**Tuberculosis**

As a communicable disease, the correct definition of tuberculosis also commonly known as TB is a contagious infection known primarily to attack the lungs but can also spread to other body parts including the spinal cord and the brain. The bacterium that causes the TB infection is scientifically known as *Mycobacterium tuberculosis.* According to Yimer (2014), a person might be infected with TB which simply means that the bacteria might be present in the body but in an inactive state since they are in a structure walling them off which act as a defense mechanism of the body. For tuberculosis to fall under the severe category, it then has to spread to the other parts of the body causing damage to the lungs and other body organs. The most serious TB infections are found in the kidney, the blood, the meninges which are membranes found around the spinal cord and the brain. Meningitis is common among children aged between six and twenty-four months, and it is believed according to Camerlin (2012) as the highest cause of tuberculosis death.

**Causes of Tuberculosis**

The bacteria responsible for the cause of TB spread through the air from the infected person to a non-infected. The bacteria, *Mycobacterium tuberculosis*, get on the air when a TB infected person does the following activities, coughs, sings, sneezes, talks, and spits among others. The non-infected individual's nearby might in the process breathe in the bacteria thus contracts the disease. Even though the tuberculosis is contagious, catching the disease is not easy. According to Qiu et al. (2015), one only gets the disease if they spend a considerable amount of time around the people who are infected, perhaps the reason TB is prevalent among coworkers and members of a given family. *Mycobacterium tuberculosis* does not thrive on the surface hence one cannot catch the disease through a handshake, food sharing, and drinking.

**Symptoms**

In their findings, Allareddy et al. (2017) state that even though a person’s body might house tuberculosis-causing bacteria, the body’s immune system might not make one fall sick. A typical example is of the two different types of TB, the latent and active. In latent TB an individual has the infection, but the bacteria is in an inactive state hence no symptoms are displayed. On the other hand, Active TB the carrier becomes sick, and the virus can spread to the other people. The signs and symptoms of an active TB include coughing for three or more weeks, coughs that contain traces of blood, pain in the chest, pain during breathing or coughing, fever, chills, fatigue, night sweats, loss of appetite and loss of weight. Since tuberculosis affects other parts of the body like brain, kidney, and spine too, the symptoms are different from the ones affecting the chest. For example, when TB affects the kidney symptoms are common in the urine which will have traces of blood and spine might cause pain on the back.

**Mode of transmission**

The cause of TB includes bacteria that come from a person with active tuberculosis to the next through microscopic droplets released into the air when one coughs, laughs, sneezes, sings and spits.

**Complications**

Even though TB is known to affects the lungs, if untreated it might me fatal and spread to other body parts through the bloodstream. For this reason, the complications of TB include spinal pain, damage to the joint, brain membrane swelling (meningitis), liver or kidney problem and heart disorder.

**Treatment**

For treatment of tuberculosis, medication is the only way. A patient diagnosed with tuberculosis must take antibiotics for six to nine months. The drugs and length of treatment depend on age, health, the form of TB (active or latent) and drug resistance. The most common drugs include Isoniazid, Pyrazinamide, Rifampin, and Ethambutol.

**Mortality, Morbidity and incidence and prevalence**

According to the data by CDC, one-third of the population of the world is infected with TB. The data estimate that in 2016 alone, up to 10.5 million people got infected and the number of deaths worldwide stood at 1.7 million individuals. In the United States alone, the same year 9,557 TB cases were reported, meaning 3.0 cases in every 100,000 individuals showing an overall increase in some infected people. Even though the number of infection increased in the country, the incident rate per 100,000 remains constant.

**Determinants of TB**

One of the categories that commonly determine the spread of TB is social; the first and most powerful determinant of tuberculosis is poverty. For example, places with huge crowds and poorly ventilated be it living or working environments which are so due to poverty directly increase the risk for transmission of *Mycobacterium tuberculosis*. Another important factor under poverty is the under nutrition which enhance the development of the disease, and finally, poverty causes poor health knowledge. Second is urban regression according to Camerlin (2012). *Mycobacterium tuberculosis* infection is more common in urban areas than in rural setup thus the more rapidly urbanizing societies face this challenge.

**Epidemiology of TB**

Epidemiology of any condition consists of an agent, host and the environment which is used in the identification of a condition to prevent the spread of the disease (Zumla, Yew & Hui, 2010). Under tuberculosis, the agent of study is *Mycobacterium tuberculosis* acid-fast aerobic rod identified to replicate slowly and oversensitive to heat and light. Primarily TB affects the respiratory organ, but in some cases, it affects kidney, pericardium, edges and intestines among other parts. *Mycobacterium tuberculosis* is spread through airborne from person to person, coughing, talking and sneezing acting as the primary vehicle. The virus readily spread to the susceptible individual through the exposure of respiratory organ mostly in a public gathering. People at increased risks of contracting the disease include persons with weakened immunities, for example, anyone with cancer, HIV/AIDS, and diabetes mellitus. Also important to note is that people with good resistance too can easily contract the disease. The environment factor also affects the function of the organism, these factors include, ethnicity, impoverishment, homelessness, prison system among others.

**Roles of Community Health Worker**

Majorly the roles played by the community health worker in the management of tuberculosis fall under the following categories, monitoring, linking client with hospitals and capacity building. Under control, community health workers (CHW) pass information to the sick to ensure that they manage their status well. The CHW collect measurements of the suffering which would, later on, be important in keeping track of the condition. CHW also play a crucial role in linking the sick to a medical facility for example if the situation grows to be worst, then the worker can contact the medics to assist or to give direction on the right procedure to take. Secondly, the community health worker helps in checking the records of the sick to keep track on whether they take medication the right way. On capacity building, the CHW act as peer educators to the sick on a range of topics including, correct diet, avoiding overcrowded places, minimizing disease transfer among many others.

**National Agencies**

For the purpose of the paper, one conventional agency is highlighted, The National Tuberculosis Association. The body work in the following ways in fighting the disease, one development and provision of a collective voice in elimination activities of the condition in the US and collaboration with other organizations try to eliminate the disease at the state, local and territorial level.

In summation, tuberculosis as a disease poses a global threat to many nations mostly in the developing countries. The management and treatment of the disease are possible if the right measures are put in place as is evident in the discussion above. A correct approach to the illness control and treatment should involve all sectors and government agencies.

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