Newer agents that focus on certain cell receptors within tumor cells are known as targeted therapies for their ability to bind to specific receptors on cancer cells and inhibit cellular pathways, which may lead to apoptosis, or cell death. The agents include bevacizumab, cetuximab, and the newest agent, panitumumab (Vectibix™, Amgen, Inc.).

Panitumumab is a targeted therapy approved by the U.S. Food and Drug Administration (FDA) in 2006 for use in patients with metastatic colorectal cancer (mCRC). Being a targeted therapy, it has specific side effects that can compound chemotherapy side effects. Panitumumab is a humanized monoclonal antibody; therefore, its hypersensitivity reaction rate is lower compared to a chimeric monoclonal antibody such as cetuximab. Nurses should be aware of panitumumab’s administration and side effects, including skin toxicities and diarrhea (Gaguski, 2007).

Patients often receive panitumumab after receiving bevacizumab or cetuximab. Panitumumab can be given with FOLFIRI (oxaliplatin, leucovorin, and fluorouracil) or FOLFOX (irinotecan, leucovorin, and fluorouracil) regimens, or as a single agent. Panitumumab, as well as its mechanism of action, administration information, side effects, and nursing management will be discussed. Other therapies for mCRC will be reviewed briefly.

Colon cancer is the third most common cancer in men and women in the United States (American Cancer Society, 2007). Current FOLFOX treatments have resulted in median survival rates longer than 18 months (Van Cutsem et al., 2007). Despite those advances, 20% of patients will develop metastatic disease (Saadeh & Lee, 2007). Metastatic disease often develops locally in the liver or lungs. Treatment can include surgery, radiation, chemotherapy, or a combination (see Figure 1).

Chemotherapy options for mCRC include FOLFOX, FOLFIRI, and oral capecitabine. Panitumumab can be given with fluorouracil regimens such as FOLFOX (Genentech, Inc., 2006). Side effects of bevacizumab, including the head, neck, skin, colon, and rectum. Side effects of cetuximab, such as rash and diarrhea, are particular to these parts of the body.

An infusion reaction can occur because cetuximab is a chimeric (human/mouse) monoclonal antibody. The infusion reaction can be exhibited by dyspnea, back pain, fever, and chills. Approximately 3% of patients receiving cetuximab develop the infusion reaction (ImClone Systems Inc., 2004). Patients should be premedicated with an antihistamine prior to infusion and closely monitored for a reaction; however, infusion reactions also can occur in subsequent treatment cycles. As a result, patients should be monitored for one hour after an infusion (ImClone Systems Inc.). Other cetuximab side effects include dermatologic toxicities, interstitial lung disease, nail disorders, and diarrhea (ImClone Systems Inc.).

Panitumumab is used in patients who are not responding to regimens containing fluorouracil, oxaliplatin, and irinotecan (Giusti, Shastri, Cohen, Keegan, &