Contemporary Nursing Practice

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# Infection Control

In a healthcare facility, everything from the air being circulated on-premises to the people that walk through the doors can serve as potential carriers of contamination. Thus, healthcare facilities and hospitals take extreme measures to ensure that certain steps are taken to control the spread of disease on-premises and even away from the hospital (Godfrey and Schouten, 2014). It is one of the primary concerns of healthcare facilities since many on-site factors can actually facilitate the spread of infectious diseases. Add in the invasive nature of many modern medical procedures and the increase in the number of surgeries being performed in the last decade, the number of patients being infected on incision sites, or the development of unrelated infections within the premises of a healthcare facility is relatively high (Salem, 2019).

According to WHO, Infection prevention and control is a scientific measure that is designed to prevent infection-related harm among patients as well as health workers (WHO, 2018). These measures are not only put into place prevent the spread of infectious diseases, but they also strengthen the system through the introduction of right policies that have positive and long-term impacts on the healthcare system (Salem, 2019).

## Types and Causes of Infection

Infection takes place when a foreign organism, such as a pathogen, enters a person’s body and causes harm. This foreign organism often uses its host’s body and cellular mechanism as its own to ensure its survival. While most infections are mild and are barely even noticeable, others can generate a severe response in an individual and can be life-threatening. An infection can be transmitted in a number of ways. It includes bodily fluids, skin contact, airborne particles and every object that an infected individual has touched. Furthermore, infections are usually caused by different types of pathogens, with the type of pathogen deciding the cause of infection. Hence, they are further classified into various types. They include (Nordqvist, 2017);

### Viral Infections

Viral infections are caused by viruses. While most species of identified viruses are not life-threatening, others may also kill their host. There are other viruses, such as the HPV (Human Papillomavirus) that can lead to uncontrolled cell replication and hence result in the formation of cancer cells.

### Bacterial Infections

Bacteria is another form of microorganisms which are not necessarily infectious by nature. While most of them are beneficial, there are some that can be deadly as well, such as cholera, pneumonia, and typhoid.

### Fungal Infections

Fungal infections are caused by a group of multi-cellular parasites that usually infect upper layers of skin. However, some even go deep within the cell and progress into systemic fungal infections.

# Contemporary Measures of Infection Control

It goes without saying that no health-care facility, in the world, even within the most advanced and sophisticated health-care systems, can claim to be free of the problem of healthcare-associated infections. The need for having Infection Control and Prevention (IPC) programmes nationally and at the facility level is clearly reinforced within the WHO 100 Core Health Indicators list (WHO, 2018). The WHO, along with CDC (Center for Disease Control), has worked tirelessly to identify areas which have become a major issue for healthcare services in terms of infection prevention and the ways in which the policies and procedures put into place for infection prevention can be observed (Gandra and Ellison III, 2014; Mehta et al., 2014). These include;

## Hand Hygiene

The CDC cites hand hygiene as one of the simplest and most effective methods to prevent the spread of infectious diseases. Thus, hand hygiene needs to be incorporated into the culture of the organization. This is exclusively important for the members of a surgical team. They should wash both their arms and their forearms prior to a medical procedure and cover their hands with disposable sterile gloves to decrease the possibility of spread of an infection (Chavali et al., 2014).

## Environmental hygiene

Environmental surfaces, especially in a healthcare facility are one of the most common sources of transmission of infection. Add in the fact that certain microbial bacteria are capable of surviving on surfaces for months, both the patients and the healthcare providers need to vigilant about the surfaces that they touch with their skin. The bacteria living on these surfaces can easily be transmitted and serve as the reason behind bacterial infections (Quinn et al., 2015).

## Screening patients

At any healthcare facility, the constant and vigilant screen of patients, especially as a part of the preoperative evaluation of health, is crucial. This ensures that the patient has not to be exposed to an infection-causing pathogen which may complicate the procedure. Furthermore, patients that are suffering from the same disease should be kept together in the same area to control the spread of infection (Marcoux et al., 2017).

## Vaccinations

The staff at a healthcare organisation may not only be at the risk of developing an infection themselves, being exposed to patients all day, but they can also be the cause of the spread of infections as well. When they come into contact with a number of patients, all of which suffer from a number of different diseases including infectious diseases, infection control may become necessary. Thus, according to CDC guidelines, organisations should ensure that their health staff is being vaccinated on a regular basis to prevent the spread of infection (Petek and Kamnik-Jug, 2018).

## Care coordination

Improper communication during the process of surgical planning, preparation, and the post-operative procedure can expose a number of individuals, including both the health staff and the patients to surgical site infections, which can certainly be avoided with due care and vigilance. They should employ the use of stopping the line, especially if they are unsure whether the care providers or healthcare professionals have taken careful measures to prevent infections at a healthcare facility (Tartari et al., 2017).

## Work together for infection control

At a healthcare organisation, everyone from the patients to their caretakers to their health workers and staff is accountable for infection prevention, since they all can be exposed to an infection-causing pathogen at any given time. Thus, they should work together and in a collaborative manner to ensure that all prevention protocols are followed in the right manner with the right tools and at the right time (Sutton et al., 2019).

## Comprehensive Unit-based Safety Programs

The Comprehensive Unit-based Safety Program is a structured strategic framework which is responsible for patient safety improvement in a healthcare facility. It is based on teamwork, communication, the right leadership, and accountability and has proven to be significantly helpful in assisting with invention prevention and control, especially healthcare-associated infections (Hsu and Marsteller, 2016).

# Significance of Infection Control

Healthcare-associated infections (HAIs) are a major patient safety issue in hospitals. They not only present a hazard to the medical and healthcare staff, but also to the patients, especially the ones in the post-operative phase. While ample research on the concept of infection prevention and control has improved, infections continue to impact the mortality and morbidity, which leads to increased healthcare expenditure (Yokoe et al., 2014). Australia, unlike most developed countries, the country does not have a national system in place to effectively monitor infection. As a result, hospitals cannot be provided with an estimate of infections that are hospital-acquired. The last study that was prevalent in hospital-acquired infections in Australia took place in 1984, which was more than three decades ago (McLaws et al., 1988). Ever since then, there has not been a subsequent evidence-based estimate of the prevalence of hospital-acquired infections in Australia. According to an unofficial estimate carried out in 2008, more than 200,000 hospital-acquired infections cases are reported annually. These numbers make it one of the most common complications which affects patients in a hospital Cruickshank et al., 2009).

Given the advancement in the fields of technology, healthcare delivery, infection prevention and the various control initiatives necessary, the study and research on the subject of hospital-acquired infections need to improve as well. It places a major barrier in infection control and prevention and needs to be addressed in an immediate manner, especially in a country like Australia (Haque et al., 2018).

# Role of Effective Leadership in Infection Control

Leadership is widely considered to be vital for infection prevention and control (IPC). Its purpose is to maintain progress in the reduction of risks of healthcare-associated infections, especially those caused by antimicrobial-resistant organisms, and to achieve continuous quality improvement (WHO, 2015). In order to improve the preventive strategies at hand on a leadership level, link practitioner schemes are the most frequently used approaches to formal IPC leadership at the frontline. This model focuses on the regular workforce, which includes nurses to take care of infection prevention and control. Link Practitioners and relevant healthcare professionals such as nurses are often used by clinicians to improve upon the present as well as specific IPC practices. These individuals are capable of finding solutions to local problems and are more than capable of championing the various ways to enhance IPC on a national level. These tasks can be headed by nurses as champions that lead to IPC initiatives (Dekker et al., 2019). They lead by setting good examples, powers of persuasion, enthusiasm, and ability to innovate. A study demonstrated that champions were most successful in organizations where collaborative working with the IPC team was evident, indicating the importance of support when frontline workers assume IPC leadership roles (WHO, 2015).

# Conclusion

As a nursing student, especially given the position nurse practitioners hold in a medical setting, it is rather crucial that nurse practitioners not only work on infection prevention and control on a personal level but also motivate others to follow the protocols given (Dekker et al., 2019). This will not only fulfill a nurse’s ethical and moral duty to look after the well-being of patients and the healthcare staff, but it also saves lives, which is ultimately what the medical profession is all about.

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