Session 9.
Strategies to Improve Medicine Use—Overview

Trainer’s Guide
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RPM Plus works in more than 20 developing and transitional countries to provide technical assistance to strengthen pharmaceutical and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning, and in promoting the appropriate use of health commodities in the public and private sectors.

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Developed in Collaboration with the  
World Health Organization  
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ARI</td>
<td>acute respiratory infections</td>
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<tr>
<td>DTC</td>
<td>Drug and Therapeutics Committee</td>
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<tr>
<td>DUE</td>
<td>drug use evaluation</td>
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<tr>
<td>EDP</td>
<td>essential drugs program</td>
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<tr>
<td>PHC</td>
<td>public health care</td>
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<tr>
<td>STG</td>
<td>standard treatment guideline</td>
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<tr>
<td>USD</td>
<td>U.S. dollar</td>
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<tr>
<td>VA</td>
<td>visual aid</td>
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SESSION 9. STRATEGIES TO IMPROVE MEDICINE USE—OVERVIEW

Purpose and Content

Session 9 is designed to provide information on how members of the Drug and Therapeutics Committee (DTC) can apply interventions to resolve medicine use problems. Considered to be one of the most important functions of a DTC, implementing appropriate strategies to improve medicine use will affect improved health outcomes and decrease cost.

Strategies that will be discussed include the following educational, managerial, and regulatory methods—

- In-service education programs
- Pharmaceutical bulletins and newsletters
- Formulary manual
- Face-to-face communication
- Standard treatment guidelines (STGs)
- Audit and feedback (drug use evaluations [DUEs])
- Clinical pharmacy programs
- Formulary management, including medicine selection
- Medicine restrictions and control
- Medicine registration and professional licensing

Session 9 comprises an overview of this subject; a more detailed breakdown of STGs and DUEs is provided in later sessions.

Objectives

After attending this session, participants will be able to—

- Identify effective strategies to improve medicine use based on an understanding of the factors underlying medicine use problems
- Choose an appropriate strategy for improving medicine use based on an identified problem
- Understand the importance of educational, managerial, and regulatory interventions in promoting rational use of medicines

Outline

- Key Definitions
- Introduction
- Methods to Improve Medicine Use
  - Educational
Managerial
   Regulatory

Activity 1
Summary

Preparation and Materials

- Read the Trainer’s Guide and the Participants’ Guide, and review visual aids (VAs).
- Instruct participants to read the Participants’ Guide the evening before the session presentation.

Visual Aid Listing

1. Title slide
2. Objectives
3. Outline
4. Key Definitions
5. Introduction
6. Consequences of Irrational Use of Medicines (1)
7. Consequences of Irrational Use of Medicines (2)
8. Changing a Medicine Use Problem
9. Strategies to Improve Medicine Use
10. Educational Methods: To Persuade and Inform
11. Printed Educational Materials (1)
12. Printed Educational Materials (2)
13. Printed Educational Materials (3)
14. Face-to-Face Educational Methods (1)
15. Face-to-Face Educational Methods (2)
16. Face-to-Face Educational Methods (3)
17. Face-to-Face Educational Methods (4)
18. Effects of Opinion Leader
19. Face-to-Face Educational Methods (5)
20. Impact of Patient-Provider Discussion Groups
21. Sites for Face-to-Face Education
22. Strategies to Improve Medicine Use
23. Managerial Methods: To Structure and Guide Decisions
24. Standard Treatment Guidelines
25. Randomized Controlled Trial in Uganda
26. Audit and Feedback
27. Clinical Pharmacy Programs
28. Pharmaceutical Restrictions and Control
29. Controlling Pharmaceutical Promotion
30. Avoiding Perverse Economic Incentives
31. Improving Prescribing by Changing Financial Incentives from User Fees
32. Polypharmacy and Antibiotic Use
33. Injection and Vitamin or Tonic Use
Session 9. Strategies to Improve Medicine Use—Overview

Organization of the Session

Total time: 3 hours

Session 9 is designed to give the participants an overview of the different strategies that can be used to promote rational use of medicines. The session should be participatory, drawing on the experiences of participants in their home countries. Emphasize that effective interventions can be chosen only if the factors underlying irrational use of medicines are known and addressed by the intervention.

First Component: 15 minutes
VAs 1–9: Introduction

Introduce the session by briefly explaining the objectives and outline of the session and reviewing with the participants the consequences of irrational use of medicines. Then ask the participants what the first two steps are to promote more rational use of medicines. Draw out of them that the first step is to measure medicine use and the second step is to investigate the factors underlying medicine use problems. Then summarize the process of changing a medicine use problem (VA 8). Following this, explain the types of strategies to improve medicine use (VA 9).

Second Component: 30 minutes
VAs 10–21: Educational Methods

Explain that educational interventions aim to inform or persuade people. Ask the participants what kinds of educational strategies they have used in their home countries. Ask what form of in-service training takes place. Then review the various kinds of educational strategies summarized in the VAs. Discuss the advantages and disadvantages of printed materials versus face-to-face education. Explain the various examples of different educational interventions.

Third Component: 30 minutes
VAs 22–34: Managerial and Economic Methods

Explain that managerial interventions aim to structure or guide decisions. Ask the participants
what kinds of managerial strategies they have used in their home countries. Then review the various kinds of managerial strategies summarized in the VAs paying special attention to the following points—

- Guidelines with training and supervision can have a considerable impact, but guidelines alone have little impact (VA 25). Do not spend much time on advantages and disadvantages of STGs because they will be covered in session 10.

- Some participants may not be familiar with certain terminology, which should be explained (e.g., structured order forms and automatic stop orders).

- When discussing generic substitution under clinical pharmacy programs, emphasize the importance of getting prior agreement from the clinicians and explain how getting this agreement will depend on ensuring the quality of the generic medicines.

- No prescriber is exempt from the influence of pharmaceutical promotions. The DTC might deal with pharmaceutical promotion by holding meetings between prescribers and medical representatives where a balanced discussion can be encouraged. This approach would be dependent on receiving advanced notice of which medicine will be discussed so that the pharmacist (or other medical staff member) can investigate that particular medicine in the independent literature before the meeting.

- Many participants will be unfamiliar with economic incentives and disincentives, so VA 30 on avoiding perverse financial incentives will need careful explanation. The example in VAs 31–34 will also need to be carefully explained, in particular, the difference between flat and item fees. With the flat fee, patients paid the same amount for however many medicines they were prescribed in whatever quantity—so why have fewer medicines for the same price as for more medicines? (Flat fees are a positive incentive for polypharmacy, i.e., negative incentive for rational use of medicines.) With the item fee, patients paid a fixed fee for each medicine (covering a full course)—the more medicines you have, the more you pay. (Item fees are a positive incentive for not taking medicines unnecessarily.)

**Fourth Component: 30 minutes**

**VAs 35–41: Regulatory Methods and Combined Intervention Strategies**

Explain that regulatory interventions aim to restrict or limit decisions. Then brainstorm with the participants about what kinds of regulatory strategies are used in their countries. Summarize the regulatory strategies that DTCs can follow (VA 35–36).
When discussing how to choose interventions, emphasize that a package of interventions is better than a single intervention alone (VAs 37–38). When explaining the example of a combined intervention strategy in Mexico (VAs 39–40), bring out the points that the intervention was—

- Very effective but localized when conducted by the highly trained physician researchers
- Less effective (but still effective) and much more widespread when conducted by the less trained “health coordinators”

In describing the review of intervention studies (VA 41), bring up the point that printed materials alone are not effective and that face-to-face educational interventions have variable results. Interventions involving group process, supervision and audit, essential medicine programs and supply, and economic strategies have a moderate to sizable impact.

**Fifth Component: 60 minutes**

**VA 42: Activity**

The participants should work in table groups. Allow 25 minutes for discussion in groups and then 20 minutes for discussion in plenary. For the plenary discussion, invite one table at random to answer each question (i.e., three different groups will each present answers to one of the questions). Possible answers are provided in italics below the questions in the activity. Once a group has presented an answer allow a few questions from other groups.

**Activity 1. Case Study: Generic and Brand Name Antibiotics**

For this activity, assume that your DTC has noticed an increased use of certain brand name antibiotics for treating adult infections in the outpatient clinic. Less expensive generic products have recently been out of stock, but are now available. Health care providers are reluctant to use the generic products because of a lack of confidence in their quality.

The STGs available for these infections are not specific and therefore allow for a wide selection of different antibiotics. The costs of the brand name medicines are approximately 50 percent higher than similar generic medicines available on the formulary. Most physicians and pharmacists agree that the brand name products seem to work better and that patients are less likely to return to the clinic for follow-up visits.

The hospital has significant budget problems and the administration is looking for ways to decrease cost without compromising quality. The administration has also had many patient complaints about poor-quality medicines, especially generic products.

- What are the major pharmaceutical management issues in this case presentation?
  - *Use of brand name medicines*
  - *STG not well developed and not followed*
- Perception that certain medicines work better than others, even though no evidence supports this perception; individual opinions used in making decisions
- Education levels of health care staff

- Clearly define the beliefs and motivations of the prescribers that may contribute to the observed behavior.
  - Belief that brand name medicines have better quality
  - Financial interests for some prescribers to use certain medicines

- Once the problem has been defined, what kinds of strategies or interventions would you use to improve pharmaceutical therapy in this hospital and lower medicine cost?
  - Define the quality of medicines both generic and brand name products (i.e., retrieve evidence to show that the bioavailability of the products is equivalent).
  - Use generic medicines of high quality if possible to reduce health care cost.
  - Introduce generic substitution provided the DTC is sure of the quality of the generic medicines and gets prior agreement from the clinicians
  - Purchase medicines from pre-qualified and reputable suppliers
  - Educate physicians and pharmacists about generic medicine issues
  - Educate patients
  - Revise STGs

**Sixth Component: 15 minutes**

**VA 43–44: Summary**

Summarize the key points. Restate how interventions may be educational, managerial, or regulatory, and how combinations of interventions that address the factors underlying irrational use are most likely to be effective.