

Understanding Antimicrobial Stewardship: Is Your Organization Ready?



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Objectives



- Discuss the need for antimicrobial stewardship programs
- Explain the components of an effective antimicrobial stewardship program
- Identify key starting points for beginning an AMS program and useful resources
- Summarize the new TJC measures related to AMS
- Identify common barriers encountered by hospitals related to implementing the standards and potential resolutions

Why Stewardship and Why Now?



- President's Executive Order and National Strategy (Sept 2014)
- National Action Plan for Combating Antibiotic Resistant Bacteria (CARB) – March 2015
- ~50% of all antibiotics prescribed in the US are unnecessary or inappropriate
- Increasing antibiotic resistance and limitations with new drug treatment options – *We are running out of options for effective treatment...*
- Increasing rates of *C. difficile* infections

Why Stewardship and Why Now?



- AMS programs are designed to minimize the harmful effects of inappropriate antibiotic use and promote responsible use of antibiotics.
- **Patient Safety** and **Patient Care** are at the center of AMS
- Decrease and control of drug costs are secondary objective

The Collateral Damage of Drug Resistance



- Increased rates of treatment failures
- Longer hospital stays for patients
- Increased need for isolation requirements
- Increased mortality
- Increase costs – to both the organization and the community

Who Cares about AMS?



- The White House
- The CDC
- Centers for Medicare and Medicaid (CMS)
- The Joint Commission
- U.S. Food and Drug Administration
- WE DO! (or should)
 - A collaborative effort for change

Goals of AMS Program



- Improve **patient outcomes**
- Optimize selection, dose and duration of antimicrobials
- Reduce adverse drug events including secondary infection (e.g., *C. difficile* infection)
- Reduce morbidity and mortality
- Limit emergence of antimicrobial resistance
- Reduce length of stay
- Reduce health care expenditures

MacDougall CM and Polk RE. *Clin Microbiol Rev.* 2005; 18(4):638-56.

Dellit TH et. al. *Clin Infect Dis.* 2007; 44:159-177

Resource: IDSA/SHEA Guidelines



[Home](#) > [Guidelines/Patient Care](#) > [IDSA Practice Guidelines](#) > [Antimicrobial Agent Use](#)

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IDSA Practice Guidelines

▶ Antimicrobial Agent Use

Infections by Organ System

Infections by Organism

Other Guidelines

Translations of IDSA Practice Guidelines

Mobile Practice Guidelines

Pocketcards

[Guideline Methodology and Other Resources](#)

[For Patients & Public](#)

Antimicrobial Agent Use

[Antimicrobial Prophylaxis for Surgery](#)

[1 Guideline](#)

[Antimicrobial Stewardship](#)

[1 Guideline](#)

Implementing an Antibiotic Stewardship Program

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CURRENT*

"Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America"

Evidence-based guidelines for implementation and measurement of antibiotic stewardship interventions in inpatient populations including long-term care were prepared by a multidisciplinary expert panel of the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America [Link to full text](#)

*Every 12 to 18 months following publication, IDSA reviews its guidelines to determine whether an update is required. The guideline was published April of 2016 and is the most current version.

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Core Strategies of AMS : IDSA/SHEA Guidelines



- Updated in 2016
- Question and Answer format
- An excellent reference for promoting new program implementation
- Prospective audit with intervention and feedback
 - Review of courses of therapy for specific antibiotics
- Formulary restriction and preauthorization
 - Certain medication may require approval by a physician or pharmacist prior to dispensing
 - Pre-defined criteria for use



Core Elements of Hospital Antibiotic Stewardship Programs

CDC Core Elements of Hospital AMS Programs



- Leadership Commitment – allow for dedicated time, resources, and participation
 - May require request for additional FTEs, software etc.
- Accountability – assign a stewardship program leader responsible for program outcomes
- Drug Expertise – identify a pharmacy leader
 - Equip this pharmacist with additional training if needed
- Action – implement at least one recommended action/intervention

CDC Core Elements of Hospital AMS Programs



- Tracking – monitor prescribing and resistance patterns
- Reporting – routine reporting on antibiotic use, resistance and outcome measures
- Education – educate clinicians about resistance and optimal prescribing

The Joint Commission - MM.09.01.01



- EP 1- Leaders establish antimicrobial stewardship as an organizational priority.
 - Examples provided in standard, but not limited to those examples
- EP 2 - The hospital educates staff and LIP on appropriate antimicrobial use upon hire and thereafter
- EP 3 – The hospital educates patients and families on appropriate antibiotic use

The Joint Commission - MM.09.01.01



- EP 4- The hospital has an antimicrobial stewardship multidisciplinary team that includes the following members, when available in the setting:
 - Infectious disease physician
 - Infection preventionist(s)
 - Pharmacist(s)
 - Practitioner

The Joint Commission - MM.09.01.01



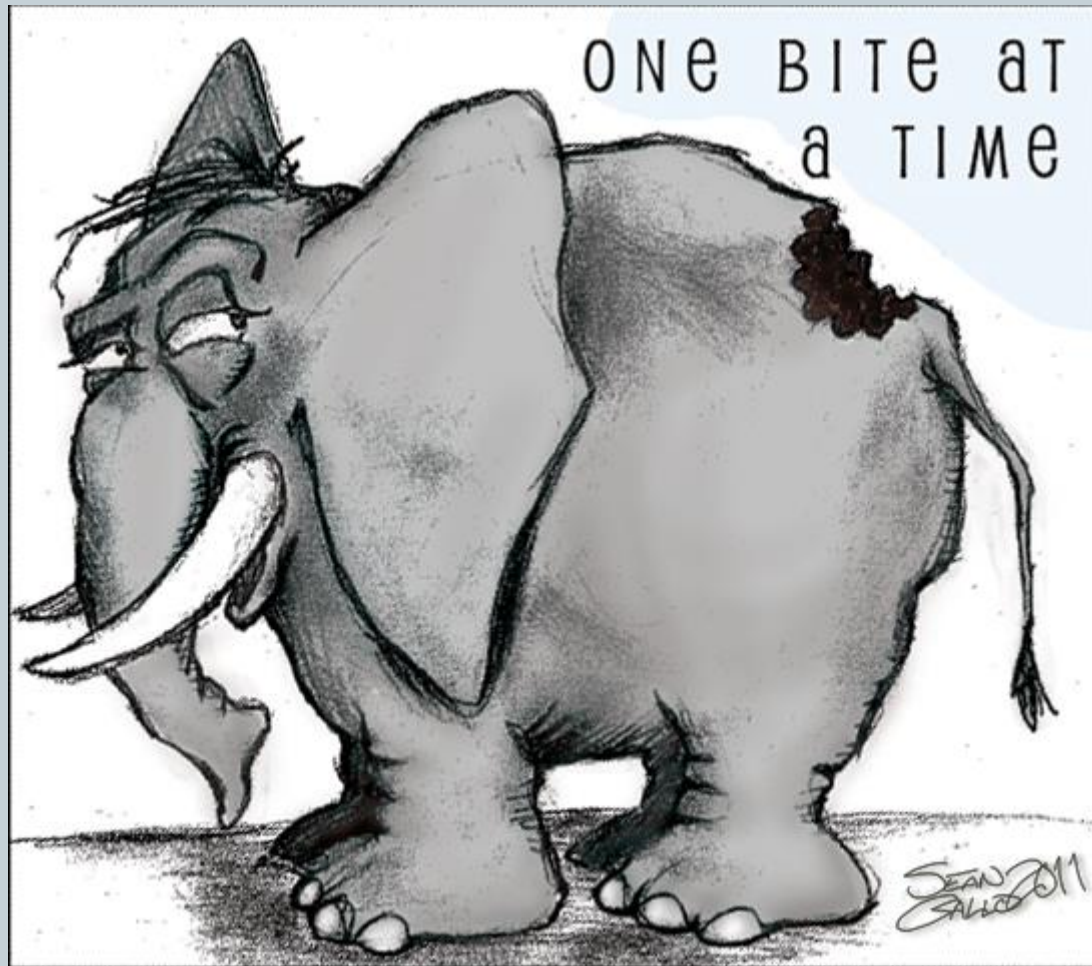
- EP5-The hospital's ASP includes the following core elements:
 - Leadership commitment
 - Accountability
 - Drug expertise
 - Implementing recommended actions
 - Tracking
 - Reporting
 - Education

The Joint Commission - MM.09.01.01



- EP 6- The ASP uses organization-approved multi-disciplinary protocols and policies and procedures.
- EP 7- The hospital collects, analyzes, and reports data on its antimicrobial stewardship program.
- EP 8 – The hospital takes action on improvement opportunities identified in its antimicrobial stewardship program.

How Do You Eat an Elephant?



Site Specific Self Assessment



- Complete a self assessment to identify what standards are already in place and greatest areas of focus
- Identify “Next Actions” to take to meet each objective
- What can you do with current resources?
- What additional resources will need to be added

Antibiotic Stewardship Playbook



- Created by the National Quality Forum
- A complete “How To Guide”

National Quality Partners Playbook: Antibiotic Stewardship in Acute Care

NATIONAL QUALITY FORUM
NATIONAL QUALITY PARTNERS
ANTIBIOTIC STEWARDSHIP ACTION TEAM

Common Barriers to Implementation of TJC standards



- Lack of Infectious Disease Physician support
- Potential Solutions
 - System Approach
 - Exploration of Telehealth or Consultation options for small or rural hospitals
 - ✦ www.Mdstewardship.com

Common Barriers to Implementation of TJC standards



- Need for additional Drug Expertise for Pharmacy Leaders
- Potential Solution
 - Society of Infectious Disease Pharmacist (SIDP) Certificate Program
 - Making a Difference in Infectious Disease (MAD-ID) Certificate program and annual meeting
 - Seek out continuing education programs related to AMS – www.Ashp.org
 - Collaboration/Networking with Infectious Disease trained pharmacists or other AMS Pharmacy Leaders

Common Barriers to Implementation of TJC standards



- Education and Skill Development for front line pharmacists
 - Vital to impacting change and stewardship at the patient level
- Potential Solution
 - Staff development
 - ✦ “Bugs and Drugs” Review
 - ✦ Guideline familiarity
 - Provide resources
 - ✦ Sanford guide
 - ✦ John Hopkins Antibiotic Guide
 - ✦ Pharmacist Guide to Antimicrobial Stewardship – available at ashp.org

Common Barriers to Implementation of TJC standards



- **Metrics for tracking Antibiotic Use**
 - Ability to abstract data from the EMR – Days of Therapy (DOT)
- **Potential Solution**
 - Internal IT involvement – report writing
 - External Vendors
 - Explore the need for more advanced software and data mining tools
 - ✦ Incorporate into budget and seek approval
 - Senti7
 - Theradoc
 - Vigilanz

Summary



- AMS is here to stay!
- The goals for stewardship programs are robust and can seem overwhelming – focus on making progress overtime
- Utilize available resources
- Collaborate with others – we all have the same goals in mind

References



- Centers for Disease Control and Prevention. Core Elements of Hospital Antibiotic Stewardship Programs. Accessed March 1, 2017. <http://www.cdc.gov/getsmart/healthcare/implementation/core-elements.html>
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- New Antimicrobial Stewardship Standard. *Joint Commission Perspectives*®, July 2016, Volume 36, Issue 7

Questions?



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