TANDEM: FIELD STUDIES ON TUBERCULOSIS AND DIABETES MELLITUS IN PERU, SOUTH AFRCIA, ROMANIA AND INDONESIA

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Presented at the 45th Union Conference, Barcelona, Spain
29 October 2014

BACKGROUND

Diabetes (DM) triples the risk of developing tuberculosis (TB). Consequently, rates of TB are much higher among patients with DM than in the general population, and DM is a common comorbidity among TB patients. At present, 12 – 16 million people live with TB disease and 1.2 – 1.4 million people die from TB every year.[1] Globally, an estimated 285 million people live with DM, a number expected to grow to at least 438 million by the year 2030, by which time >80% of adult cases will reside in low- or middle income countries.[2] It is estimated that DM now accounts for >10% of TB cases worldwide, and this will increase significantly in the coming decades due to the dramatic rise in type 2 DM. This occurs within TB-endemic countries but also among people originating from TB-endemic countries who are latently infected with TB and develop type 2 DM while living in Europe; TB incidence rates in some large European cities are 10-50 times higher than national figures. Globally, there are more TB patients with concomitant DM than are co-infected with HIV.

From a clinical-operational point of view important data are lacking to improve care for patients with concomitant DM and TB. First, screening of TB patients for DM and vice versa could improve case detection, early treatment and tertiary prevention of DM. However, this type of screening is not routinely done in most settings, and the optimal and most cost-effective way of screening has yet to be defined. Similarly, diabetes is associated with increased TB treatment failure, death and relapse[3] but it is uncertain if optimal glucose control can reduce