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EDITORIAL

Erring on the side of action: time for HIV programmes to implement isoniazid preventive therapy

THE PROBLEM of human immunodeficiency virus (HIV) related tuberculosis (TB) is grave. Worldwide, in 2007, of 9.27 million incident TB cases there were an estimated 1.37 million cases among people living with HIV, resulting in 456 000 deaths (23% of the estimated 2 million overall HIV deaths).[1] Of the estimated 33 million people living with HIV, 68% reside in sub-Saharan Africa, almost 35% in 8 countries of this southern sub-region—areas heavily impacted by TB.[2,3] New WHO estimates suggest that the risk for tuberculosis is 20 to 37 times greater in people living with HIV than in the general population, depending on the classification of the HIV epidemic, and in some countries in sub-Saharan Africa up to 80% of patients with TB have HIV.[1] But these grim figures are all too familiar for most of us. Those concerned with addressing the problem of HIV-related TB continue to face a fundamental problem: unless HIV is prevented, it is unlikely that we will be able to adequately control TB. In many settings, the HIV epidemic drives TB incidence; HIV transmission is, in essence, the 'open TB tap'.

The 2004 Cochrane review found that isoniazid preventive therapy (IPT) reduced the risk of TB by 33% overall and by 64% when targeted at those with a positive tuberculin skin test (TST).[4] We agree with the Union's paper in this issue[5] on the need to systematically promote TB prevention for the millions of people living with HIV. Specifically, we welcome the Union's call for the expansion of IPT as an integral part of comprehensive HIV and TB prevention, care and treatment services.

Historically, despite a growing body of supportive scientific and programmatic evidence, IPT scepticism has relegated this potentially powerful adjunct intervention to the public health back-burner. In 2007, although the number of countries reporting people starting on IPT to the WHO increased to 42, less than 30 000 were reported as receiving IPT—this despite the millions of people living with HIV in high TB prevalence settings who know their HIV status, do not have active TB, and are eligible for this scientifically proven intervention.[4] The WHO recognised the need to improve TB prevention efforts; the 2008 'Three Is for HIV/TB' meeting built on previous WHO and UNAIDS guidance[6,7] and specifically called for national HIV/AIDS programmes (NAPs) to step up their efforts to address HIV-related TB, through providing improved infection control for TB, intensified case finding and isoniazid preventive therapy.[8]

As the authors imply, even if IPT is expanded to the millions of people who would benefit, it will not be enough. The future success of TB control may largely depend on whether HIV transmission declines in high-burden countries. However, HIV prevention is still seen as largely a responsibility of NAPs, and therefore traditionally outside the scope of national TB programmes (NTPs). At the end of 2007, 33 million persons were estimated to be living with HIV, 2.7 million became newly infected that year and 2 million died from HIV disease.[2] HIV prevention is complex and beyond the scope of this commentary; however, it is likely that successful prevention can be achieved with a carefully tailored combined approach that considers the community and incorporates evidence-based behavioural and biomedical interventions.[9–11] Combined approaches can be very effective. In Africa, providing antiretroviral treatment (ART), prevention counselling and partner voluntary counselling and testing have been associated with an approximately 98% reduction in transmission within HIV-discordant couples.[12] Although treatment with ART has been estimated to result in more than 80% reduction in the risk of TB,[12] recent reports have shown that the level of risk does not return to baseline, and even after ART initiation TB incidence remains higher than in people who do not have HIV.[13–15] This suggests that, even among those with a good response to ART, other interventions, such as IPT, may be needed to control the TB epidemic in people living with HIV.

The effectiveness of IPT in patients who also receive antiretrovirals has been examined in observational cohort studies in Brazil and South Africa, which showed an additive benefit of both IPT and ART.[16,17] Although these studies are observational and more research is warranted, multivariate analysis showed a significantly lower, 76–89%, reduction in TB risk among patients receiving both ART and IPT.[16,17] We agree that, as part of the Three I's, screening for TB and providing IPT clearly belong in the HIV programme prevention arsenal. It is also important for NTPs to work with NAPs to expand NTP responsibility for delivering effective HIV prevention services to patients, partners and family members. They should actively support and facilitate isoniazid access for NAPs and HIV implementers so that it will be scaled up as part of HIV care and treatment service.

HIV and TB prevention science is increasingly sophisticated, and a number of proven interventions exist. IPT, like many clinical and public health interventions, has its undeniable challenges. However, it can be remarkably effective, and we agree with the

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Union that there is no reason why it cannot be implemented along with other complex interventions for people living with HIV. The WHO recommends a collaborative approach to HIV-TB activities,[7] and opportunities clearly exist for both HIV and TB prevention, care and treatment as part of a comprehensive approach to the health and safety of individuals, family and partners and the community.[9] The new director of UNAIDS, recognising its importance, has made addressing HIV-related TB a top priority.[18] Engagement of people living with HIV and TB and the community in both the planning and implementation of TB prevention activities is essential for a successful programme. Now is the time to hear from them as well on TB prevention. For millions there is no time to waste—they deserve evidence-based, comprehensive TB and HIV prevention, care and treatment now.

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