



EPIDEMIOLOGY

## CHEMOPROPHYLAXIS AND IMMUNOPROPHYLAXIS IN PREVENTING LEPROSY IN PATIENT CONTACTS.

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**Background:** Elimination of leprosy as a public health problem was globally achieved in 2000. In the post elimination era, with reduced focus and finances, epidemiological control of leprosy is a big challenge. Individuals in contact with leprosy patients have an increased risk of exposure to the disease. Scientists argue that control of leprosy cannot be achieved by multi drug therapy alone and recommend the need for chemoprophylactic and immunoprophylactic measures.

**Objective:** The objective of this systematic review was to synthesize the best available evidence regarding the effectiveness of rifampicin chemoprophylaxis for contacts of patients with leprosy, which will help the policy makers to make appropriate policies to control leprosy in the high endemic areas.

**Materials and methods:** A comprehensive literature search using the search engines PubMed, Cochrane Library and Google Scholar was performed. Articles containing individuals in contact with leprosy patients who received rifampicin at any dose, frequency and mode of administration, or rifampicin combination regimens for chemoprophylaxis were included in the review. Any type of study published in English, from 2000 to 2017, in any type of study design, and studies that reported on outcomes such as the development of clinical leprosy in the contacts of patients who had leprosy, were included for review.

**Results:** The reduction in incidence of leprosy, using single dose of rifampicin in the first two years was 56.5%, and in the follow up period of four years, the reduction was 34.9%. The combination of rifampicin and Bacillus Calmette-Guerin (BCG) vaccine showed a preventive effect of 80% against the disease.

**Conclusions:** Chemoprophylaxis with single dose of rifampicin is found to be effective in preventing contacts of leprosy patients from developing the disease. The protective effect is additive when combined with immunoprophylaxis with BCG.

