



## Intranasal Delivery of Morphine May Offer Better Effects

A phase II trial of patients with cancer who experience breakthrough pain demonstrated that most patients experienced initial relief in 2.2 minutes and meaningful relief in 9.1 minutes when treated with morphine delivered through nasal spray. The trial involved 22 patients with cancer aged 35–54, and each patient was administered a 40 mg dose of intranasal morphine immediately after onset of breakthrough pain. None of the patients in the study needed to take res-

cue pain medication within 30 minutes of the intranasal administration, and 64% of the patients did not need rescue medication within the first hour.

The median time to the drug's maximum concentration (64 ng/ml) in the blood is 15 minutes, said researchers from Natestch Pharmaceutical, the drug's manufacturer. These levels are similar to those achieved through the standard method of injection of morphine.

## Epoetin Alfa May Limit Cognitive Decline

New studies are demonstrating that epoetin alfa may help protect against cognitive decline in women receiving chemotherapy for breast cancer. Previous studies have indicated that about 15%–25% of women receiving adjuvant chemotherapy treatments experience some level of cognitive dysfunction, including loss of verbal fluency, memory, and psychomotor function. Researchers determined that most cognitive dysfunction was evident two to five years after chemotherapy treatment; some studies have found that the



dysfunction improved at the four-year follow-up.

Researchers have found that epoetin alfa has neuroprotective effects. Preclinical studies of systematically administered epoetin alfa have demonstrated that the drug crosses the blood-brain barrier and has significant cognitive-enhancing effects. Epoetin alfa raises the threshold for apoptosis by raising the erythropoietin levels in the brain and central nervous system and protects neurons from damage.

## Wafer Treatment Increases Survival Time in Study

In February 2003, the U.S. Food and Drug Administration approved the use of Gliadel® wafers (polifeprosan 20 with carmustine implant, Guilford Pharmaceuticals, Inc., Baltimore, MD) as an adjunct to surgery and radiation for the treatment of patients with newly diagnosed, high-grade malignant glioma. Previously, Gliadel was approved only for use as an adjunct to surgery for the treatment of patients with recurrent glioblastoma multiforme.

The effectiveness of Gliadel wafers for the treatment of patients with newly diagnosed, high-grade, malignant glioma was assessed in an international, multicenter, double-blinded, randomized, placebo-controlled, phase III trial. A total of 240 patients

was randomized to the Gliadel treatment arm or the placebo treatment arm. The trial design stipulated that patients would undergo initial surgery with wafer implantation followed by standard radiation therapy.

After maximal resection of the tumor, up to eight wafers containing either Gliadel or placebo were placed against the resection cavity. Within three weeks of surgery, the majority of patients began radiation therapy.

Median survival increased from 11.6 months with placebo to 13.9 months with Gliadel wafers. The primary toxicities were seizures, brain hemorrhages, brain cysts, and wound infection or brain abscesses. The toxicities may reflect the surgical procedure, implantation of the wafers, or both.

### New Tool Calculates Risk for Developing Lung Cancer

Researchers from Memorial Sloan-Kettering Cancer Center have created a formula that older, long-term smokers and ex-smokers can use to calculate their risk for developing lung cancer. Lung cancer risk is dependent on each individual's smoking pattern and history. For example, when the formula is used to compute risk, a 52-year-old woman who smoked a pack of cigarettes per day for 25 years and quit nine years ago has less than a 1 in 100 chance of developing lung cancer in the next 10 years. However, a 68-year-old man who smoked two packs of cigarettes per day for 50 years and still is smoking has a 1 in 7 chance of developing lung cancer in the next 10 years.

The formula is based on a study of people older than 50 who smoked at least half a pack per day for at least 25 years; therefore, the formula is applicable only to people who meet the same criteria. To access the formula, visit [www.mskcc.org/PredictionTools/LungCancer](http://www.mskcc.org/PredictionTools/LungCancer).

### New Resource Helps Manage Patients' Pain

The National Pain Education Council (NPEC), a new resource for managing pain, aims to relieve pain and improve patients' quality of life by providing healthcare providers with tools and educational materials for diagnosing and treating pain. According to NPEC, more than 50 million Americans have disabling, chronic pain, and nearly 10 million of these do not receive adequate treatment. For more information or to view interactive case studies, accredited continuing education courses, and a library of pain-management literature, visit NPEC's Web site at [www.npecweb.org](http://www.npecweb.org).