October 11, 2023

TO: California Vaccines for Children (VFC) Providers

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       Center for Infectious Diseases
       Division of Communicable Disease Control

SUBJECT: Nirsevimab (Beyfortus) Now Available from VFC for Prevention of Severe RSV Disease in Young Children

SUMMARY AND BACKGROUND

Nirsevimab (Beyfortus™) is now available to order from VFC to prevent severe respiratory syncytial virus (RSV) disease in VFC-eligible infants and toddlers. VFC providers may order nirsevimab monthly.

RSV is a common cause of respiratory infections. Each year, an estimated 58,000 to 80,000 children under 5 years of age are hospitalized and 100 to 300 children die due to RSV. Virtually all children get an RSV infection by the time they are 2 years old, and infants and younger children are at increased risk of severe disease.

The US Food and Drug Administration (FDA) has licensed and CDC’s Advisory Committee for Immunization Practices (ACIP) now recommends nirsevimab, a long-acting monoclonal antibody, to protect all infants from birth to 8 months old, and some children 8 to 19 months old, against severe RSV disease. In clinical trials nirsevimab was approximately 80% effective in preventing hospitalization for RSV infection, and 90% effective against admission for intensive care. Protection from a dose of nirsevimab is expected to last at least 5 months.

A separate VFC letter will be forthcoming regarding a new prenatal RSV vaccine, RSVPreF (ABRYSVO, Pfizer), now recommended during 32-36 weeks of pregnancy to help prevent
severe RSV disease in infants, as an alternative to administering nirsevimab to young infants. This vaccine is expected to be available shortly through the VFC Program for pregnant adolescents.

Residual indications for the longstanding monoclonal RSV antibody palivizumab (synagis), which is unavailable in the VFC Program, are discussed below on page 3.

CDPH encourages each VFC provider to review information on these products. It is important to educate all staff regarding the storage, preparation, administration, dose schedule, and recordkeeping for any new immunization products used in your practice.

RECOMMENDATIONS FOR USE OF NIRSEVIMAB

One dose of nirsevimab is recommended for infants younger than 8 months of age who were born shortly before or are entering their first RSV season (typically fall through spring) if:

- The mother did not receive RSV vaccine during pregnancy.
- The mother’s RSV vaccination status is unknown.
- The infant was born within 14 days of maternal RSV vaccination.
- Except for special situations and populations, nirsevimab is not needed for infants younger than age 8 months born 14 or more days after maternal RSV vaccination.

Nirsevimab is also recommended for the following children aged 8 through 19 months old who are at increased risk for severe RSV disease shortly before or during their second RSV season:

- Children with chronic lung disease of prematurity who required medical support (chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) any time during the 6-month period before the start of the second RSV season.
- Children who are severely immunocompromised.
- Children with cystic fibrosis who have either:
  - Severe lung disease (previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable) or
  - Weight-for-length that is <10th percentile.
- American Indian and Alaska Native children.

Children ages 8 months and older who are not at increased risk of severe RSV disease should not receive nirsevimab.

Timing

For infants born during RSV season, nirsevimab can be administered in the birth hospital or outpatient clinic. For infants born outside of the RSV season, administration should be targeted shortly before the start of their first RSV season. Nirsevimab should be offered to all age-eligible children throughout the season who have not received a dose. In most places in the continental US, RSV season occurs between October through March. Providers may adjust administration schedules based on local RSV activity and epidemiology.

Route and Dosing

Administer nirsevimab intramuscularly. The preferred site of administration is the anterolateral thigh. Do not administer nirsevimab intravenously, intradermally, or subcutaneously.
For infants less than 8 months of age, dosing is based on weight:
- 50 mg for infants weighing <5 kg (<11 lb)
- 100 mg for infants weighing ≥5 kg (≥11 lb)

For high-risk children 8-19 months:
- 200 mg: two 100 mg injections at the same time at different injection sites.

**Considerations for Palivizumab (Synagis)**
If nirsevimab is not available, monthly infusions of palivizumab should be administered to high-risk children as previously recommended.

If nirsevimab is administered, palivizumab should not be administered later that season. Considerations for the use of nirsevimab or palivizumab in infants and young children at increased risk for severe RSV disease are available at [ACIP and AAP Recommendations for the Use of the Monoclonal Antibody Nirsevimab for the Prevention of RSV Disease](https://www.cdc.gov/vaccines/hcp/acip-recs/index.html).

**General Guidance**
Providers licensed to administer nirsevimab in California include physicians, physician assistants, nurses, medical assistants, pharmacists, and pharmacy interns, as long as they meet their usual conditions for immunizing.

Simultaneous administration of nirsevimab with age-appropriate vaccines is recommended in accordance with general best practices for immunization. In clinical trials, coadministration of nirsevimab with routine vaccines resulted in a similar rate of adverse events compared with administration of vaccines alone. Nirsevimab is not expected to interfere with the immune response to other routine childhood immunizations. Nirsevimab may be given with live vaccines such as MMR and Varicella.

Nirsevimab is also recommended for those with a prior history of infection or hospitalization due to RSV.

Prior to the administration of nirsevimab, parents or guardians of patients must be provided with an [RSV Immunization Information Statement](https://www.cdc.gov/vaccines/hcp/acip-recs/index.html) (as opposed to a Vaccine Information Statement [VIS]).

**HOW NIRSEVIMAB IS SUPPLIED FOR CALIFORNIA VFC PROGRAM PROVIDERS**

<table>
<thead>
<tr>
<th>Vaccine Group</th>
<th>Vaccine Name and Packaging</th>
<th>Minimum VFC Order</th>
<th>NDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSV – Babies under 5 kg</td>
<td>Beyfortus 50 mg/0.5 mL pre-filled syringe</td>
<td>5 doses</td>
<td>49281-0575-15</td>
</tr>
<tr>
<td>RSV – Babies 5 kg and over</td>
<td>Beyfortus 100 mg/1.0 mL pre-filled syringe</td>
<td>5 doses</td>
<td>49281-0574-15</td>
</tr>
</tbody>
</table>

**Ingredients**
Each 0.5 mL contains 50 mg nirsevimab-alip, arginine hydrochloride (8 mg), histidine (1.1 mg), L-histidine hydrochloride monohydrate (1.6 mg), polysorbate 80 (0.1 mg), sucrose (21 mg), and water for injection (USP). The pH is 6.0.
Each 1 mL contains 100 mg nirsevimab-alip, arginine hydrochloride (17 mg), histidine (2.2 mg), L-histidine hydrochloride monohydrate (3.3 mg), polysorbate 80 (0.2 mg), sucrose (41 mg), and water for injection (USP). The pH is 6.0.

POTENTIAL VACCINE REACTIONS

Adverse events were reported within 360 days after injection in 1.2% of participants who received nirsevimab in the phase 2 and 3 clinical trials. Most (97%) adverse events were mild to moderate, including: rash within 14 days of injection (0.9% of nirsevimab recipients versus 0.6% of placebo recipients) and injection site reactions occurring within 7 days of injection (0.3% of nirsevimab recipients versus 0% of placebo recipients).

The incidence of serious adverse events was not increased in infants who received nirsevimab compared with those receiving placebo. No instances of anaphylaxis or immune complex disease were reported.

CONTRAINDICATIONS AND PRECAUTIONS

Nirsevimab is contraindicated in infants and children with a history of severe allergic reactions (e.g., anaphylaxis) to nirsevimab or to any of its components, per FDA package insert.

It should be given with caution to persons with bleeding disorders. See General Best Practice Guidelines for Immunization on vaccinating persons with increased risk for bleeding.

Vaccination should be deferred for persons with a moderate or severe acute illness they have improved. This precaution avoids causing diagnostic confusion between the underlying illness and potential adverse effects of immunization. Mild illness – with or without fever – is not a reason to delay administration of nirsevimab.

Adverse events after giving nirsevimab alone should be reported to the MedWatch Adverse Event Reporting Program. Adverse events after co-administering nirsevimab with a vaccine should be reported to the Vaccine Adverse Event Reporting System.

STORAGE AND HANDLING

Proper storage and handling of nirsevimab is essential to ensure it is effective.
- Nirsevimab should be stored in the refrigerator between 36°F to 46°F (2°C to 8°C).
- Nirsevimab may be kept at room temperature 68°F to 77°F (20°C to 25°C) for a maximum of 8 hours.
- After removal from the refrigerator, nirsevimab must be used within 8 hours or discarded.
- Store nirsevimab in the original carton to protect from light until time of use.
- Do not freeze. Do not shake. Do not expose to heat.

Nirsevimab is supplied as pre-filled syringes for one time use only. The 50-mg dose formulation has a purple plunger rod, while the 100-mg formulation has a light blue plunger rod.

ORDERING

Requirements

VFC providers must order vaccines recommended for their pediatric patients. As agreed upon during initial enrollment and recertification, all actively enrolled VFC Providers must “order all
ACIP-recommended vaccines (including flu and special-order vaccines) to meet the needs of the total VFC-eligible patient populations reported for the VFC PIN* (Provider Agreement Addendum 8A). VFC providers are required to offer nirsevimab if they see patients in the recommended age group, along with all other age-appropriate ACIP-recommended vaccines. Note: Birth hospitals that are caring only for newborn infants should order nirsevimab and birth doses of Hepatitis B vaccine but are not required to order other routine vaccines.

**Process**

VFC providers may now order nirsevimab using the VFC order form of their MyVFCVaccines account, as with other vaccines. As you consider the number of doses to request, review your VFC-eligible patient population and order only enough doses to cover your VFC-eligible patients. Vaccine requests will be reviewed and approved based on reported VFC patient population.

**Frequency**

To allow for smaller, frequent orders, all VFC providers may order nirsevimab monthly. High and Very-High Volume providers can already order monthly, so there is no change to their regular order frequency. However, Low and Medium Volume providers can now order monthly for (but report full inventory if last order was more than 30 days ago). Use this opportunity to order other routine vaccines if needed. Order enough vaccine to last within the monthly order timeframe.

**Volume Caps**

As with our other routine vaccines, the VFC Order form has a cap based on provider volume.

- Low and Medium volume providers may request up to 100 doses;
- High and Very High volume providers may request up to 990 doses.

Providers who need more doses than these limits may enter a justification in the comments for review by the VFC Central Office. Please keep in mind that the ordering should be for a one-month period.

**BILLING**

**CHDP**

Claims may be submitted for VFC-supplied vaccine doses administered to CHDP-eligible patients through age 18 years. Please refer to the CHDP Provider manual and relevant CHDP Provider Information Notice. For questions, CHDP providers may contact their County CHDP Program.

**Medi-Cal Fee-For-Service (FFS)**

To bill Medi-Cal FFS for administration of VFC-supplied vaccine doses, use the appropriate CPT-4 code, followed by the “-SL” modifier. Providers will only be reimbursed for the administration fee when using VFC vaccines for Medi-Cal FFS-eligible patients.

- Beyfortus 50 mg/0.5 mL syringe (NDC: 49281-0575-15) CPT Code: 90380-SL
- Beyfortus 100 mg/1 mL syringe (NDC: 49281-0574-15) CPT Code: 90381-SL

For specific information and details on Medi-Cal billing, please refer to the Medi-Cal provider manual on VFC. Providers with questions on Medi-Cal billing policies and procedures and Provider manual information may call the Telephone Service Center (TSC) at 1-800-541-5555.
Medi-Cal Managed Care
Please contact the specific Medi-Cal managed care health plan for information on immunization billing and reimbursement.

REPORTING VACCINE ADMINISTRATION TO CAIR
All VFC providers are required to enter all vaccine doses administered into CAIR or Healthy Futures/RIDE, in accordance with state law and the 2023 VFC Provider Participation Agreement. Please also make sure that the appropriate VFC Eligibility category is recorded for doses.

RESOURCES
- CDC MMWR: Use of Nirsevimab for the Prevention of Respiratory Syncytial Virus Disease Among Infants and Young Children: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023
- CDC Healthcare Providers: RSV Prevention Information
- CDC Frequently Asked Questions About RSV Immunization for Children 19 Months and Younger
- ACIP and AAP Recommendations for Nirsevimab, Red Book Online
- AAP Nirsevimab Frequently Asked Questions
- RSV ACIP Vaccine Recommendations
- Immunization Information Sheet-RSV Preventive Antibody: What You Need to Know-September 25, 2023 (cdc.gov)
- EZIZ RSV Immunization Resources