

# All Breast Cancer Patients Are Not Treated

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When women with low incomes or low levels of education start chemotherapy for breast cancer, they routinely get insufficient doses, a new study suggests. That may be one reason they are less likely to survive the disease than other women.

The initial dose of chemotherapy is determined by the height and weight of the patient, and doses lower than 85 percent of the calculated amount and intensity are ill advised, according to current guidelines. Nevertheless, studies cited in the paper have shown that as many as half of breast cancer patients are not started on enough medicine.

Researchers studied 764 randomly selected patients at 115 sites throughout the United States. All the women had nonmetastatic breast cancer and were scheduled for treatment but had not yet started. The scientists collected information on age, level of education, marital status, ZIP code, height, weight, tumor characteristics and other diseases. Then they examined medical records to determine the planned and actual chemotherapy received.

Since the researchers knew the height and weight of the patients, they could calculate the required doses and determine which patients got the recommended amounts.

The study appears in the Jan. 20 issue of *The Journal of Clinical Oncology*. Several of the co-authors have received research funds or consulting fees from companies that sell drugs used in cancer treatment, and data collection was supported by Amgen.

There were no differences in dosage based on age, race, tumor stage or the kind of insurance a woman had.

But about 32 percent of the women with less than a high school education received insufficient doses, compared with 14 percent of high school graduates. Almost 22 percent of obese and severely obese women got a reduced dose, compared with fewer than 12 percent of those of normal weight. And while almost 20 percent of women who lived in the poorest ZIP codes got reduced doses, only 8 percent of those who lived in the richest areas did.

There were also geographic differences. After adjusting for other variables, women in the Southeast received lower doses more than five times as often as women in the Northeast or on the West Coast.

Because the study focused on initial treatment, the reduced doses were not the physician's response to a patient's actual side effects. Dr. Jennifer J. Griggs, the lead author of the study and an associate professor of internal medicine at the University of Michigan, speculated that there was nothing sinister in doctors' motives in reducing doses.

"We're giving toxic drugs, hoping that the patient will come back for her next course of therapy," Dr. Griggs said. "I think doctors lower the dose in a benevolent desire to get people through their treatment."

Why having less than a high school education or being poor or obese would lead to inadequate chemotherapy is not clear.

For overweight women, an effort to limit the side effects of the large doses required may have been one motive, but in clinical trials obese women experienced no more toxicity with the appropriate dose than women of normal weight did.

With women of lower income or educational attainment, the researchers suggest, physicians may have anticipated a failure to understand and stick with what is often a long and unpleasant treatment, so they pre-emptively reduced the dose in hopes of encouraging compliance.

The scientists offer no explanation for the geographic variations in dosage, but they suggest that lowered doses might be one reason for regional differences in breast cancer survival.

“Patients should not hesitate to ask about the dosing decision,” Dr. Griggs said, “and then offer the doctor a statement that gives the doctor permission to use a full dose. A dosing decision is not really the patient’s responsibility. But if patients give the doctor the indication that they’re fully committed to treatment, it will help ensure that we see fewer dose reductions.”

<http://www.nytimes.com/2007/01/23/health/23chem.html?ex=1327208400&en=fab7f7f199ea6085&ei=5088&partner=rssnyt&emc=rss>