Tuesday’s Tidbits

Your Clinical Compliance Helps Prevent the Spread of Infection

Do you know why you’re required to be vaccinated when starting school and why it’s important to keep your immunizations up-to-date? While some may believe it’s just another hoop to jump through, there is a very good reason for doing so. When you go to clinical sites, patients in the facilities in which you are working are at risk and susceptible to germs due to a weakened immune system, not being vaccinated, or otherwise immune; this is when infections can occur. Not only can you pass infections on to your patients, but they can be passed to you!

Many organizations believe in the importance of immunized health care workers. For instance, the Centers for Disease Control and Prevention (CDC) (2017b) says that “Healthcare workers are at risk for exposure to serious, and sometimes deadly, diseases. If you work directly with patients or handle material that could spread infection, you should get appropriate vaccines to reduce the chance that you will get or spread vaccine-preventable diseases” (para. 1). The American Nurses Association’s (2015) Position Statement on Immunizations says that, “To protect the health of the public, all individuals should be immunized against vaccine-preventable diseases according to the best and most current evidence outlined by the Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP)” (para. 2). The CDC recommends all of the vaccines you are required to have by Hondros College of Nursing (HCN) - hepatitis B (HBV), influenza, MMR (measles, mumps & rubella), varicella, TB skin test and Tdap/Td (tetanus, diphtheria & pertussis) - plus the meningococcal vaccine which is not required by HCN.

Germs are everywhere, and while only a small portion of them can cause infections, they can and do. In healthcare settings, germs are found in many places, and people—patients, healthcare workers, family members, and visitors—are a source of germs that contribute to the spread of infection. According to the CDC (2017a), germs in the healthcare environment may come from environmental sources as well, including “dry surfaces in patient care areas (e.g., bed rails, medical equipment, countertops, and tables); wet surfaces, moist environments, and biofilms (e.g., cooling towers, faucets and sinks, and equipment such as ventilators); indwelling medical devices (e.g., catheters and IV lines); and dust or decaying debris (e.g., construction dust or wet materials from water leaks)” (Source, para 4).

Many patients have increased susceptibility to infection while receiving medical treatment in hospitals and nursing homes. They may have underlying medical conditions, such as diabetes, cancer, and organ transplantation, that put them at increased risk for infection; often these illnesses decrease the immune system’s ability to fight infection. Patients may be taking medications used to treat medical conditions, such as antibiotics, steroids, and certain cancer fighting medications, which increase the risk of some types of infections; and they may be receiving lifesaving medical treatments and procedures used in healthcare, such as urinary catheters, tubes, and surgery, which increase the risk of infection by providing additional ways that germs can enter the body (CDC, 2017a). Identifying these and other factors that increase patients’ susceptibility to infection allows providers to recognize risks and perform basic infection prevention measures to prevent it from occurring. Prevention is critical.

There are many ways you can come into contact with various germs when you’re in the clinical environment. Germs can be transmitted by people, the environment, and medical equipment, and they can also be spread through contact (i.e., touching), sprays and splashes, inhalation, and sharps (needle or sharp instrument) injuries (CDC, 2017a).

- **Contact** moves germs by **touch** (example: MRSA or VRE). This type of transmission can occur when, for example, a healthcare provider’s hands become contaminated by touching germs present on medical equipment or high touch surfaces. She then carries the germs on her hands and spreads them to a susceptible person when proper hand hygiene is not performed before touching the susceptible person (CDC, 2017a).


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The varicella-zoster virus is spread mainly by touching the virus particles that come from chickenpox blisters (CDC, 2016). Since the varicella-zoster virus also causes shingles, chickenpox can be spread from people with shingles or chickenpox to others who have never had chickenpox or received the chickenpox vaccine (CDC, 2016).

A person might get the flu by touching a surface or object that has flu virus on it and then touching their own mouth or nose (CDC, 2017c).

- **Sprays and splashes** occur when an infected person coughs or sneezes, creating droplets which carry germs short distances (within approximately 6 feet). These germs can land on a susceptible person’s eyes, nose, or mouth and can cause infection (example: pertussis or meningitis). Close range inhalation occurs when a droplet containing germs is small enough to breathe in but not durable over distance. (CDC, 2017a, Transmission, para. 5)

- **Inhalation** occurs when germs are aerosolized in tiny particles that survive on air currents over great distances and time and reach a susceptible person. Airborne transmission can occur when infected patients cough, talk, or sneeze germs into the air (example: TB or measles), or when germs are aerosolized by medical equipment or by dust from a construction zone (example: nontuberculous mycobacteria or aspergillus). (CDC, 2017a, Transmission, para. 6)

The varicella-zoster virus can also be spread by breathing in the virus particles that come from chickenpox blisters and possibly through tiny droplets from infected people that get into the air after they breathe or talk (CDC, 2016).

People with flu can spread it to others up to about 6 feet away. Most experts think that flu viruses are spread mainly by droplets made when people with flu cough, sneeze or talk. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. (CDC, 2017c, para 1)

- **Sharps injuries** can lead to infections (example: HIV, HBV, HCV) when bloodborne pathogens enter a person through a skin puncture by a used needle or sharp instrument (CDC, 2017a, Transmission, para. 7).

There are many ways germs can be spread in the healthcare setting. Just as there are CDC and World Health Organization (WHO) guidelines for hand hygiene, there are recommended vaccines for healthcare workers to prevent the spread of germs. Nurses and medical lab technicians should consider the importance of both to avoid spreading infection to their patients as well as to themselves and those with whom they work. It’s important to keep in mind that people can be sick with symptoms of an infection, but they can also be colonized with germs — not have symptoms of an infection but able to pass the germs to others. Standard precautions are used for all patient care that are based on risk assessment and make use of common sense practices and personal protective equipment to protect healthcare providers from infection and prevent the spread of infection from patient to patient.

The CDC (2011) says “Employers and HCP [health-care personnel] have a shared responsibility to prevent occupationally acquired infections and avoid causing harm to patients by taking reasonable precautions to prevent transmission of vaccine-preventable diseases. Vaccination programs are therefore an essential part of infection prevention and control for HCP. Optimal use of recommended vaccines helps maintain immunity and safeguard HCP from infection, thereby helping protect patients from becoming infected” (para. 5).

“Germs don’t move themselves. They depend on people, the environment, and/or medical equipment to move in healthcare settings” (CDC, 2017a, Transmission, para. 2). Please be sure you are keeping current with your vaccinations and uploading proof of vaccination/immunity into Castle Branch. Hondros College of Nursing students cannot be at clinical sites without being 100% compliant to ensure the health and safety of the students, the patients for which they care, and the healthcare workers with whom they come into contact. Your understanding of this is greatly appreciated.

References:


