

INFECTIOUS DISEASES: HEALTHCARE WORKERS HAVE A RIGHT TO BE PROTECTED



According to the Occupational Safety and Health Administration (OSHA), the healthcare sector has one of the highest rates of work related injuries and illnesses. One of the hazards healthcare workers face is being exposed to infectious diseases such as tuberculosis (TB), Influenza, Methicillin-Resistant Staphylococcus Aureus (MRSA) bacteria, and other viruses and antibiotic resistant bacteria. Today because of our global society, healthcare workers must deal with a range of emerging infectious diseases such as SARS, avian influenza and may increasingly be exposed to organisms previously limited to other continents, such as Ebola or Zika.

Infectious Diseases and Routes of Transmission

Infectious diseases are disorders caused by organisms — such as bacteria, viruses, fungi or parasites. Some frequent signs and symptoms of infectious disease include: fever, diarrhea, fatigue, muscle aches, coughing. Healthcare workers should assume that every person is potentially infected and know the necessary steps to protect themselves.

In addition to blood borne transmission, infectious diseases may be transmitted through the air or by skin contact. All types of transmissions require the same level of serious prevention efforts. Healthcare workers can be exposed to infectious diseases through:

- **Direct Contact**—involves the transfer of an infectious agent to a susceptible individual through physical contact with an infected individual, such as: skin-to-skin contact, contact to blood body fluids or mucus membrane. Two examples of contact transmissible infectious agents are MRSA and Vancomycin-resistant enterococcus (VRE).
- **Droplets**—generated when an infected person coughs, sneezes, or talks, or during certain medical procedures that involve suctioning or endotracheal intubation. Two examples of droplet transmissible infectious agents are the influenza virus which causes the seasonal flu and Bordetella pertussis which causes pertussis (i.e., whooping cough).
- **Airborne**—occurs through very small particles or droplets that contain infectious agents and can remain suspended in the air for extended periods of time. Two examples of airborne transmissible agents are Mycobacterium tuberculosis which causes tuberculosis (TB) and the rubella virus which causes measles.

Infection Control Expertise

While many cases of disease transmission can be prevented by the simple act of frequent handwashing, others require more complicated control measures. Levels of infection control expertise may differ in healthcare workplaces. It is important for workers to receive site-specific training, know how to identify and respond safely to infectious disease hazards, and know what to do if an exposure occurs.

Disinfection and Sterilization

Properly cleaning rooms and equipment reduces the risk for person-to-person and environmental pathogens transmissions.

- Disinfection describes a process that eliminates many or all infectious diseases (except those caused by bacterial spores) on inanimate objects. This is frequently done through liquid chemicals.
- Sterilization refers to a process that also eliminates bacterial spores on inanimate objects.
- Standard sanitation and disinfection procedures include using cleaners and water to pre-clean surfaces and objects prior to applying an EPA-registered disinfectant to frequently touched surfaces or objects.

Workers who use chemicals to clean contaminated surfaces should be trained on the proper use and hazards associated with chemicals. For more information on the OSHA's Hazard Communication Standard, 29 CFR 1910.1200, see: www.osha.gov/dsg/hazcom/whatisHazcom.html

All workers can be exposed and need to know how to protect themselves. It's an employers' responsibility to provide a safe workplace. For more information on key employers' responsibilities, go to:

<https://www.osha.gov/as/opa/worker/employer-responsibility.html>

Workplace Regulations to Protect Workers

OSHA's Bloodborne Pathogens Standard (29 CFR 1910.1030)

This standard provides protection of workers from exposure to blood and bodily fluids that might contain infectious diseases. Highlights of the standard includes a written exposure control plan, personal protective equipment (PPE), training requirements, and the use of the Universal Precautions approach in infection control, meaning all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens. For more information go to:

www.osha.gov/OshDoc/data_BloodborneFacts/bbfact01.pdf

OSHA's Personal Protective Equipment Standard (29 CFR 1910.132)

This standard requires employers to provide PPE for any hazard that can injure a worker through absorption, inhalation or physical contact. Examples include gloves, masks, eye protection, and face shields, gowns, aprons, and other protective body clothing, as is appropriate for the given task and exposure risk.

Workers should be trained on how to properly don, doff, adjust, and wear PPE. When needed, respiratory devices should be provided to workers and the employer needs to follow OSHA's Respiratory Protection Standard. For more information go to:

www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9777

OSHA's Respiratory Protection Standard (29 CFR 1910.134)

Employers must provide protection for workers that may be exposed to contact, droplet and airborne transmissible infectious agents. The standard requires feasible engineering controls, a respirator protection program, including selection of proper respirator, medical surveillance, fit testing, proper use and maintenance and care of the respirator, training, evaluation, and recordkeeping. For more information see the Hospital Respiratory Protection Toolkit:

<https://www.osha.gov/Publications/OSHA3767.pdf>

OSHA's General Duty Clause

Section 5(a)(1)

The General Duty Clause of the OSH Act (the law that created OSHA) requires employers to provide workers with a safe workplace that does not have any known hazards that cause or are likely to cause death or serious injury. For more information on workers' rights, to file a complaint, or how to contact OSHA see: www.osha.gov/workers/index.html

Published in 1991, the final Bloodborne Pathogens Standard responded to the significant health risk associated with occupational exposure to blood and other potentially infectious materials. In 1987, there were 8,700 cases of Hepatitis B infection among health care workers. In 1995, just four years after publication of OSHA's bloodborne pathogens standard, only 800 new cases related to occupational exposure were reported by the CDC – a 92% reduction in new cases reported.

Additional Resources:

- New Jersey Work Environment Council: www.njwec.org
- OSHA: <https://www.osha.gov>
- CDC National Center for Emerging and Zoonotic Infectious Diseases (NCEZID): www.cdc.gov/ncezid
- World Health Organization: www.who.int/en/
- Cal/OSHA Aerosol Transmissible Diseases Standard: www.cdph.ca.gov/programs/ohb/Pages/atdststd.aspx

Note: California passed the first occupational standard in the nation to prevent worker illness from infectious diseases that can be transmitted by inhaling air that contains viruses, bacteria or other disease organisms. It applies to workplaces at high risk for infectious diseases such as hospitals, clinics, emergency medical services, laboratories, prisons and homeless shelters.

Sources:

Occupational Safety and Health Administration (OSHA), www.OSHA.gov

Centers for Disease Control and Prevention (CDC), www.cdc.gov



This fact sheet was produced by the New Jersey Work Environment Council (WEC), a coalition of 70 labor, community, and environmental organizations. For information about FREE training, please go to www.njwec.org or email Cecelia Leto at cgilliganletto@njwec.org.

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