JANUARY 7, 2025

CDC's website is being modified to comply with President Trump's Executive Orders.

GRADE Evidence Tables – Recommendations in MMWR

AT A GLANCE

The following is an index of GRADE (Grading of Recommendations, Assessment, Development and Evaluation) methods and evidence tables that accompany ACIP recommendations. This standardized process for developing ACIP recommendations enhances transparency, consistency, and communication.

List of GRADE Materials and Evidence Tables

These are indexed by alphabetical pathogen, in most recently published order:

- Cholera vaccines
- COVID-19 vaccines
- Dengue vaccines
- Ebola vaccine
- Hepatitis A vaccine
- Hepatitis B vaccines
- Human papillomavirus vaccines
- Influenza vaccines
- Japanese encephalitis vaccine
- Meningococcal vaccines
- Mumps vaccine
- Orthopoxvirus vaccines
- Pneumococcal vaccines
- Rabies vaccines
- Respiratory syncytial virus immunizations
- Tick-borne encephalitis vaccine
- Yellow fever vaccine
- Zoster vaccine

Cholera vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Lyophilized CVD 103-HgR Vaccine Among Children and Adolescents Aged 2–17 Years Linked from MMWR; September 30, 2022 / 71(2);1–8

Use of Cholera Lyophilized CVD 103-HgR Vaccine
Linked from MMWR; May 12, 2017 / 66(18);482-5

COVID-19 vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Updated COVID-19 vaccine (2024-2025 Formulation)
Linked from MMWR; September 19, 2024 / 73(37);819–824

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Updated COVID-19 vaccine (2023-2024 Formulation)
Linked from MMWR; October 20, 2023 / 72(42);1140-1146

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Novavax COVID-19 Vaccine
Linked from MMWR; August 4, 2022/ 71(31); 988-992

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Moderna COVID-19 Vaccine for Children Aged 6–11 Years

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Moderna COVID-19 Vaccine for Persons Aged 12-17 Years

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Moderna COVID-19 Vaccine for Children Aged 6 Months–5 Years
Linked from MMWR; June 28, 2022/ 71(26)

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer-BioNTech COVID-19 Vaccine for Children Aged 6 Months–4 Years
Linked from MMWR; June 28, 2022/ 71(26)

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Moderna COVID-19 Vaccine
Linked from MMWR; March 18, 2022 / 71(11);416–421

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer-BioNTech COVID-19 Vaccine for Children 5-11 Years
November 5, 2021

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer-BioNTech, Moderna, and Janssen COVID-19 booster doses
Linked from MMWR; October 29, 2021 / 70(44)

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer-BioNTech COVID-19 Vaccine for Persons Aged 12-15 Years
May 14, 2021

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Janssen COVID-19 Vaccine
Linked from MMWR; March 2, 2021 / 70(9);329–332

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Moderna COVID-19 Vaccine
Linked from MMWR; January 1, 2021 / 69(5152);1653-1656

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer-BioNTech COVID-19 Vaccine
Linked from MMWR; December 18, 2020 / 69(50);1922-1924

Dengue vaccines

GRADE Analysis: Dengvaxia® Dengue Vaccine
Linked from MMWR; December 17, 2021 / 70(6);1–16

Ebola vaccine

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): rVSVΔG-ZEBOV-GP Ebola vaccine for persons in the U.S. population who are at potential occupational risk of exposure to Ebola virus
Linked from MMWR; January 8, 2021 / 70(1);1–12

Hepatitis A vaccine

Use of Hepatitis A Vaccine for Persons With HIV
Linked from MMWR; July 3, 2020 / 69(5);1–38

Use of Hepatitis A Vaccine for Persons Experiencing Homelessness
Linked from MMWR; February 15, 2019 / 68(6);153-6

Use of Hepatitis A vaccine for post-exposure prophylaxis in adults >40 years of age
Linked from MMWR; November 1, 2018 / 67(43);1216-1220

Hepatitis B vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Hepatitis B (HepB) Vaccine
Linked from MMWR; April 1, 2022 / 71(13);477–483

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): PreHevbrio Hepatitis B (HepB) Vaccine
Linked from MMWR; April 1, 2022 / 71(13);477–483

Use of Heplisav-B (HepB-CpG)
Linked from MMWR; April 20, 2018 / 67(15);455–458

Hepatitis B Vaccine in Adults with Diabetes
Linked from MMWR; December 23, 2011/ 60(50);1709-11

HPV vaccines

Use of HPV Vaccine in Adults, Ages 27 through 45 years
Linked from MMWR; August 16, 2019 / 68(32);698-702

Use of a 2-Dose Schedule for Human Papillomavirus Vaccination
Linked from MMWR; December 16, 2016 / 65(49);1405-8

Use of 9-Valent Human Papillomavirus Vaccine (9vHPV) in Females and Males
Linked from MMWR; March 27, 2015 / 64(11);300-304

Quadrivalent HPV Vaccine for Males
Linked from MMWR; December 23, 2011 / 60(50);1705-8

Influenza vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Safety of Influenza Vaccines for Persons with Egg Allergy
Linked from MMWR; August 25, 2023 / 72(2);1–25

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Higher Dose and Adjuvanted Influenza Vaccines for Persons Aged ≥65 Years
Linked from MMWR; August 26, 2022 / 71(1);1–28

Use of LAIV in children aged 2 through 8 years
Linked from MMWR; August 15, 2014 / 63(32);691-697

Japanese encephalitis vaccine

Use of Japanese Encephalitis Vaccine
Linked from MMWR; July 19, 2019 / 68(2);1–33

Use of Japanese Encephalitis Vaccine in Children
Linked from MMWR; November 15, 2013 / 62(45);898-900

Meningococcal vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer's Pentavalent Meningococcal Vaccine (MenACWY-TT/MenB-FHbp)
Linked from MMWR; April 18, 2024 / 73(15);345–350

Use of MenACWY-TT (MenQuadfi) as an option for meningococcal serogroup A, C, W, and Y (MenACWY) vaccination
Linked from MMWR; September 25, 2020 / 69(9);1–41

Use of Serogroup B Meningococcal (MenB) vaccines for persons at increased risk for serogroup B meningococcal disease
Linked from MMWR; September 25, 2020 / 69(9);1–41

Use of Meningococcal Conjugate Vaccines in HIV-Infected Persons
Linked from MMWR; November 4, 2016 / 65(43);1189-94

Use of Serogroup B Meningococcal (MenB) Vaccines in Adolescents and Young Adults (Including College Students)
Linked from MMWR; October 23, 2015 / 64(41);1171-6

Use of Serogroup B Meningococcal (MenB) Vaccines in Persons at Increased Risk for Serogroup B Meningococcal Disease
Linked from MMWR; June 12, 2015 / 64(22);608-612

Infant Meningococcal Vaccines
Linked from MMWR; March 22, 2013 / 62(RR02);1-22

Mumps vaccine

Use of a Third Dose of Mumps Virus-Containing Vaccine in Persons at Increased Risk for Mumps Disease Because of a Mumps Outbreak
Linked from MMWR; January 12, 2018 / 67(1);33–8

Orthopoxvirus vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Use of JYNNEOS® (orthopoxvirus) vaccine heterologous for those who received ACAM2000 primary series

Linked from MMWR; June 3, 2022 / 71(22);734–742

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Use of JYNNEOS (orthopoxvirus) vaccine primary series for research, clinical laboratory, response team, and healthcare personnel (Policy Questions 1 and 2)
Linked from MMWR; June 3, 2022 / 71(22);734–742

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Use of JYNNEOS® (orthopoxvirus) vaccine booster (Policy Questions 3 and 4)
Linked from MMWR; June 3, 2022 / 71(22);734–742

Use of Smallpox Vaccine in Laboratory and Health-Care Personnel at Risk for Occupational Exposure to Orthopoxviruses
Linked from MMWR; March 18, 2016 / 65(10);257-62

Pneumococcal vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 21-valent Pneumococcal Conjugate Vaccine (PCV21) Use among Adults Aged ≥19 Years Who Currently Have a Recommendation to Receive a Pneumococcal Conjugate Vaccine
Linked from MMWR; September 12, 2024 / 73(36);793–798

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 21-valent Pneumococcal Conjugate Vaccine (PCV21) Use among Adults Aged 19–49 Years Who Currently Do Not Have a Risk-Based Pneumococcal Vaccine Indication
Linked from MMWR; September 12, 2024 / 73(36);793–798

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 21-valent Pneumococcal Conjugate Vaccine (PCV21) Use among Adults Aged 50–64 Years Who Currently Do Not Have a Risk-Based Pneumococcal Vaccine Indication
Linked from MMWR; September 12, 2024 / 73(36);793–798

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 20-valent pneumococcal conjugate vaccine (PCV20) for children aged 2 through 18 years with underlying medical conditions
Linked from MMWR; September 29, 2023 / 72(39);1072

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 20-valent pneumococcal conjugate vaccine (PCV20) for children aged <2 years
Linked from MMWR; September 29, 2023 / 72(39);1072

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 20-valent pneumococcal conjugate vaccine (PCV20) use among adults aged 19–64 years with an immunocompromising condition, cerebrospinal fluid leak, or cochlear implant who previously received a 13-valent pneumococcal conjugate vaccine (PCV13)
Linked from MMWR; September 8, 2023 / 72(3);1–39

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 20-valent pneumococcal conjugate vaccine (PCV20) use among adults aged ≥65 years who previously received a 13-valent pneumococcal conjugate vaccine (PCV13)
Linked from MMWR; September 8, 2023 / 72(3);1–39

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 15-valent pneumococcal conjugate vaccine (PCV15) use in children aged <2 years
Linked from MMWR; September 16, 2022 / 71(37);1174–1181

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): PCV15 use in children aged 2–18 years with certain underlying medical conditions that increase the risk of pneumococcal disease
Linked from MMWR; September 16, 2022 / 71(37);1174–1181

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 20-valent pneumococcal conjugate vaccine (PCV20) for adults aged 19–64 years with underlying medical conditions or other risk factors
Linked from MMWR; January 28, 2022 / 71(4);109–117

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 20-valent pneumococcal conjugate vaccine (PCV20) for adults aged ≥65 years
Linked from MMWR; January 28, 2022 / 71(4);109–117

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE):15-valent pneumococcal conjugate vaccine (PCV15) in series with 23-valent pneumococcal conjugate vaccine (PPSV23) for adults aged 19–64 years with underlying medical conditions or other risk factors
Linked from MMWR; January 28, 2022 / 71(4);109–117

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 15-valent pneumococcal conjugate vaccine (PCV15) in series with 23-valent pneumococcal conjugate vaccine (PPSV23) for adults aged ≥65 years
Linked from MMWR; January 28, 2022 / 71(4);109–117

Use of PCV13 among adults ≥65 years old
Linked from MMWR; November 22, 2019 / 68(46)

Use of Pneumococcal Vaccines for Adults aged ≥65 years
Linked from MMWR; September 19, 2014 / 63(37);822-815

Pneumococcal Vaccines for Immunocompromised Children
Linked from MMWR; June 28, 2013 / 62(25);521-524

Pneumococcal Vaccines for Immunocompromised Adults
Linked from MMWR; October 12, 2012 / 61(40);816-819

Rabies vaccines

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): 2-dose Rabies Vaccination Schedule
Linked from MMWR; May 6, 2022 / 71(18);619–627

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Booster Dose of Rabies Vaccine
Linked from MMWR; May 6, 2022 / 71(18);619–627

Respiratory syncytial virus immunizations

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Protein subunit RSV vaccines (GSK Arexvy and Pfizer Abrysvo) in older adults
Linked from MMWR; August 6, 2024 / 73

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Moderna mRNA RSV Vaccine (mResvia) in older adults
Linked from MMWR; August 6, 2024 / 73

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer Maternal RSV Vaccine
Linked from MMWR; October 13, 2023 / 72(41);1115–1122

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Nirsevimab, Season 1
Linked from MMWR; August 25, 2023 / 72(34);920–925

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Nirsevimab, Season 2
Linked from MMWR; August 25, 2023 / 72(34);920–925

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): GSK RSVPreF3 Vaccine (AREXVY)
Linked from MMWR; July 21, 2023 / 72(29);793–801

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Pfizer RSVpreF Vaccine (ABRYSVO)
Linked from MMWR; July 21, 2023 / 72(29);793–801

Tick-borne encephalitis vaccine

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) for Tick-Borne Encephalitis (TBE) Vaccine
Linked from MMWR; November 10, 2023 / 72(5);1–29

Yellow fever vaccine

Use of Yellow Fever Vaccine Booster Doses
Linked from MMWR; June 19, 2015 / 64(23);647-650Zoster (Shingles) Vaccines

Zoster vaccine

Grading of Recommendations, Assessment, Development, and Evaluation (GRADE): Use of Recombinant Zoster Vaccine in Immunocompromised Adults Aged ≥19 Years
Linked from MMWR; January 21, 2022 / 71(3);80–84

SOURCES

CONTENT SOURCE:
National Center for Immunization and Respiratory Diseases (NCIRD)