STATE-LEVEL AMR ACTION PLANS IN INDIA: PROGRESS AT A SNAIL'S PACE!

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Sincere efforts by the Indian Health Ministry, international organizations such as World Health Organization (WHO) and initiatives like the Chennai Declaration of medical societies have created significant awareness of the AMR issue and inspired national-level action to tackle this enormous challenge. India is a federal country with 29 states and seven union territories. Healthcare is predominantly under the purview of individual states. Coordinated and sincere efforts by the Union Health Ministry and various Indian states is required to ensure the success of National AMR Action plan. Unfortunately, state level AMR action plan implementation is at moving at a snail's pace. This article analyses the possible reasons behind this delay and explores potential solutions.

Sincere efforts by the Indian Health Ministry, international organizations, such as WHO, and perseverance and persistence in initiatives like the Chennai Declaration of Indian medical societies, have created significant awareness of the AMR issue and inspired national-level action to tackle this enormous challenge *(1-5)*. India has a national antibiotics policy, national antibiotics guideline, and H1 rule to regulate the over-the-counter (OTC) sale of antibiotics *(6-8)*. The national infection control guidelines are in their final stages of preparation and will be published soon. The Indian public is being informed about AMR through almost daily newspaper articles and detailed discussions on the topic are a standard agenda item in the annual conferences and regional meetings of all medical societies. The Honourable Prime Minister of India, Narendra Modi, has made public radio announcements on the importance of tackling AMR. Medical professionals and hospitals managers are now well versed in the issue and are not only very comfortable in discussing it, but convinced that patient lives are genuinely being affected by the global and regional challenge of AMR as well. Yes, there is a sincere and serious attitude change among the medical community, the public and the political and bureaucratic leadership.

Then why is the national antibiotic policy not yet implemented in India? Why couldn't we translate the momentum into grass roots-level implementation?

Let us analyse the scenario from a global perspective. Various international initiatives by non-governmental organizations, dedicated efforts by activists, encouragement by the already well-functioning national action plans, such as the United Kingdom AMR action plan and CDC action plan, inspired high-level initiatives such as the UN resolution on AMR and the WHO AMR global action plan. The momentum at the global level and the formal involvement of UN agencies further stimulated action at national level, including in India. In tune with the WHO global action plan, the Indian Ministry of Health prepared a national AMR action plan with the help of Indian experts and the active collaboration of WHO. Five Indian states were selected as the nodal states to prepare state action plans and initiate implementation. The rest of the country will then learn from the challenges the nodal states face and their experiences during the implementation process.

So far, so good…

Has any Indian state implemented an antibiotic policy yet? Well… No.

So what's happening? India has one of the highest rates of antimicrobial resistance in the world. Now that India has realized the seriousness of the issue, we should ideally be mounting our efforts on a war footing. By now, the whole country could have implemented the national policy. The very fact that India has not yet implemented the policy is a proof for the argument that AMR is a sociopolitical issue and not just a scientific conundrum.

India has a population of 1.3 billion, 75,000 hospitals of varying standards, significant sanitation issues, socioeconomic disparity, a one million-strong medical community and half a million pharmacies where you can buy any antibiotic without a prescription. All these factors contribute to the highly complex AMR scenario in India.

India is a federal country with 29 states and seven union territories. Healthcare is predominantly under the purview of individual states, with the union ministry executing the role of

a policy-maker and coordinator of national programmes, such as immunization. The Indian Government and experts having realized that most components of the AMR national action plan cannot be implemented on the ground without the active, wholehearted and sincere involvement of all individual states; rightly and strategically sought collaboration of all the states. We identified five nodal states – Kerala, Andhra Pradesh, Uttar Pradesh, Himachal Pradesh and Orissa to lead the implementation process.

Let us analyse the progress made so far.

- Take the example of Kerala, the nodal state that has the maximum potential for proper implementation of the action plan. The state government, along with National Centre for Disease Control (NCDC, a Union Health Ministry agency) and the Indian division of WHO, coordinated a meeting to formulate the state AMR action plan. The draft action plan is ready for public consultation.
- The Chennai Declaration initiative provided a significant contribution by convincing the highest political leadership of the Kerala state about the importance of the AMR issue and ensured political commitment.
- Unfortunately, the political commitment has not yet been translated into an implementation process. Undue hurry to get international NGOs involved in the state action plan has stirred up controversies in political circles in the state and New Delhi. AMR is a global crisis and no country or state can tackle the issue in isolation. But each country or state should explore its internal strength and expertise to tackle a sociopolitical challenge. International NGOs should respect the individuality and dignity of developing countries. Any wrong strategy or undue political controversies will delay the implementation process. Such a delay will have catastrophic consequences by worsening the already distressing AMR scenario of the country.
- Once the states'/developing countries' action plans find their own feet, international NGOs and developed countries should offer collaboration with mutual respect and exchange of ideas and expertise.
- The state of Kerala has one of the most vibrant, politically active publics in India. Unfortunately, even after the formal announcement of the state action plan and the political commitment from the highest authority, there was no sincere effort to get the public involved or speed-track the implementation process.
- Kerala state's AMR action plan, once anticipated to be the guiding lamp for the whole country, hasn't yet lived up to the expectation.
- The situation is far worse in other nodal states. No other state has succeeded in publishing their state action plan so far. I am writing this document in March 2018, more than a year since the country finalized the national action plan and more than six months since the Union Ministry (NCDC) and Indian division of WHO coordinated the meeting of the representative of various states.

What has gone wrong?

NCDC (on behalf of Union Health Ministry), with the collaboration of Indian Division of WHO, coordinated a meeting of member states to discuss state-level implementation in early 2017. Unfortunately, less than half of the member states participated in the meeting. How can the country implement the action plan when states are not yet convinced of the sociopolitical significance of the AMR issue?

Another important drawback was the assignment of responsibility for coordinating the state representatives meeting to WHO. As we all know, WHO has predominantly an advisory role with no authority in the health issues of individual countries or states. It may be true that WHO provided funds for the meeting (and NCDC was an equal partner in the meeting coordination), but the soft image of WHO as an advisory body made many states literally neglect the meeting and shy away from the initiative. The soft image of WHO, rather than the strong and authoritative face of the Indian Health Ministry was projected as the face of the Centre-State AMR collaboration. The same erroneous strategy was repeated at the state-level AMR action plan meetings.

Strategies for effective implementation at state level

- There is no doubt that Union and state health ministries should involve WHO and that WHO should provide technical advice and expertise when requested. But the union ministry and health ministries of the respective states, with their accountability and authoritativeness, should directly coordinate the action plans, ensuring progress and cooperation from all stakeholders.
- Direct communication and coordination by the union health secretary (as the chair of the inter-ministerial committee on AMR) and the state health secretaries, with regular updates on the progress of implementation of all components of the AMR action plan.
- Strategy, Strategy and Strategy! Strategy is the key to success!!

AMR implementation is a mammoth task, especially in a developing economy of immense proportions. Effective strategy-making is essential to ensure the success of national and state action plans.

The principal opposition to the implementation of the national and state action plans will be from the pharmaceutical industry. At the same time, support (undue) will also come from

another section of the same pharmaceutical and healthcare industry. A balanced approach will be the key.

Opposition from the industry:

- Implementing over-the-counter sale of antibiotics without prescription (OTC) rule (H1 rule):
  Challenge: from pharmaceutical distributors and pharmacists. They have a genuine concern over the drop in profit margins, once the H1 rule is implemented.
  Solution: The modified H1 rule on OTC sales in India includes only 24 antibiotics. Most of these are injectable drugs and so not sold OTC anyway. Most first-line antibiotics are not included in the list and so do not come under the rule. We should have a discussion with pharmaceutical distributors and allay their financial concerns. If we fail to do this, the OTC component will fail, resulting in the overall failure of the action plan.
- Rationalizing in-hospital antibiotic usage:
  Challenge: Two thirds of healthcare delivery in India is contributed by the private sector. Drug sales, including that of antibiotics, constitute a significant part of the income of the private hospitals. Private hospital managements may be worried about the possible drop in antibiotic sales and income when an antibiotic stewardship programme is implemented.
  Solution: The aim of antibiotic stewardship is not to reduce antibiotic usage, but to rationalize it. Underuse is as dangerous as overuse. Our aim is to ensure usage of the right antibiotic at the right time and for the right duration. Antibiotic stewardship programmes in the developing world are unlikely to produce any significant drop in pharmacy sales and income.

Undue support (push) from the industry:

- Pressure to fast-track licensing of newer antibiotics on the pretext of the AMR issue: This is a minor concern, as there are very few new antibiotics in the pipeline and licensing of new antibiotics is predominantly under the purview of DCGI (Drugs Controller General of India) so the state action plan will have limited involvement in this.
- New vaccines: It is true that there is a serious push from the vaccine industry to introduce new vaccines in developing countries through AMR action plans. Though the role of vaccines in preventing infections is undeniable, due consideration should be given to local epidemiology and cost-effectiveness of new vaccines.
- Veterinary vaccines: There is no doubt that usage of antibiotics as a growth promoter in veterinary practice must be stopped. At the same time, introducing a series of new veterinary vaccines through the AMR action plan may not be appropriate. As mentioned earlier, cost-effectiveness and local epidemiology should be kept in mind. A balanced approach will be the key.
- 4. Manufacturers of microbiology diagnostic equipment: Improving microbiology laboratory facilities in government and private hospitals is a very essential component of AMR action plan implementation. But we should be careful not to spend valuable resources on expensive equipment. Standardization of conventional methodology is more cost-effective than investing in costly equipment. That said, if newer technology can help us provide more cost-effective medical care, we should not be hesitant to consider these options.
- 5. Infection control products: We should exercise diligence not to spend all the precious resources on expensive infection control products. Instead, we should concentrate on improving the basic infrastructure, suitable for the practice of infection control. Improvement in hospital cleanliness and reinforcementing in hand hygiene measures across the healthcare sector should be our priority.

Improving the sanitation scenario in the community: This is the most important component to alleviate the AMR crisis in India. Unless we tackle this issue, all the other components will be futile. Unfortunately, this is a no man's land and we will experience neither support nor opposition from stakeholders.

Tackling AMR needs a multi-pronged approach. The difficulty for developing countries is that we are not able to implement strategies due to the paucity of resources and, in many instances, due to a lack of political will to effectively convince stakeholders of the importance of the AMR issue and the negative impact that it can produce on the healthcare field and economy as a whole.

Rational use of antibiotics and infection control precautions are often neglected. Needless to say, improving the sanitation scenario and broadening vaccination coverage should be the pillars of our strategy. Vaccination, to the best possible extent, should be a responsibility of all governments as this will help save the lives of millions of innocent children. In the developed world, all these components will go hand in hand, but in developing countries the scenario may be entirely different with serious implications.

It is very interesting to observe that both the undue support and the opposition to the AMR action plan implementation will be from industry (two sides of the same coin). There is a possibility that authorities in developing countries may choose the easier path of making both sides of the industry happy by not sincerely implementing the antibiotic policy and merely supporting introduction of new antibiotics, vaccines, and diagnostic and infection control products. If that is the

scenario, then the AMR action plans in developing countries are bound to fail with catastrophic consequences to the healthcare system.

The seeds for the failure or the success of the AMR action plan is within the plan itself. It is for us to choose the right one. ■

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