



Frequently Asked Questions about SDR-PEP

What is SDR-PEP for leprosy prevention?

Contacts of people diagnosed with leprosy—such as family members, friends, or neighbors—are known to be at a higher risk of developing leprosy. Post-exposure prophylaxis (PEP) can be used to provide preventative treatment for these individuals. The treatment consists of a single dose of the antibiotic rifampicin (SDR).

Why is SDR-PEP considered an important intervention for leprosy?

Providing PEP to people who may have been exposed to leprosy will reduce their risk of developing leprosy by 60%. PEP can contribute to decreased transmission and a reduction in the number of new leprosy patients.

By implementing PEP, countries can also increase the coverage of contact screening, facilitating earlier detection of the disease. The World Health Organization's 2018 Guidelines for the Diagnosis, Treatment and Prevention of Leprosy recommend adding PEP to routine leprosy control strategies. If contact screening is already part of the leprosy control programme, it is easy to add SDR-PEP administration. To date, SDR-PEP has been implemented in areas across 14 countries.

How well has SDR-PEP been tested?

The evidence for SDR-PEP is robust. The most influential research is the COLEP study, which was conducted from 2002 to 2007 including 21,711 contacts of 1,037 leprosy patients in Bangladesh. Overall, contacts who received SDR experienced a 57% reduction in the risk of leprosy after 2 years.

The Leprosy Post-exposure Prophylaxis (LPEP) programme is a long-term study on operationalizing SDR-PEP. It evaluated the impact and feasibility of contact tracing and PEP for contacts

of leprosy patients under routine program conditions in 8 countries. Interim results show the intervention is feasible and accepted by the main stakeholders in countries, such as patients, their contacts, health care workers and government officials.

Other studies are exploring questions such as whether the effectiveness of the PEP approach can be optimized by combining SDR with the vaccine BCG or, by providing multiple doses of a combination of rifampicin and clarithromycin. (PEP++, see below.)

How feasible is it to implement SDR-PEP in countries?

Based on results from the LPEP programme, researchers concluded that PEP can be integrated into different health systems without major structural changes, using additional monitoring. If a country is already screening contacts of leprosy patients, the cost for implementing PEP is relatively low.

Could SDR-PEP promote the development of antibiotic resistance?

Available evidence indicates that in *M. leprae* (the bacterium that causes leprosy), resistance to rifampicin is low. However, monitoring for drug resistance should be integrated in PEP implementation initiatives.

Can the overall effectiveness of PEP be improved?

While PEP has been proven to be effective for reducing the risk of developing leprosy by 50% or more, some scientists are researching whether an enhanced regimen of antibiotics could reduce the risk of leprosy by 80%–90%. A PEP++ study is underway to test a regimen that involves multiple antibiotics and a longer duration of doses.

Are there ethical issues related to identifying the contacts of patients with leprosy?

The LPEP programme showed that most patients with leprosy wanted their families to receive PEP to be protected against leprosy; the refusal rate was very low (<1%). However, disclosing one's leprosy status to neighborhood members could have a negative impact on patients and will need to be considered carefully. For any PEP activity, health care workers will need to be trained to respect and honor patient confidentiality and carefully conduct screening methods.

The Global Partnership for Zero Leprosy recommends that SDR-PEP be combined with stigma-reducing initiatives such as peer networks and community education. PEP alone will not be successful without reducing stigma, which delays care-seeking and often leads to late diagnosis and disability.

How does SDR-PEP compare with other interventions for neglected tropical diseases (NTDs)?

Many countries have successfully used mass drug treatment to prevent and interrupt transmission of NTDs such as lymphatic filariasis or river blindness. With mass treatment, antibiotics or anti-parasitic medicines are given to all people at risk of a disease across an entire district or region, usually in a single dose once per year. In contrast, SDR-PEP is usually reserved for close contacts of people diagnosed with leprosy. However, for specific situations, mass drug administration or a blanket approach can be a good option. Situations may include areas with high endemicity, or a last-mile scenario, where an effort is made towards zero leprosy.

The leprosy community is well-positioned to use SDR-PEP—along with active case detection—as a major tool towards ending leprosy. Learning lessons from other NTD programs, while addressing ethical issues of informed consent and monitoring for drug resistance, will maximize its effectiveness.



Photo credit: LPEP programme, Novartis Foundation

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