

VACCINE ADVISORY

From the Department of State Health Services Immunization Branch

The goal of the Vaccine Advisory is to disseminate, in a timely manner, practical information related to vaccines, vaccine-preventable diseases, and the vaccine programs managed by the Immunization Branch. The Immunization Branch welcomes readers' input to improve the contents of this document.

September 21, 2007

Advisory No. 6. The 2007-2008 Influenza Season

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1. ACIP Recommendation for the 2007 - 2008 Influenza Season

The Advisory Committee on Immunization Practices (ACIP) recommends annual influenza vaccination for groups at increased risk for severe complications from influenza, or for influenza-associated clinic, emergency department, or hospital visits.

ACIP emphasizes that immunization providers should offer influenza vaccine and schedule immunization clinics throughout the influenza season (see Timing of Vaccination).

ACIP recommends annual influenza vaccination for people at high risk for complications from the flu, including:

- Children aged 6 months until their 5th birthday,
- Pregnant women,
- People 50 years of age and older,
- People of any age with certain chronic medical conditions, and
- People who live in nursing homes and other long term care facilities.

People who live with or care for those at high risk for complications from flu, including:

- Household contacts of persons at high risk for complications from the flu (see above)
- Household contacts and out of home caregivers of children less than 6 months of age (these children are too young to be vaccinated)
- Health care workers.

Anyone who wants to decrease their risk of influenza.

Use of the Nasal Spray Flu Vaccine

Vaccination with the nasal-spray flu vaccine is an option for healthy persons aged 2-49 years (read [Press Release](#) on expanded use of FluMist) who are not pregnant, even healthy persons who live with or care for those in a high risk group. The one exception is healthy persons who care for persons with severely weakened immune systems who require a protected environment; these healthy persons should get the inactivated vaccine.

Who Should Not Be Vaccinated

Some people should not be vaccinated without first consulting a physician. They include:

- People who have a severe allergy to chicken eggs.
- People who have had a severe reaction to an influenza vaccination in the past.
- People who developed [Guillain-Barré syndrome](#) (GBS) within 6 weeks of getting an influenza vaccine previously.
- Children less than 6 months of age (influenza vaccine is not approved for use in this age group).
- People who have a moderate or severe illness with a fever should wait to get vaccinated until their symptoms lessen.

The ACIP lists primary changes and updates contained in the 2007 recommendations, which include:

- ACIP reemphasizes the importance of administering 2 doses of vaccine to all children aged 6 months–8 years if they have not been vaccinated previously at any time with either LAIV (doses separated by >6 weeks) or TIV (doses separated by >4 weeks), on the basis of accumulating data indicating that 2 doses are required for protection in these children (see Vaccine Efficacy, Effectiveness, and Safety).

- ACIP recommends that children aged 6 months–8 years who received only 1 dose in their first year of vaccination receive 2 doses the following year (see Vaccine Efficacy, Effectiveness, and Safety).
- ACIP reiterates a previous recommendation that all persons, including school-aged children, who want to reduce the risk of becoming ill with influenza or of transmitting influenza to others should be vaccinated (see Box and Recommendations for Using TIV and LAIV During the 2007–08 Influenza Season).
- ACIP recommends that health-care administrators consider the level of vaccination coverage among healthcare personnel (HCP) to be one measure of a patient safety quality program and implement policies to encourage HCP vaccination (e.g., obtaining signed statements from HCP who decline influenza vaccination) (see Additional Information Regarding Vaccination of Specific Populations).
- The 2007–2008 trivalent vaccine strains are A/Solomon Islands/3/2006 (H1N1)-like (new for this season), A/Wisconsin/67/2005 (H3N2)-like, and B/Malaysia/2506/2004-like viruses. (see Recommendations for Using TIV and LAIV During the 2007–08 Influenza Season).

The complete 2007 ACIP recommendations regarding the use of influenza vaccine and antiviral agents may be found on the ACIP website at <http://www.cdc.gov/vaccines/pubs/ACIP-list.htm#flu>

2. National Supply Update

A record number of 132 million doses of influenza vaccine have been projected for the 2007–2008 influenza season. All providers are urged to vaccinate their patients until vaccine is no longer available or it expires. CDC provides a number of resources to keep health care professionals up-to-date on influenza vaccine and its availability. Go to the following site for the most current information on influenza vaccine supply issues:

<http://www.cdc.gov/flu/professionals/vaccination/#supplyThe>. The Food and Drug Administration also provides information on influenza vaccine and the number of vaccine lots released. Go to : <http://www.fda.gov/cber/flu/flu.htm> for more information.

While flu vaccine orders are generally placed during the first quarter, health care providers seeking flu vaccine may contact the major distributors to check availability. Flu Supply News is provided by a voluntary group of flu vaccine distributors who are committed to working with the Centers for Disease Control and Prevention to ensure that seasonal flu vaccine is efficiently distributed. The goal of the initiative is to educate and inform stakeholders on the integral role of distribution and the integrity of the flu vaccine supply chain. The following link takes you to Flu Supply News: <http://www.flusupplynews.com/index.cfm>. A list of flu vaccine distributors is located at http://216.239.51.104/search?q=cache:M-oe422PREQJ:www.hida.org/document.asp%3Fdocument_id%3D10082+flu+vaccine+distributors&hl=en&gl=us&ct=clnk&cd=1.

3. Local Health Department – Purchase of vaccine off of the state contract.

Local Health Departments can utilize the following term contract's to obtain vaccine. Please note that there are two TBPC Term Contracts. Vaccine contracts are Vaccine and Biologicals

Term Contract, Contract Number: 269-A2 and Influenza Vaccine Term Contract, Contract Number: 269-N3.

The Vaccines and Biologicals Term Contract 269-A2 for 2007 can be accessed on The Texas Building and Procurement Commission web-site at the following address: http://www.tbpc.state.tx.us/cat_page/cat_269_a2_0701.html. If there is a problem with their direct link, the TBPC web address is as follows: www.tbpc.state.tx.us. You will have to navigate to Term Contracts on the left side of your screen and select contract number: 269-A2.

The Influenza Vaccine Term Contract 269-N3 for the 2007-2008 influenza season can also be accessed on The Texas Building and Procurement Commission web-site at the following address: http://www.tbpc.state.tx.us/cat_page/cat_269_n3_0604.html. If there is a problem with their direct link, the TBPC web address is as follows: www.tbpc.state.tx.us. You will have to navigate to Term Contracts on the left side of your screen and select contract number: 269-N3. Influenza Pricing will be on this contract.

In referencing either vaccine contracts listed above you will be able to obtain general contract information, specifications, vendor requirements, ordering procedures and additional requirements to purchase vaccine.

These contracts are available to all eligible State of Texas entities only and is not for personal purchase or purchase by commercial entities.

If additional information or help is needed regarding the influenza contract, please contact Purchaser, Michelle Croft with the Texas Building and Procurement Commission at (512) 463-6988 or email at Purchaser.C@tbpc.state.tx.us.

4. Texas Vaccines for Children Program

The Texas Vaccines for Children Program (TVFC) provides vaccine in accordance with ACIP recommendations to eligible children free of charge. Please refer to the [attached memo](#) for a complete listing of children eligible for TVFC influenza vaccine.

Providers enrolled in the TVFC program are asked to place influenza vaccine orders by August 31, 2007. Effective in September, Texas will join the CDC's new distribution contract and shipping of Vaccine Information Statements (VIS) with the vaccine will not be possible. VISs should be ordered along with vaccine on the TVFC Influenza Order Form (see [attached order form](#)) and will be mailed separately from the vaccine.

5. Medicare

Specific information concerning Medicare will be sent as soon as it becomes available in a Supplement to Advisory No. 6. The 2007-2008 Influenza Season.

6. Medicaid Billing Codes

Medicaid billing codes for flu vaccines including Flumist are as follows:
CPT codes for the vaccines

- 90655- Influenza virus vaccine, split virus, preservative free, when administered to children 6-35 months of age, for intramuscular use
- 90656- Influenza virus vaccine, split virus, preservative free, when administered to 3 years and older, for intramuscular use
- 90657- Influenza virus vaccine, split virus, when administered to children 6-35 months of age for intramuscular use
- 90658- Influenza virus vaccine, split virus, when administered to 3 years and older, for intramuscular use
- 90660- Influenza virus vaccine, live, for intranasal use
- 90060- Flumist is not approved by Medicaid. Currently in the process of getting it approved.
- Appropriate administration codes must also be used for admin fee reimbursement 90465-90468, or 90471-90474

Any questions concerning Medicaid billing and/or claims should be addressed by calling 1-800-925-9126.

7. Texas school or daycare requirements for the influenza vaccine

Currently the influenza vaccine is not required for school or daycare attendance. The close of the 80th Legislative Session resulted in the passage of House Bill (HB) 3184, which requires the DSHS to publish information about the benefits of annual vaccination against influenza; and, together with the Department of Family & Protective Services (DFPS), ensure the information is annually distributed to parents of children attending child-care in August or September. A newly created *Flu Fact Sheet for Child-Care Settings* will be mailed in September to child-care facility centers in Texas for distribution to all enrolled children. Information on the immunization requirements for children attending child-care facilities, flu information targeting children, and the recommended immunizations can also be found on the updated web page under the heading Information for Child-Care Facilities.

Please visit http://www.dshs.state.tx.us/immunize/school/school_info.shtm for these materials.

8. ImmTrac

ImmTrac users can report flu vaccines administered using the ImmTrac code “**Influenza**”. Although ImmTrac can record flu vaccine doses administered, and doses will be reflected on the client immunization history, the ImmTrac immunization scheduler will not generate recommendations for Influenza vaccine at this time. Providers should consult ACIP recommendations to determine when administration of Influenza vaccine is recommended. For more information about ImmTrac, please refer to: www.ImmTrac.com.

9. Surveillance Update

The official reporting period for the 2007-2008 influenza season begins October 1, 2007. The State of Texas utilizes a sentinel surveillance system for influenza. Activity is determined based on data from multiple sources, including reports of influenza-like illness from clinical practitioners who participate in the Sentinel Provider Surveillance Network (SPSN), specimens submitted to the DSHS laboratory for viral culture, and outbreak reports from hospitals, long-term care facilities, and schools. For more information on SPSN please visit:

<http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/spsn/>. If you are interested in participating in the SPSN, please contact Irene Brown, SPSN coordinator at (512) 458-7676. Flu Activity Reports are posted at <http://www.dshs.state.tx.us/idcu/disease/influenza/surveillance/>

10. Resources

For providers:

- **CDC Influenza webpage:** www.cdc.gov/flu.

- **MMWR Recommendations for Health Care Personnel**

Influenza Vaccination of Health-Care Personnel: Recommendations of the Healthcare Infection Control Practices Advisory Committee (HICPAC) and the ACIP. February 24, 2006.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5502a1.htm>

- **CDC Flu Vaccination Resources for Health Care Professionals**

<http://www.cdc.gov/flu/professionals/index.htm>

- **DSHS Immunization Branch Website.** <http://www.dshs.state.tx.us/immunize/flu.shtm>

- **Vaccine Information Statements (VIS)**

The VIS for live and attenuated influenza vaccines is available through the DSHS Immunization Branch. The following Web page provides the current VISs as well as the DSHS addenda for both VISs. Go to: <http://www.dshs.state.tx.us/immunize/VISCHART.shtm> and scroll down to the VIS needed and download both the VIS and the appropriate addendum. The VISs are currently being translated to Spanish and will soon be available for downloading and for ordering hard copy.”

- **Flu News**

The *Flu News* webpage posts breaking news, and is linked to the *What's New?* Web page, which lists all documents recently posted or updated on the CDC flu web site, including but not limited to press releases, recommendations, and surveillance reports.

<http://www.cdc.gov/flu/news.htm>

- **National Influenza Vaccine Summit**

The American Medical Association and CDC cosponsor the *National Influenza Vaccine Summit Newsletter*, formerly known the *CDC Flu Vaccine Bulletin*, with recent developments in vaccine supply, production, and distribution. It can be found at www.ama-assn.org/go/influenzasummit <<http://www.ama-assn.org/go/influenzasummit>>.

- **Influenza Vaccination Pocket Information Guide** - The Influenza Vaccination Pocket Information Guide is a quick reference tool that gives front-line healthcare personnel useful information about the use of both inactivated (injectable) and live (intranasal) influenza vaccines. Also available is a pocket guide for pneumococcal polysaccharide vaccine (PPV) to help encourage vaccination of high-risk patients for pneumococcal disease. To order either of these pocket guides visit <http://www.preventinfluenza.org/pocketguides/>. A pdf version of this guide is available through this link.

For the public and health educators:

- **CDC's Flu Gallery** contains educational materials for promoting influenza vaccination. The Gallery contains printed materials such as flyers and posters, in color and black and white, English and Spanish. It is available at: <http://www.cdc.gov/flu/professionals/flugallery/index.htm>.

- **Guidance to Individuals Seeking Flu Vaccination**

Individuals are encouraged to seek influenza vaccination from their usual healthcare provider, especially those who fall into any of the risk groups. Other resources are also available.

- a. The **American Lung Association** hosts a web-based Flu Clinic Locator, which searches for clinics by zip code. The Flu Clinic Locator may be found at www.flucliniclocator.org/ <<http://www.flucliniclocator.org/>>. All organizations with clinics open to the public are welcomed to post their clinics on the site. Organizations listed must agree to follow CDC guidelines and to update postings if they make changes.
- b. Local health departments and DSHS health service regional offices may also host clinics or maintain lists of local clinics on their websites. Call or check the website of your local health department for more information.


We hope you generously forward this advisory to others who may benefit from this information.


The Vaccine Advisory is now available online. To see previous issues, go to:
www.dshs.state.tx.us/immunize/vacadvise/



Memorandum

TO: Directors, Health Service Regions
Immunization Program Managers, Health Service Regions
Directors, Local Health Departments
Immunization Program Managers, Local Health Departments

FROM: Karen Hess, Manager
Vaccine Services Group 

THRU: Jack C. Sims, Manager
Immunization Branch 

DATE: August 8, 2007

SUBJECT: Texas Vaccines for Children Program: Influenza Ordering

In previous years, Texas Vaccines for Children (TVFC) Program providers have ordered influenza vaccine on a monthly basis using the Biological Order Form (C-68). Due to legislation in the 80th Texas Legislature, the ordering process for the 2007-08 influenza season will change. Senate Bill 811 directs the Department of State Health Services to offer providers their choice of influenza vaccine products. Providers will have choice of all influenza vaccine products and choice will be honored within the vaccine amounts that the Centers for Disease Control and Prevention (CDC) have allocated to the TVFC. Vaccine brand and quantity are not guaranteed due to limited allocations of specific products to the TVFC. Orders may be filled in their entirety or in partial shipments as vaccines become available throughout the season.

Orders for influenza vaccine should be placed by August 31, 2007 for the entire 2007-08 influenza season using the TVFC Influenza Order Form (attached). Regional and local health departments should expedite these orders to the Austin Office. Orders received late could be delayed or not filled depending upon vaccine availability.

In the past, the distribution contractor has shipped the influenza Vaccine Information Statements (VISs) with the vaccine. Effective in September, Texas will join the CDC's new distribution contract and shipping VISs with the vaccine is not possible. VISs should be ordered along with vaccine on the TVFC Influenza Order Form and will be mailed separately from the vaccine.

The most notable change in the recommendations for influenza vaccination is for providers to begin vaccinating patients when they receive their vaccine and to continue vaccinating throughout the influenza season until vaccine supplies are depleted. Please refer to the attached reference sheet for a list of vaccines, dosages, and eligibility.

If you have questions regarding the influenza vaccine or the ordering process, please call your Health Service Region, Local Health Department, or TVFC Consultant.

Attachments: TVFC Influenza Order Form
TVFC Program 2007-08 Influenza Vaccine Dosages and Information

**Texas Vaccines for Children (TVFC) Program
2007-08 Influenza Vaccine Dosages and Information**

Product Name	Age	Dosage	Number of Doses	Route
FluZone®PF	6 through 35 months	.25 mL	1 or 2*	Intramuscular
FluZone®PF	3 through 18 years	.50 mL	1 or 2*	Intramuscular
FluZone®	3 through 18 years	.50 mL	1 or 2*	Intramuscular
Fluvirin®	4 through 18 years	.50 mL	1 or 2*	Intramuscular
FluMist®	5 through 18 years	0.2 mL	1 or 2*	Intranasal
*All children aged >6 months--8 years who have not been vaccinated previously at any time with either LAIV or TIV should receive 2 doses of age-appropriate vaccine in the same season with either LAIV (doses separated by ≥6 weeks) or TIV (doses separated by ≥4 weeks).				

All vaccines for the 2007-08 season will include protection against virus strains A/Solomon Islands/3/2006 (H1N1)-like, A/Wisconsin/67/2005 (H3N2)-like, and B/Malaysia/2506/2004-like antigens.

In general, health-care providers should begin offering vaccination soon after vaccine becomes available and if possible by October. To avoid missed opportunities for vaccination, providers should offer vaccination during routine health-care visits or during hospitalizations whenever vaccine is available. Vaccination efforts should continue throughout the season, because the duration of the influenza season varies, (Texas peaked last year in March 2007). For additional information on influenza vaccine recommendations visit the following website: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5606a1.htm?s_cid=rr5606a1_e.

TVFC Children Eligible for Trivalent inactivated influenza vaccine (TIV)

- Children aged 6 months through 59 months.
- Children and adolescents aged 5 through 18 years with chronic disorders of the pulmonary or cardiovascular system, including asthma.
- Children and adolescents aged 5 through 18 years who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic disease (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medication or human immunodeficiency virus [HIV]).
- Children and adolescents aged 5 through 18 years who are receiving long-term aspirin therapy and may therefore be at risk for developing Reye's Syndrome after influenza.
- Children and adolescents aged 5 through 18 years who have any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration.
- Children and adolescents aged 5 through 18 years who are residents of nursing homes and other chronic-care facilities that house persons at any age who have chronic medical conditions.
- Females under 19 years who will be pregnant during the influenza season.
- Children and adolescents aged 5 through 18 years who are household contacts of persons in the following high-risk groups:
 1. any children less than 5 years old;
 2. children or adolescents in any of the other groups listed above;
 3. any person 50 years or older;
 4. adults with chronic disorders of the pulmonary or cardiovascular systems;
 5. adults who have required regular medical follow-up or hospitalization during the preceding year for chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus [HIV]).

TVFC Children Eligible for Live, Attenuated Influenza Vaccine (LAIV)

- Healthy children aged 5 through 18 years who meet any high risk category listed above.



Texas Vaccines for Children (TVFC)

Influenza Vaccine Order Form

PIN _____

OCTOBER* CLINIC DAYS AND HOURS

	AM	PM
MONDAY	_____ to _____	_____ to _____
TUESDAY	_____ to _____	_____ to _____
WEDNESDAY	_____ to _____	_____ to _____
THURSDAY	_____ to _____	_____ to _____
FRIDAY	_____ to _____	_____ to _____

Closed:

* Vaccines may not be received in October

Contact Person

(____) _____ (____) _____
 Phone Fax

Clinic Name and Address:

Given a choice about flu formulation, which would you choose and how many doses of each?

VACCINE	FORMULATION	AGE GROUP	REQUESTED QUANTITY IN DOSES
No preference/ First available	0.25 mL each	6-35 months	
No preference/ First available	0.5 mL doses	36 mos-18 yrs	

VACCINE	FORMULATION	AGE GROUP	REQUESTED QUANTITY IN DOSES
FluZone® PF (Sanofi Pasteur)	Prefilled Syringes 0.25 mL each	6-35 months	
FluZone® PF (Sanofi Pasteur)	Vials 1 dose each or Prefilled Syringes 0.5 mL each	36 mos-18 yrs	
FluZone® (Sanofi Pasteur)	Multidose Vial 0.5 mL doses	36 mos-18 yrs	
Fluvirin® (Novartis)	Multidose Vial 0.5 mL doses	4-18 years	

If FluMist is not available, it will be replaced with another product.

FluMist® Live Virus (MedImmune)	Prefilled Single Use Sprayers 0.2 mL each	5-18 years	
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Vaccine Information Statements (VIS) will be mailed separate from vaccines. Indicate the number needed below.

English VIS		Spanish VIS	
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Date of Order _____

Approved (Authorized signature) _____

COMMENTS:



MedImmune

FOR IMMEDIATE RELEASE

Contact:

Media, Karen Lancaster, 301-398-5864

Investors, Peter Vozzo, 301-398-4358

<http://www.medimmune.com>

**FDA APPROVES EXPANDED LABEL FOR FLUMIST® TO INCLUDE
CHILDREN TWO TO FIVE YEARS OF AGE**

*First and Only Nasal Spray Influenza Vaccine for Young Children in U.S.
Available for 2007-2008 Flu Season*

GAITHERSBURG, MD, September 19, 2007 – MedImmune, Inc. today announced that the U.S. Food and Drug Administration (FDA) has approved the expanded use of FluMist® (Influenza Virus Vaccine Live, Intranasal) in children two to five years of age. FluMist is now approved for active immunization for the prevention of disease caused by influenza A and B viruses in individuals two to 49 years of age. Only one manufacturer had previously been licensed in the United States to produce influenza vaccine for children under four years of age.

MedImmune anticipates shipping FluMist with the expanded label to health care providers in the coming days so that vaccinations may be offered to eligible individuals ahead of and throughout the upcoming influenza season.

“As a company dedicated to innovative advancements in pediatric medicine, MedImmune is delighted to be able to offer FluMist as an option for children as young as two years old to help protect them from influenza,” said James F. Young, Ph.D., president, research and development. “With the new, refrigerated formulation approved in January, the results from our head-to-head study published in the February issue of *The New England Journal of Medicine*, and the expanded age indication now within the label, it is an exciting time for FluMist.”

In a pivotal study that included more than 4,000 children between the ages of two and five years of age during the 2004-2005 influenza season, there was a 54 percent reduction in cases of flu in children who received FluMist compared with those who received the traditional flu shot (4.5 percent vs. 9.8 percent, respectively).¹ In the study, FluMist demonstrated a reduction in influenza rates compared to the inactivated vaccine against strains that were both matched and mismatched to the vaccine.

¹ Data is representative of indicated population. Results for full study population are included in Prescribing Information.

In 48 completed clinical trials, more than 48,000 subjects ranging in age from six weeks to more than 90 years of age received FluMist. In addition to the clinical trial experience, approximately 60,000 doses of FluMist have been administered in two post-marketing studies, and approximately seven million doses of FluMist have been distributed for use in individuals five to 49 years of age following licensure of the product in 2003 through the 2006-2007 influenza season. FluMist is different from the flu shot in that it uses live, attenuated – or weakened – viruses within the vaccine to help stimulate an immune response that is designed to closely resemble the body’s natural response to an influenza infection.

“The FDA approval of FluMist for young children is important because these young kids have very high attack rates for influenza, often require medical evaluation for their influenza illness, and can spread influenza easily to others,” said Pedro Piedra, M.D., professor, Department of Molecular Virology and Microbiology, and Pediatrics, Baylor College of Medicine. “Also, the live attenuated influenza vaccine is quite effective in helping prevent influenza and is generally very acceptable to children and their parents since it is administered by nasal spray rather than a shot.”

Influenza’s Impact on Young Children

The flu is most prevalent in school-age children, as the virus travels easily from person to person and because children in this age group spend a large part of their day in close contact with other children. Children two to 17 years of age are twice as likely to get influenza than adults, including the elderly.² During a widespread outbreak, the rate of flu infections can exceed 30 percent in school-age children. Each year, up to 60 million Americans get the flu, according to the U.S. Centers for Disease Control and Prevention (CDC). Resulting complications cause more than 200,000 hospitalizations and approximately 36,000 deaths in the U.S. annually.

Protection Against Matched and Mismatched Strains of Flu

FluMist has demonstrated in clinical trials that it helps provide protection against flu strains both matched and mismatched to those used in the vaccine. Mismatched strains are circulating strains that are different from those included in manufacturing the season’s flu vaccines. According to CDC data, vaccine mismatch has occurred to varying degrees in five of the last 11 flu seasons, most recently during the 2005-2006 season.

About FluMist

FluMist is a live attenuated influenza virus vaccine indicated for active immunization of individuals two to 49 years of age against influenza disease caused by influenza virus subtypes A and type B contained in the vaccine.

FluMist is contraindicated in individuals with history of hypersensitivity to eggs, egg proteins, gentamicin, gelatin or arginine or with life-threatening reactions to previous influenza vaccinations, and in children and adolescents receiving concomitant aspirin or aspirin-containing therapy.

² Glezen, W et al, *Influenza virus infections in infants*, 1997. *Pediatric Infectious Disease Journal*. 1997;16(11):1065-1068.

Do not administer FluMist to children less than two years of age due to an increased risk of hospitalization and wheezing that was observed in clinical trials. FluMist should not be administered to any individual with asthma and to children less than five years of age with recurrent wheezing unless the potential benefit outweighs the potential risk. Do not administer FluMist to individuals with severe asthma or active wheezing.

If Guillain-Barré syndrome has occurred with prior influenza vaccination or if an individual is immunocompromised, the decision to give FluMist should be based on careful consideration of the potential benefits and risks. FluMist should not be administered to individuals with underlying medical conditions predisposing them to wild-type influenza infection complications unless the potential benefit outweighs the potential risk. FluMist should be given to a pregnant woman only if clearly needed.

Most common adverse reactions (occurring in 10 percent or more of individuals receiving FluMist and at a rate at least five percent higher than in those receiving placebo) are runny nose or nasal congestion in recipients of all ages, fever more than 100° F in children two to six years of age, and sore throat in adults.

FluMist may not protect all individuals receiving the vaccine. FluMist is for intranasal administration only.

Please see complete Prescribing Information for FluMist, call 1-877-FLUMIST (1-877-358-6478) or visit www.flumist.com for additional information.

About MedImmune

MedImmune strives to provide better medicines to patients, new medical options for physicians and rewarding careers to employees. Dedicated to advancing science and medicine to help people live better lives, the company is focused on the areas of infectious diseases, cancer and inflammatory diseases. With approximately 3,000 employees worldwide and headquarters in Maryland, MedImmune is wholly owned by AstraZeneca plc (LSE: AZN.L, NYSE: AZN). For more information, visit MedImmune's website at <http://www.medimmune.com>.

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