

# Introducing a flu shot for adults aged 65 years and older

FLUAD<sup>™</sup> (influenza vaccine, adjuvanted) generates a strong immune response in adults 65+ to help protect them against the flu'

## What is FLUAD?

- FLUAD provides at least 15 mcg of each recommended strain for the current influenza season and the proprietary adjuvant MF59<sup>®</sup> in each prefilled 0.5-mL syringe.<sup>1</sup>
- Studies in animals and humans suggest that MF59 recruits immune cells to the site of injection and enhances their activity.<sup>2</sup>
  - MF59 is derived from squalene, an oil naturally occurring in the body.<sup>3</sup>

**INDICATIONS AND USAGE:** FLUAD is an inactivated influenza vaccine indicated for active immunization against influenza disease caused by influenza virus subtypes A and type B contained in the vaccine. FLUAD is approved for use in persons 65 years of age and older. Approval is based on the immune response elicited by FLUAD. Data demonstrating a decrease in influenza disease after vaccination with FLUAD are not available.<sup>1</sup>

**CONTRAINDICATIONS:** Do not administer FLUAD to anyone with a history of severe allergic reaction (e.g. anaphylaxis) to any component of the vaccine, including egg protein, or to a previous influenza vaccine.<sup>1</sup>

# Immunogenicity: In a large pivotal trial (N = 7082), FLUAD was shown to elicit a strong immune response vs AGRIFLU (influenza vaccine)<sup>1,a</sup>



CI = confidence interval; GMT = geometric mean antibody titer

<sup>a</sup> Results obtained following vaccination with influenza vaccine formulated for the 2010-2011 season.<sup>b</sup> Seroconversion was defined as prevaccination HI titer <10 and postvaccination HI titer >40 or at least a 4-fold increase in HI from prevaccination HI titer >10.<sup>c</sup> N = 3225-3227, the number of vaccinated participants with available data for the immunologic endpoint listed.<sup>e</sup> N = 3225-3259, the number of vaccinated participants with available data for the immunologic endpoint listed.<sup>e</sup> N = 3256-3259, the number of vaccinated participants with available data for the immunologic endpoint listed.<sup>e</sup> N = 3256-3259, the number of vaccinated participants with available data for the immunologic endpoint listed.<sup>e</sup> N = 3256-3259, the number of vaccinated participants with available data for the immunologic endpoint listed.<sup>e</sup> FLUAD met noninferiority criteria based on seroconversion rate differences if the lower limit of the 95% CI [FLUAD – AGRIFLU] for each strain was >-10%. <sup>1</sup>FLUAD met noninferiority criteria based on GMT ratios if the lower limit of the 95% CI [FLUAD: AGRIFLU] for each strain was >0.67.

# FLUAD may not be 100% effective in all who receive it.<sup>1</sup>

**Study design:** Study 1 (NCT01162122) was a multicenter, observer-blind, randomized controlled study that evaluated the safety and immunogenicity of FLUAD in comparison to AGRIFLU. A total of 7082 subjects aged 65 years and older were randomized and vaccinated with FLUAD (N = 3541) or AGRIFLU (N = 3541). The primary immunogenicity analysis was performed on all vaccinated subjects who had a blood sample collected at Day 22 (N = 3225-3227 [91%] and 3256-3259 [92%] in the FLUAD and AGRIFLU groups, respectively). A determination of noninferiority was made on the basis of predefined thresholds for seroconversion rate differences and GMT ratios. The safety analysis included subjects (N = 3545 FLUAD, 3537 AGRIFLU) from Study 1 who completed a symptom diary card for 7 days following vaccination. Additional safety data were derived from 15 randomized controlled studies involving 10,952 adults aged 65 years and older who received FLUAD (N = 5754) or other US-licensed vaccines (N = 5198).<sup>1</sup>

### Please see Important Safety Information on opposite side and accompanying US full Prescribing Information.

# **FLUAD: Safety Results From the Pivotal Trial**

#### FLUAD: Solicited Local Adverse Reactions<sup>1</sup>

|                        |                       | N <sup>b</sup> = 3418-3496<br>% | AGRIFLUª<br>N⁵ = 3420-3488<br>% |
|------------------------|-----------------------|---------------------------------|---------------------------------|
| Injection<br>site pain | Any                   | 25.0                            | 12.2                            |
|                        | Moderate <sup>c</sup> | 3.9                             | 1.9                             |
|                        | Severed               | 0.3                             | 0.2                             |
| Tenderness             | Any                   | 21.1                            | 11.2                            |
|                        | Moderate              | 3.0                             | 1.0                             |
|                        | Severe                | 0.1                             | 0.2                             |
| Erythema               | Any                   | 1.2                             | 0.5                             |
|                        | 25 to ≤50 mm          | 1.1                             | 0.5                             |
|                        | 51 to ≤100 mm         | 0.2                             | <0.1                            |
|                        | >100 mm               | 0.0                             | 0.0                             |
| Induration             | Any                   | 1.3                             | 0.5                             |
|                        | 25 to ≤50 mm          | 1.0                             | 0.5                             |
|                        | 51 to ≤100 mm         | 0.3                             | 0.0                             |
|                        | >100 mm               | 0.0                             | 0.0                             |
| Swelling               | Any                   | 1.2                             | 0.4                             |
|                        | 25 to ≤50 mm          | 1.0                             | 0.4                             |
|                        | 51 to ≤100 mm         | 0.2                             | <0.1                            |
|                        | >100 mm               | <0.1                            | 0.0                             |

<sup>a</sup> AGRIFLU (influenza vaccine) is a US-licensed nonadjuvanted influenza vaccine

N = number of subjects with safety data.

<sup>4</sup> Control of subjects with safety data.
<sup>4</sup> Moderate: pain, tenderness, myalgia, fatigue, headache, arthralgia, chills, nausea, vomiting defined as "some limitation in normal daily activity," diarrhea defined as "4 to 5 stools a day."
<sup>4</sup> Severe: pain, tenderness, myalgia, fatigue, headache, arthralgia, chills, nausea, vomiting defined as "unable to perform normal daily activity," diarrhea defined as "6 or more watery stools a day."



# **FLUAD: How Supplied**

• Package of ten 0.5 mL prefilled, needleless syringes per carton (NDC number: 66521-000-01)<sup>1</sup>

CPT Code: 90653

### **FLUAD: Accepted Use Worldwide**

- Over 81 million doses distributed worldwide since 1997<sup>4</sup>
- Approved in more than 30 countries worldwide<sup>4</sup>

|            |                       | FLUAD<br>N <sup>b</sup> = 3418-3496 | AGRIFLU <sup>a</sup><br>N <sup>b</sup> = 3420-3488 |
|------------|-----------------------|-------------------------------------|--|
|            |                       |                                     | %  |
| Myalgia    | Any                   |                                     | 9.7  |
|            | Moderate <sup>c</sup> | 2.6                                 | 1.8  |
|            | Severed               |                                     | 0.7  |
| Fatigue    | Any                   | 13.3                                | 10.4   |
|            | Moderate              | 3.1                                 | 2.4  |
|            | Severe                | 0.4                                 | 0.6  |
|            | PLT <sup>e</sup>      | 0.0                                 | <0.1   |
| Headache   | Any                   | 13.2                                | 11.2   |
|            | Moderate              | 3.0                                 | 2.6  |
|            | Severe                | 0.4                                 | 0.6  |
|            | PLT                   | 0.0                                 | <0.1   |
| Arthralgia | Any                   | 8.5                                 | 7.8  |
|            | Moderate              |                                     | 1.6  |
|            | Severe                | 0.2                                 | 0.6  |
| Chills     | Any                   | 6.7                                 | 4.7  |
|            | Moderate              |                                     | 1.2  |
|            | Severe                | 0.3                                 | 0.3  |
|            | PLT                   | <0.1                                | 0.0  |
|            | Any                   | 4.8                                 | 4.5  |
| Diarrhea   | Moderate              |                                     | 0.9  |
|            | Severe                | 0.3                                 | 0.2  |
|            | PLT                   | <0.1                                | <0.1   |
| Fever      | Any                   | 3.6                                 | 3.4  |
|            | ≥38.0°C to ≤38.4°C    | 1.8                                 | 1.7  |
|            | ≥38.5°C to ≤38.9°C    | 1.3                                 | 1.3  |
|            | 39.0°C to ≤40.0°C     | 0.4                                 | 0.4  |
|            | ≥40.0°C               | 0.1                                 | 0.0  |
|            | Any                   | 2.9                                 | 2.8  |
|            | Moderate              | 0.4                                 | 0.6  |
| Nausea     | Severe                | 0.1                                 | 0.1  |
|            | PLT                   | <0.1                                | 0.0  |
| Vomiting   | Any                   | 1.4                                 | 1.7  |
|            | Moderate              |                                     | 0.5  |
|            | Severe                | <0.1                                | 0.1  |
|            | PLT                   | <0.1                                | 0.0  |

FLUAD: Solicited Systemic Adverse Reactions<sup>1</sup>

<sup>a</sup> AGRIFLU (influenza vaccine) is a US-licensed nonadjuvanted influenza vaccine. <sup>b</sup> N = number of subjects with safety data.

<sup>6</sup> Moderate: pain, tenderness, myalgia, fatigue, headache, arthralgia, chills, nausea, vomiting defined as "some limitation in normal daily activity," diarrhea defined as "4 to 5 stools a day." <sup>9</sup> Severe: pain, tenderness, myalgia, fatigue, headache, arthralgia, chills, nausea, vomiting defined as "unable to perform normal daily activity," diarrhea defined as "6 or more watery stools a day."

<sup>e</sup> Potentially life threatening (PLT) reaction defined as requiring emergency room visit or hospitalization

# **Important Safety Information**

#### **INDICATIONS AND USAGE**

FLUAD is an inactivated influenza vaccine indicated for active immunization against influenza disease caused by influenza virus subtypes A and type B contained in the vaccine. FLUAD is approved for use in persons 65 years of age and older.1

#### **CONTRAINDICATIONS**

Severe allergic reaction to any component of the vaccine, including egg protein, or after a previous dose of any influenza vaccine.<sup>1</sup>

#### WARNINGS AND PRECAUTIONS<sup>1</sup>

- If Guillain-Barré Syndrome (GBS) has occurred within six weeks of previous influenza vaccination, the decision to give FLUAD should be based on careful consideration of the potential benefits and risks.
- The tip caps of the prefilled syringes contain natural rubber latex, which may cause allergic reactions in latex sensitive individuals.

#### **ADVERSE REACTIONS<sup>1</sup>**

- The most common (≥10%) local (injection-site) adverse reactions observed in clinical studies were injection site pain (25%) and tenderness (21%).
- The most common (≥10%) systemic adverse reactions observed in clinical studies were myalgia (15%), headache (13%), and fatigue (13%).

References: 1. FLUAD [package insert]. Holly Springs, NC: Seqirus, Inc; 2015. 2. O'Hagan D, Ott G, De Gregorio E, Seubert A. The mechanism of action of MF59® - An innately attractive adjuvant formulation. Vaccine. 2012;30:4341-4348. doi:10.1016/j.vaccine.2011.09.06. 3. Squalene-based adjuvants in vaccines. http://www.who.int/vaccine\_safety/committee/topics/adjuvants/squalene/questions\_and\_answers/en/. Updated 2015. Accessed June 12, 2015. 4. Seqirus Inc. Data on file. Vaccine: V70; Fluad<sup>™</sup>; aTIV Development Safety Update Report. 2015. Accessed July 14, 2015.

#### Please see accompanying US full Prescribing Information.



Segirus Inc. Holly Springs, North Carolina 27540

© 2016 Segirus Inc.

February 2016

GMCC-638 2015-11-23 S

