Targeted therapies have been an emerging treatment paradigm in oncology for longer than a decade, leading to increased patient survival and making cancer therapy more tolerable (Balagula et al., 2011). Targeted therapies are tailored according to tumor-specific markers and individual patient characteristics (Ballestrero et al., 2012; Chu, 2014; Ma, 2012). They include treatment with a class of epidermal growth factor receptor inhibitors (EGFRIs), which target the respective receptors on cancer cells to suppress tumor growth (Balagula et al., 2011). EGFRIs have been approved by the U.S. Food and Drug Administration for the treatment of cancers, such as breast, cervical, head and neck, renal, esophageal, and metastatic colorectal (Esper, Gale, & Muehlbauer, 2007). They can be used orally or via IV in combination with other chemotherapy drugs as adjuvant therapy, or they can be administered as a single-drug treatment (Balagula et al., 2011; Esper et al., 2007).

Although EGFRIs are associated with fewer side effects compared to other chemotherapies (Balagula et al., 2011; Lucchini et al., 2014; Peuvrel & Dréno, 2014), they prevent epidermal keratinocytes from controlling the intercellular signal transduction pathways responsible for cell proliferation, leading to increased patient survival and making cancer therapy more tolerable (Balagula et al., 2011). Targeted therapies are tailored according to tumor-specific markers and individual patient characteristics (Ballestrero et al., 2012; Chu, 2014; Ma, 2012). They include treatment with a class of epidermal growth factor receptor inhibitors (EGFRIs), which target the respective receptors on cancer cells to suppress tumor growth (Balagula et al., 2011). EGFRIs have been approved by the U.S. Food and Drug Administration for the treatment of cancers, such as breast, cervical, head and neck, renal, esophageal, and metastatic colorectal (Esper, Gale, & Muehlbauer, 2007). They can be used orally or via IV in combination with other chemotherapy drugs as adjuvant therapy, or they can be administered as a single-drug treatment (Balagula et al., 2011; Esper et al., 2007).