

## Cancer Advances: New Way of Administering Chemotherapy Drug Could Lead to Better Cancer Treatments

From the September 15, 2003 issue of the *Journal of Clinical Oncology* [1] [Read the Study](#) [2] Gemcitabine is a chemotherapy drug that is used to treat many types of cancer. Patients who currently receive gemcitabine as a part of their therapy usually undergo a 30-minute infusion of the drug. A new study of gemcitabine among pancreatic cancer patients shows that a longer infusion at a fixed dose rate (FDR)â€”designed to help the drug accumulate in a patient's bloodâ€”may be a more effective treatment. In this study, led by Margaret Tempero, MD, Deputy Director of the University of California at San Francisco Comprehensive Cancer Center, researchers compared the standard 30-minute treatment of gemcitabine to the 150-minute fixed dose rate treatment. They wanted to learn if fixed dose rate therapy increased the levels of the cancer-killing substance that gemcitabine produces in a patient's cancer cells. Most importantly, they wanted to see if the treatment extended the amount of time before a patient's disease worsened or they could no longer tolerate the treatment. The researchers identified 92 patients with pancreatic cancer, and gave half of them the standard 30-minute gemcitabine treatment, and the other half the new 150-minute treatment. The same amount of time passed before the patients on the fixed dose rate therapy and those on the standard treatment found that their disease got worse or they could no longer tolerate the treatment. However, researchers did find that the fixed dose rate group had higher amounts of the cancer-killing substance in their cells than the standard group. The patients in the fixed dose rate group were also more likely to be alive one and two years after treatment. One year after treatment, 28.8% of patients in the fixed dose rate group were alive, compared to 9% in the standard group. After two years, 18.3% of those in the fixed dose rate group were alive, compared to 2.2% of those in the standard group. Researchers were encouraged to find that more people on fixed dose rate therapy lived for one or two years after treatment than patients on standard therapy, and concluded that more research should be conducted to see if different methods of administering gemcitabine through fixed dose rate infusion can delay the spread of the disease. According to researchers, the study shows that cancer therapy can be improved not only by developing new drugs, but also by finding new ways to use existing drugs. **What Does This Mean For Patients?** While this study shows that further research should be conducted into fixed dose rate treatment with gemcitabine, it does not yet indicate whether fixed dose rate or standard treatment is better at actually increasing survival. Researchers will be doing more studies to see how these findings ultimately affect the treatment and lives of patients. Patients who are interested should discuss participating in these trials with their doctor.

**Links:**

[1] <http://www.jco.org/>

[2] <http://www.jco.org/cgi/content/abstract/21/18/3402>