

FINAL - DHQP and NCEZID cleared

ANTIBIOTIC USE EDUCATIONAL EFFORT - INTERVIEWER GUIDE

HEALTHCARE PROVIDERS (HCPs) - HOSPITALISTS

WELCOME, RULES, ICE BREAKER/INTRO [2-3 MINUTES]

Thank you for taking the time to join us for this interview. My name is [INSERT NAME] and I work for ICF, a private firm, who is conducting research on behalf of the US Centers for Disease Control and Prevention, or CDC, who is sponsoring this health communication campaign. I want to take a few minutes to tell you what to expect from our conversation and go over the informed consent.

ICF is conducting this study on behalf of CDC to learn about antibiotic prescribing by hospitalists and to gather feedback on communication materials for CDC's campaign to improve antibiotic use. This information will be used to improve the materials that you see.

Remember your participation is voluntary. That means you can stop us at any time and if you are uncomfortable with a question, or if you simply don't have a response, it is fine to pass.

Our discussion should take about one hour. Your name and any identifiable information you may share during our discussion will not be included in our final report, so no responses will be linked to you directly. I don't expect you to tell me anything that you would be uncomfortable sharing, but hope that you will be honest with your responses to the questions I ask.

Please speak up and speak clearly. We are audiotaping the discussion so that we can have an accurate record of the discussion. Also, we have observers from CDC and ICF listening and taking notes during our discussion today. We also have a technology support person to assist with any with any technical needs during our discussion.

Do you have any questions before we get started?

Begin recording and ask: We are now recording this session. I want to ask you again,

Do you agree to participate in this interview?

Do you consent to us recording your responses?

UNDERSTAND PROVIDERS' PERCEIVED ROLE IN IMPROVING ANTIBIOTIC PRESCRIBING AND GATHERING INFORMATION ABOUT PARTICIPANTS PREFERRED SOURCES OF INFORMATION ABOUT ANTIBIOTIC PRESCRIBING. [10 MINUTES]

Ok, great. Let's get started. I'd like to start our conversation by hearing your thoughts on antibiotic prescribing and where you get information about it.

1. **Do you encounter any challenges with antibiotic prescribing in the hospital setting?**
 - a. *PROBE*: [If yes] What are they?
 - b. *PROBE*: Are you reluctant to stop an antibiotic started by another clinician?
 - c. *PROBE*: Do you feel you have all the information you need when prescribing antibiotics at discharge?
2. **Do you think hospitalists or hospitals have a role to play in improving antibiotic prescribing?**
 - a. *PROBE*: [If yes] What is that role?
 - b. *PROBE*: [If no] Why?
 - c. *PROBE*: Do you take any actions to improve prescribing?
 - d. *PROBE*: What actions does your hospital take to improve antibiotic prescribing?

Ok, let's talk a little bit about where you get information about antibiotic prescribing.

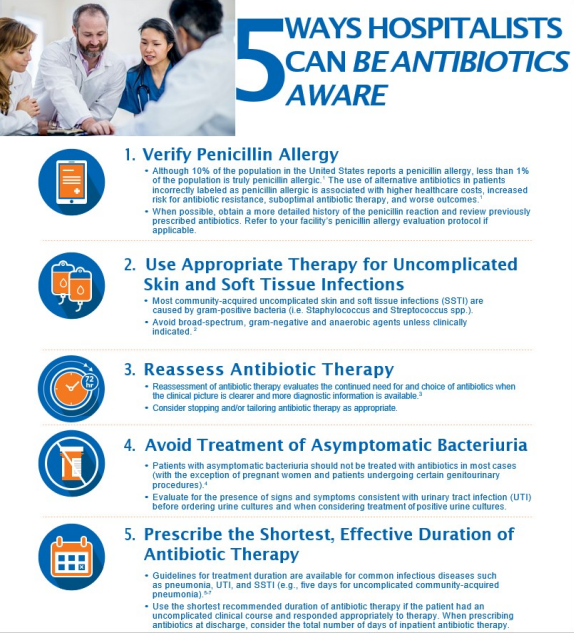
3. **What resources, in general, do you refer to when prescribing antibiotics?**
 - a. *PROBE*: What about hospital pharmacy & therapeutic (P&T) approved guidelines, such as for community-acquired pneumonia?
 - b. *PROBE*: What about pocketbooks, mobile apps or online educational resources (such as UpToDate)?
4. **What resources would be helpful for you to learn more about and implement recommended antibiotic prescribing practices in hospitals?**
 - a. *PROBE*: What about webinars or educational trainings?
 - b. *PROBE*: What about mobile apps?
 - c. *PROBE*: What about websites?
 - d. *PROBE*: What about information in an electronic health record?
5. **Have you ever seen, heard, or read any TV, radio, newspaper, or online advertising about *Be Antibiotics Aware*?**

a. *PROBE*: [If yes] Where have you seen or heard about *Be Antibiotics Aware*?

- On TV?
- On Social media?
- Through e-mail?
- On a website?

GATHER FEEDBACK ON CDC MATERIALS THAT CAN HELP TO OPTIMIZE ANTIBIOTIC PRESCRIBING IN HOSPITALS - TEST 5 WAYS HOSPITALISTS CAN BE ANTIBIOTICS AWARE POSTER [15 MINUTES]

In the last few minutes, we discussed your thoughts around antibiotic prescribing. Now, let's move on to our first material. Take a few minutes to read this and then we'll discuss (give 3-4 minutes to read).



The poster features a photograph of three healthcare professionals (two men and one woman) in white coats looking at a tablet. To the right of the photo is the title "5 WAYS HOSPITALISTS CAN BE ANTIBIOTICS AWARE" in large blue letters. Below the title are five numbered sections, each with an icon and a list of bullet points:

- 1. Verify Penicillin Allergy**
 - Although 10% of the population in the United States reports a penicillin allergy, less than 1% of the population is truly penicillin allergic. The use of alternative antibiotics in patients incorrectly labeled as penicillin allergic is associated with higher healthcare costs, increased risk for antibiotic resistance, suboptimal antibiotic therapy, and worse outcomes.
 - When possible, obtain a more detailed history of the penicillin reaction and review previously prescribed antibiotics. Refer to your facility's penicillin allergy evaluation protocol if applicable.
- 2. Use Appropriate Therapy for Uncomplicated Skin and Soft Tissue Infections**
 - Most community-acquired uncomplicated skin and soft tissue infections (SSTI) are caused by gram-positive bacteria (e.g., *Staphylococcus* and *Streptococcus* spp.).
 - Avoid broad-spectrum, gram-negative and anaerobic agents unless clinically indicated.²
- 3. Reassess Antibiotic Therapy**
 - Reassessment of antibiotic therapy evaluates the continued need for and choice of antibiotics when the clinical picture is clearer and more diagnostic information is available.³
 - Consider stopping and/or tailoring antibiotic therapy as appropriate.
- 4. Avoid Treatment of Asymptomatic Bacteriuria**
 - Patients with asymptomatic bacteriuria should not be treated with antibiotics in most cases (with the exception of pregnant women and patients undergoing certain genitourinary procedures).⁴
 - Evaluate for the presence of signs and symptoms consistent with urinary tract infection (UTI) before ordering urine cultures and when considering treatment of positive urine cultures.
- 5. Prescribe the Shortest, Effective Duration of Antibiotic Therapy**
 - Guidelines for treatment duration are available for common infectious diseases such as pneumonia, UTI, and SSTI (e.g., five days for uncomplicated community-acquired pneumonia).⁵
 - Use the shortest recommended duration of antibiotic therapy if the patient had an uncomplicated clinical course and responded appropriately to therapy. When prescribing antibiotics at discharge, consider the total number of days of inpatient antibiotic therapy.

Let's start with some questions about the content in this poster.

6. **What action(s) seem the easiest for you to perform in your clinical practice? Why?**

7. **Which actions on this material are the most challenging to perform?**

a. *PROBE*: Why?

b. *PROBE*: What are the barriers that would not allow you to perform this action(s)?

c. *PROBE*: What would make it easier for you to perform this action(s)?

8. **What do you think is the most important action in this material?**

a. *PROBE*: Why?

9. What do you like about this material?

- a. *PROBE*: What about the length of this material?

10. How could this poster be improved?

- a. *PROBE*: Is there anything that is confusing or needs clarification?
b. *PROBE*: Is there anything you want to know that this material doesn't tell you? (HMTS 6d)

11. Would you use this poster?

- a. *PROBE*: [For "No"] Why?
b. *PROBE*: [For "Yes"] How?

12. Overall, if provided to hospitalists, how helpful do you think this poster is /would be for improving antibiotic prescribing in hospitals?

- a. *PROBE*: [For any response] Why?

Now I have a few questions about the visual aspects of this piece.

13. What do you think about the layout of information in this poster?

14. Overall, how appealing is this material to you? (HMTS 7e)

15. Would it catch your attention if you saw it somewhere? (HMTS 9e) Would you stop to read it?

16. Where would you expect to find this material for you to use?


- a. *PROBE*: What about from a professional society?
b. *PROBE*: What about on CDC's website?

GATHER FEEDBACK ON CDC MATERIALS THAT CAN HELP TO OPTIMIZE ANTIBIOTIC PRESCRIBING IN HOSPITALS - TEST HOSPITALIST ASYMPTOMATIC BACTERIURIA POSTER [15 MINUTES]

Ok, let's move on to our second material. Take a few minutes to read this and then we'll discuss (give 2-3 minutes to read).

HOSPITALISTS: BE ANTIBIOTICS AWARE

Avoid Treatment of Asymptomatic Bacteriuria



SCENARIO

The microbiology lab calls you with a positive urine culture result for a patient admitted for chest pain. The patient does not report any urinary signs and symptoms.

Asymptomatic bacteriuria (ASB) refers to the isolation of bacteria in a urine culture from a patient without signs or symptoms of urinary tract infection (UTI).¹ Professional society guidelines recommend against antibiotic therapy for ASB (with or without pyuria). Exceptions include pregnancy and patients undergoing invasive genitourinary procedures. ASB prevalence increases with age and is high in some populations, such as diabetic women (9-27%) and long-term care residents (up to 50%).²

Hospitalists can help avoid treatment of asymptomatic bacteriuria by:

1. Not sending a urine culture if the patient does not have signs and symptoms consistent with a UTI.

UTI-specific signs and symptoms include urinary urgency, frequency, dysuria, suprapubic pain, flank pain, pelvic discomfort and/or acute hematuria. Delirium or nausea/vomiting ~~only should be interpreted~~ with caution, as they have low specificity for UTI.
2. Not treating with antibiotics, if the patient has ASB.

Treating patients with ASB does not reduce morbidity and mortality³ and can lead to preventable adverse events, including *Clostridioides difficile* and antibiotic-resistant infections.

The scenarios and recommendations are applicable to most immunocompetent adult patients. Always assess the individual patient and use your clinical judgment. Follow your institution's treatment guidelines when applicable.

Footnotes:
 1. Levin, J.P., Gupta, K., Bradley, D.D., et al. Clinical Practice Guidelines for the Management of Urinary Tract Infections: 2019 Update by the Infectious Diseases Society of America. *Clinical Diabetes*. 2019; 37(4): 267-283.
 2. CDC. <https://www.cdc.gov/urinary-tract-infections/about-uti.html>.
 3. Wooten, R.L., et al. Antibiotic Resistance: Core Elements of Inpatient and Outpatient Infection Prevention. *Clinical Infectious Diseases*. 2018; 66(12): 1811-1818.

Let's start with some questions about the content in this poster.

17. **What action(s) seem the easiest for you to perform in your clinical practice? Why?**
18. **Which actions on this material are the most challenging to perform?**
 - a. *PROBE*: Why?
 - b. *PROBE*: What are the barriers that would not allow you to perform this action(s)?
 - c. *PROBE*: What would make it easier for you to perform this action(s)?
19. **What do you think is the most important action in this material?**
 - a. *PROBE*: Why?
20. **What do you like about this poster?**
 - a. *PROBE*: What about the length of this material?
21. **How could this poster be improved?**
 - a. *PROBE*: Is there anything that is confusing or needs clarification?
 - b. *PROBE*: Is there anything you want to know that this material doesn't tell you? (HMTS 6d)
22. **Would you use this poster?**
 - a. *PROBE*: [For "No"] Why?

b. *PROBE*: [For “Yes”] How?

23. Overall, if provided to hospitalists, how helpful do you think this poster is /would be for improving antibiotic prescribing in hospitals?

a. *PROBE*: [For any response] Why?

Now I have a few questions about the visual aspects of this piece.

24. What do you think about the layout of information in this poster?

25. Overall, how appealing is this material to you? (HMTS 7e)

26. Would it catch your attention if you saw it somewhere? (HMTS 9e) Would you stop to read it?

27. Where would you expect to find this material for you to use?

a. *PROBE*: What about from a professional society?

b. *PROBE*: What about on CDC’s website?

GATHER FEEDBACK ON CDC MATERIALS THAT CAN HELP HOSPITALISTS OPTIMIZE ANTIBIOTIC PRESCRIBING - TEST ANTIBIOTIC TIMEOUT AT DISCHARGE MESSAGING [15 MINUTES]

Here’s our last material. Please take a few minutes to read though it before I ask questions (give 4-5 minutes).

HOSPITALISTS: BE ANTIBIOTICS AWARE
Perform an Antibiotic Time Out at Discharge

Clinicians should review antibiotic therapy at discharge and answer these key questions:

- Does this patient have an infection that will respond to antibiotics?**
 - Confirm the symptoms represent an infection and not an alternate, non-infectious diagnosis.
- Is the patient on the right antibiotic?**
 - If medical record indicates penicillin allergy, determine if the patient is truly allergic.
 - Use the recommended antibiotic for the infection.
 - If the patient will be discharged on a fluoroquinolone, consider if a safer alternative, if appropriate.
- How long should the patient be treated?**
 - Use the shortest recommended antibiotic therapy for patients with an uncomplicated clinical course and who responded appropriately to therapy.
 - Document outpatient antibiotic duration in the discharge summary.
 - Review inpatient antibiotic duration the patient received when determining post-discharge antibiotic therapy.

This document is meant to provide general guidance and does not apply to all clinical scenarios. Prior to making interventions, always assess the individual patient and use your clinical judgment. Follow your institution's treatment guidelines and protocols when applicable.

References:
1. Centers for Disease Control and Prevention. Core Elements of Hospital Antibiotic Stewardship Programs 2014. Accessed at <https://www.cdc.gov/antibiotic-use/healthcare/implementation/core-elements.html> 11 March 2019.
2. Antibiotic Use at Discharge Pocket Card - Michigan Hospital Medicine Safety Consortium

BE ANTIBIOTICS AWARE
IMPROVE PATIENT CARE

EDC

www.cdc.gov/antibiotic-use

Let's start with some questions about the content in this material.

28. **What action(s) seem the easiest for you to perform in your clinical practice? Why?**
29. **Which actions on this material are the most challenging to perform?**
 - a. *PROBE*: Why?
 - b. *PROBE*: What are the barriers that would not allow you to perform this action(s)?
 - c. *PROBE*: What would make it easier for you to perform this action(s)?
30. **What do you think is the most important action in this material?**
 - a. *PROBE*: Why?
31. **What do you like about this material?**
 - a. *PROBE*: What about the length?
32. **How could this material be improved?**
 - a. *PROBE*: Is there anything that is confusing or needs clarification?
 - b. *PROBE*: Is there anything you want to know that this material doesn't tell you? (HMTS 6d)
33. **Would you use this material?**
 - a. *PROBE*: [For "No"] Why?
 - b. *PROBE*: [For "Yes"] How?
34. **Overall, if provided to hospitalists, how helpful do you think this material is / would be for improving antibiotic prescribing in hospitals?**
 - a. *PROBE*: [For any response] Why?

Now I have a few questions about the visual aspects of this piece.

35. **What do you think about the layout of information in this flowsheet?**
36. **Overall, how appealing is this material to you? (HMTS 7e)**
37. **Would it catch your attention if you saw it somewhere? (HMTS 9e) Would you stop to read it?**
38. **Where would you expect to find this material for you to use?**
 - a. *PROBE*: What about from a professional society?
 - b. *PROBE*: What about on CDC's website?

CLOSING [2-3 MINUTES]

Well, that's the last of my questions. Do you have any comments or questions that you'd like to bring up before we end our discussion?

Thank you again for taking the time to participate in this discussion. Please visit www.cdc.gov/antibiotic-use for more information on appropriate antibiotic prescribing.

We sincerely appreciate and value your input!