

## A POCKET GUIDE TO COMMON IMMUNIZATIONS FOR THE OLDER ADULT (≥65 years)

### RECOMMENDED IMMUNIZATIONS by VACCINE for OLDER ADULTS ≥65 YEARS\*

|                             |                           |
|-----------------------------|---------------------------|
| Influenza†                  | 1 dose annually           |
| Pneumococcal polysaccharide | 1 dose                    |
| Zoster                      | 1 dose                    |
| Tetanus, diphtheria (Td)†   | Td booster every 10 years |

\*ACIP Adult Immunization Schedule 2009. These recommendations must be read along with the information provided below. Note ACIP has recommendations for varicella, MMR (mumps, measles, rubella), hepatitis A, hepatitis B, and meningococcal vaccines that include the ≥65 years age group but are rarely used in this population.

([www.cdc.gov/mmwr/PDF/wk/mm5753-Immunization.pdf](http://www.cdc.gov/mmwr/PDF/wk/mm5753-Immunization.pdf))

†Covered by the Vaccine Injury Compensation Program

### GENERAL PRECAUTIONS

Anyone who has had a prior anaphylactic reaction to a previous dose of the vaccine or to any component of the vaccine, or who developed Guillain-Barré syndrome after vaccination, should not receive the vaccine.

Anyone with acute moderate or severe illness at the time an immunization is scheduled should wait until symptoms have resolved before receiving a vaccine.

Inactivated vaccines are generally acceptable (e.g., pneumococcal, influenza, meningococcal) and live vaccines avoided in persons with immune deficiencies ([www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm).)

Report all clinically significant reactions to the Vaccine Adverse Event Reporting System. ([www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967)

### PNEUMOCOCCAL POLYSACCHARIDE VACCINE (PPSV)

#### Indications

- All previously unvaccinated adults ≥65 years

#### Who Needs a Second Dose of Pneumococcal Vaccine?

- Any person ≥65 years or older, previously vaccinated before age 65 if 5 years or more have elapsed since first vaccination
- Not needed for persons vaccinated at age ≥65 years
- One-time second dose after 5 years for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); immunocompromising conditions

#### Contraindications and Precautions

- Do not give PPSV to patients with a history of serious reaction (e.g., anaphylaxis) after a previous dose of PPSV or a PPSV component
- Minor illnesses with or without fever are not contraindications
- Use caution in cases of moderate or severe acute illness
- Pneumococcal conjugate vaccine (PCV) not approved for use in older adults

#### Vaccine Dosing and Administration

- Administer 0.5 ml PPSV either intramuscularly (22-25g; needle length according to the patient's age/body mass [1-1½"]) or subcutaneously (23-25g, 5/8" needle)
- Can be given concurrently with other vaccines at different sites

#### Side Effects

- Soreness, redness at injection site lasting 1-2 days.

#### Talking Points with Patients

- *Streptococcus pneumoniae* bacteria are commonly found in the upper respiratory tract of most people
- Pneumococcal disease occurs most often in older people and in those with a predisposing condition (e.g., pulmonary disease, asplenia)
- Disease may occur in lungs (pneumonia), brain (meningitis) or blood (bacteremia).
- There are 40,000 cases of pneumococcal meningitis and bacteremia in US annually
- Fewer older adults become infected with pneumococcal disease when children with whom they are in contact are vaccinated.
- PPSV is 60-70% effective against invasive pneumococcal disease, but not against other causes of pneumonia
- Medicare covers the cost of PPSV and its administration

### INFLUENZA VACCINE

#### Indications

- All persons age ≥65 years, including those with high risk conditions such as chronic pulmonary (including asthma) or cardiovascular (except hypertension); chronic hepatic, renal disease or hemoglobinopathies; immunosuppression; metabolic disorder (e.g., diabetes); neurologic or neuromuscular disorder (e.g., cognitive dysfunction, seizures, spinal cord injury)
- All residents of nursing homes or chronic care facilities
- All household contacts of high-risk adults or those ≥65 years.

#### Who Needs a Second Dose of Influenza Vaccine?

- One dose administered annually

#### Contraindications and Precautions

- Any prior anaphylactic reaction to vaccine or components (e.g., eggs).
- Do not give live vaccine (LAIV) to persons ≥50 years
- Guillain-Barré syndrome within 6 weeks of a previous dose

#### Vaccine Dosing and Administration

- Use trivalent influenza vaccine (TIV) only: Afluria, FluLaval (5.0 ml multidose vial) or Fluarix (0.5 ml pre-filled syringe)
- Store at 35-46°F (2-8°C). Do not freeze.
- Vaccinate in deltoid muscle using needle length ≥1 inch (>25 mm)
- Administer just prior to annual flu season

#### Side Effects

- Soreness, redness at injection site lasting 1-2 days
- Hoarseness, sore or red eyes, cough, itchiness, fever, aches

#### Talking Points with Patients

- Influenza is a serious respiratory disease, not the common cold.
- Flu causes 36,000 deaths and 200,000 hospitalizations in the US/year.
- Flu spreads easily to other people, especially those most vulnerable.
- Vaccination is effective in preventing death (47%) and hospitalization (27%) in community-dwelling older persons; in patients in long-term care institutions, vaccinations prevent pneumonia (46%), hospitalization (45%), and death (42%).

### HERPES ZOSTER VACCINE

#### Indications

- All adults ≥65 years old regardless of report of prior zoster infection
- Neither taking varicella history nor serologic testing for varicella immunity are needed before administration of zoster vaccine

#### Who Needs a Second Dose of Herpes Zoster Vaccine?

- One-time single dose; no second dose needed

## Contraindications and Precautions

- Contraindicated if previous anaphylactic reaction to any component of the zoster vaccine (e.g., gelatin, neomycin)
- Contraindicated in immunocompromised condition; HIV infection with <200 CD4 cells/ $\mu$ l.
- Persons with chronic medical conditions may be vaccinated unless the condition is among contraindications listed above
- Use caution in cases of moderate or severe acute illness
- If patient is known to be varicella zoster virus (VZV) seronegative, then a 2-dose series of varicella vaccine should be administered
- Not indicated to treat herpes zoster or ongoing post-herpetic neuralgia

## Vaccine Dosing and Administration

- Subcutaneous administration in upper arm (0.65 ml dose)
- Lyophilized zoster vaccine stored frozen, at 5°F (-15°C)
- Should be given within 30 minutes of reconstitution to maintain potency

## Side Effects

- Redness, soreness, swelling or itching at injection site
- Headache

## Talking Points with Patients

- Herpes zoster infection is more common in older adults
- Devastating effects of postherpetic neuralgia more frequent among older adults
- Vaccine reduces the risk of herpes zoster by approximately 50%
- Vaccine reduces risk of significant postherpetic neuralgia by 66%
- Persons receiving zoster vaccine that have susceptible, pregnant or immunocompromised contacts do not need to take any precautions following vaccination except in the rare situation that a rash envelops, in which case standard contact precautions are adequate.

## TETANUS/DIPHTHERIA (Td) VACCINE

### Indications

- Complete vaccine series is indicated for older adults with uncertain vaccine history or with fewer than 3 recorded doses.

### Contraindications and Precautions

- Prior anaphylaxis with Td vaccine; acute illness

### Administration

- Primary: 3 doses of tetanus and diphtheria toxoid; 1st 2 doses at least 4 weeks apart, 3rd dose 6-12 months later; boosters at 10-year intervals; more often with high-risk injuries (burns, puncture wounds, extensive soft tissue injury)

## TRAVELER'S VACCINATIONS

### MEASLES, MUMPS, RUBELLA (MMR) VACCINE

**PRECAUTION:** Contraindicated in cases of immune deficiency; previous anaphylaxis with MMR, neomycin, or gelatin; wait for resolution of acute severe or moderate illness; use caution in cases of cancer, recent transfusion, steroids.

**ADMINISTRATION:** 1 dose MMR vaccine

### MENINGOCOCCAL VACCINE

**PRECAUTION:** Previous anaphylaxis with this vaccine; wait for resolution of acute severe or moderate illness

**ADMINISTRATION:** 1 or more doses MPSV vaccine

### HEPATITIS A VACCINE

**PRECAUTION:** Prior anaphylaxis with alum or 2-phenoxyethanol; acute severe or moderate illness; produces protective antibody in only 67% of older adults.

**ADMINISTRATION:** Single-antigen formulations require a 2-dose schedule. With combined hepatitis A and B vaccine, administer 3 or 4 doses according to product instructions.

### HEPATITIS B VACCINE

**PRECAUTION:** Prior anaphylaxis with baker's yeast; acute severe or moderate illness; protective antibody in only 50% of older adults.

**ADMINISTRATION:** Single antigen formulation requires 3 doses; combined A+B vaccine described above.

### YELLOW FEVER

**PRECAUTION:** Adults  $\geq 65$  are at higher risk of severe neurological and multi-organ failure reactions. Risks and benefits of vaccination should be weighed against the destination-specific risk of exposure. Endemic areas include S. America, Africa, and other areas.

**ADMINISTRATION:** single subcutaneous injection of 0.5 ml of reconstituted vaccine

**For international travel: Countries with relevant endemic diseases can be identified at the following website:**  
[www.cdc.gov/travel/content/diseases.aspx](http://www.cdc.gov/travel/content/diseases.aspx).

### Talking Points for Improving Compliance in Older Patients

- Older adults are more susceptible to serious disease caused by common infections than are younger people
- Newer vaccines are more effective than earlier versions
- Immunity can begin to fade over time as immunized people age
- Some adults, particularly those born outside the US, were never vaccinated as children
- Influenza vaccine and PPSV covered by Medicare Part B; Zoster vaccine covered by Medicare Part D

### References

- Advisory Committee on Immunization Practices (ACIP): [www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm)
- CDC: Recommended Adult Immunization Schedule—US 2009. MMWR 2008;57(53). [www.cdc.gov/mmwr/PDF/wk/mm5753-Immunization.pdf](http://www.cdc.gov/mmwr/PDF/wk/mm5753-Immunization.pdf)
- Immunization of Older Adults. In: *Hazzard's Geriatric Medicine and Gerontology*, 6th Ed. Halter JB, et al. McGraw-Hill Professional. 2009.
- Immunization Action Coalition: [www.accessmedicine.com](http://www.accessmedicine.com).
- Vaccination Information for Health Professionals: [www.immunize.org/acip](http://www.immunize.org/acip).



### American Geriatrics Society

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