

Learn More About the Alabama Regional Center for Infection Prevention and Control Training and Technical Assistance



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Learn more: <https://sites.uab.edu/dsc/>

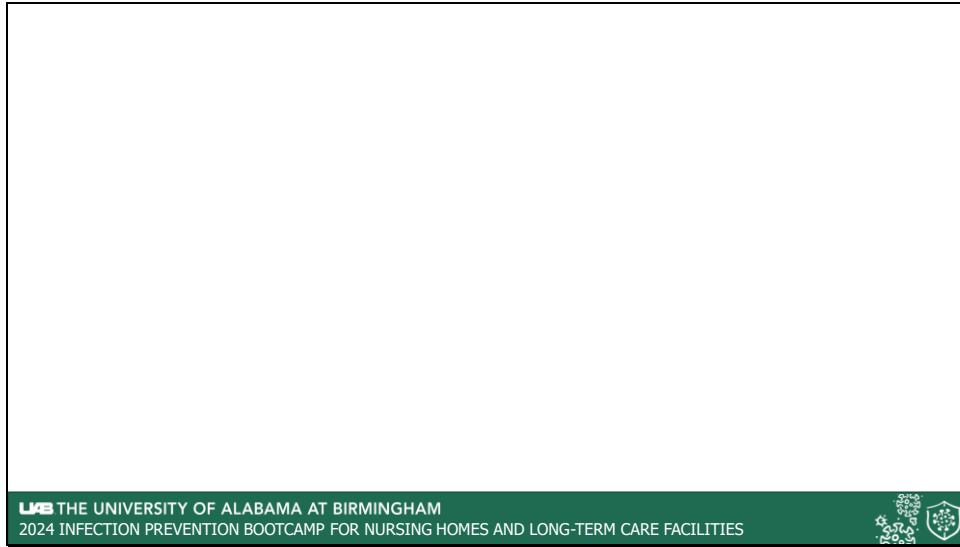



Lori Lloyd, BSN, RN

- Infectious Disease and Outbreaks Division
- Emergency Management Division



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Notifiable Disease/Condition Awareness Campaign

- **DETECT** - **D**ecrease **E**pidemiological **T**hreats
with **E**nvironmental **C**ontrols and **T**esting

- **TEST** - **T**ake **E**pidemiological **S**pecimens **T**oday




- **REPORT** - **R**ules for **E**very **P**rovider and
Organization to **R**eport on **T**ime




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Notifiable Diseases/Conditions

- **Purposes of Reporting Notifiable Diseases**
 - Help prevent diseases & transmission
 - Education to the public
 - Confirm disease
- ADPH administrative code authorizes and requires reporting
<http://www.alabamaadministrativecode.state.al.us/docs/hlth/420-4-1.pdf>
- Required by law, Code of Alabama, Section 22-11A-1,
<http://alisondb.legislature.state.al.us/alison/codeofalabama/1975/2-11A-1.htm>






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ADPH is exempt from Health Insurance Portability and Accountability Act (HIPAA) Privacy Rules

ADPH is a public health authority as defined by HIPAA to collect or receive protected health information (PHI) for the purpose of surveillance, investigations, and interventions of notifiable diseases, without authorization of the patient.


<http://www.cdc.gov/mmwr/pdf/other/m2e411.pdf>




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Disease Investigation Process


- ID&O receives notifiable disease reports and/or labs
- District Investigators investigate based on reports and cases are submitted to the CDC
 - Complete investigation form
 - Review labs
 - Call healthcare provider
 - Call patient / parents
 - Document information in **Alabama NEDSS Base System (ALNBS)**




DETECT
Identify, Document, Evaluate, Track
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TEST
Review, Evaluate, Submit
ALABAMA DEPARTMENT OF PUBLIC HEALTH







REPORT
Notify, Communicate, Respond
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Controlling the Spread of Disease

Our mission of protecting the public from diseases and outbreaks hinges on controlling the transmission and spread of disease. This can be accomplished by the timely identification and reporting of disease in combination with providing timely education and control measures to healthcare providers and the public.






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Report within **4 hours** of **Presumptive Diagnosis** Immediate, Extremely Urgent

Anthrax, human	Smallpox
Botulism ★	Tularemia
Plague	Viral hemorrhagic fever
Poliomyelitis, paralytic	Cases related to nuclear, biological, or chemical terroristic agents
Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)	

★ Must request permission from Infectious Diseases & Outbreaks before testing

*Select Agents, <http://www.selectagents.gov/Select%20Agents%20and%20Toxins%20List.html>






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Botulism




- Contact ADPH **immediately** upon suspicion
- **Time is of the essence**
- Testing must be approved by Public Health
- For infants, physician may contact California Public Health directly
 - **(510) 231-7600**
- Release of antitoxin will be coordinated by ADPH for patients ≥1 year old




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Report within 24 hours Presumptive Diagnosis Immediate, Urgent

Brucellosis	Meningococcal Disease (<i>Neisseria meningitidis</i>)*
Cholera	Novel influenza A virus infections (i.e., potential new strain)
Coronavirus (COVID-19) / (SARS-CoV2)	Pertussis
Diphtheria	Poliovirus infection, nonparalytic
<i>E. coli</i> , shiga toxin-producing (STEC)	Rabies, human and animal
<i>Haemophilus influenzae</i> , invasive disease*	Rubella
Hemolytic uremic syndrome (HUS), post-diarrheal	Tuberculosis
Hepatitis A, including ALT	Typhoid fever
Legionellosis	Yellow fever
Measles (rubeola)	Outbreaks of any kind
	Cases of potential public health importance




  


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How to REPORT

Immediate, Urgent must be reported within 24 hrs of **presumptive** diagnosis




- Phone: 1-800-338-8374 (still requires a lab report)
- Contact your local District Investigator
- Email lab report and patient demographics to cdfax@adph.state.al.us
- Fax lab report and patient demographics to (334) 206-3734
- Online, REPORT Card: <https://epiweb.adph.state.al.us/redcap/surveys/?s=H37ENP8ADD>
the lab report can be attached here electronically or the reporter will receive a call requesting the lab report

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Legionnaires' Disease

- *Legionella* is transmitted environmentally, not person to person
- A single case can represent a threat to hundreds, especially vulnerable populations
- **Both** respiratory culture & urine antigen (UrAg) testing are critical
 - Cultured specimens can isolate all species and serogroups of *Legionella*,
 - UrAg only tests for one serogroup
 - Isolating *Legionella* from clinical specimens helps public health prevent additional cases

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Acute Flaccid Myelitis

Report cases with the following:

- Sudden limb weakness and loss of muscle tone

AND one of the following:

- An MRI showing a spinal cord lesion largely restricted to gray matter, and spanning 1+ vertebral segments


OR

- CSF with pleocytosis

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Disease Eradication, Detection, and Control
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TEST
The Right Test at the Right Time
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REPORT
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Northern District
Toni Ritchie, RN (M) 256-361-8712 (F) 256-361-8756
Kathy Lindsey, RN (M) 256-369-3518 (F) 256-361-8861
Cynthia Prager, RN (M) 256-361-8756 (F) 256-361-8756
Dana Giamprini, RN (M) 256-778-5988 (F) 256-734-1840
Lari Lloyd, RN (M) 256-549-6184 (F) 256-545-0067

Northeastern District
Phyllis Coughran, RN (M) 256-742-1626 (F) 256-246-2615
Kelly Raymond, RN (M) 256-742-3677 (F) 256-246-2615

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LyTasha Foster, MPH (M) 205-930-1419 (F) 205-930-1299


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Teresca Goodshall, RN (M) 205-556-1297 (F) 205-556-2701

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Alyson Benjamin, RN (M) 334-293-2299 (F) 334-293-6564
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Jennifer Traversi, RN (M) 334-293-5547

Southwestern District
Tina McCreoad, RN (M) 205-409-8019 (F) 205-409-8027
Wanda Lullerton, RN (M) 251-947-1841 (F) 251-947-1826
Shawna Whiggins, RN (M) 334-482-7071 (F) 334-482-4796

Mobile County
Barbara Gibbs, RN (M) 251-490-8970 (F) 251-490-8978
Randi Murphy, MS, PhD (M) 251-490-8854 (F) 251-490-8978




Infectious Diseases and Outbreaks Division
Phone: 334-206-5971
Toll-Free: 800-338-8374
Fax: 334-206-3734

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ID&O Investigations and Cases


Disease	Investigations		Cases	
	2019	2021	2019	2021
Influenza-associated pediatric mortality	2	0	2	0
Legionellosis	114	162	72	90
Listeriosis	11	16	9	10
Lyme disease	259	180	67	51
Malaria	9	10	9	10
Novel Influenza A Virus Infections	4	2	0	0
Paratyphoid fever	1	2	0	0
Psittacosis	1	0	0	0
Q fever	7	8	2	3
Salmonellosis	1035	889	1025	877
Shigellosis	507	107	497	98
Spotted Fever Rickettsiosis	1480	493	470	130
Trichinellosis (Trichinosis)	4	3	0	0
Tularemia	13	3	4	0
Typhoid fever	2	6	0	6
VISA (Staph. aureus, vancomycin intermediate susceptible)	2	0	1	0
VRSA (Staph. aureus, coag-pos, vancomycin-resistant)	4	1	3	1
Vibriosis (non-cholera)	42	42	42	39
Zika virus	138	1	0	0
Case totals ★	5259	3393	3592	2640

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Emerging Infectious Diseases

Emerging means infections that have increased recently or are threatening to increase in the near future. These infections could be:


- Completely new (MERS, Middle East Respiratory Syndrome)
- Completely new to an area (Chikungunya in Florida, Ebola, Avian Influenza)
- Reappearing in an area (Dengue in Alabama and Texas)
- Caused by bacteria that have become resistant to antibiotics, (VRSA Vancomycin-resistant *Staphylococcus aureus* and drug-resistant TB)



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Disease Eradication and Control
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TEST
The Responsibility of Public Health
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REPORT
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Alabama Emergency Response Technology ALERTs




- ADPH has created the Alabama Emergency Response Technology (ALERT) to push Health Alert Network (HAN) messages via email to healthcare providers statewide.
- MDs receive ALERTs via e-mail per the Board of Medical Examiners (BME) database. The Center for Emergency Preparedness obtain updated email addresses from the BME database monthly.




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Healthcare-associated Infections

- Healthcare-associated infections (HAIs), also known as nosocomial infections, are infections that patients get while receiving treatment for medical or surgical conditions.
- HAI's occur in all settings of care, including hospitals, surgical centers, ambulatory clinics, and long-term care facilities such as nursing homes and rehabilitation facilities.







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Healthcare-associated Infections

- The Healthcare Infection Reporting Rules mandate Alabama hospitals to report certain HAIs to ADPH using the National Healthcare Safety Network
 - catheter-associated urinary tract infections (CAUTI)
 - central line-associated blood stream infections (CLABSI)
 - surgical site infections (SSIs) associated with colon surgeries and abdominal hysterectomies

- For more information related to HAI visit our website at <http://www.alabamapublichealth.gov/hai/>







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Rabies


- Rabies is a deadly viral disease that infects the central nervous system of mammals. It is almost always fatal to humans.
- It is transmitted through **saliva or other direct contact with infected neural tissue.**
- It is preventable if proper post-exposure treatment protocol is followed before a person becomes symptomatic.






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Outbreaks, Clusters, Cases of Public Health Importance, & Environmental Exposures

- 1. Outbreak:** two or more individuals with similar illness and from different households resulting from a common exposure, such as ingestion of a common food. Outbreaks may also represent more than the expected number of cases.
- 2. Cluster:** an unusual aggregation of cases grouped in time or space. The purpose of identifying clusters is to trigger further investigations to determine whether they might represent an outbreak.
- 3. Case of public health importance:** an unusual individual case determined by a reporting healthcare provider.
- 4. Environmental Exposure:** any serious human exposure to an environmental contaminant.











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Outbreak Investigations

- Multiple ADPH Internal Partners may be involved in an outbreak investigation:
 - Bureau of Communicable Diseases (BCD)
 - Bureau of Clinical Laboratories (BCL)
 - Bureau of Environmental Services (BES)
 - General Counsel (GC)
 - Office of Radiation Control (ORC)
 - Center for Emergency Preparedness (CEP)









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Specimens

- Stool
- Stool
- More Stool
- Blood
- Sputum
- Nasal




Together, we can get this stool to the BCL!


DETECT
DIAGNOSTIC EVALUATION TOOL
FOR BACTERIAL COLONIZATION BY TEST
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TEST
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REPORT
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ADPH DTR One-page Flyers

Red Bugs	Mononucleosis
Botulism	Norovirus and Sapovirus
C. diff	Outbreak Investigation Actions
Cryptosporidium	PFOS and Fish Consumption Advisory
Exclusion and Readmission Criteria for Communicable Diseases in Schools and Childcare Centers	Psittacosis Flyer
Childcare Exclusion Supplement	Rabies Flow Chart
E. Coli	Rabies Prophylaxis
Enterovirus D68 (EV-D68)	Rabies Prophylaxis Providers
Enterovirus D68 (EV-D68) Spanish	Reduce Mosquitoes
Fifth Disease	Salmonella
Food Cross Contamination	Scabies
Hand, Foot, and Mouth Disease	Shigella
Head Lice	Shingles
Impetigo	Specimen - General Public
Influenza in People and Pigs	Specimen - Healthcare Provider
Keep Bats Out	Stop Dog Bites
 Legionella	Tickborne Diseases
Lymphocytic Choriomeningitis Virus	Vibriosis
Meningococcal Disease and Vaccine	








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Why is Hand Sanitizer Best for Healthcare Workers?

- Quick and easy way to clean hands, so it improves hand hygiene compliance in healthcare settings.
- Effectively reduce the number of germs that may be on the hands of healthcare workers.
- Improves skin condition with less irritation and dryness than soap and water.
- Can be used in the absence of a sink with soap and water as an effective method of cleaning hands.



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Infectious Diseases & Outbreaks

Questions?

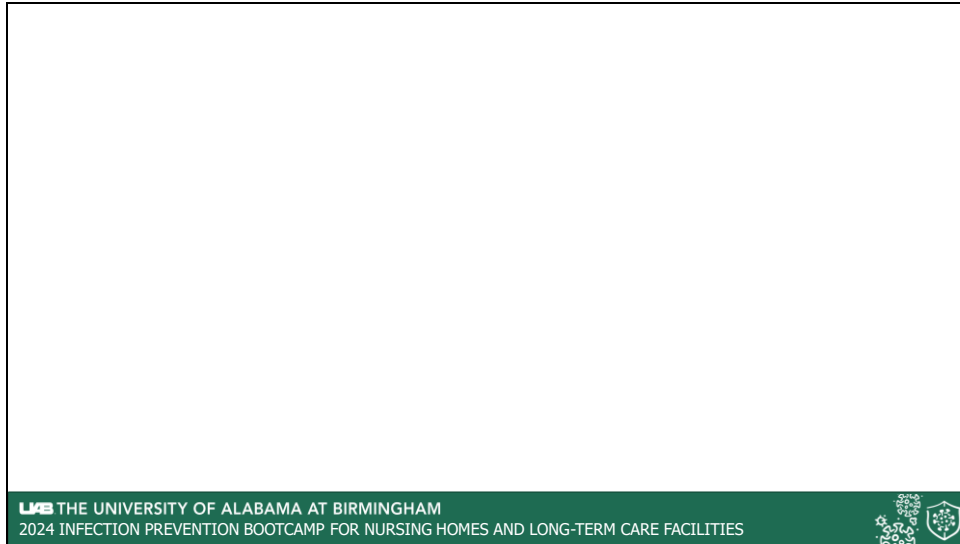
Thank you

DETECT
Determine, Evaluate, Investigate, Track, Control and Prevent the Spread of Infectious Diseases
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TEST
Test for Infectious Diseases
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REPORT
Report Infectious Diseases
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The University of Alabama at Birmingham

ALABAMA NURSING HOME & LONG-TERM CARE FACILITY STRIKE TEAM



Long Term Care Facility Infection Prevention Mini-Bootcamp

ENVIRONMENTAL HYGIENE IN LTC WITH LIMITED RESOURCES

MARCH 7, 2024



Objectives

- Identify the role of preventing HAIs through environmental surface disinfection
- Identify ways to interrupt the Chain of Infection
- Define cleaning, contact time, low level disinfection, and the Spaulding Scheme and its relation to disinfection
- Review why cleaning and disinfection are important in the long-term care facility setting
- Describe Standard precautions and indications on when it is utilized
- List potential modes of infection transmission within LTC settings
- List high touch surfaces in the LTC environment
- List important steps when performing cleaning and disinfection
- Discuss sequence and pattern for cleaning and disinfection of resident rooms
- Describe steps to clean and disinfect reusable equipment
- Describe the frequency the cleaning and disinfection should occur.
- Explain the importance of staff performing demonstrated competency
- List ways to perform continuous quality improvement



According to Centers for Disease and Control

▪ **Healthcare Associated Infections (HAIs)**

- 1 to 3 million serious infections occur every year in nursing homes, skilled nursing and assisted living facilities.
- Infections include urinary tract infection, diarrheal diseases, antibiotic-resistant staph infections, and many others.
- Infections are a major cause of hospitalization and death; as many as 380,000 people die of the infections in LTCFs every year.

▪ **Reducing HAIs is critical to improving patient safety and controlling healthcare costs.**





**Where
are
germs?**



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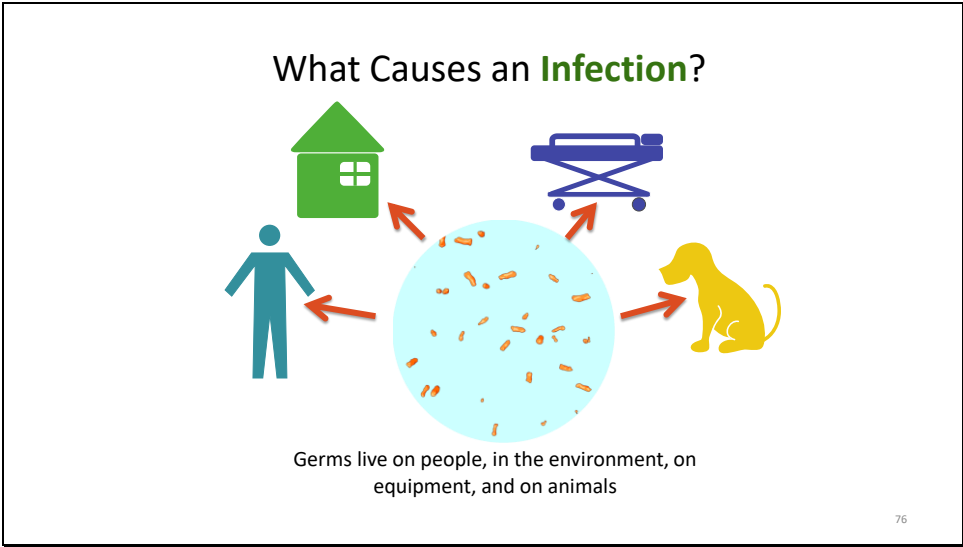


▶ Germs Are Everywhere

Image credit: <https://www.waterlogix.com/en-us/resources/blog/how-much-bacteria-is-in-your-office>

People *anywhere* can carry and spread germs.
**These germs can enter a person's body and cause them to feel sick
and show signs of an infection.**







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▶ Germs Can Persist in the Environment

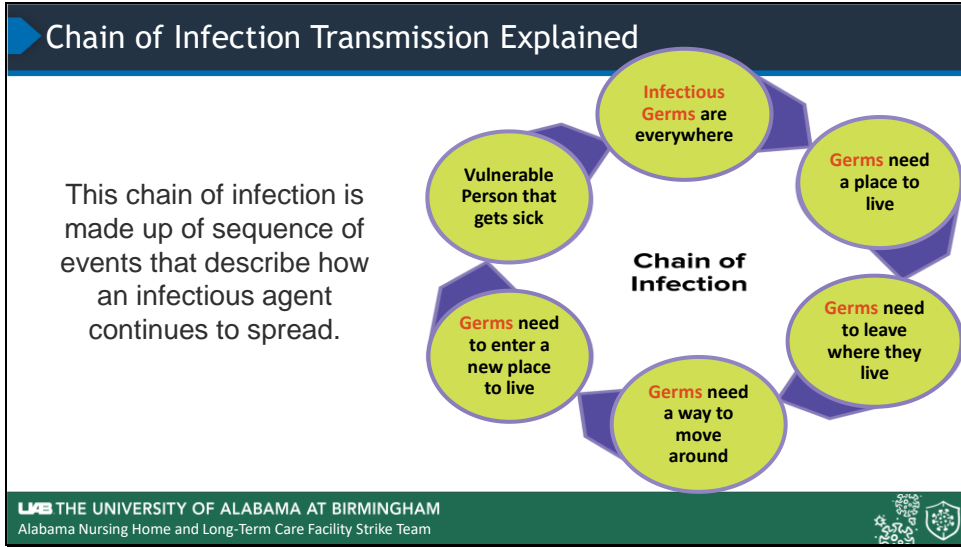
Germ or pathogens of concern, such as *C. difficile*, *E. coli*, *Enterococcus species*, Hepatitis B virus, *Norovirus*, *S. aureus*, can survive for long periods of time if proper cleaning and disinfection are not performed.

Susceptible residents can become infected or colonized with pathogens if they have direct or indirect contact with contaminated surfaces or equipment.

 <i>Clostridioides difficile</i> (spores) 5 months	 <i>Escherichia coli</i> 1.5 hours to 16 months
 <i>Enterococcus</i> spp. 5 days to 4 months	 Hepatitis B virus > 1 week
 <i>Norovirus</i> 8 hours to 7 days	 <i>Staphylococcus aureus</i> 7 days to 7 months


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Characteristic	Selection guidance
Cleanable	Avoid items with hard-to-clean features (e.g., crevasses). Do not use carpet in patient care areas. Select material that can withstand repeated cleaning.
Easy to maintain and repair	Avoid materials that are prone to cracks, scratches, or chips, and quickly patch/repair if they occur. Select materials that are durable or easy to repair.
Resistant to microbial growth	Avoid materials that hold moisture, such as wood or cloth, because these facilitate microbial growth. Select metals and hard plastics.
Nonporous	Avoid items with porous surfaces, such as cotton, wood and nylon. Avoid porous plastics, such as polypropylene, in patient care areas.
Seamless	Avoid items with seams. Avoid upholstered furniture in patient care areas.

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Basic Infection Control Concepts in Cleaning


- Cleaning is not the same as disinfection or sanitization. Cleaning should occur ***before*** disinfecting or sanitizing surfaces.
- Cleaning is defined as the physical removal of all foreign material from objects
 - This may be achieved by using surfactants, detergents, soaps, enzymatic products, or mechanical action of washing or scrubbing the object.



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Basic Infection Control Concepts in Disinfection

Disinfection is a process that reduces the number of microorganisms (except for bacterial spores) on inanimate objects.
This is achieved by using hospital detergent and disinfectant or chemical sterilant.



Low-level Disinfection:


- Destroys all vegetative bacteria (except tubercle bacilli) and most viruses. Does not kill bacterial spores.
- Examples of low-level disinfectants include hospital disinfectants registered with the Environmental Protection Agency (EPA) with a HBV and HIV label claim.
- Generally appropriate for most environmental surfaces.



Intermediate-level Disinfection:

- Kills a wider range of pathogens than a low-level disinfectant. Does not kill bacterial spores.
- EPA-registered hospital disinfectants with a tuberculocidal claim are considered intermediate-level disinfectants.
- Should be considered for environmental surfaces that are visibly contaminated with blood.
 - Low-level disinfectant with label claim against HBV and HIV could also be used.

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▶ Other Considerations in Disinfectant Selection

Broad Spectrum Claims	Material Compatibility
Safe - Nontoxic	Nonflammable
Ease of Use	Nonflammable
Acceptable Odor	Contact Time
Economical/Low cost	Environmentally Friendly

https://www.cdc.gov/hai/prevent/resource-limited/supplies-equipment.html#anchor_1586813879077


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Proper Use of Cleaners and Disinfectants


Follow the instructions for use included in the product labeling. This is important to ensure the pathogens specified on the label will be killed.
Below are a few instructions to be sure not to miss.



Is the disinfectant in a ready-to-use format?

- Do not mix or dilute unless specified in the label.
- Follow instructions for how frequently fresh solution should be prepared.
 - Dilute solutions can be a reservoir for pathogens.
- Do not "top off" or add new solution to containers of old solution.

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Proper Use of Cleaners and Disinfectants

Follow the instructions for use included in the product labeling. This is important to ensure the pathogens specified on the label will be killed.
Below are a few instructions to be sure not to miss.

Is a cleaning step required before application?


Even if you are using a one-step cleaner and disinfectant, if the surface is grossly soiled, a distinct cleaning step may be required before application of the disinfectant.



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Proper Use of Cleaners and Disinfectants

Follow the instructions for use included in the product labeling. This is important to ensure the pathogens specified on the label will be killed.
Below are a few instructions to be sure not to miss.




What is the contact time?

Read the label:

- How should the disinfectant be applied?
- How long should it remain in contact with the surface?
- How many towelettes or how much disinfectant is required for the area you are disinfecting?

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Proper Use of Cleaners and Disinfectants

Follow the instructions for use included in the product labeling. This is important to ensure the pathogens specified on the label will be killed.
Below are a few instructions to be sure not to miss.

Is the disinfectant compatible with the surface on which it will be used?

Ensure staff know which disinfectants are intended to be used on which surfaces and under which circumstances.



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CLEANING AND DISINFECTION
REVIEW WITH RESIDENT
EQUIPMENT

**Reviewing
the
Instructions
for Use**

ASSURE[®] PLATINUM

+ BLOOD GLUCOSE MONITORING SYSTEM



Quality Assurance / Quality Control
(QA/QC) Reference Manual

▶ Reviewing the Instructions for Use

- The meter should be cleaned and disinfected after use on each patient.
- The cleaning procedure is needed to clean dirt, blood and other bodily fluids off the exterior of the meter before performing the disinfecting procedure. The disinfecting procedure is needed to prevent the transmission of blood-borne pathogens.
- **Always wear the appropriate protective gear, including disposable gloves.**
- Select a wipe from the table below and carefully review the manufacturer's instructions.
- Clean and disinfect the meter following step-by-step instructions in this QA/QC Reference Manual. Use caution as to not allow moisture to enter the test strip port, data port or battery compartment, as it may damage the meter.
- ARKRAY has tested and validated the durability and functionality of the Assure Platinum meter with the most used EPA-registered wipes. Our testing confirmed the wipes listed below will not damage the functionality or performance of the meter through 3,650 cleaning and disinfecting cycles.



.....
**Reviewing the
Instructions for Use**

Additional options for cleaning and disinfecting the Assure Platinum meter.
If you choose to follow Options 1 or 2 below, we recommend you create supporting
documentation to justify your choice. Choosing a product not listed in the table above could
shorten use life or affect performance of the Assure Platinum meter.

Option 1

- Obtain a commercially available EPA-registered disinfectant detergent or germicide wipe.
A list of EPA registered disinfectants can be found at the following website:
www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants
- Carefully review the manufacturer's instructions.
- Remove wipe from the container and gently squeeze out excess liquid.
- Clean and disinfect the meter following step-by-step instructions listed below in this
QA/QC Reference Manual.
- Use caution as to not allow moisture to enter the test strip port, data port or battery
compartment, as it may damage the meter.

.....

**Reviewing the
Instructions for Use**

- Option 2
- Clean the outside of the blood glucose meter with a lint-free cloth dampened with soapy water or isopropyl alcohol (70-80%).
- Disinfect the meter by diluting 1mL of household bleach (5-6% sodium hypochlorite solution) in 9mL water to achieve a 1:10 dilution.
- Use a lint-free cloth dampened with the solution to thoroughly wipe down the meter.
- Use caution as to not allow moisture to enter the test strip port, data port or battery compartment, as it may damage the meter.


If you have any questions, please contact Technical Customer Service at 800.818.8877, option 5.

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Reviewing the Instructions for Use

CLEANING AND DISINFECTING PROCEDURES


Step 1
Wear appropriate protective gear such as disposable gloves.



Step 2
Open the cap of the disinfectant container and pull out 1 towelette and close the cap.




Step 3
Wipe surface of the meter to clean blood and other body fluids. Carefully wipe around the test strip port by inverting the meter so that the test strip port is facing down. This prevents disinfectant liquid from entering the meter.





CAUTION
• Do not let liquid from the wipe saturate the test strip port, data port or battery compartments.

Step 4
Dispose of the used towelette in a trash bin. The meter should be cleaned prior to each disinfection step.




Step 5
Pull out 1 new towelette and wipe the entire surface of the meter horizontally and vertically to remove bloodborne pathogens. Carefully wipe around the test strip port by inverting the meter so that the test strip port is facing down. This prevents disinfectant liquid from entering the meter.



CAUTION
• Do not let liquid from the wipe saturate the test strip port, data port or battery compartments.

Step 6
Treated surface must remain wet for recommended contact time. Please refer to wipe manufacturer's instructions. **DO NOT WRAP THE METER IN A WIPE.**

Step 7
Dispose of the used towelette in a trash bin.





Reviewing the Instructions for Use

CLEANING AND DISINFECTING FAQ

If a blood glucose meter is assigned to an individual resident and not shared, does it still need to be cleaned and disinfected?

To ensure compliance ARKRAY recommends that blood glucose meters be cleaned and disinfected after each use. Each meter in use is subject to QC testing per the facility's policy.

Can cleaning and disinfecting be accomplished with one wipe?

Many wipes act as both a cleaner and disinfectant. If blood is visibly present on the meter, two wipes must be used; one wipe to clean and a second wipe to disinfect.

What will happen if a blood glucose meter is not cleaned and disinfected after use?

Per the CMS F-Tag 880 guideline, surveyors may issue a citation if they observe no cleaning and disinfecting of meters after a blood glucose test as they would not follow CMS F-Tag 880.

It is important that an LTC facility establish a program for infection control and identify a key individual responsible for the overall program oversight. The program should include addressing the cleaning and disinfecting of blood glucose meters along with other equipment and environmental surfaces. The program should involve establishing goals and priorities, planning, strategy implementation, post-surveillance and more. Additionally, staff roles and responsibilities should be identified, and training should be documented. It is also important to provide education on infection control and the proper use of products. More information on establishing a comprehensive infection prevention and control program can be found in the CMS Infection Control Guidance Document.

KILLS HIV-1 (AIDS VIRUS), HEPATITIS B VIRUS (HBV) AND HEPATITIS C VIRUS (HCV) ON THE PRE-CLEANED ENVIRONMENTAL SURFACES AND PRE-CLEANED SURFACES OF LITHIUM IONS AND PRE-CLEANED SURFACES OF LITHIUM IONS. PREVIOUSLY SOILED WITH BLOOD/SEMI FLUIDS IN less than 2 minutes at room temperature (68°-77°) in healthcare or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids, and in which the surface/object is likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) associated with AIDS, Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).


Areas of Use: Hospital and Healthcare Settings: Ambulatory Surgical Centers (ASC), Clinics, Dental Office, Dialysis Clinic, Home Health Care, Hospices, Hospitals, Laboratory, Nursing Homes, Physical Therapy, Physicians' offices, Radiology, Rehabilitation, Transport vehicles, Critical Care Areas (CCA), Emergency Rooms (ER), Neurological Care Units (NCU), Operating Rooms, Pediatric Intensive Care Units (PICU), Surgery and Surgical Intensive Care Unit (SICU), Hospital, Healthcare, and Critical Care Unit Sites. May be used on hard non-porous surfaces of bed rails, blood glucose meters, cathartic carts, chairs, counters, dental unit treatment trays, exam tables, gurneys, iceboxes, IV poles, sphygmomanometers, stethoscopes, tables, telephones, toilet seats, and hard non-porous outside surfaces of ambulances and dental curing lights, diagnostic equipment, patient monitoring equipment, call-light support and delivery equipment. This product is not to be used as a terminal disinfectant level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or disinfect critical or semi-critical medical devices prior to sterilization or high level disinfection. **DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling. To Disinfect Wipes: Remove lid and discard inner seal from container. First corner of wipe roll, remove first wipe for use, hold corner of next wipe into a pool and frond through the hole in the container. Pull through about one inch. Repeat 8x. Dispose remaining wipes as necessary by pulling out at an angle. When not in use keep center cap of lid closed to prevent moisture loss. **TO DISINFECT AND DEODORIZE:** To disinfect nonfood contact surfaces only: Unfold a clean wipe and thoroughly wet surface. Allow treated surface to remain wet for two (2) minutes. Let air dry. For heavily soiled surfaces, use a wipe to pre-clean prior to disinfecting. These directions also apply to Manufacturer's uses (EPA/USEPA) at 80% (20% S). **SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HIV-1, HEPATITIS B VIRUS (HBV) AND HEPATITIS C VIRUS (HCV) OF SURFACE OBJECTS SOILED WITH BLOOD/SEMI FLUIDS.** Personal protection: When using this product, wear disposable protective gloves, protective gowns, masks, and eye coverage when handling HIV-1 (AIDS), HBV or HCV infected blood or body fluids. Cleaning procedure: All blood and other body fluids must be thoroughly cleaned from surfaces and objects before disinfection by the germicidal wipe. Open, unfold and use first germicidal wipe to remove heavy soil. Disposal of infectious materials: blood, vomit and other body fluids should be disposed of according to local regulation for infectious waste disposal. Contact time: Use second germicidal wipe to thoroughly wet surface. Allow surface to remain wet two (2) minutes. Let air dry. **PRECAUTIONARY STATEMENTS Hazard to Humans and Domestic Animals. WARNING:** Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Avoid contact with skin. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using restroom. Remove and wash contaminated clothing before reuse. **FIRST AID:** Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment. If it gets in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. **PHYSICAL OR CHEMICAL HAZARD:** Combustible. Do not use or store near heat or open flame. Do not use on natural marble, varnished wood, brass, clear plastic or colored vinyl. Test wipe on small inconspicuous area first. **STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal. Storage: Do not store near heat or open flame. When not in use keep center cap of lid closed to prevent moisture loss. Towels/linen disposal: Do not reuse towels. Dispose of used towels in trash. Do not flush in toilet. Container Disposal: Nonrefillable container: Do not reuse or refill the container. Other for recycling: If recycling is not available, put in trash collection. **11112 LE VHS-1 VIRUS DU SIDA, LE VIRUS DE L'HEPATITE B (HBV) ET LE VIRUS DE L'HEPATITE C (HVC) SUR LES SURFACES/OBJETS ENVIRONNEMENTAUX PRE-PROTÉGÉS ET LES SURFACES/OBJETS PRE-PROTÉGÉS DES LIQUIDES SANGUINS/LIQUIDES ET DES SONDRES PRE-PROTÉGÉES SOULÉES DE SANGUE/LIQUIDES CORPORELS EN MOINS DE 2 minutes à température ambiante de (68° - 77° F) dans les établissements de soins de santé ou autres dans lesquels il existe une probabilité de salissure des surfaces/objets inanimés avec du sang ou des fluides corporels et dans lequel les surfaces/objets susceptibles d'être souillés par du sang ou des liquides corporels peuvent être associés au potentiel de transmission du virus de l'immunodéficience humaine de type 1 (VIH-1) (associé au SIDA), du virus de l'hépatite B (HBV) et de l'hépatite C (HVC).**

Zones d'utilisation : Hôpitaux et établissements de soins de santé : Centres de chirurgie ambulatoire (CCA), cliniques, cabinets dentaires, cliniques de dialyse, soins de santé à domicile, hospices, hôpitaux, laboratoires, maisons de soins infirmiers, physiothérapie, cabinets de radiologie, réhabilitation, véhicules de transport. Domaines de soins critiques : CCA, salles d'opérations, soins intensifs, unités de soins intensifs neurologiques (NCU), salles d'opération, unités de soins intensifs pédiatriques (PICU), chirurgie et unités de soins intensifs chirurgicaux (SICU). Sites d'utilisation des hôpitaux, des soins de santé et des soins critiques : Peut être utilisé sur des surfaces dans non porous - garde-corps de lit, tables de gynécologie ; armoires ; chariots ; chaises ; comptoirs ; plateaux à instruments pour salles dentaires ; tables d'examen ; lits à roulettes ; iceboxes ; Poitiers ; Sphygmomanomètres ; civières ; tables ; téléphones ; signaux de balise ; et les surfaces extérieures dans nos systèmes des ambulances et des brancards de polymatériau dentaire ; équipement de diagnostic ; équipement de surveillance des patients ; matériel de soutien et de livraison aux patients. Ce produit ne doit pas être utilisé comme désinfectant terminal/désinfectant de haut niveau sur une surface ou un instrument qui (1) est introduit directement dans le corps humain, soit dans ou en contact avec la circulation sanguine ou des zones normalement stériles du corps, ou qui (2) entre en contact avec des membranes muqueuses mais qui ne pénètrent pas normalement la barrière sanguine ni ne pénètrent autrement dans les zones normalement stériles du corps. Ce produit peut être utilisé pour pré-nettoyer ou désinfecter les dispositifs médicaux critiques ou semi-critiques avant la stérilisation ou la désinfection de haut niveau. **MODE D'EMPLOI:** Il s'agit d'une violation de la loi fédérale d'utiliser ce produit d'une manière incompatible avec son étiquetage. Pour désinfecter les lingettes : Retirez le couvercle et jetez le joint intérieur de la cartouche. Tirez le centre du rouleau de lingettes, retirez la première lingette pour l'utiliser, tournez le coin de la lingette suivante en une pointe et passez-le dans le trou du couvercle de la cartouche. Tirez sur environ 1 pouce. Remplacez le couvercle. Distribuez les lingettes mouillées au biseau en tirant dans un angle. Lorsque l'il est pas utilisé, garder le bouchon central du couvercle fermé pour prévenir la perte d'humidité. **POUR DÉCONTAMINER ET DÉODORISER:** Pour désinfecter les surfaces de contact non alimentaire uniquement : Dépliez une lingette propre et bien mouillée. Laissez la surface traitée humide pendant deux (2) minutes. Laissez sécher à l'air. Pour les surfaces très sales, essuyez avant de désinfecter. Ces directives s'appliquent également au Microbiocheck Iowat SCS (Tuberculose) à 65° F (15° C). **INSTRUCTIONS SPÉCIALES POUR LE NETTOYAGE ET LA DÉCONTAMINATION CONTRE LE VIH-1, LE VIRUS DE L'HEPATITE B (HBV) ET LE VIRUS DE L'HEPATITE C (HVC) DES SURFACES/OBJETS SOULÉS DE LIQUIDES SANGUINS CORPORELS.** Protection personnelle : Lors de l'utilisation de ce produit, porter des gants de protection jetables, des vêtements protecteurs, des masques et des couvre-tête lors de la manipulation du VIH-1 (virus du SIDA), du sang infecté par le VIH ou du HVC ou des liquides corporels. Procédure de nettoyage : Tout le sang et les autres liquides corporels doivent être nettoyés à fond des surfaces et des objets avant la désinfection par la lingette germicide. Ouvrez, dépliez et utilisez la première lingette germicide pour enlever la grosse saleté. Élimination des matières infectieuses : Les lingettes diluées, le sang et les autres liquides corporels doivent être jetés selon la réglementation locale pour l'élimination des déchets infectieux. Temps de contact : Appliquez la deuxième lingette germicide sur une surface complètement mouillée. Laissez la surface sécher pendant deux (2) minutes, laissez sécher à l'air. **DANGERS DE PRÉCAUTION** Dangers pour les humains et les animaux domestiques. **AVERTISSEMENT:** Cause des dommages oculaires irritants mais temporaires. Ne faites pas pleurer dans les yeux ni sur les vêtements. Évitez tout contact avec la peau. Laissez-vous soigneusement les mains avec du savon et de l'eau après avoir manipulé et avant de manger, de boire, de mélanger de la nourriture, d'utiliser du tabac ou d'utiliser des toilettes. Enlevez et lavez les vêtements contaminés avant de les réutiliser. **PREMIERS SOINS:** Appeler un centre antipoison ou un médecin ou si vous avez reçu un traitement. Avec le contenu ou l'étiquette du produit avec vous lorsque vous appelez un centre antipoison ou un médecin, ou si vous avez reçu un traitement. Avec les yeux : Tirez l'œil vers l'extérieur et rincez lentement et doucement avec de l'eau pendant 15 à 20 minutes. Retirez les lentilles de contact, le cas échéant, après les 5 premières minutes, puis continuez à rincer. En cas de contact sur la peau : Enlevez les vêtements contaminés. Rincez la peau immédiatement avec beaucoup d'eau pendant 15 à 20 minutes. **DANGER PHYSIQUE OU CHIMIQUE:** Combustible. Ne brûlez pas si l'impression prise de la cartouche ou des flammes nues. N'utilisez pas sur du marbre naturel, des finitions, du bois non peint, du bain, du plastique transparent ou du coude coloré. Testez d'abord la lingette sur une petite surface discrète. **ENTREPOSAGE ET ÉLIMINATION** Ne contaminez pas l'eau, la nourriture ou les aliments par l'entreposage et l'élimination. Entreposage : L'entreposage est pris de la chaleur ou des flammes nues. Lorsque l'il est pas utilisé, garder le bouchon central du couvercle fermé pour prévenir la perte d'humidité. Élimination des lingettes : Ne réutilisez pas la lingette. Mettez la lingette usagée à la poubelle. Ne jetez pas dans les toilettes. Élimination des contenants : Containement non rechargeable. Ne réutilisez ni ne remplissez pas ce contenant. Mettez au recyclage. Si le recyclage n'est pas disponible, mettez-le dans la poubelle.

Manufactured by / Fabriqué par : Professional Disinfectant International, Inc. EPA REG. NO. 9480-4 EPA EST. NO. A-9480-NV-1, C-72956-A8-1, D-8251-NH-4 Two Nice-Pak Paks. Alpha character will precede batch code on product. Oronghary, NY 13002-1376 • 1-800-999-6223 Made in USA with domestic and imported materials. Le caractère alphabétique précèdera le code de lot sur le produit. Fabrique au Québec avec des matériaux.

NOT FOR USE ON SKIN FOR USE ON HARD, NON POROUS SURFACES ONLY N'UTILISER PAS SUR LA PEAU UTILISER SUR LES SURFACES DURES NON POREUSES SEULEMENT

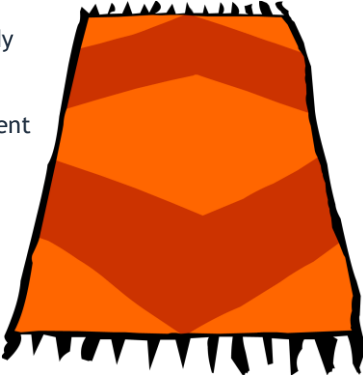
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(01)00310819000574

Cleaning Carpeting

- Harder to keep clean and cannot be reliably disinfected, especially after spills of blood or body fluids.
- Recommended practices:
 - Minimize use in high-traffic zones within resident care areas or where spills are likely.
 - Vacuum on a regular basis with equipment designed to minimize dust dispersion.
 - Periodically deep clean using a method that minimizes production of aerosols and leaves little to no residue.
 - Promptly spot clean spills of blood or body fluids.



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Cleaning Upholstered Furnishings

- Pose challenges with cleaning and disinfection.
- Recommended practices:
 - Minimize use in areas with increased potential for body substance contamination.
 - Maintain in good repair; promptly repair tears and holes.
 - If furniture in a resident's room requires cleaning to remove visible soil or body substance contamination, promptly move that item to a maintenance area.



Housekeeping Cleaning Carts

- Housekeeper’s carts commonly used to transport supplies throughout the facility can serve as a source of pathogen transmission if they are not regularly cleaned and disinfected.
 - For example, in an outbreak of drug-resistant *Enterobacteriaceae* at a healthcare, the organism was identified on an environmental services cart, suggesting a potential role in transmission.
- Carts should not enter resident rooms and should be cleaned and disinfected at least daily.



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Utility Room Maintenance

- Dedicate space to store cleaning and disinfection products and equipment.
 - Maintain separation between clean and dirty equipment.
- Cleaning and disinfection schedules should include clean and dirty utility areas.
- Designate staff to monitor supply levels in these areas and restock, as appropriate.



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Direct Performance Observations

- Observe staff practices with the assistance of a checklist.
 - Confirm they have prepared and applied cleaners and disinfectants in accordance with facility policies and procedures.
 - Confirm they have addressed all required surfaces in the room.
- Staff may modify their typical practices if they are aware they are being observed.




Methods for Assessing the Level of Cleanliness

- Adenosine triphosphate (ATP) bioluminescence assay systems measure residual organic matter, both microbial and non-microbial, that is left on a surface after cleaning.
- Provides objective quantitative results that can be used to track and document improvement in daily cleaning practices.
- Method would not identify deviations in preparation and use of cleaning and disinfection products.
- Method is unable to measure virus, bacteria, fungus or parasites.




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Bacterial Culture of Surface

- Not recommended for routine use**; This method lacks a defined threshold or benchmark for determining the level or status of cleanliness (e.g., colony-forming units per surface area)
- Environmental cultures--the only direct measurement of levels of microbial contamination after cleaning. In this process, cultures are taken (by swabbing or use of RODAC or contact agar plates) after an item is cleaned. Swabbing can indicate the presence of a specific bacteria on a surface. Contact agar plates can show the level of bacterial contamination on an area of a large, flat surface.
- May be useful for identifying source of outbreaks and/or environmental reservoirs – *use only with the direction of ADPH*




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Prevention is Key

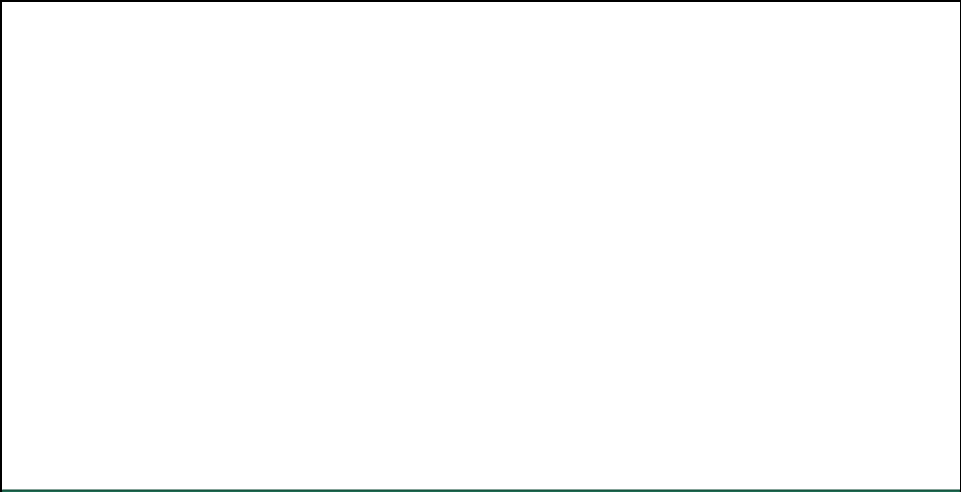
Environmental hygiene is an important prevention tool intended to reduce the spread infections.

PREVENTION IS KEY!




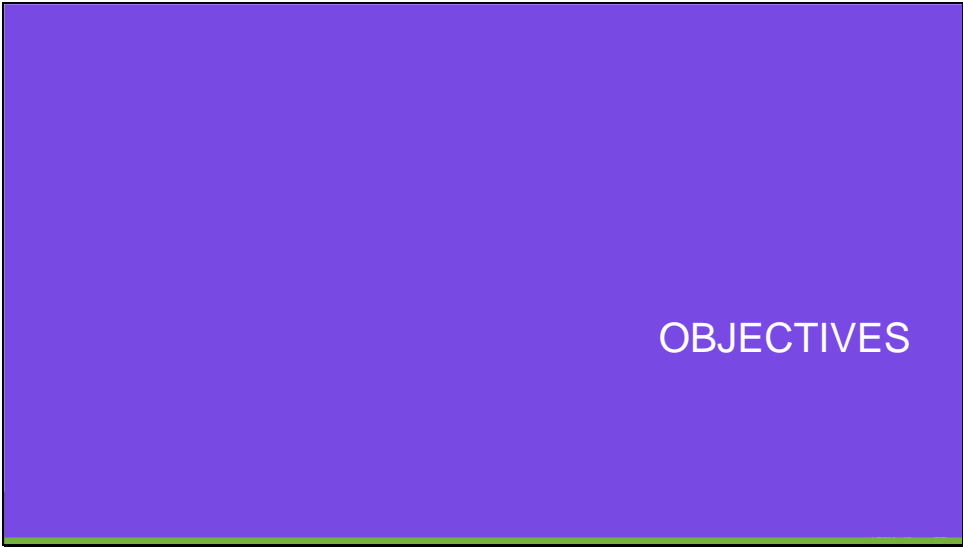
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2024 INFECTION PREVENTION BOOTCAMP FOR NURSING HOMES AND LONG-TERM CARE FACILITIES





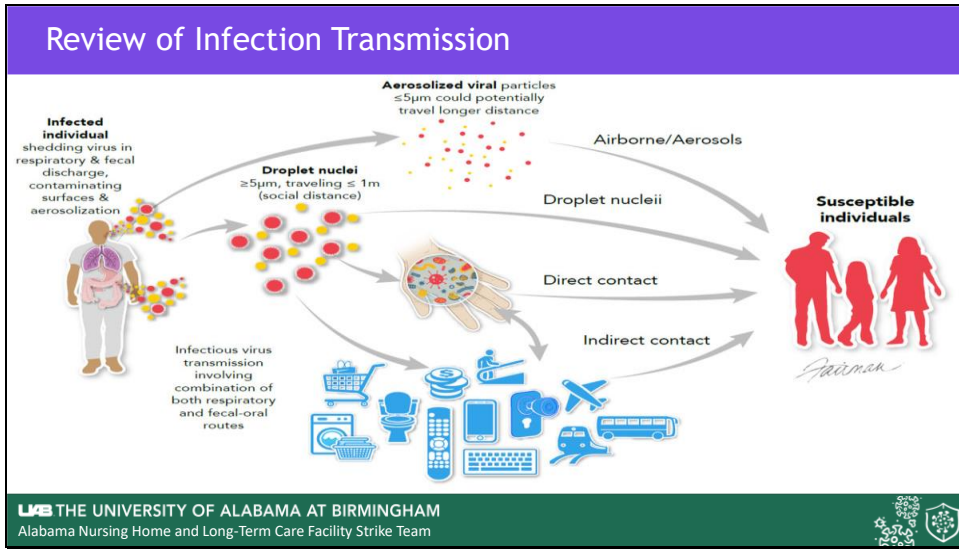
According to Centers for Disease and Control

- **Healthcare Associated Infections (HAIs)**
 - It is estimated that on any given day, 1 in 31 hospital patients and 1 in 43 nursing home residents has an healthcare-associated infection while receiving care in a medical facility.
- **Reducing HAIs is critical to improving patient safety and controlling healthcare costs.**



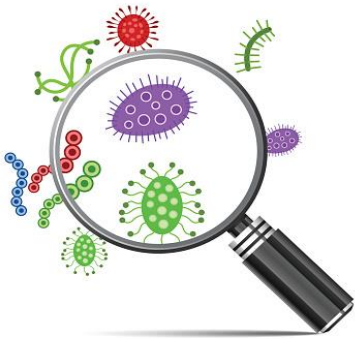
We have the infection prevention playbook...

*... **but** the question remains why are infections continuing to occur within healthcare settings?*




Fomites

- Fomites are inanimate objects that are most likely to transfer the pathogens deposited by the infected host into a susceptible host.
- Examples of fomites are door handles, faucet handles, and bedside tables.
- Examples of diseases caused by fomite transmission are the common cold, influenza, Meningitis, and COVID-19



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Environmental Surfaces

In the healthcare setting, environmental surfaces refer to:

- Surfaces of resident care equipment.
- Housekeeping surfaces, which are divided into two categories:
 - Surfaces with **minimal** hand contact (e.g., floors, ceilings, and windowsills).
 - Surfaces with **frequent** hand contact, also known as **high-touch surfaces**

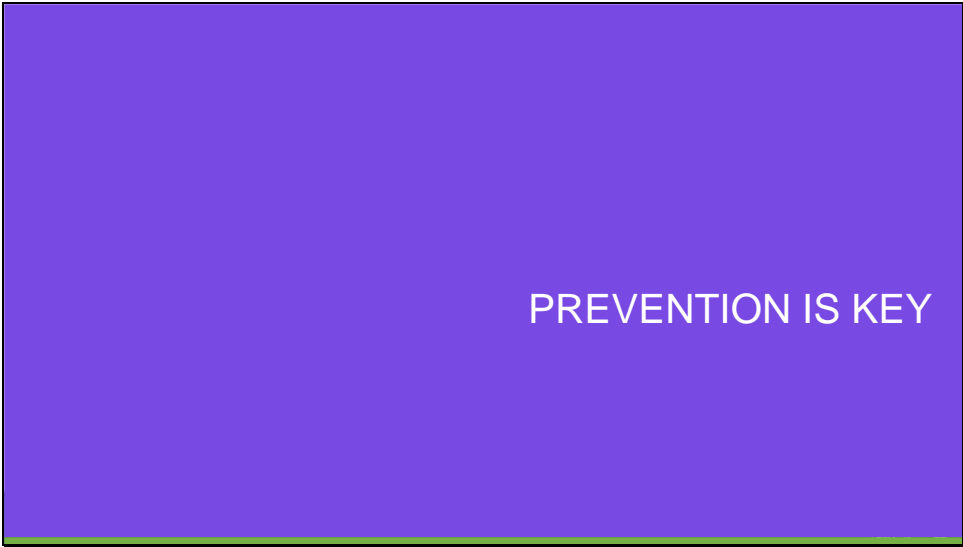
High or Frequently Touched Surfaces



Core Infection Prevention and Control Practices

- Leadership Support
- Education and Training of Healthcare Personnel on Infection Prevention
- Patient Family and Caregiver Education
- Performance Monitoring and Feedback
- Standard Precautions
 - Hand hygiene
 - Environmental Cleaning and Disinfection
 - Injection and Medication Safety
 - Risk assessment with Appropriate Use of Personal Protective Equipment
 - Minimizing Potential Exposures
 - Reprocessing of Reusable Medical Equipment
- Transmission-Based Precautions
- Temporary Invasive Medical Devices for Clinical Management
- Occupational Health



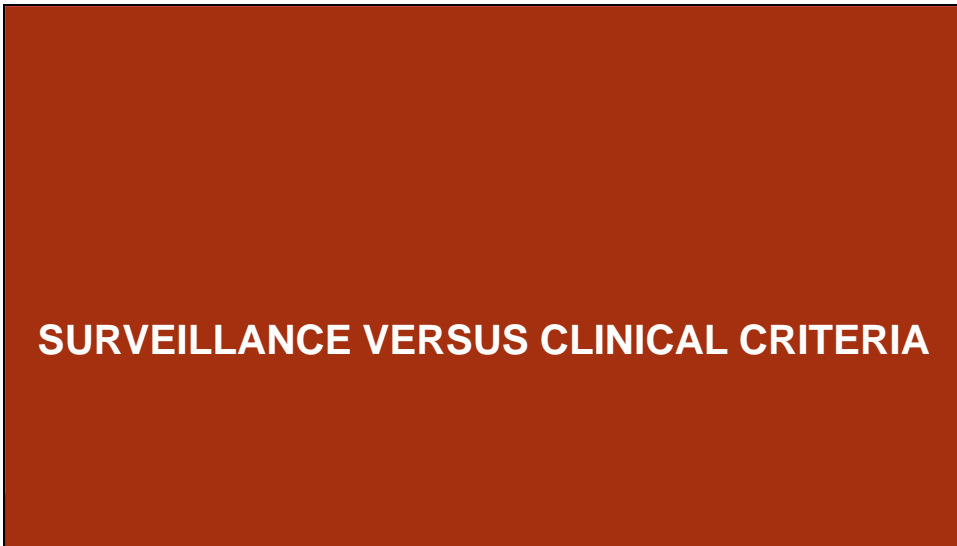




Antimicrobial Stewardship

Per the **Infectious Diseases Society of America**:

"Antimicrobial stewardship refers to *coordinated interventions* designed to *improve and measure the appropriate use of antimicrobials* by promoting the selection of the **optimal antimicrobial drug regimen, dose, duration of therapy, and route of administration.**"



SURVEILLANCE VERSUS CLINICAL CRITERIA

Loeb, McGeer and NHSN Criteria

Loeb Criteria is designed for Clinical Use

- ❖ Establish minimum criteria that should be present before initiating antibiotics
- ❖ Useful for guiding patient care and clinical practice

McGeer and NHSN Criteria are designed for Surveillance

- ❖ Surveillance definitions are highly specific for setting benchmarks across facilities
- ❖ Revised McGeer criteria often applied retrospectively to review and count cases
- ❖ Not very useful for diagnosis or necessity of treatment.



CDC
Recommends
Seven
CORE ELEMENTS
for
Antibiotic
Stewardship
in Nursing Homes



Leadership commitment

Accountability

Drug expertise

Action

Tracking

Reporting

Education

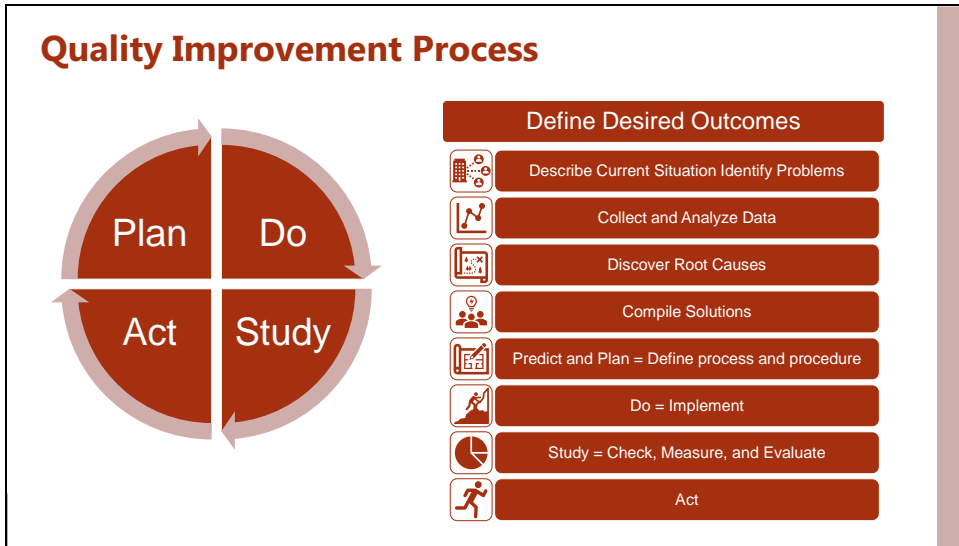
<https://www.cdc.gov/antibiotic-use/core-elements/pdfs/core-elements-antibiotic-stewardship-H.pdf>

What are the activities of the Antibiotic Stewardship Team?

CREATE A MISSION STATEMENT



START



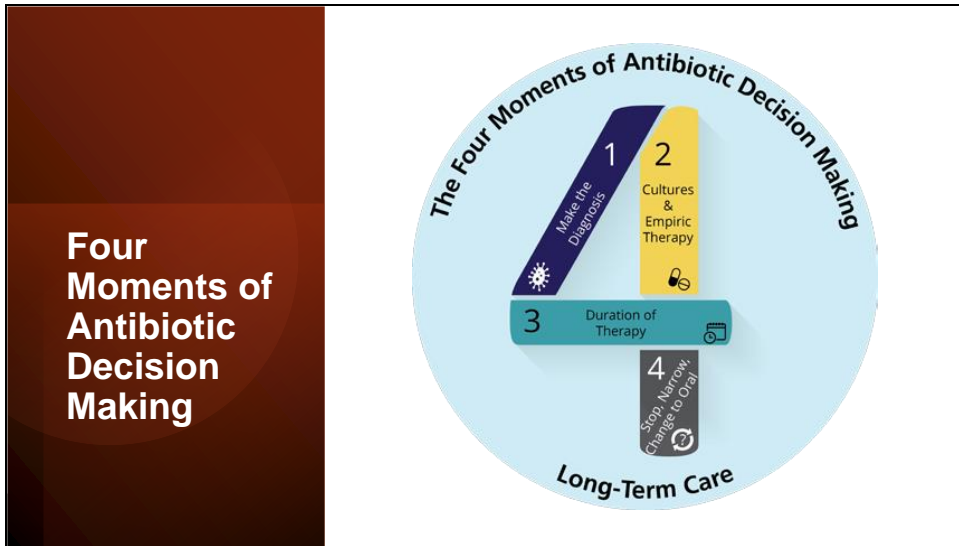
TRACKING AND REPORTING ANTIBIOTIC USE AND OUTCOMES

Process measures: Tracking how and why antibiotics are prescribed

Antibiotic use measures: Tracking how often and how many antibiotics are prescribed

Antibiotic outcome measures: Tracking the adverse outcomes and costs from antibiotics





Moment 1: Make the Diagnosis



- Assess resident for a change in status and there is a concern for an infection
- Consider if changes are suggestive of an infection versus another cause


Please Note:

Residents with an indwelling urinary catheter should be categorized as 'with catheter'

- The following devices are not categorized as an indwelling urinary catheter: intermittent straight in and out catheters, suprapubic catheters, condom catheters, or external urinary drainage devices.

Antibiotics should not be initiated for cloudy or foul-smelling urine

- Urine culture should be sent prior to starting antibiotics



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Moment 4: Stop, Narrow, Change to Oral

Reevaluate the resident and review results of diagnostic tests.

Can antibiotics be stopped?

Can therapy be narrowed?

Can there be a change to oral antibiotics?



Antibiogram

An antibiogram is a tool that is comprised of documented organisms detected from clinical specimens and their antibiotic susceptibility patterns—**across all residents**—for a certain time, in nursing homes from specimens sent to the laboratory for testing.

Sample Antibiogram

Gram (-)	# of residents	Aminoglycosides			B-Lactams			Cephalosporins				Quinolones	Others		
		Amikacin	Gentamicin	Tobramycin	Ampicillin	Imipenem	Piperacillin- tazobactam	Cefazolin	Cefoxitin	Ceftriaxone	Ceftazidime	Ciprofloxacin	Nitrofurantoin	TMP/SMX	
<i>Escherichia coli</i>	37	100	100	100	100	100				100	75				
<i>Klebsiella sp</i> *	33	100	84.6	92.3	38.5	100	92.3	84.6	100	100	100	38.5	92.3	38.5	
<i>Proteus sp</i>	31	71.4	57.1	71.4		85.7	85.7			57.1	57.1		28.6	71.4	
<i>Pseudomonas aeruginosa</i> †	23	100	83.3	92.3	91.7		100	81.8	100	100	30.8			69.2	
Gram (+)	# of residents	Penicillins				Cephalosporins		Quinolones		Others					
		Penicillins	Ampicillin	Oxacillin	Nafcillin	Cephalothin	Ceftriaxone	Ciprofloxacin	Moxifloxacin	Gentamicin	Linezolid	Rifampin	Tetracycline	TMP/SMX	Vancomycin
<i>Staph aureus</i> (all) †	17	0	0	0	0		0	0	87.5	100	100	100	100	100	100
Methicillin Resistant (MRSA)	34	0	0	0	0		0	0	87.5	100	100	100	100	100	100
Methicillin Susceptible (MSSA)	0														
<i>Enterococcus sp</i> *	30	100	100				50		75				25		100

* This antibiogram uses 2 years of culture data for these organisms.
 † Results based on fewer than 30 isolates are less reliable and should be interpreted with caution.

