

# Hypersensitivity Reactions to Oxaliplatin: What Nurses Need to Know

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A novel antineoplastic drug, oxaliplatin (Eloxatin™, Sanofi-Synthelabo Inc., New York, NY), was approved as a second-line treatment for metastatic colon cancer in 2002 by the U.S. Food and Drug Administration and as a first-line treatment in 2004. Also in 2004, Eloxatin was approved as an adjuvant therapy when used in combination with 5-fluorouracil (5-FU) and leucovorin (LV) in patients with stage III colon cancer. This cell-cycle nonspecific platinum analog is being used with increasing frequency in a variety of drug regimens as a first-line agent in metastatic colorectal cancer (CRC), as salvage chemotherapy after the failure of standard chemotherapy agents, and in node-positive colon cancer. Patients are treated over a longer period of time to improve progression-free survival rates and quality of life. Current research involving oxaliplatin is examining its effectiveness in treating other malignancies, as well as extending the data beyond the three-year disease-free interval in the adjuvant setting (Andre et al., 2004). A higher likelihood of hypersensitivity reactions (HSRs) exists with oxaliplatin because of its expanded indications and additional and prolonged treatment cycles. The purpose of this article is to help nurses become more familiar with oxaliplatin and improve recognition of HSRs, including the severity and scope of symptoms.

## Colorectal Cancer and Treatment

CRC is the third most common cancer in men and women, accounting for 11% of all

Colorectal cancer (CRC) is the third-leading cause of cancer death in the United States. With the advent of new chemotherapy drugs, such as oxaliplatin, for CRC, disease-free and long-term survival has improved in this patient population. As oxaliplatin use increases, more hypersensitivity reactions may be expected. The etiology of these reactions is unclear but may be a combination of immunologic responses. Pretreatment, treatment, and desensitization protocols are available to prevent and treat hypersensitivity reactions. Nurses' rapid assessment and management of infusion-related hypersensitivity reactions are vital to ensuring the safe administration of oxaliplatin.

newly diagnosed cancers and 57,100 deaths annually in the United States (American Cancer Society [ACS], 2005). ACS estimates that in 2005 about 145,290 people will be diagnosed with CRC and 56,290 will die as a result of the disease. Only 37% of CRC cases are discovered in the early stage, when the disease is asymptomatic; most patients are diagnosed at later stages and present with symptoms of rectal bleeding, abdominal pain, and/or changes in bowel habits. The primary risk factor for CRC is age, with more than 90% of cases diagnosed in individuals older than age 50 (ACS). Other risk factors include a family history of CRC, polyps, familial syndromes (i.e., hereditary polyposis), or inflammatory bowel disease. Early-detection recommendations by ACS include annual fecal occult blood testing or sigmoidoscopy every five years after age 50. Some provider groups disagree regarding which screening tests are appropriate (Mahon, 2004). Although the debate has not altered CRC incidence rates since 1995, an approximately 1.7%

decline in the mortality rate for men and women has occurred (ACS). When CRC is detected at an early, localized stage, the five-year relative survival rate is 90%. This rate drops to 67% after the cancer has spread to adjacent organs or lymph nodes and 10% when distant metastases develop (ACS). Because of the decreased survival rate for patients with metastatic CRC, researchers have concentrated on finding new, effective agents to fight the disease.

Treatment for CRC may include surgery, radiation, and chemotherapy. The primary treatment is surgery for removal

of the tumor and acquisition of samples of adjacent tissue and lymph nodes. Pathologic classification with the tumor, node, metastasis (TNM) staging system is important as a tool to direct physicians in further management and as a prognostic indicator. The Dukes' system was used in the past, but the American Joint Committee on Cancer (2002) has recommended the TNM system because it provides greater detail and precision in the identification of prognostic subgroups. Most cancers of the colon and rectum are grouped after pathologic examination. Patients are staged by tumor

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