



Preventing Vaccine Administration Errors

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May 9, 2024

Nirsevimab Errors

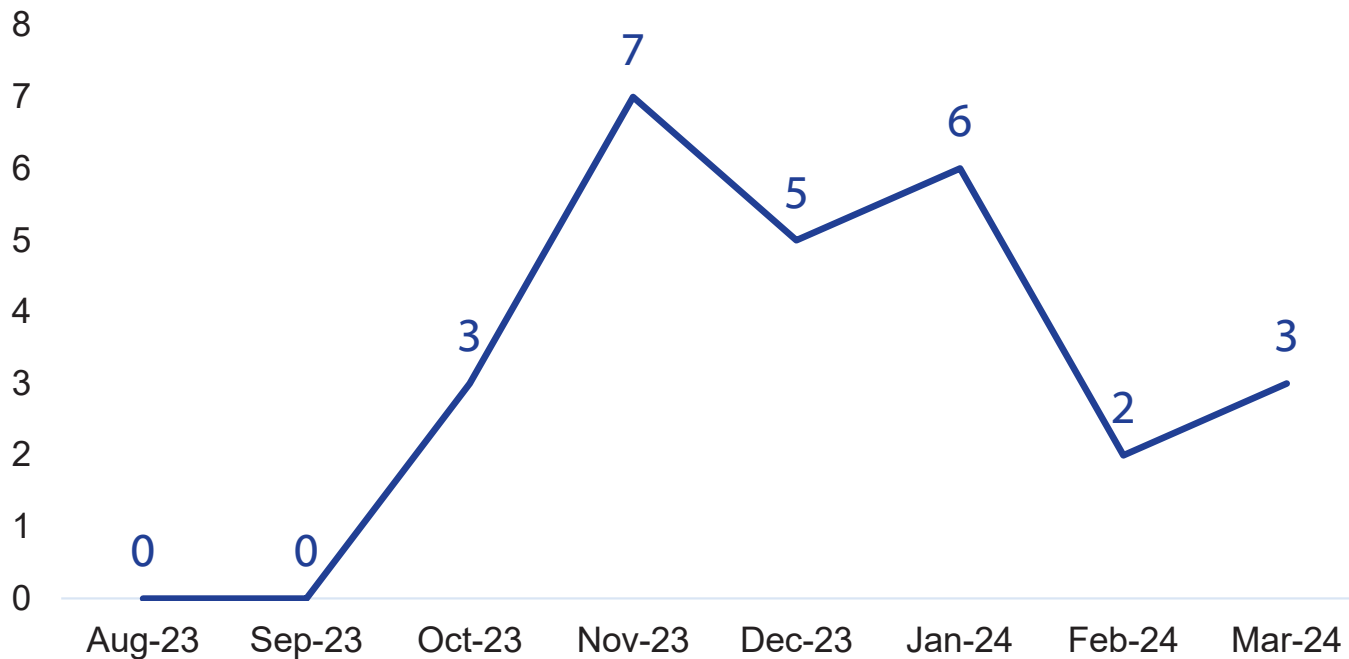
NIP-INFO

- NIP-INFO (nipinfo@cdc.gov) is the CDC's immunization inquiry response services.
- Public health providers, health care professionals, and the general public can submit inquiries via email.
- NIP-INFO staff respond to inquiries based on CDC or ACIP guidance.
- NIP-INFO inquiries likely represent only a small proportion of vaccine administration errors that occur.



NIP-INFO received 26 nirsevimab error inquiries from August 2023–March 2024

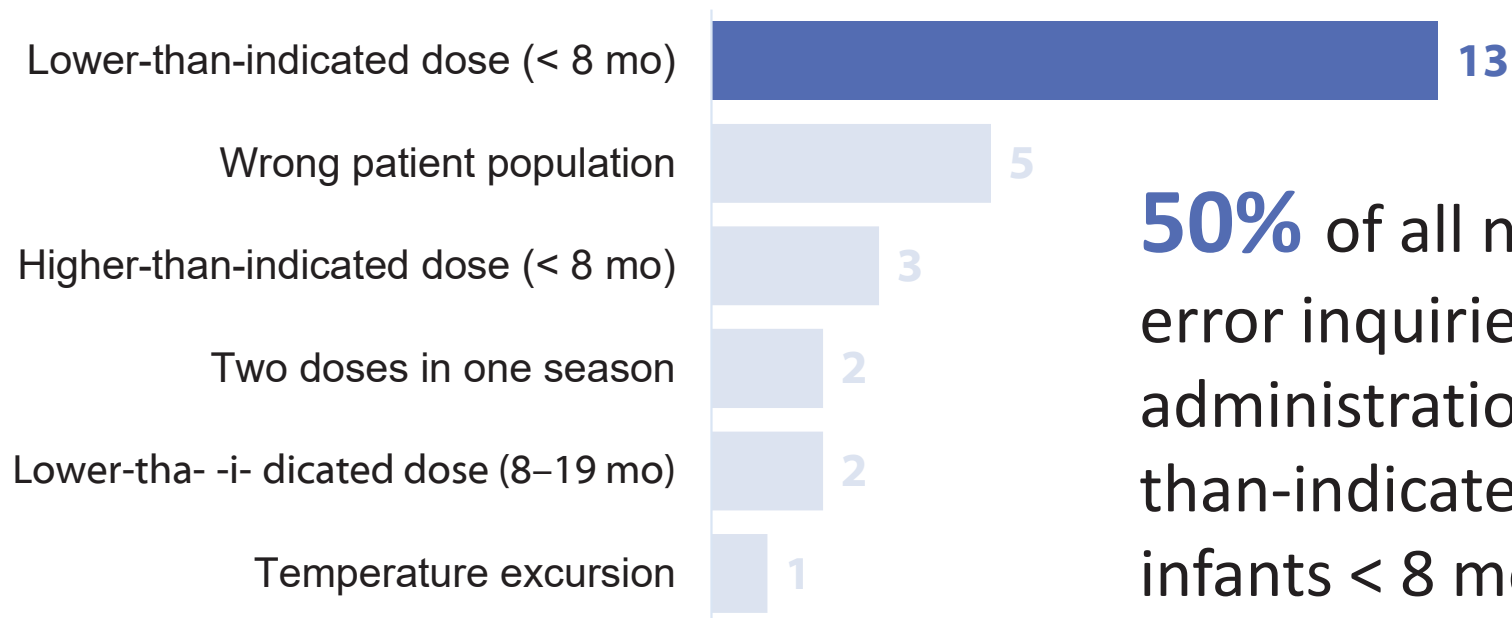
Number of niresvimab error inquiries received by month



About **one quarter** of all nirsevimab error inquiries were received during November 2023.

Inquiries asked about six different types of errors that had occurred

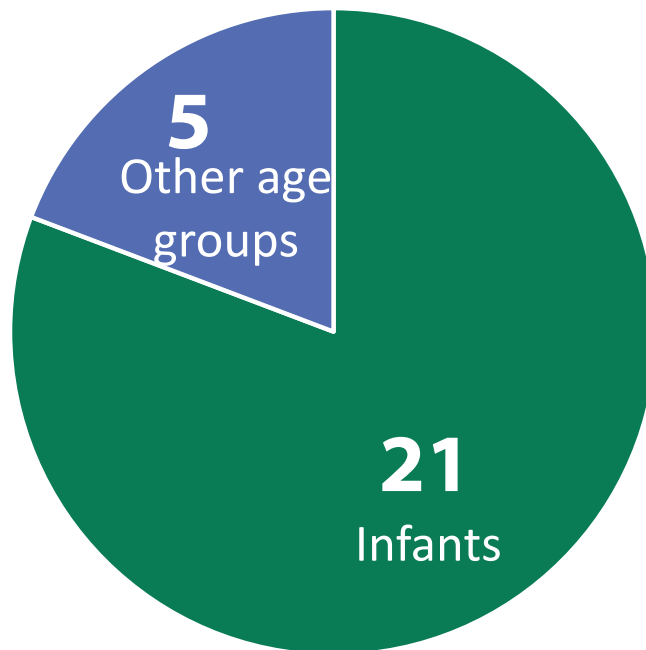
Frequency of nirsevimab error inquiries received by type



50% of all nirsevimab error inquiries involved administration of a lower-than-indicated dose in infants < 8 months of age.

Most errors occurred in infants recommended to receive nirsevimab

Number of error inquiries received by nirsevimab recipient population



5 inquiries indicated nirsevimab was administered to **older adults** or **pregnant people**.

NIP-INFO provided clinical guidance on steps to take after an error



3 errors in
older adults



- Administer an RSV vaccine if that was decided through shared clinical decision making.
- There is no minimum interval before vaccination.



2 errors in
pregnant
persons



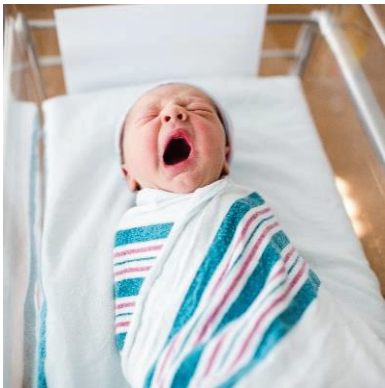
- Some experts suggest the pregnant person wait and have their infant receive nirsevimab after birth (i.e., pregnant person not receive Pfizer RSV vaccine).
- If nirsevimab is not feasible or preferred by the pregnant person, Pfizer RSV vaccine may be given as soon as feasible at a different anatomic site.

Tips and Tools for Preventing Vaccine Administration Errors

Administer the correct product



- ✓ Administer only **Abrysvo (Pfizer)** to pregnant people.
- ✗ Do **NOT** administer **Arexvy (GSK)** to pregnant people.



- ✓ Administer **nirsevimab (Beyfortus, Sanofi, AstraZeneca)** only to infants and certain young children.
- ✗ Do **NOT** administer **RSV vaccines (Abrysvo [Pfizer], Arexvy [GSK])** to infants or young children.

**It is critical to
put procedures
in place to
avoid vaccine
administration
errors**



Preventive actions to avoid vaccine mix-ups



Education and training



Systems changes



Storage and handling



Preparation and administration

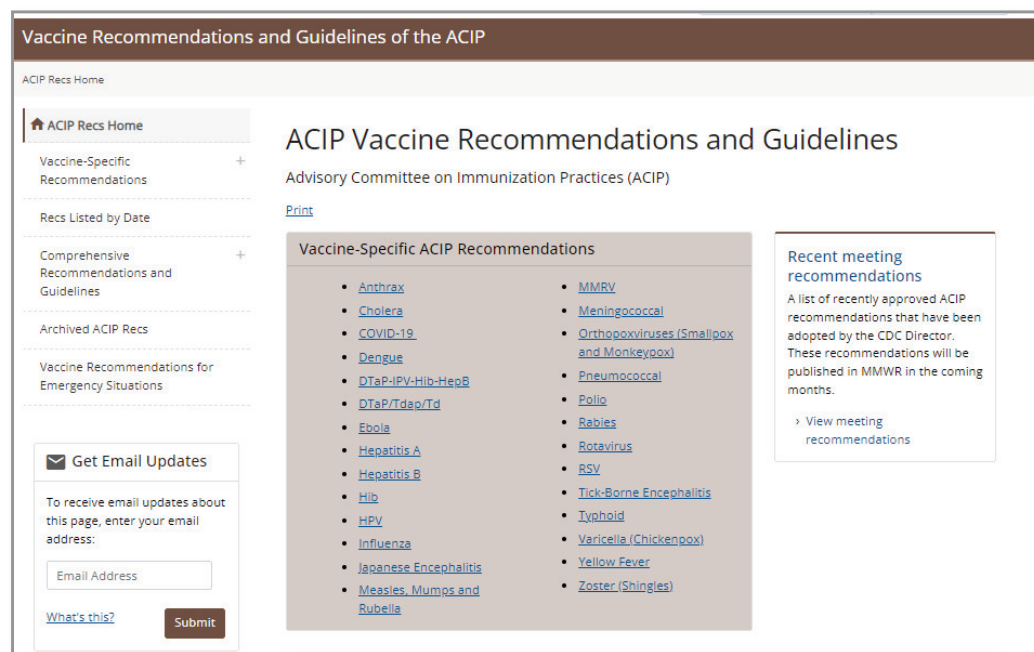
Prevent vaccine mix-ups using education and training strategies



- Put education and training policies in place.
- Integrate vaccine training into orientation and other appropriate education requirements.
- Provide education when new products are added to inventory or recommendations are updated.

Education and training resources: ACIP recommendations

- ACIP recommendations and guidelines:
<https://www.cdc.gov/vaccines/hcp/acip-recs/index.html>



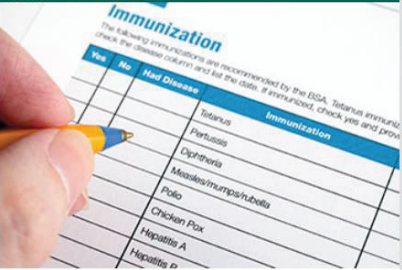
Education and training resources: Clinical guidance

- Clinical and consumer guidance on vaccines, by disease:
<https://www.cdc.gov/vaccines/vpd/index.html>

Vaccines and Preventable Diseases

[Back to Vaccines Home](#)


Vaccines by Disease



Recommended U.S. immunizations and non-routine immunizations for people in certain jobs and travel situations.

[More](#)

Vaccines needed by Age



These vaccines are recommended for infants, children, teenagers and adults of certain ages.

[More](#)

Who Should NOT Get Vaccinated With These Vaccines?

Some people should not get certain vaccinations or should wait before receiving a vaccine. Find out who should avoid which vaccines.

[More](#)

Vaccines and Preventable Diseases

Vaccines & Preventable Diseases Home

Vaccines by Disease

[Print](#)

See also a list of [vaccines by disease](#).

Recommended Vaccines by Disease

Vaccines are available for these 18 dangerous or deadly diseases. Over the years, these vaccines have prevented countless cases of disease and saved millions of lives. Infants, children, adolescents, teens and adults need different vaccinations, depending on their age, location, job, lifestyle, travel schedule, health conditions or previous vaccinations.

Click on a disease name to learn more about the diseases and the vaccines that prevent them.

- [Chickenpox \(Varicella\)](#)
- [Dengue](#)
- [Diphtheria](#)
- [Flu \(Influenza\)](#)
- [Hepatitis A](#)
- [Hepatitis B](#)
- [Hib](#)
- [Human Papillomavirus \(HPV\)](#)
- [Measles](#)
- [Meningococcal](#)
- [Mumps](#)
- [Pneumococcal](#)
- [Polio](#)
- [Rotavirus](#)
- [RSV](#)

- [Mumps](#)
- [Pneumococcal](#)
- [Polio \(Poliovirus\)](#)
- [Rotavirus](#)
- [RSV \(Respiratory Syncytial Virus\)](#)
- [Rubella \(German Measles\)](#)
- [Shingles \(Herpes Zoster\)](#)
- [Tetanus \(Lockjaw\)](#)
- [Whooping Cough \(Pertussis\)](#)

Vaccines Recommended for Travel and Some Specific Groups

Education and training resources: Job aids

- Job aids for preventing errors:

- RSV Vaccine Error Prevention for Pregnant People:

<https://www.cdc.gov/vaccines/vpd/rsv/downloads/rsv-vaccine-error-prevention-pregnant-people.pdf>

- RSV Error Prevention for Children:

<https://www.cdc.gov/vaccines/vpd/rsv/downloads/rsv-error-prevention-children.pdf>

- Preventing Vaccine Administration Errors:

<https://www.cdc.gov/vaccines/hcp/admin/downloads/vaccine-administration-preventing-errors.pdf>

Only Administer Abrysvo (Pfizer) to Pregnant People

YOU CALL THE SHOTS Vaccine Administration: Preventing Vaccine Administration Errors

A vaccine administration error is any preventable event that may cause or lead to inappropriate medication use or patient harm.¹ Vaccine administration errors can have many consequences, including inadequate immunological protection, possible injury to the patient, cost, inconvenience, and reduced confidence in the health care delivery system. Take preventive actions to avoid vaccine administration errors and establish an environment that values reporting and investigating errors as part of risk management and quality improvement.

Vaccine administration errors may be due to causes such as:

- Insufficient staff training
- Distraction
- Changes in recommendations
- Lack of standardized protocols
- Patient misidentification
- Using nonstandard or error-prone abbreviations
- Easily misidentified products (e.g., DTaP, DT, Tdap, Td)

If an error occurs, determine how it occurred and take the appropriate actions to put strategies in place to prevent it from happening in the future. The following table outlines common vaccine administration errors and possible preventive actions you can take to avoid errors.

Error(s)	Possible Preventive Actions
Wrong vaccine, route, site, or dosage (amount) or improperly prepared.	<ul style="list-style-type: none"> • Code important information on the packaging to emphasize the difference between the vaccines. • Include the brand name with the vaccine abbreviation whenever possible (e.g., PCV13 [Pneumovax13]) in orders, medical screens, etc. • Separate vaccines into bins or other containers according to type and formulation. Use color-coded identification labels on vaccine storage containers. • Store look-alike vaccines in different areas of the storage unit (e.g., pediatric and adult formulations of the same vaccine on different shelves in the unit). • Do not list vaccines with look-alike names sequentially on computer screens, order forms, or medical records, if possible. • Consider using "name alert" or "look-alike" stickers on packaging and areas where these vaccines are stored. • Consider purchasing products with look-alike packaging from different manufacturers, if possible. • Establish "Do NOT Disturb" or no-interruption areas or times when vaccines are being prepared or administered. • Prepare vaccine for one patient at a time. Once prepared, label the syringe with vaccine name. • Do not administer vaccines prepared by someone else. • Triple-check work before administering a vaccine and ask another staff member to check. • Keep reference materials on recommended sites, routes, and needle lengths for each vaccine used in your facility in the medication preparation area. • Clearly identify diluents if the manufacturer's label could mislead staff into believing the diluent is the vaccine itself. • Integrate vaccine administration training into orientation and other appropriate education requirements. • Provide education when new products are added to inventory or recommendations are updated. • Use standing orders, if appropriate.

1. National Coordinating Council for Medication Error Reporting and Prevention, <https://www.nccmerp.org/about/medication-errors>

01/05/2021 CS 522023-A

CS 54889-A January 15, 2024

Abrysvo (Pfizer) vaccine products are available for use in the United States.

Arexxy (GSK) is not recommended for pregnant people.

Respiratory Syncytial Virus Vaccine, Adjuvanted AREXXY

AREXXY (GSK) is for adults 60 and older based on shared clinical decision making. Do not give to pregnant people.

Respiratory Syncytial Virus Vaccine, Adjuvanted AREXXY

Check the product label at the correct product for

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provider to administer

or to administration.

nt population.

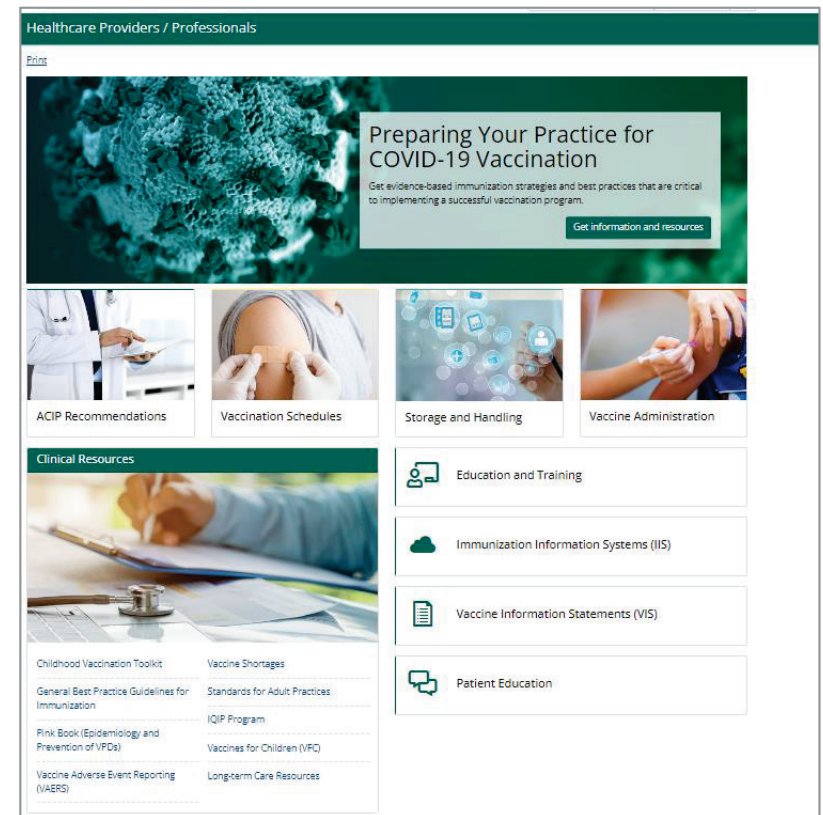
are stocked, label each

stocked, train staff about

Respiratory Syncytial Virus: <https://www.cdc.gov/vaccines/imz/downloads/RSV-Vaccine-Adjuvanted-AREXXY.pdf>

Education and training resources: Other resources

- **Other key resources:**
 - Resources for Healthcare Providers/ Professionals:
<https://www.cdc.gov/vaccines/hcp/index.html>
 - CDC's "Pink Book":
<https://www.cdc.gov/vaccines/pubs/pinkbook/index.html>

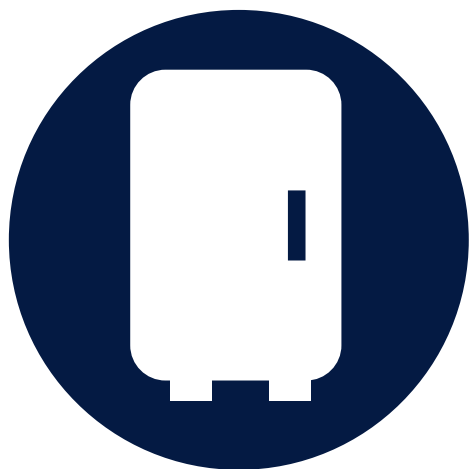


Prevent vaccine mix-ups using systems changes



- Include the manufacturer name with the vaccine abbreviation and brand name whenever possible in orders, medical screens, etc.
- Do NOT list vaccines with look/sound-alike names sequentially on computer screens, order forms, or medical records whenever possible.
- Use standing orders, if appropriate.
- Automate error prevention alerts in electronic health record systems.

Prevent vaccine mix-ups using storage and handling strategies



- Circle important information on the packaging.
- Separate vaccines into bins or other containers according to type and formulation.
- Use color-coded identification labels on vaccine storage containers.
- Store sound/look-alike vaccines in different areas of the storage unit.
- Consider using "name alert" or "look-alike" stickers on packaging and areas where these vaccines are stored.

Prevent vaccine mix-ups using preparation and administration strategies



- Establish “Do NOT Disturb” or no-interruption areas or times.
- Prepare vaccines for patients one at a time.
- Do NOT administer vaccines prepared by someone else.
- Clearly identify diluents.
- Triple check work before administering a vaccine.

Prevent errors involving the wrong patient

- Verify the patient's identity.
- Educate staff on the importance of avoiding unnecessary distractions or interruptions.
- Prepare and administer vaccines to one patient at a time.

<https://www.cdc.gov/vaccines/hcp/admin/downloads/vaccine-administration-preventing-errors.pdf>



Prevent documentation errors

- Do not use error-prone abbreviations to document vaccine administration.
- Use ACIP vaccine abbreviations.
- Change the appearance of look-alike names or generic abbreviations on computer screens, if possible.

<https://www.cdc.gov/vaccines/hcp/admin/downloads/vaccine-administration-preventing-errors.pdf>



Prevent storage errors

- Integrate vaccine storage and handling training.
- Rotate vaccines based on expiration date.
- Remove expired vaccines/diluents from storage units.
- Isolate vaccines exposed to improper temperatures.

<https://www.cdc.gov/vaccines/hcp/admin/downloads/vaccine-administration-preventing-errors.pdf>



Prevent scheduling errors

- Use standing orders, if appropriate.
- Implement procedures to obtain a complete vaccination history.
- Train and educate staff.
- Schedule immunization visits after a child's birthday.
- Post current immunization schedules.
- Counsel parents/patients on the importance of maintaining records.

<https://www.cdc.gov/vaccines/hcp/admin/downloads/vaccine-administration-preventing-errors.pdf>



Summary

- **There are two ways to protect infants from severe RSV disease—only one is needed for most infants.**
 - Abrysvo (Pfizer) is the only RSV vaccine for use during pregnancy.
 - Niresvimab, an RSV antibody, is only given to infants.
- **CDC and FDA have received reports of Abrysvo (Pfizer) or Arexvy (GSK) being administered in error to young children.**
- **CDC and FDA have received reports of Arexvy (GSK) being administered in error to pregnant people.**
- **You can put procedures in place to avoid vaccine administration errors.**

Closing Slide / Disclaimer

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

