People Aged 5-49 Make Most ED Visits for Flu

BY DOUG BRUNK
San Diego Bureau

SAN DIEGO — Most emergency department visits for influenza in the United States are by patients aged 5-49 years who have no other diagnoses, results from a large analysis demonstrated.

The finding underscores the importance of vaccination in this segment of the population, Kimmie Kohlhase McLaurin reported in a poster session at the 100th International Conference of the American Thoracic Society.

"We don't know much about influenza in this age group," said Ms. McLaurin, a research analyst for MedImmune Inc., which manufactures FluMist, the intranasal vaccine that was approved in 2003 for healthy children and adults aged 5-49 years. "We know a lot more in the young and in the old. That's where our focus has been."

In a study funded by MedImmune, Ms. McLaurin and her associate, Shelah Leader, Ph.D., analyzed emergency department data from the 1997-2002 National Hospital Ambulatory Medical Care Surveys to identify visits with a primary diagnosis of influenza based on ICD-9 codes 487.0 (influenza with pneumonia), 487.1 (influenza with other respiratory manifestations), and 487.8 (influenza with other manifestations).

More than 1.1 million ED visits for influenza occurred during the 6-year study period. Of these, 69% were by patients aged 5-49 years. Nearly three-quarters of ED visits by this age group (71%) had no secondary diagnoses, and visits were highest among 18-22-year-olds, nonwhites, and females. January was the peak month for visits, followed by February, December, and March.

The most common procedures ordered by clinicians were CBC (35%), chest x-ray (26%), pulse oximetry (19%), and administration of IV fluids (14%). Most visits (84%) resulted in prescriptions for analgesics (43%), cold/flu remedies (30%), and antibiotics (21%).

Reasons for the visit as reported by the patient were fever/chills (47%), cough (33%), myalgia (20%), throat symptoms (17%), flu (14%), vomiting (14%), and headache (12%). ■

Flu Vaccine Found Safe For Patients With Lupus

BY NANCY WALSH
New York Bureau

LONDON — Patients with systemic lupus erythematosus who don't get the influenza vaccine risk getting pneumonia or bronchitis—or making their underlying disease worse, a new study suggested.

Influenza vaccination for patients with autoimmune disease has long been a subject of contention. For lupus patients, the concerns have been that the vaccine could make their disease worse and that antibody responses might be inadequate. There also have been reports of lupus flares following pneumococcal immunization and a report of a patient who developed diffuse proliferative glomerulonephritis after receiving the vaccine during a lupus flare.

But the safety and efficacy of the vaccine were confirmed in a study presented in a poster session at the Sixth European Lupus Meeting. The study included 69 patients with stable disease and whose prednisone dose was 10 mg/day or less. Of these patients, 13 were in remission and given the vaccine (Vaxigrip); the other 56 did not receive the vaccine. The patients, aged 19-73 years, were followed throughout the next year for disease activity and respiratory tract infections.

Among patients who received the vaccine, 2 (15.4%) developed acute bronchitis that required antibiotic treatment, as did 17 (30.4%) of those who had not been immunized, said Ljudmila Stojanovich, M.D., of Bezhanijska Kosa University Medical Center, Belgrade, Serbia and Montenegro.

None of the vaccinated patients developed pneumonia or showed worsening of their SLE symptoms. Among the unvaccinated patients, one developed pneumonia, and two experienced worsening of their SLE symptoms following respiratory tract infections, she said at the meeting, sponsored by the British Society for Rheumatology.

Other infections, including herpes zoster and infections caused by *Staphylococcus aureus*, also occurred significantly more often in unvaccinated patients, and particularly in patients older than 30 years. The U.S. Advisory Committee on Immunization Practices recommends influenza vaccination for patients 2-64 years old who are at increased risk for pneumococcal infection due to chronic illnesses. ■

ALTERNATIVE MEDICINE
AN EVIDENCE-BASED APPROACH

Echinacea Update

The Trial

The study, sponsored by the National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health (NIH), included a 7-day prophylaxis phase prior to challenge with rhinovirus type 39, followed by a 5-day treatment phase.

A total of 437 healthy, college-aged volunteers participated in the trial, receiving either one of three different extracts of echinacea or placebo.

The participants took the medications on an outpatient basis during the prophylaxis phase, then were isolated in individual hotel rooms for the remainder of the study.

Symptoms (including sneezing, sore throat, rhinorrhea, and malaise) were rated on a scale of 0-4 twice each day following viral challenge; the higher score of each day was recorded. Participants whose total symptom score was 6 or more for 5 days and who reported at least 3 days of rhinorrhea or the subjective impression of having a cold were classified as having a clinical cold.

The study found:

► No significant effect for any of three echinacea preparations as prophylaxis against rhinovirus infection.
► No effect on infection rate in patients who received echinacea in the treatment phase only.
► No effect on viral titers.
► No significant effect on symptoms or in number of patients with clinical colds.
► No effect on the course of illness.
► No benefit in severity as measured by weight of nasal secretions.
► No significant effect on interleukin-8 or polymorphonuclear-leukocyte concentrations.

The authors, led by Ronald B. Turner, M.D., professor of pediatrics at the University of Virginia School of Medicine, Charlottesville, concluded that, "As tested, the putative active constituents of *E. angustifolia* do not have clinically significant effects on rhinovirus infection or illness." They noted, however, that the generalizability of their findings might be affected by the wide variety of echinacea preparations available, which contain different plant species and plant parts, and which may be cultivated and extracted in different ways (N. Engl. J. Med. 2005;353:341-8).

► This column reviewed available data on echinacea for the common cold in December 2002, at which time a Cochrane systematic review found that "variations in preparations and methodologic inadequacies precluded a quantitative metaanalysis." Despite this lack of evidence of efficacy, echinacea remains a popular herbal remedy.
► A new randomized study that tested laboratory-formulated preparations of Echinacea angustifolia *root found no benefit from taking the herb.*

The Commentary

The study was accompanied by a commentary by Wallace Sampson, M.D., emeritus clinical professor of medicine, Stanford (Calif.) University, in which he called for an end of funding for research on echinacea.

"As long as research sponsored by NCCAM and private foundations continues, advocates of alternative treatments can claim that a state of equipoise exists when, in fact, the issues should have been settled on the basis of previous knowledge," Dr. Sampson wrote.

He pointed out that the NIH has spent almost $1.5 billion on alternative medicine research since 1999, and NCCAM has spent almost half amount that in evaluating "folkways uses of herbs and sectarian remedies."

It is time for reassessment, he continued. "What is needed is knowledge-based medicine, with randomized clinical trials of treatments with histories that indicate some reasonable chance of efficacy" (N. Engl. J. Med. 2005;353:337-9).

"NCCAM, if it is to justify its existence, must consider halting its search for active remedies through clinical trials of treatments of low plausibility," he concluded. "A wealth of information also awaits discovery in the psychology of personal beliefs in irrational proposals, in the study of erroneous thinking, and in the study of the mechanisms behind errant social-medical trends such as the alternative-medicine movement."

Other Views

The day before the study was published the American Botanical Council issued a statement challenging certain aspects of the study and its conclusions. A particular concern was the dosage used in the trial. Although the 900 mg/day dose chosen was that recommended by the German Commission E, both the World Health Organization and the recently drafted monograph on echinacea by the Canadian Natural Health Products Directorate recommend a much higher dosage of 3 g/day.

"This is not a definitive trial on the efficacy of echinacea, nor should the results be generalized to echinacea preparations widely available," said Mark Blumenthal, executive director of the American Botanical Council. *E. angustifolia* today is less commonly used in commercial preparations in North America, where *E. pallida* and *E. purpurea* are more commonly cultivated and used in such products.

In a statement that the NCCAM posted on its Web site, director Stephen E. Straus, M.D., said that "the common cold is a major burden on society, and there is not much that conventional medicine can do to prevent it or ease its symptoms. Thus, there is a lot of appeal in the idea of a readily available remedy that might prevent us from getting a cold or make us feel better if we do get one. However, it's important to ask whether science has proven that echinacea really does work for these purposes."

Describing the trial as "well-designed" and "led by a team with expertise in the preparation and study of herbal medicines and the treatment and prevention of respiratory virus infections," Dr. Straus concurred that the study showed no evidence for efficacy. He also noted that the echinacea used was chemically consistent throughout the study, that "internationally recognized" doses were used, and that the testing approach used was the currently most powerful one.

He also said that NCCAM continues to support studies on echinacea and other biologically based complementary and alternative therapies, investigating them in the laboratory as well as in patients, "building on promising and compelling earlier evidence."

—Nancy Walsh