■ Article

An Oncology Nurses' Guide to New Targeted Agents for Metastatic Colorectal Cancer

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Background: Colorectal cancer (CRC) that has metastasized before being discovered, or reoccurs following surgery, remains a major treatment challenge. Trials have established the usefulness of antiangiogenic agents and new regimens in prolonging survival in patients with advanced disease. In the United States, the antiangiogenic agents approved for treating metastatic CRC often are combined with traditional chemotherapeutic agents and include bevacizumab (Avastin®), ziv-aflibercept (Zaltrap®), and regorafenib (Stivarga®).

Objectives: This article reviews factors that guide the development of a nursing plan for monitoring and managing patients who are receiving antiangiogenic therapies.

Methods: Regorafenib and ziv-aflibercept, two newer agents that nurses and other healthcare professionals may have had less experience with, were reviewed.

Findings: The key to maximizing the potential benefit of these agents is understanding where these new therapies fit in the overall scheme of treatment options and how to help patients tolerate treatment.

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Colorectal cancer (CRC) often is curable if detected before it metastasizes, with surgical resection resulting in a cure in about 50% of patients (National Cancer Institute [NCI], 2013). However, metastatic CRC (mCRC) and recurrent CRC remain major treatment challenges. A tumor needs new blood vessels to receive the nutrients and oxygen necessary for growth. The development of new blood vessels is called angiogenesis. The class of targeted therapies known as antiangiogenic agents works by blocking the growth of blood vessels to tumors. Trials have established the usefulness of antiangiogenic agents and new regimens in prolonging the survival of patients with advanced disease (National Comprehensive Cancer Network [NCCN], 2014; Smaglo & Hwang, 2013). In particular, two new agents, ziv-aflibercept (Zaltrap®) and regorafenib (Stivarga®), have been approved for use in specific situations. Although these agents target angiogenesis, significant differences exist between them (see Figure 1). Bevacizumab (Avastin®) is a specific inhibitor of vascular endothelial growth factor (VEGF)–A, whereas ziv-aflibercept and regorafenib inhibit multiple VEGF ligands or receptors, respectively. Regorafenib additionally inhibits many other receptor tyrosine kinases. The complexity of the angiogenesis process presents a pathway with multiple targets that can be disrupted (Jitawatanarat & Wee, 2013; Saif, 2013; Sun, 2012). These newer agents have multiple targets, increasing the chance for successful angiogenesis inhibition and the potential for additional treatment-related side effects (Jitawatanarat & Wee, 2013; Saif, 2013).

Monitoring, Side-Effect Prevention, and Patient Education

When managing patients with mCRC who are being treated with any of the antiangiogenic targeted therapies, creating a nursing plan to assess for adverse events (AEs), minimize the occurrence and severity of side effects, and provide management