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# A Changing Paradigm for Cancer Treatment: The Advent of New Oral Chemotherapy Agents

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Cancer care is in transition. Many new oral chemotherapy agents have become commercially available, and many more are in the research pipeline. Currently, only 5% of cancer chemotherapy agents are available in oral formulations; however, oral agents represent an estimated 20%–25% of all drugs in development (Bedell, Hartigan, Wilkinson, & Halpern, 2002; Birner, 2003). These new oral agents provide many advantages to patients with cancer, including shorter treatment time when compared to IV chemotherapy treatment, less time away from work and family, and an increased sense of independence because the agents can be self-administered. However, oral agents also present many challenges, including variability in absorption of medications, patient compliance in taking medications, the need for self-assessment and management of side effects, and patient costs. The shift to treating cancer using oral agents has created a new paradigm in cancer care, and oncology nurses need to take a lead role in caring for patients receiving oral chemotherapy agents.

A component of the new cancer care paradigm is the recognition of cancer as a chronic disease rather than an acute, fatal illness. Because many of the newer oral chemotherapy agents have a low side-effect profile, they have minimal toxicities and are well suited for long-term administration.

The development of numerous oral chemotherapy agents has led to a new paradigm in cancer treatment. Oral chemotherapy can be self-administered conveniently, so patients with cancer can receive their treatments in their homes instead of in a supervised and controlled healthcare environment. Cancer now is recognized as a treatable chronic disease, and new oral chemotherapy agents have been developed that offer targeted cancer treatment. Although the newer oral chemotherapy agents offer additional treatment options, they also pose challenges for patients and healthcare providers. Patient adherence and monitoring can be challenging, and reimbursement issues abound. Oncology nurses play a key role in assessing, educating, and monitoring patients receiving oral chemotherapy. In addition, they may be involved in assisting patients with obtaining reimbursement and, in some cases, may be instrumental in locating patient assistance programs. This article discusses patient care issues related to treatment with oral chemotherapy agents and provides a historical overview of their development and use.

**Key Words:** antineoplastic agents, pharmaceutical preparations

Oral agents also are effective and can control cancer and increase survival time and quality of life.

Despite the demonstrated effectiveness of oral chemotherapy agents, misconceptions about them abound among patients as well as some healthcare providers. One perception is that oral chemotherapy represents an inferior treatment or even palliative care, because patients have difficulty comprehending that a pill can be as “strong” as IV

chemotherapy or that a single capsule of oral chemotherapy can be as effective as a multi-drug IV chemotherapy treatment. Therefore, patients must be educated about the efficacy and potency of oral chemotherapy agents. When patients misunderstand or underestimate these factors, they are at increased risk for poor compliance with self-administration.

Some newer agents actually have greater efficacy than the IV chemotherapies that historically have been used to treat a particular cancer. For example, the oral agent imatinib mesylate is superior to cytarabine chemotherapy and interferon as first-line therapy for patients with newly diagnosed chronic myeloid leukemia (CML) (O'Brien et al., 2003).

Additional challenges occur as a result of viewing cancer as a chronic disease. Patients may need assistance staying engaged in the workforce and may need supportive care when they travel

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