A Tuberculosis Activist Guide to the Corona virus

*Unpacking the similarities, differences and way forward for those passionate about TB.*

COVID-19 has received a major amount of media and political attention in the last few months. In contrast, Tuberculosis (TB), despite being the leading cause of death due to an infection worldwide, struggles to garner similar public attention. Yet, **the diseases share similarities** since they are both respiratory infections that anyone can acquire, although some groups of people are at higher risk.  Some of the key tools for preventing their spread are also the same, such as covering your mouth with your elbow when you cough or sneeze, separation of people who are potentially infectious, and rigorous contact tracing.

First, let’s look at the terminology. The virus, commonly referred to as the Corona virus, is called SARS-CoV-2. It causes the disease called COVID-19. Irrespective of what is has been called, it has captured people’s attention because it is a new virus, to which we have not been previously exposed and people become sick quickly, resulting in people being concerned about the immediate risk that it poses to them and their loved ones. **COVID-19 also spreads much more rapidly than Tuberculosis,** with the incubation period estimated to be around 5-14 days. (1) In contrast, once you are exposed to Tuberculosis, of the people who become infected, the majority initially develop latent infection.  People with latent TB infection are asymptomatic and for the 5-10% that go on to develop TB disease, it often takes time before people develop the typical signs of TB disease (commonly it happens over a period of a year). This difference in time to developing TB disease makes it difficult to go back and trace where the infection took place. TB has been around for centuries and is often perceived as a disease that only affects the poor or those with weakened immune systems, leading to stigma, even though anyone who breathes can become sick with TB.

TB kills more than 4 000 people every day (2) but this happens silently and largely unnoticed by the mainstream media and senior public figures. Increased political commitments are desperately needed. As TB activists, it is our natural impulse to want to push for more media attention and funding to fight the TB epidemic. **But when it comes to infectious diseases and suffering, it is not a competition.** Just like TB, COVID-19 poses a serious risk to millions of people all across the world, including in South Africa. **The two epidemics are also not separate.** Tuberculosis can lead to long term lung damage, making people more susceptible to viral infections like COVID-19. And a serious potentially debilitating disease like SARS-CoV-2 caused by COVID-19 can increase the risk of new TB infection as well as progression from existing latent infection to active TB disease. I.e. a vicious cycle of ‘complementary’ infections, much like HIV and TB. **We care deeply about TB, but it is rooted in caring about the right to health and wellbeing for all people.**

*What are the differences between two diseases?*

COVID-19 spreads rapidly when groups of people come into contact with each other, usually when a sick person coughs or sneezes. You could also catch the virus if they have coughed or sneezed onto a surface (like a table) that you touch, getting the droplets on your hands and then transferring them to your mouth, nose or eyes when you touch your face or eat.

On a larger scale, we can slow down the spread of the virus by social distancing. This is explained in a widely shared article accessible here: <https://medium.com/@tomaspueyo/coronavirus-act-today-or-people-will-die-f4d3d9cd99ca>

If people avoid contact with others, the COVID-19 virus spreads more slowly, fewer people become sick at the same time, reducing the strain it places on health systems.  Most countries will struggle to meet the healthcare needs posed by a large surge in people who are acutely unwell. If fewer people are very sick and in need of intensive care at the same time, the available resources can be extended to help more people.

TB also spreads when someone affected by the disease coughs or sneezes, but it is present is very small droplets (called droplet nuclei) that can hang around in the air. People develop TB after breathing the air that contains theses droplets. Social distancing has not been recommended for preventing TB from spreading, because most people who develop TB are exposed to the disease for a longer period of time than COVID-19. This can be in their family or being exposed due to their work (for example health care workers and mine workers). The exposure usually happens long before someone is diagnosed with TB, but the evidence regarding shorter term exposure risk is not conclusive, largely due to the logistical and technical challenges in trying to quantify exposure and how that correlates to actual sustained TB infection.

With that being said, the preventive measures implemented for COVID-19 will have an impact on reducing TB transmission too. These benefits should not be offset by delays in TB testing or interruptions in access to TB treatment. Some of the biggest risks posed to people would be if the need for respiratory support caused by COVID-19 overwhelms healthcare service and supply chains.

Of critical importance, while early recognition and diagnosis is optimal for both infections, there is currently no known effective treatment for COVID-19. TB is both preventable and curable and effective treatment for TB rapidly decreases the potential for ongoing spread.

*What about the use of masks to prevent COVID-19 and TB?*

Panic buying of masks by people in an attempt to try to protect themselves from COVID-19 is not backed up by evidence. If you are the person coughing or sneezing, wearing a mask helps to prevent you from spreading the cause of your illness to other people. **Surgical masks should not be worn by members of the public to protect themselves from contracting TB or COVID-19. They help health facilities to prevent diseases from spreading through the air**.

The existing training that health facilities have had on preventing TB from spreading (like having good ventilation with open windows, having separate queues for people who are coughing and asking people with a cough to wear masks to prevent airborne diseases from spreading) is also applicable to COVID-19. In some ways health facilities who have been implementing infection control for TB have had better preparation than those who do not commonly work with TB.

There is a global shortage of personal protective equipment, including masks, which is in part driven by panic buying, hoarding and misuse (3) Surgical masks are an important tool to prevent diseases from spreading via the air in hospitals. A healthy workforce is critical for us to be able to meet the increased needs that the COVID-19 pandemic requires. We do not advise people to buy surgical masks for personal use unless they are concerned about spreading their illness to others.

We are concerned about the well-being of health workers. In TB Proof we have had several health worker colleagues who have developed TB due to their work. In Italy, health workers have also been placed under severe strain due to the epidemic, with 20% developing infection, some of whom died. (4)

*What will the impact of COVID-19 be on Tuberculosis prevention and care?*

We don’t know. But shortages in the supplies of masks and N95 respirators will impact TB prevention efforts. Health care facilities struggling with large numbers of ill people due to the Corona virus could struggle to provide care for those sick with TB.

**Now is not the time to debate whether TB or Coronavirus should worry us more. They are both causing severe preventable suffering, and by strengthening our own and our health system’s ability to combat the one disease, it will also strengthen our ability to fight the other.**

As TB activists we should use our existing advocacy networks and media contacts to call upon the leaders of our countries to take urgent action to curb the pandemic.

**Social distancing is key to slow down the spread of COVID-19**: people should work from home wherever possible, non-essential travel should be discouraged strongly, schools, universities and other facilities where groups of people gather publicly should explore online alternatives or close, social, sporting, cultural and religious events should be cancelled. Hand sanitisers and hand washing stations should be available everywhere and continuous education on all media platforms (with the focus on actions people can take, not fear) is important. Private industries, schools and universities should be mobilised to assist with the response. And politicians, the police and public health authorities should take leading roles, as they have done in countries who have had the most effective COVID-19 outbreak responses.

**This is not the first pandemic and it will not be the last, as both TB and HIV have taught us in the most painful ways. But we have a real opportunity to respond now in a way we never have before. And together prevent suffering and death as never before.**

*Answers contributed by TB Proof members who medical doctors working in infectious diseases, public health and infection control.*

References:

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4. COVID-19 and Italy: what next? Remuzzi and Remuzzi. The Lancet. Published online 13/03/2020 <https://doi.org/10.1016/S0140-6736(20)30627-9>