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TO: Vaccine for Children (VFC) Providers IZB-FY-1213-10

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SUBJECT: Combined Measles, Mumps, Rubella and Varicella (MMRV) Vaccine is Again Available from the California VFC Program

## BACKGROUND

The combined measles, mumps, rubella, and varicella (MMRV) vaccine is now again available for ordering through the California Vaccines for Children (VFC) Program. Due to manufacturing constraints limiting the availability of this vaccine, MMRV had not been available for ordering by the California VFC Program since May 2007.

## RECOMMENDATIONS FOR USE

### VFC-Eligible Groups

Children aged 12 months through 12 years are eligible to receive MMRV vaccine.

### Recommended Schedule

The routinely recommended ages for measles, mumps, rubella and varicella vaccination continue to be age 12–15 months for the first dose and age 4–6 years for the second dose. The minimum interval between measles, mumps and rubella vaccine doses is 4 weeks. The minimum interval between varicella doses is 3 months for children younger than 13 years (and 4 weeks for persons 13 years and older).

Due to an increased risk of febrile seizures, the federal Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC) updated its [recommendations for MMRV in 2010](#).

For the first dose of the series given at age 12-47 months, CDC recommends that MMR vaccine and varicella vaccine be administered as separate vaccines, unless the parent or caregiver expresses a preference for the quadrivalent MMRV vaccine. Providers considering administration of MMRV vaccine as a first dose should discuss the benefits and risks of both vaccination options with the parents or caregivers.

Considerations should include provider assessment, patient preference, and the potential for adverse events.

For the second dose of measles, mumps, rubella, and varicella vaccines at any age and for the first dose at age 48 months and older, use of MMRV vaccine generally is preferred over separate injections of MMR vaccine and varicella vaccine.

### **Use of MMRV and Febrile Seizures**

Compared with children who had received separate simultaneous doses of MMR vaccine and varicella vaccine:

- For children age 12-23 months receiving their first dose of MMRV, one additional febrile seizure occurred per 2,300-2,600 children (0.04%) 5-12 days after vaccination.
- For children age 4-6 years receiving their first dose of MMRV, the risk of febrile seizures was not increased.

Febrile seizures are common in young children. By age 5 years, approximately one in every 25 children (4%) will have had a febrile seizure. The peak age is 14-18 months and approximately 97% occur in children <4 years. Young children who have febrile seizures generally have an excellent prognosis; however, febrile seizures are distressing to parents and may result in a visit to an emergency department. Children who have a febrile seizure after MMR vaccination are no more likely to have future epilepsy or neurodevelopment disorders than children who have febrile seizures for other reasons. For additional information on MMRV vaccine and febrile seizures, please see <http://www.cdc.gov/mmwr/pdf/rr/rr5903.pdf>.

### **Precautions and Contraindication to MMRV Vaccine Use**

A personal or family (i.e., sibling or parent) history of seizures of any etiology is a precaution for MMRV vaccination. For additional details on all contraindications and precautions for MMRV vaccine, please see the ACIP recommendations at: <http://www.cdc.gov/mmwr/pdf/rr/rr5903.pdf>.

### **Administration**

MMRV is administered by the subcutaneous route. MMRV vaccine may be administered simultaneously with other recommended vaccines. MMRV should not be administered within 28 days before or after another injectable or nasally administered live-virus vaccine. A minimum interval of 3 months is recommended between a dose of MMRV and a varicella-containing vaccine.

### **Storage and Handling**

The vaccine is supplied as a package of 10 single-dose vials of lyophilized vaccine and a separate package of 10 vials of sterile water diluent.

Before reconstitution, MMRV vaccine must be stored frozen at a temperature between -58°F and +5°F (-50°C to -15°C). Do not store on dry ice. Adequacy of the freezer

should be checked before obtaining or storing MMRV vaccine. The diluent should be stored separately at room temperature (68-77°F, 20-25°C) or in the refrigerator (36-46°F, 2-8°C).

MMRV should be reconstituted with the packaged diluent only. Once reconstituted, the vaccine should be used immediately to minimize loss of potency and should be discarded if not used within 30 minutes. Protect the vaccine from light at all times since such exposure may inactivate the vaccine viruses.

MMRV doses are shipped directly by Merck in new shipping packaging, similar to varicella vaccine shipment packaging, utilizing gel packs instead of dry-ice. Use of dry ice for storing, or transporting varicella containing vaccines, including MMRV and Varicella vaccines is no longer allowed. Use of dry ice may expose vaccines to temperatures below -58°F (-50°C). Routine transport or relocation of MMRV is not recommended.

## **ORDERING**

MMRV vaccine is available for ordering through MyVFCVaccines. You may find it in the "Vaccines stored in the freezer" section. Prior to placing a vaccine request for MMRV, practices should carefully review ACIP recommendations for use of this vaccine and decide how it will be incorporated into the practice's routine immunization schedule.

Orders for MMRV should be placed according to 1) the estimated number of children to be vaccinated in the practice, and 2) MMR and Varicella vaccine doses currently in inventory. Providers may need to reduce current MMR and Varicella inventories prior to ordering MMRV. Additionally, as doses of MMRV are requested, doses for MMR and Varicella requested should be reduced accordingly.

## **BILLING**

**CHDP:** The CHDP administration fee is \$9.00 using CHDP code 74 for MMRV vaccine supplied by VFC and administered to children 12 months through 12 years of age enrolled in the CHDP Program.

**Medi-Cal:** The administration fee for the Measles, Mumps, Rubella and Varicella (MMRV) vaccine provided by VFC is billed with CPT-4 code 90710 and modifier -SL for VFC-eligible children who receive a first or second dose of MMR and varicella vaccine. For details, see: [http://files.medi-cal.ca.gov/pubsdoco/publications/masters-mtp/part2/vaccine\\_m00o03o04o11.doc](http://files.medi-cal.ca.gov/pubsdoco/publications/masters-mtp/part2/vaccine_m00o03o04o11.doc).

## **SELECTING PRODUCTS FOR YOUR PRACTICE**

The decision on whether to use MMR and varicella vaccines separately or as a combination MMRV vaccine should be carefully considered by each practice. When considering use of MMRV vaccine for the first dose of measles, mumps, rubella, and varicella vaccines for children ages 12 through 47 months, the benefits

and risks should be thoroughly discussed with the parent or guardian. Because practices may stock MMR, varicella, and MMRV vaccines, thorough education of all staff and clear labeling of vaccines will be important to avoid administration errors. Communication between providers ordering specific vaccines and staff administering vaccines will be important to avoid administration errors.

## **QUESTIONS?**

For additional information, contact your local VFC Representative or the VFC customer service line at (877) 243-8832.

## **RESOURCES**

2010 ACIP Recommendations for MMRV: <http://www.cdc.gov/mmwr/pdf/rr/rr5903.pdf>

VFC Resolution No. 06/09-3:

<http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/0609-mmr.pdf>.

MMRV Vaccine Information Statement:

<http://www.cdc.gov/vaccines/pubs/vis/default.htm>.

FDA Information:

<http://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM123796.pdf>.

Combined MMRV Vaccine VFC Letter dated February 28, 2006:

<http://www.cdph.ca.gov/programs/immunize/Documents/MMRV%20Letter.pdf>.

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