Prescription Drug

# GCFLU *Quadrivalent Multi* inj.

**2021 Season** — **Split Virion, Influenza Vaccine**

**[Description]**
GCFLU Quadrivalent Multi inj. is a vaccine containing colorless or slightly whitish liquid made by splitting and inactivating influenza virus cultured by inoculating the allantoic cavity of embryonated egg in order to maintain antigenicity.

**[Composition]**
**1mL contains,**

| | |
|---|---|
| Active Ingredient: Purified inactivated influenza virus antigen (In-house) | 120 μg |
| A/Victoria/2570/2019 IVR-215(H1N1) | 30 μg |
| A/Hong Kong/2671/2019 NIB-121(H3N2) | 30 μg |
| B/Washington/02/2019 | 30 μg |
| B/Phuket/3073/2013 | 30 μg |
| Buffer: Sodium chloride | 8 mg |
| Potassium chloride | 0.2 mg |
| Disodium hydrogen phosphate dihydrate | 1.2 mg |
| Potassium dihydrogen phosphate | 0.2 mg |
| Preservative: Thimerosal | 0.01 w/v% |
| Diluent: Water for Injection | q.s. |

**[Indications]**
Prophylaxis against influenza caused by influenza A subtype viruses and type B viruses in persons aged 6 months and older.

**[Dosage & Administration]**
An intramuscular injection of the following dose and immunization of one dose is necessary in every year at same volume. Aged 6 months and older: A single dose of 0.5 mL
The children younger than 9 years of age who have not been vaccinated should be vaccinated two doses at an interval of at least 4 weeks.
The preferred sites for intramuscular injection are the anterolateral aspect of the thigh (or the deltoid muscle of the upper arm if muscle mass is adequate) in children 6 through 35 months of age, or the deltoid muscle of the upper arm in children from 36 months of age and adults.
The safety and efficacy of the vaccine was not established in children younger than 6 months.

**[Precautions for use]**
**1. Contraindications**
Examine vaccinee by history taking and visual inspection and if necessary, by auscultation and percussion. Vaccination is prohibited when vaccinee is diagnosed as one of the following cases. However, if vaccinee is subject to influenza infection and if it is determined that there is no concern for disabilities due to vaccination, vaccination may be permitted.
1) Febrile patient or person with malnutrition.
2) Patients with cardiovascular disorders, kidney disorders, or liver disease in which the disease is in acute phase, stadium increment, or in active phase.
3) Patients with acute respiratory disease or other active infectious disease.
4) Patients in latent and convalescence period.
5) Person who showed anaphylaxis by the components of the product.
6) Person with hypersensitivity to egg, chicken, any other chicken component, and the product component.
7) Person who had fever within 2 days or a symptom of allergy such as generalized rash after the injection at previous vaccination.
8) Person who showed the symptom of convulsion within 1 year before vaccination.
9) Person who showed Guillain-Barre syndrome within 6 weeks from the previous influenza vaccination or person with neurological disorders.
10) Person diagnosed with immunodeficiency disease.
11) Person in inappropriate condition to be vaccinated.

**2. Adverse Drug Reactions**
1) There is possibility of local reactions such as redness, swelling and pain, or systemic reactions such as fever, chills, headache, fatigue and vomiting. But they usually disappear within 2-3 days.
2) In rare cases, acute disseminated encephalomyelitis (ADEM) may occur.
Fever, headache, convulsions, dyskinesia and consciousness disorder usually occur within 2 weeks following the administration of the vaccine. When these symptoms are suspected, appropriate medical treatment should be available by diagnosis with MRI and so on.
3) Allergic reaction or anaphylactic shock may occur in very rare cases.
4) Transient disorders of systemic and local nervous system may rarely occur. Palsy, neuralgia, cerebral hemorrhage or inflammation of the nervous system (ex: Guillain-Barre syndrome) have been reported.
5) Safety of the vaccine was evaluated for the 4 clinical studies performed with healthy children, adults, and elderly.
In children aged 6 through 35 months who received the vaccine, 115 subjects (67.6%) out of 170 subjects showed adverse events. Adverse drug reactions were 82 subjects (48.2%) and no serious adverse drug reactions were reported. In children aged 3 through 18 years who received the vaccine, 218 subjects (68.3%) out of 319 subjects showed adverse events. Adverse drug reactions were 204 subjects (63.9%) and no serious adverse drug reactions were reported. In adults aged 19 through 64 years who received the vaccine, 415 subjects (71.2%) out of 583 subjects showed adverse events. Adverse drug reactions were 399 subjects (68.4%) and no serious adverse drug reactions were reported.
In elderly over 65 years of age who received the vaccine, 148 subjects (43.8%) out of 338 subjects showed adverse events. Adverse drug reactions were 140 subjects (41.4%) and no serious adverse drug reactions were reported.
(1) Solicited adverse drug reactions within 7 days of vaccination are listed in the table below.

| | | Children aged 6 through 35 months (n=170) | Children aged 3 through 18 years (n=319) | Adults aged 19 through 64 years (n=583) | Elderly over 65 years of age (n=338) |
|---|---|---|---|---|---|
| Local | Pain | 27.6% | 52.7% | 48.9% | 21.0% |
| | Tenderness | | 54.5% | 56.8% | 27.5% |
| | Erythema/Redness | 11.8% | 6.6% | 7.9% | 3.8% |
| | Induration/Swelling | 5.9% | 8.2% | 5.8% | 3.6% |
| Systemic | Drowsiness[1)] | 15.9% | - | - | - |
| | Fever | 6.5% | 3.1% | 0.9% | 0.3% |
| | Sweating | 2.4% | 2.2% | 4.3% | 2.7% |
| | Chills | 2.4% | 5.0% | 7.7% | 4.4% |
| | Nausea/Vomiting | 2.4% | 0.6% | 2.2% | 0.9% |
| | Diarrhea | 5.9% | 0.3% | 1.5% | 1.2% |
| | Fatigue | - | 15.4% | 25.6% | 10.7% |
| | Malaise | - | 11.0% | 7.5% | 8.3% |
| | Headache | 0.6% | 6.9% | 13.4% | 7.1% |
| | Muscle aches | 7.6% | 8.2% | 26.4% | 6.5% |
| | Arthralgia | - | 1.6% | 5.8% | 3.6% |

1) Drowsiness only applies for children and 6 months through 35 months

(2) Unsolicited adverse drug reactions occurring within 28 days or 21 days of vaccination were reported in 4 subjects (2.4%) from children aged 6 through 35 months (Infections and infestations: 3 subjects, Skin and subcutaneous tissue disorders: 1 subject), 3 subjects (0.9%) from children aged 3 through 18 years (General disorders and administration site conditions: 2 subjects, Infections and infestations: 1 subject), 13 subjects (2.2%) from adults (Infections and infestations: 5 subjects, investigations: 2 subjects, Respiratory thoracic and mediastinal disorders: 2 subjects, Musculoskeletal and connective tissue disorders: 1 subject, Nervous system disorders: 1 subject, Skin and subcutaneous tissue disorders: 1 subject, General disorders and administration site conditions: 2 subjects), and 4 subjects (1.2%) from elderly (Infections and infestations: 1 subject, General disorders and administration site conditions: 1 subject, investigations: 1 subject, Nervous system disorders: 1 subject)
(3) Serious adverse events occurring within 6 months of vaccination were reported in 13 subjects (7.6%) from children aged 6 through 35 months (Pneumonia: 4 cases, Influenza: 3 cases , Bronchitis: 2 cases , Pneumonia respiratory syncytial viral: 1 case, Bronchiolitis: 1 case, Croup infectious: 1 case, Gastroenteritis norovirus: 1 case, Gastroenteritis rotavirus: 1 case, Urinary tract infection: 1 case, Gastrointestinal infection: 1 case, Impaired healing: 1 case, Foreign body in gastrointestinal tract: 1 case, Febrile convulsion: 1 case), 5 subjects (1.6%) from children aged 3 through 18 years (Pharyngitis: 1 case, Headache: 1 case, Mesenteric lymphadenitis: 1 case, Acute gastroenteritis: 1 case, Peritonsillar Abscess: 1 case, Acute appendicitis: 1 case), 5 subjects (0.9%) from adults (Cystitis: 1 case, Pulmonary Tuberculosis: 1 case, Breast mass: 1 case, Ileus : 1 case, Gastric cancer: 1 case), and 4 subjects (1.2%) from elderly (Pain: 1 case, Arthralgia: 1 case, Herpes zoster: 1 case, Gastric cancer: 1 case), but they were evaluated as 'not related' to the product.

**3. General Cautions**
1) Advise the vaccinee or their guardians that the vaccinee should keep equilibrium, keep the injection site clean, and when the symptoms of high fever, convulsion appear, they should consult a physician quickly.
2) Antibody reaction may not be sufficient in endogenous or iatrogenic immune deficient vaccinees.
3) Influenza should be vaccinated before prevailing. Vaccination can be delayed according to epidemiological situation.
4) Influenza should be vaccinated with the influenza vaccines produced with current-year recommended strains.

**4. Drug Interactions**
1) There is no data or study on co-administration of this product with other vaccines.
2) Immunization can be affected by concomitant immunosuppressive therapy or an existing immunodeficiency.
3) False positive ELISA serologic tests for HIV1, HCV, and especially HTLV1 may occur following influenza vaccination. These transient false-positive results may be due to cross-reactive IgM elicited by the vaccine.

**5. Use in Pregnancy and Nursing Mothers**
For pregnant women or women considered to be pregnant, please inform this to your doctor or pharmacist before vaccination. The vaccination is acceptable during period of pregnancy. Relatively larger safety data are obtained from second and third trimester of pregnancy to that of first trimester, and data collected from worldwide shows that fetus and pregnant mother did not experience any adverse reaction caused by vaccination. The vaccination during the breast-feeding may be acceptable. Your doctor or pharmacist will be able to decide whether the vaccination is recommendable for you. Please consult with your doctor or pharmacist before vaccination. WHO recommends "For countries considering the initiation or expansion of programmes for seasonal influenza vaccination, pregnant women should have the highest priority. Pregnant women should be vaccinated with TIV (Trivalent Inactivated Vaccine) at any stage of pregnancy. This recommendation is based on evidence of a substantial risk of severe disease in this group and evidence that seasonal influenza vaccine is safe throughout pregnancy and effective in preventing influenza in the women as well as in their young infants, in who the disease burden is also high. Quadrivalent influenza vaccines that could potentially provide wider protection against influenza B viruses are becoming available and recommendations should not be limited to trivalent vaccine formulations."
(WHO Weekly Epidemiological Record, 23 November 2012, 87th year, No. 47)

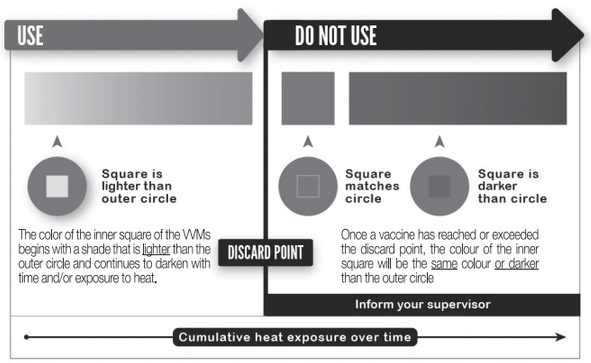
**6. Precautions in Administration**
1) Before use check this product visually for particles or discoloration. If either is present, do not use.
2) The injection site is usually lateral upper arm and disinfected with ethanol or tincture of iodine. Repeated injections at the same site should be avoided.
3) Intravenous administration is prohibited.
4) The tip of needle should not penetrate blood vessel.
5) Do not mix with other vaccines in same syringe.

**7. Precautions for Handling**
1) Store at 2-8°C without freezing.
2) The vaccine should be shaken well and mixed homogeneously before use.
3) Opened vials of the vaccine should be discarded within the day. Nevertheless, chemical and physical safety of use has been proven for 28 days when kept in cold storage.

**[Storage and Shelf life]**
Store at 2-8°C without freezing in hermetic container and protect from light.
The shelf life is 12 months from the date of manufacture.

**[How Supplied]**
5.0 mL/vial x In-house packing unit

The Vaccine Vial Monitors (VVM) are on the label of GCFLU Quadrivalent Multi inj. attached to the vial body. The color dot which appears on the label of the vial is a VVM. This is a time-temperature sensitive dot that provides an indication of the cumulative heat to which the vial has been exposed. In warns the end user when exposure to heat is likely to have degraded the vaccine beyond an acceptable level.




The interpretation of the VVM is simple. Focus on the central square. Its color will change progressively. As long as the color of this square is lighter than the color of the circle, then the vaccine can be used. As soon as the color of the central square is the same color as the circle or of a darker color than the circle, then the vial should be discarded.

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