New Mexico Vaccines for Children

CHILD HEALTH IMMUNIZATION LEARNING INITIATIVE
Disclosures

Successful completion of this course requires:

◦ LEGIBLE sign-in on registration form
  ◦ All fields on the sign-in sheet must be completed!
◦ Attendance for the entire activity
◦ Completion of the course evaluation

None of the speakers or planners involved in this activity have any relevant conflict of interest

No commercial support has been received for this program

The use of trade names and commercial sources during this presentation is for identification only, and does not imply endorsement

This continuing nursing education activity was approved by the NMNA Accredited Approver Unit, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation.
Purpose

The Learner will be able to:

1. Identify best practice actions that will protect vaccines during storage and handling
2. Comply with federal recommendations for routine vaccination including all required documentation
3. Safely prepare and administer vaccines by following the “7 Rights of Vaccine Administration”
Module 1: VFC Program Requirements
Objectives

1. Understand all requirements associated with being a VFC Provider
2. Name the three VFC roles required at every VFC site
3. Explain when patients should be screened for VFC eligibility
4. Identify the information that must be documented for Vaccine Information Statements (VIS)
5. Explain the VFC policy for charging patients for vaccine
6. Identify the two Vaccine Management Plans VFC Providers must complete
The New Mexico VFC Program

400 sites provide vaccine at no cost to over 500,000 children every year!

**VFC vaccine:**

Purchased with federal funds.

Additional vaccine is purchased by the state so that all children in New Mexico may receive vaccine.

Provided at no charge to VFC Providers who provide vaccine at no charge to all children less than 19 years of age.
Enrollment

Join the VFC program!

VFC Enrollment will be conducted in the Provider Management Module of NMSIIS

Providers will electronically complete:
- Provider Enrollment Form
  - List all licensed providers
- Provider Profile Information
  - Estimate the number of children who are:
    - VFC-eligible
    - Non VFC-eligible

Review and agree
- VFC Requirements listed in enrollment packet
- Use only vaccine storage units that are VFC-approved
To continue as a VFC Provider, providers must re-certify every two years by completing the VFC enrollment process in NMSIIS.

Provider profiles and provider populations will continue to be required yearly.

If your signing physician changes, a new Provider agreement must be completed.
Roles

VFC roles must be assigned at every VFC site. Notify VFC program when people in these roles change.

1. Vaccine Coordinator (Primary)
2. Backup Vaccine Coordinator (Back-up)
3. Medical Director or Equivalent (Physician Signing Agreement)
   • Responsible for compliance
Eligibility

Providers are required to:

• Screen patients for insurance eligibility for federally funded vaccines
• Document insurance status at each immunization visit
• Keep documentation for 3 years
Eligibility

Children are eligible to receive VFC vaccines if they are less than 19 years and meet any of these criteria:

- Medicaid
- No health insurance
- American Indian/Alaskan Native
- Underinsured and served at an FQHC or RHC
Eligibility

New Mexico provides funding for vaccines to administer to patients with private insurance.
The Immunization Schedules are approved by the Advisory Committee on Immunization Practices (ACIP)

When VFC Providers administer immunizations, they must:
- Comply with the recommendations about
  - Immunization schedules
  - Doses
  - Contraindications
ACIP-Recommended Vaccines

The VFC Program Provides the following vaccines:

• Offer all age-appropriate vaccines based on the population served.

• VFC Providers are also required to ensure that VFC-eligible children have access to non-routine vaccines such as: PPSV23 and Meningococcal B, as needed.

• Provider Profile and population is required annually.

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019
A “Specialty Provider” is defined as a provider that only serves:

1. A defined population due to the practice specialty (e.g. OB/GYN; STD clinic; family planning)
   -or-

2. A specific age group within the general population of children ages 0-18. Local health departments and pediatricians are not considered specialty providers.
Vaccine Adverse Events Reporting System

Serious reactions must be reported to VAERS:
https://vaers.hhs.gov/
You must provide current Vaccine Information Statements (VIS) to your patients before administering vaccine. (VIS) statements are occasionally updated. You must check the CDC website periodically to ensure you have the most current versions.
Documentation Requirements

Record information about each immunization including:

- Version date on VIS given to patient or parent.
- Date VIS was given
- Address of clinic where vaccine was administered
- Name of vaccine, manufacturer and lot number
- Date vaccine given and name & job title of person who gave it.
- Injection site
Providers are required to keep VFC records on file for 3 years

- VFC screening documentation
- Billing records
- Vaccine administration records
- Vaccine ordering and other inventory management records
Documentation

To record immunization information:

• Use NMSIIS registry
• Use Electronic Health Record
  • If it records all of the required immunization information and data is also transmitted to NMSIIS (electronically or manually)
Administration Fees and Charges

1. VFC Providers
   • Do not pay for VFC Vaccine
   • Do not charge patients for vaccine

2. Administration fee may be charged
   • The maximum administration fee for immunizations given to VFC-eligible children in New Mexico is $20.80

3. Providers are not allowed to deny a VFC-eligible patient an immunization if they or their parent are unable to pay the administration fee
   • Waive the vaccine administration fee
Vaccine Management

Vaccine Management Plans
• Routine
• Emergency

Inventory Management

Storage and Handling

Temperature Monitoring

Photo courtesy of Texas Department of State Health Services
Fraud, Abuse, and Negligence

VFC providers must replace publicly-purchased vaccines also known as (VFC vaccines) that are determined to have expired or been wasted due to negligence.

VFC providers should also operate within the VFC program in a manner intended to avoid fraud and abuse.
Online Resources

New Mexico VFC Website:

http://nmhealth.org/go/vfc/

- Provider Portal
- Patient Portal
Online Resources

New Mexico VFC Provider Portal:
https://nmhealth.org/about/phd/idb/imp/vfc/provider/

- Enrollment information
- General Information
- Forms and Instructions
- School Vaccine Forms
- Instructional Setup Guides
- Vaccine Screening Forms
VFC Providers and the VFC Program are partners and have a clear two-way communication process to:

- Ensure that Providers stay current about program changes
- Help identify problems quickly and work with the VFC program to find solutions

**Regional VFC Contacts**

**Coordinators, Nurses and Health Educators**

<table>
<thead>
<tr>
<th>Vaccines Schedules</th>
<th>Storage and Handling</th>
<th>Vaccine issues</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Information</td>
<td>• Temperature logs</td>
<td>• Transfers</td>
<td>• CHILI</td>
</tr>
<tr>
<td></td>
<td>• Trouble Shooting</td>
<td>• Returns</td>
<td>• VFC</td>
</tr>
<tr>
<td></td>
<td>Record</td>
<td></td>
<td>Protocols</td>
</tr>
</tbody>
</table>

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019
Site Review

Patient Chart Review:
• Patient eligibility screening done correctly
• Documentation of VISs given to patients for all immunizations

Documentation Review:
• Temperature logs
• Data logger calibration certificate
• Vaccine inventory records
• Staff education Certificates of Completion

VFC-related records and documentation need to be kept for three years
New Mexico VFC Program

Have Technical Questions?
Call the DOH Help Desk
  • NMSIIS
  • VFC Questions
  • (toll-free) 833-882-6454 or 505-827-2356

State VFC Program

DOH Help Desk
  • NMSIIS training and assistance
  • VFC questions
    • Orders
    • Inventory management
Module 2: Storing and Handling Vaccines

CHILD HEALTH IMMUNIZATION LEARNING INITIATIVE
Objectives

1. List four duties of the Primary and Back-Up Vaccine Coordinators.

2. Identify where vaccine management plans should be kept.

3. Describe where to correctly place “Do Not Unplug” stickers.

4. Explain the steps to follow when vaccines are exposed to temperatures outside of the recommended storage range.

5. Describe how to store and rotate vaccines to prevent vaccine loss due to expiration.
Storing and Handling Vaccines

LESSON 1 VALUE OF VACCINES
## Cost of vaccine

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Cost per Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTaP-IPV-Hib (Pentacel®)</td>
<td>$58-96</td>
</tr>
<tr>
<td>MCV4 (Menactra®)</td>
<td>$91-122</td>
</tr>
<tr>
<td>PCV13 (Prevnar®)</td>
<td>$131-180</td>
</tr>
<tr>
<td>HPV9 (Gardasil®-9)</td>
<td>$168-217</td>
</tr>
<tr>
<td>MMRV (ProQuad®)</td>
<td>$125-214</td>
</tr>
</tbody>
</table>
Vaccines are Valuable

Expensive

Prevent Disease

Patient Trust
The Cold Chain protects your vaccines

Unbroken Cold Chain
Maintains correct temperatures

- Manufacturer
- Distributor
- Provider Office
- Patient
Out-of-range temperatures add up

- Vaccines lose their potency when exposed to out-of-range temperatures
- The effect of out of range temperatures is cumulative
- Vaccines that have lost their potency will not protect patients
Vaccines don’t change appearance

Correct Temperature

Incorrect Temperature
Storing and Handling Vaccines

LESSON 2 VACCINE MANAGEMENT PLANS
Everyone who works with vaccines is responsible for proper storage and handling of vaccine.

Every practice must have two written vaccine management plans:

1. Routine Vaccine Management Plan
2. Emergency Vaccine Management Plan

Keep your plans by the storage units!
Routine Management Plan

Staff
- Roles
- Contact information
- Education requirements

Vaccine Storage Units
- Location
- Maintenance

Temperature Monitoring
- Equipment
- Documentation
Routine Management Plan

Storing and Handling Vaccines
• Action plan for Out-of-Range Temperatures

Inventory Management
• Ordering Vaccine
• Stock Rotation
• Returns
• Transfers
Routine Management Plan

At least once each year:

- Review both plans with staff
- Revise as necessary
  - Update when vaccine management practices change
  - Update when there is a change in staff that have responsibilities identified in plans
Vaccine Coordinator Roles

- Primary
- Backup
Vaccine Coordinator Responsibilities

- Receive vaccines
- Store vaccines
- Monitor vaccine temperatures
- Manage vaccine inventory
- Education
Vaccine Coordinator/Physician or any Changes?

Submit a “Staff Change Request” in NMSIIS via Clinic Tools Module

Submit a “Address/Name Change” “Delivery Hours” in NMSIIS via Clinic Tools Module

Submit a “Clinic Contact Information Change” “Removing Staff” in NMSIIS via Clinic Tools Module
Staff Change Request in NMSIIS

1. Click on the Clinic Tools + sign
2. Click on the Clinic Information + sign
3. Click on Staff
4. Click Edit

The steps above is for Replacing Existing staff information (e.g., Signing Physician, Primary Coordinator, Back-up Coordinator)
Clinic Staff Change Request

5. Replace (type over) Existing staff information with *New* staff information for *All* Indicated boxes.

6. *Click Update*
Adding New Staff Request in NMSIIS

1. Click on the Clinic Tools + sign
2. Click on the Clinic Information + sign
3. Click on Staff
4. Click Add New Contact
Adding New Staff Request in NMSIIS

5. Fill in all information boxes
6. Click Create
Address/Clinic Name Change Request In NMSIIS

In NMSIIS:
1. Click on the Clinic Tools + Sign
2. Click on the Clinic Information + Sign to update Clinic address
3. Click on Address/Name to get this screen:
Clinic Address/ Name Change Request in NMSIIS

4. Enter all your changes and edits
5. Click Create

Please note: This error will appear if you click Create before making changes. You will need to fill the new information first, then click Create.
Delivery Hours Change Request in NMSIIS

1. Click on the Clinic Tools + sign
2. Click on the Clinic Information + sign
3. Click on Delivery Hours
4. Make any desired edits, then click update

Note: At the bottom of Clinic Delivery hours there are important boxes you can use to inform us of any closures of other schedule variations.
Removing Clinic Staff Request in NMSIIS

1. Click on the Clinic Tools + sign
2. Click on the Clinic Information + sign
3. Click on Staff
4. Click Edit
5. Enter all your changes and edits

6. Enter notes in Comments for example: “person’s name, no longer works here”
7. Click Update

When the update to your existing staff information is completed or your new staff information is created, you will get a Success indicator.
Checking the status of your Change Request in NMSIIS

When completing any of these tasks—Replacing, Changing, or Removing a staff member—it will be submitted for approval. The change is not complete until approved by the program.

The status of your request/s will then appear in the Change Request History.

When the requested change/update is approved, the status will change to Completed. This will let you know your request was approved and the appropriate changes have been made.

If the requested Change/update is denied, the reason for this will be provided, click Comments; you can then make any necessary corrections and submit a new request.
Emergency Vaccine Management Plan

Be Prepared! Plan ahead.

Written Plan
• Actions to take when:
  • Vaccine storage temperatures cannot be maintained in the storage unit.

Contact Information
• Staff
• VFC Program
• Other Resources
Emergency Vaccine Management Plan

Be Prepared! Plan ahead.

VFC-approved Alternate Storage Location
- Additional Storage Unit on site
- Another VFC Facility

Relocating vaccine
- Packaging
- Supplies

Update Annually

Keep your plan by the storage units!
Emergency Vaccine Transport: Coolers

Preferred
- Portable Vaccine Refrigerator
- Qualified Pack out

Acceptable
- Hard sided coolers
- Original shipping boxes from manufacturers

The quantity and size of coolers should be determined by your location’s typical supply of vaccines
Emergency Vaccine Transport: Do Not Use

- Thin Styrofoam coolers
- Soft-sided collapsible coolers
- Lunch Bags
Emergency Vaccine Transport Supplies

Keep the supplies for transporting vaccine ready and available in your office
• Transport temperature log
• Transport Data logger
• Cooler
Emergency Vaccine Transport Supplies

When hard-sided coolers or Styrofoam shipping boxes are used, additional supplies will be needed to ensure proper temperature is maintained during transport:

• Frozen water bottles
• Cardboard
• Bubble wrap, packing foam, or Styrofoam

*Do not reuse coolant packs from original vaccine shipping containers, as they increase risk of freezing vaccines.
Emergency Vaccine Transport: Packing Instructions

1. Conditioned Water Bottles
2. Cardboard Sheet
3. Bubble wrap, packing foam, or Styrofoam™
4. Vaccines, Diluents, and Temperature Monitoring Device Probe
5. Bubble wrap, packing foam, or Styrofoam™
6. Cardboard Sheet
7. Conditioned Water Bottles
8. Temperature Monitoring Device Display (on lid)
Storing and Handling Vaccines

LESSON 3 VACCINE STORAGE UNITS
Storage and Handling

The Routine Vaccine Management Plan explains what the practice will do to meet the VFC Program’s storage and handling requirements.

Vaccine Coordinators are required to:
• Prepare refrigerators and freezers for vaccine storage
• Store vaccine correctly in refrigerators and freezers
• Safeguard refrigerator and freezer power supplies
New VFC Providers must store vaccines in separate stand-alone Refrigerator and Freezer units!

Before storing vaccines in a fridge or freezer, the units must be approved by the VFC Program.

Frost-free units with an automatic defrost cycle are preferred if regular manual defrosting cannot be assured, or if there is no approved on-site backup freezer.

If a manual defrost freezer is used, it requires weekly monitoring and defrosting when frost is 1-centimeter-thick on the inside walls; an on-site VFC-approved backup freezer is required for the temporary storage of frozen vaccine during manual defrost of the primary unit.
Combination Refrigerator/Freezers

**New Mexico VFC Requirements:**
- Replace combo units with stand-alone fridge and stand-alone freezer when:
  - Unit is 10 years old or the unit malfunctions/cannot maintain appropriate temps, whichever occurs *first*
  - Dormitory style units are *never* allowed for vaccine storage.

**CDC Recommendations:**
- Stand-alone refrigerators and freezers are preferred for vaccine storage
- If using a combination unit only the refrigerator section may be used, and only as long as appropriate storage temperatures can be maintained
- Frozen vaccine should be stored in a stand-alone freezer.
New Vaccine Storage Units

When adding or replacing vaccine storage units, combination units MUST NOT be purchased.

Make sure the storage unit has enough space to store the largest inventory you might have at the busiest point in the year (e.g., flu season) without crowding.

New vaccine storage units must be monitored for at least 5 days and approved by VFC regional staff, prior to placing vaccine in the unit.
Protect your vaccine power supply
Refrigerator Set-up

- **Remove Bins**
  - Water bottles
  - Door
  - Floor of the unit

- **Probe**
  - Place in center

Temperature:
- 36° - 46° F
- 2° - 8° C
Storing Vaccines: Refrigerator

36° - 46° F (2° C and 8° C)
- Aim for 40° F (5° C)

- No vaccine
  - Door
  - Floor of unit

- No Food
Storing Vaccines: Freezer

| Must maintain temperatures $\leq 5° \text{ F}$  
  \(-50° \text{ C and } -15° \text{ C}) | Aim for $0° \text{ F }$ (-17° C) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Frost Free</td>
<td>Water bottles</td>
</tr>
</tbody>
</table>
Organizing Vaccines

Store Vaccine in original boxes
- Place in open mesh baskets
- Organize by expiration dates

Separate and Label types

Funding Source
- VFC Vaccines (Pediatric Vaccines)
- Adult
- Private Purchase
Storing and Handling Vaccines

LESSON 4 MONITORING TEMPERATURES
Digital Data Loggers are Required

All New Mexico VFC providers must be using VFC 400 data loggers in all vaccine storage units.

One docking station must be used to download temperature data.

One back up data logger must be available on-site.
Battery Replacement

The end of the battery life is indicated by a low battery symbol 📈

Each logger contains an extra Lithium Battery.

Battery access sits behind the square white label on the back of the loggers case.
Digital Data Logger Set-up

Place the probe in the middle of the storage unit.
Refrigerated vaccines should be stored at temperatures between 36° F and 46° F (2° C and 8° C).

Vaccines stored in the freezer should maintain temperatures between -58° F and +5° F (-50° C and -15° C).
Data loggers continuously record the temperatures in a storage unit.

Data from the logger must be downloaded on the 1st of the month and after a temperature excursion.

Data loggers provide more information when a temperature excursion occurs and will help the manufacturer determine if the vaccine is still okay to use.
Temperature Monitoring Responsibilities

Vaccine Coordinators and Backup Coordinators are **required** to:

- Interpret data logger reports
- Record temperatures on the temperature log daily
- Upload data on the 1st of each month into NMSIIS
- Identify acceptable and unacceptable temperature readings on the data logger
- Take action if temperatures are out of range
As of January 1st 2018, only the min/max temperature needs to be recorded once a day – in the morning.
Reading Temperatures

Check the display of the data logger in the morning when recording temperatures and throughout the day. The last temperature check must be done before leaving for the day.

A check mark in the upper left corner means that the temperature has been within normal range.

If the audible alarm is not beeping this also indicates that the temperature has been within normal range.
Reading Temperatures

An X in the upper left corner means that the temperature has been out of range.

The audible alarm should be sounding as well.
Temperature excursion? Take action!

1. Take care of the vaccine
   • Store Properly
   • Label **Do not use**
   • Never discard vaccine

2. Download the data into NMSIIS and review report
   • Date and time
   • Duration of out of range temperatures

3. Report
   • Complete Troubleshooting Record
   • Submit Troubleshooting Record and upload data logger report into NMSIIS
   • VFC Regional Contact
   • VFC Health Educator VFC.Health-Educator@state.nm.us
   • **Do not use** vaccines until VFC program has instructed your clinic that the vaccines are okay to use
Dock your data logger onto your docking station to upload the temperature data to your computer. Three files should automatically upload into your computer:

1. a Log Tag or Control Solutions VTMC file
2. a .csv file and
3. a .pdf file

This is done for each Refrigerator or Freezer unit. Upload the .csv file into NMSIIS.
Data Logger Uploads into NMSIIS

Now in NMSIIS:
- Expand Clinic Tools
- Click Storage Units
- Locate your Storage Unit
- Click on the Log button
- Click on the Log Temp - Upload CTM
Upload temperature readings into NMSIIS

Click the Choose File button, select the .CSV version of your temp file that you created after the download.

- The (.CSV file) is the only format that will upload into NMSIIS -

Note: To ensure the proper temperature file is uploaded, the file name must contain the serial number of the thermometer to which the temperatures readings apply.
Uploading temperatures into NMSIIS

Once you have chosen the correct file, click **Upload**.

You will see an **ALERT** message in red; this is a prompt to review the data shown, then click **CONFIRM** to upload and save the file.
Vaccine Inventory Management

1. Inspect every box

2. Place shortest dates in front
   • Expires first?
   • Use it first!

3. Transfer
   • 3 months before expiration

4. Return expired vaccine
   • within 6 months of expiration
Vaccine Inventory Management

The Vaccine Coordinator manages vaccine inventory.

1. Conduct a vaccine inventory to determine how much vaccine is on hand.
   • Monthly NMSIIS Inventory Reconciliation
   • Before placing a vaccine order

2. Determine the number of doses used last month

3. Determine how much vaccine is needed for the next month and place an order in NMSIIS.
   • The Vaccine Coordinator and Provider of Record are responsible for ordering vaccine

4. When order arrives, follow the VFC guidelines for receiving vaccines.
Receiving Vaccines

Accept ALL vaccine shipments sent to your office

- Inspect the package
- Damage to package?
- Correct address?
Receiving Vaccines

1. Accept All vaccine shipments sent to your office
   - Inspect the package
   - Damage to package?
   - Correct address?

2. Open Package immediately
   - Did the temperature sensors change color?
   - What is the shipping date?
   - How long was the package in transit?
   - Report issues with in 2 hours of delivery

Varicella and MMRV are shipped separately.
Receiving Vaccines

1. Accept All vaccine shipments sent to your office
   - Inspect the package
   - Damage to package?
   - Correct address?

2. Open Package immediately
   - Did the temperature sensors change color?
   - What is the shipping date?
   - How long was the package in transit?
   - Report issues with in 2 hours of delivery

3. Check the Packing slip
   - Do the contents match the packing slip?
   - Do diluent doses and vaccine doses match?
   - What are the expiration dates?

Varicella and MMRV are shipped separately.
Electronic Inventory

The inventory needs to be recorded electronically in NMSIIS.

Accept shipment in NMSIIS to add to inventory.
Receiving Shipment and Packing slips

When you receive a vaccine shipment, the packing slip will indicate the split of VFC and State doses. However, you **do not** need to separate your VFC and state pediatric vaccines in the refrigerator/freezer units.

Privately Purchased and Adult vaccines **must** still be separated from VFC Blended vaccines.

<table>
<thead>
<tr>
<th>Material Description</th>
<th>MFR Lot#</th>
<th>Exp. Date</th>
<th>VFC Doses</th>
<th>317 Doses</th>
<th>State Doses</th>
<th>CH Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMRII; 10-pack</td>
<td>999XY99</td>
<td>10/11/14</td>
<td>7</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
There are 11 Pending VTrckS Shipments.

Pending VTrckS Shipments

- Order ID/Line Number: 2016072197901 / 1
  - Date Shipped: 07/27/2016
  - Vaccine: DTaP
  - NDC: 58160-0810-52
  - Lot Number: 42NL4
  - Quantity Shipped: 80

- Order ID/Line Number: 2016072197901 / 10
  - Date Shipped: 07/27/2016
  - Vaccine: Tdap, Adsorbed
  - NDC: 58100-0842-52
  - Lot Number: 7RJ9B
  - Quantity Shipped: 30

- Order ID/Line Number: 2016072197901 / 2
  - Date Shipped: 07/27/2016
  - Vaccine: DTaP-HepB-IPV (Pediarix)
  - NDC: 58160-0811-52
  - Lot Number: 437M5
  - Quantity Shipped: 110

- Order ID/Line Number: 2016072197901 / 3
  - Date Shipped: 07/27/2016
  - Vaccine: DTaP-IPV (Kinrix)
  - NDC: 58100-0812-52
  - Lot Number: 0352K
  - Quantity Shipped: 20

Additional details, receive, or dismiss options are available for each shipment.
Expired and Spoiled Vaccine

Do not discard expired or spoiled vaccine
- Remove from storage
- Label “Do not use”
- Return in NMSIIS before starting your next reconciliation

Spoiled vaccine
- Must complete TSR before returning vaccine
Vaccine Returns

All Returns should be processed through the NMSIIS Return Module

1. Expired vaccine
   • Should be returned immediately upon expiration

2. Spoiled vaccine
   • A VFC Troubleshooting Record must be submitted, prior to submitting a vaccine return

3. Broken vials/syringes, doses drawn up but not administered, and opened vials but not all doses administered
   • Processing a return for these reasons will remove the doses from NMSIIS inventory. Do not use “adjustment” feature to remove from inventory
   • Do not physically return in box
Returning Vaccine

Complete the Vaccine Return in NMSIIS
- Electronically submit the return to:
- VFC program
  - Shipping label will be emailed to Primary Vaccine Coordinator
  - Email must be less than 40 Characters to receive a shipping label.
- Print the Vaccine Return Details sheet and include it inside the box to return
Returning Vaccine expired >6 months

Complete the Vaccine Return Form

- Download and complete the Vaccine Return Form
- Document is available on NMSIIS and the VFC webpage nmhealth.org
- Shipping label will be emailed to Primary Vaccine Coordinator
- Include a copy of the vaccine return form inside the box to return
Returning Vaccine

1. Enter the Return in NMSIIS
   • Include information about all vaccines
   • Shipping label will be sent to Vaccine Coordinator

2. Pack in the box
   • Expired vaccine Spoiled vaccine
   • Copy of the Vaccine Return Form or Vaccine Return Details sheet.

3. Return the vaccines
   • Attach the Return Label
   • Ship the box

**Note:** Expired & Spoiled vaccines **must** be shipped separately. When returning any vaccines only include the vaccines that are on your return form.
Do **not** send back in a return box

- Open Multi-dose vials
- Used Syringes
- Syringes containing vaccine drawn up in your office but not administered
- Broken vials
- Needles
Module 3: Vaccines and Schedules

CHILD HEALTH IMMUNIZATION LEARNING INITIATIVE
Objectives

1. Identify recommended immunizations for infants and children by referring to the CDC recommended immunization schedule.

2. Identify required immunizations for infants and children by referring to the New Mexico Childcare/Preschool/School Entry Immunization Requirements.
Vaccines and Schedules

LESSON 1 OVERVIEW
# VFC Vaccines Prevent 16 Diseases

<table>
<thead>
<tr>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus</td>
</tr>
<tr>
<td>Polio</td>
</tr>
<tr>
<td>Measles</td>
</tr>
<tr>
<td>Diphtheria</td>
</tr>
<tr>
<td>Rotavirus</td>
</tr>
<tr>
<td>Mumps</td>
</tr>
<tr>
<td>Pertussis</td>
</tr>
<tr>
<td>Influenza</td>
</tr>
<tr>
<td>Rubella</td>
</tr>
<tr>
<td>Hepatitis A</td>
</tr>
<tr>
<td>Meningococcal</td>
</tr>
<tr>
<td>Varicella</td>
</tr>
<tr>
<td>Hepatitis B</td>
</tr>
<tr>
<td>Pneumococcal</td>
</tr>
<tr>
<td>Human Papillomavirus</td>
</tr>
<tr>
<td>Haemophilus influenza type B (Hib)</td>
</tr>
</tbody>
</table>
You Call the Shots!

Online courses produced by the Centers for Disease Control (CDC)

• Learn all about vaccines!
  • Information about each vaccine-preventable disease
  • Discussion about each vaccine
  • Guidelines and recommendations

• Earn FREE continuing education credit!

http://www.cdc.gov/vaccines/ed/youcalltheshots.html
Vaccine Recommendations are published annually

Vaccine Schedules are approved by the Advisory Committee on Immunization Practices (ACIP)
Catch-up Schedule

Use the Catch-up Schedule for patients ages 4 months – 18 years who:

- Began vaccination schedule late
- Are more than 1 month behind

When patients are delayed in a vaccine series:

- Do not restart a vaccine series
- Refer to the Catch-up Schedule
- Complete the series using minimum intervals between doses
Immunization Schedule

CDC Vaccine Schedules are available via a Mobile app!

http://www.cdc.gov/vaccines/schedules/hcp/schedule-app.html
Influenza Vaccine Recommendations

6 months through 8 years
First Flu season
• 2 doses
• 4 weeks apart

Annual Flu vaccine
6 months – 2 years
• Flu shot
2 years – 18 years
• Flu shot OR FluMist (when available)

Be familiar with the products in your office and their recommended age ranges!

The information regarding the number of doses required for children age 6 months through 8 years can vary each flu season.

Be sure that you stay up to date, about the most current flu vaccine, and its recommendations, by visiting the CDC website.
Recommended Vaccines Birth – 3 years

- **Birth**
  - HepB
Recommended Vaccines Birth – 3 years

- **Birth**
  - HepB

- **2 months**
  - Hep B
  - RV
  - DTaP
  - Hib
  - PCV
  - Polio

- **4 months**
  - RV
  - DTaP
  - Hib
  - PCV
  - Polio

- **6 months**
  - Hep B
  - RV*
  - DTaP
  - Hib*
  - PCV
  - Polio
  - Flu

**NEW MEXICO DEPARTMENT OF HEALTH**
**VACCINES FOR CHILDREN PROGRAM**
**UPDATED 4/2019**

22nd flu dose 4 weeks apart
Recommended Vaccines Birth – 3 years

- **Birth**: HepB
- **2 months**: Hep B, RV, DTaP, Hib, PCV, Polio
- **4 months**: RV, DTaP, Hib, PCV, Polio
- **6 months**: Hep B, RV, DTaP, Hib, PCV, Polio, Flu
- **12 months**: Hep A, MMR, Varicella, Hib, PCV, Polio
- **15-18 months**: Hep A, DTaP

**NEW MEXICO DEPARTMENT OF HEALTH**
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019

2nd flu dose 4 weeks apart
Olivia is a 2-month-old baby. She received the recommended Hepatitis B vaccine at birth.

What vaccines are recommended for Olivia at 2 months?

- HepB
- RV
- DTaP
- Hib
- PCV
- IPV
- Influenza
- MMR
- VAR
- HepA
Olivia is a 2-month-old baby. She received the recommended Hepatitis B vaccine at birth.

What vaccines are recommended for Olivia at 2 months?

- HepB
- RV
- DTaP
- Hib
- PCV
- IPV
- Influenza
- MMR
- VAR
- HepA
Mia is a 12-month-old baby. She received the recommended vaccines at birth, 2, 4 and 6 months and the influenza vaccine at 10 months. It is still flu season.

What vaccines are recommended for Mia at 12 months?

- HepB
- RV
- DTaP
- Hib
- PCV
- IPV
- Influenza
- MMR
- VAR
- HepA
Mia is a 12-month-old baby. She received the recommended vaccines at birth, 2, 4 and 6 months and the influenza vaccine at 10 months.

What vaccines are recommended for Mia at 12 months?

- HepB
- RV
- DTaP
- Hib
- PCV
- IPV
- Influenza
- MMR
- VAR
- HepA
Vaccines and Schedules

LESSON 3 VACCINES 4 – 6 YEARS
Recommended Vaccines Ages 4 – 6 years

- DTaP
- Polio
- MMR
- Varicella
- Flu (annually)

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019
It is July. Anton is a 5-year-old boy. He was up to date with his vaccinations at 2 years of age. He has received annual flu shots every fall.

What vaccines are recommended for Anton at 5 years?

- HepB
- RV
- DTaP
- Hib
- PCV
- IPV
- Influenza
- MMR
- VAR
- HepA
Routine Vaccines for a five-year-old

It is July. Anton is a 5-year-old boy. He was up to date with his vaccinations at 2 years of age. He has received annual flu shots every fall.

What vaccines are recommended for Anton at 5 years?

- HepB
- RV
- DTaP
- Hib
- PCV
- IPV
- Influenza
- MMR
- VAR
- HepA
Vaccines and Schedules

LESSON 4 VACCINES 7 – 18 YEARS
Recommended Vaccines Ages 7-10

1. Annual Flu shot
2. Catch-up schedule as needed
Recommended Vaccines Ages 11–18 years

11–12 years

- Tdap
- HPV
  - 2 doses
- MCV
- Flu
Recommended Vaccines Ages 11–18 years

11–12 years
- Tdap
- HPV
  • 2 doses
- MCV
- Flu

16 years
- MenB
- MCV
- Flu

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019
It is July. Kaylee is 11 years old and has come to her primary care provider for a school physical. She was up to date with her immunizations when she started Kindergarten.

What vaccines are recommended for Kaylee?

- HepB
- Tdap
- HPV
- MCV
- Influenza
- MMR
- VAR
- HepA
- MenB
Routine vaccines for an 11-year-old

It is July. Kaylee is 11 years old and has come to her primary care provider for a school physical. She was up to date with her immunizations when she started Kindergarten.

What vaccines are recommended for Kaylee?

- HepB
- Tdap
- HPV
- MCV
- Influenza
- MMR
- VAR
- HepA
- MenB

NEW MEXICO DEPARTMENT OF HEALTH VACCINES FOR CHILDREN PROGRAM UPDATED 4/2019
Vaccines and Schedules

LESSON 5 VACCINES REQUIRED FOR SCHOOL
Vaccines Required for NM School Attendance

Requirements
• Determined by the NM Department of Health
• Published on the:
  NM “School Requirements Schedule”
  • Childcare/Preschool/School Entry Immunization Requirements

“In process”
• A child may enter school conditionally
  • They are in the process of receiving required immunizations
  • It is too soon for the next dose
Reviewing Immunization records is more than counting doses!

- All immunization doses must meet the recommended ages and intervals
- New Mexico School and Childcare requirements accept the “4-day grace period” for all inactivated vaccines.
**Immunization Records Review**

**Grace Period**

Any vaccine administered ≤ 4 days prior to the minimum interval or age is valid.

- Use for reviewing vaccination records
- Should not be used for scheduling future vaccination visits

**Doses of Live Vaccines**

- Must be given on the same day OR separated by at least 28 days
  - MMR
  - Varicella
  - Live flu vaccine (FluMist)
Childcare and Preschool

Vaccines required for Childcare and Preschool

Birth – five years

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Number of Vaccine Doses by Childcare &amp; Pre-School Age Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria/Tetanus/Pertussis (DTP/DTaP/TD)**</td>
<td>By 4 Mo. 2 3 3 4 5</td>
</tr>
<tr>
<td>Tetanus/Diphtheria/Pertussis/ (Tdap)</td>
<td>By 6 Mo. 1 2 3 3 4 5</td>
</tr>
<tr>
<td>Polio (OPV/IPV)**</td>
<td>By 15 Mo. 1 2 3 4 (3) 4</td>
</tr>
<tr>
<td>Measles/Mumps/Rubella (MMR)</td>
<td>1 1 2 2</td>
</tr>
<tr>
<td>Haemophilus Influenza type B (Hib)**</td>
<td>By 16-47 Mo. 1 2 3 3/2/1 3/2/1 3/2/1</td>
</tr>
<tr>
<td>Hepatitis B (HepB)</td>
<td>By 48-54 Mo. 1 2 3 3/2/1 3/2/1 3/2/1</td>
</tr>
<tr>
<td></td>
<td>By ≥ 55 Mo. 1 2 3 3 3/2/1 3/2/1</td>
</tr>
</tbody>
</table>
Vaccines Required for Childcare and Preschool

- DTaP
- IPV
- MMR
- Hib
- Hep B
- PCV
- Varicella
- Hep A
School

Vaccines required for K – 12 grades
Vaccines Required for School

- DTaP
- Tdap
- IPV
- MCV4
- MMR
- HepB
- Varicella
Exemptions from School Immunization Requirements

Notarized applications may be approved by the NM Department of Health for:

**Medical**
- Licensed physician certifies that vaccination would seriously endanger life or health of child

**Religious**
- Does not permit administration of vaccine

No personal or philosophical exemptions allowed by state law

Exemptions are for childcare, preschool and school grades K-12 attendance only

NM Department of Health approved exemptions
- Valid for 9 months (school year)
- Non immunized children may be excluded from school during disease outbreaks

http://nmhealth.org/publication/view/form/454
Module 4: Vaccine Administration

CHILD HEALTH IMMUNIZATION LEARNING INITIATIVE
Objectives

1. Describe 7 “Rights of Medication Administration” that can prevent vaccination errors.
2. List 3 activities that should be performed to prepare a patient to receive vaccines.
3. Name 4 different routes of administration that are used with different kinds of vaccines.
4. Identify the correct anatomical site for intramuscular injections in infants, toddlers, and school-age children.
7 Rights of Vaccine Administration

1. Right patient
2. Right vaccine and diluent
3. Right time
   - Correct age
   - Correct interval
   - Unexpired vaccine & diluent
4. Right dosage
5. Right route, needle length, and technique
6. Right site
7. Right documentation

Source: California Department of Health
Preparing the Patient

1. History
   • Reviewing the immunization record

2. Screening
   • Contraindications and Precautions

3. Communication
   • Explain risks and benefits
     • Vaccine Information Statements VIS
Screen the Patient

Screen for Contraindications and Precautions.... reasons to NOT vaccinate

- Conditions that could increase the chance of a serious reaction
  
  *Example: Allergy to a vaccine or vaccine component*

- Conditions that could impair the building of immunity
  
  *Example: immune suppression*
## Contraindications and Precautions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Live Vaccines</th>
<th>Inactivated Vaccines</th>
<th>Similar But Invalid Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergy to component</td>
<td>C</td>
<td>C</td>
<td>Allergies to products not in vaccine</td>
</tr>
<tr>
<td>Encephalopathy</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>C</td>
<td>V</td>
<td>Pregnancy in the household Breastfeeding</td>
</tr>
<tr>
<td>Immunosuppression</td>
<td>C</td>
<td>V</td>
<td>Family history unrelated to immunosuppression</td>
</tr>
<tr>
<td>Moderate or severe illness</td>
<td>P</td>
<td>P</td>
<td>Minor illness Disease exposure or convalescence</td>
</tr>
<tr>
<td>Recent blood product</td>
<td>P</td>
<td>V</td>
<td>Antibiotic therapy Premature birth Need for TB skin testing Need for multiple vaccines</td>
</tr>
</tbody>
</table>

\[V = vaccinate\]  
\[C = contraindication\]  
\[P = precaution\]
You must provide current Vaccine Information Statements (VIS) to your patients before administering vaccine.
Staff and patient resources: immunize.org
Vaccine Administration

LESSON 2 PREPARING THE VACCINE
Choose the correct vaccine

1. Check the vaccine label against the doctor’s written order
2. Know the names and abbreviations of vaccines used in your office
Choose the correct vaccine

1. Check the vaccine label against the doctor’s written order
2. Know the names and abbreviations of vaccines used in your office
Choose the correct vaccine

1. Check the vaccine label against the doctor’s written order
2. Know the names and abbreviations of vaccines used in your office
Choose the correct vaccine

DTaP

Tdap
Choose the correct vaccine

DTaP

Tdap

Diphtheria, Tetanus and Acellular Pertussis
Choose the correct vaccine

**DTaP**
- Diphtheria
- Tetanus
- and acellular Pertussis

**Tdap**
- Tetanus
- diphtheria
- and acellular pertussis

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM UPDATED 4/2019
Choose the correct Influenza Vaccine

Flu vaccine comes in different forms!
• Injectable
  • Infant age 6-35 months
  • Children age ≥ 3 years
• Nasal spray (when available)
  • Children age ≥ 2 years

Be familiar with the products in your office and their recommended age ranges!
Inspect Vaccine

1. Check for damage to vials
2. Check Expiration date

Source: North Carolina Department of Health
Preparing the vaccine

Ready-to-use vaccines:
- Liquid vials
- Manufacturer-filled syringe
- Nasal vaccine
- Oral vaccine
Preparing the vaccine

Vaccine should be drawn up at the time of administration and should not be pre-drawn. Pre-drawing vaccines could result in:
• Administration errors
• Wasted vaccine
• Reduced vaccine potency
• Bacterial contamination
Preparing the vaccine

Need to mix:
- Freeze dried vaccine
- Diluent (Liquid)
  - Only use manufacturer supplied diluent for each vaccine
- Administer reconstituted vaccines within 30 minutes
Combination vaccines

Know the name of vaccine products:

Pediarix = DTaP + HepB + IPV
Combination vaccines

Know the name of vaccine products:

Pentacel = DTaP + IPV + Hib
Combination vaccines

Know the names of vaccine products:

Kinrix = DTaP + IPV
Combination vaccines

Know the names of vaccine products:

ProQuad = MMR + Varicella
Combination vaccines

Use only prepared combinations approved by the FDA!

Approved combination vaccines:
- Pediarix
- Pentacel
- Kinrix
- MMRV
Multi-Dose Vials

A multi-dose vial contains more than one dose of vaccine. Because (MDVs) typically contain a preservative to help prevent the growth of microorganisms, they can be entered or punctured more than once. Only the number of doses indicated in the manufacturer’s package insert should be withdrawn from the vial. After the maximum number of doses have been withdrawn the vial should be discarded, even if there is residual vaccine of the expiration date has not been reached.

MDVs can be used until the expiration date printed on the vial unless the vaccine is contaminated or compromised in some way or there is Beyond Use Date noted in the package insert.
Vaccine Administration Routes

Routes of Administration:
1. Oral
2. Intranasal
3. Intramuscular injection
4. Subcutaneous injection
Vaccine Administration Routes

Routes of Administration:
1. Oral
   • liquid put into the mouth
   • Rotavirus vaccine

Squirt slowly and gently into the infant’s cheek.
Vaccine Administration Routes

Routes of Administration:
2. Intranasal
   • Liquid sprayed in the nostril
   • LAIV (FluMist®) vaccine (when available)
Intramuscular (IM) Route

- DTaP, Tdap, Td
- HepA
- HepB
- Hib
- HPV
- IPV
- MCV
- PCV
- Flu (injectable)

**IM**

Needle length:
- 1” for infants and children
- 1” to 1 ½” for adolescents

90° angle

Source: California Department of Health
Intramuscular (IM) Sites

Age 0 – 36 months

The gluteal muscle is never used for vaccines!

Age > 3 years

Source: California Department of Health
Subcutaneous (SC) Route

- MMR
- Varicella
- MMRV
- IPV
- PPSV23

SC
Needle length: 5/8 inch

Injection into the fatty tissue under the skin.

45° angle

Source: California Department of Health
Subcutaneous (SC) Sites

Fatty tissue of the thigh

Upper outer triceps of the arm

Age 12 months and under

1 year of Age and older

Source: California Department of Health
Injection Sites: Infants <12 months

- PCV (IM)
- Hep B (IM)
- Rota (Oral)
- DTaP (IM)
- Hib (IM)
- IPV (IM or SC)

**IM**
- Anterolateral thigh
- 1-inch needle

**SC**
- Fatty tissue of thigh
- 5/8-inch needle

- Aspiration is not required when giving immunizations.
- Separate injection sites by 1-2 inches.
- Using combination vaccines will decrease the number of injections needed.

Source: California Department of Health
Injection Sites: Children 12 months to two years

- **Varicella (SC)**
- **MMR (SC)**
- **IPV (IM or SC)**
- **DTaP (IM)**
- **Hib (IM)**
- **PCV (IM)**
- **Hep A (IM)**
- **Hep B (IM)**

**IM**
- Anterolateral thigh (preferred)
  - 1 inch needle
- Deltoid if muscle mass is adequate
  - 5/8 to 1 inch needle

**SC**
- Upper -outer aspect of arms (triceps)
  - 5/8 inch needle

- Aspiration is not required when giving immunizations.
- Separate injection sites by 1-2 inches.
- Using combination vaccines will decrease the number of injections needed.

Source: California Department of Health
Injection Sites: Children 3-18 years

**IM**
- Deltoid (preferred)
- 5/8 to 1 inch needle
- Anterolateral thigh
  - 1 to 1.25 inch needle (3-10 years old)
  - 1 to 1.5 inch needle (11-18 years old)

**SC**
- Upper-outer aspect of arms (triceps)
- 5/8 inch needle

- Aspiration is not required when giving immunizations.
- Separate injection sites by 1-2 inches.
- Using combination vaccines will decrease the number of injections needed.

Influenza* (IM) → MCV4 (IM) → HPV (IM)

*Influenza* (IM)

Tdap (IM)

Var (SubQ)

Alliance for Immunization in Michigan 2013 AIM Kit –Adolescent Immunization section

New Mexico Department of Health Vaccines for Children Program

**UPDATED 4/2019**
Comfort Measures

Restraining holds
• Hold child to prevent injury
Comfort Measures

Restraining holds
• Hold child to prevent injury

Distraction techniques
• Involve parents

Source: California Department of Health
Comfort Measures

Give the most painful injections last:
- MMR
- PCV
- HPV

Give vaccines likely to cause a greater local reaction in separate limbs:
- DTaP, PCV
- HPV, Tdap
Safety Measures

Fainting (syncope) after vaccination
• Most common in adolescents and young adults
• Usually occurs within 15 minutes of vaccination
• Have patient sit down while you are giving vaccine
• Observe patients for 15-20 minutes after vaccination

Image courtesy of Sira Anamwong at FreeDigitalPhotos.net
Administration Reminders

If an infant spits out dose of rotavirus, or a child sneezes after receiving FluMist® *DO NOT* repeat the dose

If possible, complete series with the same product

If the same product is unavailable, do not defer vaccination
Adverse reactions and side effects

**Mild**

**Common**
- Pain at the injection site
- Swelling and redness at the injection site
- Fever
- Headache
- Fatigue
- Irritability
- Vomiting
- Diarrhea
Adverse reactions and side effects

**Mild**
- Common
  - Pain at the injection site
  - Swelling and redness at the injection site
  - Fever
  - Headache
  - Fatigue
  - Irritability
  - Vomiting
  - Diarrhea

**Moderate**
- Uncommon
  - High fever >105°F
    - Febrile seizure
    - Non-stop crying
  - > 3 hours
  - Joint pain and stiffness

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019
Adverse reactions and side effects

**Mild**
- Pain at the injection site
- Swelling and redness at the injection site
- Fever
- Headache
- Fatigue
- Irritability
- Vomiting
- Diarrhea

**Moderate**
- High fever >105°F
  - Febrile seizure
  - Non-stop crying
  - > 3 hours
  - Joint pain and stiffness

**Serious**
- Seizures
- Serious allergic reaction
- Pneumonia
- Intussusception

NEW MEXICO DEPARTMENT OF HEALTH
VACCINES FOR CHILDREN PROGRAM
UPDATED 4/2019
Vaccine Adverse Events Reporting System

Serious Reactions must be reported to VAERS.

https://vaers.hhs.gov/index
Administration Errors

Report Errors to:
• Your medical/nursing supervisor

For advice, contact:
• CDC hotline 800-232-4636

If a repeat dose is indicated:
• Use minimum interval from invalid dose
Thank you!
You make the difference!