

## Latent TB treatment: Shorter is better

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Treatment of latent tuberculosis is set to transform after a pair of studies by Dr. Richard Menzies of the Research-Institute of the McGill University Health Centre (RI-MUHC) revealed that a shorter treatment was safer and more effective in children and adults compared to the current standard. These findings are published today in the *New England Journal of Medicine*. Credit: McGill University Health Centre



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Led by Dr. Dick Menzies, the study followed 850 children and 6,800 adults with latent TB, a dormant version of the disease that does not cause symptoms but may lead to serious illness if <u>treatment</u> is not provided. This study in children is one of the largest for a pediatric clinical trial related to TB.

Dr. Menzies' team compared results among latent TB patients who underwent the current standard treatment of nine months of isoniazid (INH) or a four-month treatment with rifampin. Over 85 per cent of children completed rifampin without developing active TB compared to 76 per cent of children who completed isoniazid, with two developing active TB. Results were similar in adults; acceptance and completion of rifampin therapy was much better with significantly fewer serious side effects, particularly drug induced hepatitis (INH can cause serious liver toxicity which can prove fatal or require a liver transplant).

In addition to being a much shorter treatment, the rates of development of active TB were slightly lower with rifampin, indicating that it is at least as effective as the nine-month treatment of INH in preventing TB.





Game-changing study on treatment of latent Tuberculosis shows a novel, short therapy is safer and more effective in children and adults than standard therapy. Credit: McGill University Health Centre

"This four-month therapy is a fundamental game-changer in TB prevention," says Dr. Menzies, who is a respirologist with the MUHC and a professor of Medicine, Epidemiology and Biostatistics at McGill University. "The four month treatment was as effective in preventing TB, safer and more acceptable. We believe this four month rifampin treatment should replace the nine months on INH for most people who



need therapy for latent TB."

With patients who originated from nine different countries (Australia, Benin, Brazil, Canada, Ghana, Guinea, Indonesia, Saudi Arabia and South Korea) in a study supported by the Canadian Institutes of Health Research, Dr. Menzies expects the findings to have a major impact on shaping future global guidelines related to treating latent TB.

"These discoveries will fuel a new look at global practices," says Dr. Menzies, who has acted as an advisor to the Public Health Agency of Canada, Citizenship and Immigration Canada, the Centres for Disease Control (CDC), and the World Health Organization (WHO) on TB. "We expect this discovery to have a substantial impact on TB, which remains the number one infectious disease killer globally, causing more deaths than AIDS, malaria, diarrhoeal diseases, or other tropical illnesses."

Treatment of latent TB infection is a key part of the End TB strategy & TB-elimination plans in high-income countries from the WHO. Onequarter of the global population is infected with latent TB and 10 per cent of these will develop active TB.

**More information:** The study 'Safety and Side Effects of Rifampin versus Isoniazid in Children' was authored by Dr. Dick Menzies, <u>DOI:</u> <u>10.1056/NEJMoa1714284</u>

The study 'Four Months of Rifampin versus Nine Months Isoniazid for Latent TB in Adults' was authored by Dr. Dick Menzies, <u>DOI:</u> <u>10.1056/NEJMoa1714283</u>.

Provided by McGill University Health Centre



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