

ACTIVE LEARNING TEMPLATE: Medication

STUDENT NAME Rachel Mordas

MEDICATION Pneumonia (Pneumococcal 23-Valent)

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Vaccine; inactivated (bacterial)

PURPOSE OF MEDICATION

Expected Pharmacological Action

An inactive bacterial vaccine that induces active immunization to the serotypes contained in the vaccine.

Therapeutic Use

Provides active immunization against pneumococcal disease caused by the 23 serotypes in the vaccine. Recommended for all adults ≥ 50 years.

Complications Injection site: Erythema, soreness, pain, swelling, tenderness, edema. Neuro: fatigue, headache.

Neuromuscular: myalgia. GI: diarrhea, nausea. NS: chills.

Resp: upper resp tract infection. - chills, neck pain, fever.

Can also cause arthritis, decreased range of motion (limb), and febrile seizure

Medication Administration

Adult: ≥ 50 years of age

0.5mL/dose IM

- one time dose for most adults

Pediatrics: ≥ 2 years/high risk

0.5mL/Im (not common)

the maximum & minimum

dosage is 0.5mL - always

Contraindications/Precautions severe allergic reactions.

Hypersensitivity reactions, shoulder injury related to

vaccine administration, syncope. Precautions: acute illness,

bleeding disorders, cardiovascular disease, HIV, CSF leaks,

pneumococcal meningitis, respiratory disease, splenectomy,

and thrombocytopenia purpura. Also, Anticoagulant therapy,

other vaccines, and antibiotic prophylaxis.

Nursing Interventions

- Verify vaccine history,

ensure proper dose/Im technique,

Monitor for allergic reaction

or syncope for at least 15

minutes post-injection. Keep

emergency equipment nearby/ready

in case a reaction occurs.

Document per CDC guidelines.

Interactions Acetaminophen, Anti-CD20 B-cell depleting

therapies, Atidarsagen, corticosteroids, dinutuximab

beta, Elivaldogene Autotemcel, Fingolimod, Immunosuppressants,

Methotrexate, Vaccine (13-valent), Vaccine (20-valent),

siponimod, tepilizumab, Zoster Vaccine - May all decrease

therapeutic effect.

Evaluation of Medication Effectiveness

development of antibody protection against pneumococcal

disease. Reduced risk/incidence of pneumonia,

bacteremia, meningitis in vaccinated populations. 60-70%

protection for invasive pneumococcal disease in adults.

Client Education

This vaccine

helps prevent serious pneumococcal

infections, common mild effects

are; sore arm, redness, fatigue,

headache, fever, or chills

(should resolve in 1-2 days)

Report allergic reactions if occurs.

May need to be re-vaccinated

after 5 years & does not prevent flu.

ACTIVE LEARNING TEMPLATE: Medication

STUDENT NAME Rachel Mordas

MEDICATION Influenza Virus Vaccine

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Vaccines; Inactivated Viral

PURPOSE OF MEDICATION

Expected Pharmacological Action

- Used to prevent individuals from getting Influenza Virus, by inducing specific antibody production.

Therapeutic Use provides active immunization for the prevention of seasonal influenza, caused by strains of influenza A & B. Reduces the risk of influenza-related complications, hospitalizations, and death. Recommended annually for all persons ≥ 6 months of age without contraindications

Complications Complications at injection site: bruising, erythema, pain swelling. CV: chest pain, syncope, tachycardia, vasodilation. GI: abdominal pain, diarrhea, dysphagia, swelling in mouth. Hypersensitivity: anaphylactic shock. Neuro: abnormal gait, dizziness, headache, seizures, impaired mobility. Neuromuscular: limb pain. Resp: asthma, dyspnea, laryngitis, resp distress, tonsillitis, wheezing. May also cause nausea/vomiting and/or coughing

Medication Administration

Adults > 64 years of age:
IM injection 0.5mL/dose
(only one dose per season)
Children: 0.25-0.5mL
(depending on factors)
high-dose = IM 0.7mL/dose

Contraindications/Precautions Severe allergic reaction: anaphylaxis. History of severe allergic reaction to egg protein. Oculorespiratory Syndrome - an acute self-limiting reaction. Shoulder injury related to vaccine administration. Syncope: has been reported with injectable vaccines and may result in serious secondary injury.

Nursing Interventions

Evaluate ask pt about any known allergies, monitor for hypersensitivity & syncope for 15 mins following administration. Evaluate for previous reactions, bleeding disorders, acute illness, & immunosuppressed status. Monitor for mild side-effects (soreness, fever, chills, fatigue, swelling at injection site)

Interactions Acetaminophen, Anti-CD20 B-cell, Atidarsagene, autotemecel, corticosteroids (systemic), disautuximab, Elivaldogene autotemecel, fingolimod, immunosuppressants, methotrexate, pneumococcal conjugate vaccine, propacetamol, siponimod, teplizumab, \rightarrow (general medications - not specific)
 \rightarrow May all decrease therapeutic effects of the vaccine.

Client Education

The vaccine prevents the flu but does not cause it. Takes about two weeks for protection; recommended to get annually. Common mild side effects are: sore arm, tiredness, headache and low fever. Report severe allergic reactions.

Evaluation of Medication Effectiveness

Onset of action: most adults have antibody protection within 2 weeks of vaccination. Duration: Vaccine effectiveness declines at a variable rate, depending on virus subtypes, patient age, and other confounding factors.