Leadership Engagement in Antimicrobial Stewardship

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Objectives

- Define the requirements for antimicrobial stewardship (AMS) set forth by government and regulatory agencies.

- Design a process for implementing an antimicrobial stewardship program (ASP) in an acute care hospital or health system.
Why Leadership is Important

"You can do what I cannot do. I can do what you cannot do. Together we can do great things."

- Mother Teresa
Why AMS is Important

• Indiscriminant use of antimicrobials can lead to:
  • Increased morbidity, mortality, LOS,
  • Microbial resistance
  • Adverse events - *C. difficile* infections and complications
  • Increased direct and indirect cost of care.

• **CMS:** Infection Control standards and Conditions of Participation (including Critical Access Hospitals)

• **Joint Commission:** standards requiring a program at all levels of care, including Hospitals, Critical Access Hospitals (CAH), Ambulatory Health Care, Nursing Home, Office-based Surgery practices
ASPs Improve Outcomes

Clinical outcomes better with antimicrobial management program

<table>
<thead>
<tr>
<th>Outcome</th>
<th>AMP</th>
<th>UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate</td>
<td>RR 2.8 (2.1-3.8)</td>
<td>RR 1.7 (1.3-2.1)</td>
</tr>
<tr>
<td>Cure</td>
<td>RR 1.7 (1.3-2.1)</td>
<td>RR 0.2 (0.1-0.4)</td>
</tr>
<tr>
<td>Failure</td>
<td>RR 0.2 (0.1-0.4)</td>
<td></td>
</tr>
</tbody>
</table>

AMP = Antibiotic Management Program
UP = Usual Practice

ASPs Reduce Resistance

*P. aeruginosa* susceptibilities before and after implementation of antibiotic restrictions (CID 1997;25:230)

*P*<0.01 for all increases
ASPs Reduce Adverse Events

Impact of fluoroquinolone restriction on rates of *C. difficile* infection

Leadership Engagement in Antimicrobial Stewardship
1. Leaders establish antimicrobial stewardship as an organizational priority. *(See also LD.01.03.01, EP 5)*

**Note:** *Examples of leadership commitment to an antimicrobial stewardship program are as follows: [as provided by Joint Commission]*

<table>
<thead>
<tr>
<th>Compliance</th>
<th>Best Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability documents</td>
<td>Using the electronic health record to collect antimicrobial stewardship data</td>
</tr>
<tr>
<td>Budget plans</td>
<td></td>
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<tr>
<td>Infection prevention plans</td>
<td></td>
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<tr>
<td>Performance improvement plans</td>
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<tr>
<td>Strategic plans</td>
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</table>
5. The hospital’s antimicrobial stewardship program includes the following core elements:

<table>
<thead>
<tr>
<th>Core Element</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Leadership commitment:</em> Dedicating necessary</td>
<td>Subjective</td>
</tr>
<tr>
<td>human, financial, and information technology</td>
<td>Attestation Form</td>
</tr>
<tr>
<td>resources.</td>
<td></td>
</tr>
<tr>
<td><em>Accountability:</em> Single leader responsible for</td>
<td>Each hospital will identify one</td>
</tr>
<tr>
<td>program outcomes.</td>
<td>physician leader</td>
</tr>
<tr>
<td><em>Drug expertise:</em> Appointing a single pharmacist</td>
<td>Each hospital will identify one</td>
</tr>
<tr>
<td>leader responsible for working to improve</td>
<td>pharmacist (PSI education program)</td>
</tr>
<tr>
<td>antibiotic use.</td>
<td></td>
</tr>
<tr>
<td><em>Action:</em> Implementing recommended actions, such</td>
<td>Use of common policies</td>
</tr>
<tr>
<td>as systemic evaluation of ongoing treatment need,</td>
<td>Collaboration with nursing and medicine</td>
</tr>
<tr>
<td>after a set period of initial treatment</td>
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<tr>
<td>*(for example, “antibiotic time out” after 48</td>
<td></td>
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<tr>
<td>hours).</td>
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</tbody>
</table>
5. The hospital’s antimicrobial stewardship program includes the following core elements:

<table>
<thead>
<tr>
<th>Core Element</th>
<th>Compliance</th>
</tr>
</thead>
</table>
| **Tracking**: Monitoring the antimicrobial stewardship program, which may include information on antibiotic prescribing and resistance patterns. | • Explore current capabilities  
• Consider decision support software  
• PSI Benchmarking and RxMediTrend  
• Hospital Antibiograms |
| **Reporting**: Regularly reporting information on the antimicrobial stewardship program, which may include information on antibiotic use and resistance, to doctors, nurses, and relevant staff. | • Report above tracking elements to local P&T and system AMS  
• PSI requiring two elements |
| **Education**: Educating practitioners, staff, and patients on the antimicrobial program, which may include information about resistance and optimal prescribing. | Duplicated from #2 and #3 |
Compliance with the Joint Commission standards will likely meet the CMS Conditions of Participation.

§ 482.42(b)(1) Leader of the Antibiotic Stewardship Program
Requires the hospital, with the recommendations of the medical staff leadership and pharmacy leadership, to designate an individual, who is qualified through education, training, or experience in infectious diseases and/or antibiotic stewardship, as the leader of the antibiotic stewardship program. Antibiotic stewardship programs are led by physicians and pharmacists who have direct knowledge and experience with antibiotic prescribing.
Compliance with the Joint Commission standards will likely meet the CMS Conditions of Participation.

482.42(c)(1) The Governing Body
Greater specificity with respect to the responsibilities of hospital leadership at the governing body level.
(i) the governing body ensure that systems are in place and are operational for the tracking of all infection surveillance, prevention, and control, and antibiotic use activities, in order to demonstrate the implementation, success, and sustainability of such activities.
(ii) that the governing body ensure that all HAIs and other infectious diseases identified by the infection prevention and control program as well as antibiotic use issues identified by the antibiotic stewardship program are addressed in collaboration with hospital QAPI leadership.
Key Resources

- Core Elements of Hospital Antibiotic Stewardship Programs from the Centers for Disease Control
  - [www.cdc.gov/getsmart/healthcare/pdfs/checklist.pdf](http://www.cdc.gov/getsmart/healthcare/pdfs/checklist.pdf)

- Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America
  - [http://cid.oxfordjournals.org/content/early/2016/04/11/cid.ciw118.full.pdf+html](http://cid.oxfordjournals.org/content/early/2016/04/11/cid.ciw118.full.pdf+html)

- National Quality Forum (NQF) Playbook: A Practical Approach to Antibiotic Stewardship
  - [www.qualityforum.org/Publications/2016/05/Antibiotic_Stewardship_Playbook.aspx](http://www.qualityforum.org/Publications/2016/05/Antibiotic_Stewardship_Playbook.aspx)
Other AMS Resources

- CDC Get Smart for Healthcare is a CDC campaign focused on improving prescribing practices in inpatient healthcare facilities.
  
  www.cdc.gov/getsmart/healthcare/index.html

- CDC Overview and Evidence to Support Stewardship
  
  www.cdc.gov/getsmart/healthcare/evidence.html

- Training Programs
  - MAD-ID http://mad-id.org/antimicrobial-stewardship-programs/
Antimicrobial Stewardship Portal

Background/Getting Started

Pharmacy Systems, Inc. Resources
- Phased Program Implementation Checklist
- Phased Program Pyramid Diagram
- AMS Program Gap Analysis

External Resources
Two selected publications which review the rationale, outcomes and pharmacist’s role in a successful AMS program are listed. See also the external website links below for additional resources.

- 2016 Guidelines from the Infectious Diseases Society of America (IDSA) and the Society for Healthcare Epidemiology of America (SHEA) on Implementing an Antimicrobial Stewardship Program
- 2010 American Society of Health-System Pharmacists (ASHP) Statement on Pharmacist Role in Antimicrobial Stewardship

National Quality Forum (NQF) Playbook: A Practical Approach to Antibiotic Stewardship

Pharmacist Training Opportunities

Core Clinical Services to Maximize Antimicrobial Stewardship Impact
- IV:PO Conversions

Antibiotic Drug Review and Information

Antibiotic Review: Antibiotic Comparison

- Drug Monograph: Ceftolozane/Tazobactam
- Drug Monograph: Dalvance
- Drug Monograph: Oritavancin
- Drug Monograph: Tedizolid

- Drug Shortage: Piperacillin/Tazobactam Alternative Agent

FICS Toolkits and MUE Involving Antimicrobial Stewardship

- Antibiotics: Carbapenems
- Antibiotics: Clostridium difficile Resources
- Antibiotics: Echinocandin
- Antibiotics: Extended Infusion Zosyn
- Antibiotics: Fluoroquinolones
- Antibiotics: Fosfomycin
- Antibiotics: Vancomycin Oral

- MUE: Amikacin (Traditional Dosing) Collection Form
- MUE: Ampicillin 2 gram Collection Form
- MUE: Antifungals, Broad-spectrum IV Collection Form
- MUE: Aztreonam Collection Form
- MUE: Caspofungin Collection Form
- MUE: Ceftriaxone 2 gram Collection Form
- MUE: Daptomycin Collection Form
- MUE: Ertapenem Collection Form
- MUE: Gentamicin/Tobramycin (Extended Interval Dosing) Collection Form
- MUE: Gentamicin/Tobramycin (Traditional Dosing) Collection Form
- MUE: Imipenem/Cilastin Collection Form
- MUE: Levofloxacin Collection Form
- MUE: Linezolid Collection Form
- MUE: Nitrofurantoin in the Elderly Collection Form
- MUE: Piperacillin/Tazobactam Collection Form

Links to External Antimicrobial Stewardship Websites

National Organization and Governmental Websites
- Centers for Disease Control and Prevention
- American Society of Health-System Pharmacists
  - ASHP Advantedge White Paper
  - Implementing Antimicrobial Stewardship Programs in Health System
- Infectious Disease Society of America

Antimicrobial Stewardship – Academic Medical Center Websites
- University of Pennsylvania
- University of Kentucky
- Johns Hopkins University
- University of Miami Miller School of Medicine
- University of California Los Angeles
- Nebraska Medical Center

Antimicrobial Stewardship “Special Topic” Journals/Supplements
- Pharmacotherapy – August 2012 Special Topic Issue
- Healthcare Epidemiology and Infection Control – April 2012 Special Topic Issue

Guideline Links
- Antimicrobial Prophylaxis in Surgery
- Bacteremia: Intravascular Catheter-Related Bloodstream Infection
- Bacterial Meningitis
Leadership Engagement in Antimicrobial Stewardship
Assess Current State
CDC Checklist / Core Elements

<table>
<thead>
<tr>
<th>LEADERSHIP SUPPORT</th>
<th>ESTABLISHED AT FACILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Does your facility have a formal, written statement of support from leadership that supports efforts to improve antibiotic use (antibiotic stewardship)?</td>
<td>Yes</td>
</tr>
<tr>
<td>B. Does your facility receive any budgeted financial support for antibiotic stewardship activities (e.g., support for salary, training, or IT support)?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACCOUNTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Is there a physician leader responsible for program outreach in your facility?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DRUG EXPERTISE</th>
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</thead>
<tbody>
<tr>
<td>A. Is there a pharmacist leader responsible for working to improve antibiotic use?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KEY SUPPORT FOR THE ANTIBIOTIC STEWARDSHIP PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does any of the staff below work with the stewardship?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRACKING: MONITORING ANTIBiotic PRESCRIBING, USE, AND RESISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROCESS MEASURES</td>
</tr>
<tr>
<td>A. Does your stewardship program monitor adherence to a documentation policy (dose, duration, and indication)?</td>
</tr>
<tr>
<td>B. Does your stewardship program monitor adherence to facility-specific treatment recommendations?</td>
</tr>
<tr>
<td>C. Does your stewardship program monitor compliance with one of more of the specific interventions in place?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANTIBIOTIC USE AND OUTCOME MEASURES</th>
<th>MEASURE PERFORMED</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Does your facility track rates of C. difficile infection?</td>
<td>Yes</td>
</tr>
<tr>
<td>E. Does your facility produce an antibiogram (cumulative antibiotic susceptibility report)?</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Assess Current State
Pharmacy Specific Activity Audit

Antimicrobial Stewardship Program (ASP)
SAMPLE Hospital in collaboration with Pharmacy Systems, Inc.

Elements of an Antimicrobial Stewardship Program

<table>
<thead>
<tr>
<th>Core</th>
<th>Intermediate</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective Audit and Feedback</td>
<td>Formulary Management</td>
<td>Preauthorization and Restriction</td>
</tr>
</tbody>
</table>

**Basic**
- Clinical Activities Program (CAP℠)
  - Recommendation: Intravenous to Oral Conversion
  - Recommendation: Pharmacokinetic Monitoring and Dose Optimization
  - Recommendation: Renal Dose Adjustment
- Metric
  - Adverse Drug Reactions – Antimicrobials: Track and Trend

**Intermediate**
- Clinical Activities Program (CAP℠)
  - Automatic: Pharmacokinetic Monitoring and Dose Optimization
  - Automatic: Renal Dose Adjustment
  - Culture & Sensitivity: Monitoring Targeting Resistance and Treatment
  - Penicillin Allergy Evaluation
- Metric
  - Antibiogram Annual Review with

**Advanced**
- Clinical Activities Program (CAP℠)
  - Automatic: Intravenous to Oral Conversion
  - Clinical Pharmacist Consult for Antibiotic Selection and Duration of Therapy
  - Culture & Sensitivity: Monitoring with De-escalation
- Metric
  - Adverse Drug Reactions: C. difficile
Antimicrobial Stewardship Program

Contents

A. Mission/Vision/Goals........................................ pg. TBD
B. Procedure ...................................................... pg. TBD
C. Team Members.................................................. pg. TBD
D. Antibiogram.................................................... pg. TBD
E. Outcomes....................................................... pg. TBD
F. Education....................................................... pg. TBD
G. References..................................................... pg. TBD
A. Mission, Vision and Goals

Our mission is to ensure the appropriate use of antimicrobials and reduce antimicrobial resistance within our hospital system to improve the health of our patients. We will implement strategies to achieve that goal and measure outcomes for our facility and patients.

Our vision is to improve the overall care of patients requiring antimicrobials within our hospital.

2016 Goals
• Implement an Antimicrobial Stewardship Program to include developing a team, policies and procedures, monitoring, and reporting strategies in our hospital that are compliant with the Centers for Medicare and Medicaid Conditions of Participation (and TJC MM standard) by January 1, 2017.
• Implement two, specific strategies to impact the use of antibiotics in our hospital.

2017 Goals
• Review and update all antibiotic-containing guidelines and/or order sets to ensure adherence to national guidelines and current medical literature.
• Implement a requirement for indication and duration on all antibiotic orders.
• Implement an antibiotic “time out” procedure 48 to 72 hours after antibiotic initiation.
• Increase the number of patients converted from intravenous to oral antibiotics by 10% by April 1, 2017.
• Decrease pharmacy antimicrobial drug costs by 5% from 2016 to 2017 by January 1, 2018.
• Positively impact the C. difficile infection rate at our hospital.
• Ensure appropriate and safe use of fluoroquinolones.
• Review and reconcile all reported penicillin allergy by pharmacists.
B. Procedure

**Title:** Antimicrobial Stewardship Program Procedure

**Purpose:** To ensure a strategic and formal process is in place by which this organization improves the use of antibiotics across the continuum.

As antibiotic resistance is one of the world’s most pressing public health problems, responsible for more than two million illnesses and 23,000 deaths annually, the hospital will have a program to address antibiotic stewardship. This policy will provide framework for the hospital antimicrobial stewardship program (ASP) and establish the pharmacy’s drug therapy monitoring program. ASP has been shown to improve patient outcomes significantly by individualizing dosing, reducing toxicity, and, possibly, decreasing medication costs.
C. ASP Committee Composition

1. ASP Program Leader
   - Has education, training, or experience in infectious disease and/or antimicrobial stewardship
   - Generally appointed to a physician or pharmacist directly involved with antibiotic prescribing
   - Responsible for:
     - Development and implementation of a hospital-wide antibiotic stewardship program, based on nationally recognized guidelines, to monitor and improve the use of antibiotics
     - All documentation, written or electronic, of antibiotic stewardship program activities
     - Communication and collaboration with medical staff, nursing, and pharmacy leadership, as well as the hospital’s infection prevention and control and QAPI programs, on antibiotic use issues
     - The competency-based training and education of hospital personnel and staff on the practical applications of antibiotic stewardship guidelines, policies, and procedures

2. ASP Pharmacist Leader – Recommended to appoint a single pharmacy leader to work with ASP Leader, if ASP Leader is not a pharmacist.

3. Other suggested team members:
   - Infection preventionist(s)/Infection control professional(s) and Hospital Epidemiologist – Responsible for hospital-wide infection surveillance, prevention, and control policies and procedures that adhere to nationally recognized guidelines, preventing and controlling healthcare-associated infections, education and training of hospital staff on infection control practices
   - Medical Staff (Clinician and Department Heads) – Help to improve feasibility and implementation of ASP actions
   - Information Technology Staff – Incorporate ASP protocols
   - Clinical Microbiology/Laboratory Staff – Ensure proper testing and accuracy of results, assist in specialized testing, identification of new MDRO, create and maintain antibiogram
   - Nursing Leadership – Assist in education and training of nursing staff as well as adherence to clinical guidelines for prevention and treatment of infection
   - Quality Improvement Staff – Assist in outcome monitoring, data collection and reconciliation with current outcome data related to infectious disease conditions
E. Monitoring and Outcomes – Collect, analyze, and report data on the ASP

- Use these data to develop other performance improvement related to antibiotics.
- Measure at least two data elements and report at least quarterly, data will be reported to the Pharmacy and Therapeutics Committee, the Medical Executive Committee, and the Executive Board.

  Data elements to be measured include:
  - Adherence to guidelines: antibiotic selection and duration of therapy
  - IV to PO rates
  - Renal dosing
  - C. difficile infection rates
  - Antibiotic expenditure (overall cost, DOT, or DDD)

- Clinical Interventions including:
  - IV to PO changes
  - Renal dosing
  - De-escalation of therapy
  - Allergy Reconciliation
  - Discontinuation of therapy
Outcome Tracking #1

Anti-infective Spending

- 2009: $11.21
- 2010: $7.33
- 2011: $5.62
- 2012: $3.66
- 2013: $2.47
- 2014: $2.65
- 2015: $3.19

Average: ($5.16)
### Outcome Tracking #2

Review of Antibiogram

<table>
<thead>
<tr>
<th>HOSPITAL</th>
<th>Enter</th>
<th>Meth Staph</th>
<th>Neth Staph</th>
<th>Str. Sep</th>
<th>Es</th>
<th>Klebs</th>
<th>Pn</th>
<th>Pseud</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Number of Isolates</strong></td>
<td>27</td>
<td>108</td>
<td>177</td>
<td>97</td>
<td>52</td>
<td>26</td>
<td>13</td>
<td>44</td>
</tr>
<tr>
<td>Amikacin&lt;sup&gt;55&lt;/sup&gt;</td>
<td>98</td>
<td>100</td>
<td>100</td>
<td>96</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Ampicillin&lt;sup&gt;2&lt;/sup&gt;</td>
<td>100</td>
<td></td>
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<td></td>
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<tr>
<td>Ampicillin/Subl (Unasn)&lt;sup&gt;55&lt;/sup&gt;</td>
<td></td>
<td>96</td>
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<tr>
<td>Amoxicillin/Clavulanate&lt;sup&gt;55&lt;/sup&gt;</td>
<td></td>
<td>99</td>
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<tr>
<td>Cefazolin (Ancef)&lt;sup&gt;5&lt;/sup&gt;</td>
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<td>100</td>
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<td>Cefepime (Maxipime)&lt;sup&gt;55&lt;/sup&gt;</td>
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<td>Ceftriaxone (Rocephin)&lt;sup&gt;55&lt;/sup&gt;</td>
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<td>100</td>
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<td>Ciprofloxtin (Cipro)&lt;sup&gt;55&lt;/sup&gt;</td>
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<td>Ertapenem (Invanz)&lt;sup&gt;55&lt;/sup&gt;</td>
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<td>57</td>
<td></td>
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<tr>
<td>Erythromycin&lt;sup&gt;5&lt;/sup&gt;</td>
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<td>87</td>
<td>89</td>
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<tr>
<td>Gentamicin&lt;sup&gt;55&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
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<td>87</td>
<td>89</td>
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<tr>
<td>Piperacillin/Tazobactam</td>
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<tr>
<td>Tobramycin</td>
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"Organism" (URINE) Susceptibility Trends

![Graph showing susceptibility trends for various antibiotics over years]
Outcome Tracking #3
Days of Therapy, Defined Daily Doses, etc

- Medication Stewardship Advisor – BD MedMined™ Services
- National Healthcare Safety Network (NHSN) http://www.cdc.gov/nhsn/
- Onsite informatics department reports on demand
- Robust Medication Use Evaluation (MUE) program is powerful
Education Compliance Program

• *Education by PSI* begins with universal content followed by a customized approach unique to each healthcare professional.

• The program provides education using a combination of
  • *Self-study*: Web-based voice-over presentations
  • *Examination*: Case-based questions to test retention
  • *Application*: Peer-review competency assessments

• A certificate of completion is available for the employee’s file.

• Each organization is encouraged to host electronic materials using the native learning management software.
<table>
<thead>
<tr>
<th>Practitioners¹</th>
<th>Nursing, Quality &amp; Infection Prevention</th>
<th>Pharmacists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing an Antimicrobial Stewardship Program</td>
<td>Implementing an Antimicrobial Stewardship Program</td>
<td>Implementing an Antimicrobial Stewardship Program</td>
</tr>
<tr>
<td>Bugs and Drugs 101</td>
<td>Bugs and Drugs 101</td>
<td>Bugs and Drugs 101</td>
</tr>
<tr>
<td>AMS Considerations for Practitioners</td>
<td>AMS Considerations for Nursing &amp; IP Staff</td>
<td>AMS Considerations for Pharmacists</td>
</tr>
<tr>
<td>Case Study Questions</td>
<td>Case Study Questions</td>
<td>Case Study Questions</td>
</tr>
<tr>
<td>Profession-specific Competency Assessment</td>
<td>Profession-specific Competency Assessment</td>
<td>Intervention Log submitted to show impact</td>
</tr>
</tbody>
</table>

1. The term practitioner is intended to include physicians, nurse practitioners, and other professionals given prescriptive authority under the guidance of the medical staff by-laws.
Influencing Stakeholders

Leadership Engagement in Antimicrobial Stewardship
Influence

Physicians

- Shared responsibility and accountability
- Interprofessional collaboration fosters learning
- Promote and achieve superior patient outcomes
- Automatic RPh programs drive efficiencies

Magic Word = “HELP”
Influence, cont’d

Administrators

- Financial implication of dollars saved
- Media attention / buzz word / hot topic
- Patient satisfaction and HCAHPS
- Advisory Board, CMS, CDC endorsement

Magic Word = “MANDATORY”
Influence, continued

Magic Word = “VALUE”
An effective MUE program can show individual physician performance relative to a peer group.
Comparing the hospital to others can show areas for success or improvement.
Tracking interventions relative to peers or setting expectations on performance evaluation can improve activity level.
It is recommended to implement as many ASP strategies at once, to ensure you have a robust program.

➢ True or False?
Leadership Engagement in Antimicrobial Stewardship

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