

Anti-Microbial Resistance in Leprosy

Report of the virtual consultation

New Delhi, India

14-17 June 2021

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1. Inaugural session

The virtual meeting took place from 14-17 June 2021, for 2.5 hours (18:30-21:00 hours Indian Standard Time). Participants included national leprosy programme (NLP) managers, anti-microbial resistance (AMR) focal points partners, representatives from nongovernmental organizations (NGOs), experts and WHO staff from HQ, regional offices, the Global Leprosy Programme (GLP) and country offices.

1.1. Welcome remarks

Dr Erwin Cooreman, Team Leader, GLP welcomed all participants on behalf of the World Health Organization (WHO). This virtual consultation brings together two main communities, both from countries and at the international level: leprosy programme managers and partners; as well as persons in charge of AMR programmes.

The previous time that WHO convened a (face-to-face) meeting on the same subject was in October 2016 (Kathmandu, Nepal) and before that almost every two or three years. Since that time, several innovations have come into place; but progress has been much less than desired. This meeting may look into ways to move the agenda of addressing AMR in leprosy forward.

The main new opportunity that has occurred is the significant increased attention for AMR globally, in WHO as well as in countries. This was prompted by serious threats in several infectious diseases caused by wide and inappropriate use of antibiotics. Based on available data, such threat is not perceived in leprosy, which fortunately can benefit from its robust first-line regimen in the form of multidrug therapy and the controlled dispensation of leprosy treatment. This may be a reason also why AMR in leprosy is typically treated as having a lower priority.

In WHO, AMR has been elevated to a cross-cutting, top priority. A division was created in HQ which is headed by an Assistant Director General. Regional Offices are also streamlining AMR as a horizontal platform to support multiple disease control programmes. In the South-East Asia Region, both control of neglected tropical diseases (NTDs) – which include leprosy – and AMR are flagship priorities.

1.2. Inaugural address

In her inaugural address, Dr Poonam Khetrpal Singh, Regional Director, WHO South-East Asia Region, highlighted the importance of this meeting for making advances – in spite of COVID-19 related impediments – on several key policy frameworks including the global NTD Roadmap, the Global Leprosy Strategy 2021–2030, and the Global Action Plan on AMR. This meeting also intersects with two of the Region's eight flagship programmes: eliminating NTDs and other diseases on the verge of elimination; and strengthening national capacity to prevent and combat AMR.

She highlighted several key achievements in global leprosy control: a significant reduction in case detection compared to ten years ago, a reduction of new cases with visible deformities at the time of diagnosis to less than 5%, and an important reduction in children diagnosed with leprosy.

The Global Leprosy Strategy 2021–2030 includes a paradigm shift, with a focus on moving towards interruption of transmission and elimination of disease. Achieving zero leprosy will not be easy and requires to overcome existing barriers and anticipate emerging challenges. One such challenge is AMR.

She mentioned the global sentinel network for monitoring AMR in leprosy to which more countries have expressed interest to become part of. Though, resistance to leprosy drugs appears relatively low, this should not be taken for granted and all efforts have to be made to prevent amplification. As the Global Leprosy Strategy highlights, drug-susceptibility patterns must be assessed globally and resistance among both new and retreatment cases must be monitored.

The Regional Director conveyed three messages that are applicable to all stakeholders, whatever a country's current surveillance status.

First, action is everything. Policy frameworks themselves will not drive results unless they are programmatically implemented. She welcomed the development of actional templates, with the aim of providing a clear end-to-end process for surveillance activities and laboratory processes in sentinel centres and reference laboratories.

Second, integration is vital. AMR is a significant threat to health and development globally, and most countries are taking multisectoral action.

Third, partnerships are key. Ample expertise is available in research laboratories across the world, as well as in facilities managed by nongovernmental organizations.

She further remarked that it is by working together, and harnessing all resources at our disposal, that we can achieve the ambitious vision of the Global NTD Roadmap and Global Leprosy Strategy and contribute towards the full implementation of the Global Action Plan on AMR.

1.3. Objectives and expected outcomes

The general objective of the meeting was to contribute to improving surveillance for resistance to antimicrobial drugs used in leprosy.

The specific objectives were:

- To review the status of anti-microbial resistance (AMR) surveillance including inclusion in national AMR plans (where applicable) and magnitude of AMR in leprosy;
- To review and confirm current technical guidance in light of any recent evidence;
- To outline a template for roll-out of AMR surveillance in leprosy endemic countries in line with technical guidance;

- To explore development of a network of reference laboratories and experts to support countries;
- To discuss alternate regimens used in treating patients with *M. leprae* strains resistant to multidrug therapy (MDT) and follow-up actions.

The expected outcomes were:

- ✓ Status of AMR surveillance (including national AMR plans or leprosy AMR plans) and extent of AMR problem in leprosy programmes documented;
- ✓ Confirmation of current technical guidance and advice on any new tools for AMR in leprosy;
- ✓ Draft Template for roll-out of AMR surveillance in leprosy agreed;
- ✓ New leprosy programmes/countries identified interested in developing AMR surveillance for leprosy need for strengthening of existing network identified;
- ✓ List of reference laboratories, experts for potential linkage with designated national laboratories updated.

2. Current status on AMR in countries

Data on AMR surveillance from countries were received through sentinel centres between 2009 and 2015. Data from 19 countries indicated that 5.1% of the tests on relapse patients tested were positive for rifampicin while 2% were positive in new cases (Figure 1). Brazil and India reported more than 10 cases with rifampicin resistance between 2009 and 2015

Fig. 1: Map indicating countries as part of sentinel network and test undertaken during 2009-2015



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