

Approval Date: [August 22, 2017](#)

Product: Pevnar 13[®]

Proper Name: Pneumococcal 13-valent Conjugate Vaccine (Diphtheria CRM₁₉₇ Protein)

Manufacturer: Wyeth Pharmaceuticals, Inc

Indication:

- Active immunization for the prevention of invasive disease caused by *Streptococcus pneumoniae* serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F in children 6 weeks through 5 years of age (prior to the 6th birthday).
- Active immunization for the prevention of otitis media caused by *S. pneumoniae* serotypes 4, 6B, 9V, 14, 18C, 19F, and 23F. No otitis media efficacy data are available for serotypes 1, 3, 5, 6A, 7F, and 19A in children 6 weeks through 5 years of age (prior to the 6th birthday).
- Active immunization for the prevention of invasive disease caused by *S. pneumoniae* serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F in children 6 years through 17 years of age (prior to the 18th birthday).
- Active immunization for the prevention of pneumonia and invasive disease caused by *S. pneumoniae* serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F in adults 18 years of age and older.

Description: Pevnar 13, Pneumococcal 13-valent Conjugate Vaccine (Diphtheria CRM₁₉₇ Protein) is a sterile suspension of saccharides of the capsular antigens of *Streptococcus pneumoniae* serotypes 1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F, and 23F, individually linked to non-toxic diphtheria CRM₁₉₇ protein. Each serotype is grown in soy peptone broth.

BLA: 125324

Regulatory Milestone:

The original protocol for study B1851138 was submitted to IND 13142 on September 19, 2012. CBER provided comments regarding the proposed study protocol on March 12, 2013, followed by a teleconference on March 26, 2013. A revised protocol incorporating CBER comments was submitted on November 4, 2013; this protocol also specified use of an inactivated quadrivalent influenza vaccine approved by the Food and Drug Administration (FDA) for the 2014-2015 season. Study enrollment began on September 18, 2014. The final clinical study report was submitted on November 23, 2015 to STN 125324/1376.0. On January 22, 2016, Wyeth submitted an amendment to the final clinical study report due to administrative changes to STN 125324/1376.1.

PDUFA Goal Date: March 26, 2017

Package Insert: [Package Insert - Prevnar 13](#)

Summary Basis for Regulatory Approval: [March 24, 2017 Summary Basis for Regulatory Action - Prevnar 13](#)

European Public Assessment Report: [Human medicine European public assessment report \(EPAR\): Prevenar 13](#)

Advisory Committee:

There were no issues pertaining to this supplement that required input from the Vaccines and Related Biological Products Advisory Committee. However, On [November 16, 2011](#), the Center for Biologics Evaluation and Research (CBER) convened a Vaccines and Related

Biological Products Advisory Committee (VRBPAC) meeting to seek input on the immunogenicity and safety data submitted to STN 125324/262. The Committee noted both the diminished antibody responses following concomitantly administered PCV13 and inactivated TIV in Pneumovax 23 (PPSV23)-naïve adults ≥ 50 years of age and the lack of data on the concomitant administration of PCV13 and inactivated influenza vaccine in PPSV23 preimmunized adults ≥ 50 years of age. The concern was whether the data in the PPSV23-naïve group could be extrapolated to PPSV23 pre-immunized adults, or if there is a need for a study in PPSV23 pre-immunized adults. There did not appear to be support for extrapolation at the meeting.

Safety:

Safety monitoring consisted of the following:

- Close observation of subjects for at least 20 minutes for acute reactions
- Collecting and recording unsolicited adverse events (AEs) and serious adverse events (SAEs) from signing of the informed consent document to the final telephone contact 6 months after the last study vaccination.
- Newly diagnosed chronic medical conditions (including autoimmune and neuroinflammatory disease) were collected at the last study telephone contact 6 months after the last study vaccination.

NCT Numbers:

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|---------------|---------------|---------------|
| • NCT00737503 | • NCT00938327 | • NCT03104075 |
| • NCT01636193 | • NCT02892812 | • NCT02215863 |
| • NCT01435967 | • NCT01513551 | • NCT02123433 |
| • NCT01636739 | • NCT01654263 | • NCT01852591 |

- NCT01735084
- NCT02547649
- NCT03207750
- NCT01174849
- NCT04100772
- NCT01953510
- NCT01282216
- NCT01443416
- NCT02279589
- NCT04398706
- NCT01681992
- NCT03802994
- NCT02184572
- NCT03896477
- NCT01049035
- NCT02308540

EudraCT Numbers:

- 2013-003459-39
- 2014-004158-32
- 2018-001151-12
- 2018-000066-11
- 2016-001117-25
- 2017-004024-30
- 2012-005713-39
- 2017-001909-32
- 2010-019775-29
- 2017-004915-38
- 2011-004891-12
- 2008-004766-40
- 2018-004316-22
- 2019-000341-12
- 2009-017304-88
- 2013-004194-27
- 2011-004108-39
- 2014-004577-16
- 2014-005061-72
- 2008-004767-19
- 2013-003488-71
- 2011-004095-10
- 2011-004542-18
- 2011-004905-26
- 2008-003688-38
- 2011-006161-18
- 2018-004266-33
- 2016-003268-37
- 2018-003787-31
- 2013-004304-19
- 2013-003530-33

Publications:

- Esposito, S., Tansey, S., Thompson, A., Razmpour, A., Liang, J., Jones, T. R., Ferrera, G., Maida, A., Bona, G., Sabatini, C., Pugni, L., Emini, E. A., Gruber, W. C., Scott, D. A., & Principi, N. (2010). Safety and immunogenicity of a 13-valent pneumococcal conjugate vaccine compared to those of a 7-valent pneumococcal conjugate vaccine

given as a three-dose series with routine vaccines in healthy infants and toddlers. *Clinical and vaccine immunology: CVI*, 17(6), 1017–1026. <https://doi.org/10.1128/CVI.00062-10>

- Schwarz, T. F., Flamaing, J., Rümke, H. C., Penzes, J., Juergens, C., Wenz, A., Jayawardene, D., Giardina, P., Emini, E. A., Gruber, W. C., & Schmoele-Thoma, B. (2011). A randomized, double-blind trial to evaluate immunogenicity and safety of 13-valent pneumococcal conjugate vaccine given concomitantly with trivalent influenza vaccine in adults aged ≥ 65 years. *Vaccine*, 29(32), 5195–5202. <https://doi.org/10.1016/j.vaccine.2011.05.031>
- Frenck, R. W., Jr, Gurtman, A., Rubino, J., Smith, W., van Cleeff, M., Jayawardene, D., Giardina, P. C., Emini, E. A., Gruber, W. C., Scott, D. A., & Schmöle-Thoma, B. (2012). Randomized, controlled trial of a 13-valent pneumococcal conjugate vaccine administered concomitantly with an influenza vaccine in healthy adults. *Clinical and vaccine immunology: CVI*, 19(8), 1296–1303. <https://doi.org/10.1128/CVI.00176-12>
- Poellabauer, E. M., Pavlova, B. G., Fritsch, S., Singer, J., Neubauer, C., Doralt, J., Valenta-Singer, B., & Ehrlich, H. J. (2013). Single priming dose of meningococcal group C conjugate vaccine (NeisVac-C®) in infants. *Vaccine*, 31(35), 3611–3616. <https://doi.org/10.1016/j.vaccine.2013.04.070>
- Jackson, L. A., Gurtman, A., van Cleeff, M., Frenck, R. W., Treanor, J., Jansen, K. U., Scott, D. A., Emini, E. A., Gruber, W. C., & Schmoele-Thoma, B. (2013). Influence of initial vaccination with 13-valent pneumococcal conjugate vaccine or 23-valent pneumococcal polysaccharide vaccine on anti-pneumococcal responses following subsequent pneumococcal vaccination in adults 50 years and older. *Vaccine*, 31(35), 3594–3602. <https://doi.org/10.1016/j.vaccine.2013.04.084>
- Jackson, L. A., Gurtman, A., van Cleeff, M., Jansen, K. U., Jayawardene, D., Devlin, C., Scott, D. A., Emini, E. A., Gruber, W. C., & Schmoele-Thoma, B. (2013). Immunogenicity and safety of a 13-valent pneumococcal conjugate vaccine compared to a 23-valent pneumococcal polysaccharide vaccine in pneumococcal vaccine-naive adults. *Vaccine*, 31(35), 3577–3584. <https://doi.org/10.1016/j.vaccine.2013.04.085>
- Jackson, L. A., Gurtman, A., Rice, K., Pauksens, K., Greenberg, R. N., Jones, T. R., Scott, D. A., Emini, E. A., Gruber, W. C., & Schmoele-Thoma, B. (2013). Immunogenicity and safety of a 13-valent pneumococcal conjugate vaccine in adults 70

years of age and older previously vaccinated with 23-valent pneumococcal polysaccharide vaccine. *Vaccine*, 31(35), 3585–3593.

<https://doi.org/10.1016/j.vaccine.2013.05.010>

- Madhi, S. A., Koen, A., Cutland, C. L., Jose, L., Govender, N., Wittke, F., Olugbosi, M., Sobanjo-Ter Meulen, A., Baker, S., Dull, P. M., Narasimhan, V., & Slobod, K. (2017). Antibody Kinetics and Response to Routine Vaccinations in Infants Born to Women Who Received an Investigational Trivalent Group B Streptococcus Polysaccharide CRM197-Conjugate Vaccine During Pregnancy. *Clinical infectious diseases: an official publication of the Infectious Diseases Society of America*, 65(11), 1897–1904. <https://doi.org/10.1093/cid/cix666>
- Nolan, T. M., Nissen, M. D., Naz, A., Shepard, J., Bedell, L., Hohenboken, M., Odriljin, T., & Dull, P. M. (2014). Immunogenicity and safety of a CRM-conjugated meningococcal ACWY vaccine administered concomitantly with routine vaccines starting at 2 months of age. *Human vaccines & immunotherapeutics*, 10(2), 280–289. <https://doi.org/10.4161/hv.27051>
- Juergens, C., de Villiers, P. J., Moodley, K., Jayawardene, D., Jansen, K. U., Scott, D. A., Emini, E. A., Gruber, W. C., & Schmoele-Thoma, B. (2014). Safety and immunogenicity of 13-valent pneumococcal conjugate vaccine formulations with and without aluminum phosphate and comparison of the formulation of choice with 23-valent pneumococcal polysaccharide vaccine in elderly adults: a randomized open-label trial. *Human vaccines & immunotherapeutics*, 10(5), 1343–1353. <https://doi.org/10.4161/hv.27998>
- Trück, J., Snape, M. D., Tatangeli, F., Voysey, M., Yu, L. M., Faust, S. N., Heath, P. T., Finn, A., & Pollard, A. J. (2014). Pneumococcal serotype-specific antibodies persist through early childhood after infant immunization: follow-up from a randomized controlled trial. *PloS one*, 9(3), e91413. <https://doi.org/10.1371/journal.pone.0091413>
- Isturiz, R., & Webber, C. (2015). Prevention of adult pneumococcal pneumonia with the 13-valent pneumococcal conjugate vaccine: CAPiTA, the community-acquired pneumonia immunization trial in adults. *Human vaccines & immunotherapeutics*, 11(7), 1825–1827. <https://doi.org/10.1080/21645515.2015.1043502>