

# Antibiotic Stewardship for Acute Respiratory Infections

## The Milstein Toolkit for Ambulatory Care Practices

### Provider Survey

The purpose of the provider survey is to better understand the factors that contribute to a provider's decision to prescribe antibiotics for patients with acute respiratory infections. The survey also explores provider knowledge of prescribing guidelines using a case scenario and knowledge of broad vs. narrow spectrum antibiotics. In addition, it elicits input as to the types of tools that providers would find helpful in improving antibiotic prescribing practices.

For more information on the background and usage of this tool, see the full toolkit at the UHF website, [www.uhfnyc.org](http://www.uhfnyc.org).

The strategies, recommendations, and tools included in this publication are intended to provide a basic framework for improving outpatient antibiotic prescribing practices that can be customized to meet the needs of individual practices regardless of size, academic teaching status, staffing model, patient population, or available resources. United Hospital Fund makes no representations or warranties of any kind regarding the toolkit, including, without limitation, as to the accuracy of the information provided. The information provided is not medical or legal advice and should not be relied upon as such, nor should the information be used as a substitute for clinical or legal judgment. UHF does not assume liability for any damage or injury from the use or misuse of any information provided herein. We ask that you please acknowledge United Hospital Fund in the use of this resource, even if you modify or adapt it. Any use, modification, or adaptation of this resource is done at the user's discretion and the user assumes responsibility for the outcome.

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## Provider Survey

**Goal:** The goal of this survey is to obtain information from prescribers (including primary care physicians, residents, physician assistants, and nurse practitioners) regarding an important public health issue having to do with antibiotic utilization, specifically for adult patients with acute respiratory infections (ARIs). We have some questions to ask you about antibiotic prescribing, such as clinical reasoning leading to the decision to prescribe an antibiotic, and, once the decision is made, decisions about antibiotic selection, dose, and duration. The goal is to understand more about decisions providers make in antibiotic prescribing, antibiotic selection, dose, and duration.

**Instructions:** Please survey prescribers within your practice site to obtain an assessment of antibiotic prescribing practices and identify key drivers of decisions providers make in prescribing, antibiotic selection, dose, and duration for adult patients at your outpatient setting. We recommend including all prescribers in your practice who see adult patients, including primary care physicians, residents, physician assistants, and nurse practitioners. Prescribers can complete this survey either on paper or via SurveyMonkey. This survey will take approximately 30 minutes to complete.

Note: The development of this form was informed in part by the Centers for Disease Control and Prevention's Interview Tool: Knowledge, Attitudes, and Practices Used by Primary Care Providers in Antibiotic Selection, United States. DOI: <http://wwwnc.cdc.gov/eid/article/20/12/14-0331-techapp1.pdf>.

### Practice and Prescriber Characteristics

1. Practice site name:
2. Hospital or health system affiliation:
3. How much of your time do you spend in direct patient care in this practice?
  - a. Greater than or equal to 50% of your time
  - b. Less than 50% of your time
4. Which of the following describe your role in the practice?
  - a. Physician Attending
  - b. Resident
  - c. Nurse Practitioner
  - d. Physician Assistant
  - e. Other (Please specify: \_\_\_\_\_)
5. How many years have you been practicing medicine?
  - a. <5 years
  - b. 5-10 years
  - c. >10-20 years
  - d. 21-30 years
  - e. 31 or more years



8. Does your practice have a policy or practice guideline in place for the **dose** of antibiotics used for clinical conditions?

- a. Yes
- b. No
- c. Sometimes
- d. Unknown
- e. Other (please explain):

9. Does your practice have a policy or practice guideline in place for the **selection** of antibiotics used for clinical conditions?

- a. Yes
- b. No
- c. Sometimes
- d. Unknown
- e. Other (please explain):

10. Does your practice have a policy or practice guideline in place for the **duration** of antibiotics used for clinical conditions?

- a. Yes
- b. No
- c. Sometimes
- d. Unknown
- e. Other (please explain):

11. What makes antibiotic selection most challenging for you?

- a. Patient Allergies
- b. Complicated medical histories
- c. Recurrent infections
- d. Other (please describe):

12. Do you know the difference between broad spectrum and narrow spectrum antibiotics?

- a. Yes
- b. No

Please explain:

13. Is antibiotic spectrum (broad versus narrow) a consideration when you prescribe an antibiotic?

- a. Yes
- b. No
- c. Sometimes

Please explain:

14. *Please indicate if you agree with this statement:* Broad spectrum antibiotics are more likely to cure an infection than narrow spectrum antibiotics.

- a. Agree
- b. Disagree
- c. Other (please explain):

15. What do you think are the pros and cons of using broad spectrum antibiotics?

Pros:	Cons:

16. When do you think it is appropriate to prescribe broad spectrum antibiotics instead of narrow spectrum antibiotics?

17. Do you think your colleagues can uniformly define the differences between broad versus narrow-spectrum antibiotics?

- a. Yes
- b. No

Please explain:

**Internists Sinusitis Case Scenario:**

You are in the Internal Medicine clinic seeing Michelle, an otherwise healthy 36-year-old female, who complains of fever and increasing nasal discharge over the past 5 days. She is concerned because her symptoms have not improved. Physical exam reveals the patient is afebrile (temperature <100°F), has erythematous and enlarged nasal turbinates, with cloudy discharge on the right and tenderness over her right maxillary sinus. Her lung exam is clear.

18. What would the work up for this patient include (please check all that apply)?

<input type="checkbox"/> Testing for Acute Respiratory Illness (e.g., PCR)	<input type="checkbox"/> Sinus radiographs or CT imaging
<input type="checkbox"/> Blood culture	<input type="checkbox"/> Completing a thorough history
<input type="checkbox"/> Urinalysis	<input type="checkbox"/> Other, please specify: _____
<input type="checkbox"/> Complete Blood Count (CBC) test	_____

19. Would you prescribe an antibiotic to this patient?

- a. Yes
- b. No

If yes, which antibiotic would you prescribe, and why?

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If no, what would the treatment for this patient look like?

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**Antibiotic Prescribing Habit Changes**

20. How challenging would it be to change you and your colleagues' antibiotic prescribing behaviors?

- a. Very challenging
- b. Challenging
- c. Somewhat Challenging
- d. Not Challenging

21. What do you think are some of the key reasons for the challenges in trying to change antibiotic prescribing habits? Please answer on a scale of 1 (small factor) to 4 (large factor):

- a. Prescribers are just reluctant to change their antibiotic prescribing practices:  
1 (small factor)                      2                      3                      4 (large factor)
- b. Prescribers are used to the way they have been prescribing medications for years:  
1 (small factor)                      2                      3                      4 (large factor)
- c. Prescribers can't change their practices because of pressure from patients:  
1 (small factor)                      2                      3                      4 (large factor)
- d. Prescribers are challenged by a mix of patients with multiple comorbidities, making it difficult to change prescribing habits:  
1 (small factor)                      2                      3                      4 (large factor)
- e. Prescribers don't need to change their prescribing practices because they are sufficient:  
1 (small factor)                      2                      3                      4 (large factor)
- f. Other (please describe):  
1 (small factor)                      2                      3                      4 (large factor)

22. What methods would help in improving appropriateness of decisions about antibiotic use in patients with acute respiratory infections (check off all that you think could help)?

- a. Improved methods for using electronic medical records and clinical decision support to assist providers with antibiotic selection, dose, and duration
- b. Improved use within practice setting of established clinical practice guidelines for antibiotic selection, dose, and duration
- c. Data showing antibiotic prescribing practices among providers in the practice setting
- d. Access to a quick reference guide for each major diagnosis, including antibiotic indications
- e. Access to better educational materials for patients and families about antibiotic use and resistance
- f. Improved access to antibiotic resistance data for local area(s) where patients are served
- g. Delayed antibiotic prescribing, i.e. "wait and see" prescriptions
- h. Use of shared decision-making tools in your practice
- i. Communication skills training for health care providers to address benefits and harms of antibiotic treatment and management of patient expectations for antibiotics
- j. Access to the Centers for Disease Control and Prevention's Get Smart: Know when Antibiotics Work materials and tools to help learn about antibiotic resistance and appropriate antibiotic prescribing and use for common infections
- k. Other, please describe:

## Antibiotic Resistance

23. Do you think antibiotic resistance is a concern for your patients?

- a. Yes
- b. No

Please explain:

24. Do you think your patients understand what antibiotic resistance is?

- a. Yes
- b. No

Please explain:

25. Do you think antibiotic prescribing in outpatient settings is contributing to infections like *Clostridium difficile*?

- a. Yes
- b. No

Please explain:

26. Could you please provide us with any other information that can help to improve antibiotic prescribing in your practice setting?