NATIONAL PBM BULLETIN

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**DEPARTMENT OF VETERANS AFFAIRS VETERANS HEALTH ADMINISTRATION (VHA)
PHARMACY BENEFITS MANAGEMENT SERVICES (PBM), MEDICAL ADVISORY PANEL (MAP),
AND CENTER FOR MEDICATION SAFETY (VA MEDSAFE)**

PNEUMOVAX 23 AND PREVNAR 13 PNEUMOCOCCAL VACCINES AND APPROPRIATE USE

I. ISSUE:

There is concern for confusion between the 13-valent pneumococcal conjugate vaccine (Prevnar 13) and the 23-valent pneumococcal polysaccharide vaccine (Pneumovax 23).

II. BACKGROUND:

A recent report documented a physician ordering Prevnar 13 for two patients who were instead administered the Pneumovax 23 vaccine.

III. DISCUSSION:

Pneumovax 23 is the 23-valent pneumococcal polysaccharide vaccine recommended by the Advisory Committee on Immunization Practices (ACIP) for prevention of invasive pneumococcal disease among all adults ≥ 65 years of age, and for adults 19-64 years of age at high risk. Prevnar 13 is the conjugate vaccine recommended by ACIP for pediatric use and for use in adults ≥ 19 years of age with immunocompromising conditions, functional or anatomic asplenia, cerebrospinal fluid (CSF) leaks, or cochlear implants. Pneumovax 23 and Prevnar 13 cover 12 overlapping serotypes, with Pneumovax 23 providing further protection against 11 additional serotypes while Prevnar 13 addresses 1 more serotype. While both Prevnar and Pneumovax are indicated for persons with immunocompromised conditions, cerebrospinal fluid leak, cochlear implant, and functional or anatomic asplenia, administration of Prevnar IN ADDITION to Pneumovax will likely result in increased protection against pneumococcal infection in these high-risk patients, according to ACIP. Studies show that persons who received Pneumovax 23 as the initial study dose had lower antibody responses after administration of a Prevnar 13 dose 1 year later than those who had received Prevnar 13 as the initial dose.

IV. RECOMMENDATIONS:

- Consider education for applicable health care staff to increase awareness about the differences among various pneumococcal vaccine products and their appropriate use.
- Consider developing local reminders at the facility level that integrate the timing of Prevnar 13 and Pneumovax 23 in relation to each other to prevent future confusion in pneumococcal vaccine dosing.
- ACIP issued specific guidance on the use of pneumococcal vaccines:
    - Use of Prevnar 13 *(per ACIP recommendations)*
        - ***Pneumococcal vaccine-naïve persons.*** *ACIP recommends that adults aged ≥19 years with immunocompromising conditions, functional or anatomic asplenia, CSF leaks, or cochlear implants, and who have not previously received PCV13 or PPSV23, should receive a dose of PCV13 first, followed by a dose of PPSV23 at least 8 weeks later. Subsequent doses of PPSV23 should follow current PPSV23 recommendations for adults at high risk. Specifically, a second PPSV23 dose is recommended 5 years after the first PPSV23 dose for persons aged 19–64 years with functional or anatomic asplenia and for persons with immunocompromising conditions. Additionally, those who received PPSV23 before age 65 years for any indication should receive another dose of the vaccine at age 65 years, or later if at least 5 years have elapsed since their previous PPSV23 dose.*
        - ***Previous vaccination with PPSV23.*** *Adults aged ≥19 years with immunocompromising conditions, functional or anatomic asplenia, CSF leaks, or cochlear implants, who previously have received ≥1 doses of PPSV23 should be given a PCV13 dose ≥1 year after the last PPSV23 dose was received. For those who require additional doses of PPSV23, the first such dose should be given no sooner than 8 weeks after PCV13 and at least 5 years after the most recent dose of PPSV23. As stated above, a second PPSV23 dose is recommended 5*

years after the first PPSV23 dose for persons aged 19–64 years with functional or anatomic asplenia and for persons with immunocompromising conditions. Additionally, those who received PPSV23 before age 65 years for any indication should receive another dose of the vaccine at age 65 years, or later if at least 5 years have elapsed since their previous PPSV23 dose.

- Use of Pneumovax 23 -
  - Administer the Pneumovax 23 vaccine to all adults ≥ 65 years of age.
  - Administer the Pneumovax 23 vaccine to adults 19-64 years of age at high risk, including those with chronic heart disease; chronic lung disease; diabetes mellitus; cerebrospinal fluid leak; cochlear implant; alcoholism; chronic liver disease; cirrhosis; cigarette smoking; functional or anatomic asplenia; and immunocompromising conditions (i.e., congenital or acquired immunodeficiency; human immunodeficiency virus infection; chronic renal failure; nephritic syndrome; leukemia; lymphoma; Hodgkin disease; generalized malignancy; iatrogenic immunosuppression; solid organ transplant; multiple myeloma).
  - Pneumovax 23 should be administered 8 weeks after a pneumococcal vaccine-naïve patient receives Prevnar 13 for the first time.
  - When an additional dose of Pneumovax 23 is clinically indicated, ACIP recommends a second Pneumovax 23 dose at least 5 years after the first Pneumovax dose for:
    - Persons ≥ 65 years of age who received their first dose when they were younger than 65 years of age;
    - Persons 19-64 years of age with functional or anatomic asplenia and/or immunocompromising conditions.

- More information on pneumococcal vaccines is available at the Centers for Disease Control and Prevention (CDC) website:
  - Pneumovax 23: http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-ppv.pdf
  - Prevnar 13: http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-pcv.pdf

V. REFERENCES:

1. CDC. Licensure of 13-Valent Pneumococcal Conjugate vaccine for Adults Aged 50 years and Older. MMWR 2012; 61: 394-395.
2. CDC. Use of 13-Valent Pneumococcal Conjugate Vaccine and 23-valent Pneumococcal Polysaccharide Vaccine for Adults with Immunocompromising Conditions: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2012; 61: 816-819.
3. Food and Drug Administration. Vaccines and Related Biological Products Advisory Committee (VRBPAC) adult indication briefing document: Prevnar 13. Silver Spring, MD: US Department of Health and Human Services, Food and Drug Administration; 2011. Available at http://www.fda.gov/downloads/advisorycommittees/committeesmeetingmaterials/bloodvaccinesandotherbiologics/vaccinesandrelatedbiologicalproductsadvisorycommittee/ucm279680.pdf Accessed April 2, 2013.

ACTIONS

- ***Facility Director*** *(or physician designee): Forward this document to the Facility Chief of Staff (COS).*
- ***Facility COS and Chief Nurse Executives:*** *Forward this document to all appropriate providers who prescribe these medications (e.g.,* ***primary care providers and nursing staff, including contract providers, etc****.). In addition, forward to the Associate Chief of Staff (ACOS) for Research and Development (R&D). Forward to other VA employees as deemed appropriate.*
- ***ACOS for R&D:*** *Forward this document to Principal Investigators (PIs) who have authority to practice at the facility and to your respective Institutional Review Board (IRB).*