The Changing Landscape of Infection Prevention in Nursing Facilities

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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.

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.

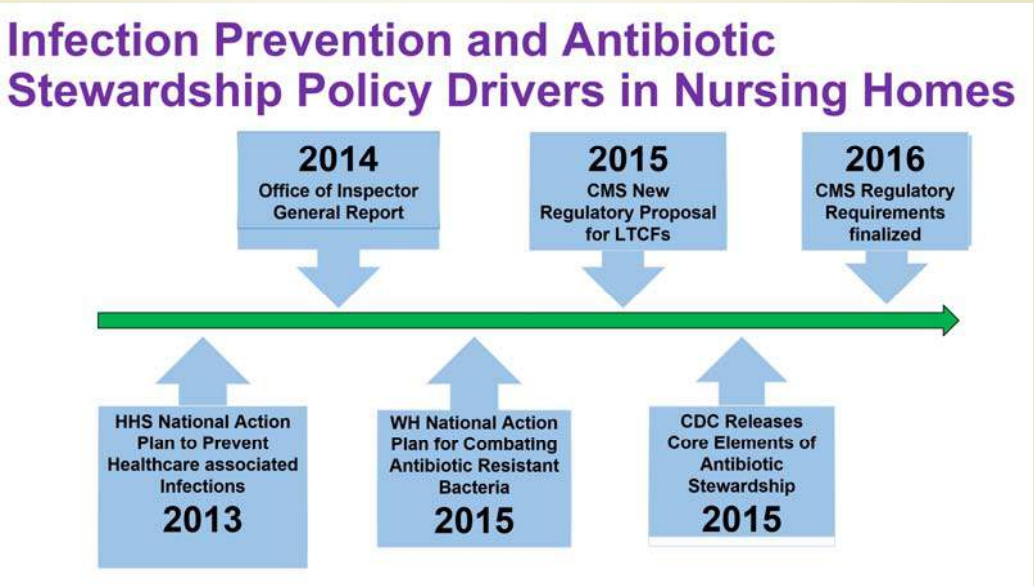
Why Is Infection Prevention SO Important?

- 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

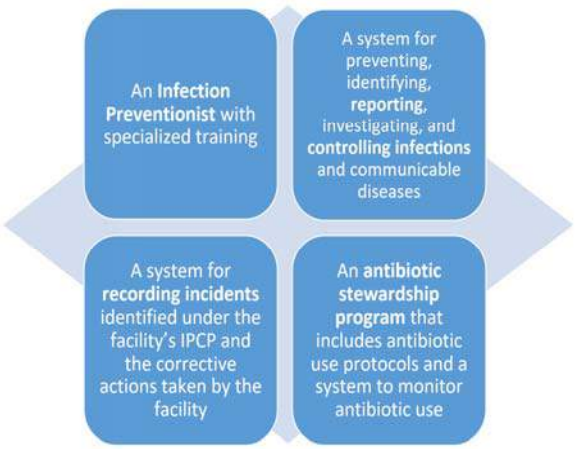
- Infection Control programs were instituted in hospitals in the 1950s to1970s, as a result of CDC's and JACHO's (Joint Commission on Accreditation of Healthcare Organizations)concerns about hospital-associated infections.
- 1987 – Congress enacted the Nursing Home Reform Act, a **law** mandating quality 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



CMS Final Rule for Long Term Care, 2016

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



Source: Centers for Medicare & Medicaid Services (CMS), HHS. Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities. Final rule. Federal register. 2016

CMS Final Rule Phases

Phases	
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

CMS Final Regulations for Infection Prevention and Control Programs (IPC)

§483.80 -- The facility must establish and maintain an infection prevention and control (IPC) program…

- A system for preventing, identifying, reporting, investigating, and controlling infections and communicable diseases
- **Annual review** and update of IPC program, policies/procedures
- **Antibiotic use protocols and monitoring included in IPC**
- **Designated IP with specific training**
- **IPC-specific education and training for all staff**

68688 Federal Register / Vol. 81, No. 192 / Tuesday, October 4, 2016 / Rules and Regulations

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 405, 431, 447, 482, 483, 485, 488, and 489

[CMS–3260–F]

RIN 0938–AR61

Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule.

SUMMARY: This final rule will revise the requirements that Long-Term Care facilities must meet to participate in the Medicare and Medicaid programs. These changes are necessary to reflect the substantial advances that have been made over the past several years in the

https://www.gpo.gov/fdsys/pkg/FR-2016-10-04/pdf/2016-23503.pdf

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:

Nursing Home (NHs)	Intermediate Care Facility (ICFs)	Assisted Living Facility (ALFs)	Other LTC
2044	34	46	73

CDC Survey from APIC conference June 2018

	Infection Control Program and Infrastructure	% YES
A.	The facility has specified a person (e.g., staff, consultant) who is responsible for coordinating the IC program.	97%
B.	**The person responsible for coordinating the infection prevention program has received training in IC**	**47%**
C.	The facility has a process for reviewing infection surveillance data and infection prevention activities (e.g., presentation at QA committee).	97%
D.	Written infection control policies and procedures are available and based on evidence-based guidelines (e.g., CDC/HICPAC), regulations (F-441), or standards.	91%
E.	Written infection control policies and procedures are reviewed at least annually or according to state or federal requirements, and updated if appropriate.	79%
F.	The facility has a written plan for emergency preparedness (e.g., pandemic influenza or natural disaster).	92%

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

Hand Hygiene	% YES
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.	69%
B. All personnel receive training and competency validation on HH at the time of employment.	78%
C. All personnel received training and competency validation on HH within the past 12 months.	73%
D. The facility audits (monitors and documents) adherence to HH	52%
E. The facility provides feedback to personnel regarding their HH performance.	55%
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).	88%

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

Personal Protective Equipment (PPE)	% YES
A. The facility has a policy on Standard Precautions which includes selection and use of PPE (e.g., indications, donning/doffing procedures).	94%
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).	92%
C. Appropriate personnel receive job-specific training and competency validation on proper use of PPE at the time of employment.	66%
D. Appropriate personnel received job-specific training and competency validation on proper use of PPE within the past 12 months.	61%
E. The facility audits (monitors and documents) adherence to PPE use (e.g., adherence when indicated, donning/doffing).	**30%**
F. The facility provides feedback to personnel regarding their PPE use.	**40%**
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).	92%

Overall, only 21% of NHs had ALL elements of the PPE domain in place

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

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

Environmental Cleaning	% YES
A. The facility has written cleaning/disinfection policies which include routine and terminal cleaning and disinfection of resident rooms.	86%
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*).	82%
C. The facility has written cleaning/disinfection policies which include cleaning and disinfection of high-touch surfaces in common areas.	77%
D. The facility cleaning/disinfection policies include handling of equipment shared among residents (e.g., blood pressure cuffs, rehab therapy equipment, etc.).	74%
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.	73%
F. Appropriate personnel receive job-specific training and competency validation on cleaning and disinfection procedures at the time of employment.	70%
G. Appropriate personnel received job-specific training and competency validation on cleaning and disinfection procedures within the past 12 months.	56%
H. The facility audits (monitors and documents) quality of cleaning and disinfection procedures.	**50%**
I. The facility provides feedback to personnel regarding the quality of cleaning and disinfection procedures.	54%

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

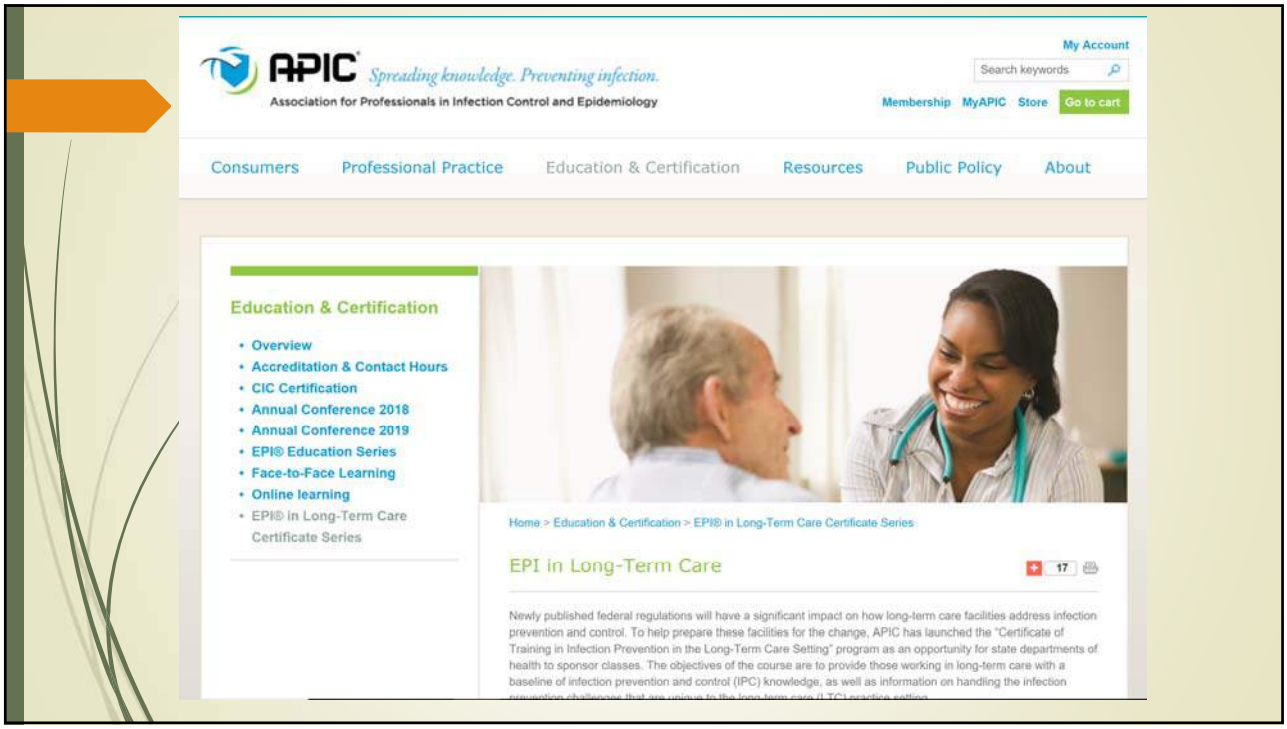
- Hand Hygiene Compliance.
- Standard and Transmission based precautions.
- General Housekeeping/cleaning.
- Cleaning of shared patient care equipment (CBG Machines, etc.)
- Policies and Procedures and staff competencies.

Let's Look At Some Of These Common Issues

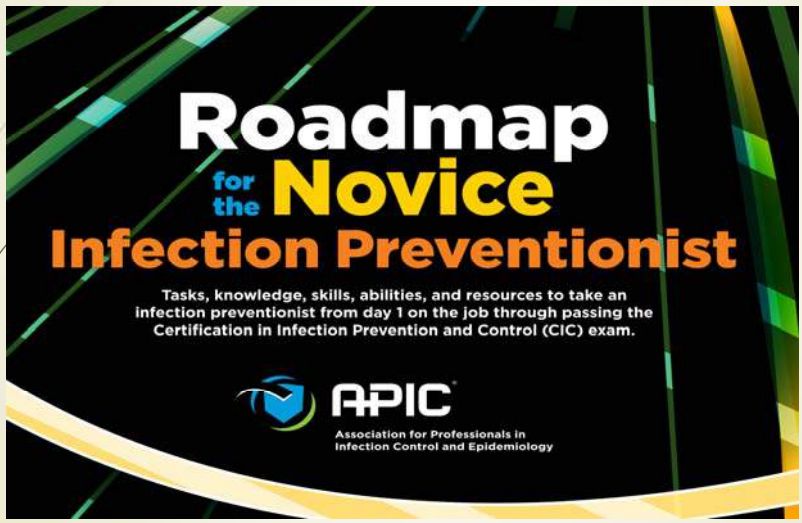
- ICP - Formal Training.
- Hand Hygiene Compliance.
- Personal Protective Equipment (PPE) for Standard and Transmission-Based Precautions.
- Cleaning and Disinfection of the environment and patient care equipment.
- Antimicrobial Stewardship.

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, list servs.
  - Access to local chapter meetings and networking with fellow ICPs.
  - Specialized training classes for Long Term Care.



APIC – Roadmap (56 pages)

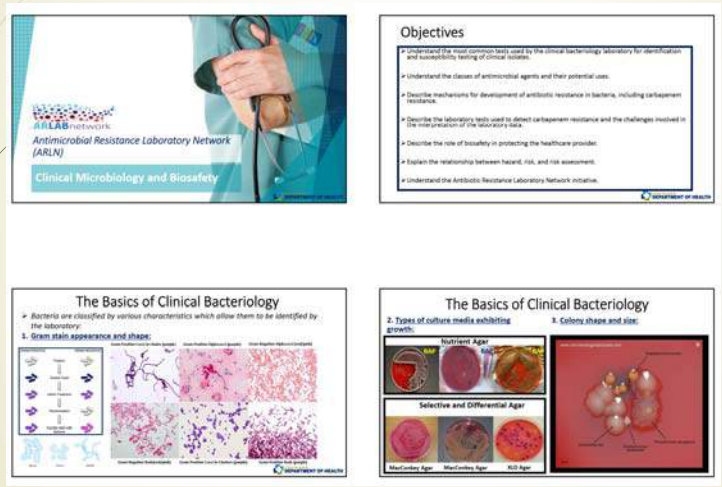


Formal Training For Your ICP

- Louisiana Office of Public Health
  - Last year they offered trainings in:
    - MDRO Management in Long-term Care Facilities
    - APIC Long-term Care Management Workshop
    - Materials presented at the workshops are available at:

      http://ldh.la.gov/index.cfm/page/2645
  - In September 2018 they will offer training entitled: "Influenza Detection, Containment, and Response"

Louisiana Office Of Public Health Educational Offerings

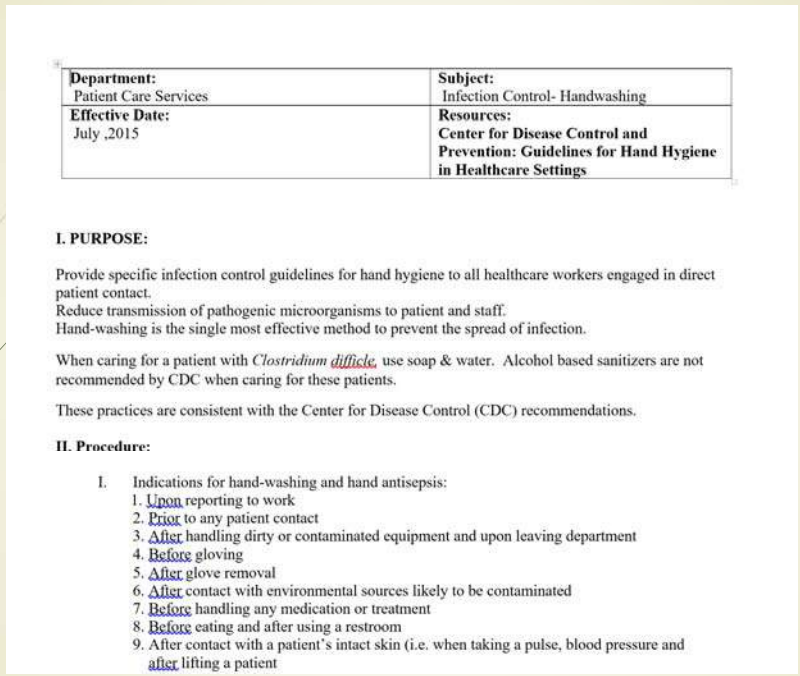


Other Resources For Your ICP

- Local Community Readmission Coalitions (eQHealth/LHA):
  - Acadiana Health Coalition
  - Alexandria
  - Shreveport
  - NOLA – East Bank, West Bank, North Shore
  - Bayou Region (Houma)
- Louisiana Hospital Association (LHA) –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.



Department: Patient Care Services	Subject: Infection Control- Handwashing
Effective Date: July ,2015	Resources: **Center for Disease Control and Prevention: Guidelines for Hand Hygiene in Healthcare Settings**

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:

I. Indications for hand-washing and hand antisepsis:
1. Upon reporting to work
2. Prior to any patient contact
3. After handling dirty or contaminated equipment and upon leaving department
4. Before gloving
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

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Standard Precautions And Transmission-Based Precautions

Common Findings:

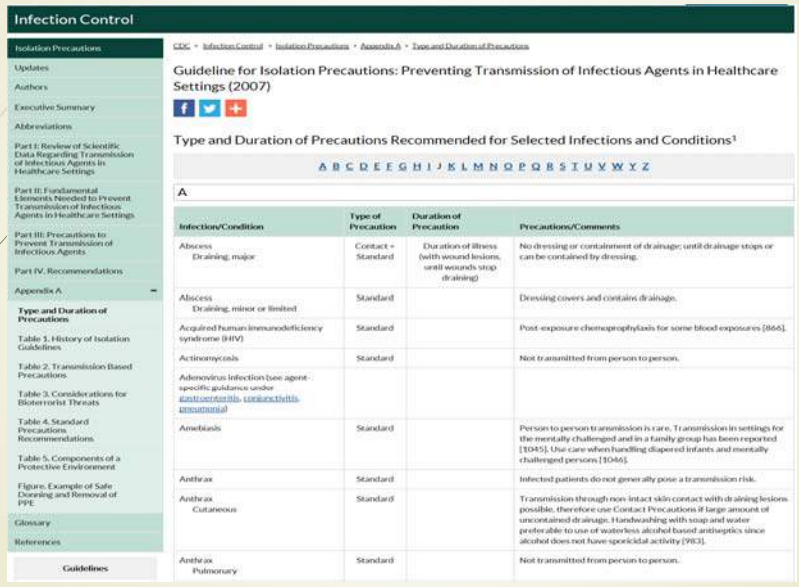
- Lack of Knowledge about the need for Standard Precautions.
- Lack of knowledge about Transmission-Based Precautions and what PPE to wear.
- Limited access to PPE supplies:
  - No standard process for restocking supplies (who, how often, access to extra supplies).

How to Address:

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

CDC – Isolation Guidelines

https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html



Infection Control

Isolation Precautions
Updates
Authors
Executive Summary
Abbreviations
Part I: Review of Scientific Data Regarding Transmission of Infectious Agents in Healthcare Settings
Part II: Fundamental Elements Needed to Prevent Transmission of Infectious Agents in Healthcare Settings
Part III: Precautions to Prevent Transmission of Infectious Agents
Part IV. Recommendations
Appendix A
Type and Duration of Precautions
Table 1. History of Isolation Guidelines
Table 2. Transmission Based Precautions
Table 3. Considerations for Bioterrorist Threats
Table 4. Standard Precautions Recommendations
Table 5. Components of a Protective Environment
Figure. Example of Safe Donning and Removal of PPE
Glossary
References
Guidelines

CDC • Infection Control • Isolation Precautions • Appendix A • Type and Duration of Precautions

Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

Type and Duration of Precautions Recommended for Selected Infections and Conditions[1]

A B C D E F G H I J K L M N O P Q R S T U V W Y Z

A

Infection/Condition	Type of Precaution	Duration of Precaution	Precautions/Comments
Abscess Draining, major	Contact + Standard	Duration of illness (with wound lesions, until wounds stop draining)	No dressing or containment of drainage; until drainage stops or can be contained by dressing.
Abscess Draining, minor or limited	Standard		Dressing covers and contains drainage.
Acquired human immunodeficiency syndrome (HIV)	Standard		Post-exposure chemoprophylaxis for some blood exposures [866].
Actinomycosis	Standard		Not transmitted from person to person.
Adenovirus infection (see agent-specific guidance under gastroenteritis, conjunctivitis, pneumonia)			
Amebiasis	Standard		Person to person transmission is rare. Transmission in settings for the mentally challenged and in a family group has been reported [1045]. Use care when handling diapered infants and mentally challenged persons [1046].
Anthrax	Standard		Infected patients do not generally pose a transmission risk.
Anthrax Cutaneous	Standard		Transmission through non-intact skin contact with draining lesions possible, therefore use Contact Precautions if large amount of uncontained drainage. Handwashing with soap and water preferable to use of waterless alcohol based antiseptics since alcohol does not have sporicidal activity [983].
Anthrax Pulmonary	Standard		Not transmitted from person to person.

Donning And Doffing PPE Per CDC

Hand Hygiene Monitoring Tool

Patient Care Unit/Dept.:_____ **Month/Year** _____

Initials of Monitor:_____

Healthcare Worker (HCW) Type:

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

HW = Hand Wash
HR = Alcohol Hand Rub
Y = Yes
N= No

# Obs	Date	Shift (Day, Eve, Night)	HCW Type (See Key)	Hand Hygiene BEFORE Touching Patient				Hand Hygiene AFTER Touching Patient, Environment, or Objects				Patient on Contact or Contact CD Precautions		Gloves Worn			Gown Worn		
				Yes HR	Yes HW	No	N/A	Yes HR	Yes HW	No	N/A	Y	N	Y	N	N/A	Y	N	N/A
1																			
2																			
3																			
4																			
5																			

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

Hand Hygiene and Contact Precautions Observations

Staff type*	Type of opportunity	HH performed?	Gown or glove indicated?	Gown/glove used?
Click here to enter text.	O Room entry O Room exit O Before resident contact O After resident contact O Before glove O After glove O Other: Click here to enter text.	O Alcohol-rub O Hand Wash O No HH done	O Gown only O Glove only O Both O No	O Gown used O Glove used O Both O Neither
Click here to enter text.	O Room entry O Room exit O Before resident contact O After resident contact O Before glove O After glove O Other: Click here to enter text.	O Alcohol-rub O Hand Wash O No HH done	O Gown only O Glove only O Both O No	O Gown used O Glove used O Both O Neither
Click here to enter text.	O Room entry O Room exit O Before resident contact O After resident contact O Before glove O After glove O Other: Click here to enter text.	O Alcohol-rub O Hand Wash O No HH done	O Gown only O Glove only O Both O No	O Gown used O Glove used O Both O Neither
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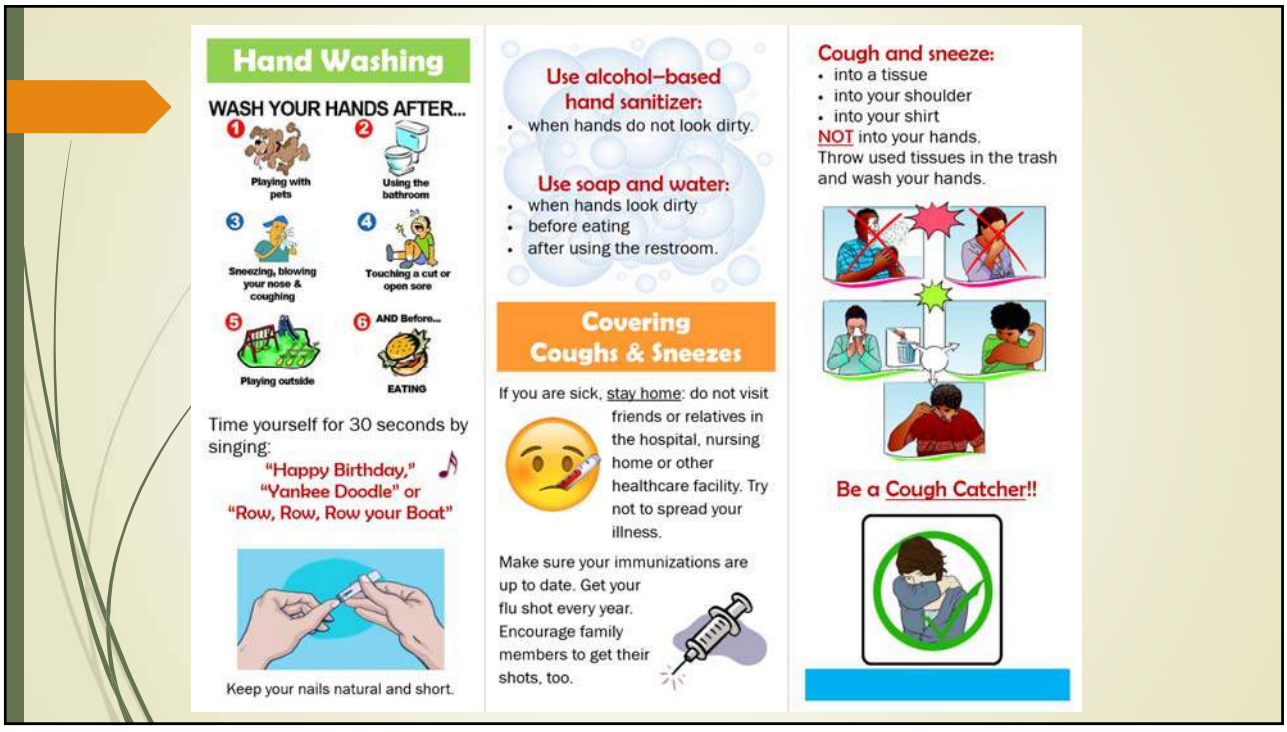
https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html

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

Acadiana Health Coalition

Acadiana Health Coalition & Louisiana Office of Public Health



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.

[Facility Name]

Environmental Services Checklist for Daily Cleaning of Resident Room

Date:	
Unit:	
Room Number(s):	
Initial of EVS staff (optional)	

Evaluate the following priority sites for each resident room:

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

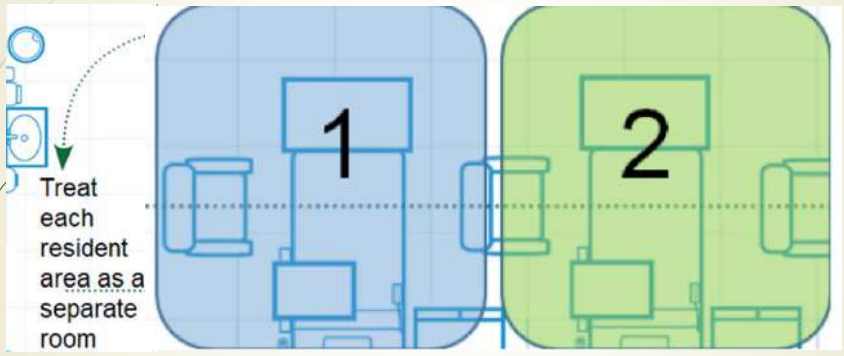
APIC Infection Preventionist's Guide to Long-Term Care

Monitoring For Cleanliness

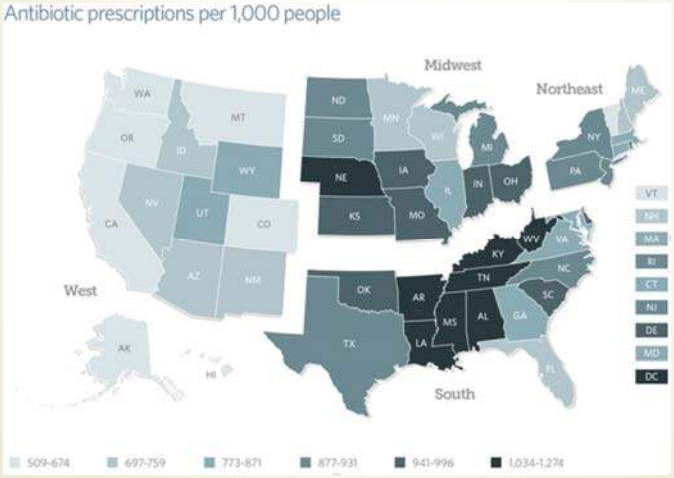
Compare other methods of cleaning verification including microbiology testing and visual inspection in the table below.

Methods	ATP Monitoring	Microbiology Testing	Blacklight	Visual Inspection
Ease of Use Can it be used by any level user?	★★★	★	★★★	★★★★
Objective Does it measure without bias?	★★★★★	★★★★★	★★	★
Specific Does the method detect microbiological matter?	★	★★★★		
Quantitative Are results numeric and measurable?	★★★★★	★★★★		
Qualitative Can results be categorized as Pass/Fail?	★★★★★	★★★★	★★★★★	★★★★
Timeliness Does the method minimize time investment?	★★★★		★★	★★★★
Low Cost Are supplies and other costs affordable?	★★		★★	★★★★
Training Tool Does the tool confirm proper cleaning?	★★★★★	★	★★★★	★★
Management Tool Is the data collected powerful for managers?	★★★★★	★★★★	★	★
Fraud-proof Are results protected from manipulation?	★★★★★	★★★★		
Software Analysis Does the product come with software?	★★★★		★	★
Grand Total	38★	26★	19★	21★

Double Occupancy Room Cleaning



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 peer year.

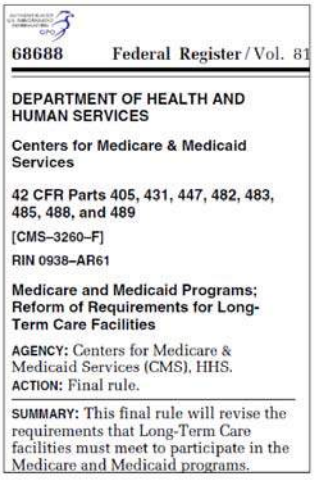
Antimicrobial Stewardship: Why Do We Need It?

- 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



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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 405, 431, 447, 482, 483, 485, 488, and 489

[CMS–3260–F]

RIN 0938–AR61

Medicare and Medicaid Programs; Reform of Requirements for Long-Term Care Facilities

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule.

SUMMARY: This final rule will revise the requirements that Long-Term Care facilities must meet to participate in the Medicare and Medicaid programs.

- 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)

11

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 physician, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility.

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

ACTION
Implement at least one policy or practice to improve antibiotic use.

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

REPORTING
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.

LEADERSHIP SUPPORT	ESTABLISHED AT FACILITY
1. Can your facility demonstrate leadership support for antibiotic stewardship through one or more of the following actions?	❑ Yes ❑ No

If yes, indicate which of the following are in place (select all that apply)
- ❑ Written statement of leadership support to improve antibiotic use
- ❑ Antibiotic stewardship duties included in medical director position description
- ❑ Antibiotic stewardship duties included in director of nursing position description
- ❑ Leadership monitors whether antibiotic stewardship policies are followed
- ❑ Antibiotic use and resistance data is reviewed in quality assurance meetings

ACCOUNTABILITY	
2. Has your facility identified a lead(s) for antibiotic stewardship activities?	❑ Yes ❑ No

If yes, indicate who is accountable for stewardship activities (select all that apply)
- ❑ Medical director
- ❑ Director or assistant director of nursing services
- ❑ Consultant pharmacist
- ❑ Other:_____

DRUG EXPERTISE

3. Does your facility have access to individual(s) with antibiotic stewardship expertise? ❑ Yes ❑ No

If yes, indicate who is accountable for stewardship activities (select all that apply)

- ❑ Consultant pharmacy has staff trained/is experienced in antibiotic stewardship
- ❑ Partnering with stewardship team at referral hospital
- ❑ External infectious disease/stewardship consultant
- ❑ Other:_____

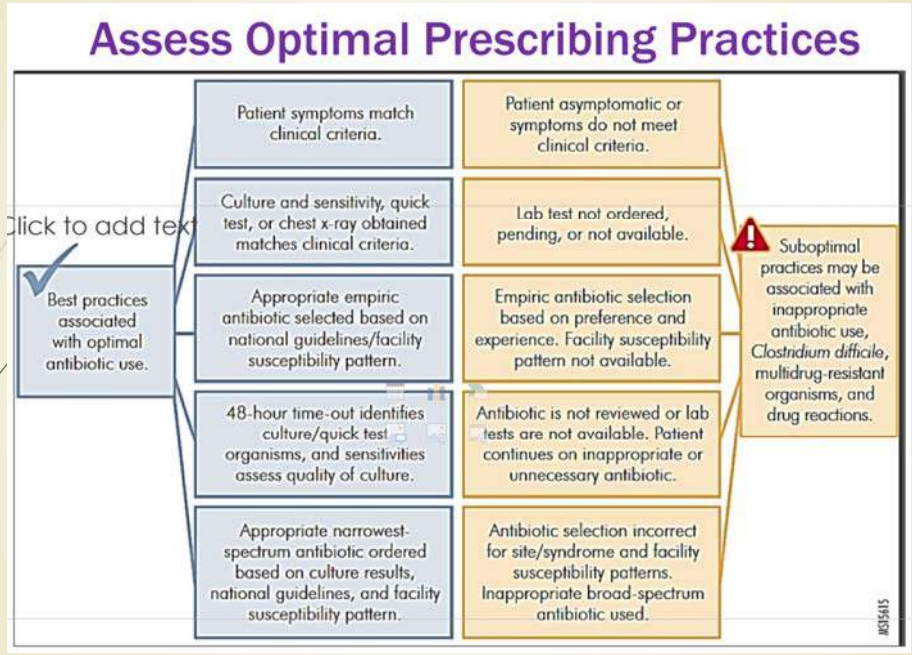
ACTIONS TO IMPROVE USE

4. Does your facility have policies to improve antibiotic prescribing/use? ❑ Yes ❑ No

If yes, indicate which policies are in place (select all that apply)

- ❑ Requires prescribers to document a dose, duration, and indication for all antibiotic prescriptions
- ❑ Developed facility-specific algorithm for assessing residents
- ❑ Developed facility-specific algorithms for appropriate diagnostic testing (e.g., obtaining cultures) for specific infections
- ❑ Developed facility-specific treatment recommendations for infections
- ❑ Reviews antibiotic agents listed on the medication formulary
- ❑ Other:_____

CENTERS FOR DISEASE CONTORL AND PREVENTION | CORE ELEMENTS OF ANTIBIOTIC STEWARDSHIP FOR NURSING HOMES 2



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 Antimocrobial Use From The Front Lines....

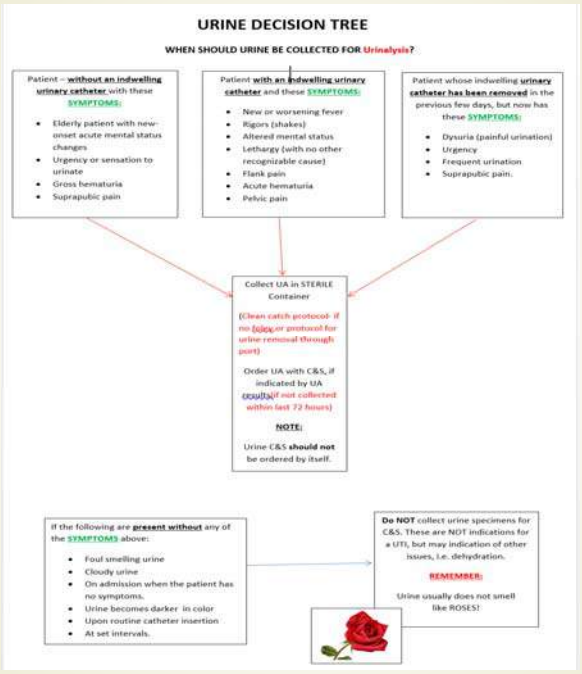
- Train nursing assistants and staff nurses.
  - Job specific instruction on Hospital-Associated Infection (HAI) symptoms, especially UTI symptoms.
  - Recognize difficult to understand HAI criteria:
    - True change in mental or functional status.
    - Determination of fever.
    - Role of leukocytosis.
    - 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.

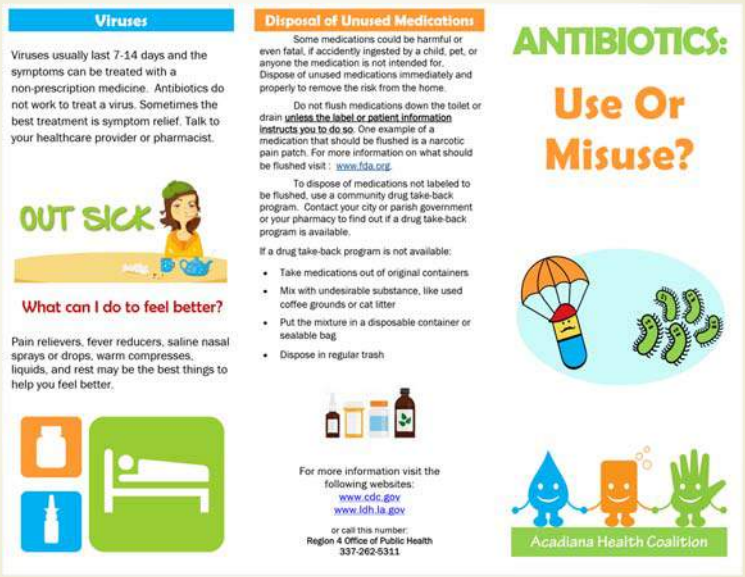
UTI – Urinary Tract Infections

- 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

Education



Viruses

Viruses usually last 7-14 days and the symptoms can be treated with a non-prescription medicine. Antibiotics do not work to treat a virus. Sometimes the best treatment is symptom relief. Talk to your healthcare provider or pharmacist.

OUT SICK

What can I do to feel better?

Pain relievers, fever reducers, saline nasal sprays or drops, warm compresses, liquids, and rest may be the best things to help you feel better.

Disposal of Unused Medications

Some medications could be harmful or even fatal, if accidently ingested by a child, pet, or anyone the medication is not intended for. Dispose of unused medications immediately and properly to remove the risk from the home.

Do not flush medications down the toilet or drain unless the label or patient information instructs you to do so. One example of a medication that should be flushed is a narcotic pain patch. For more information on what should be flushed visit : www.fda.org.

To dispose of medications not labeled to be flushed, use a community drug take-back program. Contact your city or parish government or your pharmacy to find out if a drug take-back program is available.

If a drug take-back program is not available:

- Take medications out of original containers
- Mix with undesirable substance, like used coffee grounds or cat litter
- Put the mixture in a disposable container or sealable bag
- Dispose in regular trash

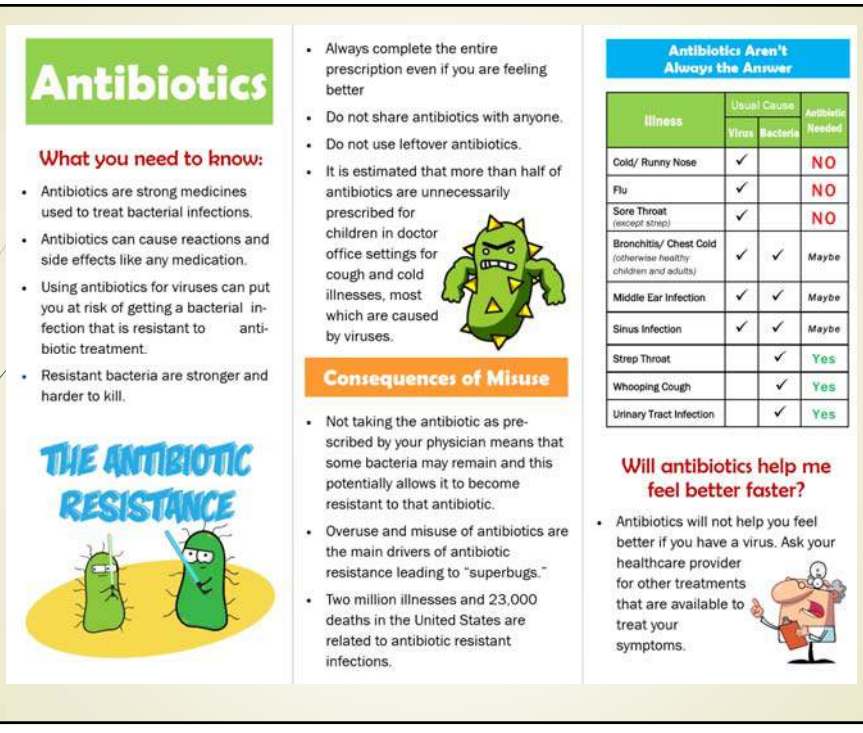
For more information visit the following websites:
www.cdc.gov
www.ldh.la.gov

or call this number:
Region 4 Office of Public Health
337-262-5311

ANTIBIOTICS: Use Or Misuse?

Acadiana Health Coalition

Acadiana Health Coalition & Louisiana Office of Public Health



Antibiotics

What you need to know:

- Antibiotics are strong medicines used to treat bacterial infections.
- Antibiotics can cause reactions and side effects like any medication.
- Using antibiotics for viruses can put you at risk of getting a bacterial infection that is resistant to antibiotic treatment.
- Resistant bacteria are stronger and harder to kill.

THE ANTIBIOTIC RESISTANCE

- Always complete the entire prescription even if you are feeling better
- Do not share antibiotics with anyone.
- Do not use leftover antibiotics.
- It is estimated that more than half of antibiotics are unnecessarily prescribed for children in doctor office settings for cough and cold illnesses, most which are caused by viruses.

Consequences of Misuse

- Not taking the antibiotic as prescribed by your physician means that some bacteria may remain and this potentially allows it to become resistant to that antibiotic.
- Overuse and misuse of antibiotics are the main drivers of antibiotic resistance leading to "superbugs."
- Two million illnesses and 23,000 deaths in the United States are related to antibiotic resistant infections.

Antibiotics Aren't Always the Answer

Illness	Usual Cause		Antibiotic Needed
	Virus	Bacteria	
Cold/ Runny Nose	✓		NO
Flu	✓		NO
Sore Throat (except strep)	✓		NO
Bronchitis/ Chest Cold (otherwise healthy children and adults)	✓	✓	Maybe
Middle Ear Infection	✓	✓	Maybe
Sinus Infection	✓	✓	Maybe
Strep Throat		✓	Yes
Whooping Cough		✓	Yes
Urinary Tract Infection		✓	Yes

Will antibiotics help me feel better faster?

- Antibiotics will not help you feel better if you have a virus. Ask your healthcare provider for other treatments that are available to treat your symptoms.

Education

HEALTHCARE PROVIDERS, RESIDENTS, AND FAMILIES PLAY A CRITICAL ROLE IN SUPPORTING OPTIMAL ANTIBIOTIC USE AND PREVENTING INFECTIONS IN NURSING HOMES.

What can healthcare providers do to support appropriate antibiotic use and prevent infections in nursing homes?

- ❑ Follow clinical guidelines when prescribing antibiotics.
  - ▸ Use the right antibiotic, at the right dose, for the right duration, and at the right time.
- ❑ Review antibiotic therapy 2-3 days after it is started based on the resident's clinical condition and microbiology culture results.
- ❑ Talk to residents and their families about when antibiotics are and are not needed, and discuss possible harms such as allergic reactions, *C. difficile* and antibiotic-resistant infections.
  - ▸ Ask residents if they have ever had a *C. difficile* infection, and tailor antibiotic treatment accordingly.
- ❑ Be aware of antibiotic resistance patterns in your facility and community; use the data to inform prescribing decisions.
- ❑ Follow hand hygiene and other infection prevention measures with every resident.

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

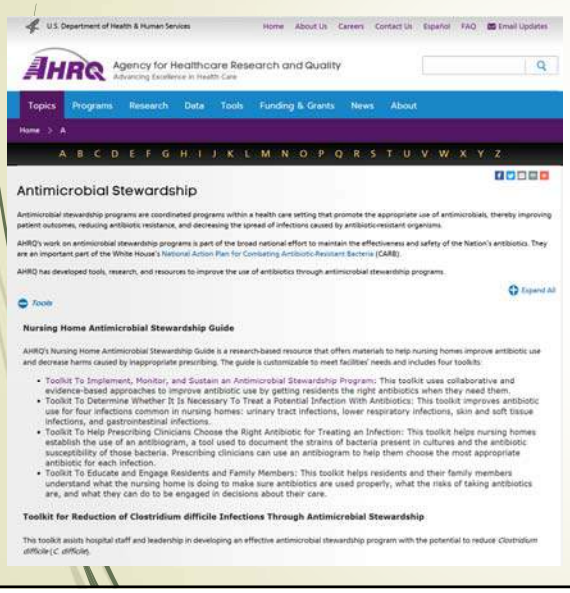
- ❑ Talk to your healthcare provider about when antibiotics will and won't help, and ask about antibiotic resistance.
- ❑ Ask what infection an antibiotic is treating, how long antibiotics are needed, and what side effects might happen.
- ❑ Ask what your nursing home is doing to protect you from antibiotic-resistant and *C. difficile* infections.
- ❑ Insist that everyone cleans their hands before touching you.
- ❑ Ask visitors and family not to visit when they feel ill.
- ❑ Get vaccinated for flu and pneumonia, and encourage others to stay up-to-date on vaccines.

https://www.cdc.gov/antibiotic-use/stewardship-report/pdf/stewardship-report.pdf

Measurement Of Antimicrobial Stewardship

- Measure Antibiotic Prescribing Processes and Outcomes:
  - Percentage of effectiveness of common antibiotics for organisms identified form 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.

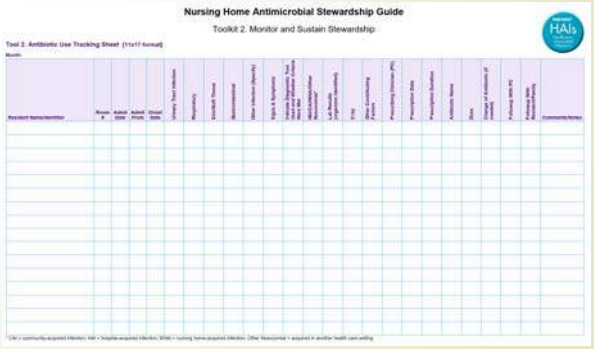
AHRQ - https://www.ahrq.gov/topics/antimicrobial-stewardship.html



Suggested agenda for the antimicrobial stewardship program team to discuss monitoring and which tool or tools to use (tool 1) (PDF | Word)

Tool options for monitoring

- **Antibiotic Use Tracking Sheet** (tool 2) (PDF | Word | Excel)
- **Sample Monthly Summary Reports** to review progress (tool 3) (PDF | Word | Excel)
- **Quarterly or Monthly Prescribing Profile** to report findings back to prescribing clinicians (tool 4)



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.

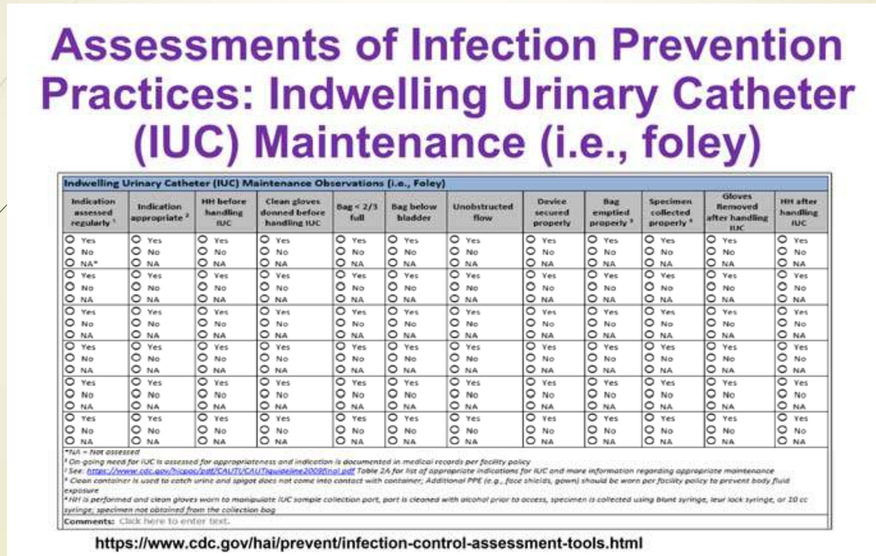
Your QAPI (Quality Assurance And Performance Improvement)Plan

- 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.

Resources – Observation And Tracking Tools



Assessments of Infection Prevention Practices: Indwelling Urinary Catheter (IUC) Maintenance (i.e., foley)

Indwelling Urinary Catheter (IUC) Maintenance Observations (i.e., Foley)

Indication assessed regularly [1]	Indication appropriate [2]	HH before handling IUC	Clean gloves donned before handling IUC	Bag < 2/3 full	Bag below bladder	Unobstructed flow	Device secured properly	Bag emptied properly [3]	Specimen collected properly [4]	Gloves Removed after handling IUC	HH after handling IUC
O Yes O No O NA*	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA
O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA
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O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA	O Yes O No O NA

*NA = Not assessed

[1] On-going need for IUC is assessed for appropriateness and indication is documented in medical records per facility policy

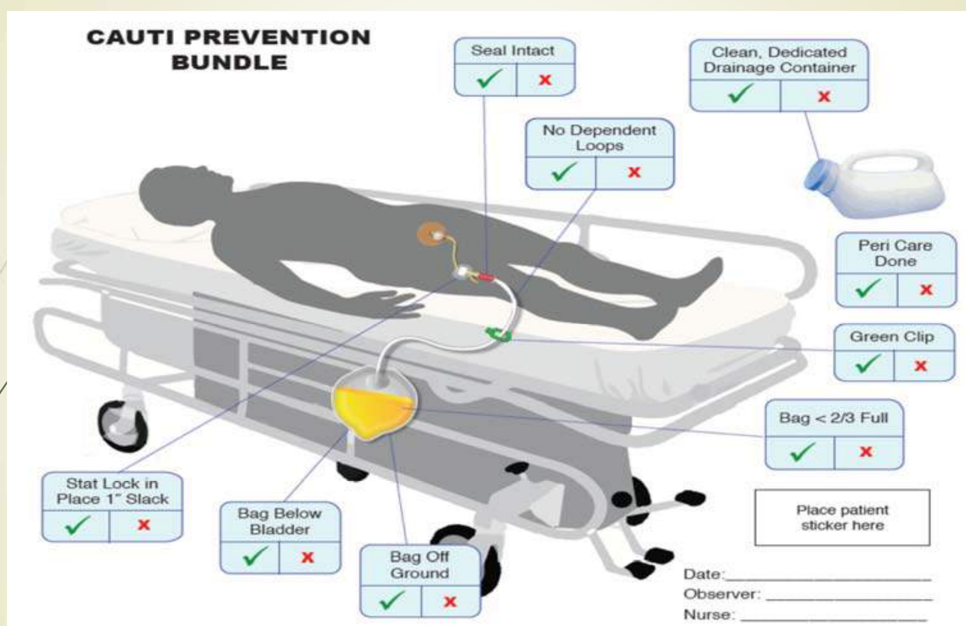
[2] See: https://www.cdc.gov/hicpac/pdf/CAUTI/CAUTIguideline2009final.pdf Table 2A for list of appropriate indications for IUC and more information regarding appropriate maintenance

[3] Clean container is used to catch urine and spigot does not come into contact with container; Additional PPE (e.g., face shields, gown) should be worn per facility policy to prevent body fluid exposure

[4] HH is performed and clean gloves worn to manipulate IUC sample collection port, port is cleaned with alcohol prior to access, specimen is collected using blunt syringe, leur lock syringe, or 10 cc syringe; specimen not obtained from the collection bag

Comments: Click here to enter text.

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



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

Central Venous Catheter (CVC) Maintenance Observations
NOTE: May be referred to as Central Line and includes PICC line

Indication appropriate [1]	CVC maintenance performed regularly [2]	Dressing clean, dry and intact	Dressing dated [3]	HH performed before handling CVC	Clean gloves donned before handling CVC	CVC connected and disconnected aseptically	CVC hub scrubbed [4]	CVC hub allowed to dry	Unused CVC ports are capped	CVC accessed with sterile devices only	Gloves removed after handling CVC	HH after handling CVC
○ Yes ○ No ○ NA*	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA
○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA
○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA
○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA
○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA

*NA = Not assessed

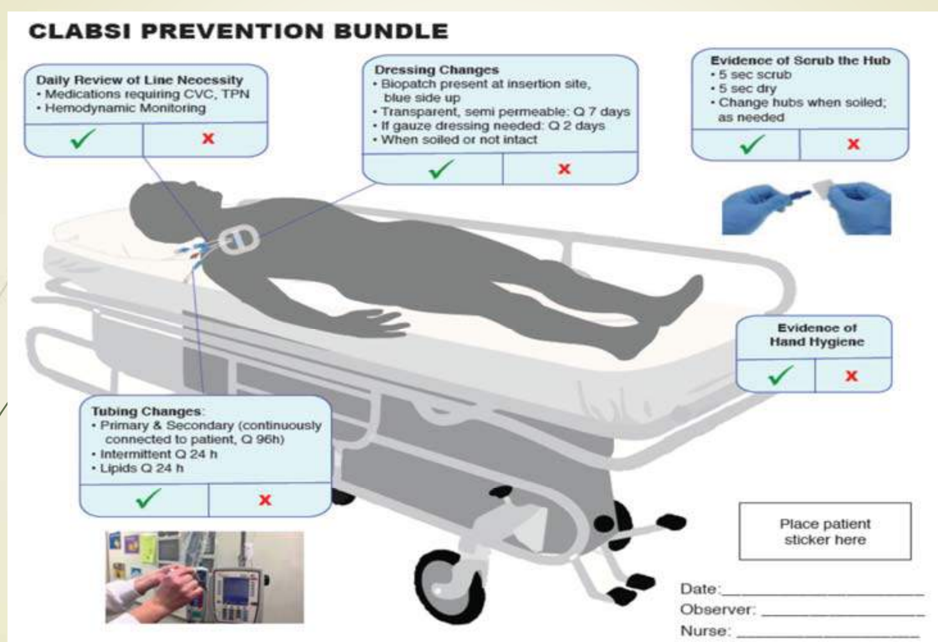
[1] Refer to http://www.cdc.gov/hicpac/pdf/guidelines/bsi-guidelines-2011.pdf for recommendations on CVC maintenance (e.g., appropriate indications)

[2] Appropriate maintenance should include documentation of the following in the medical record: date and site of insertion, assessment of on-going need for CVC, and frequency of dressing changes and replacement of system components (e.g., catheter tubing, connectors) per facility policy

[3] Dressing should be labeled with date changed and be within timeframe for routine dressing changes per facility policy

[4] Procedure for "Scrub the Hub": Hub is handled aseptically (i.e., ensuring hub does not touch anything non-sterile) while port cap is removed and discarded; Appropriate antiseptic pad (e.g., 70% alcohol, chlorohexidine) is used to scrub end and sides (threads) of hub thoroughly applying friction for 10 to 15 seconds; Catheter line is disinfected several centimeters toward resident's body using same antiseptic pad to apply friction; Hub is left open "uncapped" shortest time possible. See http://www.cdc.gov/dialysis/PDFs/collaborative/Hemodialysis-Central-Venous-Catheter-STH-Protocol.pdf and http://www.cdc.gov/hicpac/pdf/guidelines/bsi-guidelines-2011.pdf for further guidance

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



Assessments of Infection Prevention Practices: Wound Care

Wound Dressing Change Observations

All supplies are gathered before dressing change [1]	HH performed before dressing change	Clean gloves donned before dressing change [2]	Multi-dose wound care meds are used appropriately [3]	Dressing change performed in manner to prevent cross-contamination [4]	Gloves removed after dressing change completed	HH performed after dressing change completed	Reusable equipment cleaned and/or disinfected appropriately [5]	Clean, unused supplies discarded or dedicated to one resident	Wound care performed /assessed regularly [6]	Wound care supply cart is clean [7]
○ Yes ○ No ○ NA*	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA	○ Yes ○ No ○ NA
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*NA = Not assessed

[1] Dedicated wound dressing change supplies and equipment should be gathered and accessible on a clean surface at resident's bedside before starting procedure

[2] Additional PPE (e.g., face mask/face shield, gown) should be worn to prevent body fluids exposure per facility policy

[3] Multi-dose wound care medications (e.g., ointments, creams) should be dedicated to a single resident whenever possible or a small amount of medication should be aliquoted into clean container for single-resident use; Meds should be stored properly in centralized location and never enter a resident treatment area

[4] Gloves should be changed and HH performed when moving from dirty to clean wound care activities (e.g., after removal of soiled dressings, before handling clean supplies); Debridement or irrigation should be performed in a way to minimize cross-contamination of surrounding surfaces from aerosolized irrigation solution; All soiled dressing supplies should be discarded immediately

[5] In addition to reusable medical equipment, any surface in the resident's immediate care area contaminated during a dressing change should be cleaned and disinfected; Any visible blood or body fluid should be removed first with a wet, soapy cloth then disinfected with an EPA-registered disinfectant per manufacturer instructions and facility policy; Surfaces/equipment should be visibly saturated with solution and allowed to dry for proper disinfection before reuse

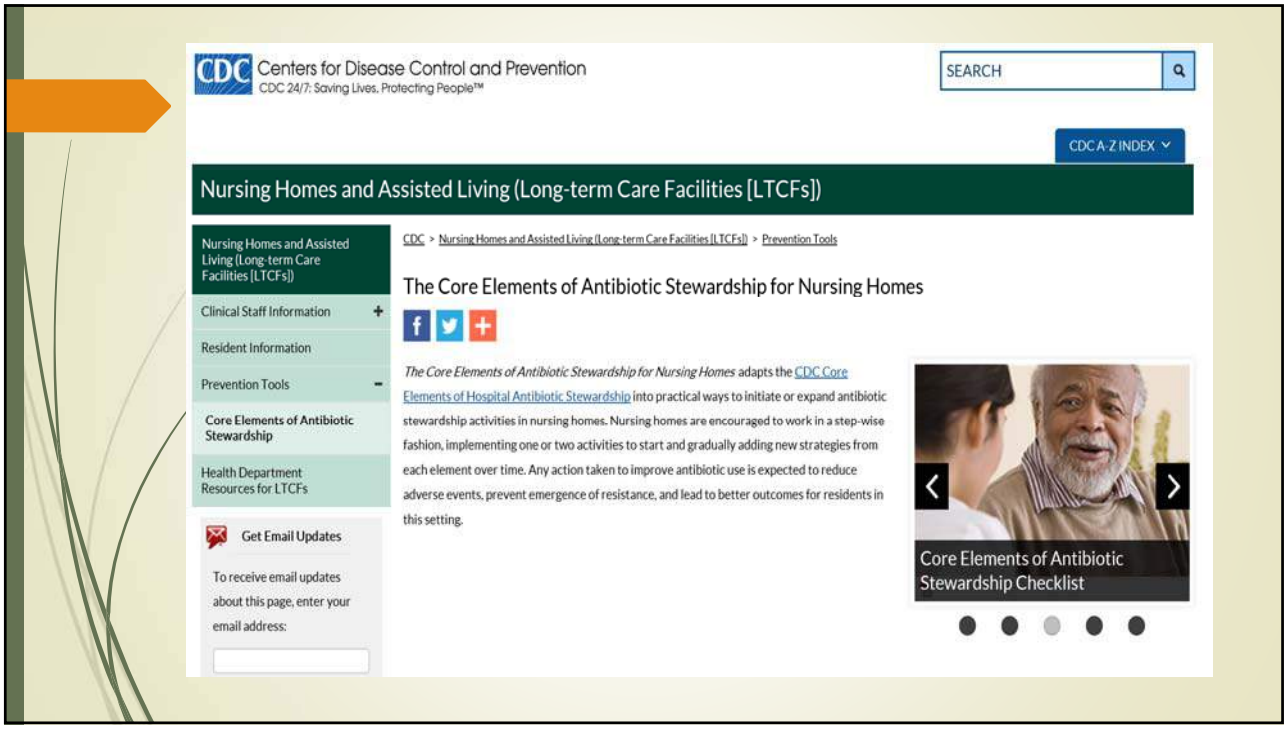
[6] Wound care documentation should include wound characteristics (e.g., size, stage), dressing assessment (e.g., clean, dry), and date and frequency of dressing changes; Wound care is documented in medical records per facility policy

[7] Wound care supply cart should never enter the resident's immediate care area nor be accessed while wearing gloves or without performing HH first. These are important to preventing cross-contamination of clean supplies and reiterates the importance of collecting all supplies prior to beginning wound care.

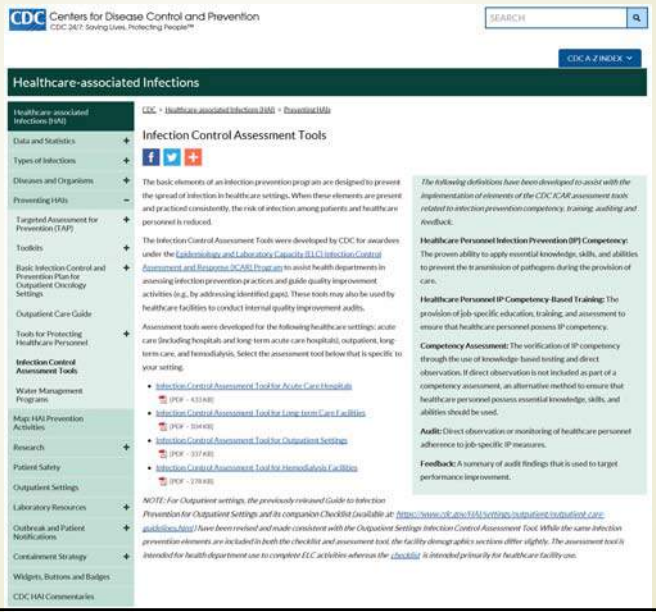
https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html

General Resources

http://www.cdc.gov/longtermcare



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



CMS IC Survey Tool (https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-17-09.pdf)

Facility Information

LTC Facility Name:	
CMS Certification Number	☐☐☐ ☐☐☐
Start date/time:	___/___/___ and _____AM/PM
End date/time:	___/___/___ and _____AM/PM

Section A	Infection Prevention and Control Program (IPCP) Infrastructure	Assessments	Comments
A.1.	The facility has written infection prevention and control policies and procedures which are based on current nationally recognized evidence-based guidelines (e.g., CDC/HICPAC), regulations or standards for its Infection Prevention and Control Program (IPCP).	☐ Yes ☐ No	
A.2.	The facility has evidence of mandatory personnel infection prevention and control training which includes the IPCP written standards, policies, and procedures.	☐ Yes ☐ No	
A.3.	The facility has documentation of a facility infection control risk assessment conducted according to infection control professional organizations (e.g. APIC, SHEA) guidelines.	☐ Yes ☐ No	
A.4.	Facility has documentation of an **annual** review of the IPCP using a risk assessment of both facility and community risks, and updates the program as necessary.	☐ Yes ☐ No	
Section B	**Infection Preventionist**	**Assessments**	**Comments**
B.1.	The facility has designated one or more individuals with specialized training in infection prevention and control as the Infection Preventionist (IP). This individual works at least part-time in the facility. ***Examples of specialized training may include: Successful completion of initial and/or recertification exams developed by the Certification Board for Infection Control & Epidemiology; Participation in infection control courses organized by the state or recognized professional societies (e.g., APIC, SHEA).***	☐ Yes ☐ No	

Journal Article

References

- CMS www.cms.gov
- CDC www.CDC.gov
- CDC NHSN www.CDC.gov/NHSN
- AHRQ www.ahrq.gov
- APIC website www.apic.org
- 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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