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## Test and treat for TB-HIV

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EVIDENCE IS CLEAR of both the therapeutic and preventive benefits of early initiation of antiretroviral therapy (ART) among persons with human immunodeficiency virus (HIV) infection. The TEMPRANO study showed that the benefits also extend to isoniazid preventive therapy (IPT) for tuberculosis (TB). This study showed that in HIV-infected persons with a CD4 count 350 cells/mm³, immediate ART and 6 months of IPT among those without TB independently led to lower rates of serious outcomes. Early administration of ART plus 6 months of IPT resulted in a 44% lower risk of severe HIV-related illness and a risk of death that was 35% lower than with deferred initiation of ART and no IPT.

This finding underscores the deadly duality of *Mycobacterium tuberculosis* and HIV, and is a reminder that, for most of the world's population at risk for or infected with HIV, a response that does not fully address TB, with adequate TB screening and provision of treatment for active disease or latent infection as indicated, is not comprehensive and will not provide optimal care for the patient. Nonetheless, despite repeated demonstration of its benefits, and despite World Health Organization guidelines, uptake of IPT remains low.<sup>2</sup> Reasons include concerns regarding failure to detect TB disease.

In this issue of the *Journal*, Moh and colleagues present a subanalysis of the important data from TEMPRANO to more fully understand the operational aspects of a 6-month course of IPT.<sup>3</sup> They applied TB symptom screening (and chest X-ray and sputum examination if indicated) and a one-month observation period prior to starting IPT; the waiting period, however, was unnecessary for most persons. This study shows the importance of good screening for case ascertainment in persons who may have mild or no symptoms, and allays concerns about missed cases of TB. In another study in persons with advanced HIV infection, in whom TB is more difficult to diagnose, empiric TB treatment offered no advantage compared to IPT when screening used currently available methods such as Xpert MTB/RIF (Cepheid, Sunnyvale, CA, USA).<sup>4</sup> The value of IPT has been demonstrated in these and other studies, and concerns regarding inappropriate treatment of TB disease with a single agent or development of isoniazid resistance have not been realized.

Incorporation of TB screening and prevention into test and treat programs should be a priority. Immediate initiation of IPT with symptom screening and sputum examination,

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<sup>&</sup>lt;sup>†</sup>A version in Spanish of this editorial is available at www.theunion.org

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preferably with Xpert or culture, will lead to broader implementation of this important component of test and treat. Good TB screening, prevention and treatment is essential for comprehensive HIV care and epidemic control, especially in subSaharan Africa.

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