

Updates in TB preventive therapy guidelines

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Disclosures

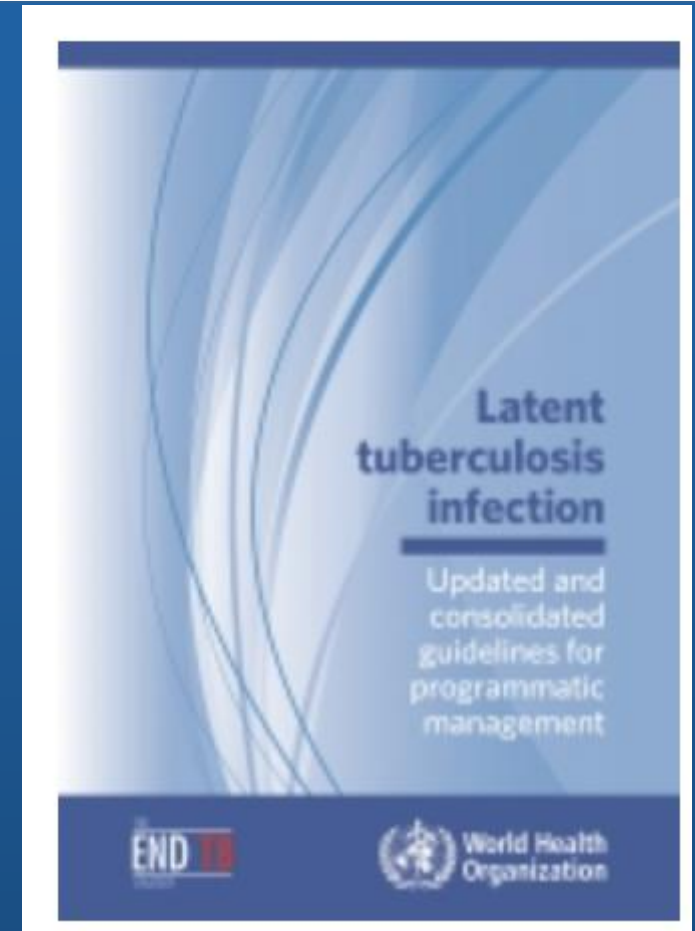
Grant funding from Vir Biotechnology

TB prevention for PLWH

- TB is the leading cause of death for PLWH worldwide
- Treating latent TB infection (LTBI) in PLWH reduces:
 - TB incidence
 - TB mortality
 - Overall mortality in excess of benefit of ART alone (*Ross JM, Lancet ID, 2021*)
- New evidence → changes in screening and treatment of LTBI

WHO/Global Guidelines

- Updated 2018
- Screen all people with HIV for active TB
- In high-burden settings, treat LTBI if active TB excluded.
 - 9H, 6H, 3HP



CDC Guidelines - 2020

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 69 / No. 1

February 14, 2020

**Guidelines for the Treatment of Latent Tuberculosis
Infection: Recommendations from the
National Tuberculosis Controllers Association
and CDC, 2020**

Regimen	Medication (s)	Duration	Dosing
3HR	Isoniazid & Rifampicin	3 months	Daily
3HP	Isoniazid & RifaPENTine	3 months	Weekly
4R	Rifampicin	4 months	Daily
9H	Isoniazid	9 months	Daily
6H	Isoniazid	6 months	Daily

LTBI treatment guidelines continued

- Rifamycin-containing regimens preferred if possible
- Short-course → Better treatment-completion rates
 - (12 weeks, 3M, 4M)
- Drug-drug interactions with rifamycins can be limiting
 - warfarin
 - hormonal contraceptives
 - antiepileptic drugs
 - glucocorticoids
 - opioids
 - antiretrovirals
- INH-only: 9M higher treatment success than 6M; 6M lower risk of hepatotoxicity. Current recommendations (2020):
 - 6M > 9M

Rifampicin & Rifapentine interactions with key ARVs

- INSTIs:
 - bictegravir: NO (rifampicin/rifapentine **contraindicated** with bictegravir – lowers concentration below therapeutic threshold)
 - dolutegravir: OK; if RIF/RPT given daily, increase to bid DTG for 2 weeks after end of RIF.
 - raltegravir: OK with weekly RPT; inferior to EFV if RIF given daily.
- Cobi: no RIF
- TAF: Not preferred. PK concerns. TDF with RIF ok.
- PIs: RIF interacts/contraindicated with most.
Lopinavir/ritonavir can be given, but must be double dose during and for 2 weeks after end of RIF

TPT and ART

Regimen	Medication (s)	Duration	ART
3HR	Isoniazid & Rifampicin	3M daily	TDF/FTC/ DTG bid or TDF/FTC/EFV
3HP	Isoniazid & RifaPENTine	3M weekly	TDF/FTC/DTG or TDF/FTC/EFV
4R	Rifampicin	4M daily	TDF/FTC/ DTG bid or TDF/FTC/EFV
9H	Isoniazid	9M daily	No change to ART
6H	Isoniazid	6M	No change to ART

Evidence, but not yet guidelines:

ORIGINAL ARTICLE

One Month of Rifapentine plus Isoniazid to Prevent HIV-Related Tuberculosis

Susan Swindells, M.B., B.S., Ritesh Ramchandani, Ph.D., Amita Gupta, M.D., Constance A. Benson, M.D., Jorge Leon-Cruz, M.S., Noluthando Mwelase, M.B., Ch.B., Marc A. Jean Juste, M.D., Javier R. Lama, M.D., M.P.H., Javier Valencia, M.D., Ayotunde Omoz-Oarhe, M.D., Khuanchai Supparatpinyo, M.D., Gaerolwe Masheto, M.D., *et al.*, for the BRIEF TB/A5279 Study Team*

March 14, 2019

N Engl J Med 2019; 380:1001-1011

DOI: 10.1056/NEJMoa1806808

Regimen	Medication (s)	Duration	Dosing
1HP	Isoniazid & RifaPENTine	1 month	Daily

- Noninferior to 9M INH in PLWH taking EFV-based ART
- No studies with DTG/INSTI ART
- Likely would need to switch to bid DTG

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