Traditionally, patients have received chemotherapy education in the clinical setting during the first chemotherapy treatment. Nurses long have been aware that patients are anxious and overwhelmed on that first chemotherapy day and have noted a lack of retention of information. This article describes a prechemotherapy education project initiated at an urban cancer clinic in the midwestern United States. The project was created in an effort to alleviate some of the anxiety associated with the first chemotherapy experience.

Implementation of a Prechemotherapy Educational Intervention

At a Glance
- Educating patients prior to the first chemotherapy experience may help to improve their ability to cope.
- After a diagnosis of cancer, patients and families experience a significant need for information about treatment and side effects.
- Improved coping strategies may result from nurses meeting with patients and families in a quiet environment prior to the start of treatment.

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A patient satisfaction survey (see Figure 1) was mailed to participants after they had received several chemotherapy treatments. The survey consisted of eight questions rated on a Likert scale. The questions focused on perceived effectiveness of the class. A space for comments and suggestions was included.

Chemotherapy Adverse Effects and Counseling

All patients received a folder with chemotherapy educational information sheets and the handbook Chemotherapy and You (National Institutes of Health & National Cancer Institute, 2003). Side effects of specific chemotherapy regimens and general symptom management, including altered blood counts and infection, nausea and vomiting, fatigue, diarrhea, mucositis, and alopecia, were discussed.

Altered Blood Counts

The chemotherapy class included information addressing potential side effects associated with each of the following blood components: red blood cell counts, platelets, and white blood cell counts. The function of each component was summarized for participants, along with the expected effect of each type of chemotherapy on each cell type (see Figure 2).

Figure 2. Blood Counts

Patients and families were instructed to call the cancer center if a patient’s temperature reached or exceeded 100.5°F. Nurses stressed the importance of routine weekly blood tests to monitor blood counts. General information regarding myelosuppression was presented, with emphasis that not all chemotherapy drugs result in the same degree of myelosuppression.

Nausea and Vomiting

Patients were told that they would receive an IV antiemetic medication prior to each chemotherapy treatment and oral antiemetics for use at home. Nurses encouraged patients to take the oral antiemetics at the first sign of nausea to prevent vomiting and to control the symptom with oral medications. Patients were instructed to call one of the cancer center nurses if the oral medications were not effective (see Figure 3).

Fatigue

Patients were informed about the prevalence of fatigue during chemotherapy treatments. Information was provided about the importance of scheduling rest periods, and patients were advised to anticipate decreased energy levels (see Figure 4). Nurses related evidence that moderate daily exercise can help to combat fatigue in patients receiving chemotherapy (Ingram, Courneya, & Kingston, 2006).

Diarrhea

Patients were instructed to use over-the-counter medications for diarrhea and advised to call the cancer clinic if diarrhea was
• You may experience feelings of being very tired. This is not uncommon.
• Pace yourself. Allow for rest periods. Delegate things to others.
• Maintain a light exercise or activity program.

Figure 4. Fatigue

unwelcomed by such medications. Nurses stressed the importance of sufficient hydration, noting that patients should not decrease fluid intake when experiencing diarrhea.

Mucositis

Descriptions of mucositis and its causes were provided. Patients were instructed to rinse the mouth as often as needed throughout the day with a solution of one teaspoon of baking soda, a half-teaspoon of salt, and one quart of water. Written instructions for mixing the solution were given to each patient. Patients were advised to avoid alcohol-based mouthwashes during chemotherapy treatments, and participants were instructed to call an oncology nurse at the first sign of any mouth lesions (see Figure 5).

Alopecia

The varying degrees of hair loss that might occur, based on type of chemotherapy, were explained. Patients were referred to local wig providers. Information about the availability of free wigs from the local wig bank also was included. Patients were informed of the local American Cancer Society’s “Look Good, Feel Better” program, designed to help patients cope with hair loss and body-image issues (see Figure 6).

Diet and Nutrition Counseling

A registered dietician participated in each teaching session. All patients received an informative handout discussing the importance of hydration and protein and calorie intake. Patients were encouraged to maintain their weight during treatments based on pretreatment weight and body mass index charts (Otto, 1997). Patients were told that they would be weighed at each clinic visit to monitor their weight during treatment. The dietician provided each patient with the phone number for the dietary office (see Figure 7).

Support

Patients were informed that a pharmacist was on staff at the clinic and accessible by telephone at any time to discuss concerns regarding medications. Magnitized information cards that included phone numbers for daytime office hours and night and weekend hours were distributed to patients. Patients were advised to notify staff of all medications they were taking because certain over-the-counter medications and herbal supplements can interfere with the efficacy of chemotherapy.

Patients and families received written information about the cancer support group Stepping Forward. Meetings were held monthly in the library of the cancer center and were facilitated by a social worker and a pastoral care representative from the affiliate hospital (see Figure 8).

A list of reliable Web sites was supplied to all participants. Among them were the American Cancer Society (www.acs.org), National Cancer Institute (www.nci.nih.gov), National Coalition for Cancer Survivorship (www.cansearch.org), and Oncolink (www.oncolink.upenn.edu).

Results

Surveys were sent to patients at home with a stamped, self-addressed envelope. The response rate from the survey was 60%. Of the responders, 84% gave the class an “excellent” or “good” rating. “Fair” and “poor” responses focused on a desire for more detailed information (see Figure 9).

Conclusion

After a diagnosis of cancer, patients and families experience a significant need for information about treatment and side effects (Todd et al., 2002). As patient and family educators, nurses can provide valuable information that may assist patients in understanding their therapy and, hopefully, enhance their ability to manage side effects. Improved coping strategies may result from nurses meeting with patients and families in a quiet environment prior to the start of treatment. This article can serve as a guide for new oncology nurses who are developing their patient education skills.

The study was limited by the fact that referrals to the class were physician and staff dependent. Not every patient was referred to the class. In addition, a select number of patients chose not to attend the class. To remedy the situation, the PowerPoint presentation was placed on CD-ROM. Patients who were missed to referral or were uncomfortable with or unable to attend the class were offered a CD-ROM disc for home viewing on computer.
The surveyed group may have been disproportionately representative of a more compliant, information-driven type of person. The study did not have a control group, which might have been useful for comparing how class participants and nonparticipants retained information.

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**References**


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