



# Creating Consistency through a Master Training Booklet & Immunization Manual

Redwood Community Health Coalition  
Promising Practice

*This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number H2QCS30258, Health Center Controlled Networks, for \$1,500,000. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.*

## PROMISING PRACTICE OVERVIEW

In 2014 Sonoma Valley Community Health Center (SVCHC) created a training booklet (informally called “The Bible”) to both train new staff and act as a reference guide for existing staff. While the booklet is described as a “broad overview” of policies, procedures, and workflows, it’s now almost 800 pages. The booklet provides staff a solid foundation on required measures and at the same time helps create consistency of work across the organization. Updated annually, it contains a large number of the health center’s key workflows, including childhood immunizations (IZ).

Starting in 2016, the health center began experiencing staff turnover, specifically medical assistants (MAs). Not surprisingly this has made it difficult to keep measure rates high and staff on the same page. The training booklet has been vital in this effort.

## AIM

To increase childhood immunization rates through consistency in health center procedures and workflows.

## MEASURES

### UDS Childhood Immunizations

**Numerator:** Documentation of a full immunization on or before the second birthday; A full immunization is all of the following: 4 DTP/DTPaP, 3 IPV, 1 MMR, 3 Hib, 3 Hep B, 1 VZV, 4 Pneumococcal conjugate, 1 Hep A, 2 or 3 RV, and 2 influenza.

**Denominator:** Patients who had their second birthday within reporting period; Had at least one medical visit during reporting period; Had at least one medical visit any time prior to the second birthday; Exclusion: contraindication for the vaccine or a history of illness.

### SVCHC Childhood IZ Rates

2016	2017	2018
60.9%	67.3%	Expected around 60%

### Vaccine Set-up using Ngkbn Immunizations Practice Template

The screenshot shows a vaccine order form with the following details:

- Order Details:** CVX vaccine name: hepatitis A vaccine, pediatric/adolescent dosage-2; CPT: 83; CPT description: Hepatitis A vaccine, pediatric/adolescent dosage-2; Status: Active; Group: Hep A
- Vaccine Information:** Vaccine name: Hep A - Ped (2 dose Schedule); Strength: 0 mL; Route: Intramuscular; \*Expiration date: 02/09/2017; \*Lot number: P-K005956; NDC ID: 00006483141
- Brand name:** VAQTA; **Manufacturer:** Merck & Co., Inc.
- Starting units:** 20; **Units used:** 8; **Available units:** 12; **Total components:** 1
- ICD code:** V05.3; **Description:** NEED PRPHYL VC VRL HEPAT; **Location:** SVCHC; **Practice ID:** 0001

### NextGen Immunization – Pediatric Template

The screenshot shows the 'Pediatric Vaccine Orders' interface with a list of vaccine combinations and single doses. The 'Combination' section includes options for MMR, Varicella, PPV 23, HPV, Td, Tdap, and Other. The 'Single Dose' section includes options for Dtap/DT/DTP, IPV (Polio), Hepatitis B, Prevnar (PCV 13), Rotavirus, Meningococcal, Influenza, Hepatitis A, and Hib.

## ACTIONS TAKEN

- Created resources for staff:
  - “Training Booklet” developed in 2014 and updated yearly. The QI department conducts two 4 hour trainings when a new version of the booklet is released.
  - “Immunization Template Training Manual” used for IZ specific workflows.
  - “Training Plan” for MAs includes review of all workflows and measures as part of onboarding process. Plan includes review of training booklet and manual resources.
- Encourage staff to look at measures in different ways to understand what the measures are, what they mean, and what closing the loop for each entails.

## WORKFLOW

### Training Booklet “The Bible”

- Childhood Immunization section includes:
  - workflow for back office staff, CQI coordinator and IZ coordinator, and provider
  - information on what to cover during well child visits and patient education to provide
  - information on types of flu vaccines for children

### Immunization Template Training Manual

- Manual informs staff how to do the following:
  - vaccine set up using NextGen’s Ngkbn IZ practice template that SVCHC has customized
  - updating the vaccine inventory
  - ordering IZ
  - understanding vaccine alert displays
  - processing IZ orders
  - obtaining CAIR consent

## CHALLENGES

- SVCHC has some parents who refuse to vaccinate, making it harder to improve overall rates.
- Some patients see providers outside the health center, which can make it difficult to get the release of their records.
- The lack of interface between The California Immunization Registry (CAIR) and NextGen continues to be challenging.
- Data quality is impacted when staff select the incorrect vaccine in the system.

## LESSONS LEARNED

- Staff must know who’s responsible for getting a patient’s record up to date. For example when a provider reviews a chart (regardless of if they’re the PCP), they become responsible for making sure all required IZ have been done. Similarly MAs are responsible entering IZ into patient records and CAIR.
- When providers take their IZ rates seriously, they ask for details on their patient specific rates. They communicate the importance of missed opportunities with their team.



<b>Document Title:</b> Childhood Immunizations, 0-2 years of age		<b>Page</b> 1 of 9
<b>Document Type:</b> Procedure	<b>Document ID Number:</b>	
<b>Department:</b> Clinical Operations		
<b>Author:</b> Marianne Clinton, MD, CMO, revised by Julie M Vlasis, CQI Consultant	<b>Implementer/Owner:</b> Carol Ahern, MD CMO, Teresa Rodriguez, Clinic Manager	
<b>Approval Date:</b> 4/1/2014	<b>Training Date:</b> 4/16/2014, 02/16/2016, 1/21/2017, 1/17/2018.	
<b>Implementation Date:</b> 4/16/2014	<b>Revision Date:</b> 01/01/2016, 09/13/2017, 11/5/2018	
<b>Effective Date:</b> 4/16/2014	<b>Next Review Date:</b> 04/01/2020	

**STATEMENT OF PURPOSE:**

To ensure that children are fully immunized according to current guidelines on or before their second birthday.

**DEFINITIONS:**

**Evidence Based Guidelines:** Clinical Practice guidelines based on scientific evidence; or in the absence of scientific evidence, professional standards, or in the absence of professional standards, an expert opinion.

**Practice Guidelines:** Systematically developed descriptive tools or standardized procedures for care to support clinician and patient decisions about appropriate health care for specific clinical circumstances. Practice guidelines are typically developed through a formal process and are based on authoritative sources that include clinical literature and expert consensus.

**Important Condition:** A condition including an unhealthy behavior, substance abuse or mental health issue, with evidence –based clinical guidelines that affect a large number of people or consumes a disproportionate amount of health resources.

**NextGen Enterprise Practice Management (EPM):** NextGen EPM is the application used primarily for billing and is also used to manage appointments. Other functions of EPM include, but are not limited to, storing patient demographics, posting transactions, and processing charges.

**NextGen Electronic Health Records (EHR):** NextGen EHR is the application used to store and maintain a patient’s electronic chart. Clinical information such as lab results, health history, and diagnosis history are located in EHR.

**History of Present Illness (HPI):** The HPI is a chronological description of the development of the patient's present illness including the following elements: Location, Quality, Severity, Duration, Timing, Context, Modifying factors and Associated signs and symptoms  
Brief and Extended HPI's are distinguished by the amount of detail needed to characterize the clinical problem or problems accurately:  
Brief – consists of 1 to 3 elements.  
Extended - consists of 4 or more element

### **BACKGROUND:**

It is the policy of Sonoma Valley Community Health Center that we adopt a goal of providing all our patient's ages 0-2 years with current immunizations.

As reported by the American Academy of Pediatrics (AAP) and the Centers for Disease Control (CDC), keeping immunizations on track by not delaying well child appointments based on the periodicity schedule between children approaching 2 years of age. If the Child is last in receiving their well child exam early in life, it can have a compounding effect, delaying future well child visits and immunizations.

### **ASSUMPTIONS:**

According to the American Academy of Pediatrics (AAP) and the Centers for Disease Control (CDC) vaccines due before the child's second birthday **are actually scheduled to be completed by the 18<sup>th</sup> month of life.**

The provider will ensure that the next visits are documented in the CHDP Review Document within the NextGen System.

*The Front Desk at Check-out will ensure that all children 0-21 are placed on the appropriate recall if the provider of record has neglected to indicate the correct interval.*

*The Back Office Staff will use the Pediatric Huddle Sheet for all Pediatric visits not just well child visit to ensure that no immunizations or visits are missed.*

*Immunization records will be checked at every pediatric appointment against the CAIR Registry to ensure SVCHC has the most updated patient record.*

**PCMH (Patient Care Medical Home) Related: Yes (X); No ( )**

**NextGen EPM/EHR Procedure is needed for this Procedure: Yes (X); No ( )**

### **PROCEDURES:**

**The Medical Back Office Staff are responsible for:**

1. Print CAIR report to identify missing vaccinations prior to the daily huddle.
2. The Medical Back Office Staff are required to update the patient immunization record in NextGen prior to the patient visit.

3. The Medical Back Office staff will obtain and review with the provider the **Pediatric Huddle Sheet**, at every pediatric visit including Well Child visits.
4. Discuss with provider missing vaccinations and have provider order them in patient electronic health record in the immunization module.
5. Complete CAIR Consent and CAIR Registry Identification Number.
6. Obtains consent and reviews child vaccine questionnaire with parent
7. Educate parents on the vaccine(s), including any known reactions
8. Prints and hands parent VIS for each vaccine, making sure the documents show in the patient electronic medical record.
9. Uses universal precautions and proper infection control techniques to prepare vaccines under the supervision of a licensed staff person
10. Utilizing; the 5 medication verification points (correct patient, correct vaccine, correct dose, correct route, correct timing of vaccine) administer vaccine(s).
11. Document in NextGen Immunization module all of the required fields that vaccine order is completed. (Documentation in NextGen and CAIR should be consistent.)
12. Document in CAIR vaccines given.
13. Parent given copy of current immunizations.

#### **The CQI Coordinator and Immunization Coordinator will review monthly.**

1. Print and review reports identifying patients' age 0-2 years needing vaccinations.
2. Contact parents/guardians to schedule an appointment.
3. Follow through with requests from the providers.

#### **The Provider will be responsible to:**

1. Perform an appropriate history and physical examination.
2. Review immunization template in NextGen to check the patient's record for due and past due immunizations.
3. Check patient's allergies and diagnosis history for any contraindications for vaccinations.
4. Review the consent for immunizations reviewing risks and benefits with parents that the Medical Back Office Staff have completed with the parent.
5. Children who have contraindications for a required immunization will have the immunization ordered. The Medical Back Office Staff will document the contraindication on the vaccine as required.
6. ***Parents who decline immunization(s) for their child; will be required to complete declination paperwork. The provider will order the vaccine, and the Medical Back Office Staff will document on the vaccine in the patient electronic medical record has been refused by the parent.***

#### **Well Child Visits**

- a. All Providers complete the CHDP Review in the Next Gen System (regardless of insurance type) for all well child visits as a guideline to ensure proper documentation, noting vaccinations given along with physical assessment and all required diagnosis codes.

- b. The provider has provided patient with next scheduled CHDP visit in the electronic medical record with use of the CHDP HPI in NextGen. This allows the patient to be placed on the correct recall.
- c. The Medical Back Office Staff prints the CHDP document from the patient's chart and provides to the parent of the child.
- d. **The Front Office Staff ensure that all Children have a Well Child recall upon leaving the health center at any visit.**

**Patient Education:**

- Encourage families to keep immunizations up to date for their children.
- Review the importance of childhood immunizations.
- Refer families to the vaccine information sheet (VIS) for specific information and precautions about each vaccine
- Notifying SVCHC should child experience a non-life threatening reaction to a vaccine

***Childhood Immunizations Age Birth through 2 Years of age as required by CMS***

***CMS Measure CMS117v7 published 6/1/2018. (See tool below.)***

Infants and toddlers are particularly vulnerable to infectious diseases because their immune systems have not built up the necessary defenses to fight infection (Centers for Disease Control and Prevention 2017a). Most childhood vaccines are between 90 and 99 percent effective in preventing diseases (HealthyChildren 2015). Vaccination of each U.S. birth cohort with the current childhood immunization schedule prevents approximately 42,000 deaths and 20 million cases of disease, and saves nearly \$14 billion in direct costs and \$69 billion in societal costs each year (Zhou 2014).

Immunizing a child not only protects that child's health but also the health of the community, especially for those who are not immunized or are unable to be immunized due to other health complications (Centers for Disease Control and Prevention 2017b). When the majority of the community is immunized against a disease, other members of the community are also protected because herd immunity shields them. (National Institute of Allergy and Infectious Diseases 2014).

Advisory Committee on Immunization Practices (ACIP) Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, United States, 2017 (Centers for Disease Control and Prevention 2017c)

#### Hepatitis B (HepB)

"Minimum age: birth"

"At birth:

-- Administer monovalent HepB vaccine to all newborns within 24 hours of birth.

-- For infants born to hepatitis B surface antigen (HBsAg)-positive mothers, administer HepB vaccine and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. These infants should be tested for HBsAg and antibody to HBsAg (anti-HBs) at age 9 through 12 months (preferably at the next well-child visit) or 1 to 2 months after completion of the HepB series if the series was delayed.

-- If mother's HBsAg status is unknown, within 12 hours of birth, administer HepB vaccine regardless of birth weight. For infants weighing less than 2,000 grams, administer HBIG in addition to HepB vaccine within 12 hours of birth. Determine mother's HBsAg status as soon as possible and, if mother is HBsAg-positive, also administer HBIG to infants weighing 2,000 grams or more as soon as possible, but no later than age 7 days.

Doses following the birth dose:

-- The second dose should be administered at age 1 or 2 months. Monovalent HepB vaccine should be used for doses administered before age 6 weeks.

-- Infants who did not receive a birth dose should receive 3 doses of a HepB-containing vaccine on a schedule of 0, 1 to 2 months, and 6 months, starting as soon as feasible (see figure 2).

-- Administer the second dose 1 to 2 months after the first dose (minimum interval of 4 weeks); administer the third dose at least 8 weeks after the second dose AND at least 16 weeks after the first dose. The final (third or fourth) dose in the HepB vaccine series should be administered no earlier than age 24 weeks.

-- Administration of a total of 4 doses of HepB vaccine is permitted when a combination vaccine containing HepB is administered after the birth dose."

#### Diphtheria, tetanus, acellular pertussis vaccinations (DTaP)

"Minimum age: 6 weeks. Exception: DTaPIPv [Kinrix, Quadracel]: 4 years"

"Routine vaccination:

-- Administer a 5-dose series of DTaP vaccine at ages 2, 4, 6 15 through 18 months, and 4 through 6 years. The fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.

-- Inadvertent administration of fourth DTaP dose early: If the fourth dose of DTaP was administered at least 4 months after the third dose of DTaP and the child was 12 months of age or older, it does not need to be repeated."

Hib (Haemophilus influenzae type b)

"Minimum age: 6 weeks for PRP-T [ActHIB, DTaP-IPV/Hib (Pentacel), Hiberix, and Hib-MenCY (MenHibrix)], PRPOMP [PedvaxHIB]"

"Routine vaccination:

- Administer a 2- or 3-dose Hib vaccine primary series and a booster dose (dose 3 or 4, depending on vaccine used in primary series) at age 12 through 15 months to complete a full Hib vaccine series.
- The primary series with ActHIB, MenHibrix, Hiberix, or Pentacel consists of 3 doses and should be administered at ages 2, 4, and 6 months. The primary series with PedvaxHIB consists of 2 doses and should be administered at ages 2 and 4 months; a dose at age 6 months is not indicated.
- One booster dose (dose 3 or 4, depending on vaccine used in primary series) of any Hib vaccine should be administered at age 12 through 15 months."

Polio (IPV)

"Minimum age: 6 weeks"

"Routine vaccination:

- Administer a 4-dose series of IPV at ages 2, 4, 6 through 18 months, and 4 through 6 years. The final dose in the series should be administered on or after the fourth birthday and at least 6 months after the previous dose."

Measles, mumps, rubella (MMR)

"Minimum age: 12 months for routine vaccination"

"Routine vaccination:

- Administer a 2-dose series of MMR vaccine at ages 12 through 15 months and 4 through 6 years. The second dose may be administered before age 4 years, provided at least 4 weeks have elapsed since the first dose.
- Administer 1 dose of MMR vaccine to infants aged 6 through 11 months before departure from the United States for international travel. These children should be revaccinated with 2 doses of MMR vaccine, the first at age 12 through 15 months (12 months if the child remains in an area where disease risk is high), and the second dose at least 4 weeks later.
- Administer 2 doses of MMR vaccine to children aged 12 months and older before departure from the United States for international travel. The first dose should be administered on or after age 12 months and the second dose at least 4 weeks later."

Pneumococcal conjugate (PCV13)

"Minimum age: 6 weeks for PCV13"

"Routine vaccination with PCV13:

- Administer a 4-dose series of PCV13 at ages 2, 4, and 6 months and at age 12 through 15 months."

Varicella (Var)

"Minimum age: 12 months"

"Routine vaccination:

- Administer a 2-dose series of VAR vaccine at ages 12 through 15 months and 4 through 6 years. The second dose may be administered before age 4 years, provided at least 3 months have elapsed since the first dose. If the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid"

**Hepatitis A (HepA)**

"Minimum age: 12 months"

"Routine vaccination:

- Initiate the 2-dose HepA vaccine series at ages 12 through 23 months; separate the 2 doses by 6 to 18 months.
- Children who have received 1 dose of HepA vaccine before age 24 months should receive a second dose 6 to 18 months after the first dose.
- For any person aged 2 years and older who has not already received the HepA vaccine series, 2 doses of HepA vaccine separated by 6 to 18 months may be administered if immunity against hepatitis A virus infection is desired."

**Rotavirus (RV)**

"Minimum age: 6 weeks for both RV1 [Rotarix] and RV5 [RotaTeq]"

"Routine vaccination:

- Administer a series of RV vaccine to all infants as follows:
  1. If Rotarix is used, administer a 2-dose series at ages 2 and 4 months.
  2. If RotaTeq is used, administer a 3-dose series at ages 2, 4, and 6 months.
  3. If any dose in the series was RotaTeq or vaccine product

is unknown for any dose in the series, a total of 3 doses of RV vaccine should be administered."

**Influenza (inactivated influenza vaccine (IIV)**

"Minimum age: 6 months for inactivated influenza vaccine [IIV]"

"Routine vaccination:

- Administer influenza vaccine annually to all children beginning at age 6 months. For the 2016-17 season, use of live attenuated influenza vaccine (LAIV) is not recommended."



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**Influenza (Flu)**

The best way to prevent flu is with a [flu vaccine](#). CDC recommends that everyone 6 months of age and older get a seasonal flu vaccine each year by the end of October. However, as long as flu viruses are circulating, vaccination should continue throughout the flu season, even in January or later. Keep in mind that vaccination is especially important for certain people who are at high risk or who are in close contact with high risk persons. This includes children at high risk for developing complications from flu illness and adults who are close contacts of those children.

Flu vaccines are updated each season if necessary to protect against the influenza viruses that research indicates will be most common during the upcoming season. (See [Vaccine Virus Selection](#) for this season's exact vaccine composition.) The 2018-2019 vaccine has been updated from last season's vaccine to better match circulating viruses. Immunity from vaccination sets in after about two weeks.

## Types of flu vaccines for children

Children 6 months and older should get annual influenza (flu) vaccine. For the 2018-2019 flu season, CDC recommends annual influenza vaccination for everyone 6 months and older with any licensed, age-appropriate flu vaccine (IIV for children aged 6 months and older or LAIV4 for children 2 years of age and older) with no preference expressed for any one vaccine over another.

- **Flu shots (IIV)**, vaccines are given as an injection and made with inactivated (killed) flu virus are approved for use in people 6 months and older.
- **The nasal spray vaccine (LAIV4)** is approved for use in people 2 through 49 years of age. However, there is a [precaution against the use of the nasal spray flu vaccine \(LAIV\)](#) in people with certain underlying medical conditions. More information about the nasal spray flu vaccine can be found [here](#).

Your child's health care provider will know which vaccines are right for your child.

For more information on the different types of flu vaccines available visit CDC's [Different Types of Flu Vaccines page](#).

## Special vaccination instructions for children aged 6 months through 8 years of age

- Some children 6 months through 8 years of age require two doses of influenza vaccine. Children 6 months through 8 years getting vaccinated for the first time, and those who have only previously gotten one dose of vaccine should get two doses of vaccine this season. All children who have previously gotten two doses of vaccine (at any time) only need one dose of vaccine this season. The first dose should be given as soon as the vaccine becomes available.
- The second dose should be given at least 28 days after the first dose. The first dose "primes" the immune system; the second dose provides immune protection. Children who only get one dose but need two doses can have reduced or no protection from a single dose of flu vaccine.
- If your child needs the two doses, begin the process early. This will ensure that your child is protected before influenza starts circulating in your community.
- Be sure to get your child a second dose if he or she needs one. It usually takes about two weeks after the second dose for protection to begin.

## Children should be vaccinated every flu season

Children should be vaccinated every flu season for the best protection against flu. For children who will need two doses of flu vaccine, the first dose should be given as early in the season as possible. For other children, it is good practice to get them vaccinated by the end of October. However, getting vaccinated later can still be protective, as long as flu viruses are circulating. While seasonal influenza outbreaks can happen as early as October, in most seasons influenza activity peaks between December and February. Since it takes about two weeks after vaccination for antibodies to develop in the body that protects against influenza virus infection, it is best that

people get vaccinated, so they are protected before influenza begins spreading in their community.

**POLICY THIS PROCEDURE SUPPORTS:**

1. SVCHC Evidence Based Guidelines

**References:**

1. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, <http://www.cdc.gov/vaccines>.
2. CDC Immunization Guidelines: <https://www.cdc.gov/vaccines/parents/parent-questions.html>
3. CDC Influenza Guidelines for Infants and Children: <https://www.cdc.gov/flu/protect/children.html>

# Immunization Template Training Manual

Version 2.0 (revised November 21, 2017)

Sonoma Valley Community Health Center

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## Vaccine Set-up using Ngkbn Immunizations

As with previous NextGen KBM versions, vaccine set-up is done through Ngkbn Immunizations Practice template. This template allows practices to input specify items within their vaccine inventory to include: Lot Numbers, number of units on hand, administration route (IM, SQ, oral, etc.), dose, and expiration date. This information is then utilized within the Immunizations template/module to auto-populate fields when a lot number is selected, which significantly streamlines workflow time.

Ngkbn Immunizations template can be accessed through the file menu in NextGen EMR by utilizing the following workflow:

- Select File from the menu bar
- Select System/Practice Template
- Select the Practice Tab
- Select Ngkbn Immunizations from the menu items

*Note: Certain rights need to be granted to the NextGen EMR in order to access or modify items within this template.*

To add a new vaccine using Ngkbn Immunizations, the following workflow **MUST** be followed:

### Order Details:

1. Select Vaccine Name by selecting the “CVX vaccine name:” field within the Ngkbn Immunizations template. This will display a picklist, from which you will need to select the vaccine that you are adding to the inventory. Keep in mind that there can be multiple items within this picklist that are the same vaccine, but differ in dose and/or components, CVXcode, and CPT (billing) code.

The screenshot displays the 'Immunization Inventory' form within the 'Ngkbn Immunizations' application. A red box highlights the 'CVX vaccine name:' field in the 'Order Details' section, with a red arrow pointing to it and the text 'Select this field'. A dialog box titled 'Ngkbn Dbp Imm Vacc' is open, showing a list of vaccine options under the heading 'CVX Vaccine Name'. The list includes various influenza and Gardasil 9 vaccines. The dialog box has 'Refresh', 'OK', and 'Cancel' buttons at the bottom.

Note: When a pick-list item is selected, the fields for CVX, CPT, CPT description, and Status auto-populate with information that has previously been set-up within the database.

Order Details				
CVX vaccine name:	CVX:	CPT:	CPT description:	Status:
Influenza, injectable, quadrivalent, preservative free	181	90685	Influenza virus vaccine, quadrivalent, split virus, pre	Active

- The next step in adding an item to the vaccine inventory is selecting a vaccine group. This is utilized as a unique identifier within the Immunizations – Pediatric and Immunizations – Adult templates, and therefore **MUST** be selected in order for the templates to work properly. To add a vaccine group, select the “Group” field within the Ngbm Immunizations template and select an item from the pick-list display that corresponds with the vaccine being added.

utilizing this template at this practice?

lot numbers:

---

PT description:  Status:  Group:

Quantity:  mL    Route:     \*Expiration date:     \*Lot number:     NDC ID:

Vaccine Group

- Comvax
- DTaP/DT
- Flu
- Hep A
- Hep A (Adult)
- Hep B
- Hep B (Adult)
- Hib
- HPV
- IPV
- Kinrix
- Meningococcal

**Vaccine Information:**

The Vaccine Information section of the Ngkbn Immunizations template is where you populate information that will auto-populate fields within the Immunizations template and vaccine module when an order is processed (lot number, route, dose, expiration date, etc.). The general “rule of thumb” here is that the more information that is populated here, then less will need to be documented when a vaccine order is processed after administration.

- Add a vaccine Name. This entry specifies how the vaccine will display within the Immunizations – Pediatric and Immunizations – Adult template

**Vaccine Information**

\*Vaccine name:  Strength:  number:  NDC ID:

Brand name:  Manufacturer:

Starting units:  Units used:  Available units:  Total components:  SIM code:

ICD code:  Description:  Location:  Practice ID:

Type in the vaccine name as you would want it to display.

2. Add the strength of the vaccine. Keep in mind that the strength of each vaccine can vary from vaccine to vaccine and from manufacturer to manufacturer. The strength of a vaccine can be found on the vaccine packaging, or the vaccine itself.

The screenshot shows a 'Vaccine Information' form. The 'Strength' and 'Quantity' fields are highlighted with red boxes. The text 'Type in a vaccine strength' is positioned above the 'Quantity' field. Other fields include 'Vaccine name', 'Brand name', 'Manufacturer', 'Starting units', 'Units used', 'Available units', 'Total components', 'SIM code', 'ICD code', 'Description', 'Location', and 'Practice ID'.

3. Add a quantity for the vaccine by selecting the Quantity field and selecting the value from the number pad display. This is the dose of the vaccine that is to be administered (0.5 ml, 2ml, etc.).

The screenshot shows the 'Vaccine Information' form with a 'Quantity' keypad overlay. The keypad has buttons for digits 0-9, a decimal point, a plus sign, and a minus sign. The 'Quantity' field in the form is highlighted with a red box. The keypad also has 'Clear', 'OK', and 'Cancel' buttons. The form background shows 'CVX vaccine name', 'CVX', 'CPT', 'CPT description', and 'Vaccine Information' fields.

4. Add a vaccine administration route by selecting the Route field and then selecting a pick-list item that corresponds to the vaccine delivery method for the vaccine being added. For example: Intramuscular for Hepatitis B, Subcutaneous for MMR, and Oral for Rotavirus.

The screenshot shows the 'Vaccine Information' form with a 'Route' picklist overlay. The picklist is titled 'Ngkbn Get Dbpicklist Items' and contains the following items: Intradermal, Intramuscular, Intranasal, Intravenous, Oral, Other/miscellaneous, Subcutaneous, and Transdermal. The 'Route' field in the form is highlighted with a red box. The form background shows 'CVX vaccine name', 'CVX', 'CPT', 'CPT description', and 'Vaccine Information' fields.

5. Add an expiration date, lot number, and NDC ID number for the vaccine being added to the inventory. This information is found on the vaccine packaging and/or the vaccine itself, and can be unique to each new vaccine being added.

**Vaccine Information**

\*Vaccine name: Hepatitis B    Strength:    Quantity:    Route:    \*Expiration date:    \*Lot number:    NDC ID:

Brand name:    Manufacturer:     VFC

Starting units:    Units used:    Available units:    Total components:    SIM code:

6. If the new vaccine being added is part of the Vaccines for Children or state funded program (VFC), then select the "VFC" check-box indicating such.

**Vaccine Information**

\*Vaccine name: Hepatitis B    Strength:    Quantity:    Route:    \*Expiration date:    \*Lot number:    NDC ID:

Brand name:    Manufacturer:     VFC

Starting units:    Units used:    Available units:    Total components:    SIM code:

7. Type in a vaccine Brand name that corresponds to the vaccine being added to the inventory by selecting the Brand Name field. The vaccine brand name is unique to each vaccine, and could and can therefore vary from one vaccine to another. For example: Rotavirus can have a brand-name of Rota-Teq or Rotarix.

**Vaccine Information**

\*Vaccine name: Hepatitis B    Strength:    Quantity:    Route:    \*Expiration date:    \*Lot number:    NDC ID:

Brand name:    Manufacturer:     VFC

Starting units:    Units used:    Available units:    Total components:    SIM code:

8. Add a vaccine manufacturer by selecting the Manufacturer field within the Ngkbn Immunizations template and selecting an item from the predefined pick-list display.

**Vaccine Information**

\*Vaccine name: Hepatitis B    Strength:    Quantity:    Route:    \*Expiration date:    \*Lot number:    NDC ID:

Brand name:    Manufacturer:     VFC

Starting units:    Units used:    Available units:    Total components:    SIM code:

ICD code:    Description:    Location:

Lot Number Maintenance    Display:  All  Active  Inactive    Filter By Lot

Ngkbn Dbp Imm Mfr List

Manufacturer Name
Abbott Laboratories
Acanbis, Inc.
Adams Laboratories, Inc.
Alkerm, Inc.
Alpha Therapeutic Corporation
Avion
Basel Laboratories
Baxter Healthcare Corporation
Bayer Corporation
Berna Products Corporation
Biosport Corporation

- Select an ICD Code for the vaccine being added by selecting the "Description" field within the Ngkbn Immunizations template, and then searching for the code from the diagnosissearch.

Starting units: 20 Units used: 8 Available units: 12 Inactive: 1 Total components: 1 SIM code: 1

ICD code: V05.3 Description: NEED PRPHYL VC VRL HERAT Location: SVCHC Practice ID: 0001

Add Update Clear

Enter search term Search

All Diagnoses

- Patient's Diagnoses
- Patient's Chronic Diagnoses
- Favorites
  - Vaccine Dx
  - Favorite 2
  - Favorite 3
- Categories
  - ENT Ear Tubes
  - NSG Assessments
  - Echocardiogram I
  - GI Common Diagnoses
  - Status Post
  - Seizure Disorder
  - Contusion: Trunk

Clinical Description and ICD Code Billing Description

Select Cancel

- Add a location for the vaccine that is being added for the inventory by selecting the "Location" field and selecting an item from the Location Master File. Due to the fact that Sonoma Valley Community Health Center has only 1 location at this time, "SVCHC" MUST be selected for each vaccine being added.

Route: Intramuscular \*Expiration date: 02/09/2017 VFC:

Units: SIM code: 1 Location: SVCHC Practice ID: 0001

Filter By Location

Location Name	Exp Date	Manufacturer
	06/19/2016	MERCK SHARP & DOHME
	02/14/2016	MERCK SHARP & DOHME
(2 dose)	02/09/2017	Merck & Co., Inc.
acel	07/10/2016	SANOPI-PASTEUR

Location Mstr

- Golden Living
- Partnership HP Of CA Main 513
- Partnership HP Of CA MV 513
- Sonoma Healthcare Center
- Sonoma Valley Hospital
- Sonoma Valley Hospital Outpatient
- SVCHC**
- SVCHC Annex
- SVCHC Dental
- SVCHC Main
- SVCHC Main DB
- SVCHC Mobile Van
- SVCHC West Bldg

MUST be selected for all vaccines

Refresh OK Cancel

11. Select the **Add** Button to add the vaccine to the inventory.

ICD code:	Description:	Location:	Practice ID:
V05.3	NEED PRPHYL VC VRL HEPAT	SVCHC	0001
<input type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Clear"/>			

## Updating Items in the Vaccine Inventory

To update items that currently exist within the vaccine inventory, select the vaccine from the “Lot Number Maintenance” grid display. Vaccine information that currently exists will then display in the fields at the top of the Ngkbn Immunizations template, allowing modifications or changes to these fields. Once the modifications have been completed, you will then need to select the **Update** Button to effectively save the changes made.

1. Select vaccine from the grid display

Practice ID	Vac Grp	Lot Number	Status	CPT	Immunization Name	Exp Date	Manufacturer	Brand Name	Location Name
0001	Comvax		A	90748	Comvax	//	MERCK SHARP & D	Comvax (PF)	SVCHC
0001	MMR	P-K008815	A	90707	MMR	06/19/2016	MERCK SHARP & D	M-M-R II (PF)	SVCHC
0001	ProQuad	P-K011315	A	90710	MMRV	02/14/2016	MERCK SHARP & D	ProQuad (PF)	SVCHC
0001	Hep A	P-K005958	A	90633	Hep A - Ped (2 dose Schedule)	02/09/2017	Merck & Co., Inc.	VAQTA	SVCHC
0001	DTaP/DT	P-C4535AA	A	90700	DTaP - DepTaceL	07/10/2016	SANOPI-PASTEUR	DepTaceL (DTaP Pediatric) (PF)	SVCHC
0001	Meningococ	P-U4795AA	A	90734	Meningococcal-Menactra	09/09/2015	SANOPI-PASTEUR	Menactra (PF)	SVCHC
0001	Meningococ	P-U4798AA	A	90734	Meningococcal-Menactra	09/11/2015	SANOPI-PASTEUR	Menactra (PF)	SVCHC
0001	Td	V-C4403AA	A	90714	Td - Tenivac	09/12/2015	SANOPI-PASTEUR	Tenivac (PF)	SVCHC
0001	MMR	P-K001231	A	90707	MMR	01/27/2016	MERCK SHARP & D	M-M-R II (PF)	SVCHC
0001	Varicella	P-K002926	A	90716	Varicella/Varivax	02/26/2016	MERCK SHARP & D	Varivax (PF)	SVCHC
0001	IPV	V-J1731	A	90713	IPV	11/26/2015	SANOPI-PASTEUR	IPOL	SVCHC
0001	Rotavirus	P-K007243	A	90680	Rotavirus	12/13/2015	MERCK SHARP & D	RotaTeq Vaccine	SVCHC
0001	DTaP/DT	V-C4645AA	A	90700	DTaP - DepTaceL	11/05/2016	SANOPI-PASTEUR	DepTaceL (DTaP Pediatric) (PF)	SVCHC

2. Make changes in the fields at the top of the template.

<b>Order Details</b>					
CVX vaccine name:	CVX:	CPT:	CPT description:	Status:	Group:
hepatitis A vaccine, pediatric/adolescent dosage, 2	83	90633	Hepatitis A vaccine, pediatric/adolescent dosage-2	Active	Hep A
<b>Vaccine Information</b>					
*Vaccine name:	Strength:	Quantity:	Route:	*Expiration date:	*Lot number:
Hep A - Ped (2 dose Schedule)		0 mL	Intramuscular	02/09/2017	P-K005958
Brand name:	Manufacturer:		<input type="checkbox"/> YFC		
VAQTA	Merck & Co., Inc.				
Starting units:	Units used:	Available units:	Total components:	SIM code:	
20	8	12	1		
ICD code:	Description:	Location:	Practice ID:		
V05.3	NEED PRPHYL VC VRL HEPAT	SVCHC	0001		
<input type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Clear"/>					

3. Select the **Update** Button to save changes made.

ICD code:	Description:	Location:	Practice ID:
V05.3	NEED PRPHYL VC VRL HEPAT	SVCHC	0001
<input type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Clear"/>			

### Ordering Immunizations:

Vaccines are ordered within the NextGen EMR from the Immunizations – Pediatric and or the Immunizations – Adult template(s). These templates can be accessed from the sub-navigation bar within the \*Intake and/or \*SOAP template for most specialties and visit types.

Example: Accessing the Immunizations - Pediatric or the Immunizations – Adult template using Family Practice as the Specialty, and Office Visit as the Visit Type:

Once the sub navigation item is selected, the corresponding immunization template will display. As with most KBM 8.3 templates, content within the Immunizations – Pediatric and Immunization – Adult templates are within “collapsible panels.” The first panel on the template(s) contain the vaccine orders (vaccine order options)

The screenshot example below of the “collapsible panel” that contains the vaccine order options on the Immunization – Pediatric template

**Review Allergy Pop-up display**

When an initial vaccine is selected (check-box-click) on either the Immunizations – Pediatric or the Immunizations – Adult template, a Review allergy check pop-up will display that asks if the patient is allergic to Neomycin, Egg, Latex, or Gelatin. These substances may present in certain vaccines, and therefore **all questions must be answered**. Again, this only displays when the initial vaccine is selected

Description	Onset	Resolved	Reaction	Comment
ACYCLOVIR	00/00/0000	00/00/0000	Cough	
IODINE	00/00/0000	00/00/0000	Anaphylaxis	
SULFA (SULFONAMIDE ANTIBIOTICS)	00/00/0000	00/00/0000	Rash	

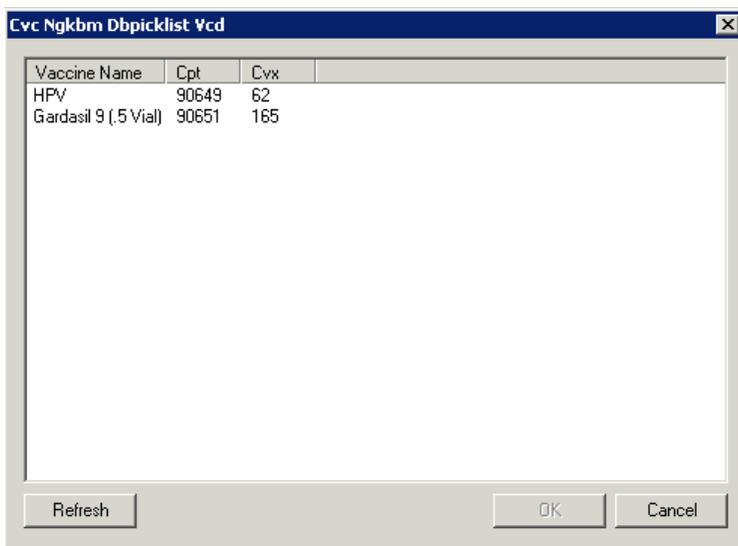
If modifications are warranted to the Review Allergy pop-up display after it has been closed, then it can be accessed simply by selecting the at the right hand corner of the template. If an allergy has already been flagged (selected as “Yes” on the Review Allergies), then the Allergy Module can be accessed by selecting the next to the allergy flagged.

Once the Allergy Review has been completed, a will display next to “Relevant Allergies” at the top of the template, indicating that the review of pertinent allergies has been completed

**Vaccines with pick-list items:**

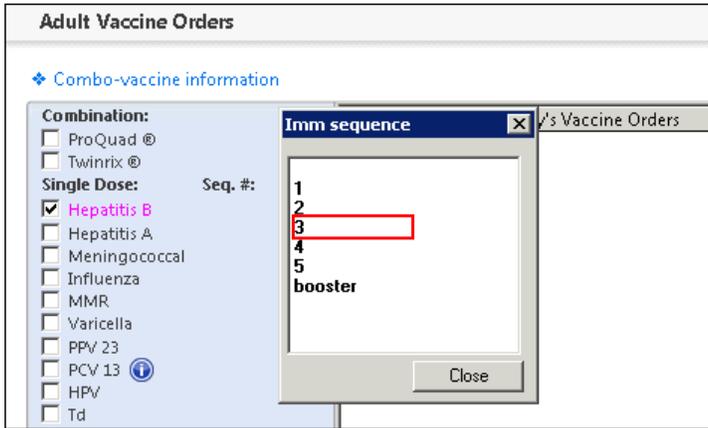
When a vaccine option is selected (check-box –click), and more than one type of the vaccine currently exists in the inventory, then a pick-list will display. An example of this would be if both Rota Teq and Rotarix existed in the inventory, then a pick-list would display allowing the provider to select between the two vaccines. Another example would be Influenza where, in most cases, more than one type of this vaccine would be on hand.

Screenshot example below is of the HPV vaccine where more than 1 type of the vaccine exists in the inventory.

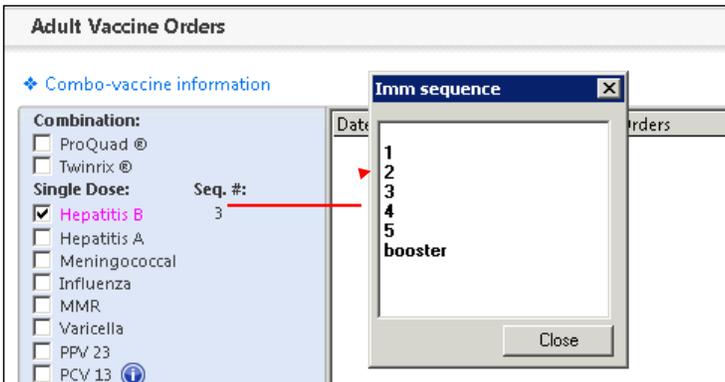


**Selecting a Vaccine Sequence**

Once the allergy review and if applicable, the pick-list item has been selected, then the sequence pick-list pop-up will display for vaccines where more than one is clinically indicated. When this pop-up displays, simply select which sequence the vaccine is. For example, if ordering Hepatitis B for a patient, and the patient has previously received 2 doses of this vaccine, then the appropriate vaccine sequence to select would be “3”



If an amendment needs to be made to the vaccine sequence after it has already been selected, then the text display of the sequence can be selected to re-display the immunization sequence pop-up display.



**Ordering Selected Vaccines:**

Once all vaccines that are to be ordered have been selected, then the ordered can be placed by selecting the **Place Order** button located at the bottom of the Vaccine Orders Panel

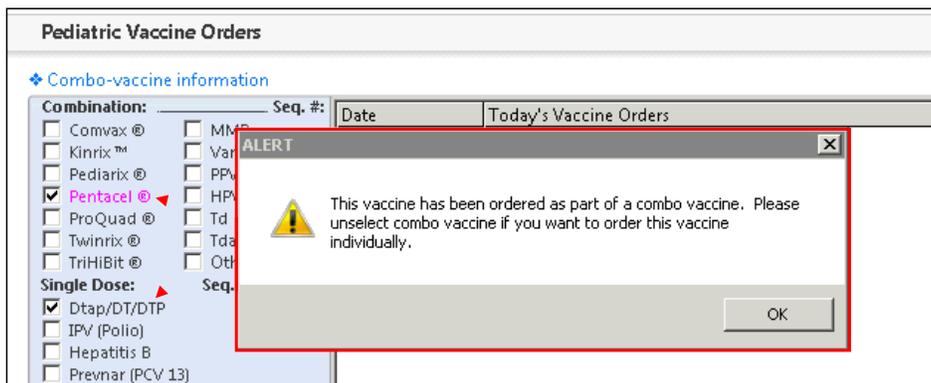


## Immunization Alert Displays

Throughout the immunization selection and/or ordering process, many different alerts may display. The purpose of these alerts is to prompt the user to take notice to certain patient conditions, or to consider taking a different course of action.

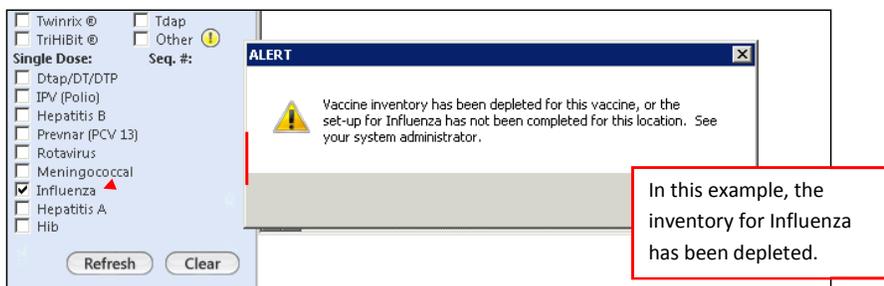
### Duplicate Vaccine Components Alert

If vaccines with duplicate components are contained within a selected vaccine (check-box-click) on either the Immunizations – Pediatric or the Immunizations – Adult template, then an alert will display indicating such. The purpose of this alert is to prevent the ordering of vaccines with duplicate components. For example: if Pentacel (DTaP,IPV, HIB) is selected, and a user then selects DTaP, this will prompt the alert display because DTaP is a component in both vaccines.



### Depleted Inventory/Set-up Required Alert

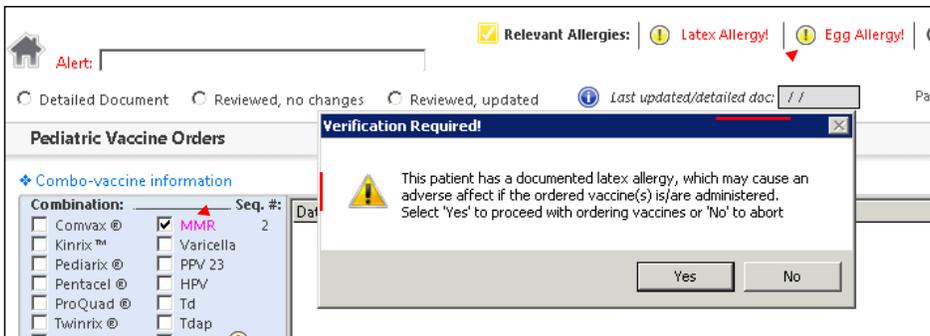
If a selected vaccine has an inventory that has been depleted (no vaccine in stock) or the vaccine has not been set up in Ngkbn Immunizations, then an alert will display to prompt the user to contact the site Immunization Coordinator or NextGen System Administrator.



### Allergy Confirmation Alert

If a patient is allergic to a substance that may or may not be contained within a vaccine, a confirmation alert will display. This type of an alert is considered a “soft stop” as opposed the “hard stops” mentioned above. The difference between “soft stop” vs. “hard stop” alerts is “soft stop” will still allow you to proceed by selecting “Yes” when prompted. Selecting “No” will effectively cancel the ordering process.

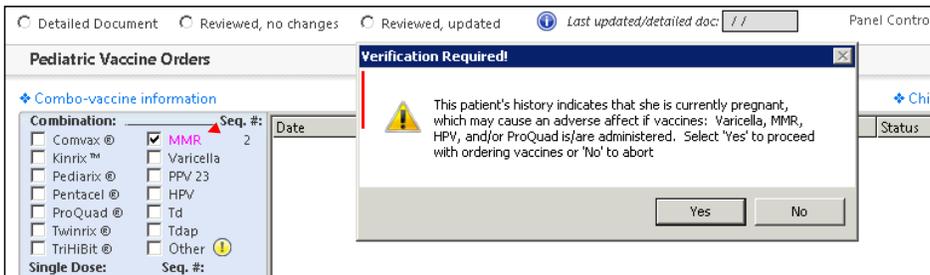
The example below is the confirmation alert display that presents when a user attempts to order MMR vaccine with an existing Egg allergy.



### Pregnancy Confirmation Alert

Another confirmation alert (soft stop) that may display is a pregnancy confirmation alert. This will display when a selected vaccine that may be contraindicated in pregnancy is selected, and the **Place Order** Button is selected.

The example below is when MMR is attempting to be ordered by a user for a pregnant patient.



## CAIR Consent

SVCHC uplinks all information into CAIR unless the patient (or the patient's parent or legal guardian) opts out. CAIR consent must be updated one time per year.

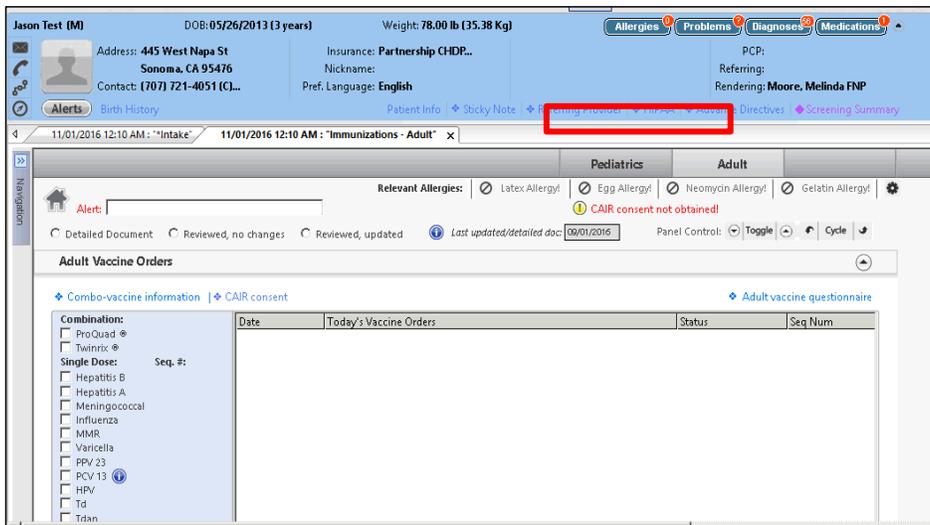
### CAIR Consent Alert on the Immunizations – Pediatric template

In order to notify staff members that a patient has or has not given CAIR consent, an alert has been added to the top of the Immunizations – Pediatric template. This alert in **RED TEXT** will display if documentation regarding a patient's consent for the CAIR Registry has not been documented in the NextGen EHR. (see screenshot below)

The screenshot shows the NextGen EHR interface for a patient named Sonoma, CA 95476. The patient's name is Sonoma, CA 95476, and the rendering provider is Moore, Melinda FNP. The patient's preferred language is English. The interface displays the 'Immunizations - Pediatric' template. A red alert is visible at the top of the template, stating 'CAIR consent not obtained!'. Below the alert, there are sections for 'Pediatric Vaccine Orders' and 'Vaccine Order Module'. The 'Pediatric Vaccine Orders' section includes a list of vaccine combinations and a table for 'Today's Vaccine Orders' with columns for Date, Status, and Seq. #. The 'Vaccine Order Module' section includes options for 'New Order...', 'Refresh', 'Sign-off...', 'Print', 'Fax...', 'Historical...', 'Exclusions...', and 'Web Links'.

### CAIR Consent Alert on the Immunizations – Adult template

Like the Immunizations – Pediatric template,, an alert has also been added to the top of the Immunizations – Adult template. This alert in **RED TEXT** will display if documentation regarding a patient’s consent for the CAIR Registry has not been documented in the NextGen EHR. (see screenshot below)



### Completing the CAIR Consent pop-up template

In order to document a patient’s level of consent as it pertains to the CAIR Registry, a pop-up has been created. This pop-up can be accessed two different ways on the Immunizations – Pediatric and the Immunizations – Adult templates in NextGen:

1. Select the alert text display (red text or exclamation icon)
2. Select the CAIR consent active text link | [CAIR consent](#) | **CAIR consent not obtained!**

On the CAIR Consent pop-up template, there will be three radio button options to select from. Once of these options is required in order to indicate that CAIR Consent has been completed. These options are:

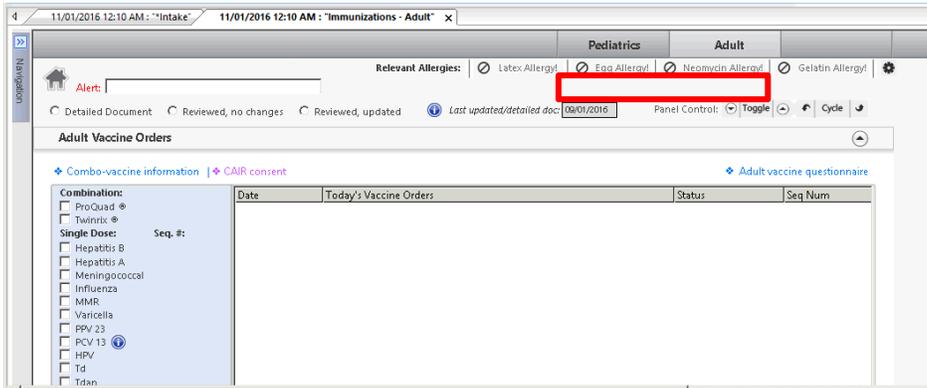
- Yes, the patient gave consent
- No, the patient declined consent
- Unknown, the patient did not answer

Screenshot of the CAIR Consent pop-up template

**Commented [JV1]:** Cheryl, Consent must be done prior to immunization being ordered or given. This really needs to be stressed to Back Office. It is the way the interface requires it; this is a hard code that NextGen placed.

Once an option has been selected, the “Date” will default with the date of service date (encounter date). If the date of consent is not the encounter date, it can be changed by selecting the field, and then selecting a date from the calendar display

Once an option has been selected on the CAIR Consent pop-up template, and a date of consent identified, the **RED TEXT** alert on the Immunizations – Pediatric and Immunizations – Adult template will hide from view. However, the CAIR Consent pop-up can still be accessed by selecting the CAIR consent active text link



### Generating a CAIR Consent document

Once a level of consent and consent date has been identified on the CAIR Consent pop-up template, a CAIR Consent document can be generated. This is completed by selecting the **Generate Document** button on the CAIR Consent pop-up template.

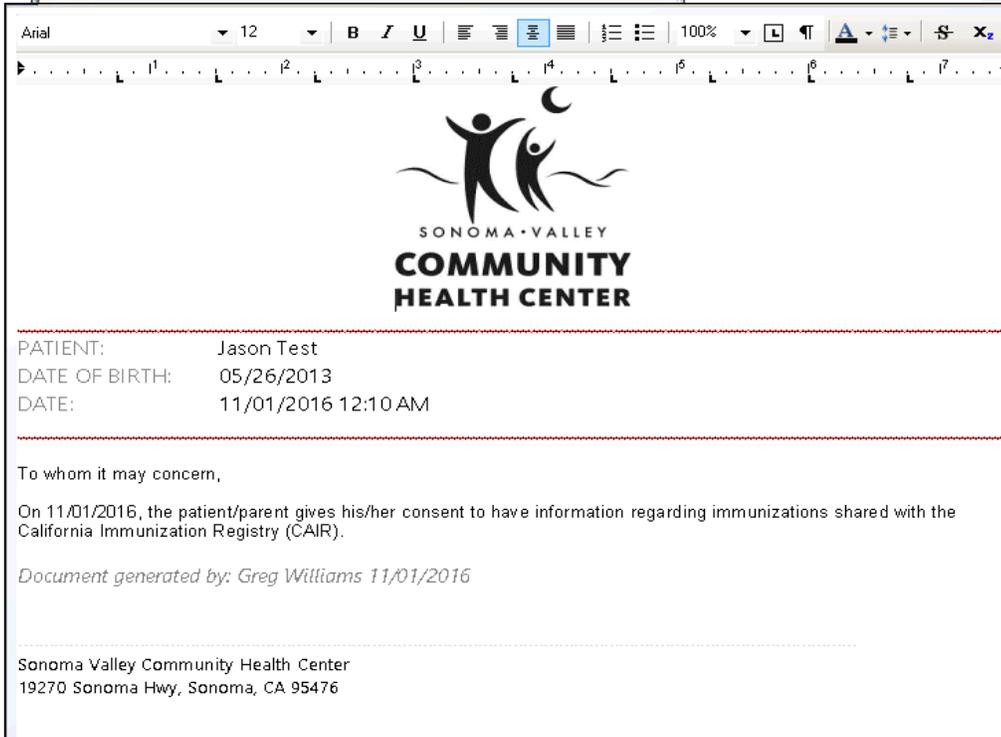
Immunization Consent

**Immunization Consent**

Yes - The Patient Gave Consent  
 No - The Patient Declined Consent  
 Unknown - The Patient Did Not Answer

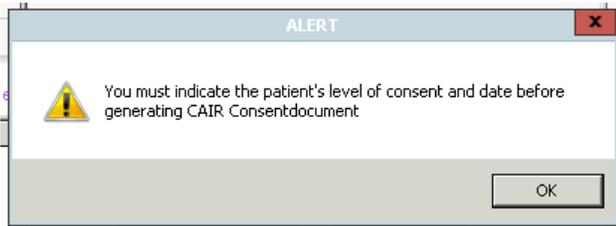
Date (if not today):

Screenshot of the

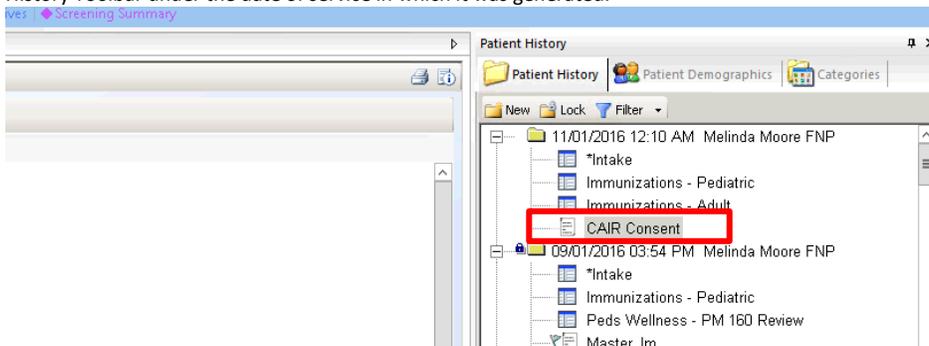


CAIR Consent document

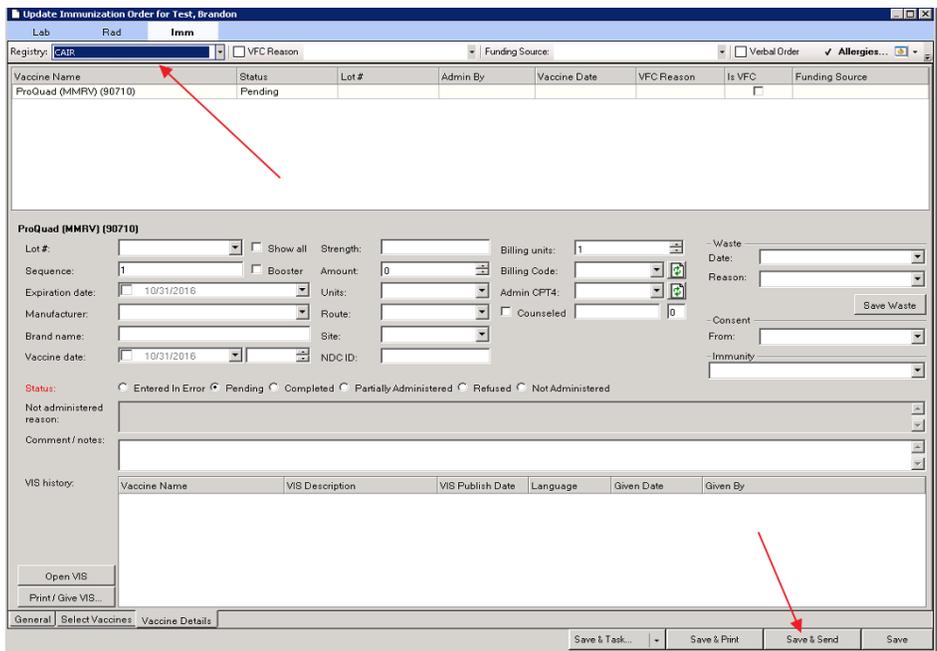
If a level of consent has not been specified, or if a date of consent has not been specified, an alert message will display if the  button is selected.



The CAIR Consent document will automatically save to the patient's encounter. This will display in the History Toolbar under the date of service in which it was generated.



Once you have obtained consent place complete your immunization order as normal. Make sure you have the Registry set to CAIR and click on the Save & Send button to send it to CAIR.



**Vaccine Orders Module**

Once vaccines are ordered, they are processed in the vaccine orders module, which is located within the second collapsible panel on both the Immunizations – Pediatric and Immunizations – Adult templates.

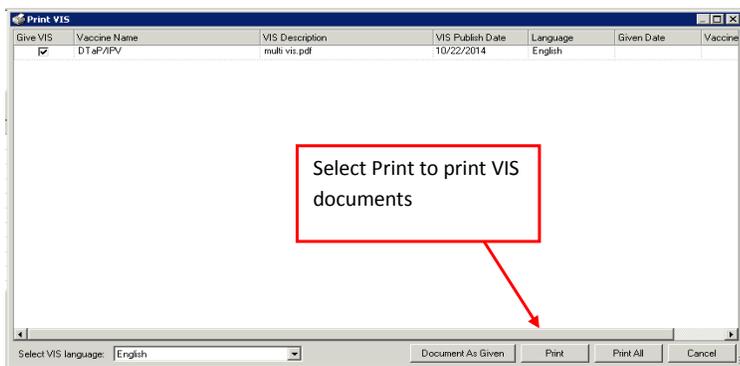
**Processing Vaccine Orders**

Once vaccines orders have been placed, the MA or Nurse needs to process these orders in the Vaccine Orders Module. This includes printing Vaccine Information Sheets (VIS), selecting a lot number from the inventory, and documenting the site of administration. To access a vaccine order for processing, locate the vaccine within the Vaccines Orders Module (should be in a **Pending** status) and double-click the item.



**Note:** when a vaccine with multiple components is ordered, they will display in the Vaccine Orders Module broken-down by each component item. For example, Kinrix will display by each component as DTaP and Polio.

Once you double click the vaccine order to be processed, the Print VIS screen will display. This is where the user will print the Vaccine Information Sheets that are required to be distributed to patients or parents/caregivers of patients.



After printing VIS documents, the vaccine order processing screen will appear. This is where the MA or Nurse performs the actual documentation of the administered vaccine.

The first step in this process is to address the information at the top of the screen by selecting:

1. A Registry (should default to CAIR),
2. VFC if the patient is receiving state funded vaccines including VFA (Fund 317),
3. A VFC reason from the drop down. *This section must be completed even if the patient will receive vaccines from our private inventory,* and
4. The funding source.

See the grid below for further information.

VFC Eligible: Box 1 below	Reason: Box 2 below	Funding Source: Box 3 below	Notes:
<b>Yes (Box is checked)</b>	Medical / Medical Managed Care	State	This would be for patients on Medical, Partnership Health Plan, etc.
	VFC eligible	State	
	American Indian / Alaskan native	State	
	VFC eligible – Uninsured	State	Look at patient toolbar to check insurance type. Select if patient is a minor and the visit is being paid by straight CHDP <u>or</u> if the patient is an adult and the insurance type is uninsured.
	VFC eligible – Underinsured	State	This means that the patient has an insurance coverage that will not pay for vaccines.
<b>No (Box is unchecked)</b>	Not VFC Eligible	Private Funds	Patient has private insurance.

**Note: If the vaccine being administered is from VFC stock, and VFC is not selected at the top of the screen, then the lot number will not display**

The first next in this process is to select the vaccine from the grid at the top of the screen, then select the appropriate lot number from the Lot# field, and documenting the site of administration. Depending on how complete the vaccine was set up in Ngkbn Immunizations (see pages 3-8), most fields will auto-populate with information to include dose, route, billing CPT code, number of components, and expiration date. If these fields do not auto-populate, then they will need to be documented as well.

In the example below, notice that when lot number U5607AA is selected, the Manufacturer, Brand name, Expiration date, Units, route, and NDC ID all auto-populate from information that was already set-up in Ngkbn Immunizations.

**Adacel (Tdap) 7 years And Up (90715)**

Lot #:	U5607AA	<input type="checkbox"/> Show all	Strength:		Billing units:	1
Sequence:	1	<input type="checkbox"/> Booster	Amount:	0.5	Billing Code:	90715F
Expiration date:	<input checked="" type="checkbox"/> 03/29/2019		Units:	Milliliters	Admin CPT4:	90471
Manufacturer:	SANOPI-PASTEUR		Route:	Intramuscular	<input type="checkbox"/> Counseled	0
Brand name:	Adacel(Tdap Adolesn/Adult)(PF)		Site:			
Vaccine date:	<input checked="" type="checkbox"/> 11/21/2017 03:41 PM		NDC ID:	49281040015		

Status:  Entered In Error  Pending  Completed  Partially Administered  Refused  Not Administered

**Note: If the vaccine being administered is from VFC stock, and VFC is not selected at the top of the screen, then the lot number will not display when the Lot # field is selected.**

Once all fields for the vaccine order has been completed, and all vaccine orders have been processed, select "Save & Send" at the bottom of the template. This will upload the vaccines into the CAIR registry.