

Education for Infection Control and Prevention for Oncology Patients

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**Title:** Education for infection control and prevention for oncology patients.

**Background of practice/clinical problem:** Hospital associated infections (HAIs) are a costly and time consuming complication of a patient's hospital stay. HAIs are related to increased costs for hospitals, longer hospital stays and higher mortality rates in patients (Tartari et al., 2019).

This is specifically a problem in oncology patients, especially those in patients with central lines (Esposito, Guillari & Angelillo, 2017). Infections can also cause dose reductions and dose delays of chemotherapeutic agents and radiation therapies that prevent optimal cancer treatment (Wilson et al., 2018). Prophylactic antibacterial lock therapy has been shown to reduce CLABSI rates, improve catheter longevity, and reduce the need for being hospitalized (Norris et al., 2017)

. Preventing infections will overall add to the quality and effectiveness of treatment for cancer patients. Oncology patients in the hospital are at risk for HAI's related to various forms of contamination such as viral, bacterial, and fungal infections (Wilson et al., 2018). Specifically during the COVID-19 pandemic, oncology patients are at an increased risk for infection.

According to Alshamrani et al. (2020) switching stable oncology patients from an intravenous form of chemotherapy to an oral form of chemotherapy, limiting the patient's exposure, reducing the number of patients in infusion centers can decrease the patient's risk of contracting COVID-19 while receiving treatment in a hospital.

**Project aim:** To educate nurses on an oncology floor on methods to prevent infection in patients with cancer and those with central lines.

**Method:** This project is based on research from several research studies surrounding the topic of infection prevention, primarily in oncology patients.

**Findings/conclusion/implications for practice:** Hospital Associated Infections are complications that many patients staying in the hospital for a length of time face. There are various methods to reduce the risk of infection. Okada et al. (2016) expresses that nurses, as care providers, must improve their own hand hygiene behaviors when caring for multiple people in order to prevent contamination from different environments to at risk patients. Hand hygiene is a basic nursing skill that can be easily looked over increasing the risk for infection spread among patients, especially when a nurse is caring for multiple patients without following proper hand hygiene procedures. Patients are also at risk for having multiple infectious pathogens on their hands that can cause infections if they touch a dressing or wound on their body (Okada et al., 2016). According to Norris et al. (2017), Central venous catheter (CVC) use is commonplace in cancer patients, which puts patients with a CVC at a higher risk for a Central Line Associated Bloodstream Infection (CLABSI). The utilization of Antimicrobial lock therapy, the installation of a concentrated antimicrobial solution into the catheter lumen, has been shown to reduce the incidence of CLABSI in patients with CVC (Norris et al., 2017). Esposito et al. (2017) explained that the vast majority of nurses understand the importance of interventions to prevent CLABSI however, nurses aged 36-50 were less familiar with the interventions. “Educational interventions should be implemented to address the gaps regarding knowledge and practice regarding the prevention of CLABSIs and to ensure that nurses use evidence-based prevention interventions” (Esposito et al., 2017). Educating nurses frequently on interventions used to reduce infection rate is important to ensure hospital policies are continuing to be followed.

**Implementation plan:** This collection of evidence will be implemented on an Oncology unit of a New England hospital. Education will be shared in written forms on ways nurses can prevent infections in their patients. The materials will be regarding cleaning protocols, self-care and health promotion for patients, hand hygiene. Our disseminated evidence will be distributed for approval from the nurse manager or nurse educator and then will be displayed for unit nurses to access as needed. To evaluate the effectiveness of this education by giving a quiz to the nurses on the unit assessing their understanding of the evidence and how likely they are to incorporate it into their practice.

**Method of evaluating outcome:** The education from this project can be further researched to create a pilot project for the unit on infection control and prevention. This would be evaluated monthly by data collection, from the start of implementation, regarding the amount of HAI's in oncology patients on the floor.

## References:

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