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Neutropenic Precautions

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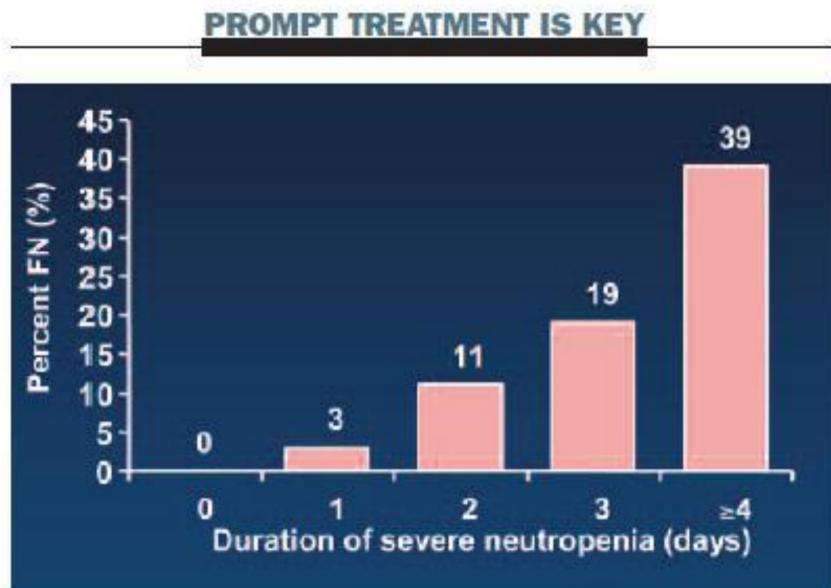
Thomas More Honors Program

Background:

Oncology patients often undergo treatment regimens that include chemotherapy. Chemotherapy, cancer fighting drugs, can lead to neutropenia (Nesher & Rolston, 2014). Neutropenia, a low white blood cell count, predisposes the patient to infection. Measures to minimize infection in neutropenic patients require adherence to precautions that limit exposure to pathogens. Strict adherence to neutropenic precautions requires patient and visitor education.

Goal:

The goal of this project was to provide an educational resource for patients and families following formal instruction on neutropenic precautions by the Registered Nurse.



The risk of febrile neutropenia (FN) rises steeply in cancer patients the longer severe neutropenia persists unchecked

Source: Adapted from Luiz Meza et al. *Proc Am Soc Clin Oncol* 2002; 21: abstract 2640

Implementation of Project:

A pamphlet was created and presented to the nurses on the oncology unit. This teaching tool includes patient education about neutropenia; the definition, causes, environmental precautions, diet precautions, infection prevention measures, signs and symptoms of infection, and special considerations for visitors. It was recommended to give this written information to patients after teaching with the nurse has taken place.

Product:

Neutropenic Precautions: Quick Facts

- Chemotherapy = most common cause of neutropenia, cancer cells grow quickly in the body and so do white blood cells making it easy for the chemotherapy to also attack them
- A normal Absolute Neutrophil Count = 1000 mm³
- Severe neutropenia <500 mm³
- The risk of infection increases for a patient the longer he or she is neutropenic
- It is important to intervene as early as possible because neutropenia and associated infections make it dangerous for patients to receive subsequent therapy, sometimes resulting in delaying treatment
- Per year, 60,000 cancer patients are hospitalized for chemotherapy-induced neutropenia in the U.S. and about 4,100 of these patients will die
- Everyone entering the room must wash their hands!
- Room precautions → no fresh flowers or plants, no sick visitors
- Basic food safety should be followed → No raw meat, seafood, eggs

Nursing Role/Responsibilities:

Patient safety is one of the most recognized roles of the nurse. Diligent nursing assessment is imperative in detecting infection. It is also crucial for the patient to understand this diagnosis in order for he/she and visitors to follow precautions to keep them safe. Safety is achieved through proper education by the nurse.

References available as handouts

Patient-Centered Care:

The neutropenic patient must adhere to specific protocols to prevent infection. Nurses are responsible for educating the patient and families about the signs and symptoms of infection and adherence to precautions of the patient and visitors. This teaching tool acts as a reference guide following nurse-to-patient education. The pamphlet facilitates learning and keeps the door of nurse, patient, and visitor communication open.

Evaluation:

Time constraint did not permit evaluation of this teaching tool. However, the nurses were receptive to distributing the teaching tool in an effort to minimize infection, promote patient advocacy, and include patient and families in the plan of care.

Conclusion:

Nursing care of a patient with neutropenia requires a comprehensive assessment, adherence to precaution protocols, and education. Evidence suggests that collaboration with patients and visitors is an essential part of maintaining health and preventing infection in patients undergoing chemotherapy. Nurses must advocate for change in practice that benefits the patient. Nurses have a responsibility to support initiatives that improve the quality of neutropenic patients' hospital stays. Recent research supports the re-evaluation of neutropenic protocols through current studies and trials in an effort to improve patient care, which was also discussed with the nurses during the presentation.