Approval Date: December 28, 2020

Product: Adacel

Proper Name: Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine, Adsorbed

Manufacturer: Sanofi Pasteur, Ltd

Indication: Immunization for prevention of tetanus, diphtheria and pertussis as a single dose in persons 10 through 64 years of age.

Description: Adacel is a sterile isotonic suspension of tetanus and diphtheria toxoids and pertussis antigens adsorbed on aluminum phosphate, for intramuscular injection.

BLA: BL 125111

Regulatory Milestone:

Adacel was initially approved in the US in 2005 for use as a single-dose booster in persons 11 through 64 years of age. On June 28, 2017, the applicant submitted a Type C Meeting request under IND 9226 to discuss the safety and immunogenicity data from Study Td537 entitled, "Safety and Immunogenicity in Adults of Revaccination with Adacel Vaccine 10 Years after a Previous Dose." The Type C meeting (CRMTS #10830) was held with the applicant on September 19, 2017, to provide feedback on the acceptability of the data from clinical trial Td537.

On December 12, 2017, this efficacy supplement for Adacel was submitted under STN 125111/679 which included data from three studies Td537, Td518 and Td506LT to support

removal of "single-dose" indication from currently approved prescribing information and introduce a dose-interval for administration of a second dose of Adacel in adults.

PDUFA Goal Date: January 11, 2019

Package Insert: Package Insert - Adacel

Summary Basis for Regulatory Approval: January 11, 2019 Summary Basis for Regulatory Action - Adacel

European Public Assessment Report: No data available

Advisory Committee:

No issues were identified during the review of the supplement that required presentation before the Vaccines and Related Biological Products Advisory Committee.

NCT Numbers:

- NCT01629589
- NCT01311557
- NCT01040052
- NCT00319553
- NCT00712959
- NCT00457249
- NCT01439165
- NCT00797511
- NCT00347958
- NCT01689324
- NCT00258895
- NCT00802867
- NCT00988884

EudraCT Numbers:

- 2015-005190-21
- 2015-005197-38
- 2015-005181-33
- 2015-005627-84
- 2015-005629-38
- 2015-003914-25
- 2015-005590-20
- 2015-005589-43
- 2015-005842-69
- 2015-005628-25
- 2015-003941-24
- 2015-005845-30
- 2016-001963-35
- 2015-005843-15
- 2015-005844-32

- 2019-003136-23
- 2015-003950-41
- 2018-003838-32
- 2015-003500-23
- 2014-005014-36

Publications:

- Vesikari, T., Wysocki, J., Beeslaar, J., Eiden, J., Jiang, Q., Jansen, K. U., Jones, T. R., Harris, S. L., O'Neill, R. E., York, L. J., & Perez, J. L. (2016). Immunogenicity, Safety, and Tolerability of Bivalent rLP2086 Meningococcal Group B Vaccine Administered Concomitantly With Diphtheria, Tetanus, and Acellular Pertussis and Inactivated Poliomyelitis Vaccines to Healthy Adolescents. *Journal of the Pediatric Infectious Diseases Society*, *5*(2), 180–187. https://doi.org/10.1093/jpids/piv064
- Hansen, J., Timbol, J., Lewis, N., Pool, V., Decker, M. D., Greenberg, D. P., & Klein, N. P. (2016). Safety of DTaP-IPV/Hib vaccine administered routinely to infants and toddlers. *Vaccine*, *34*(35), 4172–4179. https://doi.org/10.1016/j.vaccine.2016.06.062
- Robertson, C. A., Greenberg, D. P., Hedrick, J., Pichichero, M., Decker, M. D., & Saunders, M. (2016). Safety and immunogenicity of a booster dose of meningococcal (groups A, C, W, and Y) polysaccharide diphtheria toxoid conjugate vaccine. *Vaccine*, *34*(44), 5273–5278. https://doi.org/10.1016/j.vaccine.2016.09.003
- Hansen, J., Zhang, L., Klein, N. P., Robertson, C. A., Decker, M. D., Greenberg, D. P., Bassily, E., & Baxter, R. (2017). Post-licensure safety surveillance study of routine use of quadrivalent meningococcal diphtheria toxoid conjugate vaccine. *Vaccine*, *35*(49 Pt B), 6879–6884. https://doi.org/10.1016/j.vaccine.2017.09.032
- Klein, N. P., Abu-Elyazeed, R., Cheuvart, B., Janssens, W., & Mesaros, N. (2019). Immunogenicity and safety following primary and booster vaccination with a hexavalent diphtheria, tetanus, acellular pertussis, hepatitis B, inactivated poliovirus and Haemophilus influenzae type b vaccine: a randomized trial in the United States. *Human vaccines & immunotherapeutics*, *15*(4), 809–821. https://doi.org/10.1080/21645515.2018.1549449
- Halperin, S. A., Donovan, C., Marshall, G. S., Pool, V., Decker, M. D., Johnson, D. R., Greenberg, D. P., & Tdap Booster Investigators (2019). Randomized Controlled Trial of the Safety and Immunogenicity of Revaccination With Tetanus-Diphtheria-Acellular Pertussis Vaccine (Tdap) in Adults 10 Years After a Previous Dose. *Journal of the Pediatric Infectious Diseases Society*, *8*(2), 105–114. https://doi.org/10.1093/jpids/pix113
- Gustafsson, L., Hallander, H. O., Olin, P., Reizenstein, E., & Storsaeter, J. (1996). A controlled trial of a two-component acellular, a five-component acellular, and a whole-cell pertussis vaccine. *The New England journal of medicine*, *334*(6), 349–355. https://doi.org/10.1056/NEJM199602083340602