

FINAL – DHQP and NCEZID cleared

ANTIBIOTIC USE EDUCATIONAL EFFORT - INTERVIEWER GUIDE

HEALTHCARE PROVIDERS (HCPs) - NURSING HOME ADVANCED PRACTICE PROVIDERS & PHYSICIANS

WELCOME, OVERVIEW, AND RULES [2-3 MINUTES]

Thank you for taking the time to join us for this interview. My name is _____ and I work for ICF, a private firm, who is conducting this 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 advanced practice providers and physicians in nursing home settings, 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. 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. **In a normal week, how often do you prescribe antibiotics when you provide care to nursing home residents?**
2. **Do you encounter any challenges with antibiotic prescribing in nursing homes? If so, what are they?**
 - a. *PROBE:* In general, do you feel antibiotics are sometimes prescribed when they aren't needed to nursing home residents?
 - i. *PROBE:* [If yes] what would you say are the most significant drivers of inappropriate antibiotic prescribing?
3. **Do you think clinicians in nursing homes 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 policies exist in your nursing home related to antibiotic prescribing?
 - e. *PROBE:* What policies do you think would be most effective in improving antibiotic use in your facility?

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

4. **What resources, in general, do you refer to when treating infections and prescribing antibiotics?**
 - a. *PROBE:* What about mobile apps?
 - b. *PROBE:* What about UpToDate or other online resources or specific websites?
 - c. *PROBE:* What about resources from professional societies, such as the American Medical Director's Association (AMDA), the Infectious Disease Society of America (IDSA), or others?
 - d. *PROBE:* What about information in the electronic health record?
5. **What training resources would be helpful for you to improve the treatment of infections and optimize antibiotic prescribing practices in nursing homes?**

- a. *PROBE*: What about workshops?
 - b. *PROBE*: How about lectures during yearly professional society conferences? Which conferences?
 - c. *PROBE*: What about webinars or educational videos?
 - i. *PROBE*: [If participant expresses interest in webinars or educational videos] What do you think is the ideal length of these webinars/videos?
6. **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 NURSING HOMES - TEST “5 WAYS NURSING HOME CLINICIANS CAN BE ANTIBIOTICS AWARE” DRAFT 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 3-5 minutes to read). Let’s start with some questions about the content in this material.

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

5 WAYS Nursing Home Clinicians can BE ANTIBIOTICS AWARE

- 1. Improve Fluoroquinolone Prescribing Practices**
 - Due to risk of serious adverse events, the U.S. Food and Drug Administration issued a warning to limit fluoroquinolone prescribing in specific conditions, such as acute bacterial sinusitis and uncomplicated urinary tract infections (UTI), where other treatment options are available.
 - When possible, consider alternatives to fluoroquinolones when prescribing antibiotics for nursing home residents.
 - Review the fluoroquinolone susceptibility patterns, when antibiogram data are available, and adjust nursing home protocols and treatment guidelines accordingly.
 - Provide education to facility staff, nursing home residents, and their families about adverse events associated with antibiotic use.
- 2. Avoid Treatment of Asymptomatic Bacteriuria**
 - Residents with asymptomatic bacteriuria (ASB) should not be treated with antibiotics in most cases.¹ There is no clear evidence supporting the use of intermittent or prolonged antibiotic use for ASB in nursing home residents.²⁻⁴ Antibiotic use, especially if prolonged, can select for antibiotic resistance and cause adverse drug events.
 - Consider using protocols that evaluate UTI-specific signs and symptoms before testing and starting antibiotics at your facility.
 - Provide education to facility staff about signs and symptoms of UTI.
- 3. Avoid Antibiotic Therapy for Viral Respiratory Tract Infections**
 - Respiratory tract infections are the second most common cause of antibiotic prescribing in nursing homes.⁵
 - Upper respiratory tract infections and acute uncomplicated bronchitis should not be treated with antibiotics.
 - Avoid antibiotic therapy for residents with respiratory tract infections unless pneumonia is suspected or they meet criteria for antibiotic initiation.⁶
- 4. Improve Evaluation of Suspected Skin and Soft Tissue Infections**
 - Skin and soft tissue infections (SSTI) are frequently misdiagnosed or treated inappropriately in nursing homes.⁷
 - Consider non-infectious (e.g. thrombotic disease, stasis dermatitis, gout) or non-bacterial (e.g. fungal, herpes simplex or zoster, scabies) etiologies when considering antibiotic therapy for SSTI.⁸
 - Avoid cultures of superficial skin wounds and non-infected decubitus ulcers.
- 5. Use the Shortest Effective Antibiotic Duration**
 - Guidelines for treatment duration are available for common infectious diseases, such as pneumonia, UTI, and SSTI.⁹⁻¹¹ Antibiotic treatment courses are sometimes prolonged in nursing home residents.¹²
 - Use the shortest recommended duration of antibiotic therapy if the resident has an uncomplicated clinical course and responded appropriately to therapy.

The scenarios and recommendations are applicable to most nursing home residents. This document is meant to provide general guidance and does not apply to all clinical scenarios. Always assess the individual resident, use your clinical judgment and follow your facility's protocols and treatment guidelines when applicable.

www.cdc.gov/antibiotic-use

BE ANTIBIOTICS AWARE
STARTED WELL

8. **Which actions on this material are the most challenging to implement?**
 - 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)?
9. **What do you think is the most important clinical scenario in this material?**
 - a. *PROBE*: Why?
10. **What do you like about this material?**
 - a. *PROBE*: What about the length of this material?
11. **How could this material be improved?**
 - a. *PROBE*: Is there anything that is confusing or needs clarification?
 - b. *PROBE*: Is there another clinical scenario that you would like to see in this material?
 - i. *PROBE*: [If yes] What scenario(s)?
12. **Would you use this poster?**
 - a. *PROBE*: [For “No”] Why?
 - b. *PROBE*: [For “Yes”] How?
13. **Would you like to see each of these clinical scenarios in its own, separate material with more information?**
 - a. *PROBE*: [If yes] What is the best format to expand these clinical scenarios (i.e. short video, presentation slides, handouts)?
 - b. *PROBE*: [If no] Why?
14. **Do you find this material helpful?**
 - a. *PROBE*: [For either response] Why?
 - b. *PROBE*: Who do you think would benefit most from reading this material?
15. **Overall, if provided to clinicians, how helpful do you think this material is /would be for improving antibiotic prescribing in nursing homes?**
 - a. *PROBE*: [For any response] Why?

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

16. **What do you think about the layout of information in this material?**
17. **Overall, how appealing is this material to you? (HMTS 7e)**

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

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

- a. *PROBE*: What about on CDC’s website?
- b. *PROBE*: What about on a state health department’s website?
- c. *PROBE*: What about from a professional society, like the American Medical Director’s Association (AMDA), the American Health Care Association (AHCA), or others?

GATHER FEEDBACK ON CDC MATERIALS THAT CAN HELP TO OPTIMIZE ANTIBIOTIC PRESCRIBING IN NURSING HOMES - TEST IMPROVE COMMUNICATION WITH RESIDENTS AND FAMILIES FACT SHEET [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).



Nursing Home Staff. **BE ANTIBIOTICSAWARE**
Improve Communication about Antibiotic Treatment with Residents and Families

SCENARIO
Mrs. Smith's daughter calls concerned because her mother did not sound like herself on the phone. She is worried that her mother may have a urinary tract infection (UTI) and needs an antibiotic.

Resident and family preferences often play a significant role in treatment decisions in nursing homes. Engaging residents and families in educational efforts about appropriate antibiotic use is critical to ensure that clinicians have their support in making the best antibiotic treatment decisions.

Effective communication can improve interaction with residents and families, and address their expectations to receive an antibiotic. Communications skills training can help clinicians communicate effectively and make care more resident-centered.

Communication skills training to significantly reduce antibiotic prescribing in the outpatient setting. The training involves a 4-part communication strategy to explain why an antibiotic is not needed. This strategy was developed and tested in the outpatient setting, but can be adapted to nursing homes.

Nursing home staff can improve communication about appropriate antibiotic use with residents and families by:

- 1. Reviewing findings:**
Mrs. Smith is less conversant than usual today. She is not coughing or complaining of burning with urination, urgency, or other symptoms to suggest an infection. On examination, she does not have a fever. In addition, her lungs sound clear and she has no abdominal tenderness.
- 2. Delivering a clear diagnosis:**
Her urine is darker, which seems most consistent with dehydration.
- 3. Providing a two-part, FIRST negative THEN positive treatment recommendation:**
Since Mrs. Smith's clinical findings do not indicate a UTI, an antibiotic will not help and may cause side effects, such as diarrhea. Instead, we will give her fluids intravenously to treat her dehydration. Also, over the next 24 hours, we will closely monitor Mrs. Smith and measure her fluid intake.
- 4. Providing a contingency plan:**
If she does not improve, starts to develop a fever, or any new symptoms consistent with an infection, we will do additional laboratory tests and reassess if antibiotics are needed.

The scenarios and recommendations are applicable to most nursing home residents. This document is intended as a general guidance and does not apply to all clinical scenarios. Always assess the individual resident, use your clinical judgment and follow your facility's protocols and treatment guidelines when applicable.

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

20. **What do you like about this material?**

- a. *PROBE*: What about the length of this material?
- 21. How could this material be improved?**
- a. *PROBE*: Is there anything that is confusing or needs clarification?
 - b. *PROBE*: Is there anything else you would like to see included in this material?
 - c. *PROBE*: Do you think this information should be presented in a different format?
 - i. *PROBE*: [If yes] What type of formats would you like to see (i.e. video, role playing)?
 - ii. *PROBE*: [If no] Why?
- 22. Would you use this material?**
- a. *PROBE*: [For “No”] Why?
 - b. *PROBE*: [For “Yes”] How?
 - c. *PROBE*: Would you recommend it to others?
- 23. Overall, if provided to clinicians, how helpful do you think this material is /would be in improving communication with residents and families about antibiotics?**
- a. *PROBE*: [For any response] Why?
 - b. *PROBE*: Do you think this material would help improve residents and their families’ satisfaction with care provided?
 - i. *PROBE*: [For either response] Why?
- 24. Do you think communication skills training to improve antibiotic use would be helpful for you to facilitate communication with residents and their families?**
- a. *PROBE*: [For either response] Why?
- 25. What other resources, if any, would help you in improving communication with residents and families?**

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

- 26. What do you think about the layout of information in this material?**
- 27. Overall, how appealing is this material to you? (HMTS 7e)**
- 28. Where would you expect to find this material for you to use?**
- a. *PROBE*: What about on CDC’s website?
 - b. *PROBE*: What about on a state health department website?

- c. **PROBE:** What about in publications or during yearly conferences from professional societies, like the American Medical Director’s Association (AMDA) or the American Health Care Association (AHCA)?

GATHER FEEDBACK ON [DO YOU NEED ANTIBIOTICS? BROCHURE](#) THAT CAN HELP NH APPS EDUCATE THEIR PATIENTS ABOUT ANTIBIOTIC USE, FOCUSING ON ADVERSE EVENTS OF ANTIBIOTICS. [15 MINUTES]

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

Why does taking antibiotics lead to antibiotic resistance?
Any time antibiotics are used, they can cause side effects and lead to antibiotic resistance. Antibiotic resistance is one of the most urgent threats to the public's health.

Always remember:
1. Antibiotic resistance does not mean the body is becoming resistant to antibiotics; it means bacteria have become resistant to the antibiotics designed to kill them.
2. When bacteria become resistant, antibiotics cannot fight them, and the bacteria multiply.
3. Some resistant bacteria can be harder to treat and can spread to other residents in the nursing home.

What if I have questions about antibiotics?
Talk to your doctor and nursing staff if you have any questions about your antibiotics, such as:
• What infection does this antibiotic treat and do you know I have that infection?
• How long do I need to take this antibiotic?
• What are the potential side effects from this antibiotic?
• Could any of my other medications interact with this antibiotic?
• How will you know the antibiotic is working for my infection?

Let them know if you develop any side effects, especially diarrhea, which could be C. difficile infection and needs to be treated immediately.

Up to 70% of residents in a nursing home receive one or more courses of antibiotics each year.

40%-75% of antibiotics prescribed in nursing homes may be unnecessary or inappropriate.

Do You Need Antibiotics?
Information about antibiotics for nursing home residents and their families

Why is it important to Be Antibiotics Aware in nursing homes?
Antibiotics are lifesaving medicines, and are frequently prescribed in nursing homes. When you need antibiotics, the benefits outweigh the risks of side effects or antibiotic resistance.

When antibiotics aren't needed, they won't help you, and the side effects could still hurt you.

What do antibiotics treat?
Antibiotics are only needed for treating some infections caused by bacteria. Antibiotics are also critical tools for treating common infections, such as pneumonia, and for life-threatening conditions including sepsis, which is the body's extreme response to an infection.

What don't antibiotics treat?
Antibiotics do not work on viruses, such as those that cause colds, flu, bronchitis, or runny noses, even if the mucus is thick, yellow, or green. Antibiotics also aren't needed for some common bacterial infections, including many sinus infections and some ear infections.

What are the potential side effects of antibiotics?
Common side effects from antibiotics can include:
• Rash • Nausea • Yeast infections
• Diarrhea • Dizziness • Stomach pain

More serious side effects can include:
• Clostridiaceae difficile (also called C. difficile or C. diff) infection
• Life-threatening allergic reactions
• Interactions between antibiotics and other medications
• Infections with antibiotic-resistant bacteria, including C. difficile

What is C. difficile infection?
C. difficile is a bacteria that causes colitis, or inflammation of the colon. C. difficile infection can lead to severe colon damage, disabling diarrhea, and sometimes death.

When you take antibiotics, good bacteria in the body that protect against infection are destroyed. During this time, you can get sick from C. difficile bacteria that are picked up from contaminated surfaces or spread from another resident's or healthcare professional's hands.

Symptoms of C. difficile infection include:
• Watery diarrhea (at least three bowel movements per day for two or more days)
• Fever
• Nausea
• Abdominal (stomach) pain/tenderness
• Loss of appetite

More than 3 million Americans receive care or reside in nursing homes every year.

How can I stay healthy?
You can stay healthy and keep others healthy by:
• Instructing nursing home staff and visitors to clean their hands before touching you or caring for your wound or catheter
• Covering your cough to prevent the spread of germs
• Asking family or friends not to visit when they don't feel well
• Staying in your room when sick
• Protecting yourself by getting vaccines for flu and pneumonia and encouraging others around you to do the same.

Talk to your doctor and nursing home staff about steps you can take to stay healthy and prevent infections.

Improving the way healthcare professionals prescribe antibiotics, and the way we take antibiotics, helps keep us healthy now, helps fight antibiotic resistance, and ensures that these lifesaving drugs will be available for future generations.

BE ANTIBIOTICS AWARE
SMART USE. BEST CARE

To learn more about antibiotic prescribing and use, visit www.cdc.gov/antibiotic-use.

29. What’s your general reaction to the way this brochure looks? (HMTS 6e)

- a. **PROBE:** What do you think about the layout of the information?
- b. **PROBE:** What do you like about this brochure?
- c. **PROBE:** How could this brochure be improved?

30. Overall, how helpful do you think this brochure is / would be in providing education for your residents and their families about appropriate antibiotic use?

- a. **PROBE:** [For any response] Why?
- b. **PROBE:** [For “Not helpful”] Would putting this information in a different format be more helpful to provide education to residents and families? If so, what format?
- c. **PROBE:** Would you use this brochure to provide education for your residents and their families? Why or why not?
- d. **PROBE:** Is there anything else that your residents and their families ask you about antibiotic use that isn’t covered in this brochure?

- e. *PROBE*: Is there anything your residents and their families should know about antibiotic use that isn't covered in this brochure?

31. Are there any other types of materials or resources that you think would be helpful to educate residents and their families about appropriate antibiotic use?

- a. *PROBE*: What about letters, short videos, presentations during resident council meetings or other meetings?

Let's look specifically at the side effects section in this brochure



32. In a typical week, how often do you talk to your residents and/or their families about possible side effects related to antibiotic use?

- a. *PROBE*: How do you generally counsel residents/their families about antibiotic-related side effects?
 - i. *PROBE*: What side effects do you typically talk to them about?
 - ii. *PROBE*: What about C. difficile infection?

33. Do you think informing residents and their families about possible antibiotic-related side effects could reduce pressure to prescribe unnecessarily?

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

34. Do you think this section would help you provide education to residents/their families about possible antibiotic-related side effects?

- a. *PROBE*: [For yes or no] Why?
- b. *PROBE*: Is there any other information about antibiotic side effects that residents/their families ask you that isn't covered in this section?

- c. *PROBE*: Is there anything residents/their families should know about antibiotic use side effects that isn't covered in this section?

35. Do you think another type of material with this information would be more helpful for residents and their families? If so, what type?

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!