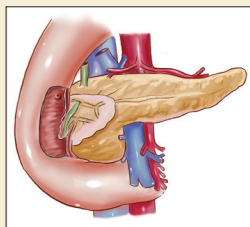


Nursing Implications of Chemotherapy Agents and Their Associated Side Effects in Patients With Pancreatic Cancer

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Background: Survival for patients with advanced (locally advanced unresectable and metastatic disease) pancreatic cancer is very poor; however, several advances in treatment have been made during the past several years. Gemcitabine (Gemzar®)-based regimens, FOLFIRINOX, and *nab*-paclitaxel (Abraxane®)-based regimens have demonstrated efficacy in patients with advanced pancreatic cancer. Understanding the unique safety profile of each of these regimens is crucial in helping nurses identify symptoms, develop patient education strategies, and ultimately improve outcomes.

Objectives: This article aims to provide background information on and nursing implications of the treatment of patients with advanced pancreatic cancer by exploring the mechanism of action and efficacy and safety profiles of standard treatment regimens.

Methods: Key trials of standard treatment regimens used in the treatment of advanced pancreatic cancer were examined with respect to efficacy outcomes and the most commonly observed adverse events. Symptom identification and management strategies are discussed from the nursing perspective.

Findings: The current standard treatment options for patients with advanced pancreatic cancer have differences in efficacy and safety profiles. Nurses should educate themselves on these differences, particularly on associated adverse events and their management.

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Pancreatic cancer (PC) has one of the poorest five-year survival rates of all cancers: 7% and 2% for all stages and advanced stages, respectively (National Cancer Institute [NCI], 2013b). One of the major reasons that PC is so deadly is because it often is diagnosed at a late stage, with about 53% of patients having metastatic disease at the time of diagnosis (NCI, 2013b). In addition, less than 20% of patients diagnosed with PC have localized, potentially resectable tumors (Hidalgo, 2010). Few symptoms of PC may be ex-

perienced in the early stages of the disease; however, symptoms are more likely to occur with more advanced disease (American Cancer Society [ACS], 2015). Jaundice, dark urine, light-colored stools, and itchy pruritic skin are common symptoms of PC (ACS, 2015). The spread of PC to the liver can cause jaundice and elevated transaminases (ACS, 2015). Back or abdominal pain may occur as tumors grow larger and begin to press on nearby organs or nerves (ACS, 2015). Diabetes may develop if the cancer has destroyed insulin-producing cells in the pancreas (ACS, 2015).