

Prevention and Treatment of Tuberculosis

Biography



Dr Onno W. AKKERMAN combines clinical work and research at the Department of Pulmonary Diseases and Tuberculosis and the Tuberculosis Center Beatrixoord of the University Medical Center Groningen, Groningen, the Netherlands. He has been a national consultant for clinical tuberculosis since 2015. In 2018, he joined the international consultants for the Global TB Consilium (part of the Global TB network). He is secretary of assembly 10 “Respiratory Infections” of the European Respiratory Society and chair of the TB section of the Dutch Pulmonary Physicians. Furthermore, he is associate editor of both the International Journal of Tuberculosis and Lung Diseases and of Breathe. His research focus has been on monitoring of TB treatment, mainly by pharmacokinetic studies of TB drugs, focusing on enhanced efficacy and reduced toxicity. He has a strong focus on a holistic, person centred care.

Abstract

Transmission continues to drive the tuberculosis (TB) and drug-resistant TB epidemics, making infection control an essential component for public health agencies worldwide. Each year more than 10 million TB patients develop TB, over 80% of whom having pulmonary disease and over 60% are bacteriologically positive. Determining infectiousness is difficult in the absence of a reliable biomarker for point-of-care triage of TB patients. The challenges and costs of managing TB highlight the need to prevent *Mycobacterium tuberculosis* transmission, especially in healthcare facilities and congregate settings.

Most important step for prevention of TB is the FAST (Find cases Actively, Separate safely, Treat effectively) approach, aiming to quickly identify and treat TB to reduce infectious particles in the air to reduce the risk of exposure to persons with infectious TB. This includes triage of people with TB signs and symptoms, or with TB disease, respiratory separation, prompt initiation of effective TB treatment of people with TB disease and respiratory hygiene (including cough etiquette) in people with presumed or confirmed TB.

Treatment of people with suspected or confirmed TB is dependent on drug susceptibility results. Luckily, new developments for both drug susceptible (DS) and multidrug resistant (MDR) TB have led to new and shorter treatment regimens. Four-month treatment regimens for adults and children with DS-TB have been implemented in new WHO guidelines. And the new treatment regimens for multidrug resistant and pre-extensive drug resistant TB have been shortened from 18 to the current 6 months.