

## Emergence of Tuberculosis in Pakistan; A Clear Problem in Near Future

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### Letter to the Editor

Dear Editor,

Throughout the world, one death out of ten is due to tuberculosis. Tuberculosis is a persisting disease which is caused by a type of bacterium called *Mycobacterium tuberculosis*. Usually, It acts on the lungs, but it can also be affected the other parts of the body like brain, kidneys, intestines and the spine. In 2016, 10.4 million patients of tuberculosis were reported, of which 1.7 million died. Over 95% of tuberculosis deaths happen in middle and low income countries. 64% of the total tuberculosis has been reported in Pakistan, China, India, Nigeria, South Africa, Philippines and Indonesia countries [1]. The rank of Pakistan with respect to the tuberculosis high-burden is fifth throughout the world. With an estimation, almost 510000 new tuberculosis cases emerging and approximately 15000 developing drug resistant tuberculosis cases in Pakistan in each year. Pakistan is also assessed to have the quarter highest occurrence of multidrug-resistant tuberculosis globally [2].

It is infectious or contagious disease which can spread from person-to-person through the air.

It can easily spread in those persons in which very weak immune system present in their bodies. Starvation, poverty, addiction, overpopulation, illiteracy, joblessness, and poor sanitary conditions are the joint features for the disease progress. Passive and direct smokings are also supported on the effect of prevailing nature of tuberculosis [3]. One of the major reasons is unawareness about tuberculosis [4]. Another main reason for increasing death rates due to tuberculosis is the antibiotic resistance capacity of tuberculosis. It is an ancient disease and medicines were made for the treatment of it, but in the present, the performance of old medicines against tuberculosis continuously decreasing. Diarylquinolines is an antibiotic drugs that is used in the treatment of tuberculosis. They attack on subunit c of mycobacterial Adenosine Tri-Phosphate synthase and inhibit *Mycobacterium tuberculosis* to synthesize Adenosine Tri-Phosphate and kill the bacteria. But, in June, 2017, at least 89 countries reported that the using of bedaquiline for treatment of multidrug-resistant tuberculosis. Its multidrug resistance ability is increased from 9% to 48% [5].

In conclusion, death rates due to tuberculosis are increasing after every day. Its multidrug resistance capacity is the most harmful to the

health of human beings. It should be controlled from Pakistan along with all over the world. More hospitals should be built in Pakistan. Government and private hospitals should work together to control it. Different research labs should be built in each hospital, which keenly observed the effect of newly synthesized medicine against tuberculosis. They should compile local antibiotic susceptibility profiles and circulating freely among the common persons. Government should be aware the common people from the facts or symptoms of tuberculosis. Tuberculosis awareness scheme programs should be showed through the media. Hospitals should be acknowledged to the people all about it. More research should be done in the synthesis of such antibiotic which easily kill *Mycobacterium tuberculosis*. The topic of MS or Ph.D research students should be related to the factors which control the effect on the antibiotic resistance of *Mycobacterium tuberculosis*. Earning sources should be provided to all people of this country. Education should be prevailed.

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### Conflict of Interest

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