[**Every day is World TB Day**](https://www.dawn.com/news/1748650/every-day-is-world-tb-day)

[Naseem Salahuddin](https://www.dawn.com/authors/4514/naseem-salahuddin) Published April 20, 2023

The writer is an infectious disease specialist in Karachi.

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LAST month, tuberculosis-inflicted countries celebrated World Tuberculosis (TB) Day. In Pakistan, it was observed enthusiastically with seminars, talk shows, awareness walks and press releases. Pakistan has a plethora of infectious diseases (ID), holds the dubious distinction of ranking fifth in the burden of TB in the world, and is one of eight nations that accounts for two-thirds of new cases of TB.

While rich countries report the incidence as less than 10 per 100,000 population, in Pakistan the figure is alarming: 263 per 100,000, translating into 580,000 persons who develop TB annually, according to public health specialist Dr G.N. Kazi. Each day, as we encounter patients in the busy ID clinic at The Indus Hospital in Karachi, more than half of them are TB-infected; the rest suffer from a variety of other IDs. Other medical institutions are also reporting escalating numbers in the community.

TB is caused by a bacterium called Mycobacterium tuberculosis (MTB)and has been found in DNA analysis of Egyptian mummies from 5,000 years ago. Despite tremendous scientific research on its cause, diagnostics, treatment, and prevention, the spread of TB is relentless in low- and middle-income countries and is worryingly uncontrollable in our population. MTB, like other bacteria, is akin to a moving target. Anti-TB drugs introduced in the 1950s were effective for several decades, but prescriptions by inexperienced physicians or non-compliant use by patients have created the dreaded situation of drug resistance; the patient no longer responds to conventional treatment. The new drugs are effective but toxic and very expensive.

The TB bacterium is a tenacious germ; it can remain suspended in the air for many hours unless blown away by the wind, and it can survive for days even in extremes of temperature or humidity. The number of bacteria sprayed by an infected person when coughing, sneezing or even speaking varies from a few thousand to a few million. Whether an exposed person acquires the infection depends upon exposure to the bacterial load and the duration of the exposure; obviously, the smaller the living spaces, the greater the chances of the occupants inhaling more bacteria.

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The encouraging fact is that, statistically, only one of three exposed persons will become infected. Of these, one-third will reveal symptoms of the disease within two years; one-third will inhale the bacteria, but the germs will remain dormant in the body until the person’s immunity declines with age, stress or other illnesses. Unfortunately, the bacteria may revive even decades later. The remaining one-third of infected persons may never manifest TB.

The bad news is that, given the substandard living conditions along with malnutrition and poor hygiene, especially among women enduring numerous pregnancies, Pakistan is ripe for rampant escalation of TB. The country’s sinking economy pushes us deeper into the morass of untreatable diseases. Sadly, children exposed to family members are the worst affected, and if undiagnosed or treated late may die, or survive with damaged lungs.

A singular feature of TB is that the bacteria can travel to any organ of the body: once the bacteria take a foothold in the lungs, they may multiply slowly over years, creeping through blood and lymph circulation to any part of the body — glands in the neck or chest, the skin, bones, joints, kidneys, brain, eyes, gut, heart — much like woodworm, damaging the affected organs.

While lung TB can be diagnosed easily in the laboratory by testing the sputum, the diagnosis becomes elusive when a deep organ is affected. If diagnosed early and managed correctly, the disease can be controlled and cured; on the other hand, if the diagnosis is delayed or the patient is incorrectly treated, the affected organ may be irreparably damaged. Also, if provoked by erratic treatment, the clever germs fight back by mutating and developing resistance to standard drugs. Drug-resistant TB is the physician’s and the patient’s nightmare because toxic and expensive drugs must then be prescribed for several months; even then, a third of the drug-resistant patients may never be cured.

TB has to be looked upon not only as a unique ID but also as a social condition. The basic requisites for good health are clean air, food and water, but our population is hugely deprived of these elements. The majority of TB-affected people who live in urban slums are generally undernourished; sunlight is blocked within tiny windowless flats; the air is polluted with dust and smoke; often 10 or more persons share a room. If one person has lung TB, other occupants breathing the same air inhale the bacteria. The Pakistani population has a disproportionately large burden of diabetes, hepatitis, AIDS, kidney failure, and damaged lung structure from polluted air or cigarette smoke, which predispose the individual to TB. Worse still, charlatans posing as doctors play havoc with diagnoses and drugs.

Despite the government’s commitment to improving the situation of TB through the globally funded National TB Programme that promotes awareness, provides diagnostics, capacity building, and timely provision of effective anti-TB drugs, the prognosis remains extremely bleak. On any given day, a moribund patient is brought to the hospital gasping for breath, burst intestines, or unconscious from TB of the brain. Others may have impaired kidneys, bones or joints, or infertility from TB-affected organs. Brave doctors try to salvage the failing organs, but death overtakes 200 victims a day.

This dismal scenario will remain irreversible as long as overcrowding in improperly ventilated homes, workplaces, schools and madressahs prevails. An ill-nourished person with depleted protein reserve can hardly be expected to fight infections. Unless poverty reverts, every day will be TB Day in Pakistan.

*The writer is an infectious disease specialist in Karachi.*

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