

# AHRQ Safety Program for Improving Antibiotic Use



## Implementation Guide for Ambulatory Care Antibiotic Stewardship

### Introduction

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Developing or improving antibiotic stewardship activities in ambulatory practices can take time. If you are just starting to implement antibiotic stewardship activities in your practice, the resources provided in the AHRQ [Toolkit To Improve Antibiotic Use in Ambulatory Care](#) are intended to be introduced and implemented over 1–2 years. If you have been incorporating antibiotic stewardship activities in your practice for some time, you should assess what elements of the toolkit will enhance your efforts. If you are currently incorporating antibiotic stewardship activities in your practice, you should assess what elements of the toolkit will improve your efforts. Regardless of the stage of your implementation, you should begin by reviewing the elements of the toolkit, as described below. Of note, some content is available in more than one section of the toolkit if intended for a variety of practice members.

Implementation of the AHRQ Safety Program for Improving Antibiotic Use in Ambulatory Care can help practices address the [Centers for Disease Control and Prevention’s Core Elements of Outpatient Antibiotic Stewardship](#).

Most topics included in the Toolkit include a presentation and other content. Presentations include a slide set and a script, referred to in the toolkit as a facilitator guide. In addition, many topics, particularly those regarding infectious diseases syndromes, include a one-page summary of the most pertinent information. A discussion guide provides questions and next steps for specific activities to address what was discussed in the presentation and is recommended to be reviewed with other members of your practice. Handouts for patient education are available in English and Spanish for infectious diseases syndromes.

### Develop and Improve Your Stewardship Activities

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It is recommended to begin with the presentations and tools under the “[Develop and Improve Antibiotic Stewardship Activities in Your Practice](#)” tab. The presentations in this section cover why a practice should focus on improving antibiotic prescribing, how to develop infrastructure to promote antibiotic stewardship in your practice, and methods to collect data and track your progress. The tools are intended to complement the presentations as additional material to guide interventions.



## Summary of Topics

- “Why Your Practice Should Focus on Improving Antibiotic Prescribing” ([slides](#) and [facilitator guide](#)) provides a general overview of why improving antibiotic use is important from a patient safety perspective. This presentation can be used to demonstrate to leadership, healthcare providers, and clinic staff the potential harms associated with antibiotic use and why all individuals should work together to use antibiotics in the safest and most effective way possible. This presentation is intended for the entire practice and can be used at a practice meeting to introduce the concepts of antibiotic stewardship in ambulatory care.
- “Implementing Antibiotic Stewardship in Your Practice” ([slides](#) and [facilitator guide](#)) provides eight steps to build stewardship activities in a practice: (1) engaging senior practice leadership; (2) building an Antibiotic Stewardship Team, which should include a clinician and an administrative lead; (3) garnering support from all practice members to engage in improving antibiotic use; (4) determining how to access antibiotic prescribing data and what data to obtain; (5) building communication skills around antibiotic use, which includes a discussion of both working as a practice to standardize management approaches for common infectious syndromes and learning strategies for communicating with patients about antibiotic use; (6) selecting an initial antibiotic stewardship intervention; (7) monitoring and providing feedback about antibiotic prescription data; and (8) developing and implementing a sustainability plan. This presentation is primarily for senior leadership and the Antibiotic Stewardship Team.
- “Improving Communication Between Members of the Practice Around Antibiotic Decisions” ([slides](#) and [facilitator guide](#)) addresses approaches to improve teamwork and communication among all members of the practice to facilitate optimal antibiotic prescribing as well as other patient safety initiatives. This presentation is targeted toward members of the Antibiotic Stewardship Team, healthcare providers, and clinic staff.
- “Sustaining Antibiotic Stewardship Efforts in Ambulatory Care” ([slides](#) and [facilitator guide](#)) focuses on how to develop sustainability plans to determine antibiotic stewardship activities over the initial 1–2 years of forming an Antibiotic Stewardship Team and how to identify targets for future antibiotic stewardship efforts based on antibiotic prescribing patterns. This presentation is targeted toward members of the Antibiotic Stewardship Team.

## Associated Tools

- The Timeline for Implementing Antibiotic Stewardship in Ambulatory Care provides a suggested timeline for implementation of the AHRQ Safety Program as well as recommended activities for the Antibiotic Stewardship Team, healthcare providers, and clinic staff. The discussion points are intended to engage members of the practice during meetings in which stewardship implementation and infectious syndrome management strategies are discussed. Of note, each set of discussion points related to specific infectious diseases topics can also be found as individual documents under the “[Learn Best Practices for Diagnosing and Managing Common Infectious Syndromes and Antibiotic Allergies](#)” tab.

- The [Gap Analysis Tool for Antibiotic Stewardship in Ambulatory Care](#) assists with the evaluation of current antibiotic stewardship staffing and implementation, and allows for identification of areas in which antibiotic stewardship activities may benefit from improvement. It should be completed at the beginning of a practice’s stewardship implementation work. If, after completing the gap analysis, major deficiencies are noted, the Antibiotic Stewardship Team should meet with practice leadership to determine how to manage the deficiencies. This may include developing a business case for additional staff resources or gaining access to data analysis resources. The gap analysis should also be filled out at defined intervals, such as annually, to track progress over time and review the potential need for changes in resource allocation.
- The Commitment Poster ([English](#) and [Spanish](#)) is a poster declaring that the practice and individual healthcare providers are dedicated to ensuring judicious antibiotic prescribing. The poster is intended to be signed by clinicians and displayed in common clinical spaces and exam rooms as a visible pledge to patients, families, and staff members that the practice is committed to safe and responsible antibiotic prescribing. Photographs of clinic staff and the practice logo can be added to the poster. It is available in English and Spanish.
- The [Accessing and Reporting Antibiotic Prescription Data](#) document is a comprehensive data collection form for building a system to track antibiotic prescriptions and clinic visits. It is intended to be shared with the information technology group that supports the practice to facilitate extraction of antibiotic prescriptions, overall visits, and visits for acute respiratory tract infections based on a provided list of ICD-10 codes.

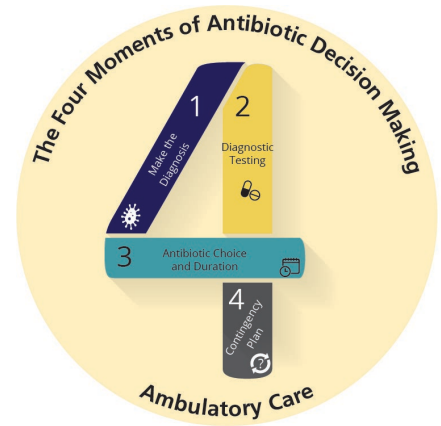
## **Four Moments of Antibiotic Decision Making Framework**

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Next, review the Four Moments of Antibiotic Decision Making framework and determine how to present it to clinicians and clinic staff at the practice. This framework identifies the critical time periods of antibiotic decision making throughout a course of antibiotics. It is intended to be disseminated to all clinicians and clinic staff to ensure that a standardized, rational thought process is employed when making decisions about whether antibiotics are needed and, if so, the most appropriate regimen. Introduce the Four Moments framework to healthcare providers and clinic staff to engage them in the process of improving antibiotic prescribing.

Actions that can be taken to integrate the Four Moments into regular practice include:

- Local guidelines or protocols should be developed using the Four Moments framework. For example, each guideline/protocol should include appropriate diagnostic criteria to determine if a patient has an infection, common causative organisms and cultures that should be obtained should be reviewed, and recommendations for empiric therapy and duration of therapy if antibiotics are indicated should be provided.
- Posters can be reproduced for displaying in work areas in the clinic and distributing to staff to remind them of the Four Moments. [Option 1](#) consists of the circular Four Moments logo, and [option 2](#) has both the logo and a list of the Four Moments.



## **Learn Strategies for Communicating With Colleagues, Patients, and Families About Antibiotic Prescribing**

Next, review the material under [“Learn Strategies for Communicating With Colleagues, Patients, and Families About Antibiotic Prescribing.”](#) These materials are designed to improve communication and consensus around antibiotic prescribing within the practice. In ambulatory care, communication about antibiotic prescribing with patients and their families is essential in improving antibiotic use, as is coming to a consensus as a practice around the importance of judicious antibiotic prescribing and management of patients with symptoms of viral upper respiratory tract infections.

### Summary of Topics

- “Why Your Practice Should Focus on Improving Antibiotic Prescribing” ([slides](#) and [facilitator guide](#)) provides a general overview of why improving antibiotic use is important from a patient safety perspective. This presentation can be used to demonstrate to leadership, healthcare providers, and clinic staff the potential harms associated with antibiotic use and why all individuals should work together to use antibiotics in the best possible way. This presentation is intended for the entire practice and can be used at a practice meeting to introduce the concepts of antibiotic stewardship in ambulatory care.
- “Communicating With Patients and Families About Antibiotic Decisions” ([slides](#) and [facilitator guide](#)) focuses on how clinicians and clinic staff can communicate with patients and families around appropriate antibiotic use. This presentation uses examples of common concerns raised by patients and families around desires for antibiotic treatment for conditions for which antibiotics will not improve outcomes and can cause harm (e.g., upper respiratory tract infections, influenza without pneumonia, and respiratory syncytial virus [RSV] infection, and acute bronchitis) and strategies to address these concerns. This presentation is intended for the entire practice.

- “Improving Communication Between Members of the Practice Around Antibiotic Decisions” ([slides](#) and [facilitator guide](#)) addresses approaches to improve teamwork and communication among all members of the practice to facilitate optimal antibiotic prescribing as well as other patient safety initiatives. This presentation is targeted toward members of the Antibiotic Stewardship Team, healthcare providers, and clinic staff.

#### Associated Tools

- The Commitment Poster declares that the practice and individual healthcare providers are dedicated to ensuring judicious antibiotic prescribing. The poster is intended to be signed by clinicians and displayed in common clinical spaces and exam rooms as a visible pledge to patients, their families, and staff members that the practice is committed to safe and responsible antibiotic prescribing. Photographs of clinic staff and your practice logo can be added to the poster. It is available in [English](#) and [Spanish](#).
- The [Communicating With Patients and Families About Antibiotic Decisions](#) One-Page Clinician Document provides prescribers with potential responses to patients who are requesting antibiotics that are not indicated.
- The Antibiotics: When Are They Needed? Patient Handout ([English](#) and [Spanish](#)) can be provided to patients and their families to help explain why antibiotics are sometimes not needed.

### **Learn Best Practices for Diagnosing and Managing Infectious Syndromes and Antibiotic Allergies**

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Next, review the materials under the “[Learn Best Practices for Diagnosing and Managing Infectious Syndromes and Antibiotic Allergies](#)” tab. Each syndrome is associated with a presentation and a facilitator guide. In addition, other support materials include a discussion guide for each infectious syndrome discuss practical measures your practice can take to improve antibiotic prescribing for the specific syndrome and are meant to be reviewed with healthcare providers during standing meetings to foster discussion for a team approach to improving antibiotic prescribing; One-Page documents for each syndrome that can be used as a poster, handout, and/or template for local guidelines; and patient and family handouts.

The specific infectious diseases topics addressed are case based and focus on common scenarios in the ambulatory care setting. Several focus on respiratory tract infections because these are common reasons for patients to present to care and often result in antibiotic prescriptions. Respiratory tract infections addressed are divided into infections for which antibiotics are never indicated (upper respiratory tract infections, influenza without pneumonia, RSV, and acute bronchitis), infections for which antibiotics are sometimes indicated (sinusitis, pharyngitis, and acute otitis media), and infections for which antibiotics are usually indicated (community-acquired pneumonia). Other topics are cellulitis and skin and soft tissue infections, asymptomatic bacteriuria and urinary tract infections, and assessment and management of antibiotic allergies.

Suggestions for integrating the material into your practice include:

- Standing monthly meetings with clinicians to (1) review topic-specific materials, (2) use the discussion guides to agree upon approaches to integrate the material into practice, and (3) develop and implement relevant local guidelines/protocols.
- Strategic distribution of antibiotic stewardship materials in frequently accessed areas or points of care (e.g., local website, common workstations, break rooms).
- Incorporation of presentations into healthcare worker onboarding or orientation materials, or a yearly antibiotic stewardship retreat.

Your practice may consider focusing on a specific syndrome or topic every few months. During that period, activities may include developing or updating local guidelines/protocols on the topic, disseminating information about the topic to members of the practice, and collecting and feeding back data on improvements in how clinicians are managing these syndromes. Whenever the stewardship team updates material, it is important to ensure that all members of the practice are aware of the changes (and that consensus is reached) to ensure that the most up-to-date content is being used and to ensure buy-in.

## **Conclusions**

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The AHRQ Toolkit To Improve Antibiotic Use in Ambulatory Care provides a pathway for ambulatory practices to develop and improve their antibiotic stewardship approaches. Practices are encouraged to consider how all elements of the toolkit can be applied to improve antibiotic use and enhance the safety of patients receiving antibiotics.

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