

# Virginia Long-Term Care Clinician Network Monthly Forum

May 17, 2023 4:00-5:00 pm



# Welcome!



Please mute your phone or computer for now. We will have time for open chatting and hope to hear from each of you. Feel free to keep your camera on, we are happy to see you.

Also, please use the Chat box to share:

- your name
- your role
- your city or region in Virginia

Thanks!

# Disclosures

The speakers and presenters for today have no relevant financial conflicts of interest.

*Funding Disclosure: This work is supported by the **Virginia Department of Health, Office of Epidemiology, Division of Healthcare-Associated Infections (HAI) and Antimicrobial Resistance (AR) Program** and the Centers for Disease Control and Prevention, Epidemiology and Laboratory Capacity (ELC) Program under federal award number NU50CK000555 and state subrecipient number VCULTC603-GY23 in the amount of \$820,002. The content presented is solely the responsibility of the authors and does not necessarily represent the official views of the Centers for Disease Control, the Virginia Department of Health, or Virginia Commonwealth University.*



# VDH VLIPP Projects

**Virginia Long-Term Care Infrastructure Pilot Project (VLIPP)** funding will be utilized in nursing homes and long-term care facilities to assist with the ongoing COVID-19 response and to bolster preparedness for emerging infections. The projects are based on identified needs that align with funding objectives

## **VLIPP Stakeholders:**

- Carilion Clinic
- Eastern Virginia Medical School
- Health Quality Innovators
- LeadingAge Virginia
- University of Virginia
- Virginia Commonwealth University
- Virginia Department of Social Services
- Virginia Health Care Association-Virginia Center for Assisted Living



# Network Planning Team

- Christian Bergman, MD - Principal Investigator
- Bert Waters, PhD - Project Director
- Laura Finch, MS, GNP, RN - Clinical Coordinator
- Kim Ivey, MS - Communications / Administration
- Jenni Mathews - Survey Data & Evaluations Specialist
- Kristin MacDonald, MS, RD - Newsletter & Content Editor

Reach us anytime at [ltccn@vcu.edu](mailto:ltccn@vcu.edu)

# Steering Committee

**Eastern Region:** Rob Walters, MD & Mary Mallory, NP

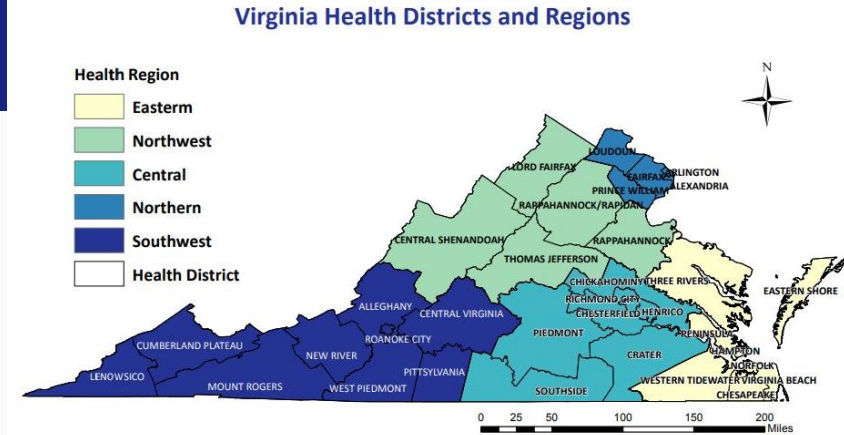
**Northwestern Region:** Jonathan Winter, MD

**Central Region:** William Reed, MD & Tangela Crawley-Hardy, NP

**Southwest Region:** Katherine Coffey-Vega, MD & Jamie Smith, NP

**Northern Region:** Noelle Pierson, NP; Aabha Jain, MD

**Statewide:** Shawlawn Freeman-Hicks, NP



# Forum Structure (60 min)

**Introduction - 2 minutes**

**Updates - 6 minutes**

**Featured Meeting Topic & Cases - 15-20 minutes**

**Open Discussion - 15-20 minutes using Zoom chat features and open mic**

**Feedback - 3-minute post-Forum evaluation**

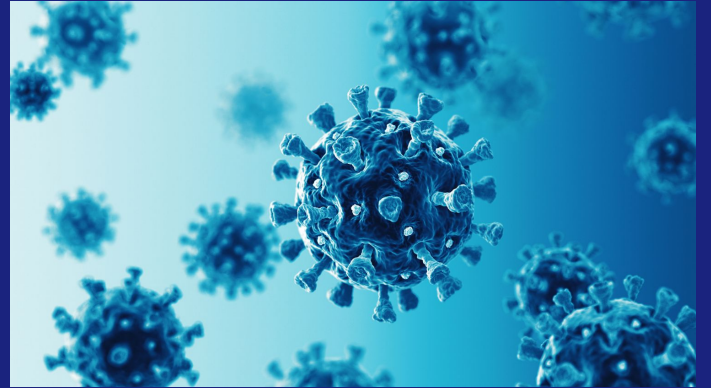
# Forum Objectives

- Understand changes in reporting of COVID-19 data around the Public Health Emergency completion
- Identify opportunities for improvements in antibiotic stewardship for residents of LTC facilities
- Participate in an open forum for sharing information and questions as well as supporting professionals working in LTC

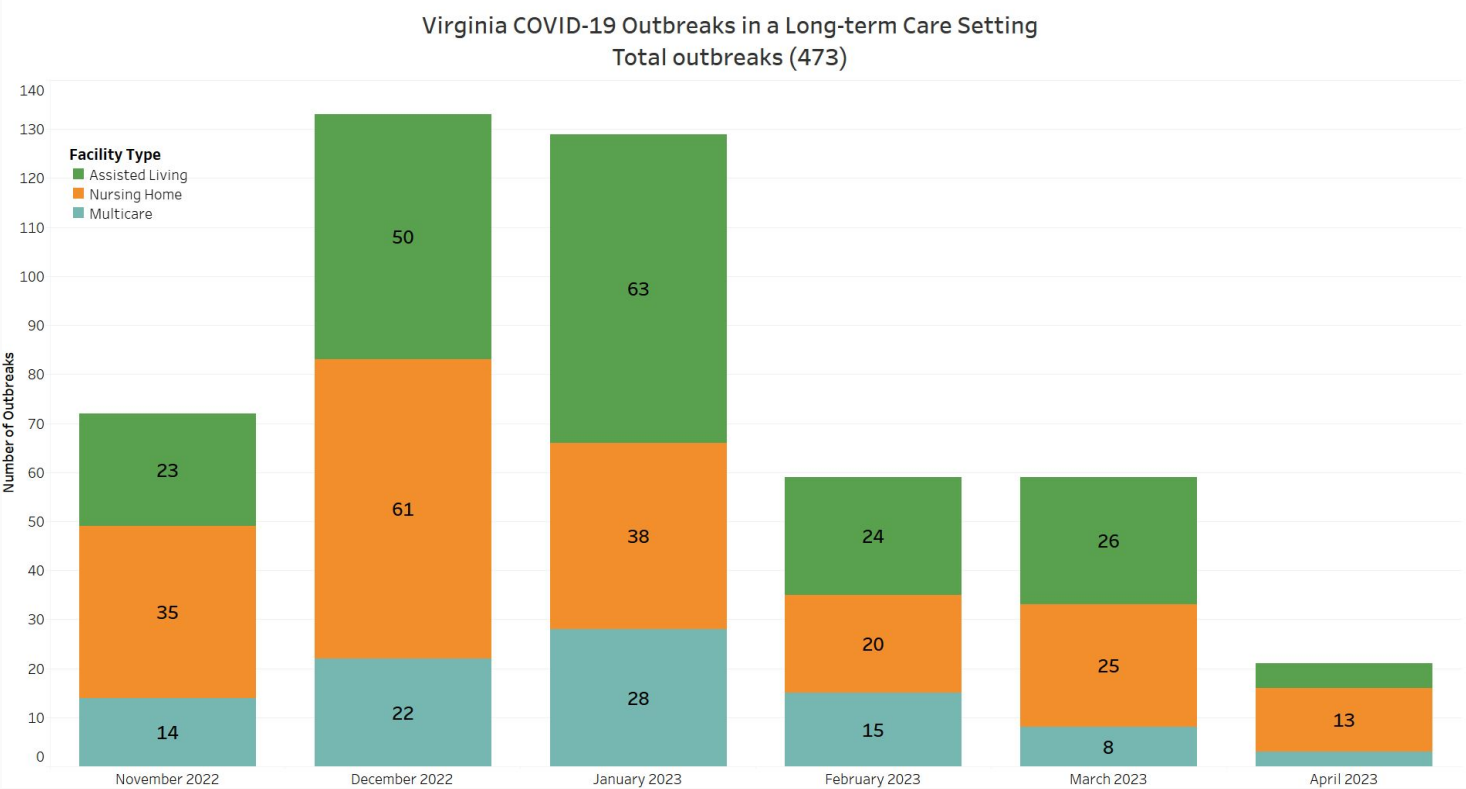


# Updates

COVID-19 and LTC:  
Data, Treatment, Vaccines



# Data from VDH as of April 26, 2023



# Data from VDH

## Virginia Department of Health (VDH) COVID-19 Dashboards

### COVID-Like Illness (CLI)

The percentage of all emergency department (ED) and urgent care (UC) visits, that are for COVID-like symptoms, can signal how much COVID-19 there is in a community.

**7.6** percent of ED/UC visits were CLI in the week ending 05/13/2023



**7.3%** points lower than the previous week ending 05/06/2023



# Covid 19 Associated Hospitalizations

## COVID-19-Associated Hospital Admissions

COVID-19 hospital admissions indicate the severity of disease in the community and the impact on the health care system.

**123** new hospital admissions in the week ending 05/13/2023

4 week trend in Hospital Admissions



**4%** points lower than the previous week ending 05/06/2023

**\*Read more COVID-19 updates in the LTC-CN newsletter!**

Featured Monthly Topic:

# Antibiotic Stewardship & Prescribing Guidelines



# Antibiotic Stewardship - Ftag 881

## **F881**

(Rev. 211; Issued: 02-03-23; Effective: 10-21-22; Implementation: 10-24-22)

§483.80(a) Infection prevention and control program. The facility must establish an infection prevention and control program (IPCP) that must include, at a minimum, the following elements:

**§483.80(a)(3) An antibiotic stewardship program that includes antibiotic use protocols and a system to monitor antibiotic use.**

# Antibiotic Stewardship - Ftag 881

*Protocols should:*

- ***Incorporate monitoring of antibiotic use***, including the frequency of monitoring/review. Monitor/review response to antibiotics, and laboratory results when available, to determine if the antibiotic is still indicated or adjustments should be made (e.g., antibiotic time-out);
- ***Facilities should provide feedback*** (e.g., verbal, written note in record) to prescribing practitioners regarding antibiotic resistance data, their antibiotic use and their compliance with facility antibiotic use protocols to improve prescribing practices and resident outcomes.
- ***Require antibiotic orders to include the indication, dose, and duration.***

# Antibiotic Stewardship - Ftag 881

## POTENTIAL TAGS FOR ADDITIONAL INVESTIGATION

- F756: for concerns related to the failure of the pharmacist to review and report any unnecessary antibiotic irregularity;
- F757: for concerns related to unnecessary antibiotic use; and
- F552: for concerns related to the right to be fully informed in advance about care and treatment.



# Programs / Resources

**CDC** - Core Elements of Antibiotic Stewardship for Nursing Homes

<https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes.html>

**AHRQ** - Nursing Home Antimicrobial Stewardship Guide

<https://www.ahrq.gov/nhguide/index.html>

**CMS / QSEP** - Antibiotic Stewardship Program Resources for Nursing Homes

<https://qsep.cms.gov/data/251/AntibioticStewardshipProgramResourcesCMS508.pdf>

**Indiana Department of Health** - Long-term Care Antibiotic Stewardship Toolkit

<https://www.in.gov/health/erc/files/CoverPageAntibioticStewardshipToolkit.pdf>

# CDC - 7 Core Elements of Antibiotic Stewardship for Nursing Homes

1. Leadership Commitment
2. Staff Accountability
3. Drug Expertise
4. Action
5. Tracking
6. Reporting
7. Education

<https://www.cdc.gov/antibiotic-use/core-elements/pdfs/core-elements-antibiotic-stewards-hip-H.pdf>

# CDC - Implementation Resources

1. Sample letters / posters
2. Guide for consultant pharmacists
3. Sample policy and actions
4. Tracking tools
5. Educational material

<https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes/implementation.html>

# Implementation Resources for Nursing Homes

[Print](#)


## Leadership Commitment and Accountability

- [Creating a Culture to Improve Antibiotic Use in Nursing Homes](#)  [PDF - 1 page]
- [Stewardship Leadership Commitment Letter for Nursing Homes](#)  [PDF - 1 page]
- [Stewardship Commitment Poster for Nursing Homes](#)  [PDF - 1 page]
- [Leading Antibiotic Stewardship in Nursing Homes](#)  [PDF - 1 page]




## Drug Expertise

- [NEW 5 Ways Consultant Pharmacists can Be Antibiotics Aware](#)



## Action

- [NEW AHRQ Toolkit to Improve Antibiotic Use in Long-Term Care](#) 
- [Appendix A: Policy and Practice Actions to Improve Antibiotic Use](#)  [PDF - 9 pages]

## Tracking and Reporting

- [Appendix B: Measures of Antibiotic Prescribing, Use and Outcomes](#)  [PDF - 7 pages]
- [Appendix C: Data Sources, Elements, and Measures for Tracking Antibiotic Use in Nursing Homes](#)  [PDF - 6 pages]
- [Infection Tracking Logs | Center for Long-Term Care Quality and Innovation | Brown University](#) 

## Education

- [NEW Nursing Home Healthcare Professionals: Effective Communication Toolkit](#)  [PDF - 3 Pages]
- [NEW Viruses or Bacteria—What's got you sick? Common infections in nursing homes \(Print Only\)](#)  [PDF - 1 Page]
- [What You Need to Know About Antibiotics in a Nursing Home](#)  [PDF - 2 pages]
- [What to Ask Your Healthcare Provider about Antibiotics](#)  [PDF - 1 page]
- [Top 10 Infection Prevention Questions to Ask a Nursing Home's Leaders](#)  [PDF - 1 pages]

### On This Page

Leadership Commitment and Accountability

Drug Expertise

Action

Tracking and Reporting

Education



**NURSING HOME HEALTHCARE PROFESSIONALS:  
BE ANTIBIOTICS AWARE**

## Effective Communication with Residents and Families

 **50-70%**  
of nursing home residents  
are prescribed an  
antibiotic each year.<sup>1,2</sup>

 **25-75%**  
of antibiotic prescribing  
in nursing homes is  
inappropriate.<sup>1,2</sup>

Effective communication with residents and their families helps to address treatment expectations and places the resident at the center of care.<sup>3</sup> Nursing home healthcare professionals can help reduce inappropriate antibiotic use by utilizing the **4-part communication strategy** shown below. Communication skills training has been shown to significantly reduce inappropriate antibiotic prescribing in outpatient settings.<sup>4,5</sup>

Two scenarios using the communication strategy to decrease unnecessary prescribing for asymptomatic bacteriuria and respiratory infections are described on the pages that follow.

Healthcare professionals can use the **4-part Communication Strategy<sup>6</sup>** to discuss appropriate antibiotic use when there is a change in the resident's condition.



### 1. Review findings:

Review relevant information such as symptoms or physical examination findings that support the decision about appropriate testing and antibiotic use.



### 2. Deliver a clear diagnosis:

Deliver a clear diagnosis that explains the change in the resident's condition.



### 3. Provide a FIRST negative, THEN positive treatment recommendation:

When an antibiotic is not needed, FIRST provide a negative treatment recommendation that "rules out" the need for antibiotics. THEN provide a positive recommendation for further evaluation, management, and monitoring.



### 4. Discuss a contingency plan:

Outline a contingency plan that details what actions will be taken if the resident does not improve, or if their condition worsens.

<https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes/implementation.html>



## Effective Communication about Asymptomatic Bacteriuria

### SCENARIO 1

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

Asymptomatic bacteriuria refers to the isolation of bacteria in a urine culture from a resident without signs or symptoms of a urinary tract infection. Residents with asymptomatic bacteriuria **should not** be treated with antibiotics in most cases.<sup>1</sup>

Healthcare professionals can use the 4-part Communication Strategy<sup>2</sup> discussed above to avoid unnecessary testing and antibiotic treatment for residents with asymptomatic bacteriuria.



#### 1. Review findings:

Ms. Smith is less talkative than usual today. She is not complaining of pain or urgency when she urinates and she has no other symptoms to suggest an infection. On exam, she does not have a fever, her lungs sound clear, and her abdomen is not tender.



#### 2. Deliver a clear diagnosis:

Her urine is darker than usual, which seems more consistent with fluid deficit than a urinary tract infection.



#### 3. Provide a FIRST negative, THEN positive treatment recommendation:

Since the clinical findings do not indicate a urinary tract infection, an antibiotic will not help and may cause side effects, such as diarrhea. Instead, we will give her fluids and monitor her over the next 24 hours.



#### 4. Discuss a contingency plan:

If Ms. Smith does not improve, develops a fever, or any new symptoms consistent with an infection, we will perform further testing and start antibiotics if needed.

The scenarios are examples that apply the communication strategy discussed above, and are **not** meant to guide the evaluation and treatment of infections in nursing home residents. Always assess the individual resident, use your clinical judgment, and follow your facility's protocols and treatment guidelines when applicable.



## Effective Communication about Respiratory Infections

### SCENARIO 2

Mr. Jones woke up with a cough. He is concerned and asks for an antibiotic because in the past, antibiotics have helped him feel better when he is sick.

Antibiotics should not be prescribed for residents with upper respiratory infections or acute uncomplicated bronchitis unless pneumonia is suspected, or they meet criteria for antibiotic initiation.<sup>1,3</sup>

Healthcare professionals can use the 4-part Communication Strategy<sup>4</sup> discussed above to avoid unnecessary antibiotic treatment for residents with respiratory tract infections.



#### 1. Review findings:

Mr. Jones, I am sorry you are not feeling well today. When I examined you, your oxygen level and temperature were normal, you have no throat swelling or sinus tenderness, and your lungs sounded clear.



#### 2. Deliver a clear diagnosis:

The doctor and I discussed your symptoms. It seems that you have acute bronchitis, also known as a chest cold, which is most commonly caused by a virus.



#### 3. Provide a FIRST negative, THEN positive treatment recommendation:

An antibiotic will not work against a viral infection, and may cause side effects, such as diarrhea. Instead, we will test you for respiratory viruses, including flu. We will provide treatment to help you feel better and closely monitor your symptoms.



#### 4. Discuss a contingency plan:

If you become short of breath, develop a fever or any other concerning symptoms, we will perform more testing, a chest X-ray, and start antibiotics if needed.

The scenarios are examples that apply the communication strategy discussed above, and are **not** meant to guide the evaluation and treatment of infections in nursing home residents. Always assess the individual resident, use your clinical judgment, and follow your facility's protocols and treatment guidelines when applicable.



# Viruses or Bacteria

## What's got you sick?

### Common infections in nursing homes

Antibiotics are often prescribed when they are not needed for respiratory infections. Antibiotics are only needed for treating certain infections caused by bacteria. Viral illnesses cannot be treated with antibiotics. When antibiotics aren't needed, they won't help you, and the side effects could still cause harm.

Common Respiratory Infections in Nursing Homes	Common Cause			Are Antibiotics Needed?
	Virus	Virus or Bacteria	Bacteria	
Common cold/runny nose	✓			No
Sore throat (except strep)	✓			No
COVID-19	✓			No
Flu	✓			No
Acute bronchitis/chest cold*		✓		No*
Sinus infection		✓		Maybe
Pneumonia		✓		Yes
Strep throat			✓	Yes

\*Antibiotics are not needed for nursing home residents with acute bronchitis or a chest cold, unless they have chronic obstructive pulmonary disease (COPD) or other chronic lung disease.



To learn more about antibiotic prescribing and use, visit [www.cdc.gov/antibiotic-use](http://www.cdc.gov/antibiotic-use).



CS127027-B

### Why does taking antibiotics lead to antibiotic resistance?

Any time you take antibiotics, they can cause side effects and contribute to the development of 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 are developing the ability to defeat 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.

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

### What if I have questions about antibiotics?

Talk to your healthcare professional 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 that the antibiotic is working for my infection?

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 life-saving drugs will be available for future generations.

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 life-saving drugs and are frequently prescribed in nursing homes. Remember, when antibiotics are needed, their benefits outweigh the risks of side effects and antibiotic resistance.

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

#### What do antibiotics treat?

Antibiotics are only needed for treating certain infections caused by bacteria. Antibiotics are critical tools for treating life-threatening conditions

### What are the potential side effects of antibiotics?

Common side effects from antibiotics can include:

- Rash
- Nausea
- Yeast infections
- Dizziness
- Diarrhea

More serious side effects can include:

- Life-threatening allergic reactions
- Interactions between antibiotics and other medications
- Infections with antibiotic-resistant bacteria, including *C. difficile* (or *C. diff*)

#### What is a *C. diff* infection?

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:

- Insisting healthcare professionals and visitors clean their hands before touching you by washing with soap and water for 20 seconds or using a hand sanitizer that contains at least 60% alcohol

# AHRQ - Nursing Home Antimicrobial Stewardship Guide

Table 1. Toolkit Goals and Level of Resources Needed

Potential Antimicrobial Stewardship Program Goals				
Level of Resources Needed	Identify Potential Problems	Help Prescribing Clinicians Identify an Infection	Help Prescribing Clinicians Choose the Right Antibiotic	Educate Residents and Family Members
Low		Suspected UTI SBAR	Working with a Lab to Improve Antibiotic Prescribing	Educate and Engage Residents and Family Members
Medium	Monitor and Sustain Stewardship	Communication and Decisionmaking for Four Infections  Minimum Criteria for Three Infections	Concise Antibigram	
High			Comprehensive Antibigram	

<https://www.ahrq.gov/nhguide/index.html>

# AHRQ - Nursing Home Antimicrobial Stewardship Guide

## Toolkit 1

### Implement, Monitor, and Sustain an Antimicrobial Stewardship Program

- Starting a Program Guide
- Monitor and Sustain Stewardship



# AHRQ - Nursing Home Antimicrobial Stewardship Guide

## Toolkit 2

### Determine Whether It Is Necessary to Treat a Potential Infection with Antibiotics

- Minimum Criteria for Antibiotics Tool
- Suspected UTI SBAR Toolkit
- Common Suspected Infections: Communication and decision making for 4 Infections
- Minimum Criteria for 3 Infections

# Minimum Criteria for Antibiotics Tool

*This decision support tool can help prescribers determine appropriate treatment for nursing home residents suspected of having one of three common infections: urinary tract, skin and soft tissue, and lower respiratory. It uses criteria from the SBAR forms included in the Minimum Criteria for Common Infections Toolkit. Notes with additional guidance on other factors are also included to assist prescribers in making decisions.*

To use the tool, first select the type of suspected infection. Then answer the questions that appear on screen. When the tool has enough data to make a determination, it will tell you if the minimum criteria for antibiotics are met and identify other actions to consider.

- Green check mark: minimum criteria for antibiotics are met.
- Red X: minimum criteria for antibiotics are not met.

CHOOSE POTENTIAL INFECTION (CHOOSE ONE):

Urinary Tract Infection

Skin and Soft Tissue  
Infection

Lower Respiratory Tract  
Infection

CHOOSE POTENTIAL INFECTION (CHOOSE ONE):

Urinary Tract Infection

Skin and Soft Tissue  
Infection

Lower Respiratory Tract  
Infection

Does the resident have:

No indwelling catheter

Indwelling catheter

Notes:

1. Urine cultures should not be performed on a scheduled basis (e.g., monthly).
2. Urine cultures should not be used to identify UTIs in the absence of symptoms.
3. Smelly or cloudy urine is not a symptom of a UTI.
4. Residents with an intermittent catheter or a condom catheter should be evaluated as if they are not catheterized.
5. Urine cultures should be used to identify the most appropriate antibiotic. For residents with acute dysuria, it may be appropriate to initiate empiric therapy.
6. For residents who regularly run a lower temperature, use a temperature of 2°F (1°C) above the baseline as a definition of a fever.

Does the resident have acute dysuria?

Yes

No

Fever (temperature > 100°F [37.9°C] or two repeated temperatures of 99°F [37°C])

Yes

No

Does the resident have at least TWO of the following? Check all that apply.

- Urgency
- Frequency
- Suprapubic pain
- Gross hematuria
- Urinary incontinence
- None of the above

Continue



Minimum criteria for initiating antibiotics are MET



Minimum criteria for initiating antibiotics are NOT MET

Consider initiating the following:

- ➔ Encourage liquid intake daily until urine is light yellow in color (suggest an amount and duration).
- ➔ Record fluid intake (suggest frequency and duration).
- ➔ Assess vital signs, including temp (suggest frequency and duration).
- ➔ Request notification if symptoms worsen or if unresolved (suggest duration).

CHOOSE POTENTIAL INFECTION (CHOOSE ONE):

Urinary Tract Infection

Skin and Soft Tissue  
Infection

Lower Respiratory Tract  
Infection

Does the resident have:

No indwelling catheter

Indwelling catheter

Notes:

1. Urine cultures should not be performed on a scheduled basis (e.g., monthly).
2. Urine cultures should not be used to identify UTIs in the absence of symptoms.
3. Smelly or cloudy urine is not a symptom of a UTI.
4. Residents with an intermittent catheter or a condom catheter should be evaluated as if they are not catheterized.
5. Urine cultures should be used to identify the most appropriate antibiotic. For residents with acute dysuria, it may be appropriate to initiate.
6. For residents who regularly run a lower temperature, use a temperature of 2°F (1°C) above the baseline as a definition of a fever.

Does the resident have acute dysuria?

Yes

No

Fever (temperature > 100°F [37.9°C] or two repeated temperatures of 99°F [37°C])

Yes

No

Does the resident have at least TWO of the following? Check all that apply.

- Urgency
- Frequency
- Suprapubic pain
- Gross hematuria
- Urinary incontinence
- None of the above

Continue

# Suspected UTI SBAR

Complete this form before contacting the resident's physician.

Date/Time \_\_\_\_\_

Nursing Home Name \_\_\_\_\_

Resident Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Physician/NP/PA \_\_\_\_\_ Phone \_\_\_\_\_

\_\_\_\_\_ Fax \_\_\_\_\_

Nurse \_\_\_\_\_ Facility Phone \_\_\_\_\_

Submitted by  Phone  Fax  In Person  Other \_\_\_\_\_

## S Situation

I am contacting you about a suspected UTI for the above resident.

Vital Signs BP \_\_\_\_\_ / \_\_\_\_\_ HR \_\_\_\_\_ Resp. rate \_\_\_\_\_ Temp. \_\_\_\_\_

## B Background

Active diagnoses or other symptoms (especially, bladder, kidney/genitourinary conditions)

Specify \_\_\_\_\_

- No  Yes The resident has an indwelling catheter
- No  Yes Patient is on dialysis
- No  Yes The resident is incontinent **If yes, new/worsening?**  No  Yes
- No  Yes Advance directives for limiting treatment related to antibiotics and/or hospitalizations  
Specify \_\_\_\_\_
- No  Yes Medication Allergies  
Specify \_\_\_\_\_
- No  Yes The resident is on Warfarin (Coumadin®)

Nursing Home Name \_\_\_\_\_ Facility Fax \_\_\_\_\_

Resident Name \_\_\_\_\_

## A Assessment Input (check all boxes that apply)

### Resident WITH indwelling catheter

The criteria are met to initiate antibiotics if one of the below are selected

#### No Yes

- Fever of 100°F (38°C) or repeated temperatures of 99°F (37°C)\*
- New back or flank pain
- Acute pain
- Rigors /shaking chills
- New dramatic change in mental status
- Hypotension (significant change from baseline BP or a systolic BP <90)

### Resident WITHOUT indwelling catheter

Criteria are met if one of the three situations are met

#### No Yes

1. Acute dysuria alone
- \_\_\_\_\_ **OR** \_\_\_\_\_
2. Single temperature of 100°F (38°C) and at least one new or worsening of the following:
- urgency  suprapubic pain
- frequency  gross hematuria
- back or flank pain  urinary incontinence
- \_\_\_\_\_ **OR** \_\_\_\_\_
3. No fever, but two or more of the following symptoms:
- urgency  suprapubic pain
- frequency  gross hematuria
- incontinence

**Nurses:** Please check box to indicate whether or not criteria are met

- Nursing home protocol criteria are met.** Resident may require UA with C&S or an antibiotic.†
- Nursing home protocol criteria are NOT met.** The resident does NOT need an immediate prescription for an antibiotic, but may need additional observation.††

## R Request for Physician/NP/PA Orders

Orders were provided by clinician through  Phone  Fax  In Person  Other \_\_\_\_\_

- Order UA
- Urine culture
- Encourage \_\_\_\_\_ ounces of liquid intake \_\_\_\_\_ times daily until urine is light yellow in color.
- Record fluid intake.
- Assess vital signs for \_\_\_\_\_ days, including temp, every \_\_\_\_\_ hours for \_\_\_\_\_ hours.
- Notify Physician/NP/PA if symptoms worsen or if unresolved in \_\_\_\_\_ hours.
- Initiate the following antibiotic

Antibiotic: \_\_\_\_\_ Dose: \_\_\_\_\_ Route: \_\_\_\_\_ Duration: \_\_\_\_\_

No  Yes Pharmacist to adjust for renal function

Other \_\_\_\_\_

Physician/NP/PA signature \_\_\_\_\_ Date/Time \_\_\_\_\_

Telephone order received by \_\_\_\_\_ Date/Time \_\_\_\_\_

Family/POA notified (name) \_\_\_\_\_ Date/Time \_\_\_\_\_

\* For residents that regularly run a lower temperature, use a temperature of 2°F (1°C) above the baseline as a definition of a fever.

† This is according to our understanding of best practices and our facility protocols. Minimum criteria for a UTI must meet 1 of 3 criteria listed in box.

†† This is according to our understanding of best practices and our facility protocols. The information is insufficient to indicate an active UTI infection.

## Suspected LRI SBAR

Complete this form before contacting the resident's physician.

Date/Time \_\_\_\_\_

Nursing Home Name \_\_\_\_\_

Resident Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Physician/NP/PA \_\_\_\_\_ Phone \_\_\_\_\_

Fax \_\_\_\_\_

Nurse \_\_\_\_\_ Facility Phone \_\_\_\_\_

Submitted by  Phone  Fax  In Person  Other \_\_\_\_\_

### S Situation

I am contacting you about a suspected lower respiratory tract infection for the above resident.

Vital Signs BP \_\_\_\_\_ / \_\_\_\_\_ HR \_\_\_\_\_ Resp. rate \_\_\_\_\_

Temp. \_\_\_\_\_ O2 Sat \_\_\_\_\_

### B Background

No  Yes The resident has COPD  No  Yes The resident is on supplemental O2

No  Yes The resident has diabetes  No  Yes O2 requirements have increased  
specify O2 amount: \_\_\_\_\_

No  Yes The resident is a current smoker

No  Yes The resident is a former smoker  No  Yes Resident reports chest pain  
or difficulty breathing

No  Yes Resident uses nebulizer/inhaler

No  Yes Other active diagnoses (especially, chronic lung disease, chronic bronchitis, emphysema)  
Specify: \_\_\_\_\_

No  Yes Advance directives for limiting treatment related to antibiotics and/or hospitalizations  
Specify: \_\_\_\_\_

No  Yes Medication Allergies  
Specify: \_\_\_\_\_

No  Yes The resident is on Warfarin (Coumadin®)

## Suspected SST SBAR

Complete this form before contacting the resident's physician.

Date/Time \_\_\_\_\_

Nursing Home Name \_\_\_\_\_

Resident Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Physician/NP/PA \_\_\_\_\_ Phone \_\_\_\_\_

Fax \_\_\_\_\_

Nurse \_\_\_\_\_ Facility Phone \_\_\_\_\_

Submitted by  Phone  Fax  In Person  Other \_\_\_\_\_

### S Situation

I am contacting you about a suspected SST infection for the above resident.

Vital Signs BP \_\_\_\_\_ / \_\_\_\_\_ HR \_\_\_\_\_ Resp. rate \_\_\_\_\_ Temp. \_\_\_\_\_

### B Background

No  Yes The resident has diabetes

No  Yes Other active diagnoses (especially, chronic venous insufficiency, edema or  
peripheral vascular disease)

Specify \_\_\_\_\_

No  Yes History of skin infections  
Specify \_\_\_\_\_

No  Yes Advance directives for limiting treatment related to antibiotics and/or hospitalizations  
Specify \_\_\_\_\_

No  Yes Medication Allergies  
Specify \_\_\_\_\_

No  Yes The resident is on Warfarin (Coumadin®)





# Nursing Home Antimicrobial Stewardship Guide

## Determine Whether To Treat

### Toolkit 1. Suspected UTI SBAR Toolkit

#### Tool 2. Clinician Letter

[PRINTED ON NURSING HOME OR MEDICAL DIRECTOR'S STATIONERY]

[Date]

[Prescribing Clinician Name]

Recipient Address

City, State Zip]

Re: Change in protocol regarding urinalyses to improve quality of care and antibiotic use

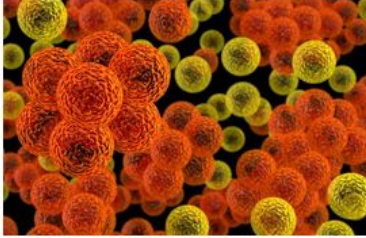
Dear [insert name],

Based on clinical practice guidelines developed by nursing home, infectious disease, and geriatric experts, our facility has decided to modify its protocol around urinalyses to optimize antibiotic use for urinary tract infections (UTIs). We will use a research-based and effective Toolkit, the Suspected Urinary Tract Infection (UTI) Situation, Background, Assessment, and Request (SBAR) form to facilitate gathering critical information by nurses to communicate to prescribing clinicians. The Suspected UTI SBAR form is intended to enhance communication and provide guidance regarding managing potential UTIs and indications for ordering urinalyses and cultures. The SBAR communication style has been shown to promote better communication by addressing the specific types of information that clinicians are likely to need for decisionmaking.

## Not All “Infections” Need Antibiotics!

### What is the UTI SBAR form? What does it include?

- The Suspected Urinary Tract Infection (UTI) Situation, Background, Assessment, and Recommendation form (the UTI SBAR form) is intended to guide communication between nursing home staff and prescribing clinicians about the potential need for antibiotics for nursing home residents.
- The UTI SBAR form is based on the Situation, Background, Assessment, and Recommendation form of communication, or SBAR. The SBAR communication style promotes better communication and performance by addressing the specific types of information that clinicians are likely to need for decisionmaking.
- The UTI SBAR form is based on criteria developed by an expert consensus panel and modified clinical practice guidelines for infections in older adults in long-term care facilities.
- The UTI SBAR form can be faxed to or used when speaking with a prescribing clinician. It takes only minutes to fill in and can be used as part of the resident’s medical record.



### Why are antibiotics a problem?

- Many residents receive antibiotics. Between 50 percent and 70 percent of residents will receive a systemic antimicrobial agent during a calendar year. Anywhere from 20 percent to 30 percent of residents may receive multiple courses of antibiotics.
- Use of antibiotics has been linked to health care-acquired infections. Frequent use of antibiotics can lead to multidrug resistant bacteria (e.g., MRSA and VRE). Infections caused by multidrug resistant organisms are occurring more frequently in residents. As you provide care for these residents, you are also exposed to these drug-resistant organisms, and you might take these organisms home to your family and community!



- Many antibiotics are unnecessary. Unnecessary use of antibiotics in nursing home residents ranges from 17 percent to 89 percent. Examples of such practices include prescribing prophylactic antibiotics, prescribing antibiotics without determining the source of the infection, and, in the case of UTIs, prescribing antibiotics based on a positive urinalysis test result for bacteriuria without localized symptoms.
- Antibiotics for asymptomatic bacteriuria do not help and can be harmful. A study in two Rhode Island nursing homes showed that 8.5 percent of residents treated with antibiotics for a UTI when they were asymptomatic went on to develop a *Clostridium difficile* infection within 3 months of treatment.

### Why use the UTI SBAR form?

- The UTI SBAR form helps to reduce the unnecessary use of antibiotics. A recent study in 12 Texas nursing homes found that using the UTI SBAR form reduced the use of antibiotics for asymptomatic bacteriuria by about one-third. This is important given the consistent finding that treating residents for bacteria in the urine without localized symptoms is not beneficial.
- The UTI SBAR form facilitates communication between nursing staff and prescribing clinicians. Prescribing clinicians need specific information about the resident to make a prescribing decision. The UTI SBAR form is an easy-to-use way of collecting all of the information a prescribing clinician might want to make a decision. Forms like these have proven effective in improving care. A landmark 2006 study of hospitals in Michigan demonstrated that evidence-based interventions using standardized protocols led to a significant reduction in catheter-related bloodstream infections.





## MEDICAL CARE REFERRAL FORM

USE IN ALL SITUATIONS WHEN A RESIDENT HAS A NEW PROBLEM AND INFECTION MAY BE SUSPECTED, AND IS BEING REFERRED TO A MEDICAL CARE PROVIDER, INCLUDING TRANSFER TO AN EMERGENCY DEPARTMENT OR HOSPITAL.

To: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Resident Name: \_\_\_\_\_ DOB: \_\_\_\_/\_\_\_\_/\_\_\_\_ Room #: \_\_\_\_\_

From: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Family Contacted: Yes No If YES, Name and relationship: \_\_\_\_\_ Contact Date: \_\_\_\_\_ Time: \_\_\_\_\_

DESCRIPTION OF CURRENT PROBLEM including recent fever pattern and change in recent/current health status:

CURRENT VITAL SIGNS	USUAL COGNITIVE FUNCTION	MEDICAL HISTORY
Blood pressure: _____	Good Questionable Impaired	Diabetes: _____ Yes No ?
Pulse: _____		If Yes, most recent blood sugar: _____ Yes No ?
Respiratory rate: _____	<b>RECENT/CURRENT HEALTH STATUS</b>	COPD: _____ Yes No ?
Highest temperature _____	New or worsening confusion Yes No ?	Indwelling catheter: _____ Yes No ?
In last 24 hours: _____	New or worsening agitation Yes No ?	On hospice care: _____ Yes No ?
How taken: _____	Decrease in eating or drinking Yes No ?	Advanced directive/ _____ Yes No ?
3 most recent routine temperatures _____	Sleepiness/decreased alertness Yes No ?	MOST Form: _____ Yes No ?
and how taken: _____	Decline in function Yes No ?	DNR _____ Yes No ?
Temp _____	Fall Yes No ?	No Antibiotics _____ Yes No ?
How taken: _____	If Yes: _____	MEDICATION ALLERGIES: _____ Yes No ?
_____	Witnessed Yes No ?	List: _____
_____	Hit head Yes No ?	_____
_____	Last consciousness Yes No ?	_____
Shaking chills In _____	Suspected minor injury Yes No ?	_____
last 24 hours: Yes No ?	Suspected serious injury Yes No ?	_____

Put an "X" in the box to indicate the suspected infection and circle related signs/symptoms Y (present), or No (not present), or ? (not known).

O Suspected Urinary Tract Infection
Y N ? New or increased urgency of urination
Y N ? New or increased frequency of urination
Y N ? New or increased suprapubic tenderness
Y N ? Costovertebral angle (CVA) tenderness
If yes, new onset: Y N ?
If yes, increasing: Y N ?
Y N ? Painful or difficult urination
Y N ? Obvious blood in urine
Y N ? Change in urine appearance or odor
Y N ? New or worse urinary incontinence
Y N ? Positive culture
If yes, positive for: _____
O Suspected Skin or Soft Tissue Infection
Location: _____
Y N ? New or increasing pus draining from wound
Y N ? New breakdown
Y N ? New or expanding redness around wound
Y N ? Pain / tenderness
Y N ? Warmth
Y N ? New or increased swelling at the site
Y N ? Increased odor
Y N ? Ulcer for 3 or more weeks

O Suspected Respiratory Infection
Y N ? New cough
Y N ? Increasing cough
Y N ? Productive cough
If yes, with purulent sputum: Y N ?
Y N ? Sore throat
Y N ? Chest X-ray
If yes, pneumonia infiltrate: Y N ?
Y N ? Body aches
Y N ? Headache
Y N ? Runny nose and/or sneezing
Y N ? Shortness of breath
Y N ? Pleuritic chest pain (painful to take deep breath)
O2 saturation, baseline: _____ %
O2 saturation, current: _____ %
O Suspected Gastrointestinal Infection
Y N ? Vomiting: Number of times in past 24 hours: _____
Y N ? Diarrhea: Number of times in past 24 hours: _____
Y N ? Other vomiting or diarrhea in the community
Y N ? Positive culture
If yes, positive for: _____

## What is the Communication and Decisionmaking for Four Infections Toolkit?

The toolkit is intended to help prescribing clinicians and nurses work together to determine when antibiotics are truly needed. This toolkit includes the following tools:

- **A Medical Care Referral Form** to document information for prescribing clinicians (tool 1) ([PDF](#) | [Word](#))
- **Pocket Cards** for nurses that present 12 common situations where systemic antibiotics are generally not indicated and provides infection control guidelines (tool 2) ([PDF](#))
- **Quality Improvement (QI) Tip Sheet** that presents discussion points for a QI meeting (tool 3) ([PDF](#) | [Word](#))
- **Training slides** for prescribing clinicians and nursing staff (tool 4) ([PPT](#) | [Word](#))

# AHRQ - Nursing Home Antimicrobial Stewardship Guide

## Toolkit 3

### Help Prescribing Clinicians Choose the Right Antibiotic

- Working with a Lab to Improve Antibiotic Prescribing
- Using NH Antibiograms
- NH Antibiogram Toolkit

<https://www.ahrq.gov/nhguide/index.html>

# AHRQ - Nursing Home Antimicrobial Stewardship Guide

## Toolkit 4


### Educate and Engage Residents and Family Members

- Communication Tools
- Talking Points
- Setting Expectations

# AHRQ - Educational Slides

- Side Effects of Taking Antibiotics
- Antibiotic Resistance
- Fewer New Antibiotics
- Overuse of Antibiotics
- Specific Situations

<https://www.ahrq.gov/nhguide/index.html>




## Situations in Which Systemic Antibiotics are Generally Not Indicated

1. Positive urine culture in asymptomatic resident
2. Urine culture ordered because of change in urine appearance
3. Nonspecific symptoms or signs not referable to urinary tract (with or without positive urine culture)
4. Upper respiratory infection (common cold)
5. Bronchitis or asthma in resident who does not have COPD
6. "Infiltrate" on chest x-ray in absence of clinically significant symptoms
7. Suspected or proven influenza in absence of secondary infection
8. Respiratory infections in resident with advanced dementia, on palliative care, or at the end of life
9. Skin wound without cellulitis, sepsis, or osteomyelitis (regardless of culture result)
10. Small (<5 cm) localized abscess without significant surrounding cellulitis
11. Decubitus ulcer in resident at the end of life
12. Acute vomiting and/or diarrhea in the absence of a positive culture for shigella or salmonella, or positive toxin assay for *Clostridium difficile*



## Fever and Older Adults

- Do you know why a resident DOES NOT need a fever to have an infection?
  - Fever may be absent in 30-50% of older adults with serious infections
  - Factors such as chronic diseases, medications, and time of day can affect an older person's temperature



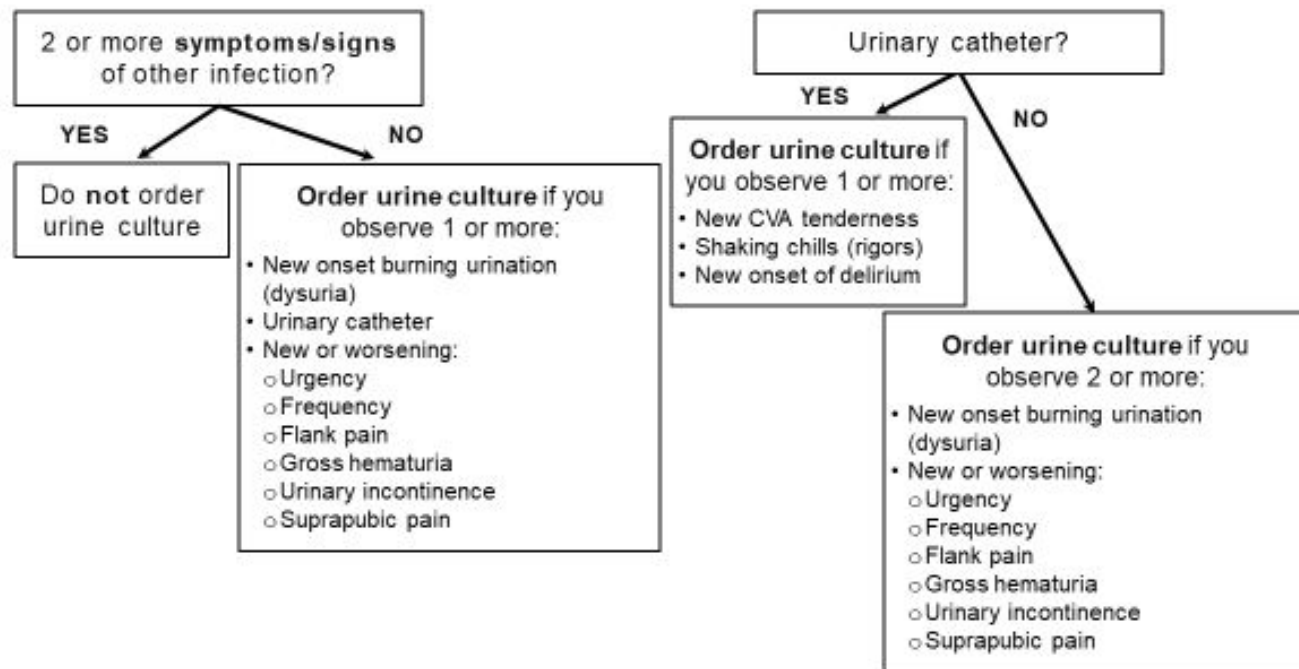
## Suspected UTI

### Cloudy or Smelly Urine: To Culture or Not?

- Urine changes have many causes
  - foul-smelling urine may be caused by dehydration, hygiene, medication, diet, or infection
- Will overdiagnose infection in one-third of cases
- Improved toileting and fluid intake is often better treatment than antibiotics; hydration and perineal hygiene can prevent recurrence
- Culture should be ordered **only** if new urinary symptoms are present

# When to Order a Urine Culture Diagnostic Pathway

Fever of  $>37.9^{\circ}\text{C}$  ( $100^{\circ}\text{F}$ ) or  $1.5^{\circ}\text{C}$  ( $2.4^{\circ}\text{F}$ ) increase above baseline, on 2 occasions over the last 12 h?







## Suspected Respiratory Infection

- Symptomatic care:
  - Monitor vital signs
  - Encourage fluid intake
  - Acetaminophen 650 mg q 6 hrs PRN for fever and pain reduction
  - Nasal saline 2 sprays to each nostril PRN for nasal congestion
  - Guaifenesin 2 teaspoons every 4 hours as needed for cough
  - Antihistamines, especially Benadryl, should be AVOIDED



## Suspected Skin/Soft Tissue Infection

- Appropriate care:
  - Mobility – encourage mobility (passive or active)
  - Acetaminophen 650 mg as needed or prior to cleaning/dressing changes
  - Cleanse wounds with each dressing change with saline or warm water; do not use antiseptic cleansers
  - Apply dressing as needed

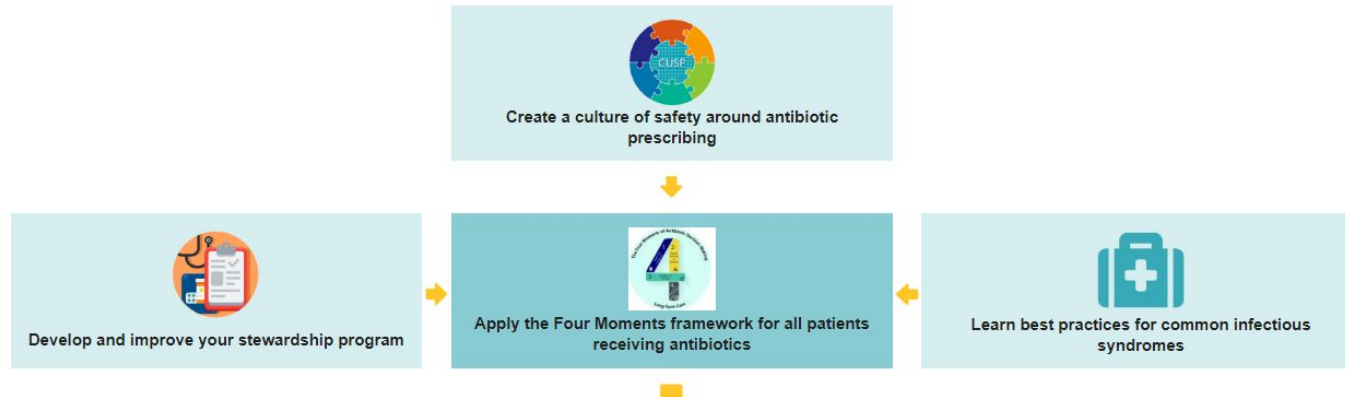
# AHRQ Implementation Plan

## Toolkit To Improve Antibiotic Use in Long-Term Care

The Long-Term Care Toolkit explains the Four Moments of Antibiotic Decision Making, and has tools to support their implementation and improve prescribing in three areas: developing and improving an antibiotic stewardship program, creating a safety culture around antibiotic prescribing, and disseminating best practices for common infectious diseases.

**Welcome to the Toolkit To Improve Antibiotic Use in Long-Term Care.** The components of the Toolkit can be accessed by clicking on the four boxes below. They include an explanation of the Four Moments of Antibiotic Decision Making and how to apply them in practice. They also include presentations and tools to support implementation of the Four Moments and improve antibiotic prescribing, focusing on three critical areas:

1. Developing and improving your antibiotic stewardship program.
2. Creating a culture of safety around antibiotic prescribing in your facility.
3. Learning and disseminating best practices for common infectious disease syndromes.



# AHRQ Implementation Plan - 52 week guide



## AHRQ Safety Program for Improving Antibiotic Use

### Suggested Timeline for Implementation

This timeline is intended to guide facilities that wish to follow the AHRQ Safety Program using a step-by-step approach over 1 year, from developing an antibiotic stewardship program to sustaining the program over time. Facilities may be at different stages in developing their stewardship program; thus, each facility is encouraged to review the timeline and tailor it to meet facility-specific needs.

Date	Presentations and/or Narrated Presentations	Supporting Materials	Activities for the Stewardship Team	Activities for Frontline Providers
Week 1	<b>The Four Moments of Antibiotic Decision Making: An Introduction to Improving Antibiotic Use in Long-Term Care</b>	<a href="#">Commitment Poster</a> Suggested Timeline for Implementation (this document) <a href="#">Gap Analysis</a> <a href="#">The Four Moments of Antibiotic Decision Making Explained</a>	Sign the Commitment Poster and display in a common area	Introduce the idea of antibiotic stewardship, emphasize that the AHRQ Safety Program's focus is to make nursing homes safer for patients

# Case 1

Mrs. Smith is a 79 year old long-term care resident with a history of DM, HTN, COPD, CHF with preserved EF who appears more confused. At baseline, she is oriented to self, date, and city/state but you suspect that she has some underlying MCI. On morning rounds, the nurse was passing medications and Mrs. Smith “said something funny”. Nurse asked more questions and she was talking to someone else in the room (not there) and thought she was back in Minnesota.

Nurse assessed patient. Non focal exam. Pt unable to tell nurse about urinary symptoms.

Vitals: Temp 100.2, HR 90, BP 110/80, RR 18, O2 96% on RA

# Case 1, continued

Mrs. Smith is a 79 year old long-term care resident with a history of DM, HTN, COPD, CHF with preserved EF who appears more confused. At baseline, she is oriented to self, date, and city/state but you suspect that she has some underlying MCI. On morning rounds, the nurse was passing medications and Mrs. Smith “said something funny”. Nurse asked more questions and she was talking to someone else in the room (not there) and thought she was back in Minnesota.

Nurse assessed patient. Non focal exam. Pt unable to tell nurse about urinary symptoms.

Vitals: Temp 100.2, HR 90, BP 110/80, RR 18, O2 96% on RA

## Question 1: What do you do next?

1. **Start an antibiotic given her fever and AMS**
2. **Collect labs/UA**
3. **Assess the patient at bedside before taking additional action**
4. **Something else**

### Constitutional Criteria for Infection

Fever	Leukocytosis	Acute Mental Status Change	Acute Functional Decline
Single oral temp $>37.8^{\circ}\text{C}$ ( $100^{\circ}\text{F}$ ), OR Repeated oral temp $>37.2^{\circ}\text{C}$ ( $99^{\circ}\text{F}$ ), OR Repeated rectal temp $>37.5^{\circ}\text{C}$ ( $99.5^{\circ}\text{F}$ ), OR Single temp $>1.1^{\circ}\text{C}$ ( $2^{\circ}\text{F}$ ) from baseline from any site	$>14,000$ WBC/mm <sup>3</sup> , >6% bands, $\geq 1,500$ bands/mm <sup>3</sup>	Acute onset, AND Fluctuating course, AND Inattention, AND Either disorganized thinking, or Altered Level of Consciousness	3-point increase in baseline ADL score According to the following items: 1. Bed Mobility 2. Transfer 3. Locomotion within LTCF 4. Dressing 5. Toilet use 6. Personal Hygiene 7. Eating [Each scored from 0 (independent) to A 4 (total dependence)]

### Urinary Tract Infection UTI Surveillance Definitions

Syndrome	Criteria	Selected Comments <sup>†</sup>
UTI without indwelling catheter	<p><b>Both 1 AND 2 must be fulfilled:</b></p> <p>1. At least one of the following signs or symptoms:</p> <ul style="list-style-type: none"> <li>• Acute dysuria or pain, swelling or tenderness of testes, epididymis, or prostate</li> <li>• Fever or Leukocytosis, and <math>\geq 1</math> of the following:                             <ul style="list-style-type: none"> <li>◦ Acute costovertebral angle pain or tenderness</li> <li>◦ Suprapubic pain</li> <li>◦ Gross hematuria</li> <li>◦ New or marked increase in incontinence</li> <li>◦ New or marked increase in urgency</li> <li>◦ New or marked increase in frequency</li> </ul> </li> </ul> <p>2. At least one of the following microbiologic criteria:</p> <ul style="list-style-type: none"> <li>• <math>\geq 10^2</math> cfu/ml of no more than 2 species of organisms in a voided specimen</li> <li>• <math>\geq 10^2</math> cfu/ml of any organism(s) in a specimen collected by an in-and-out catheter</li> </ul>	<p>The following 2 comments apply to both UTI with or without catheter:</p> <ul style="list-style-type: none"> <li>• UTI can be diagnosed without localizing symptoms if a blood isolate is the same as the organism isolated from urine and there is no alternate site of infection</li> <li>• In the absence of a clear alternate source of infection fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source.</li> <li>• Urine specimens for culture should be processed as soon as possible preferably within 1-2 hours</li> <li>• If urine specimens cannot be processed within 30 minutes of collection, they should be refrigerated and processed for culture within 24 hours</li> </ul>
UTI with indwelling catheter	<p><b>Both 1 AND 2 must be fulfilled:</b></p> <p>1. At least one of the following signs or symptoms:</p> <ul style="list-style-type: none"> <li>• Fever, rigors, or new-onset hypotension, with no alternate site of infection</li> <li>• Either acute change in mental status or acute functional decline, with no alternate diagnosis and leukocytosis</li> <li>• New-onset suprapubic pain or costovertebral angle pain or tenderness</li> <li>• Purulent discharge from around the catheter or acute pain, swelling or tenderness of the testes, epididymis, or prostate</li> </ul> <p>2. Urinary catheter specimen culture with <math>\geq 10^3</math> cfu/ml of any organism(s)</p>	<ul style="list-style-type: none"> <li>• Recent catheter trauma, catheter obstruction, or new-onset hematuria are useful localizing signs that are consistent with UTI but are not necessary for diagnosis</li> <li>• Urinary catheter specimens for culture should be collected after replacement of the catheter if it has been in place <math>&gt;14</math> days</li> </ul>

- UTI Criteria met  
 UTI Criteria not met



# Case 1 Discussion

Mrs. Smith is a 79 year old long-term care resident with a history of DM, HTN, COPD, CHF with preserved EF who appears more confused. At baseline, she is oriented to self, date, and city/state but you suspect that she has some underlying MCI. On morning rounds, the nurse was passing medications and Mrs. Smith “said something funny”. Nurse asked more questions and she was talking to someone else in the room (not there) and thought she was back in Minnesota.

Nurse assessed patient. Non focal exam. Pt unable to tell nurse about urinary symptoms.

Vitals: Temp 100.2, HR 90, BP 110/80, RR 18, O2 96% on RA

**What would you do next?**

## Case 2

Mr. Jones is a 85 year old short term rehab patient with a h/o HTN, DM, CHF, AF on anticoagulation who was admitted last week following hospitalization for a new stroke. On afternoon ADL care, the nurse aide alerted the nursing staff that patient had a new cough.

Nurse assessed patient. Non focal exam. Pt reports that he “just has allergies” and denies any fevers. She reports that next to his bedside table is a cup filled with phlegm that appears white/yellow in nature.

Vitals: Temp 98.6, HR 105, BP 100/65, RR 24, O2 92% on RA

# Case 2, continued

Mr. Jones is a 85 year old short term rehab patient with a h/o HTN, DM, CHF, AF on anticoagulation who was admitted last week following hospitalization for a new stroke. On afternoon ADL care, the nurse aide alerted the nursing staff that patient had a new cough.

Nurse assessed patient. Non focal exam. Pt reports that he “just has allergies” and denies any fevers. She reports that next to his bedside table is a cup filled with phlegm that appears white/yellow in nature.

Vitals: Temp 98.6, HR 105, BP 95/60, RR 24, O2 92% on RA

## Question 2: What do you do next?

1. **Plan to see him in the next 24 hours**
2. **Send him to the ED**
3. **Obtain labs and a cxr**
4. **Something else**

### Respiratory Tract Infection (RTI) Surveillance Definitions

Syndrome	Criteria	Selected Comments*
Common cold syndrome or pharyngitis	<p><b>Must fulfill at least 2 criteria:</b></p> <ul style="list-style-type: none"> <li>● Runny nose or sneezing</li> <li>● Stuffy nose or nasal congestion</li> <li>● Sore throat, hoarseness or difficulty in swallowing</li> <li>● Dry cough</li> <li>● Swollen or tender glands in the neck (cervical lymphadenopathy)</li> </ul>	<ul style="list-style-type: none"> <li>● Fever may or may not be present</li> <li>● Symptoms must be new and not attributable to allergies</li> </ul>
Influenza-like illness	<p><b>Both 1 and 2 must be fulfilled:</b></p> <ol style="list-style-type: none"> <li>1. Fever</li> <li>2. At least three of the following criteria: <ul style="list-style-type: none"> <li>● Chills</li> <li>● New headache or eye pain</li> <li>● Myalgias or body aches</li> <li>● Malaise or loss of appetite</li> <li>● Sore Throat</li> <li>● New or increased dry cough</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>● If both criteria for influenza-like illness and another upper or lower RTI are met, only record diagnosis of influenza-like illness</li> </ul>
Pneumonia	<p><b>Must fulfill 1, 2, &amp; 3</b></p> <ol style="list-style-type: none"> <li>1. Chest XRay with Pneumonia or new infiltrate</li> <li>2. At least one of the following criteria: <ul style="list-style-type: none"> <li>● New or increased cough</li> <li>● New or increased sputum production</li> <li>● O<sub>2</sub> sat &lt;94% on room air, or &gt;3% decrease from baseline O<sub>2</sub> sat</li> <li>● New or changed lung exam abnormalities</li> <li>● Pleuritic chest pain</li> <li>● Respiratory rate ≥25 breaths/min</li> </ul> </li> <li>3. At least one of the following criteria: <ul style="list-style-type: none"> <li>● Fever</li> <li>● Leukocytosis</li> <li>● Acute mental change</li> <li>● Acute functional decline</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>● Conditions mimicking the presentation of RTI (e.g. congestive heart failure, interstitial lung diseases) should be excluded</li> </ul>
Bronchitis or Tracheo-Bronchitis	<p><b>Must fulfill 1, 2, &amp; 3</b></p> <ol style="list-style-type: none"> <li>1. Chest xRay not performed, or negative for pneumonia or a new infiltrate</li> <li>2. At least two of the following criteria: <ul style="list-style-type: none"> <li>● New or increased cough</li> <li>● New or increased sputum production</li> <li>● O<sub>2</sub> sat &lt; 94% on room air, or &gt;3% decrease from baseline O<sub>2</sub> sat</li> <li>● New or changed lung exam abnormalities</li> <li>● Pleuritic chest pain</li> <li>● Respiratory rate ≥25 breaths/min</li> </ul> </li> <li>3. At least one of the following criteria: <ul style="list-style-type: none"> <li>● Fever</li> <li>● Leukocytosis</li> <li>● Acute mental status change</li> <li>● Acute functional decline</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>● Conditions mimicking the presentation of RTI (e.g. congestive heart failure, interstitial lung diseases) should be excluded</li> </ul>

# Case 2 Discussion

Mr. Jones is a 85 year old short term rehab patient with a h/o HTN, DM, CHF, AF on anticoagulation who was admitted last week following hospitalization for a new stroke. On afternoon ADL care, the nurse aide alerted the nursing staff that patient had a new cough.

Nurse assessed patient. Non focal exam. Pt reports that he “just has allergies” and denies any fevers. She reports that next to his bedside table is a cup filled with phlegm that appears white/yellow in nature.

Vitals: Temp 98.6, HR 105, BP 100/65, RR 24, O2 92% on RA

**What would you do next?**

# Case 3

Ms. Jackson is a 58 year old female with a h/o poorly controlled DM, peripheral arterial disease, HTN who was admitted last week after a 3 week hospital stay for gangrene requiring a right BKA due to poorly healing foot ulcer. Today on rounds, the left foot is assessed due to an “odor” and she is found to have a pressure injury with erythema. She overall feels well. Denies fever, no change in mental status.

Vitals: Temp 98, HR 90, BP 156/90, RR 16, O2 98% on RA.

# Case 3, continued

Ms. Jackson is a 58 year old female with a h/o poorly controlled DM, peripheral arterial disease, HTN who was admitted last week after a 3 week hospital stay for gangrene requiring a right BKA due to poorly healing foot ulcer. Today on rounds, the left foot is assessed due to an “odor” and she is found to have an apparent pressure injury (likely stage 2) on the heel with erythema. She overall feels well. Denies fever, no change in mental status. When you show her a picture of the wound, she becomes anxious and wants you to start an antibiotic right now.

Vitals: Temp 98, HR 90, BP 156/90, RR 16, O2 98% on RA.

## Question 3: What do you do next?

1. **Assess the wound further - what are you looking for?**
2. **Start an antibiotic for possible strep/staph**
3. **Obtain a wound swab**
4. **Something else**

## Skin and Soft Tissue Infection (SSTI) Surveillance Definitions

Syndrome	Criteria	Selected Comments*
Cellulitis, soft tissue, or wound	<p><i>Must fulfill at least 1 criteria:</i></p> <ol style="list-style-type: none"> <li>1. Pus at wound site</li> <li>2. At least four of the following new or increasing sign or symptom:               <ul style="list-style-type: none"> <li>• Heat (warmth) at affected site</li> <li>• Redness (erythema) at affected site</li> <li>• Swelling at affected site</li> <li>• Tenderness or pain at affected site</li> <li>• At least one of the following:                   <ul style="list-style-type: none"> <li>○ Fever</li> <li>○ Leukocytosis</li> <li>○ Acute change in mental status</li> <li>○ Acute functional decline</li> </ul> </li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• More than 1 resident with streptococcal skin infection from the same serogroup (e.g. A, B, C G) may indicate an outbreak</li> <li>• Positive superficial wound swab culture is not sufficient evidence to establish a wound infection</li> </ul>



# Case 3 Discussion

Ms. Jackson is a 58 year old female with a h/o poorly controlled DM, peripheral arterial disease, HTN who was admitted last week after a 3 week hospital stay for gangrene requiring a right BKA due to poorly healing foot ulcer. Today on rounds, the left foot is assessed due to an “odor” and she is found to have a pressure injury with erythema. She overall feels well. Denies fever, no change in mental status.

Vitals: Temp 98, HR 90, BP 156/90, RR 16, O2 98% on RA.

**What would you do next?**

# Open Forum Discussion



# Open Forum Discussion



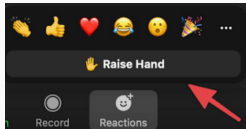
Turn on your video - we'd love to see you!



Unmute to contribute a question or comments



Use the **Chat box** to type in questions or comments



Or **Raise Your Hand** in Reactions, or in Participants or use Option+Y (mac) or Alt+Y (pc)

# Open Forum Discussion

## Waterfall Chat

*Instructions: Type in your answer and wait for the countdown to push enter.*

**As the U.S. Public Health Emergency measures have expired over time what has been the most confusing or impactful regulatory measure change?**

5, 4, 3, 2, 1... press Enter!



# Thank you for joining the Network!

**Next Newsletter** - coming to you early June.

**Next Monthly Forum** - Wednesday, June 21, 4-5 pm

**Calendar Reminder** - Scroll down in your Zoom registration confirmation email for a calendar link you can use to update your calendar automatically with your Zoom link for future meetings.

**On your way out** of Zoom, kindly answer a brief feedback survey.

**Stay in touch!** Email questions and suggestions to [ltccn@vcu.edu](mailto:ltccn@vcu.edu)

**Invite your colleagues** to register at [ltccn.vcu.edu](https://ltccn.vcu.edu)

# Resources

[Core Elements of Antibiotic Stewardship | Antibiotic Use | CDC](https://www.cdc.gov/antibiotic-use/core-elements/index.html)

<https://www.cdc.gov/antibiotic-use/core-elements/index.html>

[Core Elements of Antibiotic Stewardship for Nursing Homes | LTCF | CDC](https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html)

<https://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>

[Be Antibiotics Aware: Smart Use, Best Care | Patient Safety | CDC](https://www.cdc.gov/patientsafety/features/be-antibiotics-aware.html)

<https://www.cdc.gov/patientsafety/features/be-antibiotics-aware.html>

[Do One Thing Differently | HQIN](https://hqin.org/resource/do-one-thing-differently-targeting-antimicrobial-stewardship-iv-to-po-protocol)

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