وزارة الصحة
Ministry of Health

# Guide to Vaccination Services in Home Healthcare and Specialized Geriatric Medicine Adminstration

2024-2027

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# Introduction

The General Directorate of Home Health Care was established by a decision from the Minister of Health's Decision No. 29/1/25831 dated 03/04/1430 AH, to provide continuous and comprehensive health care—preventive, curative, rehabilitative, and palliative—to individuals of all ages who suffer from acute illnesses, long-term health conditions, permanent disabilities, or require palliative care at home. This care is delivered with high quality through a trained health care team that adheres to the regulations and guidelines set by the General Directorate of Home Health Care to improve the quality of services provided.

In line with the goals of home health care, home vaccination services are provided for essential vaccinations for older adults and all target groups benefiting from home health care services. Home health care is a key option for reducing the burden on health centers and hospitals by providing safe vaccination in the patient's home, achieving health outcomes that exceed the expectations of the patient and their family.

In accordance with the objectives of the specialized geriatrics department, vaccination services for essential vaccines for older adults are provided in accredited age-friendly hospitals.

Home vaccination services and vaccination services for older adults in accredited age-friendly hospitals are implemented in coordination with the General Directorate of Communicable Diseases and the Vaccination Operations Center, following the terms and regulations, with the participation of Medical Supplies and National Unified Procurement Company "NUPCO", and adhering to the recommendations of the Public Health Authority "Wiqaya-وقاية."

This Guide has been prepared based on the Ministry of Health's commitment to delivering high-quality and efficient home health care services and the importance of disease prevention in maintaining and improving the quality of life and functional and rehabilitative capabilities of patients.

**Disclaimer:**

All content in this Guide is intended as guidance for staff working in home health care and age-friendly hospitals. The guidelines mentioned do not conflict with the guidelines and recommendations of the Directorate of Communicable Diseases and the Vaccination Operations Center, as well as the recommendations of the Public Health Authority "Wiqaya-وقاية"

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## Contents

# Definitions

The terms and phrases listed below—whenever mentioned in this Guide—are defined as follows:

**Vaccine:**
A preparation used to stimulate the immune response of the body against diseases. Vaccines are typically administered via injection but can also be given orally or sprayed into the nose.

**Immunization:**
The process of introducing a vaccine into the body to provide protection against a specific disease.

**Vaccination:**
The process by which an individual becomes protected against disease through vaccination.

**Attenuated (Live) Vaccines:**
Contain whole bacteria or viruses that have been "weakened" to elicit a protective immune response without causing disease in healthy individuals. Live vaccines tend to generate a strong and lasting immune response but are unsuitable for immunocompromised individuals.

**Inactivated Vaccines:**
Contain bacteria or viruses that have been "killed." Inactivated vaccines are suitable for healthy individuals as well as those with weakened immune systems, though they may not always produce a strong or long-lasting immune response, often requiring booster doses.

**Subunit (Acellular) Vaccines:**
Do not contain any whole bacteria or viruses; instead, they contain components like sugars or proteins from bacteria or viruses, which the immune system recognizes as foreign and triggers an immune response.

**Conjugate Vaccines:**
Utilize two different components that combine a weak antigen with a strong carrier to elicit a stronger immune response to the weak antigen.

**Recombinant Vaccines:**
Isolate the gene responsible for producing a protein from a bacterium or virus and insert it into the genes of another cell. When this cell replicates, it produces vaccine proteins recognized by the immune system.

# Definitions

**Polysaccharide Vaccines:**
Utilize sugar molecules (known as polysaccharides) from the outer layer of bacteria or viruses. These sugar molecules are chemically linked to carrier proteins and function similarly to conjugate vaccines.

**Toxoid Vaccines:**
Use toxins produced by bacteria or viruses to create immunity against specific parts of the bacteria or virus that cause disease, rather than against the entire organism. Toxoid vaccines do not provide lifelong immunity and require boosters over time (e.g., diphtheria, tetanus).

**Shared Clinical Decision-Making (SCDM):**
The process where healthcare providers and patients engage in discussions to determine whether a specific type of vaccination would be beneficial for the patient, comparing the expected benefits to the associated risks.

**Data:**
Clinical and administrative observations that clarify the facts and materials compiled from various activities.

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# CHAPTER 1
# Vaccination Services for Home Healthcare Patients

## Objectives of the Home Healthcare Vaccination Guide:

1- Ensure the provision of vaccination services to patients at home according to standardized and accredited criteria, using the latest medical practices through close collaboration among home healthcare team members based on the patient's health condition, ensuring quality that guarantees patient and family satisfaction
2- Empower home healthcare departments in health communities to perform their duties with quality and efficiency by implementing and training on applicable laws and regulations, ensuring all operations are conducted in accordance with established standards, with ongoing monitoring and continuous improvement.
3- Ensure an effective and safe vaccination process for home healthcare patients scheduled to receive vaccines.
4- Enable qualified nurses and other home healthcare professionals to assess the need for vaccinations and to administer vaccines to patients who meet the criteria for home healthcare vaccination.
5- Establish a unified approach to providing vaccinations for home healthcare patients.
6- Ensure the existence of a standardized documentation system across home healthcare departments within health communities.

## Target Groups:

According to home healthcare policy, all patient and all age groups, regardless of gender, including citizens and residents who meet the criteria for vaccination, are eligible for home healthcare vaccinations.

## Home Vaccination Services Offered:

• Essential vaccinations for the older adults.
• Essential vaccinations for all age groups, except for postnatal vaccinations for infants, which are administered at primary health centers.
• Seasonal vaccinations for all target groups benefiting from home healthcare services.
• Participation in all vaccination campaigns for all target groups benefiting from home healthcare services.
• Educating and training the patient and family or caregiver at home about the importance of vaccines, especially for older adults patients, the types of essential vaccinations, and potential adverse effects.

## Essential Vaccinations Targeted for Home Healthcare Patients:

**Mechanism of Action of Vaccines:**

A vaccine is made up of a killed or weakened germ or virus, or a part of it, which is unable to cause disease but stimulates the body to produce antibodies that recognize the pathogenic microbe early on and prevent it from causing illness.

**Benefits of Immunization:**

1- immunization helps resist diseases and epidemics.

2- It prevents the spread of diseases that were common in the past or present and can cause severe complications or death.

3- Vaccinating patients not only saves lives but also gives them the opportunity to age healthily and improve their life chances, especially for those most in need, such as individuals with chronic diseases, immune disorders, and older adults, particularly during an outbreak.

4- Economically, it reduces healthcare costs, as vaccines help prevent diseases and minimize complications.

## Seasonal Influenza Vaccine:

The Public Health Authority "Wiqaya-وقاية" recommends the influenza vaccine as the best way to protect individuals from influenza and prevent its spread.

**a. Target Group:** All age groups of home healthcare patients.

**b. Dosage:** A single annual dose of inactivated influenza vaccine is administered via the deltoid muscle for older adults. The vaccine provides protection approximately two weeks after administration. For the target group of older adults aged 65 years and above, the high-dose influenza vaccine (FLU-HD) is recommended. If the high-dose vaccine is unavailable, the standard-dose influenza vaccine (FLU-SD) can be used as an alternative.

A single dose of standard-dose (SD) influenza vaccine annually via the deltoid muscle is recommended for all home healthcare patients of all ages from 6 months to 64 years. For those aged 65 years and older, the high-dose (HD) influenza vaccine is recommended. If the HD vaccine is unavailable, the SD vaccine can be used as an alternative.

**c.The geriatric clinic physician ensures:**

That there are no contraindications to vaccination as per the senior patient's health record prior to administering the vaccine.

**d. Adverse Effects:** May include, but not limited to, pain, redness, and swelling at the injection site, limited movement of the injected arm, fatigue, headache, chills, reduced appetite, muscle aches, fever, and body weakness.

**Streptococcus Pneumococcal Vaccine:**
**Pneumococcal polysaccharide vaccine:**

Also known as the pneumonia vaccine, it protects against the streptococcus pneumoniae bacterium. The pneumococcal conjugate vaccine (PCV) and the pneumococcal polysaccharide vaccine (PPSV) protect against pneumococcal infections that can cause lower respiratory tract disease or lung infections in children and adults.

**a. Target Group:**

• Designed for older adults aged 65 and above, particularly the frail and older adults.

• Home healthcare patients aged 18 and older at risk, such as those with:

1. Heart diseases.
2. Lung diseases.
3. Liver diseases or diabetes.
4. Spleen disorder.
5. Sickle cell anemia.
6. HIV.
7. Those living in care facilities are recommended to receive the pneumococcal vaccine to prevent infections.

**b. Dosage:**

A single dose of live attenuated suspension (0.5 mL) administered intramuscularly in the deltoid muscle for older adults aged 65 and older.

**c. Contraindications:**

Severe hypersensitivity to any component of the vaccine. Vaccination should be postponed for individuals with acute, severe illnesses; however, mild infections like colds do not necessitate postponement.

**d. Adverse Effects:**

May include, but not limited to, pain, redness, and swelling at the injection site, limited movement of the injected arm, fever, fatigue, headache, chills, reduced appetite, and muscle and joint pain.

**Herpes Zoster Vaccine:**

The Public Health Authority "Wiqaya-وقاية" recommends the herpes zoster vaccine, administered in two doses of the recombinant Shingrix vaccine (RZV, Shingrix) to prevent the viral disease and related complications.

**a. Target Group:**

1- Adults aged 50 and older, including those who have previously had the disease and those who have not.

2- Adults aged 18 and older with weakened immune systems due to specific health conditions or medications.

**b. Dosage:** Two doses of the recombinant (inactivated) vaccine IM. The second dose is given 2-6 months later.

**c. Contraindications:** Individuals with a history of severe allergies (e.g., anaphylaxis) to any component of the vaccine.

d. Adverse Effects: May include, but not limited to: fever, pain, redness, itching, swelling at the injection site, fatigue, headache, malaise, and muscle pain.

**Respiratory Syncytial Virus (RSV) Vaccine:**

The virus can cause lower respiratory tract disease or lung infections, and infections can occur at any age, being more severe in infants and the Older adults.

**a. Target Group:**

• Older adults aged 60 and above,

• Those who are frail and at risk for acute respiratory diseases and have chronic medical conditions according to shared clinical decision-making (SCDM):

1. Heart and lung diseases.
2. Diabetes.
3. Moderate or severe immunocompromise (either due to a medical condition or immunosuppressive medication).
4. Kidney disorders.
5. Liver disorders.
6. Neurological or neuromuscular disorders.
7. Blood disorders.

**b. Dosage:** A single dose of 0.5 mL of the inactivated RSVPreF3 vaccine intramuscularly in the upper arm, repeated every two years.

c. Contraindications: Individuals with a history of allergy to the active ingredients or any component of the vaccine; adults with moderate to severe acute illness, with or without fever, are advised to postpone vaccination until recovery.

**d. Adverse Effects:** May include, but not limited to: reactions at the injection site, fatigue, and headache, typically resolving within a few days. Monitoring for potential neurological adverse events and atrial fibrillation following RSV vaccination is recommended.
**e. Storage and Usage Instructions:** The vaccine is available in two vials, one for the vaccine and another for the diluent. Store in a refrigerator between 2-8°C, protecting from light (refer to the manufacturer's vaccination leaflet for preparation). If not administered immediately, the vaccine can be stored in the refrigerator and should be used within 4 hours.

**COVID-19 Vaccine:**

The COVID-19 vaccine can protect individuals from infection, severe illness, or death due to the virus.
Approved Vaccines: Administered according to the recommendations of the Public Health Authority "Wiqaya-وقاية" and the General Administration for Infectious Disease Control at the Ministry of Health.
**a. Target Group:** High-risk cases, according to the recommendations of the Public Health Authority "Wiqaya-وقاية" and the General Administration for Infectious Disease Control at the Ministry of Health.
**b. Dosage:** One or more doses of the vaccine according to the target group and guidelines.
**c. Vaccine Contraindications:**
• Individuals known to have allergies to any components of the vaccine until further evidence is available. Individuals with a history of anaphylaxis after any type of vaccination or intramuscular injection should consult their doctor before receiving the vaccine.
• Individuals who have experienced anaphylaxis after the first dose of the vaccine.
d. Adverse Effects: May include, but not limited to: fatigue, headache, fever, chills, mild muscle or joint pain, nausea, diarrhea, and swelling of the lymph nodes.

**Combined Meningitis Vaccine:**

Meningitis is an acute inflammation of the protective membranes covering the brain and spinal cord. The combined meningitis vaccine helps prevent meningococcal disease.

**a. Target Group:**
• Home healthcare patients aged 18 and older, who received their last dose 5 years or more ago.
• Individuals at increased risk of meningococcal disease.
**b. Dosage:** One dose, followed by a booster every 5 years, administered intramuscularly.
**c. Vaccine Contraindications:**
• Hypersensitivity to active ingredients.
• Vaccination should be postponed for individuals with acute, severe illnesses; however, mild infections like colds do not necessitate postponement.
d. Adverse Effects: May include, but not limited to: pain, redness, swelling at the injection site, fatigue, headache, muscle or joint pain, fever, chills, nausea, or diarrhea.

**Chickenpox Vaccine:**
The Public Health Authority "Wiqaya-وقاية" recommends the chickenpox vaccination.
**a. Target Groups:**
• Adults or children who have not had chickenpox before and have been in close contact with an older individual who has a weakened immune system.
• Individuals with weakened immune systems including those taking long-term steroid tablets or undergoing chemotherapy.
**b. Dosage:** Live attenuated vaccine requires two subcutaneous doses (0.5 mL each). The interval between doses is 3 months for those under 13 years old, while for older individuals, a 1-month interval is acceptable.
**c. Contraindications:** Individuals with a history of allergic reactions to gelatin, neomycin, or any other component of the vaccine, or those with leukemia, lymphoma, malignant tumors affecting the bone marrow, or individuals with weakened immune systems or receiving high doses of systemic immunosuppressants for prolonged periods.
**d. Adverse Effects:** May include, but not limited to: pain, redness, or rash at the injection site. More serious reactions occur very rarely and can include pneumonia or infection of the meninges and/or spinal cord, or seizures often associated with fever.

**Tdap Vaccine:**

This vaccine protects against diphtheria, pertussis (whooping cough), and tetanus, which are bacterial diseases.

**a. Target Group:** All home healthcare patients aged 11 years and older, with a booster every 10 years.

**b. Dosage:** Adults aged 60 years and above should receive one dose and a booster (0.5 mL) of tetanus toxoid via intramuscular injection every 10 years.

c. Contraindications: Individuals with a history of allergic reactions or any history of bleeding disorders, seizures, or neurological issues. The vaccine may be ineffective with certain medications such as corticosteroids, cancer drugs, and immunosuppressive medications.

**d. Adverse Effects:** May include, but are not limited to: pain, redness, and swelling at the injection site, low-grade fever, headache, body aches, fatigue, nausea, vomiting, diarrhea, and loss of appetite. There is a risk of severe allergic reactions, tinnitus (ringing in the ears), severe muscle pain, and weakness.

**Triple Viral Vaccine (MMR):**

This live attenuated vaccine protects against measles, mumps, and rubella.

**a. Target Groups:**

Recommended for adults who have not received the vaccine or have only received one dose.

**b. Dosage:**

• Two doses with a one-month interval for those who have not been vaccinated.
• One dose for those who have been confirmed to have received one dose of the vaccine.

**c. Contraindications:**

• Individuals with a history of allergic reactions.
• Vaccination should be postponed in cases of acute illness, especially with severe fever.
• Those with a neomycin allergy.

**d. Adverse Effects:** May include, but are not limited to: pain, redness, and swelling at the injection site, low-grade fever, headache, and body aches.

**Hepatitis B Viral Vaccine:**

The Hepatitis B vaccine helps prevent Hepatitis B and its complications (chronic hepatitis, cirrhosis, liver cancer, etc.).

**a. Target Groups:**

• Anyone who has not completed the three doses of the Hepatitis B vaccine.
• Those confirmed not to have the disease.

**b. Dosage:**

• A series of 3 doses.
• Minimum intervals: 1st to 2nd dose: 4 weeks; 1st to 3rd dose: 6 months; or 2nd to 3rd dose: 5 months.

**c. Contraindications:**

• Individuals with a history of allergic reactions.
• Vaccination should be postponed in cases of acute illness, especially with severe fever.

**d. Adverse Effects:** May include, but are not limited to: pain, redness, and swelling at the injection site, low-grade fever, headache, and body aches.

**Hepatitis A Viral Vaccine:**

**a. Target Groups:**

Any older adult who has not been vaccinated and requests vaccination (risk factor identification is not required) and any older adult at risk of contracting Hepatitis A.

**b. Dosage:**

A series of two doses of Hepatitis A with a 6-month interval between doses.

**c. Vaccine Contraindications:**

• Those with a history of allergic reactions.
• Vaccination should be postponed in cases of acute illness, especially with severe fever.

***The vaccination process for home healthcare patients is as follows:***

The General Administration of Home Healthcare collaborates with the General Administration for Infectious Disease Control to organize the vaccination process for home healthcare patients in cooperation with the Vaccination Operations Center, ensuring that home healthcare is included in the National Vaccination Registration (NVR) system. (In cases of inability or delay in activating the National Vaccination Registration (NVR) system for home healthcare, coordination will be made with the hospital to which the home healthcare department belongs or the nearest health center to register home healthcare patients who have been vaccinated in the National Vaccination Registration (NVR) system.)

**a.** Responsibilities of the vaccination coordinator in the home healthcare departments include: determining the number of vaccines targeted for provision of each type at the beginning of each year in coordination with the public health vaccination coordinator to provide vaccines, ensuring the registration of vaccinated individuals in the National Vaccination Registration (NVR) system, collecting data, and preparing reports.

**b.** It is ensured that all members of the home healthcare team hold a valid CPR certification and are trained to provide home vaccination services for older adults and all target groups of home healthcare service beneficiaries according to the established procedures.

**c.** The home healthcare physician reviews the patients' files before vaccination to ensure:
• Their health status and the absence of contraindications.
• That the home healthcare team is fully aware of the vaccine, including the type of vaccine, dosage, side effects, method of administration, maintaining the vaccine during transport and handling, danger signs, and prompt treatment.

**d.** Patients eligible for vaccination are scheduled on the same day if the vial is opened for more than one patient, and the team communicates with the patient by phone at least 24 hours before the visit to confirm the appointment for vaccination.

**e.** Necessary preparations include the "readiness of nursing bags" with medications, vaccine coolers, thermometers, and other items needed to maintain the vaccine during transportation.

**Medications:**

First-line treatment: Epinephrine ampoules with a concentration of 1:1000 or self-injectable Epinephrine ampoules. At least three doses should be available for children.

Other medications: Diphenhydramine syrup 12.5 mg/5 ml - capsules 25-50 mg, injections 50 mg/ml.

**Equipment and Tools:**

Syringes (1-3 ml) with needles size (22-25), alcohol swabs, pressure bandages, various sizes of airway opening tools (small, medium, large), masks of different sizes, blood pressure monitor with various sizes. Tongue depressors, flashlight with extra batteries (for oral and throat examination), wristwatch with a timing device, and mobile phone.

**f. Documentation:** Every vaccine administered to the patient is documented in their health record and the vaccination card for older adults patients, as well as in the National Vaccination Registration (NVR) system, whether the NVR system is activated in home healthcare or coordinated with the hospital affiliated with the home healthcare department or the nearest health center.

**g. Responsibilities:**

*1.Home Healthcare Supervisor:* Implement policies, review reports submitted by the home healthcare vaccination coordinator, and support the service.

*2. Home Healthcare Vaccination Coordinator:* Determine the required quantity for each vaccine, communicate with the coordinator in the public health department, ensure the vaccinated patient is registered in the NVR system, collect vaccination data, prepare indicators with the help of the quality coordinator, identify challenges, and request support for improvement.

*3. Health Team in the Department/Primary Healthcare Center:* Attend training programs, implement vaccination administration policies, document any adverse effects that may appear in patients post-vaccination, document challenges, and send them to the coordinator for support requests.

**• How to Use the Adult Immunization Schedule in Home Healthcare:**

a. Determine recommended vaccinations based on age group.

b. Assess the need for vaccinations according to medical conditions and requirements.

c. Review the types of vaccines, number of doses, intervals, and considerations for special cases.

d. Review contraindications and precautions for vaccine types.

e. Review updates or changes according to Ministry of Health guidelines.

| Vaccination | Home Health Care Patients | | |
|---|---|---|---|
| | 18-49 years old | 50-59 | 60 years and older |
| COVID-19 | | | |
| Respiratory Syncytial Virus (RSV) | | | |
| Diphtheria, Tetanus, and Pertussis (DTaP) | Every 10 years | | |
| Measles, Mumps, and Rubella (MMR) | For those who have not confirmed receiving the two doses. | | |
| Shingrix (Herpes Zoster) | | | |
| Pneumococcal Vaccine | | | |
| Combined Meningitis Vaccine (Meningococcal) | At 18 years and then as needed every 5 years | | |
| Seasonal Influenza | Every year | | |
| Chickenpox (Varicella) | For those who have not confirmed receiving the two doses. | | |

Vaccinations recommended for adults who meet age requirements/ no documentation of vaccination, or no evidence of immunity.

Vaccinations recommended for adults with additional risk factors or other indications.

Vaccinations recommended based on shared clinical decision-making (SCDM).

No vaccination.

# CHAPTER 2
# Vaccination Service for the Older Adults in Age-Friendly Facilities

## Objectives of the Vaccination Guide in Age-Friendly Facilities:

• Ensure that vaccination services are provided to every older adult citizen visiting age-friendly Facilities according to standardized and accredited criteria, using the latest medical practices through close collaboration among the geriatric clinic team, based on the patient's health status, with a quality that guarantees patient and family satisfaction.
• Empower age-friendly Facilities in health clusters to perform their duties with quality and efficiency by applying relevant laws and regulations and training staff to implement all operations according to established standards, along with continuous monitoring and improvement.
• Ensure an effective and safe vaccination process for older adults visiting age-friendly Facilities who are scheduled to receive vaccines.
• Enable qualified nurses and other specialists in the geriatric clinic to assess the need for vaccination and administer vaccines to patients who meet the criteria.
• Establish a unified approach to providing vaccines for older adults in age-friendly Facilities.
• Ensure the existence of a standardized documentation system.

**Target Groups:**
According to the policy for home healthcare and specialized management of geriatrics, all older adults visiting age-friendly Facilities, both male and female, citizens and residents (entitled to treatment), who meet the vaccination criteria, will be vaccinated.

## Vaccination Services Provided in Age-Friendly Facilities:

1. Basic vaccinations for older adults.
2. Seasonal vaccinations for all older adults.
3. Participation in all vaccination campaigns for elderly visiting age-friendly Facilities.
4. Educating and training patients, families, or caregivers at home about the importance of vaccination, especially for older adults patients, and informing them about essential vaccinations and potential side effects.

## Targeted Essential Vaccinations for the Older Adults

*A. Mechanism of Immunization:*
Immunization involves a dead or weakened germ or virus, which cannot cause disease but stimulates the body to produce antibodies that recognize the harmful microbe and prevent illness.

*B. Benefits of Immunization:*

• Helps resist diseases and epidemics.

• Prevents the spread of diseases that were common in the past or present, causing severe complications or death.

• Vaccinating patients not only saves lives but also offers them a chance to age healthily and improve their life opportunities, especially for those with chronic illnesses, immune disorders, and older adults during outbreaks.

• Economically: Reduces treatment costs by preventing diseases and minimizing complications.

## Essential Vaccinations Targeted for older adults are:

### Seasonal Influenza Vaccine:

The Public Health Authority "Wiqaya-وقاية" recommends the influenza vaccine as the best way to protect the older adults from influenza and prevent its spread.

**a. Target Group:** the older adults in hospitals.

**b. Dosage:** One dose of inactivated influenza vaccine annually, administered intramuscularly in the deltoid muscle for older adults. The vaccine provides protection two weeks after administration.

**c. Contraindications:**

1. Older adults with severe, life-threatening allergies to any component of the vaccine are excluded from vaccination.
2. Older adults with mild egg allergies should be referred to a hospital or health center to receive the vaccine under medical supervision, considering the risk-benefit balance.
3. Guillain-Barré Syndrome (GBS).
4. Severe allergic reaction to a previous dose of any other influenza vaccine.

d. Adverse Effects: May include, but not limited to, pain, redness, and swelling at the injection site, limited movement of the injected arm, fatigue, headache, chills, reduced appetite, muscle aches, fever, and body weakness.

### Streptococcus Pneumococcal Vaccine:

Pneumococcal polysaccharide vaccine: Also known as the pneumonia vaccine, it protects against the streptococcus pneumoniae bacterium. The pneumococcal conjugate vaccine (PCV) and the pneumococcal polysaccharide vaccine (PPSV) protect against pneumococcal infections that can cause lower respiratory tract disease or lung infections in children and adults.

**a. Target Group:**
• Designed for older adults aged 65 and above, particularly the frail and older adults.
**b. Dosage:**
A single dose of live attenuated suspension (0.5 mL) administered intramuscularly in the deltoid muscle for older adults aged 65 and older.
**c. Contraindications:**
Severe hypersensitivity to any component of the vaccine. Vaccination should be postponed for individuals with acute, severe illnesses; however, mild infections like colds do not necessitate postponement.
**d. Adverse Effects:**
May include, but not limited to, pain, redness, and swelling at the injection site, limited movement of the injected arm, fever, fatigue, headache, chills, reduced appetite, and muscle and joint pain.

**Herpes Zoster Vaccine:**
The Public Health Authority "Wiqaya-وقاية" recommends the herpes zoster vaccine, administered in two doses of the recombinant Shingrix vaccine (RZV, Shingrix) to prevent the viral disease and related complications.

**a. Target Group:**
• Adults aged 50 and older, including those who have previously had the disease and those who have not.
**b. Dosage:** Two doses of the recombinant (inactivated) vaccine IM. The second dose is given 2-6 months later.
**c. Contraindications:**
Individuals with a history of severe allergies (e.g., anaphylaxis) to any component of the vaccine.
**d. Adverse Effects:**
May include, but not limited to: fever, pain, redness, itching, swelling at the injection site, fatigue, headache, malaise, and muscle pain.

**Respiratory Syncytial Virus (RSV) Vaccine:**
The virus can cause lower respiratory tract disease or lung infections, and infections can occur at any age, being more severe in infants and older adults.
**a.Target Group:**
• Older adults aged 60 and above,
**b. Dosage:** A single dose of 0.5 mL of the inactivated RSVPreF3 vaccine intramuscularly in the upper arm, repeated every two years.

**c. Contraindications:** older adults with a history of allergy to the active ingredients or any component of the vaccine; adults with moderate to severe acute illness, with or without fever, are advised to postpone vaccination until recovery.

**d. Adverse Effects:** May include, but not limited to: reactions at the injection site, fatigue, and headache, typically resolving within a few days. Monitoring for potential neurological adverse events and atrial fibrillation following RSV vaccination is recommended.

**e. Storage and Usage Instructions:** The vaccine is available in two vials, one for the vaccine and another for the diluent. Store in a refrigerator between 2-8°C, protecting from light (refer to the manufacturer's vaccination leaflet for preparation). If not administered immediately, the vaccine can be stored in the refrigerator and should be used within 4 hours.

**COVID-19 Vaccine:**

The COVID-19 vaccine can protect individuals from infection, severe illness, or death due to the virus.

Approved Vaccines: Administered according to the recommendations of the Public Health Authority "Wiqaya-وقاية" and the General Administration for Infectious Disease Control at the Ministry of Health.

**a.Target Group:**

High-risk cases, according to the recommendations of the Public Health Authority "Wiqaya-وقاية" and the General Administration for Infectious Disease Control at the Ministry of Health.

**b. Dosage:**

One or more doses of the vaccine according to the target group and guidelines.

**c. Vaccine Contraindications:**

• Older adults known to have allergies to any components of the vaccine until further evidence is available. Individuals with a history of anaphylaxis after any type of vaccination or intramuscular injection should consult their doctor before receiving the vaccine.

• Older adults who have experienced anaphylaxis after the first dose of the vaccine.

**d. Adverse Effects:** May include, but not limited to: fatigue, headache, fever, chills, mild muscle or joint pain, nausea, diarrhea, and swelling of the lymph nodes.

## Combined Meningitis Vaccine:

Meningitis is an acute inflammation of the protective membranes covering the brain and spinal cord. The combined meningitis vaccine helps prevent meningococcal disease.

**a. Target Group:**

• Older adults over 60 years of age.

**b. Dosage:** One dose, followed by a booster every 5 years, administered intramuscularly.

**c. Vaccine Contraindications:**

• Hypersensitivity to active ingredients.

• Vaccination should be postponed for older adults with acute, severe illnesses; however, mild infections like colds do not necessitate postponement.

**d. Adverse Effects:** May include, but not limited to: pain, redness, swelling at the injection site, fatigue, headache, muscle or joint pain, fever, chills, nausea, or diarrhea.

## Chickenpox Vaccine:

The Public Health Authority "Wiqaya-وقاية" recommends the chickenpox vaccination.

**a. Target Groups:**

• Older adults who have not had chickenpox before and have been in close contact with an elderly individual who has a impaired immune system.

• Older adults with impaired immune systems including those taking long-term steroid tablets or undergoing chemotherapy.

**b. Dosage:**

Live attenuated vaccine requires two subcutaneous doses (0.5 mL each). The interval between doses is 3 months for those under 13 years old, while for older individuals, a 1-month interval is acceptable.

**c. Contraindications:**

Individuals with a history of allergic reactions to gelatin, neomycin, or any other component of the vaccine, or those with leukemia, lymphoma, malignant tumors affecting the bone marrow, or individuals with weakened immune systems or receiving high doses of systemic immunosuppressants for prolonged periods.

**d. Adverse Effects:**

May include, but not limited to: pain, redness, or rash at the injection site. More serious reactions occur very rarely and can include pneumonia or infection of the meninges and/or spinal cord, or seizures often associated with fever.

**Tdap Vaccine:**

This vaccine protects against diphtheria, pertussis (whooping cough), and tetanus, which are bacterial diseases.

**a. Target Group:** All home healthcare patients aged 11 years and older, with a booster every 10 years.

**b. Dosage:** Adults aged 60 years and above should receive one dose and a booster (0.5 mL) of tetanus toxoid via intramuscular injection every 10 years.

**c. Contraindications:** Individuals with a history of allergic reactions or any history of bleeding disorders, seizures, or neurological issues. The vaccine may be ineffective with certain medications such as corticosteroids, cancer drugs, and immunosuppressive medications.

**d. Adverse Effects:** May include, but are not limited to: pain, redness, and swelling at the injection site, low-grade fever, headache, body aches, fatigue, nausea, vomiting, diarrhea, and loss of appetite. There is a risk of severe allergic reactions, tinnitus (ringing in the ears), severe muscle pain, and weakness.

**Triple Viral Vaccine (MMR):**

The inactivated trivalent viral vaccine and the live attenuated vaccine protects against measles, mumps, and rubella.

**a. Target Groups:**

Recommended for older adults who have not received the vaccine or have only received one dose.

**b. Dosage:**

- Two doses with a one-month interval for those who have not been vaccinated.
- One dose for those who have been confirmed to have received one dose of the vaccine.

**c. Contraindications:**

- Individuals with a history of allergic reactions.
- Vaccination should be postponed in cases of acute illness, especially with severe fever.
- Those with a neomycin allergy.

**d. Adverse Effects:** May include, but are not limited to: pain, redness, and swelling at the injection site, low-grade fever, headache, and body aches.

**Hepatitis B Viral Vaccine:**

The Hepatitis B vaccine helps prevent Hepatitis B and its complications (chronic hepatitis, cirrhosis, liver cancer, etc.).

**a. Target Groups:**

- Anyone who has not completed the three doses of the Hepatitis B vaccine.
- Those confirmed not to have the disease.

**b. Dosage:**
• A series of 3 doses.
• Minimum intervals: 1st to 2nd dose: 4 weeks; 1st to 3rd dose: 6 months; or 2nd to 3rd dose: 5 months.
**c. Contraindications:**
• Individuals with a history of allergic reactions.
• Vaccination should be postponed in cases of acute illness, especially with severe fever.
**d. Adverse Effects:** May include, but are not limited to: pain, redness, and swelling at the injection site, low-grade fever, headache, and body aches.

**Hepatitis A Viral Vaccine**
**a. Target Groups:**
Any older adult who has not been vaccinated and requests vaccination (risk factor identification is not required) and any older adult at risk of contracting Hepatitis A.
**b. Dosage:**
A series of two doses of Hepatitis A with a 6-month interval between doses.
**c. Vaccine Contraindications:**
• Those with a history of allergic reactions.
• Vaccination should be postponed in cases of acute illness, especially with severe fever.

## Vaccination Process for older adults in Age-Friendly Institutions

The leadership of the General Administration for Home Healthcare and the Geriatrics Department collaborates with the General Administration for Infectious Disease Control to organize the vaccination process for patients in age-friendly hospitals, working with specialists at the Vaccination Operations Center to ensure hospital integration into the National Vaccine Registration (NVR) system.

**a.** Responsibilities of the vaccination coordinator in age-friendly Institutions include: determining the number of vaccines targeted for provision of each type at the beginning of each year in coordination with the public health vaccination coordinator to provide vaccines, ensuring the registration of vaccinated individuals in the National Vaccination Registration (NVR) system, collecting data, and preparing reports.

**b.** It is ensured that all members of the vaccination team in the hospital hold a valid CPR certification and are trained to provide home vaccination services for the older adults beneficiaries of age-friendly hospitals according to established procedures.

**c.** The geriatric clinic physician reviews the patients' files before vaccination to ensure:

- Their health status and the absence of contraindications.
- That the vaccination team is fully aware of the vaccine, including the type of vaccine, dosage, side effects, method of administration, maintaining the vaccine during transport and handling, danger signs, and prompt treatment.

**d.** Patients eligible for vaccination are scheduled on the same day if the vial is opened for more than one patient, and the team communicates with the patient by phone at least 24 hours before the visit to confirm the appointment for vaccination.

**e.** Necessary preparations include:

**Medications:**
First-line treatment: Epinephrine ampoules with a concentration of 1:1000 or self-injectable Epinephrine ampoules. At least three doses should be available for children.

Other medications: Diphenhydramine syrup 12.5 mg/5 ml - capsules 25-50 mg, injections 50 mg/ml.

**Equipment and Tools:**
Syringes (1-3 ml) with needles size (22-25), alcohol swabs, pressure bandages, various sizes of airway opening tools (small, medium, large), masks of different sizes, blood pressure monitor with various sizes. Tongue depressors, flashlight with extra batteries (for oral and throat examination), wristwatch with a timing device, and mobile phone.

**Documentation:** Every vaccine administered to the patient is documented in their health record and the vaccination card for older adults patient, as well as in the National Vaccination Registration (NVR) system.

**Responsibilities:**
• *Age-Friendly Facilities:*
Implement the policy, review reports submitted by the vaccine coordinator, and support the service.

• *Vaccine Coordinator:*
Determine the required quantity for each vaccine, communicate with the coordinator in the Public Health Department, ensure the vaccination patient is registered in the NVR system, collect vaccination data and prepare indicators with the help of the quality coordinator, identify challenges, and request support for improvement.

• *Healthcare Team:*
Attend the training program, apply the vaccination administration policy, document any adverse effects that may occur in patients after vaccination, document challenges, and send them to the coordinator to request support.

# CHAPTER 3
# Medical Treatment of Severe Vaccine Side Effects

## Preventing Adverse Effects of Vaccination

Administering a vaccine may have undesirable side effects. To avoid these effects, the healthcare team should:

**a.** Review the patient's medical file, including their medical history, allergy history, current diagnosis, and ongoing treatments.

**b.** Consider contraindications and precautions for vaccination, which include:
• General contraindications and precautions: a history of severe allergic reactions to the vaccine or its components from a previous dose, any acute and severe illness with or without fever.
• Specific contraindications related to the vaccine itself.

**c.** Be fully aware of the potential adverse effects of each vaccine and the methods for diagnosing and treating them as they occur.

**d.** Ensure the following:
• Immediate communication with emergency services (Red Crescent at 997 and the relevant health authority) for cases requiring immediate ambulance transportation.
• Availability of necessary first aid and cardiopulmonary resuscitation (CPR) equipment and essential medications.
• All personnel administering vaccines have valid CPR certification.
• Reporting of all adverse effects according to guidelines and regulations.

| Effect | Symptoms | Treatment |
|---|---|---|
| **Local effects** | Pain - redness - swelling at the injection site | Apply cold compresses at the injection site.<br>Administer pain relievers and antihistamines. |
| | Mild bleeding | Apply continuous pressure on the injection site. |
| | Continuous bleeding | Maintain continuous pressure on the injection site and elevate the arm with the injection above heart level. |
| **Fear and anxiety** | Fear before vaccination | Have the patient sit and explain the procedure, reassuring them before administering the vaccine. |
| | Falling to the ground without losing consciousness | Examine to ensure there is no injury from a fall, placing the patient supine with legs elevated. |
| | Losing consciousness | Examine to ensure there is no injury from a fall, placing the patient supine with legs elevated, and contact emergency services while beginning CPR if necessary. |
| **Severe allergy** | General itching (sudden or gradual), swelling of the lips and/or face and throat, difficulty breathing with wheezing, decreased blood circulation | In case of severe allergic reaction, follow the procedures for treating severe emergency allergic reactions. |

## Emergency Treatment Procedures for Severe Allergic Reactions

a. Call for an ambulance (997 or the relevant emergency number).
b. Perform first aid: assess the level of consciousness, open the airway, ensure breathing and circulation (pulse), and monitor vital signs.
c. Apply a tourniquet above the injection site to reduce vaccine absorption.
d. Administer diluted epinephrine (1000:1).

| Age Groups | Weight | 1 mg/mL 1:1000 Intramuscular Injection | Self-Injecting Epinephrine / Intramuscular Injection |
|---|---|---|---|
| 1-6 months | From 4 kg to 8.5 kg | 0.05 mL (mg) | Do not use |
| 7-36 months | From 9 kg to 14.5 kg | 0.1 mL (mg) | Do not use |
| 37-59 months | From 15 kg to 17.5 kg | 0.15 mL (mg) | 0.15 mL (mg) |
| 5-7 years | From 18 kg to 25.5 kg | 0.25 mL (mg) | 0.15 mL (mg) |
| 8-10 years | From 26 kg to 34.5 kg | 0.3 mL (mg) | 0.3 mL (mg) |
| 11-12 years | From 35 kg to 45 kg | 0.4 mL (mg) | 0.3 mL (mg) |
| 13 years and older | 46 kg and above | 0.5 mL (mg) | 0.3 mL (mg) |

e. If symptoms persist, a dose of epinephrine may be administered every 5-15 minutes, up to 3 doses, depending on the patient's response.
f. h. Diphenhydramine can be given orally or intramuscularly, with a standard dose of 1-2 mg/kg of body weight and a maximum dose of 50 mg for those able to take the medication orally. It is contraindicated for those who are unconscious.
g. Adverse effects of vaccines are recorded in the "Vigilance" reporting system, which is a shared platform for reporting adverse effects of vaccines and medications in collaboration with the Food and Drug Authority. This includes recording vital signs, medications given to the patient (including dosage and type of vaccine administered), the time it was given, the patient's response, and the name of the healthcare provider who administered the medication, along with all relevant clinical information.

# Appendices

## Vaccination Card for older adults

| | Seasonal influenza | Pneumococcal vaccine | Herpes Zoster | RV | Covid-19 | Meningitis | Tetanus | Chickenpox Vaccine | MMR | Others |
|---|---|---|---|---|---|---|---|---|---|---|
| Date & signature | | | | | | | | | | |
| Date & signature | | | | | | | | | | |
| Date & signature | | | | | | | | | | |
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| Date & signature | | | | | | | | | | |

- **Seasonal Influenza:** One dose annually.
- **Pneumococcal:** One dose.
- **Shingrix:** Two doses, with an interval of at least two months and up to six months.
- **Respiratory Syncytial Virus (RSV):** One dose every two years.
- **COVID-19:** According to Ministry of Health guidelines, one or more doses of the updated vaccine.
- **Meningococcal:** One dose every 5 years.
- **Tetanus:** One dose every 10 years.
- **Chickenpox:** Two doses one month apart if there is no confirmed immunity.
- **Measles, Mumps, and Rubella (MMR):** One dose if there is no confirmed immunity.

## Coadminstration guide for eligible vaccines

• The seasonal influenza vaccine can be administered simultaneously with the respiratory syncytial virus vaccine and the COVID-19 vaccine.
• The measles, mumps, and rubella (MMR) vaccine and the chickenpox vaccine can be given at the same time as the tetanus vaccine.
• The seasonal influenza vaccine, COVID-19 vaccine, and meningococcal vaccine can be administered simultaneously.
• When scheduling vaccinations for older adults, it is preferable to have a month between each vaccine.
• Live attenuated vaccines: RSV, MMR, Chickenpox.
• Inactivated vaccines: Herpes Zoster, Seasonal Influenza, Pneumococcal, Respiratory Syncytial Virus.

## Job Description for Home Healthcare Vaccination Coordinator

| | |
|---|---|
| Job Title: | Home Healthcare Vaccination Coordinator |
| Department/Center: | |
| Regulatory Reference: | [Name of the Organization] |
| Direct Supervisor: | Technical Supervisor of the Home Healthcare Department/Center |

| Main Objective of the Job |
|---|
| • To coordinate all vaccination activities within the Home Healthcare Department/Center, including resource management, data management, risk management, quality improvement projects, and education and training. |

| Key Responsibilities |
|---|
| • Participate in the preparation of the annual vaccination plan for the department.<br>• Assess the annual needs for essential vaccines for home healthcare patients.<br>• Act as a coordinator with public health to ensure the highest vaccination coverage necessary. |

• Participate in the preparation of the annual vaccination plan for the department.
• Assess the annual needs for essential vaccines for home healthcare patients.
• Act as a coordinator with public health to ensure the highest necessary vaccination coverage.
• Coordinate with the project management entities at the General Administration of Home Healthcare.
• Assist in providing education and training for staff and healthcare practitioners implementing the project.
• Ensure that all vaccinations are recorded in the National Vaccination Registry (NVR).
• Manage the process of collecting data necessary to support the vaccination program and send it to leadership.
• Provide and present information that supports decision-making and identifies priorities for improving vaccination performance.
• Monitor reports of adverse events related to home healthcare vaccination services.
• Oversee and maintain compliance with the Ministry of Health's policies and guidelines for home healthcare related to vaccinations.

| Qualifications and Required Scientific Experience for the Job |
| --- |
| • A bachelor's degree in a health-related field is preferred.<br>• At least one year of experience. |

| Required Competencies (Proposed; any modifications can be added directly) |
| --- |
| • Ambition and passion.<br>• Communication and influence.<br>• Teamwork.<br>• Leadership.<br>• Planning and development.<br>• Ability to manage challenges. |

## Conclusion

We extend our gratitude to the wise government and the leadership of the Ministry of Health, the General Administration for Combating Infectious Diseases, and the Vaccine Operations Center, as well as to the medical supply and NUBCO, and the recommendations of the Public Health Authority "Wiqaya-وقاية" for their unlimited support in organizing the vaccination process for home healthcare patients and seniors in age-friendly hospitals. This effort aims to achieve the goals and services of home healthcare and geriatric medicine. We also thank all employees in the General Administration and the departments and sections of home healthcare in the gatherings and age-friendly hospitals for their effort, work, ideas, and suggestions to provide vaccination services based on data and information that contributed to the creation of this guide.

And thanks to all contributors who worked diligently and spent valuable time to complete this guide.

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