

Summary report on the
**Meeting on systems and
approaches to encourage
the appropriate use of
antibiotics and roll out of
the WHO antibiotic book**

Cairo, Egypt
7–8 June 2023



**World Health
Organization**

REGIONAL OFFICE FOR THE **Eastern Mediterranean**

Summary report on the

**Meeting on systems and approaches
to encourage the appropriate use of
antibiotics and roll out of the WHO
antibiotic book**

Cairo, Egypt
7–8 June 2023



**World Health
Organization**

REGIONAL OFFICE FOR THE **Eastern Mediterranean**

© World Health Organization 2023

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO); <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>.

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: “This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition”.

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization.

Suggested citation. Summary report on the meeting on systems and approaches to encourage the appropriate use of antibiotics and roll out of the WHO antibiotic book. Cairo: WHO Regional Office for the Eastern Mediterranean; 2023. Licence: CC BY-NC-SA 3.0 IGO.

Sales, rights and licensing. To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Contents

1.	Introduction.....	1
2.	Summary of discussions	2
3.	Recommendations.....	3
4.	Conclusion	5

1. Introduction

The *Global action plan on antimicrobial resistance*, WHO's Thirteenth General Programme of Work and the 2022 Muscat Manifesto all underline the importance of the appropriate use of antibiotics to address antimicrobial resistance (AMR). The *WHO AWaRe (Access, Watch, Reserve) antibiotic book*, published in 2022, is a tool to guide antibiotic use. It provides concise and evidence-based guidance on the choice of antibiotic, dose, route of administration and duration of treatment. The antibiotic book addresses more than 30 of the most common clinical infections in children and adults to guide treatment in both primary health care and hospital settings.

To review the status of antimicrobial stewardship programmes in the WHO Eastern Mediterranean Region and identify ways to strengthen them, the WHO Regional Office for the Eastern Mediterranean held a meeting on 7–8 June 2023 in Cairo, Egypt. The meeting was attended by 31 participants, including antimicrobial stewardship experts, representatives from seven priority countries and WHO staff from its country offices, the Regional Office and WHO headquarters.

The specific objectives of the meeting were to:

- appraise options for the roll out of antibiotic stewardship programmes and other approaches to optimize antibiotics use in the Region; and
- identify options to roll out the WHO AWaRe antibiotic book in the Region.

Dr Rana Hajjeh, Director for Programme Management at the WHO Regional Office opened the meeting, highlighting the need to be proactive to ensure antimicrobial stewardship in the Region and urged participants to develop actionable recommendations and a framework for stewardship during the meeting. Dr Yvan Hutin, Director, UHC/Communicable Diseases at the WHO Regional Office, in his

opening address, emphasized the need to plan innovative and result-oriented ways to strengthen stewardship programmes in the Region.

2. Summary of discussions

On the first day, the participants discussed facilitators and barriers to improving systems to encourage the appropriate use of antibiotics in the Region. This would help frame recommendations to improve antibiotic use, consumption monitoring and the use of data for decision-making.

Challenges identified by participants included the general lack of awareness of the risks of AMR, poor knowledge of health workers on appropriate use of antibiotics, patient expectations, profits derived from antibiotic manufacture and sales, and weak enforcement of regulations. However, participants pointed to the growing awareness and political interest in AMR as providing an opportunity and noted that hospital stewardship programmes were being developed in hospitals across the Region. It was observed that generating and using data on antimicrobial consumption could shine a light on the issue, and flag where interventions were most needed.

On the second day, the group reviewed opportunities and challenges to introducing and scaling up the use of the WHO AWaRe antibiotics book in countries of the Region. The book, which covers the syndromic management of common conditions in children and adults, provides guidance on a substantial proportion of the disease burden in primary and secondary care. The associated app and infographics are accessible and likely to facilitate uptake. The challenge is to disseminate widely and incorporate into pre-service and in-service training.

The pharmaceutical sector is powerful and well-resourced in the Region, and in most contexts the prime source of continuing medical education for health workers. Its prime interest is sustaining sales of

medicines, but rising resistance is a threat to this, and some companies are actively supporting stewardship programmes. WHO therefore needs to explore how to collaborate with the sector, whilst managing reputational risks and conflicting interests.

The group developed an outline for a regional antimicrobial stewardship framework for WHO support to countries in strengthening antimicrobial stewardship interventions, including the roll-out of the antibiotic book over the next three years. The main elements of the framework included key WHO outputs related to governance, drug regulation policies, procurement and supply of medicines, hospital-based stewardship programmes, appropriate antibiotics use in primary health care, education and awareness about antimicrobial stewardship, and monitoring systems.

3. Recommendations

To Member States

1. Regulatory authorities and ministries of health should adopt and adapt the WHO antibiotic book and other global resources into national treatment guidelines for the main syndromes.
2. Improve awareness, education and training on antimicrobial stewardship by:
 - universities integrating AMR and antimicrobial stewardship into the curricula of undergraduate and graduate professional health care provider training;
 - ministries of health, in coordination with ministries of youth, collaborating with medical, pharmacy, microbiology and nursing student networks to support wider circulation and use of the WHO AWaRe antibiotics book;
 - ministries of health exploring how the WHO AWaRe antibiotics book can be used to improve management of infectious syndromes in primary health care;

- ministries of health and education ensuring that the education and training of health care workers in antimicrobial stewardship takes place on a regular basis.
3. Conduct advocacy and awareness raising campaigns on the rational use of antimicrobials.
 4. National and regional drug regulatory authorities, in conjunction with ministries of health and the relevant ministries responsible for appropriate use of antibiotics in non-human sectors, should collaborate with regional and national regulatory bodies to:
 - optimize the use of antimicrobial medicines in human and animal health and the environment;
 - strengthen regulatory mechanisms to ensure access to quality antibiotics to fight AMR;
 - secure an effective and efficient supply chain for antimicrobials;
 - implement policies to ensure better access to antimicrobials for the poor and vulnerable populations;
 - enforce a law to reduce over-the-counter sales of antibiotics and limit their pharmaceutical impact on prescribers.
 5. Establish a medicines group at national level as a technical working group of the multisectoral AMR coordination committee to oversee all actions to improve stewardship and reduce inappropriate use in humans and the veterinary sector.


To WHO

6. Improve awareness, education and training by:
 - sharing a WHO curriculum for AMR and other courses, such as a prescribers' short course, with national authorities;
 - collaborating with medical, pharmacy, microbiology and nursing student networks to support the wider circulation and use of the WHO AWaRe antibiotics book;

- collaborating with those developing training in primary health care and for case management in emergency contexts to explore how the book could be used to improve the management of infectious syndromes;
 - conducting global and regional campaigns to improve awareness about the rational use of antimicrobials.
7. Engage with regional, national and non-state stakeholders, including academia, health-related syndicates, professional health societies, nongovernmental organizations and civil society organizations in the Region, to promote the appropriate use of antibiotics.
 8. Explore the opportunities, risks and constraints of working with the pharmaceutical industry and professional societies.
 9. Monitor and evaluate the progress of antimicrobial stewardship interventions through systematic feedback and data analysis, and provide recommendations to the countries of the Region.
 10. Establish a regional coordination mechanism with non-human health stakeholders to advocate for a similar approach in animals, agriculture and the environment.

4. Conclusion

In his concluding remarks, Dr Yvan Hutin urged participants to continue to remain engaged in the development of the regional framework to strengthen antimicrobial stewardship programmes. He emphasized the need for clear deliverables and implementation plans at regional and country levels, and said that the framework would be developed over the next six months.



World Health Organization
Regional Office for the Eastern Mediterranean
Monazamet El Seha El Alamia Street,
Extension of Abdel Razak El Sanhoury Street
P.O. Box 7608, Nasr City
Cairo 11371, Egypt
www.emro.who.int