Stakeholder engagement at Karnataka State Pharmacy Council for development of a State-level Antimicrobial Stewardship policy

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Introduction

Inappropriate use of antibiotics by health professionals and individuals, that is aggravated by an insufficient implementation of the local and national policy and governance of antimicrobial agents,[1] leads to antimicrobial resistance (AMR), a major global public health problem resulting in negative health and economic consequences.[2] The need to address this major public health problem was catalysed in May 2015 when the 68th World Health Assembly (WHA) endorsed the Global Action Plan on Antimicrobial Resistance (GAP-AMR) and urged United Nations Member States to formulate and align their National Action Plans on AMR with GAP-AMR by May 2017.[3]

India has one of the largest burdens of drug-resistant pathogens worldwide, including the highest burden of multidrug-resistant tuberculosis.[4] In India, AMR is worsening the existing burden of infectious diseases.[5,6] The high burden of AMR in India is driven by multiple factors ranging from irrational prescribing to dispensing antibiotics without prescriptions.[7] Rudimentary or non-existent Antimicrobial Stewardship (AMS) programmes in Indian healthcare systems, as well as lack of education and training of staff in AMS, has been highlighted as one of the reasons driving the need towards stakeholder engagement.[8]

Guided by the global efforts, India formulated and adopted its National Action Plan on Antimicrobial Resistance (NAP-AMR) 2017–2021 in April 2017.[9] The strategic objectives of NAP-AMR based on national priorities are aligned with the WHO's Global Action Plan. In 2017, India joined the Global Antimicrobial Resistance Surveillance System

Renier Coetzee travelling by motorcycle in India

(GLASS) and published its scoping report on AMR.[10] This was followed by developing an AMR Stewardship policy.[11]

Here we report on the AMS initiative undertaken by Karnataka State Pharmacy Council (KSPC), a statutory body constituted under the Pharmacy Act 1948 (Act no. 8 of 1948) of the Indian parliament. The prime responsibility of the KSPC is to register eligible pharmacists and to issue a registration certificate to persons with requisite prescribed qualifications, as well as to enforce the necessary provisions of the Pharmacy Act 1948. State Pharmacy Councils are constituted by every state for the purpose envisaged in the Act and each state frames its own rules to govern the system without any prejudice to the Central Act. Though the main objective of KSPC is to regulate professional practice to ensure only qualified registered pharmacists will enter the profession to provide service to the patient, this Council has remained unique in the country.

After starting the first Drug Information Centre accessible to health-care professionals and patients alike, in 1997, the Council continued the trail blazing with several innovation initiatives focussed on continuing professional development programmes (CPD) for retail and hospital pharmacists, and by participating in the CPD organised by the Indian Medical Association, Karnataka branch, for doctors. Since October 1999, KSPC has published a quarterly Drug Information and Research Centre Newsletter and has become a member of the International Society of Drug Bulletins (ISDB).

Thereafter, KSPC initiated the efforts towards rational use of medicines in the year 2000 under the India-WHO Essential Medicines Programme which was managed by the Delhi Society for Promotion of Rational Use of Drugs. Since January 2019, concerted efforts were initiated through the KSPC while they had regular meetings with international academics from the University of the Western Cape and St. Louis College of Pharmacy, along with State-level AMS champions. A proposal was drafted and presented to the Executive Committee for feedback, before initiating efforts in AMS.

Staff and students from Karuna Trust

In July 2019, in response to the need for initiating a working team to draft an AMS policy for Karnataka State, stakeholders from various disciplines in health were invited for a seminar at the Karnataka State Pharmacy Council. Representatives included academic faculty members, hospital pharmacists, microbiologists, nurses, dentists and other members. A broad overview of AMR and global policy preceded a panel discussion on the current activities within the field of AMS. Challenges were presented and discussed by the audience.

We report here the findings of the first stakeholder engagement to establish a draft strategic plan on antimicrobial resistance for Karnataka State.

Outcomes

The following themes emerged strongly during the panel discussion as well as contributions by the audience: (1) antimicrobial stewardship, (2) surveillance; and (3) patient and public education and awareness.

The major themes that emerged during this stakeholder engagement mirror the objectives highlighted in the Global Action Plan on antimicrobial resistance adopted in May 2015 by the World Health Assembly (WHO, 2015).

1. Improve awareness and understanding of antimicrobial resistance among the healthcare workers and public.

2. Strengthen surveillance and research to identify the areas needing to be addressed.

3. Reduce the incidence of infection through effective infection prevention and control strategies.

4. Optimise the use of antimicrobial agents in human and animal health through policy and procedures.

5. Ensure sustainable investments that take account of the needs of all countries, and increase investments in new diagnostic, treatment and prevention interventions spread across human, animal, plant and environmental health.

Antimicrobial stewardship

The panel members highlighted how the vision of the AMS programme at KSPC could address collaboration with other healthcare professionals and organisations while forming a core writing committee for the proposed antibiotic policy draft. The need for expanding the advisory committee and a broad consultative committee, collaboratively

working from various sectors of the healthcare teams, was one of the highlights during the discussion. The proposed antibiotic policy is to be presented to the Government of Karnataka, so they can pursue the consultative and adoption processes required at State level.

This proposed approach in KSPC aligns to the experiences and practices of a collaborative approach which is strongly emphasised in various reports that address AMR. Evidence from other countries have clearly demonstrated that no single stakeholder can bring AMR under control. Therefore, global solidarity and collaboration between governments, industry, NGOs and others is critical.[12] In a country such as India, highly dynamic diversity poses a threat to effective implementation. Influencing through the inverted pyramid approach, KSPC hopes to make a long-lasting impact. It was unanimous from all participants that teamwork would be highly important to address AMR. The exact impact of AMR on individuals and communities depends on an interplay of factors, including the distribution of pathogens, the prevalence of resistance to each, and the availability of economic and healthcare delivery resources. Hence, a core team is required to lead AMS in all healthcare facilities. A range of leaders has been identified, spread across various critical players such as pharmacists, clinicians, laboratory personnel, discovery scientists, public health professionals among others. For successful implementation of the AMS policy/ framework, an environment of collaboration is being actively pursued by KSPC in this project.

Rational use of antibiotics is another key area that was highlighted by the panel members as a prominent component of this KSPC programme. A staggered approach towards this has therefore been initiated by involving the Pharmacy Practice programmes that train Pharm D students, as key partners. Additionally, collaborative partnerships will be established with other key stakeholders as part of the five year plan that has been drawn up. Furthermore, the draft five year plan will be circulated to panel members and other incoming key stakeholders for their input, to increase ownership of the outcomes planned and to retain the dynamic nature of this working document.

Surveillance

Panel members raised the issue that limited knowledge is currently available on antimicrobial resistance patterns, especially within government settings, where it is feasible to initiate collaborative AMS efforts. Karnataka has just one centre in Mysuru at a state-level. In general there is a lack of proper investigations done, especially blood cultures when an infectious disease is suspected, mainly in the primary health centres that do not have access to infrastructure and facilities for culture and sensitivity testing. Access to the necessary laboratory investigations is a huge limiting factor. To initiate efforts in working towards antibiotic standard treatment guidelines for the empiric treatment of infectious diseases, the panel raised the importance of collating local resistance patterns.

Strengthening laboratories was identified as a key area that needs collaborative attention, which must be included in the antibiotic policy draft. Educational programmes directed towards lab technicians were also discussed. The need to adopt quality control standards as part of AMS, to ensure reliable results which benefit individual patients, and the community at large, was examined.

Gumbali Primary Health Centre

Public and patient education and awareness

Awareness of AMR amongst community members was highlighted as an important factor to regulate appropriate use of antimicrobial agents. The panel also focussed on the need for implementation of educational strategies for patients and the public that focuses on behaviour change communication. Current practices amongst patients include over the counter requests for antimicrobial agents, incorrect usage and sharing of antimicrobial agents among family and friends. These practices need to be addressed when educational interventions are designed in future by KSPC.

Way forward

By taking cognisance of a 2013 report of the WHO Mission Team on Karnataka, which pointed out that nine of the top 28 items procured by the State were antibiotics, which consumed 22% of the annual budget,[13] this initiative aims to initiate collaborative partnerships to work on a State-level Antibiotic Policy, as its first objective.

Strong commitment from interested stakeholders from various backgrounds contributed to a rich discussion to provide the necessary content for the first draft recommendations for an antimicrobial stewardship framework for Karnataka State. Providing a platform where stakeholders with an interest in AMS can voice their concern, provided policy writers with the opportunity to see the opportunities that will ultimately result in successful implementation of the policy.

Karnataka State is chosen as a starting point due to logistical convenience rather than to indicate any uniqueness to the problem in this State specifically. The development of a framework/policy on AMS for Karnataka State will continue to be a process that involves many stakeholders, from various sectors within the healthcare system. Our aim is to continue engaging with more stakeholders over time, as part of a staggered approach, to ensure that a sustainable framework/policy is developed. We have been able to develop a joint commitment and shared responsibility from various healthcare disciplines. The first draft will be presented to a larger stakeholder group for further development into what would be deemed the "best fit for purpose" policy/framework for Karnataka State to contribute to curb the increase in AMR.

Key messages for the KSPC AMS team that were emphasised by the panellists are:

Find a common goal for all stakeholders.

Focus on the process of reaching the goal.

Create a space for ownership and involvement from all stakeholders.

Guide the process by being open to suggestions from stakeholders.

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