The Changing Landscape of Infection Prevention in Nursing Facilities

Myra M. Foley, BA, RN, CIC

Learning Objectives: Following The Presentation the Learner Will Be Able to …

- List three of the newest CMS requirements for Infection Prevention and Control.
- List the top three CMS Infection Prevention deficiencies and voice an awareness of solutions to avoid them.
- List two resources available to help with their Infection Prevention and Control program.
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Outline

- CMS Infection Prevention and Control guidelines.
- Infection Prevention and Antimicrobial Stewardship as elements of your QAPI (Quality Assurance and Performance Improvement).
- The CMS Infection Prevention worksheet/survey tool.
- The latest Infection Prevention information from the APIC (Association of Professionals in Infection Control and Epidemiology) Annual Conference – Minneapolis, June, 2018.
- Sample Infection Prevention policies, monitoring tools, patient/staff education, and other Infection Prevention resources.

Why Is Infection Prevention SO Important?

- Over 1.3 million elderly living in 15, 700 nursing homes nationally.
  - 1 out of 3 nursing home residents are colonized with a multi-drug resistance microorganism.
  - 1-3 million infections occur annually in nursing homes. That’s 1.6 to 3.8 infections per resident per year!
  - 380,000 people die of infections in long term care facilities every year.
- Infections account for nearly half of all transfers to hospitals.
  - 150,000 – 200,000 thousand hospital admissions.
  - Cost: $673 million to $2 billion every year.
  - Death rate of residents hospitalized with infections – 40%.
Background Of Infection Prevention And Control

- Infection Control programs were instituted in hospitals in the 1950s to 1970s, as a result of CDC’s and JACHO’s (Joint Commission on Accreditation of Healthcare Organizations) concerns about hospital-associated infections.
- 1987 – Congress enacted the Nursing Home Reform Act, a law mandating quality of care standards for LTCF’s that received Medicare and Medicaid funding. This law was the result of a report released from the Institute of Medicine entitled “Improving the Quality of Care in Nursing Homes”.
- The goal of the Nursing Home Reform Act:
  - Ensure compliance with regulations.
  - Improve the quality of care and quality of life for the residents.

Infection Prevention and Antibiotic Stewardship Policy Drivers in Nursing Homes

- 2014 Office of Inspector General Report
- 2015 CMS New Regulatory Proposal for LTCFs
- 2016 CMS Regulatory Requirements finalized

- HHS National Action Plan to Prevent Healthcare associated Infections
  - 2013
- CDC Releases Core Elements of Antibiotic Stewardship
  - 2015
- WH National Action Plan for Combating Antibiotic Resistant Bacteria
  - 2015
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CMS Final Rule for Long Term Care, 2016

Facilities are required to develop an Infection Prevention and Control Program (IPCP) with requirements of:

- An Infection Preventionist with specialized training
- A system for preventing, identifying, reporting, investigating, and controlling infections and communicable diseases
- A system for recording incidents identified under the facility’s IPCP and the corrective actions taken by the facility
- An antibiotic stewardship program that includes antibiotic use protocols and a system to monitor antibiotic use


CMS Final Rule Phases

<table>
<thead>
<tr>
<th>Phases</th>
<th>Requirements</th>
</tr>
</thead>
</table>
| Phase 1 (November 28, 2016) | Implementation of existing requirements  
|                       | • Participation in Quality Assurance and Performance Committees  
|                       | • Infection Control Program                                                  |
| Phase 2 (November 28, 2017) | Quality Assurance and Performance Improvements (QAPI Plan Only)  
|                       | • Infection Control plan with Antibiotic Stewardship                         |
| Phase 3 (November 28, 2019) | Full Implementation of QAPI plan  
|                       | • IP with specialized training                                              |
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Other Regulations And Guidelines To Be Considered For Your Infection Prevention And Control Program

- CDC – Infection Control Guidelines
- SHEA (Society of Healthcare Epidemiology of America)
- OSHA (Occupational Safety and Health Administration)
  - Respiratory Protection and
  - Bloodborne Pathogens Standard
Long Term Care Facilities (LTCFs) Assessed, as of January/February 2018

- 2206 total facility assessments completed by 44 state/local HDs
  - CMS-certified LTCFs (NHs and ICFs) = 94% of assessments
- Type of assessment:
  - 2143 on-site assessments, with 2078 (97%) in NHs and ICFs
- Long-term care settings assessed:

<table>
<thead>
<tr>
<th>Nursing Home (NHs)</th>
<th>Intermediate Care Facility (ICFs)</th>
<th>Assisted Living Facility (ALFs)</th>
<th>Other LTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2044</td>
<td>34</td>
<td>46</td>
<td>73</td>
</tr>
</tbody>
</table>

Infection Control Program and Infrastructure

<table>
<thead>
<tr>
<th></th>
<th>% YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The facility has specified a person (e.g., staff, consultant) who is responsible for coordinating the IC program.</td>
<td>97%</td>
</tr>
<tr>
<td>B. The person responsible for coordinating the infection prevention program has received training in IC</td>
<td>47%</td>
</tr>
<tr>
<td>C. The facility has a process for reviewing infection surveillance data and infection prevention activities (e.g., presentation at QA committee).</td>
<td>97%</td>
</tr>
<tr>
<td>D. Written infection control policies and procedures are available and based on evidence-based guidelines (e.g., CDC/HICPAC), regulations (F-411), or standards.</td>
<td>91%</td>
</tr>
<tr>
<td>E. Written infection control policies and procedures are reviewed at least annually or according to state or federal requirements, and updated if appropriate.</td>
<td>79%</td>
</tr>
<tr>
<td>F. The facility has a written plan for emergency preparedness (e.g., pandemic influenza or natural disaster).</td>
<td>92%</td>
</tr>
</tbody>
</table>

Overall, only 36% of NHs had ALL elements of the IPC Program Infrastructure
### Hand Hygiene

<table>
<thead>
<tr>
<th></th>
<th>% YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The facility hand hygiene (HH) policies promote preferential use of alcohol-based hand rub over soap and water except when hands are visibly soiled (e.g., blood, body fluids) or after caring for a resident with known or suspected C. difficile or norovirus.</td>
<td>69%</td>
</tr>
<tr>
<td>B. All personnel receive training and competency validation on HH at the time of employment.</td>
<td>78%</td>
</tr>
<tr>
<td>C. All personnel received training and competency validation on HH within the past 12 months.</td>
<td>73%</td>
</tr>
<tr>
<td>D. The facility audits (monitors and documents) adherence to HH</td>
<td>52%</td>
</tr>
<tr>
<td>E. The facility provides feedback to personnel regarding their HH performance.</td>
<td>55%</td>
</tr>
<tr>
<td>F. Supplies necessary for adherence to HH (e.g., soap, water, paper towels, alcohol-based hand rub) are readily accessible in resident care areas (i.e., nursing units, resident rooms, therapy rooms).</td>
<td>88%</td>
</tr>
</tbody>
</table>

Overall, only 27% of NHs had ALL elements of the Hand Hygiene domain in place.

### Personal Protective Equipment (PPE)

<table>
<thead>
<tr>
<th></th>
<th>% YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The facility has a policy on Standard Precautions which includes selection and use of PPE (e.g., indications, donning/doffing procedures).</td>
<td>94%</td>
</tr>
<tr>
<td>B. The facility has a policy on Transmission-based Precautions that includes the clinical conditions for which specific PPE should be used (e.g., C.diff, influenza).</td>
<td>92%</td>
</tr>
<tr>
<td>C. Appropriate personnel receive job-specific training and competency validation on proper use of PPE at the time of employment.</td>
<td>66%</td>
</tr>
<tr>
<td>D. Appropriate personnel received job-specific training and competency validation on proper use of PPE within the past 12 months.</td>
<td>61%</td>
</tr>
<tr>
<td>E. The facility audits (monitors and documents) adherence to PPE use (e.g., adherence when indicated, donning/doffing).</td>
<td>30%</td>
</tr>
<tr>
<td>F. The facility provides feedback to personnel regarding their PPE use.</td>
<td>40%</td>
</tr>
<tr>
<td>G. Supplies necessary for adherence to proper PPE use (e.g., gloves, gowns, masks) are readily accessible in resident care areas (i.e., nursing units, therapy rooms).</td>
<td>92%</td>
</tr>
</tbody>
</table>

Overall, only 21% of NHs had ALL elements of the PPE domain in place.
### Antibiotic Stewardship

<table>
<thead>
<tr>
<th>Description</th>
<th>% YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The facility can demonstrate leadership support for efforts to improve antibiotic use (antibiotic stewardship).</td>
<td>72%</td>
</tr>
<tr>
<td>B. The facility has identified individuals accountable for leading antibiotic stewardship activities</td>
<td>68%</td>
</tr>
<tr>
<td>C. The facility has access to individuals with antibiotic prescribing expertise (e.g., ID trained physician or pharmacist).</td>
<td>79%</td>
</tr>
<tr>
<td>D. The facility has written policies on antibiotic prescribing.</td>
<td>30%</td>
</tr>
<tr>
<td>E. The facility has implemented practices in place to improve antibiotic use.</td>
<td>59%</td>
</tr>
<tr>
<td>F. The facility has a report summarizing antibiotic use from pharmacy data created within last 6 months.</td>
<td>61%</td>
</tr>
<tr>
<td>G. The facility has a report summarizing antibiotic resistance (i.e., antibiogram) from the laboratory created within the past 24 months.</td>
<td>40%</td>
</tr>
<tr>
<td>H. The facility provides clinical prescribers with feedback about their antibiotic prescribing practices.</td>
<td>34%</td>
</tr>
<tr>
<td>I. The facility has provided training on antibiotic use (stewardship) to all nursing staff within the last 12 months.</td>
<td>41%</td>
</tr>
<tr>
<td>J. The facility has provided training on antibiotic use (stewardship) to all clinical providers with prescribing privileges within the last 12 months.</td>
<td>28%</td>
</tr>
</tbody>
</table>

Overall, only 8% of NHs had ALL elements of the Antibiotic Stewardship domain in place.

### Environmental Cleaning

<table>
<thead>
<tr>
<th>Description</th>
<th>% YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The facility has written cleaning/disinfection policies which include routine and terminal cleaning and disinfection of resident rooms.</td>
<td>86%</td>
</tr>
<tr>
<td>B. The facility has written cleaning/disinfection policies which include routine and terminal cleaning and disinfection of rooms of residents on contact precautions (e.g., C diff).</td>
<td>82%</td>
</tr>
<tr>
<td>C. The facility has written cleaning/disinfection policies which include cleaning and disinfection of high-touch surfaces in common areas.</td>
<td>77%</td>
</tr>
<tr>
<td>D. The facility cleaning/disinfection policies include handling of equipment shared among residents (e.g., blood pressure cuffs, rehab therapy equipment, etc.).</td>
<td>74%</td>
</tr>
<tr>
<td>E. Facility has policies and procedures to ensure that reusable medical devices (e.g., blood glucose meters, wound care equipment, podiatry equipment, dental equipment) are cleaned and reprocessed appropriately prior to use on another patient.</td>
<td>73%</td>
</tr>
<tr>
<td>F. Appropriate personnel receive job-specific training and competency validation on cleaning and disinfection procedures at the time of employment.</td>
<td>70%</td>
</tr>
<tr>
<td>G. Appropriate personnel received job-specific training and competency validation on cleaning and disinfection procedures within the past 12 months.</td>
<td>56%</td>
</tr>
<tr>
<td>H. The facility audits (monitors and documents) quality of cleaning and disinfection procedures.</td>
<td>50%</td>
</tr>
<tr>
<td>I. The facility provides feedback to personnel regarding the quality of cleaning and disinfection procedures.</td>
<td>54%</td>
</tr>
</tbody>
</table>
Common Findings And Themes From The 2018 Assessment

- Leadership investment/support for IPC highly variable.
- Staff overseeing IPC programs lacked training and dedicated time.
- Routine auditing of staff adherence to policies and procedures and feedback on staff adherence was not in place (i.e. PPE, injection safety and point-of-care testing).
- Minimal antibiotic stewardship activities in place.

Louisiana Deficiencies (2018) - CMS Surveys

- Hand Hygiene Compliance.
- Standard and Transmission based precautions.
- General Housekeeping/cleaning.
- Cleaning of shared patient care equipment (CBG Machines, etc.)
- Policies and Procedures and staff competencies.
Let’s Look At Some Of These Common Issues

- ICP - Formal Training.
- Hand Hygiene Compliance.
- Personal Protective Equipment (PPE) for Standard and Transmission-Based Precautions.
- Cleaning and Disinfection of the environment and patient care equipment.
- Antimicrobial Stewardship.

Formal Training For Your ICP (Infection Preventionist)

- Membership in APIC (Association of Infection Control & Epidemiology):
  - Access to APIC’s IC Roadmap.
  - Access to manuals.
  - Access to resources, listservs.
  - Access to local chapter meetings and networking with fellow ICPs.
  - Specialized training classes for Long Term Care.
Formal Training For Your ICP

- Louisiana Office of Public Health
- Last year they offered trainings in:
  - MDRO Management in Long-term Care Facilities
  - APIC Long-term Care Management Workshop
- In September 2018 they will offer training entitled: “Influenza Detection, Containment, and Response”
**Louisiana Office Of Public Health Educational Offerings**

**Objectives**
- Understanding the causes of nosocomial infections and their prevention.
- Developing strategies for the reduction of nosocomial infections, including surveillance.
- Enhancing communication among healthcare providers.
- Strengthening the relationship between patients, healthcare providers, and the healthcare system.

**The Basics of Clinical Bacteriology**
- Understanding the role of bacteria in infection.
- Identification of bacterial species and their role in disease.

**Other Resources For Your ICP**
- **Local Community Readmission Coalitions (eQ Health/LHA):**
  - Acadiana Health Coalition
  - Alexandria
  - Shreveport
  - NOLA – East Bank, West Bank, North Shore
  - Bayou Region (Houma)

- Louisiana Hospital Association (LHA) – [www.hret-hiin.org](http://www.hret-hiin.org)
Hand Hygiene

Common Findings:
- Lack of knowledge about the need for preferential use of alcohol-based hand rub/sanitizer (ABHR).
- Limited access to hand hygiene supplies.
- No standard practice for restocking supplies – who restocks, how often is it done and where are extra supplies stored.
- No standard practice for checking supplies expiration dates.

How to Address:
- Use ABHR unless hands are visibly soiled or patient has C. Diff (soap & warm water).
- Wearing gloves is NOT a substitute for hand hygiene.
- Monitor compliance - all days and all shifts; share data with staff/physicians.
- Staff education and competency - return demonstration.
- Establish a plan of action to improve rates.

I. PURPOSE:
Provide specific infection control guidelines for hand hygiene to all healthcare workers engaged in direct patient contact.
Reduce transmission of pathogenic microorganisms to patient and staff.
Hand washing is the single most effective method to prevent the spread of infection.

When caring for a patient with Clostridium difficile use soap & water. Alcohol-based sanitizers are not recommended by CDC when caring for these patients.

These practices are consistent with the Center for Disease Control (CDC) recommendations.

II. Procedure:
1. Indications for hand washing and hand antiseptic:
   1. Upon reporting to work
   2. Prior to any patient contact
   3. After handling dirty or contaminated equipment and upon leaving department
   4. Before glove removal
   5. After glove removal
   6. After contact with environmental sources likely to be contaminated
   7. Before handling any medication or treatment
   8. Before eating and after using a restroom
   9. After contact with a patient’s intact skin (i.e. when taking a pulse, blood pressure and after lifting a patient)
Standard Precautions And Transmission-Based Precautions

Common Findings:
- Lack of Knowledge about the need for Standard Precautions.
- Lack of knowledge about Transmission-Based Precautions and what PPE to wear.
- Limited access to PPE supplies
- No standard process for restocking supplies (who, how often, access to extra supplies).

How to Address:
- Monitor compliance – all days of the week and all shifts.
- Share data with staff and physicians.
- Staff competency – return demonstration.
- Establish a plan of action to address rate changes.

CDC – Isolation Guidelines

https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html
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2018 LNHA DON Boot Camp

Donning And Doffing PPE Per CDC

SEQUENCE FOR DONNING PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. Gown
   - Step into gown, then bring arms to a tuck
   - Hood must be worn over gown
   - Gown must be sealed at cuff

2. Mask or Respirator
   - Place on face
   - Adjust to fit face
   - Ensure grommet opening is open
   - Must be worn

3. Goggles or Face Shield
   - Place on face
   - Adjust to fit face
   - Must be worn

4. Gloves
   - Wash hands, then don gloves
   - Gloves must be worn
   - Hands must be cleaned

Use Safe Work Practices to Protect Yourself and Limit the Spread of Contamination

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

1. Gowns
   - Gown is removed from back, not from the front
   - Gown is removed from back
   - Hands must be cleaned

2. Goggles or Face Shield
   - Goggles are removed from face
   - Gloves are removed from hands
   - Hands must be cleaned

3. Gown
   - Gown is removed from back, not from the front
   - Hands must be cleaned

Perform hand hygiene immediately after removing all PPE

Hand Hygiene Monitoring Tool

Patient Care Unit/Dept.: ___________________ Month/Year: __________

Initials of Monitor: ________________

Healthcare Worker (HCW) Type:

1 = Physician
2 = Physician Assistant
3 = Physician Support Staff
4 = Housekeeper
5 = Patient Transporter
6 = Respiratory Therapist
7 = LPN
8 = RN
9 = Nursing Aide
10 = Tray Passer
11 = Casemanager/Social Worker
12 = Pastoral Care
13 = Patient Transporter
14 = Radiology
15 = Dietitian
16 = Laboratory
17 = Other

HR = Hand Wash
Y = Yes
N = No

Date (Day, Mon, Wed, Fri)
Shift (See Key)
Hand Hygiene BEFORE Touching Patient
Hand Hygiene AFTER Touching Patient Environment, or Objects
Patient on Contact or Precautions
Gloves Worn
Gown Worn

Acadiana Health Coalition
The Changing Landscape of Infection Prevention in Nursing Facilities

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Assessments of Infection Prevention Practices: Hand Hygiene and Gown/Glove Use


Hand Hygiene and Precautions Competency

10. Mr. Jones is a 78 y/o ambulatory gentleman requesting assistance to bathroom. He is on contact isolation for C-Diff. Based on the fact that he is independent; staff members do not need to wear protective equipment
   a) True
   b) False

11. Which cleaning product should be used for C-diff
   a) Soap and water
   b) Bleach wipes
   c) Any Disinfectant
   d) Pine-Sol

12. Employees do not need to wear gloves when handling cleaning products
   a) True
   b) False

13. Patients with C-Diff should have the following dedicated equipment
   a) Thermometer
   b) Stethoscope
   c) Blood pressure cuff
   d) Isolation cart
   e) Signage on door
   f) All of the above

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The Changing Landscape of Infection Prevention in Nursing Facilities

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2018 LNHA DON Boot Camp
Environmental/Equipment Cleaning And Disinfection

Common Findings:
- Inconsistent cleaning and disinfection of surfaces and shared resident care equipment.
- Lack of knowledge about the facilities EPA registered disinfectants.
- Lack of knowledge about the disinfectants label, instructions for use, contact time and what PPE to wear.
- Limited access to EPA registered disinfectants.
- No standard process for restocking disinfectants (who, how often, access to extra supplies).

How to Address:
- Establish a standardized cleaning process; use a checklist.
- Educated staff on when/how to clean – routine daily room cleaning and discharge cleaning and what product(s) to use.
- Clean reusable patient care equipment following manufacturer's guidelines which specify what cleaner/disinfectant to use and how to clean the equipment.
- Educate staff to review the cleaning product label - wet times, microbial kills, required PPE for use.
- Ongoing monitoring for cleanliness.

[Environmental Services Checklist for Daily Cleaning of Resident Room]

<table>
<thead>
<tr>
<th>Cleaning Task</th>
<th>Cleaned</th>
<th>Not Cleaned</th>
<th>Not Present in Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>High dusting performed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use high duster/mop head: wipe ledges (shoulder high and above)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lights (do not high dust over the resident)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dust TV, rotate and dust screen and wires</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damp dust: Cloths and spray bottle of disinfectant for damp wipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ledges (shoulder high)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door handles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room furniture (bureaus, chairs, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bedside table: disinfect surface</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment per policy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Monitoring For Cleanliness

Compare other methods of cleaning verification including microbiology testing and visual inspection in the table below.

<table>
<thead>
<tr>
<th>Method</th>
<th>Microbiology Testing</th>
<th>Visual Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of Use</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Can be used by any level user?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Objective</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Is it a material that is toxic?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Specific</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Does the method detect microbiological markers?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Quantitative</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Are results uniform and measurable?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Availability</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Can results be categorized as Pass/Fail?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Methodology</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Does the method minimize time constraints?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Low Cost</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Are supplies and other costs affordable?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>User-friendly</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Does the tool conform to proper cleaning?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Measurable TOI</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>To the task performed powerful for managers?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>User-friendly</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Are results protected from manipulation?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Software analysis</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Does the product come with software?</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Grand Total</td>
<td>✭✭✭✭✭</td>
<td>✭✭✭✭✭</td>
</tr>
</tbody>
</table>

Double Occupancy Room Cleaning

1. Treat each resident area as a separate room

2.
Antimicrobial Stewardship - Why Do We Need It?

Louisiana ranks 5th in the Nation for Antimicrobial Use

Antimicrobial Stewardship: Why Do We Need It?

- Antibiotics are overused in Nursing Homes.
- Antibiotics account for approximately 40% of all medications administered.
- Between 47-79% of Nursing Home residents receive antibiotics at least once per year.
Antimicrobial Stewardship: Why Do We Need It?

- Up to 75% of all antibiotics are prescribed incorrectly.

**Antimicrobial Misuse**
- Unnecessary
- No longer necessary
- Wrong antibiotic
- Wrong dose / duration
- Broad spectrum agents used on very susceptible bacteria

---

**CMS Long-Term Care Final Rule**

- 42 CFR part § 483.80 Infection Control

- Infection Prevention & Control Program (IPCP) includes:
  - Antibiotic stewardship program
  - Antibiotic use protocols
  - System to monitor antibiotic use
  - Effective 11-28-2017

(CMS)
### Core Elements of Antibiotic Stewardship for Nursing Homes

#### Leadership Commitment
- Demonstrate support and commitment to safe and appropriate antibiotic use in your facility.

#### Accountability
- Identify pharmacy, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility.
- Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility.

#### Drug Expertise
- Implement at least one policy or practice to improve antibiotic use.

#### Action
- Implement at least one process measure of antibiotic use and at least one outcome measure of antibiotic use in your facility.

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

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

### Checklist for Core Elements of Antibiotic Stewardship in Nursing Homes

The following checklist is a companion to the Core Elements of Antibiotic Stewardship in Nursing Homes. The CDC recommends that all nursing homes take steps to implement antibiotic stewardship activities. Before getting started, use this checklist as a baseline assessment of policies and practices which are in place. Then use the checklist to review progress in expanding stewardship activities on a regular basis (e.g., annually). Over time, implement activities for each element in a step-wise fashion.

<table>
<thead>
<tr>
<th>Leadership Support</th>
<th>Established at Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can your facility demonstrate leadership support for antibiotic stewardship through one or more of the following actions?</td>
<td>Yes</td>
</tr>
<tr>
<td>- Written statement of leadership support for improving antibiotic use</td>
<td></td>
</tr>
<tr>
<td>- Antibiotic stewardship duties included in medical director position description</td>
<td></td>
</tr>
<tr>
<td>- Antibiotic stewardship duties included in director of nursing position description</td>
<td></td>
</tr>
<tr>
<td>- Leadership monitors whether antibiotic stewardship policies are followed</td>
<td></td>
</tr>
<tr>
<td>- Antibiotic use and resistance data is reviewed in quality assurance meetings</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accountability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Has your facility identified a lead role for antibiotic stewardship activities?</td>
<td>Yes</td>
</tr>
<tr>
<td>- If yes, indicate who is accountable for stewardship activities (select all that apply)</td>
<td></td>
</tr>
<tr>
<td>- Medical director</td>
<td></td>
</tr>
<tr>
<td>- Director or assistant director of nursing services</td>
<td></td>
</tr>
<tr>
<td>- Consultant pharmacist</td>
<td></td>
</tr>
<tr>
<td>- Other:</td>
<td></td>
</tr>
</tbody>
</table>
Assess Optimal Prescribing Practices

- Patient symptoms match clinical criteria.
- Patient asymptomatic or symptoms do not meet clinical criteria.
- Culture and sensitivity, quick test, or chest x-ray obtained matches clinical criteria.
- Appropriate antibiotic selected based on national guidelines/facility susceptibility pattern.
- Empiric antibiotic selection based on preference and experience. Facility susceptibility pattern not available.
- 48-hour time-out identifies cultures/quick test: organisms, and sensitivities assess quality of culture.
- Appropriate narrowed spectrum antibiotic ordered based on culture results, national guidelines, and facility susceptibility pattern.
- Antibiotic is not reviewed or lab tests are not available. Patient continues on inappropriate or unnecessary antibiotic.
- Antibiotic selection incorrect for site/syndrome and facility susceptibility patterns. Inappropriate broad-spectrum antibiotic used.
- Suboptimal practices may be associated with inappropriate antibiotic use, Clostridium difficile, multidrug-resistant organisms, and drug reactions.
Elements Of The Antimicrobial Stewardship Program

- Written guidelines in place for antibiotic use. *
- Collection of data on antibiotic utilization.*
- Antibiotic prescribing guideline/order.
- Policies to restrict the use of specific antibiotics (protected antibiotics).
- Providing feedback to clinicians on antibiotic prescribing.
- Use of therapeutic formularies.
- Review of cases to assess antibiotic appropriateness.

* Most frequently missing policies

Are The Antibiotics REALLY Needed?

- Reassess need for antibiotics until clinical picture is clear, diagnostic information is available.
- Avoid empiric antibiotics for changes in condition such as: Falls, increased confusion in the absence of UTI-specific symptoms.
- Search for other causes of the condition:
  - Hydration status, medication side effects, worsening of symptoms such as hypoxia.
  - Guide empiric treatment by having clinical pathways or order sets.
Combating Inappropriate Antimicrobial Use From The Front Lines....

- Train nursing assistants and staff nurses.
- Job specific instruction on Hospital-Associated Infection (HAI) symptoms, especially UTI symptoms.
- Recognize difficult to understand HAI criteria:
  - True change in mental or functional status.
  - Determination of fever.
  - Role of leukocytosis.
  - Interpretation of culture report.
- How to assess, record and report HAI symptoms.
- Institute training programs and documentation tools.

UTI – Urinary Tract Infections

- Validate UTI symptoms with criteria nationally recognized criteria (CDC/NHSN).
- Consider symptoms, labs and established criteria (colony counts, etc.).
- Avoid unnecessary urine testing:
  - Avoid urine testing as the only evaluation for nonspecific signs or symptoms.
  - Foul smelling or thick dark urine.
UTI – Urinary Tract Infections

- Appropriate specimen collection
  - Proper hand hygiene.
  - Sterile container.
  - Proper collection techniques (clean catch, straight catheter, or indwelling catheter) – competencies.
  - Store in refrigerator while awaiting transport to the lab.

Acadiana Health Coalition
The Changing Landscape of Infection Prevention in Nursing Facilities

Myra Foley, BA, RN, CIC

2018 LNHA DON Boot Camp

Education

**Viruses**

Viruses are the cause of common colds, flu, and other respiratory infections. Symptoms can include fever, cough, sore throat, congestion, and fatigue. Treatment includes rest, fluids, and over-the-counter medications such as pain relievers and decongestants.

**Disposal of Unused Medications**

Some medications should be returned to the pharmacy, if possible. Others, such as antibiotics, should be disposed of safely to prevent the growth of resistant bacteria. Follow the instructions on the label or contact your healthcare provider for guidance.

**Antibiotics:**

Use or Misuse?

- **Use:**
  - To treat bacterial infections
  - Must be prescribed by a healthcare provider

- **Misuse:**
  - Self-treatment of viral infections
  - Overuse leads to antibiotic resistance

**What can I do to feel better?**

- Pain relievers
- Cough syrups
- Rest

**Consequences of Misuse**

- Antibiotic resistance
- Superbugs
- Increased healthcare costs

**Antibiotics Aren’t Always the Answer**

<table>
<thead>
<tr>
<th>Illness</th>
<th>Treat Cold</th>
<th>Viral Infection</th>
<th>Antibiotic Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold/Flu</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sinus Infection</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Ear Infection</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Strep Throat</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Urinary Tract Infection</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Will antibiotics help me feel better faster?**

- Antibiotics may not be necessary for viral infections
- Always consult with a healthcare provider for advice
Education

Measurement Of Antimicrobial Stewardship

→ Measure Antibiotic Prescribing Processes and Outcomes:
  → Percentage of effectiveness of common antibiotics for organisms identified from cultures performed in the facility.
  
→ Monitor Compliance:
  → Proper Application of hospital-associated infection criteria.
  → Antibiotic prescribing documentation.
  → Facility-specific treatment protocols.
  
→ Measure monthly rates:
  → New antibiotic starts and cultures ordered.
  → Work with the facility’s lab contractor to develop and Antibiogram.


What can residents and families do to support appropriate antibiotic use and prevent infections in nursing homes?

- Talk to your healthcare provider about when antibiotics will and won’t help, and ask about antibiotic resistance.
- Ask what antibiotic is treating, how long antibiotics are needed, and what side effects might happen.
- Ask what your nursing home is doing to protect you from antibiotic-resistant and C. difficile infections.
- Instruct that everyone wash their hands before touching you.
- Ask visitors and family not to visit when they feel ill.
- Get vaccinated for the flu and pneumonia, and encourage others to stay up-to-date on vaccines.
Your QAPI (Quality Assurance And Performance Improvement) Plan

- **Goal** is to provide safe and high quality care.
- **The program must be ongoing and comprehensive.**
- **Includes all departments and services provided.**
- **Address all systems of care and management practices.**
- **Address quality and opportunities for improvement.**
- **Must be able to be defined and measured.**
Your QAPI (Quality Assurance And Performance Improvement) Plan

- Systems in place to monitor and collect data from multiple sources throughout the facility.
- Performance indicators for specific processes and outcomes and reviewing results against targeted benchmarks for performance (monthly audits).
- Tracking, monitoring Adverse Events and investigated them each time they occur and implement action plans.

Policies/Procedures/Competencies And Checklists

- Policy and procedure outline your processes.
- Staff need a working knowledge of the policies and procedures and need documentation that shows their competency in performing tasks such as hand washing, donning and doffing PPE, cleaning patient care equipment between patients, etc.
- Return demonstration helps staff remember the training.
- Auditing/Monitoring adherence to policies.
- Provide feedback on staff adherence.
- Standardize processes, i.e. cleaning checklist.
Assessments of Infection Prevention Practices: Indwelling Urinary Catheter (IUC) Maintenance (i.e., foley)


CAUTI PREVENTION BUNDLE

Seal Intact
Clean, Dedicated Drainage Container
No Dependent Loops
Pett Care Done
Green Clip
Bag Below Bladder
Bag Off Ground
DBM LOCK in Place 1" Black
Bag < 2/3 Full
Place patient sticker here

Date:
Observer:
Nurse:
Assessments of Infection Prevention Practices: Central Venous Catheter (CVC) Maintenance

Central Venous Catheter (CVC) Maintenance Observations

- Central line should be maintained in normal saline
- CVC should be flushed daily
- CVC should be replaced every 7 days
- CVC should be clamped when not in use
- CVC should be removed when no longer needed
- CVC should be handled with sterile technique
- CVC should be secured with a securement device


CLABSI PREVENTION BUNDLE

- Daily Review of Line Necessity:
  - Medications requiring CVC, TPN
  - Hemodynamic monitoring
- Dressing Changes:
  - Bipapath present at insertion site, blue tides up
  - Transparent, semi permeable: Q7 days
  - If gauze dressing needed: Q2 days
  - When soiled or not intact
- Evidence of Scrubbing the Hub:
  - 5 sec scrub
  - 5 sec dry
  - Change hubs when soiled, as needed
- Evidence of Hand Hygiene:
  - X

Place patient sticker here

Date:__________
Observer:__________
Nurse:__________

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Assessments of Infection Prevention Practices: Wound Care


General Resources

http://www.cdc.gov/longtermcare
The Changing Landscape of Infection Prevention in Nursing Facilities

Myra Foley, BA, RN, CIC

Nursing Homes and Assisted Living (Long-term Care Facilities [LTCFs])

CDC: https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html

The Core Elements of Antibiotic Stewardship for Nursing Homes

The Core Elements of Antibiotic Stewardship for Nursing Homes adopt the CDC Core Elements of Hospital Antibiotic Stewardship into practical ways to influence and expand antibiotic stewardship activities in nursing homes. Nursing homes are encouraged to work in a step-wise fashion, implementing one or two activities to start and gradually adding new strategies from the checklist over time. Any action taken to improve antibiotic use is expected to reduce adverse events, prevent emergence of resistance, and lead to better outcomes for residents in this setting.

CDC:

The Changing Landscape of Infection Prevention in Nursing Facilities

Myra Foley, BA, RN, CIC

CMS IC Survey Tool


Journal Article

Optimal Use of Antibiotics for Urinary Tract Infections in Long-Term Care Facilities: Successful Strategies Prevent Resident Harm

Antibiotics are one of the most commonly prescribed medications in long-term care facilities (LTCFs), but up to 75% are incorrectly prescribed. The irrational use of antibiotics to treat urinary tract infections (UTIs) in LTCFs increases the risk for life-threatening adverse effects. Overuse and misuse of these antibiotic medications has contributed to the rapid emergence of antibiotic-resistant bacteria and Clostridium difficile infection. The Pennsylvania Patient Safety Authority analyzed UTI events reported from Pennsylvania LTCFs during the 30-month period from April 1, 2014, through September 30, 2016. In study (1) triggers for prescribing antibiotics for UTIs, and (2) the frequency of prescribing broad-spectrum antibiotics specifically associated with antibiotic-resistant bacteria and C. difficile infection. The analysis reveals trends from national practice guidelines for treating UTIs and the insufficient use of antibiotics for Gram-negative and Gram-positive pathogens. The results of current methods and the consequences of antibiotic resistance are described in a recent publication. The guidelines for antibiotic-resistant bacteria and C. difficile are essential steps for immediate adoption of best practices for accurate identification and optimal treatment of UTIs in the elderly including: (1) integrating strategies to overcome barriers to antibiotic stewardship, and (2) improving communication between nursing, prescribing, and healthcare facilities in the continuum of care. A Pennsylvania LTCF shares its success story demonstrating the effectiveness of these strategies in reducing suboptimal antibiotic use.

http://patientsafety.ea.gov/ADVISING/ES/Pages/201709_UTI.aspx
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- Infection Preventionist’s Guide to Long Term Care, 2013, Association of Professionals in Infection Control and Epidemiology, Inc. (APIC)

Thank You For Your Time!

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