Fatigue and Other Variables During Adjuvant Chemotherapy for Colon and Rectal Cancer

Ann M. Berger, PhD, RN, AOCNS®, FAAN, Jean L. Grem, MD, Constance Visovsky, PhD, APRN-NP, Heather A. Marunda, MSN, RN, and Justin M. Yurkovich, MA, UNMC, CON

Colon and rectal cancer are the fourth most commonly diagnosed and the second most frequent cause of cancer deaths in the United States (American Cancer Society, 2010). By the time of diagnosis, the cancer often has spread to regional or distant sites. In stages IIA–C, five-year survival rates are about 72%–85%, and in stages IIIA–B, 44%–83% (American Cancer Society, 2010). In addition to surgery, chemotherapy and radiation therapy are prescribed to improve survival and quality of life (QOL) (Cera & Wexner, 2005; Shelton, 2002). Chemotherapy regimens most commonly prescribed for locally advanced colon and rectal cancer include fluorouracil (5-FU), leucovorin, and oxaliplatin (FOLFOX); irinotecan may be substituted for oxaliplatin (FOLFIRI) (Engstrom et al., 2009a, 2009b; Grenon & Chan, 2009). Patients with rectal cancer often receive neoadjuvant 5-FU concurrent with radiation therapy. Oxaliplatin is more likely to produce peripheral neuropathy, and irinotecan may create more gastrointestinal toxicity and hair loss (Saltz et al., 2008). Both regimens are associated with dose-related clusters of symptoms, including fatigue, anorexia, weight loss, pain, fever, and dehydration, which affect functioning and QOL, but sleep-wake variables have not been described (Aprile et al., 2008). Both regimens are associated with dose-related clusters of symptoms, including fatigue, anorexia, weight loss, pain, fever, and dehydration, which affect functioning and QOL, but sleep-wake variables have not been described (Aprile et al., 2008). Cancer-related fatigue has been reported as the most frequent and distressing toxicity of colon and rectal chemotherapy (Aprile et al., 2008).

**Literature Review**

Fatigue is defined as a distressing, persistent, subjective sense of physical, emotional, and cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning (National Comprehensive