



**CENTER FOR LONG-TERM CARE
QUALITY & INNOVATION**



Sponsored by The Centers for Disease Control and Prevention (CDC)

PROJECT TITLE: Core Elements of Antimicrobial Stewardship in Nursing Homes

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Prescriber Assessment

You received this needs assessment based on your affiliation with [nursing home corporation] and your credentials to prescribe. For this assessment, please consider residents to include all individuals for whom you are credentialed to prescribe and:

- 1) Which receive care in a Skilled Nursing Center or Long-term Care Center, and
- 2) Whose health information is reportable to the Centers for Medicare & Medicaid Services (CMS).

Please take a few minutes to provide some information about yourself and your experiences with prescribing. Thank you for your participation.

Deciding to Start: Antibiotics

This section is about you, the prescriber, and your perceptions about antibiotic prescribing.

1. **In the past month**, how many antibiotic prescriptions did you write for residents at this [center]: (number of prescriptions)

0 prescriptions	1-2 prescriptions	3-4 prescriptions	5+ prescriptions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How frequently do you encounter each of the following conditions at this [center]:

	Never	Rarely	Sometimes	Often	Always
a. Suspected Urinary Tract Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Suspected Upper Respiratory Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Suspected Lower Respiratory Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Suspected Skin or Soft Tissue Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

When considering the following two questions:

- **Medical necessity** refers to the use of antibiotics only in the case of bacterial infection.
- The determination of bacterial infection can be based on **physical assessment or examination of the resident, documented signs and symptoms, culture results or diagnostic test results.**

3. How confident are you in your ability to distinguish between the two conditions presented:

	Not at all confident	Not very confident	Somewhat confident	Very Confident	Extremely confident
a. Asymptomatic bacteriuria Vs. Symptomatic Urinary Tract Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Viral sinusitis Vs. Bacterial sinusitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Viral Lower Respiratory Infection Vs. Bacterial Pneumonia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Colonized wound Vs. infected wound	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. How frequently do **you perform** each of the following: (select one)

	Never	Rarely	Sometimes	Often	Always
a. Prescribe antibiotics as prophylaxis for urinary tract infection (UTI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Wait for results of a urine culture before prescribing antibiotics for UTI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prescribe an antibiotic just in case there is an infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Delay antibiotic therapy and Monitor symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Delay antibiotic therapy and Provide supportive therapy (e.g., hydration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Review site-specific definitions of infection (revised McGeer criteria) or minimum prescribing criteria (Loeb's criteria)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Use order sets for prescribing antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Use order sets that include non-pharmacologic orders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. When **you are not the one to personally identify a change** in condition for a resident, how often do the following situations occur regarding a change in condition?

	Never	Rarely	Sometimes	Often	Always
a. I am notified by the resident or a family member of the resident.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I am present at the center and am notified of a change in condition by nursing staff .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I am not present at the center and am notified of a change in condition by nursing staff .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. For each item below, indicate how frequently:

	Never	Rarely	Sometimes	Often	Always
a. You are <u>physically present</u> at the skilled nursing center when a change in condition is identified .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. You are familiar with the resident for whom you are prescribing an antibiotic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Nursing staff performs a <u>physical assessment prior to starting</u> an antibiotic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. You perform an <u>exam prior to your prescribing</u> an antibiotic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. You have sufficient clinical information to confidently start an antibiotic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Lab results or other relevant objective data are available prior making an antibiotic prescribing decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Selecting an appropriate antibiotic: diagnosed bacterial infection

For the following questions, please think about your experiences selecting and prescribing an antibiotic regimen for your residents.

7. How **confident** are you in your ability to appropriately select an antibiotic for the following conditions:
(select)

	Not at all confident	Not very confident	Somewhat confident	Very Confident	Extremely confident
a. Symptomatic Urinary Tract Infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Diagnosed bacterial sinusitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Diagnosed bacterial pneumonia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Cellulitis or infected wound	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. For each of the following tasks, how **confident** are you in your ability to perform each task relating to prescribing an antibiotic:

	Not at all confident	Not very confident	Somewhat confident	Very Confident	Extremely confident
a. Choosing an appropriate antibiotic for a given site of infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Choosing an appropriate antibiotic dose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Choosing the correct dosing interval (e.g., daily or twice daily)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Choosing an appropriate length of therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Choosing the correct antibiotic based on resident factors (e.g., age, weight, renal function, allergies, drug interactions, contraindications)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Using culture results to inform your prescribing decision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Reading Nursing Center specific antibiograms , when they are available, to inform your prescribing decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Influence of nurses

The following questions ask about your perceptions of the influence the nurse staff have on antibiotic prescriptions.

9. For the following question, consider the situation where:

“You receive a phone call from a nurse at a nursing center. Your resident is experiencing isolated behavioral change, and is without fever or localizing symptoms.”

Thinking of **your experiences** at [center] how frequently do the following occur:

	Never	Rarely	Sometimes	Often	Always
a. Nurse provides thorough assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Nurse communicates details without prompting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Nurse provides sufficient information to determine if an antibiotic is needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Nurse requests diagnostic testing of resident for presumed infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Nurse requests an antibiotic for a resident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. You trust the nurse’s assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. You comply with the nurse’s requests for <u>diagnostic testing</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. You comply with the nurse’s <u>request for an antibiotic</u> and prescribe the antibiotic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. For each item below, please indicate **how important** you feel it is to a productive collaboration with nursing staff (choose one answer):

	Not at all important	Not very important	Somewhat important	Very important	Extremely important
a. Acknowledging the role of nurses in Skilled Nursing Centers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Seeking contributions from nurses regarding antibiotic prescribing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Addressing misconceptions about the roles when I observe them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Respecting the expertise and unique contributions of nursing staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Identifying overlapping professional skills that I share with nursing staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Valuing the benefits of a collaborative experience with nursing staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Influence of family and caregivers

11. For the following question, please think about the following situation:

“Your resident has experienced a change in condition. You have been notified by nursing staff, and you are still considering whether or not to start an antibiotic.”

In reference to the decision to prescribe an antibiotic, how frequently do the following occur at [center]?

	Never	Rarely	Sometimes	Often	Always
a. A family member or caregiver contacts you to discuss the change in condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Nursing staff informs you a family member or caregiver would like to discuss the change in condition with you.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. A family member or caregiver asks you to prescribe an antibiotic in response to a non-specific change in condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. A family member or caregiver asks you to avoid using antibiotics in response to a non-specific change in condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. A family member or caregiver asks you to assess the resident in person.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. For the following question, please think about the following situation:

“Your resident has experienced a change in condition. A family member or caregiver has contacted you to discuss starting an antibiotic in response to a change in condition.”

In reference to the discussion with the family member or caregiver, how frequently do the following occur at [center]?

	Never	Rarely	Sometimes	Often	Always
a. Educate him/her on the importance of using an antibiotic only when an infection is bacterial, not viral.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Educate him/her on the possibility that other health conditions may resemble a bacterial infection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Educate him/her of the risks of using antibiotics (for example, <i>C. difficile</i> infection or antimicrobial resistance).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Prescribe an antibiotic because a family member or caregiver has requested it, though you are not certain the antibiotic is needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. In your opinion, how important are each of the following when deciding to prescribe an antibiotic or not?
(select one)

	Not at all important	Not very important	Somewhat important	Very important	Extremely important
a. Consider the requests of family members or caregivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Counsel the family about appropriate antibiotic prescribing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Involve family members and caregivers in antibiotic decision making, even if they do not initiate contact.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. For each of the following tasks, how **confident** are you in your ability to discuss antibiotic use with a resident's family member or caregiver?

	Not at all confident	Not very confident	Somewhat confident	Very Confident	Extremely confident
a. Educating a family member or caregiver on the risks of unnecessary antibiotic use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Discussing the process of diagnosing a bacterial infection with a family member or caregiver.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Discussing the process of monitoring a resident whose change in condition does not clearly indicate a bacterial infection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Discussing the process of choosing an appropriate antibiotic for a diagnosed bacterial infection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cross-covering prescribers

The following questions focus on the role of cross-covering prescribers in prescribing antibiotics

15. In the past month, how many antibiotic prescriptions were started one of your residents by a cross-covering prescriber at [center]? (select one)

0 prescriptions	1-2 prescriptions	3-4 prescriptions	5+ prescriptions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Thinking about your experiences at [center], where are your residents when they are started on an antibiotic? (select all that apply)

- Skilled nursing center where they reside
- Outpatient clinic
- Urgent care
- Emergency department (not admitted to inpatient)
- Hospital stay (inpatient or observation stay)

17. For the following question, please think about the following situation:

“Your resident is started on antibiotics by a covering prescriber. This prescriber can be a cross-covering prescriber or an Emergency Department prescriber.”

In reference to the antibiotic **prescribed by the covering prescriber**, how frequently do the following occur at [center]?

	Never	Rarely	Sometimes	Often	Always
a. You are unsure why your resident was started on the antibiotic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. You change the antibiotic that was prescribed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. You change the antibiotic dose that was prescribed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. You change the duration the antibiotic was prescribed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. You discontinue the antibiotic prescribed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nursing Center Influence

The following questions focus on your experiences and perceptions at [center]

18. How often does [center] **provide feedback** to you on your use of antibiotics? (Select one)

Never	Once a year	Twice a year	Quarterly	Monthly
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19. **Appropriate antibiotic prescribing** refers to a comprehensive approach to antibiotic prescribing. This approach includes:

- 1) Using antibiotics only for bacterial infections,
- 2) Selecting an antibiotic that matches the infection site or bacterial pathogen,
- 3) Selecting the an appropriate antibiotic dose and duration, and
- 4) Re-evaluating the resident after an antibiotic has been started.

Below is a list of policies or activities that could be implemented to improve appropriate antibiotic use at Skilled Nursing Centers. Each item may affect one or more components of appropriate antibiotic use.

How impactful would each of the following be at improving appropriate antibiotic use at [center]?

	Not at all impactful	Not very impactful	Somewhat impactful	Very impactful	Extremely Impactful
a. Nursing center specific antibiotic diagnosing guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Minimum antibiotic prescribing guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Computer-assisted order entry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Nursing center specific antibiogram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Pharmacist review of antibiotic choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Pharmacist review of antibiotic dose and duration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Not at all impactful	Not very impactful	Somewhat impactful	Very impactful	Extremely Impactful

g. Pharmacist review of culture and sensitivity results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Access to resident culture data at time of antibiotic prescribing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Thorough nurse assessment of resident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Clear communication of resident change in condition from nurse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Condition-specific, protocol-driven antibiotic prescribing recommendation from nurse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Timely notification of updates or changes in resident condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Annual staff influenza immunization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Policies restricting or eliminating antibiotic starts overnight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Limiting choice of antibiotics on units to antibiogram susceptible antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Developing a formulary based on the Nursing Center antibiogram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Post-prescribing Optimization

For the following questions please think about what happens after a resident is prescribed an antibiotic.

20. In the past month, at [center], **how many antibiotic prescriptions did you review for appropriateness** after it was started? Please include reviews you performed on antibiotics prescribed by a cross-covering prescriber. (select one)

0 prescriptions	1-2 prescriptions	3-4 prescriptions	5+ prescriptions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. How frequently do the following occur either **by you or another staff member** (for example, nursing staff, pharmacy staff, or other prescribers) when caring for residents at [center]:

	Never	Rarely	Sometimes	Often	Always
a. Residents are re-examined for resolution of infection-related symptoms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Antibiotic prescriptions are reviewed when culture and sensitivity data becomes available.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Antibiotic prescriptions are reviewed when other diagnostic test results become available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. How **important it is for you to perform** the following:

	Not at all important	Not very important	Somewhat important	Very Important	Extremely important
a. Review an antibiotic prescription when culture and sensitivity data become available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Switch to a narrower-spectrum antibiotic when culture and sensitivity data support this.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Review other diagnostic test results (labs, imaging, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Re-assess a resident after starting an antibiotic for resolution of symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Stopping an antibiotic upon resolution of symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Evaluate a resident after starting an antibiotic for side effects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Shortening a long course of antibiotic therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Antibiotic Stewardship

Antibiotic Stewardship interventions often focus on one or more component of antibiotic prescribing. These three components are: 1) diagnosing an infection, 2) choosing an effective antibiotic, and 3) ensuring an antibiotic is optimally prescribed as the resident’s condition progresses.

In the next three questions, please provide your opinions as they relate to components of an Antibiotic Stewardship intervention.

23. In your opinion, how important is each of the following items to appropriate antibiotic use in Skilled Nursing Facilities:

	Not at all important	Not very important	Somewhat important	Very important	Extremely important
a. Differentiating between asymptomatic bacteriuria and symptomatic Urinary Tract Infection (UTI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Differentiating between viral Upper Respiratory Tract Infection (URTI) and bacterial sinusitis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Differentiating between viral Lower Respiratory Tract Infection (LRTI) and bacterial pneumonia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Differentiating wound colonization and wound infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Choosing the appropriate antibiotic for diagnosed infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Follow up of residents started on antibiotics for diagnosed infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. In your opinion, how important are **your individual prescribing practices** to the overall development of antimicrobial resistance at [center]? (select one)

	Not at all important	Not very important	Somewhat important	Very important	Extremely important
a. Overall use of antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Using as narrow spectrum an antibiotic as possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Avoiding long courses of antibiotic therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. In your opinion, how important are each of the **Nursing Center attributes** in antibiotic stewardship interventions?

	Not at all important	Not very important	Somewhat important	Very important	Extremely important
a. Leadership of Nursing center administration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Quality of care provided by Nursing center staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Communication between nursing staff and me, the prescriber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Effectiveness of the Infection Control Professional (ICP)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. On-going Pharmacist review of medications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General Provider Information

Programming note: [facility] - indicates a program instruction to insert selected facility name in this place holder.

26. Do you have **prescribing privileges**? (if no, terminate survey administration)

- Yes
 No

The following questions pertain to your role as a prescriber.

27. How many **skilled nursing centers** do you currently work in? (number of centers)

1	2	3	4+
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. How long have you been in practice? (years)

< 1 year	1 - 5 years	6 - 10 years	11 - 15 years	16+ years
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For the next questions, please think about the skilled nursing center affiliated with [corporation] where you work most frequently. What is the name of this center?

[Drop down menu listing all centers]

29. Thinking of your **affiliation** with [facility], how long have you been working at this center: (years)

	< 1 year	1 - 5 years	6 - 10 years	11 - 15 years	16+ years
In your current position?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In total at this location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30. Thinking about the corporation that [facility] is a part of, how would you best describe your employment status?

I am:

- Employed **full-time** by this corporation.
- Employed **part-time** by this corporation.
- Not at all employed** by this corporation.

31. What **percentage of your professional time** do you spend at this center? (percent of total professional time)

< 20%	21 - 40%	41 - 60%	61 - 80%	81 - 100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. How **frequently are you on-site** at this center? (times on-site)

Less than once	Once per	Multiple times	Once per week	Multiple times	Daily
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

per <u>month</u>	<u>month</u>	per <u>month</u>		per <u>week</u>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

33. **In your opinion**, how important is quality improvement to leaders at this nursing center? (select one)

Not at all important	Not very important	Somewhat important	Very important	Extremely important
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

34. Does this center have a **champion for antibiotic prescription/surveillance?** (select one)

- No
- Yes
- Unsure

35. **Who is the champion** for antibiotic prescription/surveillance at this center? (If more than one, select all that apply)

We **do not** have an antibiotic prescription/surveillance champion

or

- Administrator
- Director of Nursing
- Medical Director
- Infection Control Staff
- Nursing Staff
- Pharmacist
- Infectious Disease Consultant
- Other
- Unsure

36. **In your opinion**, if [facility] was rated today what quality star rating would they receive? (select one)

- 1 Star
- 2 Stars
- 3 Stars
- 4 Stars
- 5 Stars

Demographics

37. What **prescribing** degrees have you attained? (Select all that apply)

- D.O.
- M.D.
- M.P.A
- N.D.
- N.P.
- P.A.
- Pharm.D.
- Other - Please specify: _____

38. What is your **primary specialty**? (Select one)

- Family Practice
- Geriatrics
- Hospice and/or Palliative medicine
- Infectious disease
- Internal medicine
- Pulmonary and/or Critical care
- Other - Please specify _____
- N/A

39. Number of years since **graduation from medical school**? (years)

0 - 10	11 - 20	21 - 30	31+
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

40. What is your **gender**?

- Male
- Female

41. Which best describes your **ethnicity**?

- Hispanic
- Non-Hispanic

42. Which of the following best describes your **race**?

- American Indian or Alaska Native
- Asian

- Black/African American
- Hawaiian/Pacific Islander
- Latino
- White
- Multiracial
- Other - Please specify _____

Thank you for your time.