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HAI-Lights Newsletter

An infection prevention and control resource for academic partners

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HAI-Lights Refresher Question: The Summer 2024 newsletter discussed environmental infection control, including water safety. Answer this question to test your memory; find the **solution on page three**.

Which professional organization sets standards for dialysis facility water treatment?

a) OSHA - Occupational Safety and Health Administration
b) EPA - Environmental Protection Agency
c) CDC - Centers for Disease Control and Prevention
d) AAMI - Association for the Advancement of Medical Instrumentation



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Standard Infection Control Precautions

The current newsletter includes part one of a two-part series on how healthcare workers and patients can prevent infection and microorganism spread through infection control precautions. This newsletter reviews standard precautions (applied universally in patient care); the next newsletter will review transmission-based precautions (i.e., protection from contact, droplet, and airborne spread diseases).

Standard precautions include: 1) Hand hygiene; 2) Personal protective equipment; 3) Injection safety; and 4) Respiratory hygiene and cough etiquette. These four precautions are always used for patient encounters, regardless of condition or care received, to minimize the spread of infections among individuals. The assumption is that anyone can carry an infection, even without symptoms. Standard precautions can be used on their own, or in combination with transmission-based precautions.

Hand Hygiene

Hand hygiene is the first defense against pathogens. The Centers for Disease Control and Prevention (CDC) states that unless hands are visibly soiled, the **preferred method is 60%+ alcohol-based hand sanitizer** (CDC, 2024a). First, check the label for 60%+ alcohol, then put sanitizer in one palm. Rub hands and fingers together, ensuring full coverage, for 20 seconds or until dry (CDC, 2024b). If **hands are visibly soiled, dirty, or contaminated** with blood or bodily fluids, however, use soap and water (CDC, 2023a): First, wet hands with warm water, then apply a quarter-sized amount of liquid soap. Rub to create a lather, ensuring coverage of the backs of hands, between fingers, and around and under nails, for at least 15 seconds then rinse hands thoroughly under running water. Dry with a paper towel and use the towel to turn off the faucet and open the door (CDC, 2024c).



Personal Protective Equipment

Personal protective equipment (PPE; e.g., gloves, masks, gowns) is a barrier between healthcare workers and patients to prevent germ or infection transmission via direct or indirect contact. **Direct contact** spreads microorganisms from an infected individual to a healthy individual through touch (e.g., blood or bodily fluid contact; CDC, 2022). **Indirect contact** spreads germs through contaminated objects, air particles, or vectors (e.g., fleas, ticks, mosquitoes). To prevent microorganism transmission, PPE is put on and removed in a particular order, referred to as "**donning**" and "**doffing**," respectively (CDC, 2023b). Donning is putting on PPE before entering a room or handling contaminated objects; doffing is taking off PPE in a specific order before exiting a room to avoid contaminated surfaces and spreading germs. Some scenarios entail specific PPE, such as the use of gloves and gowns when treating a patient with *Clostridium difficile* to avoid contact with bodily fluids (CDC, 2024d). To learn more, visit: Informational CDC Flyer on PPE Best Practices.

Medical Injection Safety Practices

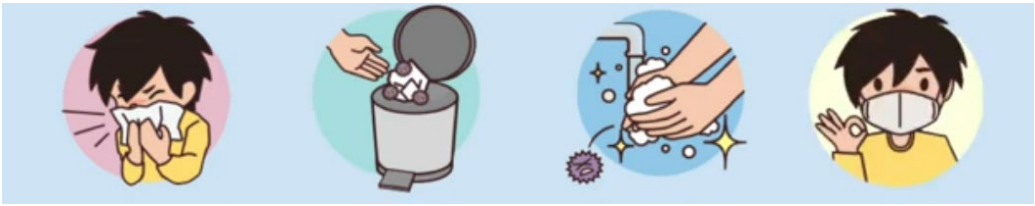
Providers should follow safe injection practices to reduce infectious disease transmission risk. Unsafe practices include reusing needles and syringes, using a single-dose vial on multiple patients, giving medication in an unclean environment, and disposing of needles or medications inappropriately. Follow these **seven steps for safe injections**, or visit: World Health Organization Safe Injection Practices.

1. Clean workstation and clean medication preparation area.
2. Hand hygiene before preparing and giving the injection.
3. Use sterile injection equipment; inspect the syringe packaging before use.
4. Use sterile medication vial. Inspect the vial before use; avoid using a multi-dose vial when possible.
5. Disinfect skin with soap and water or 60-70% alcohol before giving the injection.
6. Dispose of the needle and syringe in a puncture-proof sharps container.
7. When sharps container is 3/4 full, seal and discard in a secure place, such as a biohazard waste room.

Respiratory Hygiene and Cough Etiquette

Respiratory hygiene and cough etiquette are strategies to prevent respiratory pathogen transmission (with or without symptoms), decreasing infection transmission risk (CDC, 2007). Specific strategies include:

1. Educating staff, patients, and visitors.
2. Visual signs at entrances educating people on respiratory hygiene and cough etiquette.
3. Hygiene supplies and no-touch waste bins in areas accessible to staff, patients, and visitors.
4. Hand hygiene after covering a cough or disposing of tissues and masks.
5. Spatial separation of three feet in common areas for persons with respiratory symptoms.



Antimicrobial Stewardship

Antimicrobial stewardship promotes responsible antimicrobial use via shared infection control measures and patient safety goals. Proper infection control precautions prevent the spread of **antimicrobial-resistant organisms** like bacteria or fungi that no longer respond to the medications meant to kill them. As a result, infections are reduced. To learn more, visit: Integrating Infection Control with Antimicrobial Stewardship.

CDC Project Firstline

When we practice consistent infection control–every person, every action, every day–lives are saved. The Healthcare Safety Unit joins Project Firstline, a CDC-led infection control training collaborative for healthcare workers. Explore these resources and share them with coworkers: 1) Recognizing Risks in Health Care; 2) Learn Where Germs Live in Health Care.

Healthcare Safety Unit

The Healthcare Safety Unit at the Department of State Health Services promotes **safe and quality healthcare through awareness, education, transparency, monitoring, and response**, improving the well-being of all Texans. The unit has two multidisciplinary groups: 1) Epidemiologic Investigations; and 2) Data and Training.

Additional Resources

- Subscribe to the HAI-Lights Newsletter and provide feedback to help us improve.
- CDC Infection Control Basics
- Association for Professionals in Infection Control and Epidemiology
- Texas Society of Infection Control and Prevention

HAI-Lights Refresher Answer: Which organization sets standards for dialysis facility water treatment?

a) OSHA - Occupational Safety and Health Administration
b) EPA - Environmental Protection Agency
c) CDC - Centers for Disease Control and Prevention
d) AAMI - The Association for the Advancement of Medical Instrumentation sets standards for dialysis facility water treatment.



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