Oxaliplatin: Practical Guidelines for Administration

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Colorectal cancer (CRC) accounts for about 11% of all new cancers in the United States and kills approximately 56,000 people each year. Although the use of antineoplastic agents has demonstrated palliation of symptoms, increased survival, and improved quality of life when compared with best supportive care, improved therapies still are needed. Oxaliplatin, released in August 2002, offers an effective expansion of the CRC treatment armamentarium. Proper dosage and administration of oxaliplatin are vital to maximizing its efficacy and safety. This article reviews administration guidelines, adverse events, side effects, and key areas for patient education.

Key Words: colorectal neoplasms, antineoplastic combined chemotherapy protocols

Researchers have found that, as a single agent, oxaliplatin has efficacy in chemotherapy-naive patients with advanced CRC (Becouarn et al., 1998; Diaz-Rubio et al., 1998), as well as those whose disease is refractory to previous treatment with 5-fluorouracil (5-FU) (Levi et al., 1993; Machover et al., 1996). Treatment with oxaliplatin was well tolerated, and response was attained with acceptable toxicity. These nonrandomized studies support the activity of oxaliplatin in disease that is resistant to 5-FU. However, despite these relatively good results, single-agent use of oxaliplatin is not recommended as standard therapy in most patients with advanced CRC because single-agent 5-FU and some combination regimens may be more effective (Becouarn et al.). Numerous phase II and III studies of oxaliplatin, in combination with 5-FU and leucovorin (LV) for the treatment of advanced CRC in patients previously treated with 5-FU, found a synergistic effect between oxaliplatin and 5-FU (Andre et al., 1999; de Gramont et al., 1997, 2000; Gerard et al., 1998; Giacchetti et al., 2000; Levi et al., 1992; Maindrault-Goebel et al., 2000). In another phase III trial, patients who had failed prior 5-FU, LV, and irinotecan chemotherapy were randomized to receive 5-FU, LV, and oxaliplatin; single-agent oxaliplatin; or 5-FU and LV as second-line treatment of their metastatic CRC (National Cancer Institute, 2002). Accrual to this study has been completed, and 821 patients have been enrolled. In an interim analysis of 459 patients, those treated with the 5-FU, LV, and oxaliplatin combination had an increased response rate and an increased median time to tumor progression compared with those who received either oxaliplatin or 5-FU and LV alone (Sanofi-Synthelabo Inc., 2003) (see Table 1).