

Survey Finds Gaps in Public's Knowledge of Flu

BY JOHN R. BELL
Associate Editor

WASHINGTON — Much of the public harbors misperceptions about influenza and vaccination against it, according to data from a nationwide survey presented at a press briefing sponsored by the National Foundation for Infectious Diseases.

The Public Perception of Influenza, Vaccination and Treatment Options Survey, randomly administered via telephone to

more than 1,000 adults in all 50 states, found that only 48% of respondents said they planned to be immunized this year.

Reasons given by respondents for not seeking immunization included the belief that influenza is not a serious enough disease to warrant vaccination (43%), that they were personally not at risk for infection (38%), that they previously contracted the flu even after being vaccinated (23%), and that vaccination in a prior influenza season would offer protection

against current infection (15%).

Of the entire study cohort, 46% of respondents believed influenza vaccine can cause influenza. In addition, 30% responded that getting the vaccine is not worthwhile because it protects against only three strains of influenza, and many said that vaccination in December or later was too late to be effective.

These findings underscore the need for physicians to recommend vaccination to their patients, said Dr. Susan J. Rehm,

medical director of the National Foundation for Infectious Diseases. A direct recommendation from a health care provider "was one of the major drivers for individuals getting influenza vaccine," she said.

"The medical community must also reinforce the public health benefits of vaccination in the later season," Dr. Rehm said, "by educating patients throughout the winter months... about the benefits of the vaccine, even if disease has already begun to be seen in their area."

Also of concern was that only 49% of respondents knew that annual influenza vaccination is recommended for pregnant women and only 68% knew about the CDC's recently expanded recommendation for influenza vaccination in all children aged 6 months to 5 years. ■

Only 18% of Toddlers Get Full Flu Vaccine

The Centers for Disease Control and Prevention has reported that data from a nationwide telephone survey indicate that only 18% of children aged 6 months to 2 years were fully vaccinated for influenza in the 2004-2005 influenza season.

To be considered "fully vaccinated," a child must have received two injections in the September-December 2004 period if he or she had never been vaccinated, or only one injection in that period if the child had any history of influenza vaccination.

The portion of children nationwide who had received at least one dose of flu vaccine in the period was 33% (MMWR 2006;55:1081-5).

The state with the largest portion of fully vaccinated children in this age group was Nebraska, with 33%. The state with the least was Idaho, with 6%. Children in large cities were even less likely to be fully vaccinated, however; only 3% of children under age 2 years in Detroit were fully vaccinated, compared with 15% of those in Michigan as a whole.

Notably, the September-December period of 2004 coincided with a national shortage of vaccine, which the CDC recently reported should not occur this season, because there will be two additional manufacturers supplying vaccine, bringing the total to four, whereas as there were only two manufacturers in the 2004-2005 season. However, the CDC's Advisory Committee on Immunization Practices that year deemed children aged 6-23 months as a priority population for vaccination, and thus the lack of supply in the ory should not have affected this group as much as others.

The period in question was the first for which routine annual influenza vaccination was recommended (rather than merely encouraged) for children in this age group. Since then, the recommendation has been expanded to include children up to age 59 months.

—John R. Bell

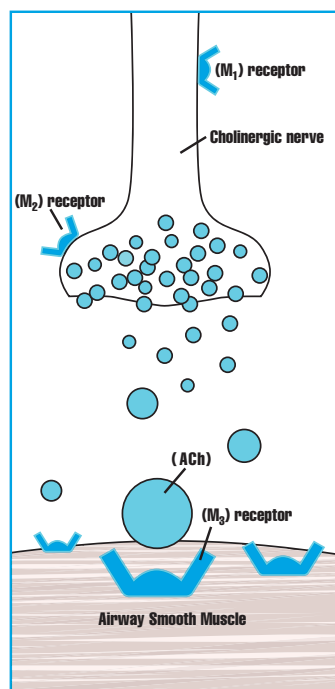
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COPD

Understanding the role of cholinergic tone

Exploring the pathophysiology of chronic obstructive pulmonary disease (COPD) may provide insight into how to effectively treat patients. COPD causes bronchoconstriction and inflammation, which lead to airway narrowing. COPD results in structural changes to the peripheral airways and lung parenchyma, as well as edema and increased mucus secretion in the airways.¹ Understanding the reversible components of COPD is a key step toward providing appropriate treatment.



► Cholinergic tone: a major component in COPD^{2,3}

Cholinergic tone plays a prominent role in COPD airway narrowing. Following exposure to noxious stimuli (eg, smoking), the parasympathetic neurotransmitter acetylcholine (ACh) is released from cholinergic nerves and binds to the muscarinic (M₁, M₂, and M₃) receptors. The consequence is airway narrowing² and airflow limitation.³

► Cholinergic tone is a key element of COPD bronchoconstriction²

► Pathophysiology and treatment decisions for COPD

Because cholinergic nerves are a main pathway by which bronchoconstriction occurs in COPD,² it is appropriate to address cholinergic tone when beginning maintenance treatment. Anticholinergics work by blocking M₃ receptors to help prevent the effects of cholinergic tone.^{2,4}

► Appropriate treatment is needed

Once the pathophysiology of cholinergic tone in COPD-associated airway narrowing is fully appreciated, physicians can make effective pharmacologic decisions for patients with COPD.

References: 1. Global Initiative for Chronic Obstructive Lung Disease. *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease: Updated 2005*. Bethesda, Md/Geneva, Switzerland: National Heart, Lung, and Blood Institute/World Health Organization; 2005. Available at: <http://www.goldcopd.org>. Accessed July 26, 2006. 2. Barnes PJ. The role of anticholinergics in chronic obstructive pulmonary disease. *Am J Med*. 2004;117:24S-32S. 3. Honig EG, Ingram RH Jr. Chronic bronchitis, emphysema, and airways obstruction. In: Fauci AS, Braunwald E, Isselbacher KJ, et al, eds. *Harrison's Principles of Internal Medicine*. 14th ed. New York, NY: McGraw-Hill; 1998:1451-1460. 4. Barnes PJ. Distribution of receptor targets in the lung. *Proc Am Thorac Soc*. 2004;1:345-351.

