



## Lifespan Cardiovascular Institute

Rhode Island Hospital • The Miriam Hospital  
Newport Hospital

*Delivering health with care®*

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# Pneumococcal Vaccines

Adapted from the CDC Morbidity and Mortality Weekly Report September 19, 2014; Accessed on November 4<sup>th</sup> at

<http://www.cdc.gov/mmwr/pdf/wk/mm6337.pdf>

## PAST

- **2010 – Approval of PCV13 for children**
- **2010 – Approval of PPSV23 for adults  $\geq 65$**
- **2011 – Approval of PCV13 for adults aged  $\geq 50$**
- **2012 – Approval of PCV13 for adults aged  $\geq 19$  who are immunocompromised, have functional or anatomic asplenia, cerebrospinal fluid (CSF) leak, or cochlear implants**
- **2013 – Benefit of PCV13 is observed**

## PRESENT

Compared to data in 2010, by 2013, the incidence of invasive pneumococcal disease (IPD) caused by strains specific to PCV13 had declined by 50% in adults aged  $\geq 65$ .

Nevertheless, 13,500 cases of IPD occurred in 2013, and 20% to 25% were caused by strains found in PCV13. This showed we need even MORE coverage.

In June 2014, PCV13 use in 85,000 adults aged  $\geq 65$  showed a benefit of 45.6% in strains specific to PCV13 for pneumonia, 45% against non-blood related infections, and 75% of IPD (CAPITA Trial).

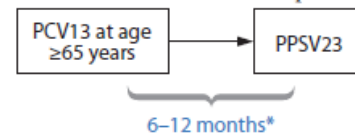
## FUTURE

**PPSV23 has 11 additional strains as compared to PCV13, which only has 13.**

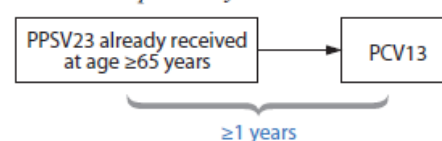
**With the current evidence showing an effective decrease in pneumococcal infections, the following guideline was created:**

**BOX. Sequential administration and recommended intervals for PCV13 and PPSV23 for adults aged  $\geq 65$  years — Advisory Committee on Immunization Practices, United States**

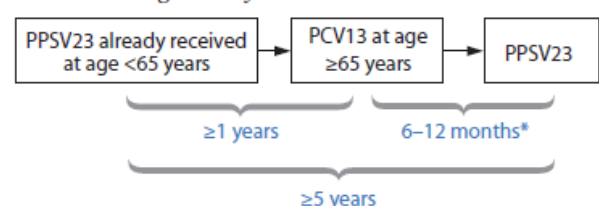
*Pneumococcal vaccine-naïve persons aged  $\geq 65$  years*



*Persons who previously received PPSV23 at age  $\geq 65$  years*



*Persons who previously received PPSV23 before age 65 years who are now aged  $\geq 65$  years*



**Abbreviations:** PCV13 = 13-valent pneumococcal conjugate vaccine; PPSV23 = 23-valent pneumococcal polysaccharide vaccine.

\*Minimum interval between sequential administration of PCV13 and PPSV23 is 8 weeks; PPSV23 can be given later than 6–12 months after PCV13 if this window is missed.