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?
There is not as much published data on the efficacy of rifampin as for isoniazid or isoniazid+rifapentine, but there is substantial clinical experience with its use. A randomized controlled trial is currently being conducted which should produce results soon.

What are the advantages of this regimen?
- Four month regimen reduces treatment time (compared to 9 months of isoniazid)
- Higher rates of treatment completion which increases treatment effectiveness
- Lower rates of hepatotoxicity

Is this treatment recommended?
The California Department of Public Health TB Control Branch and the California TB Controllers Association recommend four months of rifampin as an equal alternative to 9 months of daily isoniazid or 12 weekly doses of isoniazid and rifapentine.

Who should be considered for treatment with 4 months of rifampin for LTBI?
- Persons of any age with LTBI
- Adults and children exposed to isoniazid-resistant TB

Are there others to consider for treatment using 4 months of rifampin?
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
- GI upset
- Hepatotoxicity
- Hematologic abnormalities including thrombocytopenia
- Orange staining of body fluids

What are the doses?

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<th>Drug</th>
<th>Dosage</th>
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| Rifampin | Adults: 10mg/kg up to 600mg  
            Children: 10-15mg/kg up to 600mg |
| Rifabutin| Adults: 5mg/kg up to 300mg  
            Children: 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, but a three month course is used in some international settings.

Are there drug-drug interactions?
- Rifamycins are inducers of cytochromes P4503A4 & P4502C8/9 and can decrease blood levels of oral 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. For more information on interactions with ARVs see:
  - https://aidsinfo.nih.gov/guidelines
  - http://arv.ucsf.edu/insite?page=ar-00-02
- Refer to product insert for full list of interactions.
Rifampin to treat LTBI — continued

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 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 as indicated.
- See “Evaluation of patients with a positive test for latent TB infection” for more information.

Resources
California Department of Public Health
Tuberculosis Control Branch (TBCB)
http://www.cdph.ca.gov/programs/tb/Pages/default.aspx

California TB Controllers Association
http://www.ctca.org/

Centers for Disease Control and Prevention
Division of Tuberculosis Elimination
http://www.cdc.gov/tb/

Curry International Tuberculosis Center
Warmline Consultation Service
http://www.currytbcenter.ucsf.edu/
877-390-6682