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SUMMARY OF CURRENT RECOMMENDATIONS ON MEASLES IMMUNIZATION

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH -- MAY 22, 2019

I. ROUTINE RECOMMENDATIONS FOR CHILDREN:

Children who will be traveling internationally:

- Infants 6 through 11 months of age should receive one extra, early dose of measles, mumps, rubella (MMR) vaccine before they travel internationally.
- Infants who get one dose of MMR vaccine before their first birthday should get two more doses starting at 12 months of age and separated by at least 28 days.
- Children 12 months of age and older should receive two doses of MMR vaccine, separated by at least 28 days.
 - Such doses for children 12 months of age and older fulfill requirements for California schools.
 - When giving MMRV vaccine to children, also wait at least 12 weeks after the first dose of varicella (V) vaccine.

Children who are not traveling internationally:

- The first dose is recommended on or after their first birthday, but not before.
- The second dose is routinely recommended at age 4 through 6 years, before school entry.
- Children can receive the second dose earlier as long as it is at least 28 days after the first dose of MMR.
 - Such doses for children 12 months of age and older fulfill requirements for California schools.
 - When giving MMRV vaccine to children, also wait at least 12 weeks after the first dose of varicella vaccine

II. ROUTINE RECOMMENDATIONS FOR ADULTS:

Presumptive evidence of measles immunity includes:

- Birth before 1957
- Laboratory evidence of immunity (measles IgG in serum)
- Laboratory confirmation of measles disease

One dose of measles-containing vaccine, or presumptive evidence of immunity, is sufficient for most adults.

- Providers do not need to screen adults routinely for measles immunity.
- Serologic testing is not required prior to immunization.

Two doses of measles-containing vaccine are recommended for adults at high risk without presumptive evidence of measles immunity, including:

- Healthcare personnel
- International travelers
- Students at post-high school educational institutions
- Persons with HIV infection with CD4 count ≥ 200 (MMR vaccine is contraindicated in persons with HIV infection with CD4 count < 200)
- Household and close contacts of immunocompromised persons

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Most adults born in the US are at low risk for measles because they have been immunized or have had natural measles disease. If an adult patient is concerned about immunity to measles:

- Persons born before 1957 are presumed to be immune because almost all have had measles disease.
- Persons born in 1957 or later who do not have records of measles vaccination or measles IgG antibody can be reassured that they are probably (> 85% of population) immune; those who remain concerned may be offered a dose of MMR vaccine or tested for measles IgG.

At this time, there is no recommendation for additional programs or campaigns for MMR immunization of adults who are not at high risk.

Killed measles vaccine, 1963-1967. Because of its limited effectiveness, the Advisory Committee for Immunization Practices (ACIP) recommends re-vaccination of the fewer than 5% of adults who received killed measles vaccine from 1963-1967. Re-vaccination is also recommended if the type of vaccine given during this period is unknown.

III. OUTBREAKS - POSSIBLE ADDITIONAL RECOMMENDATIONS

During measles outbreaks, health departments may issue additional recommendations to protect their communities based on the age groups affected by the outbreak or other factors. If there is sustained, community-wide transmission affecting the following age groups, health departments may consider recommending additional doses of measles-containing vaccines to residents and visitors, such as

- A second dose for adults
- A second dose for children aged 1 through 4 years at least 28 days after the first dose (if using MMRV, at least 12 weeks after the first dose of varicella vaccine). Such doses fulfill requirements for California schools.
- An extra, early dose of MMR vaccine to infants 6-11 months.

IV. MEDI-CAL COVERAGE (Fee for Service and Managed Care)

Immunizations recommended in this document are covered by Medi-Cal for eligible children and adults visiting a clinic or provider's office. Medi-Cal also covers adults being immunized at an in-network pharmacy – please check with your Medi-Cal managed care plan for coverage details.

Additional resources and materials

CDC Digital Toolkit for Healthcare Providers

<https://www.cdc.gov/measles/toolkit/healthcare-providers.html>

CDC Letter to Providers on Adult MMR (5/17/19)

[cdc.gov/measles/downloads/Dear-Provider-adults-surveillance-team.docx](https://www.cdc.gov/measles/downloads/Dear-Provider-adults-surveillance-team.docx)

CDC Measles Resources for Healthcare Providers

<https://www.cdc.gov/measles/hcp/index.html>

CDC MMR Vaccine Recommendations

<https://www.cdc.gov/vaccines/vpd/mmr/hcp/recommendations.html>

MMR Vaccine Information Statement (VIS)

<https://www.cdc.gov/vaccines/hcp/vis/vis-statements/mmr.html>

2007 HICPAC Guideline for Isolation Precautions

<https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf>

ACOG Measles Practice Advisory: Management of Pregnant and Reproductive-Aged Women during a Measles Outbreak

<https://www.acog.org/Clinical-Guidance-and-Publications/Practice-Advisories/Management-of-Pregnant-and-Reproductive-Age-Women-during-a-Measles-Outbreak>

CDPH Measles Webpage

<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/measles.aspx>

Patient Education Materials; Waiting Room Posters; Provider Resources

<http://eziz.org/resources/measles/>

REFERENCES

1. McLean HQ, Fiebelkorn AP, Temte JL, Wallace GS. Prevention of measles, rubella, congenital rubella syndrome, and mumps, 2013: summary recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep 2013;62(No. RR-04)
www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm
2. Patel M, Lee AD, Redd SB, et al. Increase in Measles Cases — United States, January 1–April 26, 2019. MMWR Morb Mortal Wkly Rep 2019;68:402–404. <http://dx.doi.org/10.15585/mmwr.mm6817e1>
 - From January 1 to April 26, 2019, 24% of 704 cases reported in the US were adults of at least age 20 years; most adult cases were part of outbreaks in underimmunized close-knit communities.
3. Lebo EJ et al. Seroprevalence of measles, mumps, rubella and varicella antibodies in the United States population, 2009-2010. Open Forum Infect Dis. 2015 Jan 20;2(1):ofv006.
www.ncbi.nlm.nih.gov/pmc/articles/PMC4438887/
 - In 2009-2010, the seroprevalence of antibody to measles in a representative sample of U.S. residents 20-49 years of age ranged from 88% to 93%.
4. CDC. About the Vaccine. www.cdc.gov/vaccines/vpd/mmr/hcp/about.html
 - The estimated effectiveness against measles of MMR or MMRV vaccine is 93% for one dose, and 97% for two doses.