

Tuberculosis (TB) is the world's leading cause of death by a single infectious agent. According to the World Health Organization (WHO), 10.8 million people were infected with active TB in 2023, and 1.25 million of those infected lost their lives.

There are two classifications of TB, inactive and active. If a person is carrying inactive TB germs, they cannot infect another person but are at risk of TB becoming active. Those with active TB can easily spread the disease to those around them without knowing it, some active TB cases present mild or no symptoms.



People living with HIV and other microbial resistant conditions are especially vulnerable to contracting TB.

A person carrying active TB can transmit the disease to those around them by simply breathing, talking, sneezing, or coughing. They expel aerosol droplets 0.5-5.0 micrometers in size, about 40,000 droplets per sneeze.

People in proximity to the infected patient only need to inhale fewer than 10 bacteria to become infected. When a person breathes in the infected particles, the germs settle in the lungs and grow, move through the blood and can spread to kidneys, spine, and the brain.

Some TB cases exhibit mild symptoms, others include coughing up blood or sputum, chest pain, chills, weakness and fatigue. When serious cases go untreated, they are often fatal.

Due to the highly contagious nature of TB, those living in crowded and densely populated living spaces are especially at risk.

For example, the WHO cites the burden of TB disease in prison is ten times higher than in the general population, and only 53% of people infected with TB in prisons in 2023 were detected. Also, with regard to senior facilities, the National Institute of Health (NIH) estimates that the rate of TB in nursing homes is four times higher than in the general population.

In addition, Third World countries often lack the resources we are used to in the Western World, and this makes the battle against TB even more difficult.

As a new portable, low-cost alternative, SafER Medical's Isolation Systems can help mitigate this divide and aid in the global battle against TB by providing front line protection against its spread.

SafER not only provides protection but also helps improve critical diagnostic procedures such as sputum induction for TB testing and bronchoscopies if needed.

By mitigating the need for expensive negative pressure rooms, SafER is a force multiplier to provide more effective TB therapy in third-world countries, as well as expanding Health Department TB testing and therapy capacities in the US.



SafER Medical Portable Systems are Frontline Solutions in the Global Tuberculosis Battle

When medical workers initially contact a patient exhibiting symptoms of a respiratory airborne illness, they take precautions to protect themselves. The current standard for protection of EMS workers and those who encounter an infected patient is wearing a mask and gloves. They assess the patient and often travel in very close quarters during transport to a hospital or emergency room. By the time a patient receives positive TB test results, that patient has been near numerous medical workers and other patients, potentially exposing and infecting them with TB.

Exposure to TB can lead to missed workdays, under staffing at work, or staff present but recovering or not able to perform at their best capabilities. Triage nurses and front desk hospital employees are in persistent exposure to airborne viruses. When an unmasked patient coughs in a crowded waiting room, those particles spread to the patient who came in with a sprained ankle. That patient leaves with crutches, and potentially infected with TB. The vaccine for TB has not proven an effective solution to prevent contracting the disease.



SafER Medical believes we can do better.

Comprised of a team of medical professionals with decades of experience on the front lines of emergency patient care, SafER Medical Products has an innovative solution to prevent the spread of airborne respiratory illness and put an end to the global devastation that illnesses like TB can bring.

SafER's lightweight, portable negative pressure system (PNPS) is streamlined, easy to carry and travel with. Proven to be 99% effective in removing infected exhaled particles from the surrounding environment.

These portable systems play a key role in sputum induction for TB testing and isolating patients. SafER also can be used in bronchoscopies that may be performed if diagnosis is unclear, as well as evaluating complications, assessing other infections or existing conditions, and for followup monitoring.



SafER's Chief Operating Officer, Todd Baker, MD, FACEP has dedicated his decades long medical career to serving on the front lines of patient care as a regimental surgeon and ER physician for the US Army, and former Chief of Staff in a major medical center. Dr. Baker and his SafER team recognize airborne respiratory illnesses like influenza and COVID-19 as 'total disruptors' to the medical community and healthcare system.

The SafER Medical team has created a solution and a way to mitigate the cost, morbidity and mortality of respiratory illnesses. The SafER PNPS will save billions of dollars annually from respiratory therapists and paramedics to caregivers in nursing homes or medical staff in prisons. The deadly impact of tuberculosis is predictable, and the previous standard for prevention is not effective.

SafER Medical has a better solution. Better SafER than sorry.

For more information on SafER capabilities or to discuss global deployment opportunities, contact Carl Baker, SafER CEO, at cbaker@safermedicalproducts.com