



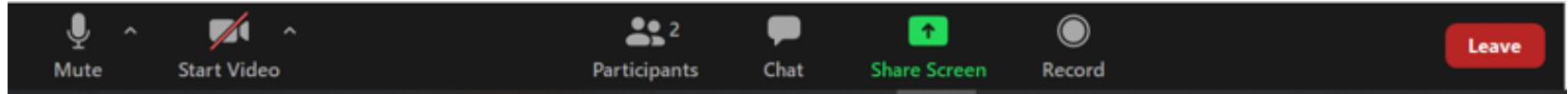


Health Quality Innovation Network

# HQIC Office Hours

February 9, 2023

# Logistics – Zoom Meeting



To ask questions, click on the **Chat** icon. At the end of the presentation, you will also be able to unmute to ask a question verbally.

You may adjust your audio by clicking the caret next to the **Mute** icon.

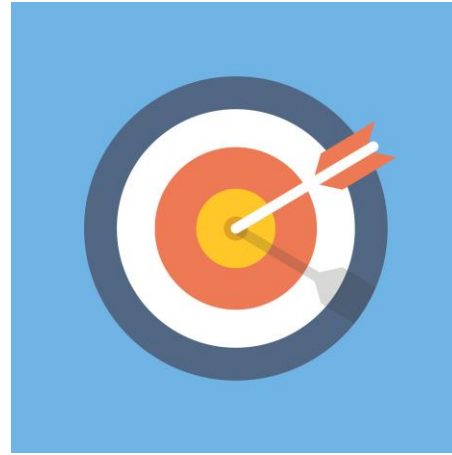
Resources from today's session will be shared after the call.

# Health Quality Innovation Network

## Today's Presenter



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



# Target Your Approach to Antimicrobial Stewardship

# Agenda

**1**

**Explain Antimicrobial vs Antibiotic Stewardship**

**2**

**Review CDC Core Elements of ASP**

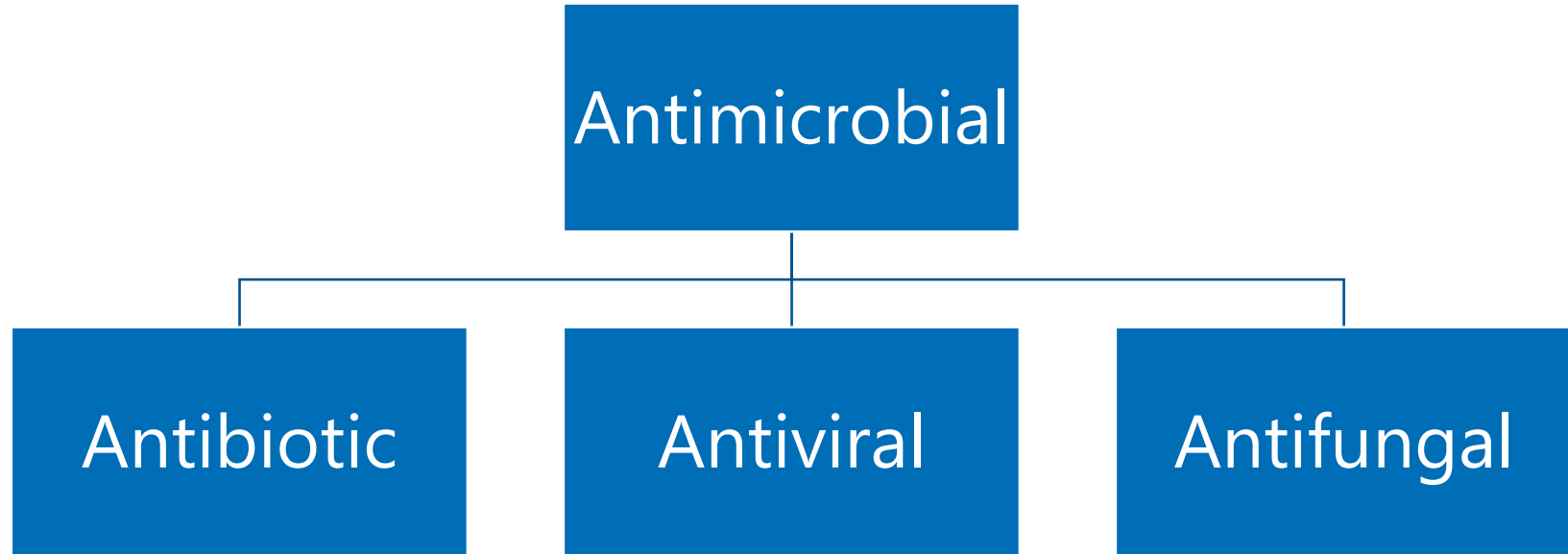
**3**

**Present the HQIC NHSN ASP Annual survey analysis**

**4**

**Propose a few targeted AS Interventions to improve your ASP**

# Antimicrobial or Antibiotic



# Antimicrobial Stewardship

## **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





*Implementation of Antibiotic Stewardship Core Elements of Small and Critical Access Hospitals*

Supplemental Guidance

*Priorities for Hospital Core Element Implementation*

Supplemental Guidance

2014

2017








2019

2022

*Core Elements of Hospital Antibiotic Stewardship Programs*

*Core Elements of Hospital Antibiotic Stewardship Programs*

Update

Hospital Core Elements	Priorities for Hospital Core Element Implementation
<b>Hospital Leadership Commitment</b>	
 <p>Dedicate necessary human, financial, and information technology resources.</p>	Antibiotic stewardship physician and/or pharmacist leader(s) have antibiotic stewardship responsibilities in their contract, job description, or performance review.
<b>Accountability</b>	
 <p>Appoint a leader or co-leaders, such as a physician and pharmacist, responsible for program management and outcomes.</p>	Antibiotic stewardship program is co-led by a physician and pharmacist.*
<b>Pharmacy/Stewardship Expertise</b>	
 <p>Appoint a pharmacist, ideally as the co-leader of the stewardship program, to help lead implementation efforts to improve antibiotic use.</p>	Antibiotic stewardship physician and/or pharmacist leader(s) have completed infectious diseases specialty training, a certificate program, or other training on antibiotic stewardship.
<b>Action</b>	
 <p>Implement interventions, such as prospective audit and feedback or preauthorization, to improve antibiotic use.</p>	Antibiotic stewardship program has facility-specific treatment recommendations for common clinical condition(s) and performs prospective audit/feedback or preauthorization.
<b>Tracking</b>	
 <p>Monitor antibiotic prescribing, impact of interventions, and other important outcomes, like <i>C. difficile</i> infections and resistance patterns.</p>	Hospital submits antibiotic use data to the NHSN Antimicrobial Use Option.
<b>Reporting</b>	
 <p>Regularly report information on antibiotic use and resistance to prescribers, pharmacists, nurses, and hospital leadership.</p>	Antibiotic use reports are provided at least annually to target feedback to prescribers. In addition, the antibiotic stewardship program monitors adherence to facility-specific treatment recommendations for at least one common clinical condition.
<b>Education</b>	
 <p>Educate prescribers, pharmacists, nurses, and patients about adverse reactions from antibiotics, antibiotic resistance, and optimal prescribing.</p>	No implementation priority identified.

# HQIN Best Practices Pocket Cards

ANTIMICROBIAL STEWARDSHIP PROGRAM (ASP)

## The misuse or overuse of antibiotics remains a global public health concern

In health care, antibiotics are one of our most powerful drugs for fighting life-threatening bacterial infections.

An Antimicrobial Stewardship Program (ASP) is a coordinated program that promotes appropriate use of antimicrobials. This includes antifungals, antivirals, and antibiotics. An effective ASP will measure, evaluate, and improve how antibiotics are prescribed by clinicians and used by patients to treat infections, protect patients from harm caused by inappropriate use, and combat antibiotic resistance.

The result of a successful ASP is improved patient outcomes, reduced microbial resistance and decreased spread of infections caused by multidrug-resistant organisms.

The ASP is designed to ensure use of the right antibiotic, at the right dose, for the right duration, and reduce unnecessary antibiotic use.

Follow evidenced-based guidelines for your ASP.

Antibiotic Use  
Core Elements |  
CDC.gov



Four Moments of  
Antibiotic Decision  
Making | AHRQ.gov



This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 1250W/HQI/QIN-QIO-9403-01/10/23

## Antimicrobial Stewardship Program Pocket Card (hqin.org)

ANTIMICROBIAL STEWARDSHIP PROGRAM (ASP)

Core Elements of ASP	
Core Elements	Implementation Priorities
<b>LEADERSHIP</b>	
Dedicate necessary human, financial, and information technology resources	ASP prescriber and/or pharmacist leader(s) have antibiotic stewardship responsibilities in contract, job description, or performance review
<b>ACCOUNTABILITY</b>	
Appoint a leader or co-leaders, such as a prescriber and pharmacist, responsible for ASP management and outcomes	ASP is co-led by a prescriber and pharmacist
<b>PHARMACY/STEWARDSHIP EXPERTISE</b>	
Appoint a pharmacist, as the co-leader of the ASP, to help lead implementation efforts to improve antibiotic use	ASP prescriber and/or pharmacist leader(s) have completed specialty training, or other training on antimicrobial stewardship
<b>ACTION</b>	
Implement interventions, such as prospective audit and feedback or preauthorization, to improve antibiotic use	ASP has facility-specific treatment recommendations for common clinical condition(s) and performs prospective audit/feedback or preauthorization
<b>TRACKING</b>	
Monitor antibiotic prescribing, impact of interventions, and other important outcomes, like C. difficile infections and resistance patterns	Facility submits antibiotic use data to the <i>NHSN Antimicrobial Use Option</i>
<b>REPORTING</b>	
Regularly report information on antibiotic use and resistance to prescribers, pharmacists, nurses, and facility	Antibiotic use reports are provided at least annually to target feedback to prescribers. In addition, the ASP monitors adherence to facility-specific treatment recommendations for at least one common clinical condition
<b>EDUCATION</b>	
Educate prescribers, pharmacists, nurses, and patients about adverse reactions from antibiotics, antibiotic resistance, and optimal prescribing	No implementation priority identified

 **Quality Improvement Organizations**  
Sharing Knowledge. Improving Health Care.  
CENTERS FOR MEDICARE & MEDICAID SERVICES

 **HQIN**  
Health Quality Innovation Network

# NHSN Annual Facility Survey



Form Approved  
OMB No. 0920-0666  
Exp. Date: 12/31/23  
www.cdc.gov/nhsn

## Patient Safety Component—Annual Hospital Survey

Instructions for this form are available at: [http://www.cdc.gov/nhsn/forms/instr/57\\_103-TOI.pdf](http://www.cdc.gov/nhsn/forms/instr/57_103-TOI.pdf)

\*required for saving Tracking #:  
Facility ID: \*Survey Year:

**Facility Characteristics (completed by Infection Preventionist)**

\*Ownership (check one):

For profit  Not for profit, including church  Government  
 Military  Veterans Affairs  Physician owned

**If facility is a Hospital:**

\*Number of patient days: \_\_\_\_\_  
\*Number of admissions: \_\_\_\_\_

**For any Hospital:**

\*Is your hospital a teaching hospital for physicians and/or physicians-in-training or nursing students?  Yes  No  
If Yes, what type:  Major  Graduate  Undergraduate

\*Number of beds set up and staffed in the following location types (as defined by NHSN):

a. ICU (including adult, pediatric, and neonatal levels I/II, III, or higher): \_\_\_\_\_  
b. All other inpatient locations: \_\_\_\_\_

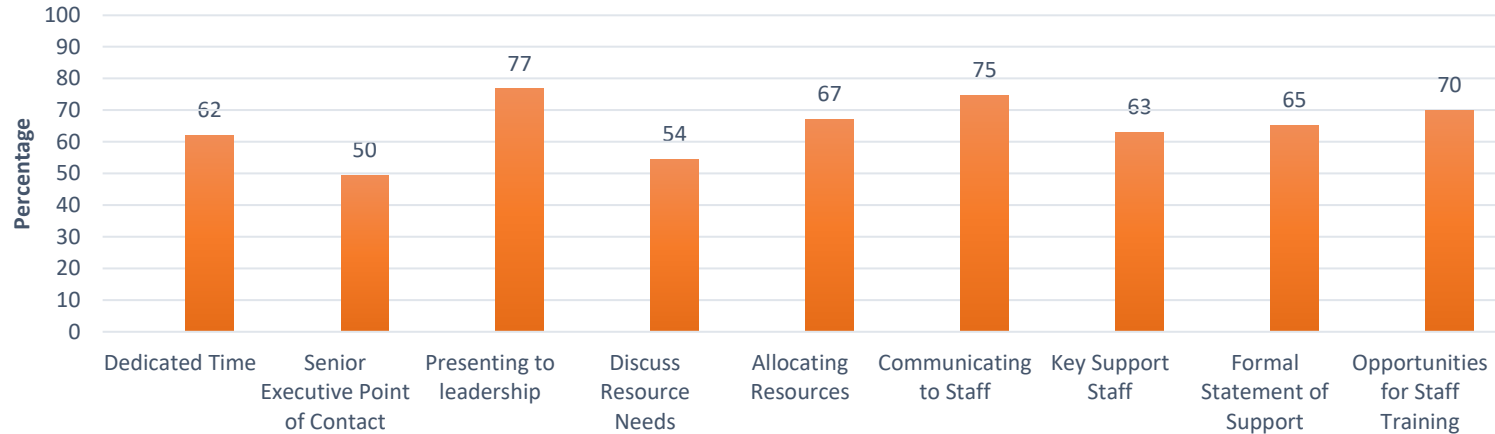
- Facility Characteristics
- Microbiology Laboratory Practices
- Infection Control Practices
- Neonatal or Newborn Practices
- Antibiotic Stewardship Practices
- Sepsis Management Practices
- Facility Water Management Program

[2022 Patient Safety Annual Hospital Survey TOI \(cdc.gov\)](https://www.cdc.gov/nhsn/2022-patient-safety-annual-hospital-survey-toi)

[2022 Patient Safety Annual Hospital Survey Form \(cdc.gov\)](https://www.cdc.gov/nhsn/2022-patient-safety-annual-hospital-survey-form)

# Facility Leadership Commitment Efforts

Percentage of Hospitals Engaged in Specific Facility Leadership Efforts  
(n=103)



# Leadership ASP activities



Show  
Commitment  
and  
Accountability  
for ASP



Serve as an  
ASP Leadership  
Champion



Support an ASP  
program with a  
leadership  
statement



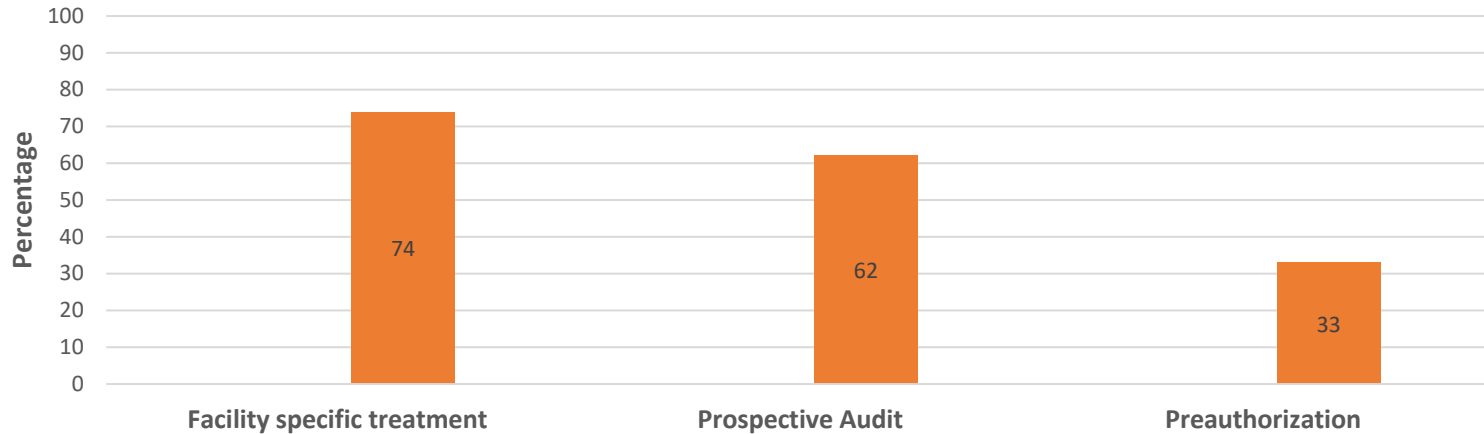
Provide  
financial and  
workforce  
support for an  
ASP



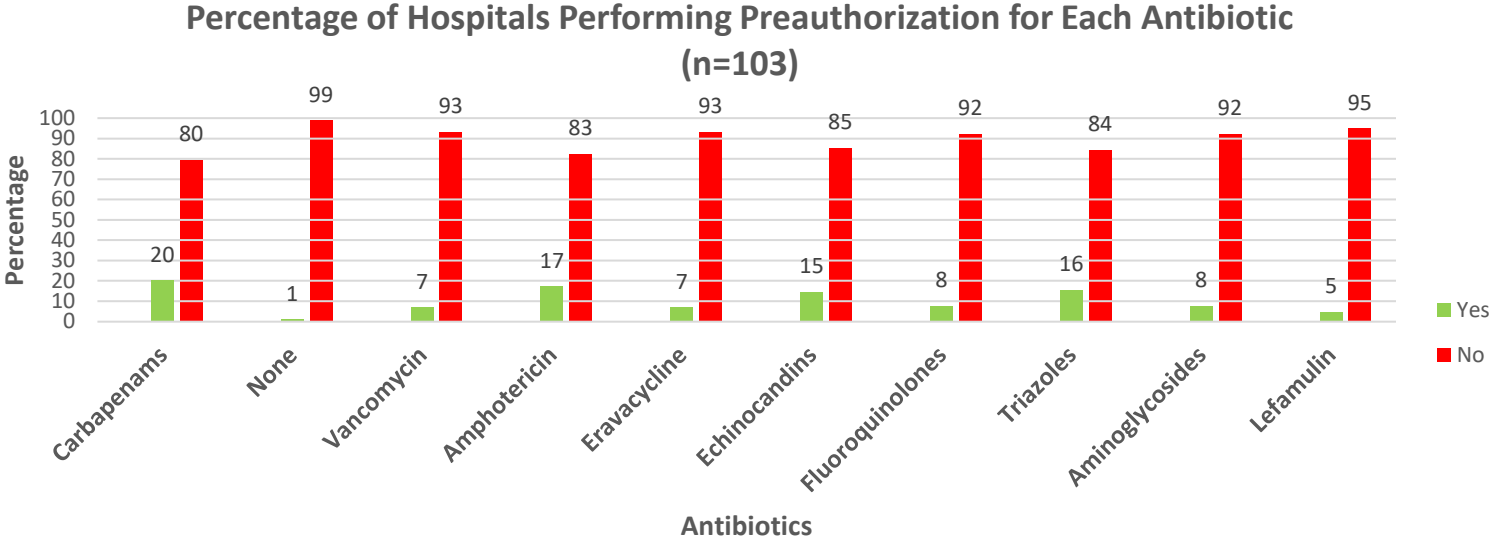
Provide ASP  
training for  
physicians,  
Pharmacist and  
clinical staff

# Priority Stewardship Activities

Percentage of Hospitals who Opted into Each Priority Stewardship Intervention (n=103)



# Preauthorization for Each Antibiotic





# Preauthorization

Restricted  
Antimicrobial  
ordered

Clinicians obtain  
approvals for its use  
by the designated  
approving person

Restricted  
antimicrobial use  
deemed appropriate  
or recommendation  
for alternative given

# Preauthorization, cont.

## Rational for Implementation

**Provides direct control over the use of targeted antimicrobials to deal with drug shortages**

**Allows for optimization of empiric antimicrobial use**

**Communication between front-line clinicians and those granting approval for personalized education**

**The regular engagement of prescribing clinicians raises the profile of the ASP builds relationships**

# Preauthorization, cont.

## Positive outcomes

**Decreased antibiotic utilization and cost of targeted drugs**

**Increased appropriate antibiotic utilization**

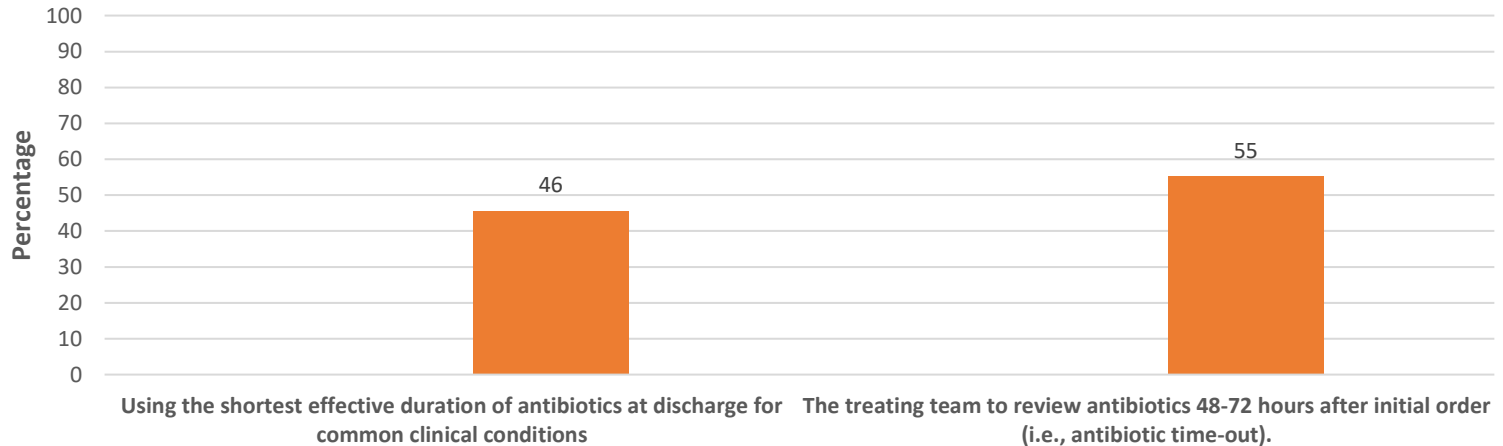
**Reduced adverse effects associated with antibiotics e.g. *C.difficile* infections**

**Reduced dosing errors**

**Improved patient outcomes**

# Types of Policies or Formal Procedures for the Optimal Use of Antibiotics

Percentage of Hospitals with a Policy or Formal Procedure to Ensure Optimal Use of Antibiotics (n=103)



# Duration of Therapy

- ✓ Confirm that there is a documented planned duration of therapy in the patient's medical record
- ✓ Review the recommended duration of therapy for the specific disease process
- ✓ Use the shortest duration of therapy that is therapeutic

Disease Process	Duration of Therapy
Uncomplicated cystitis	3-5 days, depending on antibiotic
Complicated cystitis	7-14 days, depending on response
Lower respiratory tract infection	5-7 days
Skin and soft tissue infections	5 days

[Four Moments of Antibiotic Decision Making Form \(ahrq.gov\)](http://ahrq.gov)

# Antibiotic Time Out (48-72 hour review)

**AHRQ Safety Program for Improving Antibiotic Use**

**Antibiotic Time Out Tool**

Date: \_\_\_\_\_ Patient Name or Identifier: \_\_\_\_\_

Directions: This form should be completed by frontline clinicians on a daily basis for patients receiving antibiotics.

Note: A table of commonly recommended durations of therapy can be found on the back of the document.

Antibiotic 1: \_\_\_\_\_ Treatment day #: \_\_\_\_\_  
Antibiotic 2: \_\_\_\_\_ Treatment day #: \_\_\_\_\_  
Antibiotic 3: \_\_\_\_\_ Treatment day #: \_\_\_\_\_

Check the patient's indication(s) for continuing antibiotics below:

<input type="checkbox"/> Prophylaxis	<input type="checkbox"/> Hospital-acquired pneumonia	<input type="checkbox"/> Urinary tract infection (UTI)
<input type="checkbox"/> Central nervous system infection	<input type="checkbox"/> Ventilator-associated pneumonia	<input type="checkbox"/> Osteoarticular infection
<input type="checkbox"/> Head and neck infection	<input type="checkbox"/> Clostridioides difficile infection	<input type="checkbox"/> Skin/soft tissue infection
<input type="checkbox"/> Endovascular infection/endocarditis	<input type="checkbox"/> Biliary tract infection	<input type="checkbox"/> Sepsis, unknown source
<input type="checkbox"/> Community-acquired pneumonia	<input type="checkbox"/> Diverticulitis	<input type="checkbox"/> Bacteremia
<input type="checkbox"/> Intra-abdominal infection	<input type="checkbox"/> Other:	

Is the patient receiving antibiotics for any of the following conditions even though antibiotics are NOT typically recommended?



<input type="checkbox"/> Positive urine culture without symptoms of a UTI (Exceptions: pregnancy or impending urologic surgery where mucosal bleeding is expected)
<input type="checkbox"/> Enterococcus in sputum
<input type="checkbox"/> Coagulase-negative staphylococci in a single blood culture
<input type="checkbox"/> Candida in sputum or urine
<input type="checkbox"/> Surgical prophylaxis beyond 24 hours
<input type="checkbox"/> Noninfectious etiology of symptoms

Answer Yes or No questions below based on patient's clinical status and culture results.

Can any of the antibiotics be discontinued?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Can existing therapy be changed to a more narrow spectrum regimen?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Should additional agents or broader-spectrum agents be added?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are there any IV agents that can be changed to the PO route?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are the antibiotics selected consistent with local guidelines?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

What is the planned duration of antibiotic therapy?

Antibiotic 1: _____	Planned duration: _____	Consistent with recommended duration? <input type="checkbox"/> Yes <input type="checkbox"/> No
Antibiotic 2: _____	Planned duration: _____	Consistent with recommended duration? <input type="checkbox"/> Yes <input type="checkbox"/> No
Antibiotic 3: _____	Planned duration: _____	Consistent with recommended duration? <input type="checkbox"/> Yes <input type="checkbox"/> No

Do we still think the patient has an infection?

If an infection is confirmed, can we de-escalate antibiotics?

Can the patient be switched to oral antibiotic if on IV?

What is the shortest duration needed with start/stop dates?

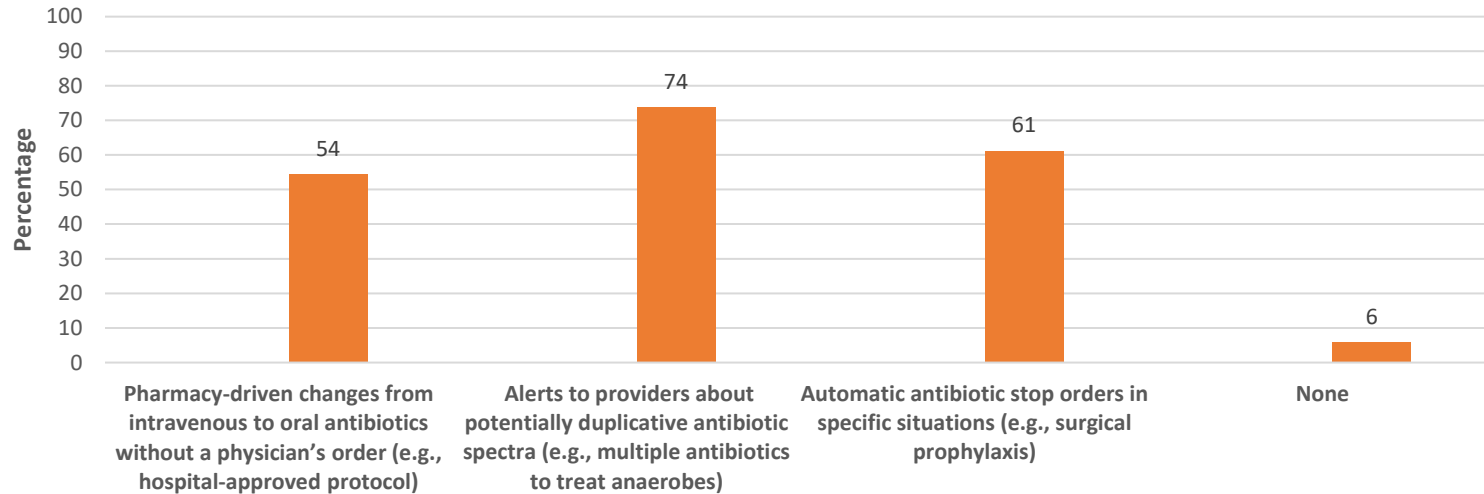
Is the antibiotic prescribed at the right dose?

Does the DC summary include dose, duration, indication?

[antibiotic-time-out-tool.docx \(live.com\)](https://www.aahrq.gov/safety/antibiotic-time-out-tool.docx)

# Specific Pharmacy Based Interventions

Percentage of Facilities with Specific "Pharmacy-Based" Interventions (n=103)



## Benefits

Expedite removal of intravenous catheter and reduce chances for central line associated bloodstream infections

Expedite hospital discharge (*i.e.*, reduce length of stay)

Reduce volume of fluid administered to patient (can be especially important for patients with congestive heart failure)

Increase patient satisfaction and comfort

Reduce IV related mobility restrictions

Remove possibility for phlebitis / thrombophlebitis

Reduce workload on pharmacy and nursing

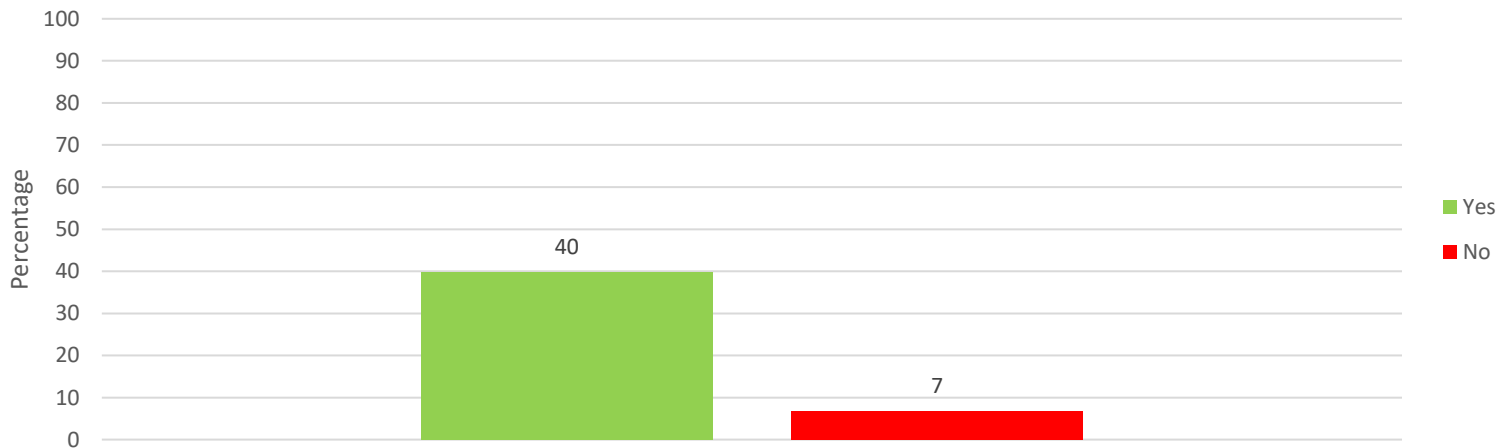
Decreased costs

[Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America \(idsociety.org\)](https://www.idsociety.org/)



# Hospitals Using Antibiotic Usage Reports to Target Feedback to Prescribers

Percentage of Hospitals Using Specific AU Reports to Target Feedback to Prescribers About How They Can Improve Their Antibiotic Prescribing (n=103)



# Antibiogram

- Antibiogram report summarizes sensitivity results for organisms
- Microbiologists track microbial sensitivity patterns to monitor for resistance
- Clinicians use results when choosing appropriate antimicrobial therapy

**Table 5-3:** Example of an Antibiogram

	Number of Isolates Tested	Percent Susceptible																						
																	Urine							
		Penicillin Ceftriaxone (Susceptible)	Oxacillin	Erythromycin	Clindamycin	Vancomycin	TMP/SMZ	Ampicillin	Ampicillin/Sulbactam	Cefazolin	Cefepime	Ceftriaxone	Gentamicin	Gentamicin (High dose)	Tobramycin	Levofloxacin	Ciprofloxacin	Aztreonam	Imipenem	Piperacillin/Tazobactam	Amikacin	Nitrofurantoin	Amoxicillin/Clav. Acid	
Gram positive	<i>S. aureus</i> —oxacillin resistant	1149/ 1926 (59%)	0	5	66	100	98																99	
	<i>S. aureus</i> —oxacillin sensitive	777/ 1926 (41%)	100	60	85	100	99																99	
	Coagulase negative staph (CNS)	192	31	22	47	100	64																99	
	<i>Enterococcus faecium</i>	29					28	14				100											54	
	<i>Enterococcus faecalis</i>	95					79	93				47											100	
Gram negative	<i>Enterobacter</i> spp.—nonurine	150					91	35		95	81	95	87		82	77			81					
	<i>Enterobacter</i> spp.—urine	197					82			96	83	95			79								71	
	<i>Klebsiella</i> spp.—nonurine	193					88		63	72	95	84	98	96		90	83			85	100			
	<i>Klebsiella</i> spp.—urine	682					89			78	96	94	98			91							85	89
	<i>Escherichia coli</i> —nonurine	901					83	54	58	87	99	95	93	94		81	96			98	100			
	<i>Escherichia coli</i> —urine	3359					83	60		94	100	99	95			88							98	87

# do one thing *differently*

*Simple Strategies to Prevent C. diff*

## *Use Antibiograms to Reduce Unnecessary Exposure to Antibiotics*

Antibiotic use is a leading risk factor for *Clostridioides difficile* (*C. diff*) infections. An antibiogram is an aggregated report that displays the organisms found in diagnostic specimens sent to the lab alongside the organism's susceptibility to various antibiotics. This helps prescribers make prompt, empirically-based decisions by selecting the most appropriate therapy right from the start.

### *Let's Get Started*

1. Use the Antibiogram/Antimicrobial Stewardship Toolkit (<https://bit.ly/3x7thx4>), developed by the Agency for Healthcare Research and Quality (AHRQ).
  2. Form a working team – preferably clinician led – including the lab, pharmacist, infection preventionist and nursing leadership.
  3. Gather your resource materials and data - lab and dispensing pharmacy play a major role (AHRQ Tool 2).
  4. Create your facility-specific antibiogram using a ready-made template (AHRQ Tool 5).
  5. Educate, train and distribute.
2. Engage infectious disease specialists. Share your plans and invite them to speak to your team.
  3. Consider a regional antibiogram if you do not have the minimum diagnostic sourced isolate level of 30 – check with your state health department.
  4. Document your ongoing efforts to develop an antibiogram within your Antibiotic Stewardship Committee.
  5. Work with your electronic health record (EHR) vendor to develop direct access to the antibiogram.

### *Tips for Success*

1. Appoint co-champions, one for the clinical lead and one for project management oversight. Avoid asking one person to fill both roles.

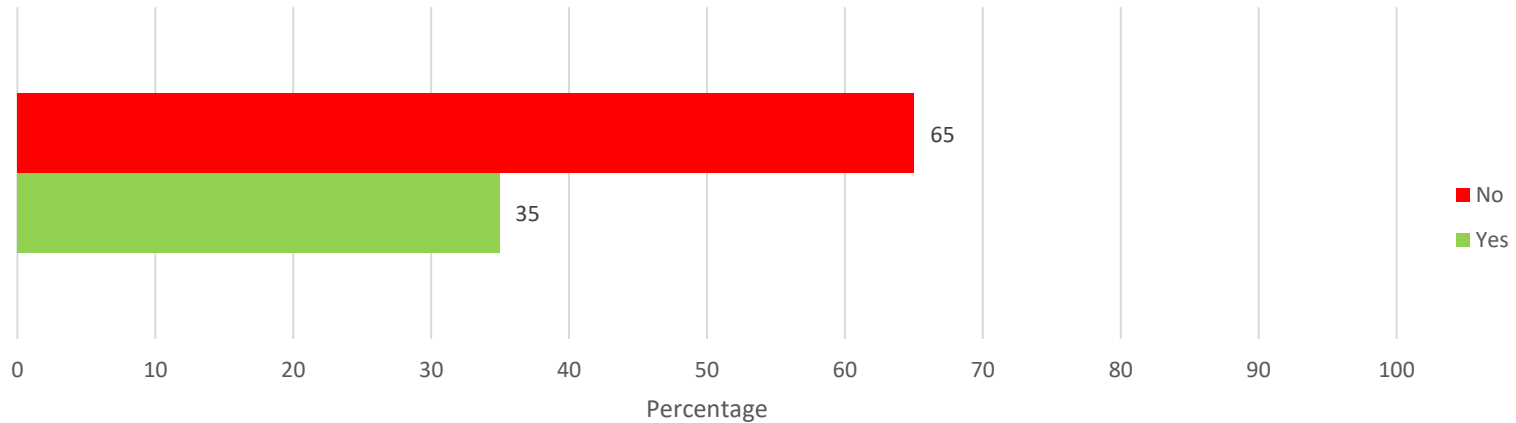


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# Pharmacist Time Dedicated to Stewardship Activities

Percentage of Hospitals Who Dedicated Pharmacist Time to Stewardship Activities (n=103)



# Pharmacy Interventions

Review antimicrobials daily

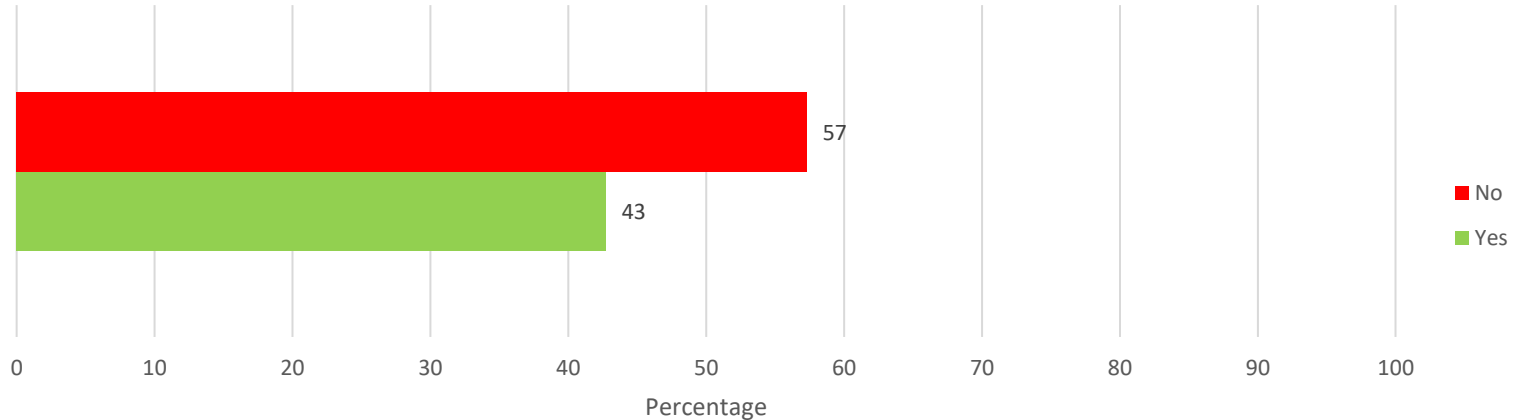
Monitor for unnecessary duplication of orders

IV to PO

Optimize antimicrobial dosing

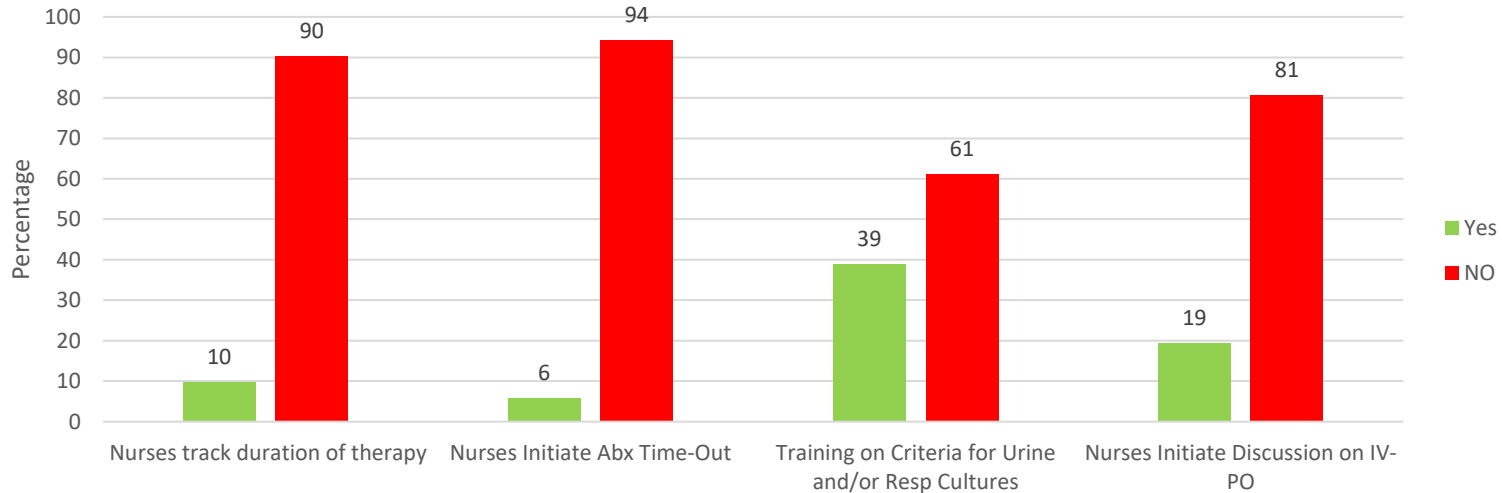
# Bedside Nurses in Actions to Optimize Antibiotic Use

Percentage of Facilities Engaging in Bedside Nurses in Actions to Optimize Antibiotic Use (n=103)



# Specific Nurse Based Interventions

Percentage of Facilities with Specific "Nursing-Based" Interventions (n=103)



# Nursing Interventions

Microbiology culture collection

Monitor antibiotic response and duration of therapy

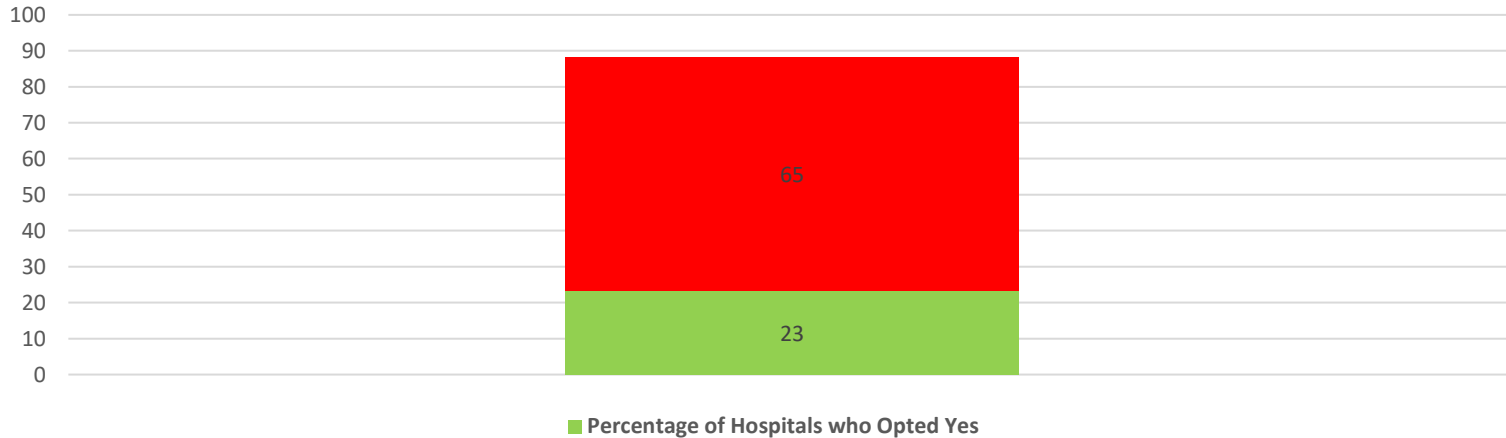
IV to PO

Review adverse events



# Physician Time Dedicated to Stewardship Activities

Percentage of Hospitals who Dedicated Physician Time to Stewardship Activities (n=103)



# Physician Interventions

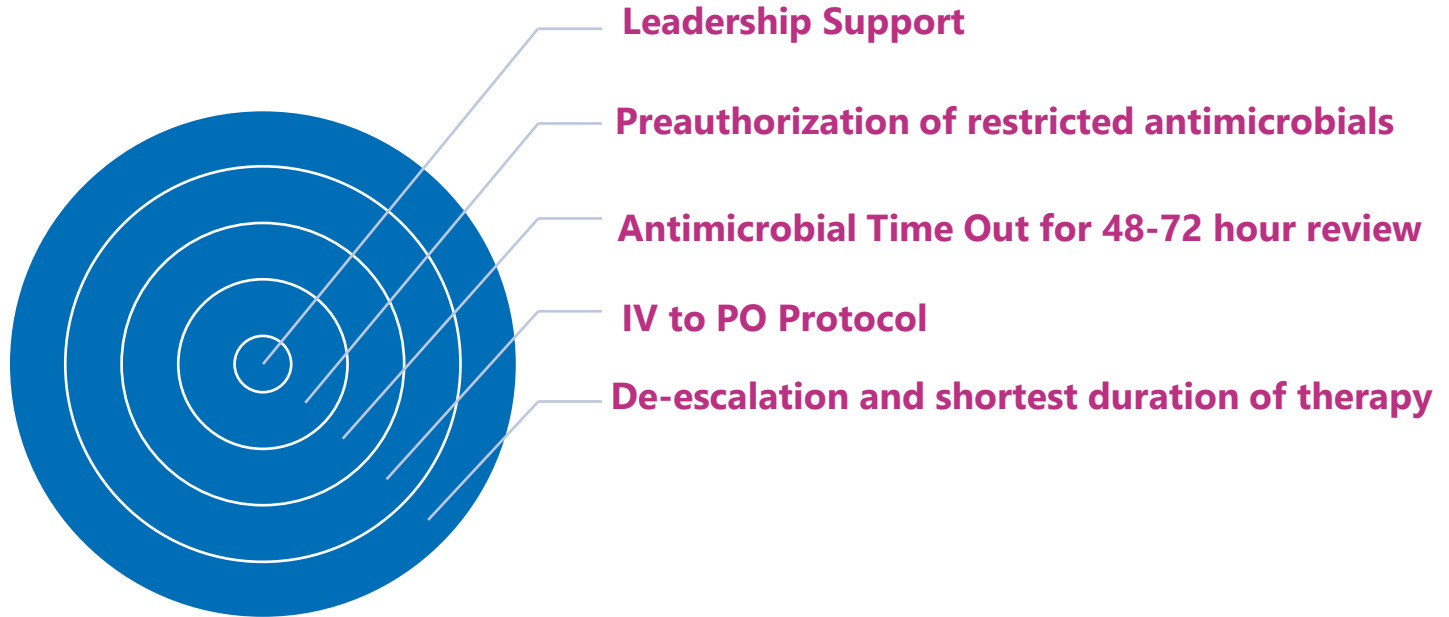
Review antimicrobials daily

Monitor micro culture results for de-escalation

Adjust antimicrobial orders for clinical response

Monitor and adjust for shortest duration of therapy

# Target your ASP activities



# Polling Question: Pick ALL that you are interested in implementing

Which one of these interventions will your facility TARGET for improving your antimicrobial stewardship program?

1. Implementing an IV to PO protocol
2. Antimicrobial time out for review at 48-72 hours
3. Preauthorization of restricted antimicrobials
4. Duration of Therapy adjustment
5. Monitoring antimicrobial resistance with an Antibiogram
6. Expanding and empowering nurses' role in antimicrobial stewardship
7. Expanding and empowering pharmacist role in antimicrobial stewardship
8. Expanding physician role in antimicrobial stewardship

# HQIC 2022 Antimicrobial Stewardship Summer Camp Recordings and Resources



**Building an Antimicrobial Stewardship Program using the CDC Core Elements**

**Antimicrobial Stewardship Program: Using Data**

**Reducing Hospital Onset CDI Through Diagnostic Stewardship**

[Antimicrobial Stewardship Summer Camp 2022 Slides | HQIN](#)

# Simple Strategies for Targeting Antimicrobial Stewardship Interventions

## Simple Strategies for Targeting Antimicrobial Stewardship Interventions

### Think About It!

Each year, more than 700,000 individuals die due to antimicrobial resistance (AMR) infections. 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 antibiotic 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. Use this Simple Strategies to guide program development and the role each play in improving antibiotic use and fighting antibiotic resistance.

### 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

### Pharmacists:

[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

Find tips and resources in this Simple Strategies on how to improve hospital antibiotic use and 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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<https://hqin.org/resource/simple-strategies-for-antimicrobial-stewardship/>



# Resources

[Antimicrobial Management Program Gap Analysis Checklist \(hqin.org\)](#)

[Continuing Education and Informational Resources | Antibiotic Use | CDC](#)

[Toolkit To Improve Antibiotic Use in Acute Care Hospitals | Agency for Healthcare Research and Quality \(ahrq.gov\)](#)

[Four Moments of Antibiotic Decision Making | Agency for Healthcare Research and Quality \(ahrq.gov\)](#)

[Priorities for Hospital Core Element Implementation | Antibiotic Use | CDC](#)

[Antibiotic / Antimicrobial Resistance | CDC](#)

[Antimicrobial Stewardship \(idsociety.org\)](#)



# Upcoming Events

## **March Office Hours**

Topic: Using Data to Drive Quality Improvement

March 9

12:00 PM EST

## **Health Equity Workgroup Health Equity Now!**

**Designing, Implementing and Maintaining Your Health Equity Program**

Sessions Begin February 21

12:00 PM EST

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



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