



# Evaluation of a Chemotherapy and Medication Education Process for Patients Starting Cancer Treatment

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A cancer diagnosis, along with accompanying chemotherapy treatments and new medication regimens, can significantly affect patients' overall health, well-being, and quality of life. Chemotherapy and medication teaching that meets patients' learning needs enhances knowledge and supports adherence to instructions. These interventions promote optimal patient outcomes, satisfaction, and overall safety.

## At a Glance

- To decrease anxiety, increase coping mechanisms, and promote safety, patients require adequate and appropriate education experiences.
- To best meet patients' needs, healthcare providers need to determine the efficacy and impact of an education process.
- Interventions, such as individualized post-consultation phone calls and the use of an RN navigator can promote optimal patient outcomes, satisfaction, and safety.

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About 40% of the U.S. population will develop cancer in their lifetime (National Cancer Institute, 2010). Chemotherapy and new medication regimens are complex, numerous, and can be extremely overwhelming. Attempting to comprehend intricate instructions while processing significant details of a new diagnosis can be difficult for patients, leading to decreased retention of important information. Patients with cancer require adequate and appropriate education to decrease anxiety, increase coping mechanisms, and retain knowledge. Educational interventions that meet patients' individual informational needs and learning styles lead to increased knowledge, enhanced comprehension, and improved adherence to instructions, promoting

optimal patient outcomes, satisfaction, and overall safety, and may also have positive financial impacts (Tamuralis, 2013). Evidence associates patient medication adherence with effective medication education. However, little evidence exists about the most effective method, timing, or process to provide this education (Valenti, 2014).

Variation in teaching methods, including when and how education is provided, plays a pivotal role in how much information patients retain and their corresponding level of comprehension. When education is provided at opportune times and barriers are removed or worked around, patients experience more positive outcomes (Mann, 2011).

Informational needs and learning styles are exceedingly individualized,

and those of a group of patients—in this case, adults starting chemotherapy—can be extremely diverse (Cartwright, Dumenci, Siminoff, & Matsuyama, 2014). Patients have higher rates of information retention when provided information and education in a manner that correlates with preferred learning styles (Treacy & Mayer, 2000). When used alone, verbal instruction is least effective when compared to other methods, such as printed handouts and audiovisual aids. This suggests verbal instruction should be used concurrently with other modalities (Treacy & Mayer, 2000).

In addition to increasing knowledge, effective education processes for patients receiving chemotherapy also reduce anxiety and promote safety (Blanchard & Cox, 2014). Mann (2011) studied the effects of implementing an education system using individualized content prior to initiating chemotherapy. Findings from that study of 72 patients in an outpatient oncology setting revealed that the approach increased satisfaction and decreased anxiety (Mann, 2011). In 2013, the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine (HMD) published guidelines to increase efficiency and efficacy of patient education. The guidelines state that individualized education, which considers patient literacy, preference, and other barriers to learning, such as pain and anxiety, permits retention of knowledge (HMD, 2013).

Berry et al. (2014) identified that written instructions and follow-up phone calls for patients discharged from an inpatient oncology setting can increase