

More Pharmacy Referrals

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they may tend to return to them for subsequent immunizations and miss out on opportunities to get appropriate preventive care."

Dr. Young added that he was surprised by the degree of variation around the country in terms of the role of the public health departments in providing immunizations. In some states such departments are a main source of immunization and in others they provide immunizations only to the neediest population.

Surveys were mailed in 2007 and again in 2008 to a randomly selected sample of 2000 AAFP members, including physicians from all 50 states and the District of Columbia, with a mix of urban, suburban, and rural practices, Dr. Young explained in an interview.

His poster findings were presented at the annual meeting of the North American Primary Care Research Group.

Responses were received from 882 physicians from the 2007 mailing and 708 physicians from the 2008 mailing. By practice type, 38% of respondents were from family medicine groups, 7% were from two-person partnerships, 23% were in solo practice, 17% were in multispecialty practices, 10% were from other practice settings. Data on practice type were unavailable on 6%.

The percentage of physicians providing flu vaccine to adults increased from 84% to 88%, and the provision of the HPV vaccine increased from 56% to 71%. The number of physicians who of-

ferred meningococcal vaccines to adults increased from 50% to 65%, and the number who offered zoster vaccines increased from 45% to 55%.

The percentage of physicians who said that they referred some of their adult patients elsewhere for vaccinations increased from 48% to 50%. The nature of the referrals changed slightly, however, with the percentage of physicians who referred patients to public health clinics for vaccinations decreasing from 72% in 2007 to 67% in 2008, and the percentage who referred patients to pharmacies increasing from 30% in 2007 to 32% in 2008.

Cost was the greatest barrier to immunization, reported by 63% and 72% of the physicians in 2007 and 2008, respectively. Other barriers reported in 2007 vs. 2008, respectively, were patients' personal and religious beliefs (34% vs.

40%), patient concerns about safety (34% vs. 47%), and complexity (23% vs. 21%).

In 2007, "lack of demand" was the most common reason physicians gave for not providing some adult vaccines (43%), but in 2008 "don't get payment to cover cost" had surpassed lack of demand as the most common reason (45%). Approximately a third of the physicians in both years reported that their patients had insurance, but it didn't cover vaccines.

The overall increase in vaccination rates is encouraging, said Dr. Barry L. Hainer, professor of family medicine at the Medical University of South Carolina, Charleston. There are steps physicians can take to ease the economic burden of vaccine delivery, he added. Buyers' cooperatives such as the Kelson Pediatric Partners' Vaccine Purchasing Program and the Chil-

dren's Practicing Pediatricians, for example, allow smaller practices to obtain group discounts on childhood and adult vaccines.

The key is to have someone on staff who is familiar with coverage policies for all the major insurers so that patients can be charged their portion of the cost at the time of administration, he said.

Requiring an out-of-pocket fee may not amount to much if the vaccine is \$10 a dose. But there is serious money at stake for a vaccine such as Zostavax, he said in an interview.

The study was limited by the use of self-reports, which may differ from actual practice, the researchers noted.

The study was supported in part by the Centers for Disease Control and Prevention, and the authors had no personal financial conflicts to disclose. ■

Flu Shot a Hard Sell to Some Parents of Kids With Asthma

BY SUSAN LONDON
Contributing Writer

SEATTLE — In one-third of children with asthma who are not vaccinated against influenza, the vaccine is withheld because parents believe it has no benefit.

Influenza exacerbates asthma, and annual flu vaccination is recommended for high-risk children, including those with chronic asthma, Dr. Sudha Reddy, a fellow at the Children's Hospital of Michigan in Detroit, and her colleagues reported at the annual meeting of the American College of Allergy, Asthma, and Immunology.

To determine the prevalence of flu vaccination in children with asthma

and reasons for receipt and nonreceipt of the vaccine, they conducted a clinic-based study of 93 children and their parents in the fall of 2004. "During that year, there was a nationwide shortage of flu vaccine due to manufacturing problems," Dr. Reddy noted in an interview. She and her colleagues hypothesized that vaccination rates would be high given media coverage of the shortage and the resulting increased public awareness.

The children were aged 5-18 years, had established asthma, and were visiting an allergy clinic in a university-affiliated hospital. They and their parents completed questionnaires asking about demographics, the severity of their asthma, their influenza vaccination status, and reasons for vaccinating or not vaccinating. Asthma was rated as mild in 55% and as moderate or severe in 45%.

Of the total, 67% of the children received the flu vaccine. The leading reason parents gave for vaccinating was that a physician

recommended it (44%). Other reasons were: routinely getting the vaccine (21%), hearing about it through school (15%), being aware of the vaccine (12%), and news of the vaccine shortage (8%).

The leading reason for not vaccinating children was lack of benefit of the vaccine (32%). Other reasons were: a previous experience of vaccine-related adverse events (22%), a perception that the children would not get the flu (16%), a preference that the children would become ill rather than receive the vaccine (10%), an allergy to eggs (6%), a preference to not vaccinate (6%), and failure of the physician to recommend it (3%). In all, 5% of parents didn't answer this question.

DR. REDDY

In terms of perceived benefits of the vaccine, 48% of parents believed it prevented influenza illness, and 47% believed it helped control asthma. The most common adverse events were local pain (44%) and fever (13%). Only 2% experienced a worsening of their asthma.

Most of the parents (61%) said their physician was their source of information about flu vaccination. Other sources included the media generally (23%), news regarding the vaccine shortage specifically (13%), and family members (3%).

"Influenza immunization is inadequate even in a high-risk group like [children with] asthma," Dr. Reddy said, adding that more research is needed to determine if findings are similar in larger samples and other settings. The researchers concluded that physicians are the best source of information on the flu vaccine for most patients and should discuss vaccination with patients at every opportunity.

Dr. Reddy reported that she had no conflicts of interest. ■



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Flu Shot May Protect Against VTE

BY BRUCE JANCIN
Denver Bureau

NEW ORLEANS — Influenza vaccination reduced the incidence of venous thromboembolism by 26% in a case-control study.

This novel finding requires confirmation. Should that happen, it would become appropriate to recommend a change in clinical practice incorporating routine administration of influenza vaccine by injection as a means of preventing repeat venous thromboembolism (VTE) episodes, Dr. Joseph Emmerich said at the annual scientific sessions of the American Heart Association. He presented an 11-center retrospective case-control study involving 727 French adults with a first objectively documented episode of VTE and no history of cancer within the prior 5 years, and an equal number of VTE-free controls.

Participants were asked if they had received a flu shot—the nasal spray flu vaccine isn't available in France—within the past 12 months, and 28.2% of those

with VTE and 32.1% of controls said they had. After adjustment in a multivariate regression analysis for potential confounders including age, sex, body mass index, use of oral contraceptives, education level, and varicose veins, influenza vaccination was associated with a highly significant 26% relative risk reduction in VTE. In those aged younger than 52 years, the median age of the participants, relative risk reduction was 48%.

The preventive effect was of similar size against pulmonary embolism and deep vein thrombosis, said Dr. Emmerich, professor of vascular medicine at the René Descartes University, Paris.

The protective effect was particularly robust in women. In women younger than 51 years, the unadjusted risk of VTE associated with flu vaccination was reduced by 50%. After adjustment for oral contraceptive use and other potential confounders, it was 59%.

Dr. Emmerich said one possible mechanism behind the vaccine's apparent protective effect is that if individuals don't get the flu they are not immobilized in bed for days, a VTE risk factor. Another is that infection with the influenza virus provokes a systemic inflammatory reaction that could promote thrombosis. But arguing against these mechanisms was the fact that VTE events were evenly distributed throughout the year, with no reduction during flu season in vaccinated individuals.

In an interview, he said he believed the stronger protective effect in those younger than 52 was a result of the French policy of mandatory flu vaccination of people aged 60 and older.

Dr. Emmerich is planning a definitive multicenter, randomized, prospective study of flu vaccination for secondary prevention of VTE. His case-control study was funded by the French national medical research foundation and other academic sources.



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