



Letter to the Editor

Impact of COVID-19 pandemic on TB and HIV services in Pakistan

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Dear Editor

We read with interest the article recently published entitle ‘Impact of the COVID-19 pandemic on tuberculosis laboratory services in Europe.’ by [1] and here we would like to explore the effect of COVID19 pandemic on TB and HIV services in Pakistan.

As corona virus spreads rapidly in the world, many gaps in the well-established health care system have been exposed. As a result, many more issues have been aroused for the already vulnerable

community like patients with tuberculosis (TB) and Human Immunodeficiency Virus (HIV). Like all the countries of the world, Pakistan is also hit hard by the pandemic with 1,572,778 confirmed cases including 30,619 deaths [2]. However, this is not the first time that Pakistan has experienced national health emergency situations. Before this, secondary infection with tuberculosis was the prime concern for HIV/AIDS control measures in Pakistan [3].

Scientists and physicians were anxious when COVID-19 appeared in Pakistan because the country has a huge burden of TB. Tuberculosis considered as the world biggest killer among infectious diseases. Pakistan is fifth amongst high multidrug resistant (MDR)-TB burden countries with an estimated occurrence of 570,000 TB cases including almost 25000 MDR TB at 220 million population [4]. The level of Pakistan’s HIV cases has been increased for almost a decade and about 20,000 new HIV infections have been reported in 2017 [5]. However, the total prevalence is still lesser than 1% but the number of individuals living with HIV was approximately 150,000 in 2017. Later on, in 2018, 21,000 people and in 2019, a new epidemic of 876 HIV cases has been observed in Larkana, Sindh [6].

1. How COVID-19 impacted TB and HIV services in Pakistan

COVID-19 causes breaches in the Pakistan health care system in several ways specifically in TB and HIV services. Moreover, the TB and HIV patients are more susceptible to COVID-19, so due to unavailability of diagnostic and treatment services the mortality rate can be increased during this pandemic [7]. The COVID-19 can affect the TB and HIV services in Pakistan through the following main pathways.

Firstly, the healthcare workers and funds will be most likely to be diverted and shifted away from TB and HIV services because of COVID-19 response in Pakistan. The number of health professionals dealing with infectious diseases such as TB and HIV will be short mostly because of illness or self-isolation. Such situation could result in deteriorated quality of HIV and TB care as well hindrances in treatment and insufficient follow-up.

Secondly, COVID-19 is affecting the supply chain of all medicines around the globe which results in shortage of drugs and equipment's. This depletion could lead to interruptions in therapies which results in deteriorated health conditions of the patients. As an example, the interruption in six months antiretroviral treatment could increase the death rate caused by AIDS and effectively move back the time to 2008 when 950,000 and above deaths were reported in the region. Likewise, due to disruption in antiretroviral therapy for a long period of time, people might die with a 40% average excess in death rate every year for the next half a decade [8].

Thirdly, in most cities with high load of COVID-19, healthcare systems collapsed due to the increased number of patients. Because they prioritized treating patients with COVID-19, they left with no energy and resources to medically assist other patients, including TB and HIV. Moreover, in Pakistan for the treatment of MDR-TB patients at least two-week hospitalization is mandatory by law, but due to the COVID-19 patients, it is difficult to hospitalize any MDR-TB patients in any hospital easily. Furthermore, the patients also give preference to staying at home because of COVID-19.

Fourthly, laboratory testing procedures of TB and HIV is also interrupted, and these laboratories are dedicated towards COVID-19 screening. This can result in significant delays in diagnosis of HIV and TB which leads to increased community transmission [9]. Lastly, this anarchy caused by COVID-19 could undermine the quality and analysis of TB data that

are collected by the high-burden countries like Pakistan. Because of the pandemic it is reported that three of ten million TB patients are missing which means they are either not screened for TB or not reported to the health systems [10]. Furthermore, Healthcare workers are hesitant to work with TB samples for testing because TB and COVID-19 have much similar symptoms [7]. In Pakistan, TB and HIV affected people are living in villages away from cities where the health care facilities are not provided adequately and must travel to well-developed cities. This lack of travel has stopped people from gaining access to healthcare facilities increasing the chances of getting infections like HIV and TB.

2. Implementation for reducing the possible outcome of COVID-19 on the services of TB and HIV

We must determine ways to withstand the all-important medical care services. Many countries have already started implementations for HIV services such as many social welfare societies are distributing large number of medicines and self-testing kits, which alleviated pressure from health officials [7]. National TB Control Program (NTP) in Pakistan has also displayed response to crisis caused by COVID-19 outbreak. They have issued an advisory for continuity of TB services and developed a software for risk tracking solution.

Some communities in Pakistan are doing well in this Pandemic thus, giving the positive impact to the world. Khawaja Sira Society (KSS), working with transgender-people has stepped in to deliver support to the people infected with HIV. They are endorsing awareness about prevention regarding HIV and COVID19. The KSS along with district management officials is also functioning to make sure that people infected with HIV could be provided by multi-month refills of anti-retroviral treatment delivered to their home. Since a constant supply of anti-retroviral treatment is crucial for HIV infected patients, the Pakistan Common Management Unit (PCMU) for AIDS and TB, in partnership with UNAIDS and other associates, has established computer-generated platforms and help desk in order to confirm that coordination is sustained [11].

There is dire need for immediate efforts to assure the continuity of HIV and TB control measures and treatment services. So, the death rates can be controlled, and the situation may not get worsen due to increase in mortality rate. It will be vital to highlight the regular supply chains and confirming that people already on treatment are able

to stay on treatment by reinforcing or adopting the policies such as multi-month dispensing of anti-retroviral treatment in order to decrease necessities to access health-care facilities for routine maintenance. The welfare communities can also reduce the negative impact by ensuring the appropriate testing service and making people comfortable, so the risk factors are also detected. The COVID-19 outbreak must not be an excuse to shift investments and resources from TB and HIV as it will increase the negative impact of COVID-19 pandemic [7].

Conflict of interest

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