



Health Quality Innovation Network

Prepare, Prevent, Protect  
4/18/2023

# Antibiotic Stewardship

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# Disclosure of Conflict(s) of Interest

Mary Locklin, MSN, RN, CIC, has no relevant financial relationships or relationships with ineligible companies of any amount during the past 24 months.

Deb Smith, MLT, BSN, CIC, CPHQ, has no relevant financial relationships or relationships with ineligible companies of any amount during the past 24 months.

# Prepare, Prevent, Protect

These brief learning opportunities will introduce essential infection prevention concepts and allow for recipients to connect directly to a certified infection preventionist for support.



## **Series Goals and Learning Objectives:**

- Introduce and tutor audience in creation and implementation of infection prevention components essential to a robust infection prevention program
- Collaborate with nursing home staff with an infection prevention role/duties to bolster the facility's infection prevention program

# Your Team



**Mary Locklin**  
**MSN, RN, CIC**  
Senior Quality Improvement  
Advisor – Infection Prevention

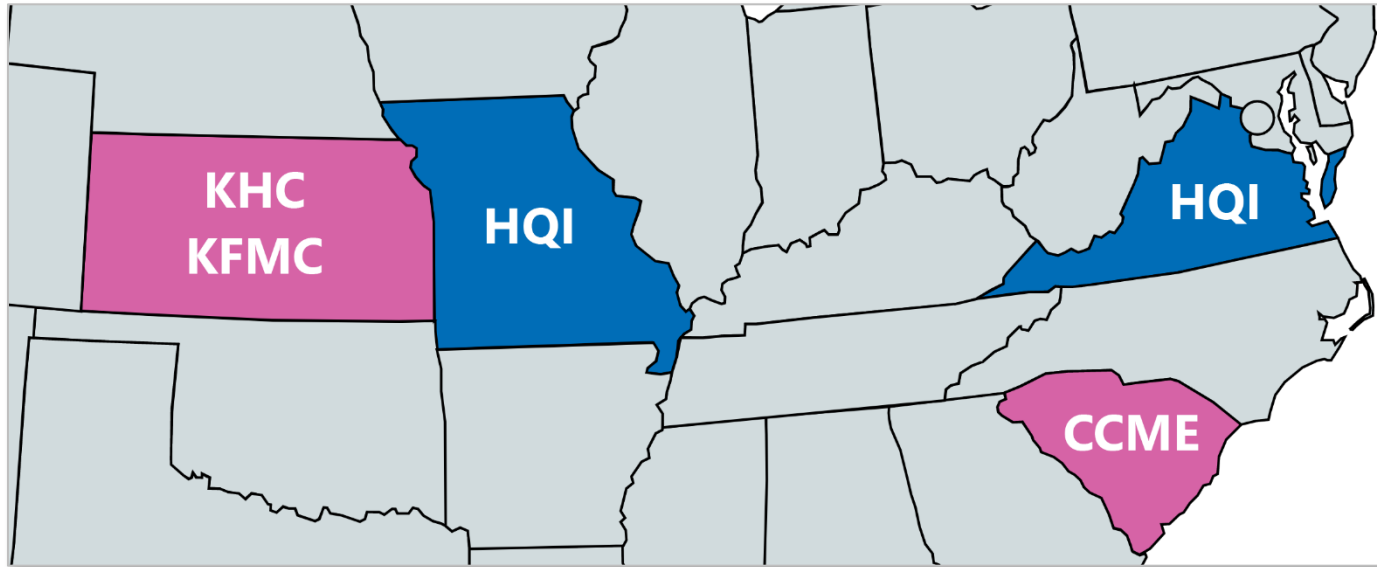


**Deb Smith**  
**MLT, BSN, CIC, CPHQ**  
Consulting Manager

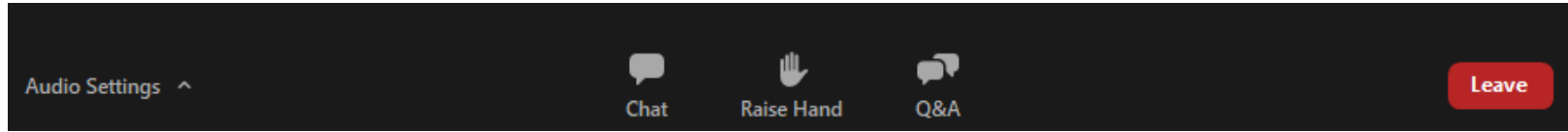


**April Faulkner**  
Communications  
Specialist

# Health Quality Innovation Network



# Logistics – Zoom Webinar



To ask a question, click on the **Q&A** icon.

**Raise your hand** if you want to verbally ask a question.

Resources from today's session will be posted in **Chat**.

You may adjust your audio by clicking **Audio Settings**.

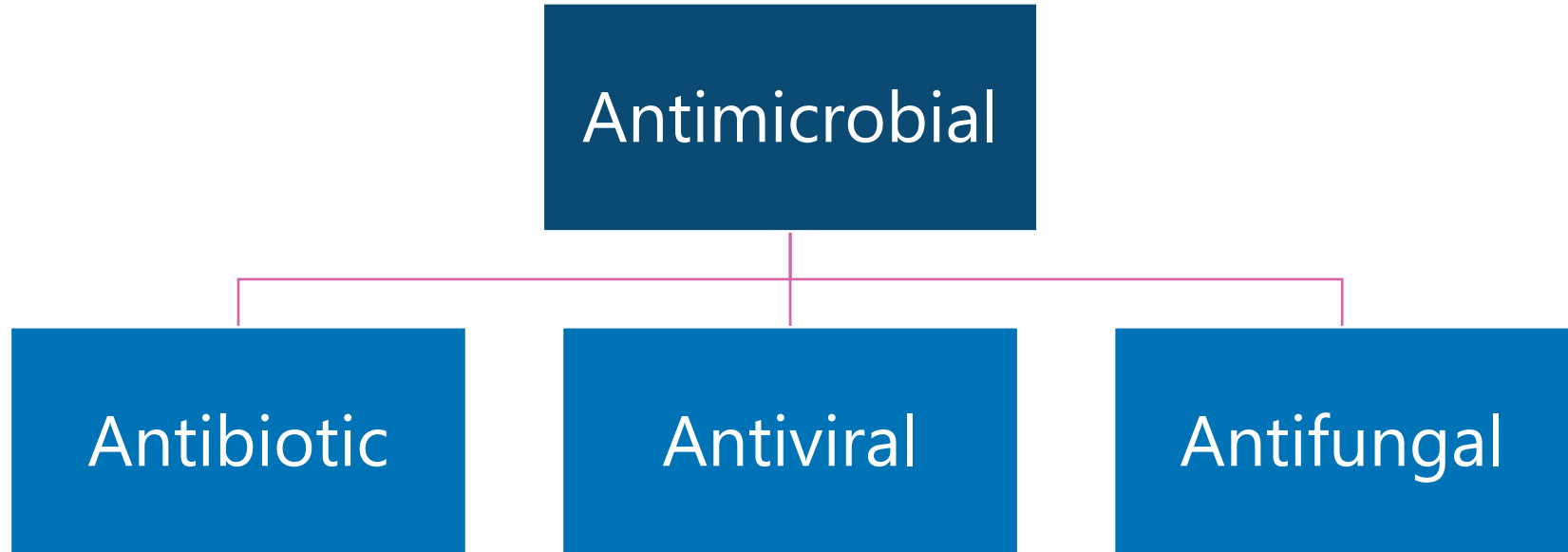
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# Objectives

- Discuss antimicrobial stewardship programs (ASPs)
- List the CDC antimicrobial stewardship core elements for LTC
- Present activities ASPs can engage in
- Build an antimicrobial stewardship team
- Recognize available resources for LTC ASPs



# Antimicrobial or Antibiotic?





# Antimicrobial Use in Long Term Care

- Approximately 8-15% of residents are on antibiotics on a given day
  - 70% of residents receive antibiotics yearly
- Over half of residents will likely receive a course of systemic antibiotics during a year
- Anywhere from 40 -75% of systemic antimicrobials are used inappropriately
- Harm from antibiotic overuse includes:
  - Side effects, drug interactions, adverse effects
  - *C. difficile*
  - Driver of antibiotic resistance



## Antimicrobial Stewardship:

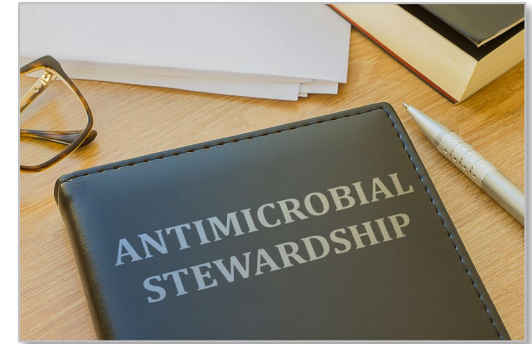
A coordinated program that promotes the appropriate use of antimicrobials (including antibiotics), improves patient outcomes, reduces microbial resistance, and decreases the spread of infections caused by multidrug-resistant organisms.

Choosing the **RIGHT drug**, for the **RIGHT duration**, by the **RIGHT route**, for the **RIGHT reason** resulting in a reduction in patient harm and cost of care



# Antimicrobial Stewardship Programs

- **Goal:** Optimize the treatment of infections while reducing the adverse events associated with antibiotic use
- Antimicrobial stewardship in long term care settings has been shown to:
  - Decrease overall antimicrobial use
  - Decrease incidence of *C. difficile*
  - Decrease prevalence of several MDROs
  - Increase adherence to guidelines
  - Increase appropriate antibiotic prescribing



# Requirements for LTC Facilities

- Stewardship component required as of November 2017
- Intent of the Antimicrobial Stewardship Regulation is to ensure that the facility:
  - Develops and implements protocols to optimize the treatment of infections
  - Reduces the risk of adverse events, including the development of antibiotic-resistant organisms, from unnecessary or inappropriate antibiotic use
  - Develops, promotes and implements a facility-wide system to monitor the use of antibiotics

# CDC Core Elements for LTC

1. Leadership commitment
2. Accountability
3. Drug expertise
4. Action
5. Tracking
6. Reporting
7. Education



# Leadership Commitment

Demonstrate support and commitment to safe and appropriate antibiotic use in your facility

- Written statement of leadership support to improve antibiotic use that is shared with staff, residents and families
- Antibiotic stewardship duties included in position descriptions for medical director, pharmacists and nursing leadership
- Leadership monitors whether antibiotic stewardship policies are followed
- Communicate ASP expectations and create a culture of promotion and celebration of improvement in antimicrobial stewardship

# Accountability

Identify physician, nursing and pharmacy leads responsible for promoting and overseeing ASP activities in your facility:

- Medical director
- Director of nursing
- Consultant pharmacist
- Infection preventionist
- Consultant laboratory
- State and local health departments



# Drug Expertise

Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility

- Reduce antibiotic use
- Lower rate of positive *C. difficile*

Develop and foster relationships with:

- Consultant pharmacy staff is trained/ experienced in antibiotic stewardship
- Stewardship team at referral hospital
- External infectious diseases/stewardship consultant





# Action Interventions

Implement at least one intervention, policy or practice to improve antibiotic use, using a step-wise process to assist staff in adopting new practices

- Document a dose, duration and indication for all antibiotic prescriptions
- Develop facility-specific algorithm for assessing residents
- Develop facility-specific algorithms for appropriate diagnostic testing for specific infections
- Develop facility-specific treatment recommendations for infections
- Review antibiotic agents listed on the medication formulary
- Utilize a standard assessment and communication tool for residents suspected of having an infection
- Implement a process for communicating or receiving antibiotic use information when residents are transferred to/from facilities
- Develop reports summarizing the antibiotic susceptibility patterns (e.g., antibiogram)
- Implement an antibiotic review process/"antibiotic time out"
- Implement an infection-specific intervention to improve antibiotic use

# Tracking Antibiotic Use

Monitor at least one process measure of antibiotic use and at least one outcome from antibiotic use in your facility:

- Adherence to clinical assessment documentation
- Adherence to prescribing documentation (dose, duration, indication)
- Adherence to facility-specific treatment recommendations
- Performs point prevalence surveys of antibiotic use
- Monitors rates of new antibiotic starts/1,000 resident-days
- Monitors antibiotic days of therapy/1,000 resident-days

# Reporting Antibiotic Use

Provide regular feedback on antibiotic use and resistance to prescribing clinicians, nursing staff and other relevant staff

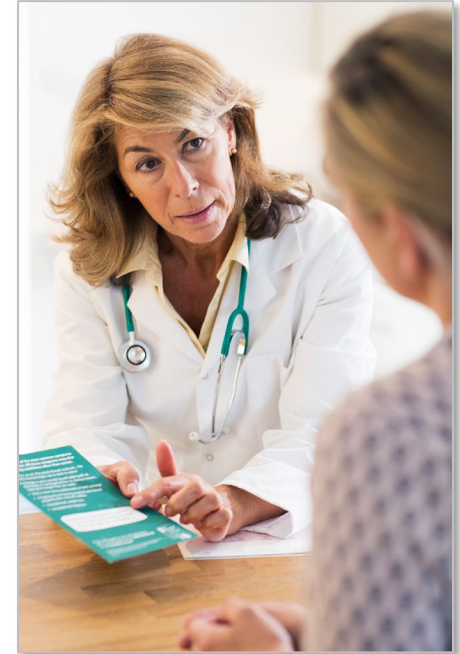
- Measures of antibiotic use at the facility
- Measures of outcomes related to antibiotic use
- Report of facility antibiotic susceptibility patterns (e.g., antibiogram)
- Personalized feedback on antibiotic prescribing practices



# Education

Provide resources to clinicians, nursing staff, residents and families about antibiotic resistance and opportunities for improving antibiotic use

- Education to residents and families
- Education to staff upon hire and annually thereafter



# CDC Core Element Checklist

- Assessment for stewardship programs in infancy
  - Goal is to meet one criteria from each of the 7 CDC Core Elements
- Assessment for improving a stewardship program
  - Goal is to continue to improve and add new initiatives
  - Determine local prescribing patterns; use metrics to determine where improvements should take place
- Implement one change at a time



# Building Your ASP TEAM

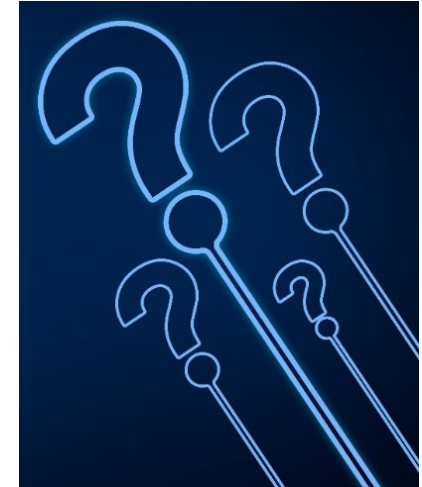
- Leadership champion for support
- Infectious disease physician
- Hospitalist
- Pharmacist
- Infection preventionist
- Nursing
- Laboratory: microbiology
- Information technology



# Polling Question

Who is on your facility's antimicrobial stewardship team or committee? *(Select all that apply)*

- Leadership champion for support
- Infectious disease physician
- Hospitalist
- Pharmacist
- Infection preventionist
- Nursing
- Laboratory: microbiology
- Information technology
- Other – write in Chat



# Simple Strategies

## Simple Strategies for Targeting Antimicrobial Stewardship Interventions

### Think About It!

Each year, more than 700,000 individuals die due to antimicrobial resistance (AMR). The Centers for Disease Control and Prevention (CDC) data states more than half of antibiotic prescribing for selected events in hospitals was not consistent with recommended prescribing practices.

### Take Action!

Multiple departments and programs are responsible for appropriate antibiotic use. Make sure your antimicrobial stewardship program consists of a multidisciplinary team with representation from departments across the organization that can provide guidance, support, and oversight for the program's activities.

### Leadership:

- Demonstrate the hospital leadership's commitment to antibiotic stewardship as a patient safety priority
- Dedicate the resources necessary to support the antibiotic stewardship program
- Provide prescriber education support and assistance
- Provide computer assisted decision support
- Identify and appoint qualified individuals to lead (or co-lead) the antibiotic stewardship program
- Ensure that those responsible for the program have the necessary expertise to implement hospital-wide strategies and practices to improve the use of antibiotics

### Pharmacist:

*Five Ways Hospital Pharmacists Can Be Antibiotics Aware*

- Verify penicillin allergy
- Avoid duplicative anaerobic coverage
- Reassess antibiotic therapy
- Avoid treatment of asymptomatic bacteriuria
- Use the shortest effective antibiotic duration

### Nursing:

*Toolkit to Enhance Nursing and Antibiotic Stewardship Partnership*

- Engage front-line nurses in antibiotic stewardship
- Obtain leadership support to implement nurse-driven antibiotic stewardship activities
- Implement a nurse-driven diagnostic stewardship intervention to improve urine and respiratory culturing practices and a penicillin allergy algorithm to improve penicillin allergy documentation



## Simple Strategies for Targeting Antimicrobial Stewardship Interventions

Use this Simple Strategies to find tips and resources and to guide your stewardship program development and the role each discipline plays in improving antibiotic use to help fight antibiotic resistance.

### Physician:

*National Quality, Partners' Playbook™, Antibiotic Stewardship in Acute Care*

- Assess all patients for antibiotic appropriateness: [Gen-Assessment.docx](#)
- Formulary restriction and pre-authorization
- Prospective audit with intervention and feedback
- Order sets, treatment algorithms and clinical guidelines
- Antibiotic streamlining or de-escalation
- Pharmacokinetic and pharmacokinetic dose optimization
- Intravenous to oral switch programs
- Antimicrobial cycling
- Taking advantage of rapid diagnostic tests
- Offering advice on surgical prophylaxis

### Additional Resources:

- [R3 Report - Requirement, Rationale, Reference](#)
- [Antimicrobial Stewardship Centers of Excellence](#)
- [Implementation Resources for Hospitals - Antibiotic Use](#)
- [Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America](#)



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## Simple Strategies for Targeting Antimicrobial Interventions | HQIN



# Resources

- Advisory Committee on Immunization Practices (ACIP)
- Agency for Healthcare Research and Quality (AHRQ)
- Association for Professionals in Infection Control and Epidemiology (APIC)
- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare & Medicaid Services (CMS)
- Infectious Diseases Society of America (IDSA)
- Institute for Healthcare Improvement (IHI)
- National Association for Healthcare Quality (NAHQ)
- Occupational Safety and Health Administration (OSHA)
- The Society for Healthcare Epidemiology of America (SHEA)
- U.S. Food & Drug Administration (FDA)



# Resources

- [SPICE LTC Infection Prevention Risk Assessment - Statewide Program for Infection Control & Epidemiology | UNC](#)
- [Risk Assessment for Infection Surveillance, Prevention and Control Programs in Ambulatory Healthcare Settings](#)
- [IPC Risk Assessment Spreadsheet](#)
- [Inter-Facility Infection Control Transfer Form for States Establishing HAI Prevention Collaboratives | CDC](#)
- [Incorporating Infection Prevention and Control into an Emergency Preparedness Plan | AHRQ](#)
- [Long Term Care Requirements CMS Emergency Preparedness Final Rule](#)
- [State Operations Manual Appendix PP - Guidance to Surveyors for Long Term Care Facilities- November 22, 2017 | CMS](#)



# Resources

- [APIC Toolkit for Rural and Isolated Settings](#)
- [State Operations Manual Appendix Z - Emergency Preparedness for All Provider and Certified Supplier Types Interpretive Guidance | CMS](#)
- [Emergency Preparedness Exercises | FEMA](#)
- [Sample Policy for Emergent Infectious Diseases for Skilled Nursing Care Centers | AHCA NCAL](#)
- [Disaster Preparedness Plan Template for use in Long Term Care Facilities | ASPR TRACIE](#)
- [Infection Prevention Annual Risk Assessment Email Template | HQIN](#)
- [Safe Linen and Laundry Management Audit Tool | HQIN](#)
- [Safe Linen/Laundry Management IPC Action Plan Template | HQIN](#)
- [Infection Prevention Plan FY2022 | UNC Medical Center](#)



# Resources

- [Forms & Checklists for Infection Prevention | APIC](#)
- [Nursing Homes and Assisted Living Infection Prevention Training | CDC](#)
- [Infection Prevention and Control Program Sample Policy](#)
- [Hand Hygiene Action Plan Template | HQIN](#)
- [Staff Infection Exposure Prevention Action Plan Template | HQIN](#)
- [Isolation Precautions Action Plan Template | HQIN](#)
- [Environmental Hygiene Action Plan Template | HQIN](#)
- [Competency-Based Training 102 | CDC](#)
- [Break the Chain of Infection with Better Hand Hygiene | HQIN](#)
- [Hand Hygiene Module 1 | HQIN](#)
- [Hand Hygiene Competency Validation | HQIN](#)
- [Hand Hygiene Competency Tracking Tool | HQIN](#)



# Resources

- [Environmental Cleaning Procedures | Environmental Cleaning in RLS | CDC](#)
- [Infection Control Risk Assessment Matrix of Precautions for Construction & Renovation | APIC](#)
- [Sharps Disposal Containers | FDA](#)
- [Environmental Rounding Tool | ASHE](#)
- [Environmental Rounds Worksheet for Infection Prevention](#)
- [Occupational Safety and Health | Workplace Health Resources | Tools and Resources | Workplace Health Promotion | CDC](#)
- [Training Requirements in OSHA Standards Healthcare | OSHA](#)
- [Safe Patient Handling Training for Schools of Nursing | NIOSH | CDC](#)
- [Hierarchy of Controls | NIOSH | CDC](#)
- [Recommended Vaccines for Healthcare Workers | CDC](#)

# Resources

- [Infection Prevention Training | LTCF | CDC](#)
- [Project Firstline Infection Control Training | CDC](#)
- [Project Firstline Roadmap | Virginia Department of Health](#)
- [Pause for Prevention Program | HQIN](#)
- [Tune in to Safe Healthcare: A CDC Webinar Series | Training & Education | Infection Control](#)
- [Long-Term Care | AHRQ](#)
- [Long-Term Care | APIC](#)
- [Long-Term Care Infection Preventionist Essentials | APIC](#)
- [Nursing Home Infection Preventionist Training Course | CDC TRAIN](#)

# Contact Hours Certificate

- Complete the attestation form at <https://go2certificate.com> to receive the contact hours you deserve. This activity awards 0.5 contact hours for nurses. A general certificate of participation is also available.
- If you receive an error when you click the link, copy and paste the URL into your browser. Chrome is recommended for an optimal portal experience.
  - Enter Access Code: **2990-AS**
  - Enter your email address
  - Click the Confirm button
- If you are a returning user of Go2Certificate, the system will alert you to this fact and request that you enter your password.
- If you are a first-time visitor to Go2Certificate, complete the demographic information, set-up a password and click the Submit button.
- Select the Activity you attended by clicking the box to the left of the activity title. There is only one activity assigned to this access code.
- Click the Continue button.
- Complete the Activity Evaluation by using the Next buttons. Your input is invaluable. At the end of the evaluation, please click the Submit button.
- Please confirm how you would like your name to appear on the certificate.
- Select the box requesting the accreditation you wish to earn. Multiple selections are acceptable. Click the Confirm button.

**The portal will expire  
on May 18, 2023, at  
11:59 p.m. ET.**

In future visits, the system automatically recognizes your account based on your email address. It will ask you to enter your own created password after you have entered the Access Code and your email address.

# FOR MORE INFORMATION

Call 877.731.4746 or visit [www.hqin.org](http://www.hqin.org)

[LTC@hqi.solutions](mailto:LTC@hqi.solutions)

**\*Next Session: 5/16/23 @ 2 p.m. EST**

QAPI, Committees (Quality Assurance)

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From HQIN:

To all essential care giving teams  
supporting residents and families,

*Thank you for attending*