Standard Precautions

Infection Preventionist Training for Skilled Nursing Facilities
Healthcare-Associated Infections Program
Center for Health Care Quality
California Department of Public Health



Objectives

- Describe the 6 elements of Standard precautions
- Review adherence monitoring results and tools for select Standard precautions care practices



What are the Standard Precautions?

Part of Core practices – Use all the time, in all settings

- 1. Hand hygiene
- 2. Environmental cleaning and disinfection
- 3. Injection and medication safety
- 4. Assess the risk of transmission in task to be performed to select appropriate personal protective equipment (PPE) including gloves, gowns, face masks
- 5. Minimizing potential exposures
 - Using respiratory hygiene and cough etiquette
- 6. Reprocessing of reusable medical equipment between each patient and when soiled

Standard Precautions Element 1 Hand Hygiene

 Hands of health care workers are the most common mode of transmission of pathogens

Many HAI are preventable with hand hygiene!



Hand Hygiene Efforts

- Hand hygiene has been known to prevent spread of infection for 150 years
- CDC, the World Health Organization, and many other authorities have promulgated hand hygiene guidelines
- Healthcare facilities have hand hygiene policies and procedures
- Lots of studies, intervention trials, observation and measurement

Hand hygiene adherence in health care remains inconsistent.

Many opportunities for improvement.



Hand Hygiene Terminology

- Hand hygiene: Performing handwashing, antiseptic handwash, alcohol-based hand rub, or surgical hand hygiene/antisepsis
- Handwashing: Washing hands with plain soap and water
- Antiseptic hand wash: Washing hands with water and soap or other detergents containing an antiseptic agent
- Alcohol-based hand rub: Rubbing hands with an alcoholcontaining preparation
- Surgical scrub /antisepsis: Extended period of hand hygiene with antiseptic agent

Guideline for Hand Hygiene in Health-care Settings. *MMWR*, vol. 51, no. RR-16, 2002

Indications for Hand Hygiene

- Wash hands with soap and water when hands are
 - Contaminated
 - Soiled
 - Before and after eating
 - After toileting wash with soap and water
- If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands
- During outbreaks and if infection rates are high, consider using only handwashing with soap and water
 - Examples: C.difficile infections, Norovirus



Indications for Hand Hygiene – 2

Before

- Patient contact
- Donning gloves
- Accessing devices
- Giving medication

After

- Contact with a patient's skin and/or environment
- Contact with body fluids or excretions, non-intact skin, wound dressings
- Removing gloves



Efficacy of Hand Hygiene Products



*less effective in presence of organic material



Recommended Hand Hygiene Technique

Hand rub

- Apply to palm of one hand, rub hands together covering all surfaces until dry
- Volume based on manufacturer recommendation

Handwashing

- Wet hands with water, apply soap, rub hands together, paying close attention to between the fingers and nails, for at least
 15 seconds
- Rinse and dry with disposable towel
- Use towel to turn off faucet



Recommended Hand Hygiene Technique

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Recommended Hand Hygiene Technique, cont'd

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Nails

- Artificial nails and gel polishes should **not** be worn by health care personnel
- Polish may be worn but must be intact (not chipped)
- Nail tips should be kept to ¼ inch in length





Gloving and Hand Hygiene

- Always wear gloves when contact with blood or infectious material is possible
- Remove gloves after caring for each patient
 - Remove gloves, perform hand hygiene, and re-glove when transitioning care from a soiled to a clean area
- Perform hand hygiene upon removing gloves
- Do not wash gloves
- Do not reuse gloves



How to Improve Hand Hygiene Compliance

- Make hand hygiene a facility priority
 - Ensure competency
- Encourage patients and families to remind health care workers to clean their hands
- Make hand rubs easily available (e.g., place at entrance to patient room, at bedside)
- Monitor adherence to hand hygiene; provide feedback of gaps
 - Train/re-train secret shoppers
 - Explore electronic hand hygiene monitoring systems

<u>Take the Pledge Agency for Healthcare Quality and Research (AHRQ)</u> (PDF) (www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-

safety/quality-resources/tools/cauti-

ltc/modules/resources/tools/practice/pledge.pdf)





Standard Precautions Element 2 Environmental Cleaning and Disinfection

- Require routine cleaning of environmental surfaces as indicted by level of patient contact and degree of soiling
 - Clean high touch areas more frequently
 - Promptly clean and decontaminate spills of blood and other potentially infectious materials
- Select EPA-registered disinfectants with activity against pathogens most likely to contaminate the patient area
 - Follow manufacturers' instructions for proper cleaning and disinfecting products

(More details will be provided in another lecture)



Standard Precautions Element 3 Injection Safety

- Injection safety protects patients
- Injection safety protects health care workers



Hepatitis B and C Outbreaks Associated with Unsafe Infection Practices

- CDC aware of 44 outbreaks of hepatitis B and C in non-hospital settings in U.S., 2008-2015
- Outbreaks due to injection safety breaches
 - Reuse of syringes
 - Contaminated medication vials used for more than one patient
 - Use of single-dose vials for more than one patient
 - Drug diversion by HCP/employees



Aseptic Technique for the Preparation and Administration of Injected Medications

- Perform hand hygiene
- Draw up medications in a designated clean medication area

Area must <u>not</u> be adjacent to areas where potentially

contaminated items are placed



Needles and Syringes: One Time Use ONLY

- Needles used for only one patient
- Syringes used for only one patient
 - Includes manufactured prefilled syringes
 - Cartridge devices
 - Insulin pens



CDC One and Only Campaign

(www.cdc.gov/injectionsafety/one-and-only.html)

Injection Safety for Diabetic Patients

- Insulin pens containing more than one dose of insulin are only meant for one person
- For glucose testing, clean the glucometer after every use







Always Clean the Tops of Medication Vials Before Entry

- Cleanse access diaphragms of medication vials using friction with 70% alcohol
- Allow the alcohol to dry before inserting a device into the vial
- Clean the tops of vials with alcohol even if they have lids or caps
 - Manufacturers guarantee sterility of medications and IV solutions but not the **outside** of medication vials or containers



Single-Dose Vials: One Patient and Only Once

- Carefully read the vial label to determine if it is singleuse
- Never enter a medication vial with a used syringe or needle
- If the vial says "single-dose" and has already been accessed, throw it away

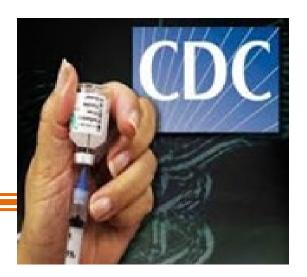
- Single use medications should not be stored for future use
- Discard according to the manufacturer's expiration date
- When in doubt, throw it out!

CDC Injection Safety

(www.cdc.gov/injectionsafety/one-and-only.html)

Multi-Dose Vials

- Limit the use of multi-dose vials
 - When possible, dedicate them to a single patient
 - A multiple-dose vial is recognized by its FDA-approved label
 - Discard multi-dose vials when the beyond-use date has been reached
- Any time the sterility of the vial is in question, throw it out!



(www.cdc.gov/injectionsafety/one-and-only.html)

Multi-Dose Vials -2

- Multi-dose vials used for more than one patient must be kept in a centralized medication area
- Multi-dose vials should never enter the immediate patient treatment area (e.g., patient rooms, operating rooms)
- Multi-dose vials should be dated by the health care worker when first opened and discarded within 28 days
 - Unless the manufacturer specifies a different expiration date for an opened vial shorter than 28 days

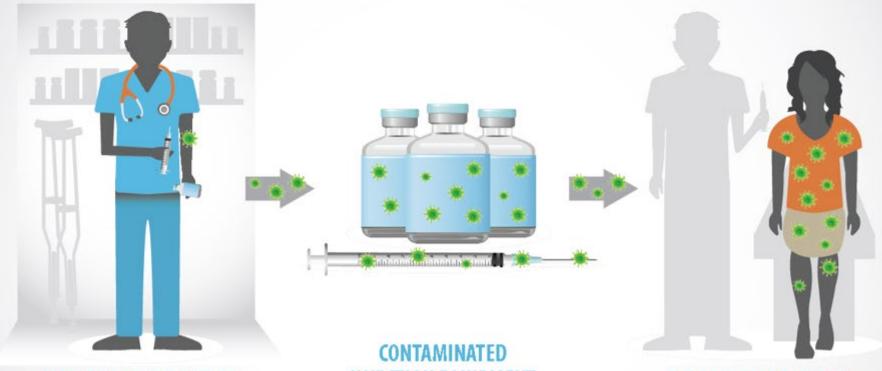


Use Bags of Intravenous Solutions for <u>One</u> Patient Only

- Do not use bags of intravenous solution as a common source of supply for more than one patient
- Everything from the medication bag to the patient's IV catheter is a single interconnected unit



DRUG DIVERSION* SPREADS INFECTION FROM HEALTHCARE PROVIDERS TO PATIENTS



HEALTHCARE PROVIDER

with Hepatitis C or other bloodborne infection tampers with injectable drug

CONTAMINATED INJECTION EQUIPMENT AND SUPPLIES

present in the patient care environment

EXPOSURE OF PATIENT

results from use of contaminated drug or equipment for patient injection or infusion





Essential Elements of a Drug Diversion Prevention Program

- Multidisciplinary team including the Administrator, Director of Nursing (DON), Director of Staff Development (DSD), Infection Preventionist, Pharmacist, and Medical Director.
- Policies to prevent, detect, and properly report drug diversion
- A method of observing processes and auditing drug transaction data for diversion
- Prompt attention to suspicious audit results
- Collaborative relationship with public health and regulatory officials
- Drug diversion education for all staff



Sharps Safety

- Sharps injuries occur most frequently due to inappropriate sharps disposal by healthcare workers, including
 - Insufficient maintenance of sharps containers in every area
 - Improper design of sharps disposal container
 - Inappropriate placement of sharps disposal container
 - Overfilling sharps disposal container





Sharps Disposal Container Requirements

- Must be puncture-resistant, durable during installation and transport, and of appropriate size and shape for the task
- Must be clearly visible
- Must be easy to access by being placed in an upright position and easy to operate
- Must have ease of storage and assembly, require minimal worker training requirements, be easy to operate, and have a flexible design

CDC Injection Safety Workbook (PDF)

(www.cdc.gov/sharpssafety/pdf/sharpsworkbook 2008.pdf)

Management of Needle Sticks and Other Exposures to Blood or Other Bodily Secretions

- Wash the needle stick site or cut with soap and water until clean
- Flush splashes to the nose, mouth, or skin with water
- Irrigate eyes with clean water, saline, or sterile irrigant
- Report the incident to your supervisor immediately
- Immediately seek medical evaluation per your facility's policy



Injection Safety Checklist

- Use to assess your facility's injection safety practices
- Download and share with all staff

CDC Injection Safety
Workbook (PDF)
(www.cdc.gov/sharpssafety
/pdf/sharpsworkbook_200
8.pdf)

INJECTION SAFETY CHEC

The following Injection Safety checklist items are a subset of items that can be found in the CDC Infection Prevention Checklist for Outpatient Settings: Minimum Expectations for Safe Care.

The checklist, which is appropriate for both inpatient and outpatient settings, should be used to systematically assess adherence of healthcare providers to safe injection practices. Assessment of adherence should be conducted by direct observation of healthcare personnel during the performance of their duties.

Injection Safety	Practice Performed?	If answer is No, document plan for remediation
Proper hand hygiene, using alcohol-based hand rub or soap and water, is performed prior to preparing and administering medications.	Yes No	
Injections are prepared using aseptic technique in a clean area free from contamination or contact with blood, body fluids, or contaminated equipment.	Yes No	
Needles and syringes are used for only one patient (this includes manufactured prefilled syringes and cartridge devices such as insulin pens).	Yes No	
The rubber septum on a medication vial is disinfected with alcohol prior to piercing.	Yes No	
Medication vials are entered with a new needle and a new syringe, even when obtaining additional doses for the same patient.	Yes No	
Single-dose or single-use medication vials, ampules, and bags or bottles of intravenous solution are used for only one patient.	Yes No	
Medication administration tubing and connectors are used for only one patient.	Yes No	
Multi-dose vials are dated by healthcare when they are first opened and discarded within 28 days unless the manufacturer specifies a different (shorter or longer) date for that opened vial. Note: This is different from the expiration date printed on the vial.	Yes No	
Note: This is different from the expiration date printed on the vial. Multi-dose vials are dedicated to individual patients	Yes No	
whenever possible.		
Multi-dose vials to be used for more than one patient are kept in a centralized medication area and do not enter the immediate patient treatment area (e.g., operating room, patient room/cubicle).	Yes No	

PublicHealth

Join the CDC One & Only Campaign

- A partnership of health care organizations, patient advocacy organizations, industry partners, and other public health partners
- Commit to injection safety!







CDC One & Only Campaign

(www.cdc.gov/injectionsafety/1anonly.html)

Standard Precautions Element 4 Personal Protective Equipment

- HCP need immediate access to PPE and <u>training</u> to be able to select proper PPE based on
 - The nature of the patient interaction
 - Potential for exposure to blood, body fluids or other infectious material
- Types of PPE
 - Gloves
 - Gowns
 - Face masks and respirators
 - Goggles and face shields



PPE Education Resources

Educational Materials Include:

- How to Safely Put On PPE Video
 (www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html)
- How To Safely Take Off PPE Video (youtu.be/PQxOc13DxvQ)
- How to Put On and Take Off PPE Fact Sheet (PDF)
 (www.cdc.gov/coronavirus/2019 ncov/downloads/A_FS_HCP_COVID19_PPE.pdf)
- How to Put On and Take Off PPE Poster (PDF)
 (www.cdc.gov/coronavirus/2019-ncov/downloads/A_FS_HCP_COVID19_PPE_11x17.pdf)
- PPE Illustrations (PDF)
 (www.cdc.gov/coronavirus/2019-ncov/downloads/COVID-19_PPE_illustrations-p.pdf)



PPE - Gloves

- Wear gloves when it can be reasonably anticipated that you may have hand contact with
 - Blood or other potentially infectious material
 - Mucous membranes
 - Non-intact skin
 - Potentially contaminated skin
 - Potentially contaminated equipment



PPE - Gowns

- Wear a gown during procedures and activities that could cause contact with blood, body fluids, secretions, or excretions
 - Appropriate to the task
 - To protect skin
 - To prevent soiling of clothing



PPE – Masks and Protective Shields

- Use protective eyewear and a mask, or a face shield
 - To protect the mucous membranes of the eyes, nose and mouth
 - During procedures and activities that could generate splashes or sprays of blood, body fluids, secretions and excretions
- Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed



PPE Removal

- Remove and discard PPE, other than respirators, upon completing a task <u>before</u> leaving the patient's room or care area.
 - If a respirator is used, it should be removed and discarded (or reprocessed if reusable) after leaving the patient room or care area and closing the door.
- <u>Do not</u> use the same gown or pair of gloves for care of more than one patient.
- Remove and discard disposable gloves upon completion of a task or when soiled during the process of care
 - Do not wash gloves for the purpose of reuse



Standard Precautions Element 5 Minimize Potential Exposure

- Use respiratory hygiene and cough etiquette
- Prompt patients/residents and visitors with symptoms of respiratory infection to contain their secretions and perform hand hygiene after contact with respiratory secretions
 - Provide tissues, masks, hand hygiene supplies and instructional signage or hand outs at point of entry and throughout the facility
- If possible, separate patients/residents with respiratory symptoms as soon as possible



Standard Precautions Element 6 Reprocessing of Reusable Medical Devices

- Clean and reprocess (disinfect or sterilize) reusable medical equipment prior to use on another patient or resident
 - Blood glucose meters and other point-of-care devices
 - Blood pressure cuffs
 - Oximeter probes
 - Surgical instruments
 - Endoscopes
- Maintain separation between clean and soiled equipment to prevent cross contamination

(More details will be provided in another lecture)



Monitoring Standard Precautions

Hand Hygiene Results of CDPH HAI Program Observations



Opportunities Observed x 100)

Monitoring Hand Hygiene

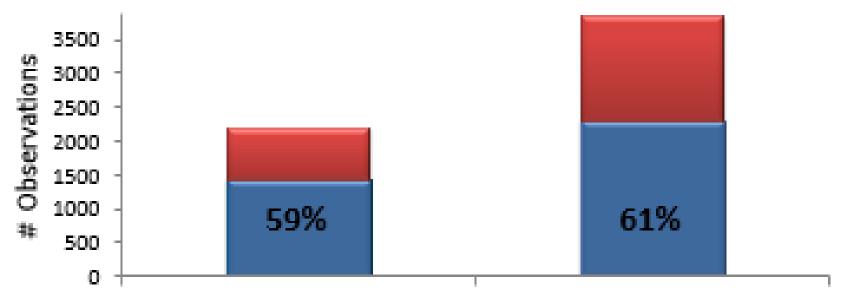
("# **✓** "): **4**

Discip line			should be performed		ter glove use	✓ Successful
N	☐ entering room* ☐ befo	ore task	☐ after body fluids	☐ after care*	☑ leaving room	•
N	☑entering room* ☐ befo	re task	☐ after body fluids	☐ after care*	☐ leaving room	\Diamond
CNA	\square entering room* \square befo	ore task	\square after body fluids	☐ after care*	☑ leaving room	✓
CNA	☑ entering room* ☐ befo	ore task	☐ after body fluids	☐ after care*	☐ leaving room	0
CNA	☑ entering room* ☐ befo	ore task	\square after body fluids	\square after care*	\square leaving room	0
CNA	☐ entering room* ☐ before	ore task	☐ after body fluids	☐ after care*	☑ leaving room	✓
MD	☑ entering room* ☐ befo	ore task	☐ after body fluids	☐ after care*	☐ leaving room	0
MD	☑ entering room* ☐ befo	ore task	☐ after body fluids	☐ after care*	☐ leaving room	0
N	☑ entering room* ☐ befo	ore task	☐ after body fluids	☐ after care*	☐ leaving room	~
N	☑ entering room* ☐ befo	ore task	☐ after body fluids	☐ after care*	☐ leaving room	0
T	otal # HH Successful		HH Opportunities		rence: <mark>40</mark> uccessful ÷Total	_% # HH

Observed: 10

Hand Hygiene Adherence Monitoring

158 Acute Care Facilities, 2015-2018 (N=2195) 308 Skilled Nursing Facilities 2016-2018 (N=3838)



Care General Hospitals

Hand Hygiene Rate - Acute Hand Hygiene Rate - Skilled Nursing Facilities







Summary: Standard precautions are part of the Core Practices that apply to all care settings and all patient care (regardless of a patient's suspected or confirmed infectious state)

suspected or confirmed infectious state)						
Core Infection Prevention Practices						
For Use in <u>All</u> Health Care Settings At All Times						
Visible, tangible leadership	Standard precautions					
support for infection control	Hand hygiene					
Infection prevention training for all HCP	Environmental cleaning and disinfection					
Patient, family, caregiver HAI	Injection safety, medication safety					
prevention education	Assess risk, use PPE appropriately					
Performance monitoring and	Minimize potential exposures					
feedback	Clean and reprocess reusable					
Early, prompt removal of invasive	medical equipment					
devices						
Occupational health	☐ Transmission-based precautions as					
	necessary					
CDC HICPAC Core Practices Recommendations						
(www.cdc.gov/hicnac/recommendations/core_practices.html)						

Questions?

For more information, please contact

HAIProgram@cdph.ca.gov

Include "SNF IP Basics Class" in the subject line

Post Test

Now that you have completed this module, Click on the "Post Test" link when it pops up To Return to **Learning Stream** and take the post test If the Post Test link does not pop up, you will be sent a link via e-mail

