

FluMist® Nasal Spray Influenza Vaccine: Implications for Rheumatology

The Bottom Line:

- FluMist®, a newly approved influenza vaccine, is a live attenuated vaccine; therefore it is contraindicated in immunosuppressed patients
- Immunosuppressed patients should be strongly encouraged to receive vaccination against influenza using the standard injectable inactivated flu vaccines
- Because of the theoretical potential for transmission, it is preferred that health care workers and household contacts of immunosuppressed patients receive the standard injectable inactivated flu vaccines

What Is FluMist®?

FluMist® is a newly approved (May 2003) live attenuated, cold-adapted, temperature-sensitive mutant strain influenza vaccine. The vaccine is approved for the prevention of influenza A and B in healthy persons age 5-49 years. Like inactivated flu vaccine, it contains three strains: two “A” strains and one “B” strain. The formulation will change each year based on surveillance data collected worldwide. The primary advantage of FluMist® is ease of use and administration. It is given as a nasal spray. It is as efficacious as the standard injected trivalent inactivated vaccine. In addition, antiviral drugs are available for both prevention and treatment of influenza.

Side Effects of FluMist®

In 20 clinical trials with over 20,000 subjects, the most common adverse events were low-grade fever, sore throat, and runny nose – all self-limited; no serious adverse events have been reported among patients from 5-49 years old.

Contraindications to FluMist®

- Persons with asthma, reactive airways disease or other chronic disorders of the pulmonary or cardiovascular systems; persons with other underlying medical conditions, including such metabolic diseases as diabetes, renal dysfunction, and hemoglobinopathies; or persons with known or suspected immunodeficiency diseases or who are receiving immunosuppressive therapies. For rheumatologists, this means that patients on chronic corticosteroid therapy, chemotherapy, and anticytokine therapies, such as anti-TNF or anti IL-1 agents, and patients who are otherwise immunosuppressed should not be vaccinated.
- Children or adolescents receiving aspirin or other salicylates (because of the association of Reye syndrome with wild-type influenza infection)
- Persons with a history of Guillain-Barré syndrome
- Pregnant women
- Persons with a history of hypersensitivity, including anaphylaxis, to chicken eggs.

Vaccination in Health Care Workers and Close Contacts of Immunocompromised Persons

FluMist® vaccine is contraindicated in immunocompromised persons. Shedding of virus can occur with FluMist®, although no disease as a result of transmission has yet been detected. Nevertheless, in the absence of sufficient data, and given the theoretical risk of virus transmission and infection, the Advisory Committee on Immunization Practices has stated that it is preferable to give Health Care Workers in contact with immunocompromised persons the inactivated vaccine.

Cost

The acquisition cost of FluMist® is about \$46.00/dose (the acquisition cost for injectable inactivated influenza vaccine is roughly \$7.38 to \$10.80; prices may vary somewhat by region and health care system).

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