# Tuberculosis amongst healthcare professionals. You'll get used to it.

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Our clinical rotations in the hospital include 15 days of postings in the TB ward. We were all afraid. What if we get infected? What will we do? Will we have to spend months, or maybe years for the treatment? It was only after we realised that TB stood for Tracheo-Bronchial and not Tuberculosis that we were relieved.

This fear of contracting a debilitating disease from patients exists in all healthcare fields and for good reason. Medical residents have a 15 times higher risk than the general population of contracting tuberculosis (TB). Despite this, the practice of protection seems to be lacking. It is very uncommon to see resident doctors or nurses wearing N95 masks!

One might ask, what is the big deal? Once diagnosed with TB, the individual can take the proper treatment, be cured and get back to work. There are three issues with this statement : One, be cured. The course of treatment could take anything between six to eighteen months depending on the resistance of the TB bacillus. This means taking a break from work for a long period which can have serious implications on a medical career. Two, social stigma : TB comes with its own set of social problems. People follow the dictum 'prevention is better than cure' very strictly when it comes to interacting with individuals who had an infection in the past. Medical personnel who contract the disease face job application rejections (unofficially) or a decrease in the attendance at their clinics, which defeats their purpose of entering into the medical field in the first place.

Finally, diagnosis. Most health care personnel who get infected with TB develop a latent disease. Here, the bacilli are not actively multiplying, but are kept in check by the person's immune system. Though these individuals cannot transmit the infection to others, the lifetime risk of developing active TB disease in the future is 5-10% with most of them developing it within the first 5 years of infection. This highlights the necessity of identifying the latent cases. The impediment to this, however, is in the name itself- latent. If there are no symptoms, medical professionals are not likely to come forth.

Compounded with the absence of compulsory screening procedures amongst them, diagnosing latent TB is quite difficult. In a meta-analysis published in 2016 of 18 studies consisting of 10,078 participants regarding the prevalence of latent TB amongst healthcare workers in high burden countries the prevalence of latent TB amongst medical professionals was nearly 50%. This means almost half of their study population were unknowingly infected with tubercle bacilli and could acquire the active disease at any time. This emphasises the importance of screening amongst healthcare professionals for TB, just as we would screen employees for any other disease acquired at the workplace.

In fact, most experts consider it an occupational disease. Then why doesn't Tuberculosis get the importance that it should regarding prevention amongst healthcare professionals? Why aren't all students made aware of which patients have active TB and told to wear the N95 masks? Why aren't all residents treating these patients made to compulsorily take preventive measures?

India has the highest burden of TB disease. A report published by the WHO estimated that 10 million people had TB in the country in 2018. This is more than 3 times the population of Pune city, which follows that the healthcare workers treating these patients are at a high risk of contracting the disease. Nonetheless, nationally representative data is lacking. We are not aware of how many healthcare workers contract TB in a year or which regions have the highest incidence of the same.

Such data will form the platform upon which effective preventive measures can be implemented. According to a study published in the journal of Emerging Infectious Diseases, by the introduction of TB transmission control measures the annual incidence amongst healthcare workers can be reduced by upto 81% in countries with high incidence of TB.
The insufficient use of preventive measures could possibly stem from not only the authorities, but also the victims of the disease themselves.

Although fear exists, there is a certain sense of denial, or rather a psychological defence mechanism that is displayed by the healthcare workers. This is encouraged by the 'invincibility' that is passed on to juniors from their seniors, who believe that contraction of the disease by themselves is highly unlikely. This has created an atmosphere of ignorance, which has spread a misguided and fallacious bubble of safety around those responsible for providing the preventive measures, and those responsible for implementing them. It is necessary to gradually deflate that bubble with managerial activities and administrative and engineering controls along with the adoption of N95 respirators, before it unwittingly pops.