



Rifampin for Latent TB Infection (LTBI) Treatment



NOTE: It is imperative to rule out active TB disease in all persons prior to initiating treatment for LTBI

How is rifampin used to treat LTBI?

Rifampin is taken once daily for 4 months to treat LTBI.

Is the regimen effective?

Rifampin daily for 4 months has been shown to be as effective as 9 months of INH, and there is substantial clinical experience with its use.

What are the advantages of this regimen?

- Four month regimen reduces treatment time (compared to 9 months of isoniazid)
- Higher rates of treatment completion
- Lower rates of hepatotoxicity

Who should be considered for treatment with 4 months of rifampin for LTBI?

- Persons of any age with LTBI
- Adults or children exposed to isoniazid-resistant TB

Can rifampin be used in patients with HIV?

Rifampin can be considered for people living with HIV being treated with certain combinations of antiretroviral drugs (ARVs) as long as possible interactions can be properly managed. Rifabutin can often be substituted for rifampin in patients taking ARVs and other medications that may interact with rifampin.

Who is NOT recommended for treatment with 4 months of rifampin?

- Those with a significant drug interaction (see below)
- People presumed infected with *M. tuberculosis* resistant to rifampin
- People who have had prior adverse events or hypersensitivity to rifamycins

What are the possible side effects?

- Rash and pruritis
- Upset GI tract
- Hepatotoxicity
- Hematologic abnormalities including thrombocytopenia
- Orange staining of body fluids

What are the doses?

Drug	Dosage
Rifampin	<u>Adults</u> 10mg/kg up to 600mg
	<u>Children</u> 15–20 mg/kg up to 600mg
Rifabutin	<u>Adults</u> 5mg/kg up to 300mg
	<u>Children</u> Not recommended

*Rifampin and rifabutin capsules can be opened and the contents mixed with semi-solid food for patients who are unable to swallow pills

What is completion of therapy?

Four months is the recommended length of treatment with rifampin, and should be completed within 6 months.

Are there drug-drug interactions?

- Rifamycins are inducers of cytochromes P450 3A4 & P450 2C8/9 and can decrease blood levels of many drugs including hormonal contraceptives, warfarin, sulfonylureas, methadone, steroids, some cardiac medications, and some antibiotics including fluoroquinolones.
- Rifampin is contraindicated in HIV infected persons being treated with certain combinations of antiretroviral drugs (ARVs). In some cases rifabutin may be substituted for rifampin. Note that both rifampin and rifabutin interact with tenofovir alafenamide.
- More information on interactions with ARVs is available at these URLs:
 - <https://aidsinfo.nih.gov/guidelines>
 - <http://arv.ucsf.edu/insite?page=ar-00-02>
- Refer to product insert or other drug interaction resource for full list of interactions.



What type of monitoring do I need to do?

- Monthly interview and brief physical examination to identify treatment-associated adverse events
- Baseline hepatic chemistry is recommended for patients with specific conditions:
 - HIV infection
 - Liver disorders
 - In the immediate (within 3 months) postpartum period
 - Regular alcohol use
 - Consider also for older persons and those taking medications for chronic medical conditions
- If baseline hepatic chemistry testing is abnormal, continue with at least monthly testing and consider viral hepatitis testing.

Resources

California Department of Public Health Tuberculosis Control Branch (TBCB) website:

<http://www.cdph.ca.gov/tbcb>

California TB Controllers Association website:

<http://www.ctca.org/>

Centers for Disease Control and Prevention
Division of Tuberculosis Elimination website:

<http://www.cdc.gov/tb/>

Curry International Tuberculosis Center
Warmline Consultation Service, available at:

<http://www.currytbcenter.ucsf.edu/>

(877) 390-6688

American Academy of Pediatrics, Red Book Online,
Tuberculosis:

<https://redbook.solutions.aap.org/chapter.aspx?sectionid=189640207&bookid=2205>

Abbreviations

AFB= acid-fast bacilli BCG= Bacillus Calmette-Guérin

CXR= chest x-ray DOT= directly observed therapy

IGRA=interferon gamma release assay LTBI= latent TB infection

MDR =multiple drug resistant NAAT= nucleic acid amplification testing

SAT= self-administered therapy TST= tuberculin skin test

