





## LETTER TO THE EDITOR

### Advocating people-centered approach to counter antimicrobial resistance

Antimikrobiyal dirence karşı koymak için insan merkezli yaklaşımı savunmak

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To the Editor,

On a global scale, antimicrobial resistance (AMR) has been regarded as one of the leading priorities in the domain of public health<sup>1</sup>. This is predominantly due to the fact that owing to the emergence of drug resistance, various antibiotics, and other antimicrobial medicines become ineffective and thus it becomes difficult or impossible to treat infections<sup>1,2</sup>. The available global estimates suggest that bacterial antimicrobial resistance alone accounted for the deaths of more than 1.25 million people<sup>3</sup>. Realizing the magnitude of the problem, more than 170 nations worldwide have formulated their national action plans to respond to the same. However, the critical analysis of these policies and the impact produced because of them revealed that we are still falling short in terms of available funds and slow progress owing to the adoption of a fragmented approach<sup>1-3</sup>.

At this juncture, we must accept that regardless of the progress shown in the areas of surveillance and antimicrobial stewardship, our response in the sector of human health is not holistic<sup>4</sup>. Even now, lots of efforts are directed toward the biological aspect of AMR, but then the question arises what about the needs of the community and the patients who are in need of prevention, diagnosis, and treatment of drug-resistant infections<sup>3,5</sup>. This aspect of addressing the needs, preferences, and values of the general population and patients eventually defines their

health-seeking behavior and interactions with health systems (as the general population often encounters a wide range of challenges-cum-barriers while availing healthcare services)<sup>3,5</sup>.

These potential barriers include not easily accessible healthcare establishments, shortage or absence of trained healthcare professionals, and interruptions in the supply chain management, especially of those logistics that are required for facilitating accurate diagnosis and correct/rational treatment of drug-resistant infections<sup>6,7</sup>. In addition, limited access to clean water and safe sanitation services that become crucial to prevent infection also become a crucial barrier<sup>5</sup>. Further, the expenditures incurred in the diagnosis and treatment of infections often limit people to avail healthcare services. These barriers need to be addressed at the earliest, as many of them are related to governance-related concerns, and we must take measures to strengthen health systems and move forward towards the attainment of universal health coverage<sup>3,6,7</sup>.

In order to address the barriers, present at the population level, it is the need of the hour to adopt a people-centered approach, and thus the World Health Organization has come up with specific interventions to ensure equitable and affordable access to quality-assured healthcare services related to the prevention, diagnosis, and management of infections, including drug-resistant infections<sup>3</sup>. The success of such an approach essentially will depend

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Received: 23.10.2023 Accepted: 25.12.2023

on the premise that people must be educated and provided with the desired support to enable them to make evidence-based decisions and accordingly participate in their own care. This will primarily include education and awareness with regard to promoting the responsible use of antimicrobials for the treatment of infections<sup>3,6</sup>.

In order to arrest the development of antimicrobial resistance and minimize the morbidity and mortality attributed to the same, it is crucial to strengthen the area of governance, surveillance, and promote community awareness about the magnitude of the problem<sup>8</sup>. In the domain of governance, considering the fact that mitigation of AMR will require a multi-sectoral approach, it is essential to promote advocacy and accountability in both the health and other associated sectors (viz. animal health, agriculture, environment sector, etc.)<sup>5,9</sup>. At the same time, we must take specific measures to create awareness both among the general population and healthcare staff, that will enable change in behavior<sup>10</sup>. In order to ensure optimal utilization and allocation of available resources, we must establish a comprehensive surveillance system to enable the detection of each of the AMR cases<sup>3</sup>. This can be accomplished by establishing a national surveillance network to generate comprehensive data for patient care<sup>11,12</sup>. Also, we will require thorough surveillance of the consumption of antimicrobials, which will guide healthcare professionals about patient care<sup>3</sup>. Moreover, we have to pay attention to the promotion of research and innovation activities of antimicrobial resistance<sup>13</sup>.

In order to prevent the emergence of AMR, we should focus on three areas, namely promoting universal access to water, sanitation, and hygiene plus waste management practices; reinforcement and thorough implementation of infection prevention and control measures; and enabling access to vaccines, including expansion of the national immunization programs<sup>3,14</sup>. The next important domain is to promote access to essential healthcare services, and this can be accomplished by making diagnostic and management health services affordable universally, and by ensuring an uninterrupted supply of quality-assured health products<sup>3,5,15</sup>. It is very well known that the incidence of AMR can be minimized by promoting timely and correct diagnosis of infections, we have to strengthen laboratory facilities, including expanding services to facilitate quick diagnosis of bacterial and fungal

infections<sup>1,6</sup>. Moving on to the final area dealing with ensuring the availability of appropriate and quality-assured treatment of infections, there is an indispensable need to periodically update evidence-based treatment guidelines, and to implement strict regulatory measures to prohibit the sale of over-the-counter antimicrobial drugs. These people-centered strategies will provide guidance to policymakers and technical staff to formulate specific plans for human health without neglecting any section of the community<sup>3</sup>.

In conclusion, the significance of people-centered interventions in to fight against antimicrobial resistance (AMR) cannot be overstated. The containment of AMR will require a multifaceted approach, and in this general public occupies the center stage. The need of the hour is to strengthen governance, expand surveillance, promote research, and expand prevention, diagnosis, and management of drug-resistant infections.

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**Author Contributions:** Concept/Design : SRS; Data acquisition: -; Data analysis and interpretation: -; Drafting manuscript: SRS, PSS; Critical revision of manuscript: SRS, PSS; Final approval and accountability: SRS, PSS; Technical or material support: -; Supervision: -; Securing funding (if available): n/a.

**Ethical Approval:** Since this study is an opinion article, there is no need for the approval of the ethics committee.

**Peer-review:** Editorial review.

**Conflict of Interest:** Authors declared no conflict of interest.

**Financial Disclosure:** Authors declared no financial support

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