Visitors should be restricted to immediate family only.
- Maintain patient in his/her room at all times. If patient must leave the room (for essential purposes only), ask the patient to wear a surgical mask.
- Educate all Healthcare Workers & visitors regarding the importance of adherence to isolation procedures.
- Use appropriate signage advising respiratory hygiene & cough etiquette.
- Keep your health in good shape, (eat well-balanced diet, adequate rest and sleep, exercise).
- Coordinate efforts with local or state health department (MOH).

For more information contact:
candolb14269
Ms. Lucita B. Cando, BSN-RN
Infection Control Practitioner
Email: candolb@alj.com
Telephone No: (02) 6770001 local 1511

Source:
CDC MMWR.December 30,2005/ Vol.54/No. RR-17. Guidelines for Preveting the Transmission of MTB in Healthcare Setting, 2005

Abdul Latif Jameel Hospital
Infection Prevention and Control Department

LBC

Concept adapted from Public Health Ontario-Regional Infection Control Network