

EHR Best Practice Workflow Guide for HPV Vaccinations in NextGen® Ambulatory EHR



Please help improve this guide by providing feedback on a brief survey at the following link: <https://www.surveymonkey.com/r/Z2WCN62>

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Introduction

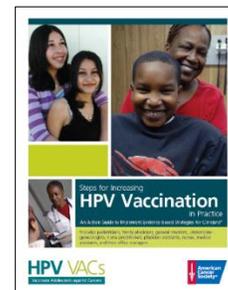
Purpose of the guide

This guide provides focused documentation to assist users of NextGen Ambulatory EHR to improve the process of tracking, alerting, and administering the HPV vaccine within their facilities. This document also serves to familiarize American Cancer Society (Society) staff with the current workflow in community health centers related to HPV vaccination. This guide was created based on data collected from a focus group of Federally Qualified Healthcare Clinic (FQHC) staff who have used NextGen Ambulatory EHR software in HPV vaccination quality improvement efforts.

The accompanying *Workflow Project Summary Report* details how this project was completed, provides additional statistics about HPV vaccination, and gives recommendations that may support process improvement and increased vaccination rates.

This guide focuses on the processes, challenges, opportunities, and potential best practices for HPV vaccination including a bulleted summary of key points within each section. Based on input from providers, consultants, researchers, NextGen Healthcare staff, and American Cancer Society staff, the authors have recommended potential process or system modifications to improve compliance with the recommended vaccination schedule.

This guide stands to serve FQHCs and other clinics who administer the HPV vaccine and use the NextGen Ambulatory EHR. Immunology clinics (non-practice setting) that administer HPV vaccinations may also find this to be a functional tool. This guide should be used in conjunction with the American Cancer Society's *Steps for Increasing HPV Vaccination in Practice: An Action Guide to Implement Evidence-Based Strategies for Clinicians*. <http://bit.ly/HPVStepsActionGuide>



Due to the increasingly complex and dynamic environment of EHR design, the amount of screen prints included in this guide is purposely limited to include only key concepts. Different settings, software versions, configuration, options, and interfaces mean that the individual user's experience may vary slightly from the information in this guide. This guide also omits formal step by step numbered instructions in order to allow for flexibility for the end user, while still emphasizing standardization as much as possible. The combination of this formatting reduces the need for frequent updates and the chances that information will be out-of-date or misleading.

Background

In spring 2016, the Society’s HPV vaccination program staff identified the need to understand better and communicate to its internal staff and external partners how professional clinicians and clinic staff can modify various EHR software as part of systems change efforts to increase HPV vaccination uptake. Based on information from HPV vaccination intervention pilot sites, NextGen Ambulatory EHR was identified as a frequently utilized EHR system.

The National HPV Vaccination Roundtable’s document *Examining Health Care Professionals’ View on Using Electronic Health Records and Immunization Information Systems to Increase HPV Vaccination*¹ outlines clear opportunities to improve HPV vaccination rates through the use of EHRs. In the above report, compliance with administration of the initial HPV vaccine dose varied widely, from 20% to 92%, amongst survey respondents. In addition, data from the National Immunization Survey-teen showed that just over 40% of eligible patients completed the HPV vaccine series in 2016, revealing a significant coverage gap. While rates of HPV vaccination have improved in recent years, they still lag behind other adolescent vaccinations and are far from the “Healthy People 2020” goal of 80%.²

Sections in the guide

The design of this guide seeks to provide information on how to use NextGen Ambulatory EHR as a tool to increase HPV vaccination by prompting clinic staff to offer a vaccination, how to document vaccinations, and how to follow up on subsequent doses.

The guide reflects most commonly used workflow steps and best practices as elicited through a focus group of NextGen Ambulatory EHR users to:

- Configure NextGen Ambulatory EHR optimally for HPV vaccination workflow.
- Ensure clinic staff and providers are aware when patients are due for HPV vaccine.
- Document the administration of the vaccine to ensure effective data collection.
- Track each dose administered and follow up so that patients complete the vaccine series.

¹ Feld, S., Lutz, O., & Winters, A.. (2016). National HPV vaccination roundtable and the American Cancer Society, examining health care professional’s views on using electronic health records and immunization information systems to increase HPV vaccination. http://bit.ly/HPVRT_EHRreport

² Walker TY, Elam-Evans LD, Singleton JA, et al. National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years — United States, 2016. *MMWR Morb Mortal Wkly Rep* 2017;66:874–882. DOI: <http://dx.doi.org/10.15585/mmwr.mm6633a2>.

- Run basic reports to track activity, determine patients needing follow-up, and to measure and improve performance.

This symbol, found throughout the guide, identifies a best practice.



The following is a brief summary of the contents of each section:

Preparing your system: This section begins with configuration, a key component to set the stage for the most functional workflow within the software system. Well thought out planning of system design, including policies and procedures that are consistent with the configuration, can streamline implementation and allow end users to adjust more easily to changes. Proper configuration simplifies ongoing administrative maintenance. Here is also where vaccine inventory is set up, assuring quality control and efficiency in managing vaccination lot numbers and dosage.

Pre-visit: There are a number of steps in the vaccination process to be completed before a patient arrives at the clinic. Taking advantage of this time to prepare properly for the visit reduces missed opportunities and maximizes time with the patient.

Patient visit: This section covers documentation requirements from order through administration. During the patient visit, discussion/education with the patient/parent should occur based on recommended guidelines. Vaccinations should be administered at every opportunity, if no contraindications are found.

Post vaccine administration: This section describes the clinic process and documentation that occurs after a patient receives a vaccination, but before they leave the clinic. This includes pre-scheduling for the next (follow-up) visit, if eligible.

Track and follow up: This critical area describes techniques and best practices for tracking, follow-up, and ensuring visit compliance for those patients that have begun the HPV vaccination series.

Reports: The collection of performance indicators is necessary for improving any process. Better quality data, not necessarily the volume of data, will provide better results. This section describes reports that can be used to track performance and ultimately improve vaccination rates.

State immunization registries and data transfer

State immunization registries or Immunization Information Systems (IIS) attempt to maintain accurate, complete, and timely data and provide immunization information to all authorized stakeholders while adhering to privacy standards. Given the multi-dose schedule for HPV vaccination, this data can be very useful.

NextGen Ambulatory EHR has the capability to have a unidirectional interface to upload vaccination data to a state immunization information system. As of version 5.8.3, NextGen Ambulatory EHR supports a bidirectional interface with state immunization registries. This allows for immunization data in the IIS to be imported into NextGen Ambulatory EHR and the patient documented vaccination history to be updated. If clients are on an earlier version of NextGen Ambulatory EHR, they will need to manually check their state's IIS for patient vaccination histories or rely on patient reporting. However, not all states have standardized state registries, and not all states mandate collection of that data. All providers are encouraged to report data to their states' immunization registries. Accurate registry data can support a variety of evidence-based strategies to increase HPV vaccination across all practices and providers.

Preparing your system

This section provides information on how to configure NextGen Ambulatory EHR to support an HPV vaccination workflow that will work best for your practice.

Ongoing preparation

Developing processes in the following areas is key to being prepared on a daily basis to identify eligible patients and administer the HPV vaccine.

These activities need to occur as maintenance functions so the practice is regularly prepared for daily vaccinations.

- Order and monitor vaccine stock. This ensures there is an adequate supply of HPV vaccine. More information on maintaining vaccine supply can be found in chapter 1 of the AAP's *Immunization Training Guide* at https://www.aap.org/en-us/Documents/immunizations_training_guide.pdf
- Coordinate vaccine stock with the VFC program.
- Enter vaccine lot numbers in File Maintenance (refer to page 16).

Configuration setup in File Maintenance

The HPV Immunization Module is set up in the File Maintenance application. The following setup recommendations will ensure that your system is configured correctly for daily workflow and ongoing follow-up. This section covers configuration of the Immunization Module and set up of recall plans through the File Maintenance application.

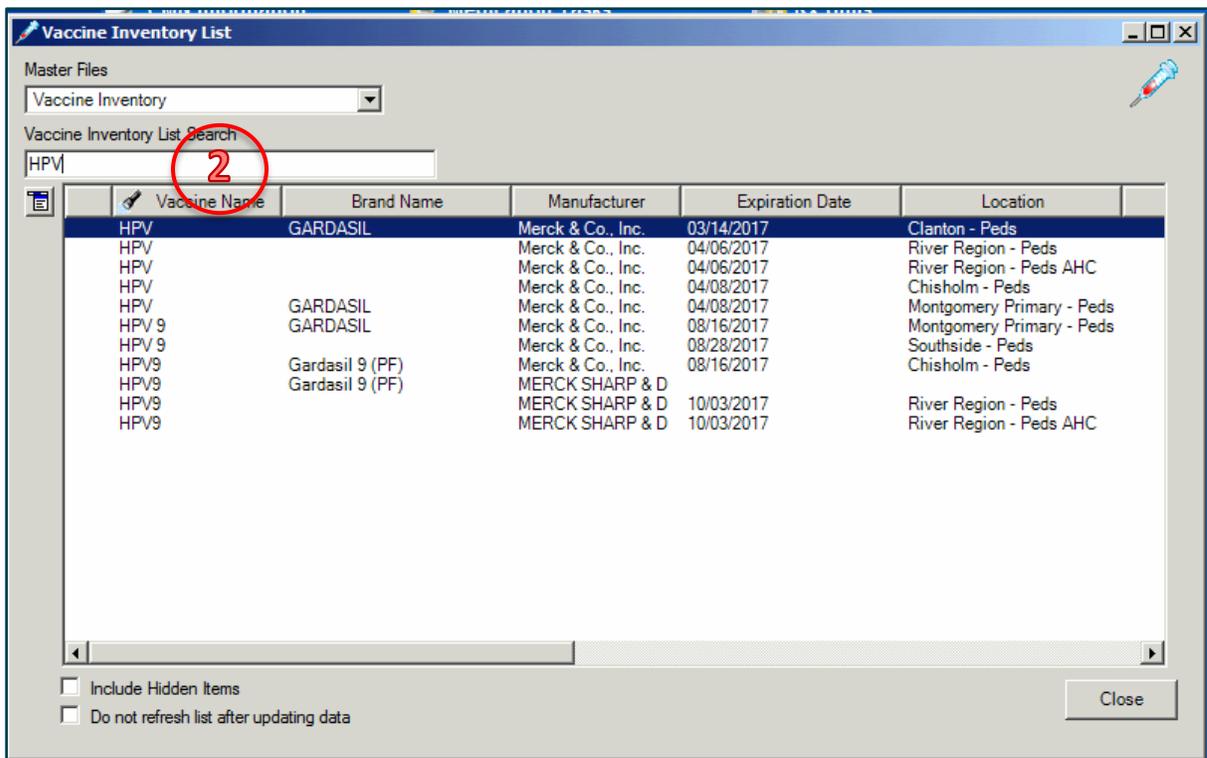
Note: NextGen Healthcare provides medication updates on a regular basis that clients must manually load into their systems. **It is vital to upgrade to the latest medication update prior to setting up the inventory.** This ensures that all the latest vaccines are available in the setup. The appropriate diagnosis codes will also be updated.

Immunization Module setup

Vaccine Orders/Inventory

This section provides guidance on how to enter your actual inventory of vaccine. The monthly or quarterly NextGen medication update will provide the list of vaccines from which you can select.

1. Go to **File Maintenance> Master Files> System> EHR> Vaccine Inventory**.
2. Choose **New** or find the vaccine in the Vaccine Inventory List Search by searching for “HPV” and opening the selected vaccine. If documenting a new lot number, first select the line item from the list with the correct NDC code.



The screenshot shows the 'Vaccine Inventory List' window. At the top, there is a 'Master Files' dropdown menu set to 'Vaccine Inventory'. Below it is a search field labeled 'Vaccine Inventory List Search' containing the text 'HPV'. A red circle with the number '2' is drawn around the search field. Below the search field is a table with the following columns: Vaccine Name, Brand Name, Manufacturer, Expiration Date, and Location. The table contains several rows of data for different HPV vaccine types and locations. At the bottom of the window, there are two checkboxes: 'Include Hidden Items' and 'Do not refresh list after updating data', and a 'Close' button.

Vaccine Name	Brand Name	Manufacturer	Expiration Date	Location
HPV	GARDASIL	Merck & Co., Inc.	03/14/2017	Clanton - Peds
HPV		Merck & Co., Inc.	04/06/2017	River Region - Peds
HPV		Merck & Co., Inc.	04/06/2017	River Region - Peds AHC
HPV		Merck & Co., Inc.	04/08/2017	Chisholm - Peds
HPV	GARDASIL	Merck & Co., Inc.	04/08/2017	Montgomery Primary - Peds
HPV 9	GARDASIL	Merck & Co., Inc.	08/16/2017	Montgomery Primary - Peds
HPV 9		Merck & Co., Inc.	08/28/2017	Southside - Peds
HPV9	Gardasil 9 (PF)	Merck & Co., Inc.	08/16/2017	Chisholm - Peds
HPV9	Gardasil 9 (PF)	MERCK SHARP & D		
HPV9		MERCK SHARP & D	10/03/2017	River Region - Peds
HPV9		MERCK SHARP & D	10/03/2017	River Region - Peds AHC

Vaccine Inventory

The screenshot shows the 'Order Details' form with the following data and annotations:

Status	Proc	Procedure Code	Description	CVX	CVX Vaccine Name
Active	90649	HPV		62	HPV

Vaccine Name	Strength	Quantity	Unit of Measure	Route
HPV		0	mL	

Brand Name	Manufacturer	Lot Number	NDC ID
GARDASIL	Merck & Co., Inc.	1537AA	

Starting Units	Units Used	Available Units	Total Components	Expiration Date
5	0.000	5.000	1	06/21/2014

ICD Code	Description
Z23	

Practice: Samuel U Rodgers Healt... All Practices

Location:

VFC:

Buttons: Who/When, OK, Cancel

Order Details in Vaccine Inventory

Enter information in all appropriate fields that do not have default entries. The fields in the Order Details section are pre-populated from the medication update and cannot be changed.

3. Enter **Route**, for example, “intramuscular.” The value entered here will be the default when documenting the vaccine administration in the Immunization Module.
4. For **ICD Code**, if Z23 does not default, enter “Z23”.
5. Link to a practice location in the **Location** field if the default is not correct.
6. If the vaccine is to be used for patients who are VFC-eligible, select the **VFC** check box.
7. Select **OK** to save your changes.

If you need to enter more vaccine lots, repeat this process.

VIS setup

Options for providing Vaccine Information Statement (VIS) documents include using pre-printed handouts or printing the materials from NextGen Ambulatory EHR.

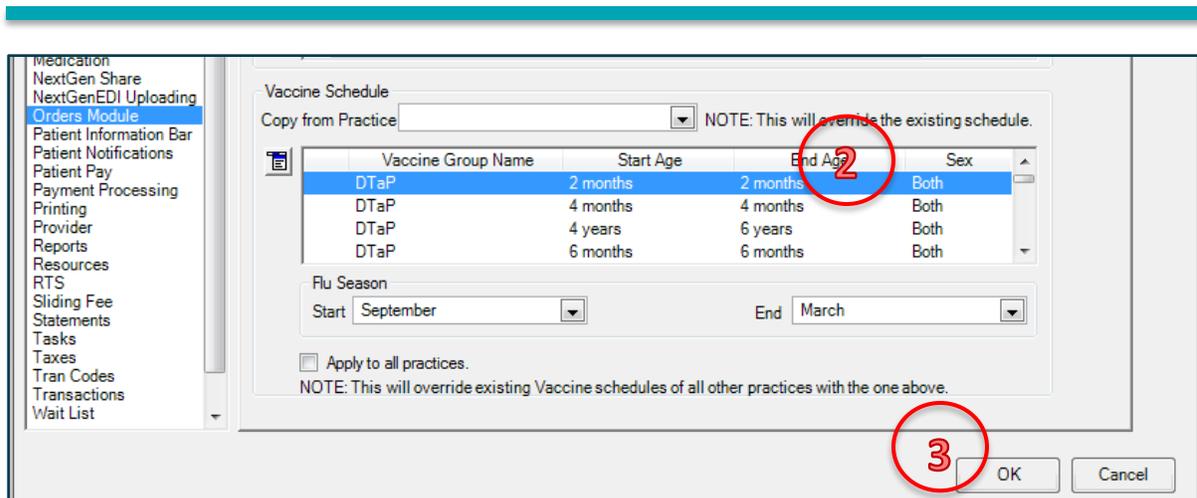
If you would like to print VIS documents from NextGen Ambulatory EHR, set up the VIS documents in the VIS Setup file in File Maintenance. If the CDC makes changes to the VIS, you will need to update the document in this location. The clinic can add English, Spanish, and several other languages that are downloaded from the VIS website. Setting up these documents is an area that NextGen Healthcare Support can help with if needed. For the latest VIS documents in a variety of languages, see the Immunization Action Coalition's VIS page: <http://www.immunize.org/vis/>.

Practice preferences

In this configuration area, you can customize some of the Immunization Module options. To set up practice preferences:

1. Go to **File Maintenance > System > Practices**.
 2. Select **Preferences**.
 3. Select **Orders Module > Imm** tab.
 - **VIS print mode:** If you do print VIS documents from NextGen Ambulatory EHR, you can configure to print automatically or users can be prompted to print.
 - **Default registry:** Set a default registry if you have a data transfer with your state immunization registry or to display your state immunization registry when immunizations are ordered.
 - **Vaccine schedule:** Set up age groups for when vaccinations are due. This will drive the status for recommended vaccinations in the Immunization Module initial Chart view, and will display in red when vaccinations are past due. This setup should already be completed by default, but can be reviewed if changes are needed.
1. For each Vaccine Group Name, select **Open**.
 2. Select the **Start Age, End Age** and **Sex**.
 3. Select **OK** to save your changes.





Vaccine schedule

- **Preference for Chart view or Recommendations view:** Either of these views can display first in the Immunization Module. The Chart view is easier to read in the clinical setting, and it also displays clearly which vaccinations are due or past due. The Recommendations view works well for reference.

VFC reasons

The VFC reason values will come from your state immunization registry if you have an automatic data transfer. If not, create a custom list of VFC reasons in File Maintenance. These selections will be available when the vaccination is documented for the patient.

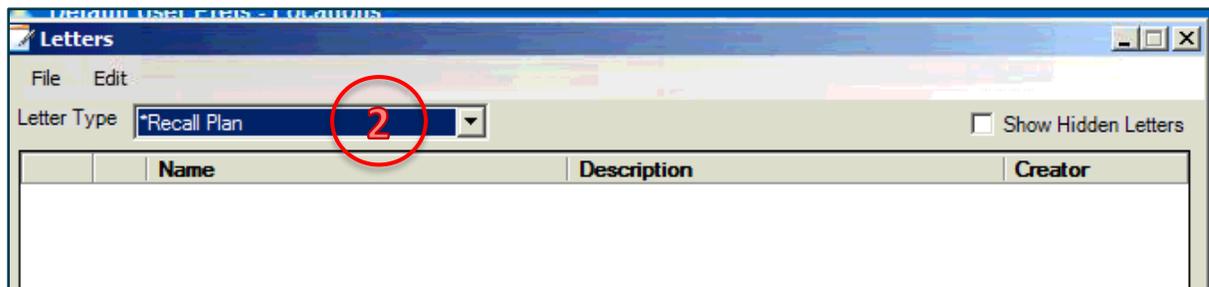
1. Go to **File Maintenance> Master Files> System> VFC Reasons**.
2. Right click for **New**.
3. Enter each code and description.

Recall setup

When recalls are configured in NextGen Ambulatory EHR, you can use this function to remind patients to return for a subsequent dose. By setting up your recall letter(s) first and then recall plan(s), patients can be set up for reminders at checkout. Then, letters, labels, or reports can be generated for follow-up. The plans should be determined based on the types of patients seen at each clinic and with guidance from the clinicians.

Set up recall letters

1. Go to **File Maintenance > Master Files > Practice > Letters**.
2. Choose **Recall Plan** in Letter Type.



Recall Plan Letter Type

3. Right click for **New**.
4. The Create Letter Setup dialog opens. Create an **HPV letter** for each separate recall plan. The letters are not composed here. Instead, the letters can be linked to letters or labels in Practice Management, Form Templates and Label Templates System Master Files, if you want to print actual patient mailings.

Configure recall plans

1. Go to **File Maintenance > Master Files > Practice > Recall Plans.**
2. Enter a **name** for the Recall Plan, for example, “HPV Vaccine Dose 2.”
3. Select the applicable Appointment Information parameters.
 - **Patient Expected to Return:** Enter the number of days for follow-up, for example “60 days” for 2 months.
 - **Default event:** Select “15 Min Event.”
 - **Event to discontinue the plan:** Select “Kept” appointment.
 - **Mailing Information:** Enter the time frame for generating the mailing information. Attach the appropriate **HPV letter** with the days prior, usually 14 days. The recall letters set up in the previous section will be available as selections.

Recall Plans

Recall Plan
HPV Dose 2

Appointment Information
Patient expected to return in 60 days
Default Event
15 Min Event Allow override
Default Resource Allow override
Default Location Allow override
Which appointment status should discontinue participation in this plan?
 Kept
 Scheduled
 None

Mailing Information
 Enable recall notifications to be sent via Patient Portal
Recall Letters
Send 1st HPV 14 days prior Mailing Labels
Send 2nd 0 days prior Mailing Labels
Send 3rd 0 days prior Mailing Labels
Generate Tasks

Note

WhoWhen

OK Cancel

Recall Plans

Ongoing administrative maintenance

While the intent of the initial configuration is to provide a proper ‘build’ infrastructure, there is a need for ongoing maintenance and testing of any functions that change over time, or when there are version or functionality updates from the vendor.

As new individuals take over roles from others within a facility, as patient populations vary, and as different vendors may be migrated to, keeping an inventory of documented changes to the system is key to smooth transitioning.

There are both technical components to ongoing administrative maintenance and quality controls. Technical maintenance typically involves assistance from the information technology staff, or a ‘super user,’ who can coordinate such changes from the software vendor.

A software vendor will often provide opportunities for clients to give input on upcoming software changes. Typically, these changes go into a queue with priority rankings, and the more clients request such a change, the more likely the change is to occur. Regulatory legislation and recommendations from organizations which set standards or provide accreditation also exert influence over how software is changed. End users are encouraged to participate in feedback opportunities.

For quality maintenance, understanding what works and doesn’t work in an EHR environment is key to improving processes. Whether it is the use of an order, understanding who documents contraindications and how, or analyzing which patients failed to have documented follow-up appointments, performing regular audits against this documentation is important and should be built into job descriptions and schedules. An example of this would be an audit to specifically review the patient record to ensure that all the proper fields on the vaccination records were fully completed.

Pre-visit

This section provides general recommendations to help you identify all patients who are eligible for HPV vaccination each morning.

- Review scheduled patients for HPV vaccine eligibility. This includes 11-12 year olds who have not yet started the series, as well as those overdue who haven't completed the series, up to age 26.
- Review scheduled patients' immunizations in the state immunization registry to see if patients received vaccinations at other locations not already documented in NextGen Ambulatory EHR. When undocumented past vaccines are found, update the Historical Immunization panel in NextGen Ambulatory EHR.
 1. Select the **Immunization Module**.
 2. Select the **Historical** tab.
 3. Select the **HPV** vaccine.
 4. Enter the date of the missing vaccination.
 5. Enter the source of the missing vaccination information, e.g., "parent."

Vaccine	CVX	CPT	Date	Source	Comments	Brand
HPV	62	90649				

Historical tab, Immunization Module

By having all patient vaccinations up to date in NextGen Ambulatory EHR before the patient is seen, the Immunization Module will correctly display any past due immunizations and alert clinical staff. *

A morning huddle with providers and clinical staff works well as an opportunity to review the patient load and make note of patients due for any dose of the HPV vaccine. *

Patient visit

Patient check in

As registration staff gather information when the patient checks in, and updates the patient chart in the NextGen® Practice Management application, there is an opportunity to:

- Verify or capture patient demographics including self-history, guarantor status, contact information, and HIPAA compliance.
- Update the patient immunization record if it has not already been verified.

Alerts that the patient is a vaccination candidate

The Immunization Module is the best alert within NextGen Ambulatory EHR to see the patient’s current status on immunizations.

Train clinical staff to open the Immunization Module for any pediatric visit (including sick or acute visits) and designate a staff member who is responsible for reviewing the Immunization Module, usually the provider.



Immunization	Status	Dose 1
DTaP	Current *	
Hep A	Due 2/10/2017	08/11/2016
Hep B	Due 9/8/2016	08/11/2016
HIP	Current *	
HPV	Past Due	
Meningococcal	Past Due	
MMR	Past Due	
Pneumococcal	Current *	
Polio	Past Due	
Rotavirus	Current *	
Tdap	Past Due	
Varicella	Past Due	

Immunization Module Chart view

As part of a quality improvement protocol, spot checks can be done and recorded to track opportunities for improvement. This information should also be shared with providers.

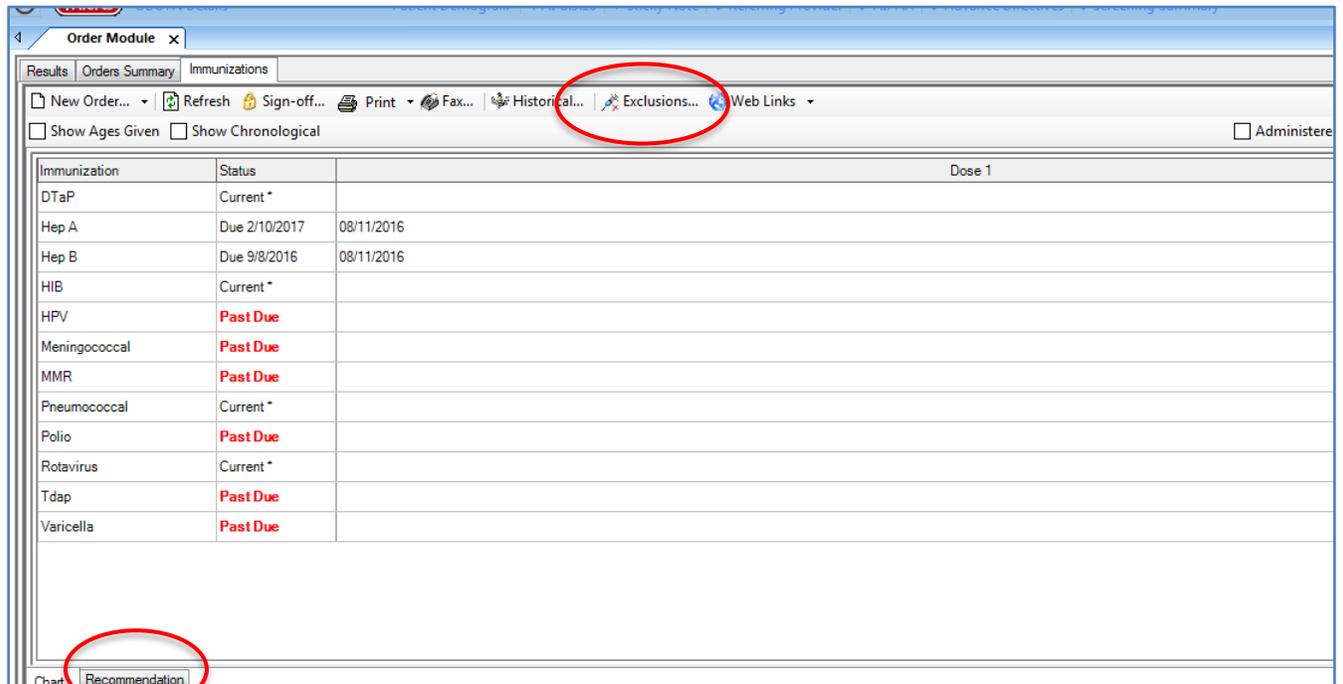


Other options to determine vaccine eligibility are available but not typically as effective. Clinical guidelines, the NextGen Ambulatory EHR alert tool, can be used for pre-visit planning to signal that a vaccination is due. This functionality is available in NextGen Ambulatory EHR and Practice Management and with third party software packages. This functionality may not be the most practical method, since it requires a concerted maintenance effort by the practice. Pop-up alerts for clinical staff can also be set-up on the patient record, but they are not always effective since they cannot be set up by type of user and have no end date.

Patient intake

The medical staff involved in patient intake vary based on the type of healthcare entity. Intake processes should be tailored to an individual clinic's situation. Successful intake processes combine standard practices for any type of patient visit with a review of the vaccinations that are due.

- Review and document the reason for the visit, history components, vital signs, medications, and other necessary information.
- Open the Immunization Module. Two views are available. The Chart view (default) displays any vaccination doses that are past due, while the Recommendations view provides the standard schedule immunization delivery. It is easy to switch between the two views.



Immunization	Status	Dose 1
DTaP	Current *	
Hep A	Due 2/10/2017	08/11/2016
Hep B	Due 9/8/2016	08/11/2016
HIB	Current *	
HPV	Past Due	
Meningococcal	Past Due	
MMR	Past Due	
Pneumococcal	Current *	
Polio	Past Due	
Rotavirus	Current *	
Tdap	Past Due	
Varicella	Past Due	

Immunization Module Chart view

- For new patients, clarify with parent/patient which adolescent vaccines are needed (including the HPV vaccine).

This is an opportunity for an effective recommendation from the provider with standard language. For example, **“Your child needs 3 vaccines today: Tdap, HPV, and meningococcal. We will give those at the end of the visit.”**



Obtain consent from parent/patient for vaccines.

- If a parent/patient refuses the vaccine, you can document the refusal in **Exclusions**. As an alternative, some practices prefer to document refusals in the **Vaccine Not Administered or Used** section (see page 18). Regardless of where you document the refusal, have a refusal form signed. Find refusal forms at <http://www.immunize.org/catg.d/p4059.pdf>. Provide the HPV vaccination VIS to the patient/parent. Continue to recommend at each patient visit.

Order the HPV vaccination

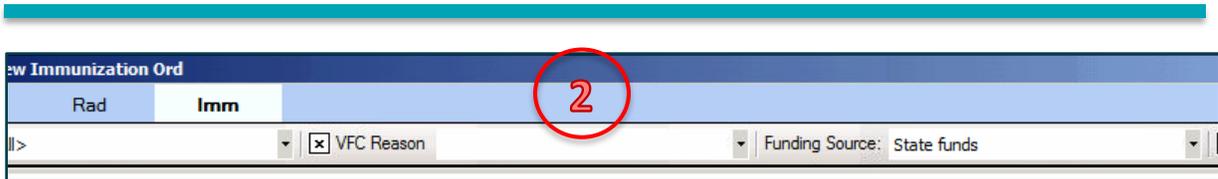
Once it has been determined that the patient is a candidate for an HPV vaccine dose, enter the immunization order.

Having standing orders in place for HPV vaccinations streamlines the ordering process for clinical staff, allowing nursing staff to create the order without a physician. This increases access to the vaccine. Find resources on standing orders at <http://bit.ly/VACsStep4>



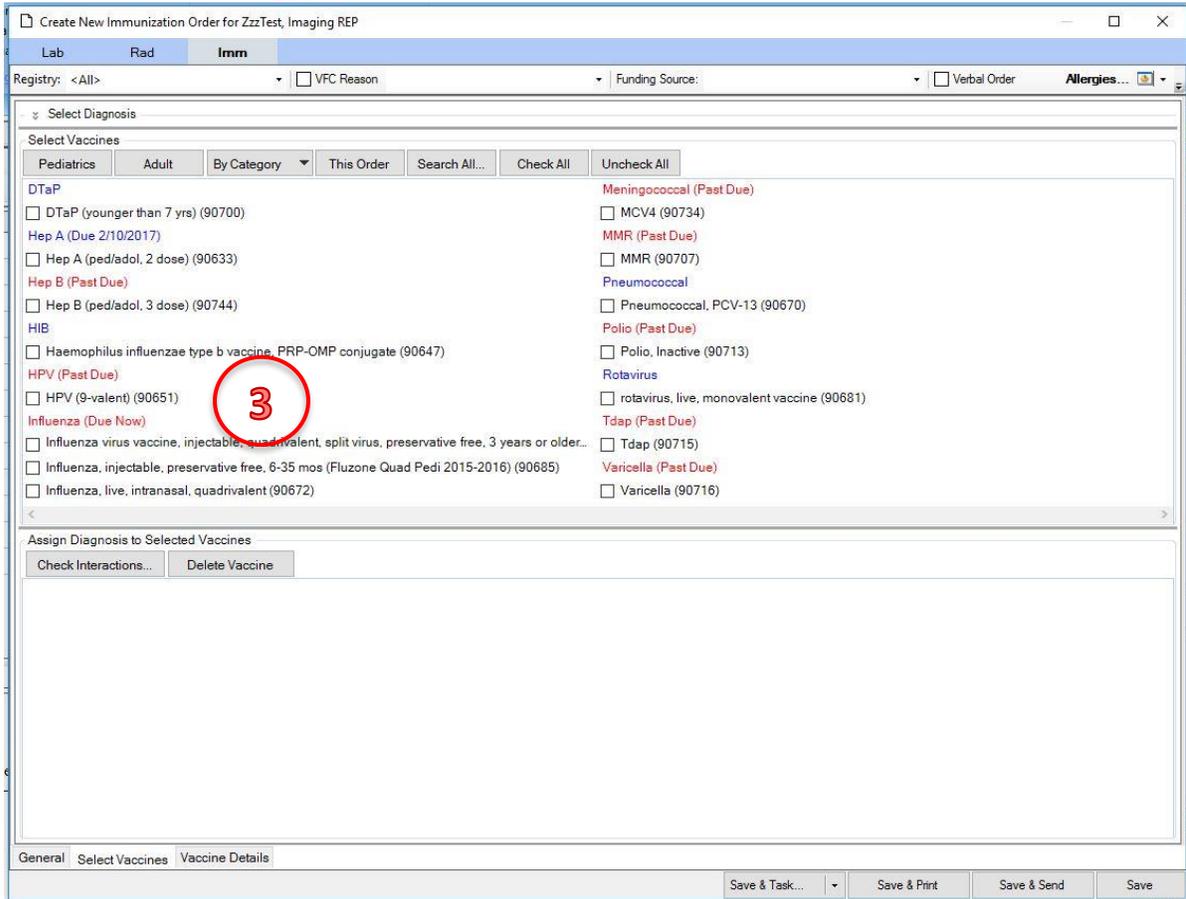
1. In the Immunization Module, select **New Order**, then select **Immunization Order**.
2. In the top section of the Immunization order:
 - Select a **Registry** from the list, if there is not a default entry.
 - Indicate if using VFC stock and provide the **VFC Reason** and **Funding Source**. If interfaced with a state immunization registry, the data in these fields are supplied from the state immunization registry. These data fields drive the vaccine lot numbers available in Vaccine Details (next).

Vaccine	Status	Due Date	Next Due
Hep A	Past Due		
Hep B	Past Due		
HIB	Current *		
HPV	Due 9/1/2016	07/01/2016	
Meningococcal	Past Due		
MMR	Past Due		
PNEUMOCOCCAL	Current *		
Polio	Past Due		



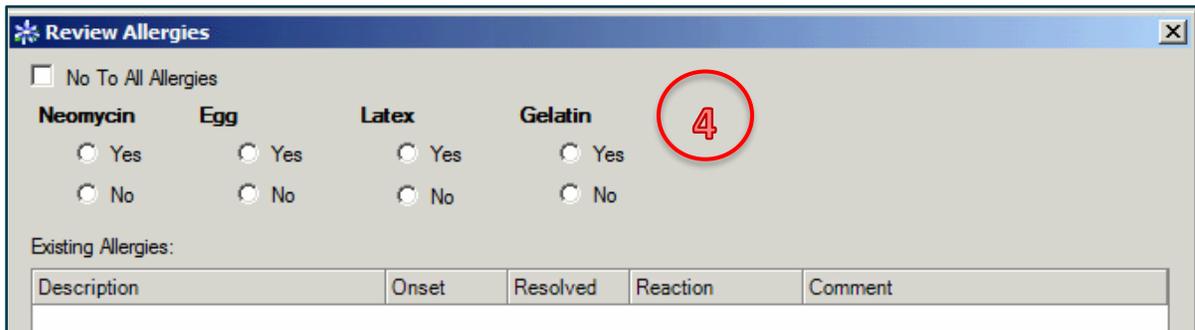
Immunization Order

3. Select **HPV vaccine** from the available vaccine selections.



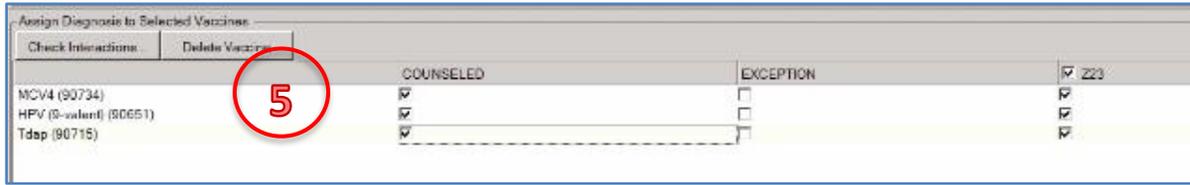
Immunization Order entry

4. Review allergies next. The Review Allergies window automatically displays. Select any allergies or select **No to All Allergies**. Select **Save**.



Review Allergies

5. The HPV vaccine is now listed as the selected vaccine.



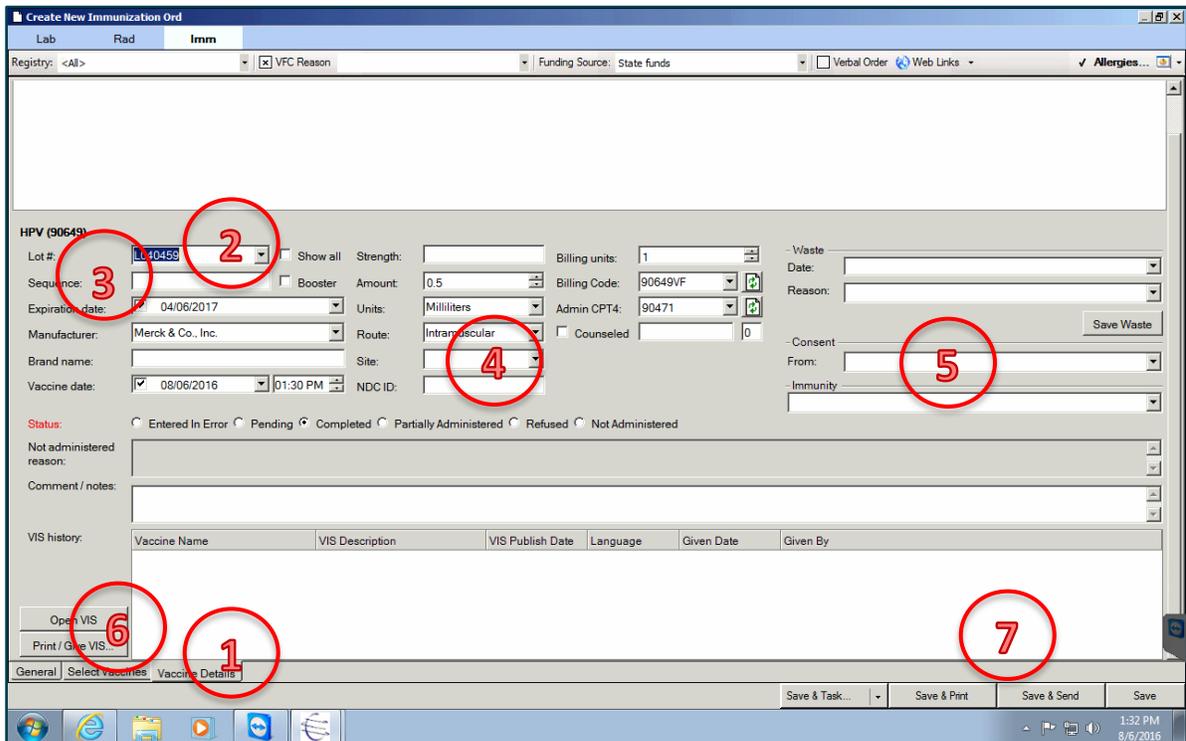
HPV vaccine selection

- Record that the parent/patient has been counseled via the **Counseled** checkbox.
- The default diagnosis on file is checked automatically.

Administer the HPV vaccine - successful completion

After the vaccine has been ordered for the patient, it is time to administer the vaccine and document what occurs. Most of the time, the vaccine will be administered successfully. Document successful administration through the following steps.

1. Select **Vaccine Details**, where you will record the administration of the vaccine. The Vaccine Details screen displays.



Vaccine Details Screen

-
2. Choose the vaccine lot number from **Lot Number**. This entry auto-populates most of the fields. If needed, you can enter a different value than the defaults. If a lot number is not available, check your inventory and lot numbers in File Maintenance. Do not enter free text for a lot number; it will create inventory errors.
 3. In **Sequence**, enter the number that corresponds to the dose.
 4. For **Site**, indicate where on the patient the vaccine was administered, for example, "left arm."
 5. Ensure consent is obtained and document in the **Consent** field.
 6. If using NextGen Ambulatory EHR to print the VIS, use the **Print/Give VIS** button, or if previously configured in VIS Setup (see page 8), the statement can automatically print with the Save & Print option. Once printed, give the VIS to the parent/patient.



When the necessary fields have been entered on the Vaccine Details screen, the status changes to **Completed** in the Status section.

7. Save with one of the following options:
 - Save & Task:** Save and send to another person to administer.
 - Save & Print:** Save and print the VIS.
 - Save & Send:** Save and send the immunization information to the state immunization registry (if configured to auto send through an interface).
 - Save:** Save only.

Vaccine not administered or used

Once the immunization is ordered, it is unusual for the vaccine not to be administered, but sometimes the parent changes their mind or the original vaccine dose is not used and another needs to be used. These situations should be documented in NextGen Ambulatory EHR when they occur.

Vaccine not administered

If you are unable to administer the vaccine:

1. Select **Not Administered** or **Refused**.
2. Enter the reason in the **Not Administered** reason field.
3. Enter an optional comment if needed.



The screenshot shows a form with the following fields and options:

- Status:** Radio buttons for Entered In Error, Pending, Completed, Partially Administered, **Refused** (selected), and Not Administered.
- Not administered reason:** A dropdown menu with options: Other, Parental decision, Patient decision, and Religious exemption.
- Comment / notes:** A text input field.

Even when the parent/patient refuses the immunization initially, it is best practice to order the immunization, document that the parent/patient refused, and the reason for refusal. This information will be available in the Immunization Module at the next patient visit for easy reference and can be used for reporting (see page 25).



Vaccine drawn up but not administered

If a dose is not used, complete the **Waste** section in the Vaccine Details screen.

1. Enter the date in the **Date** field.
2. Enter the reason from the **Reason** field choices or the reason can be entered as free text.
3. Select **Save Waste**.

This documentation of the event keeps your inventory up to date. Start again with a new dose, if necessary, and complete as above.

Post vaccine administration

To complete the patient visit for the vaccination given:

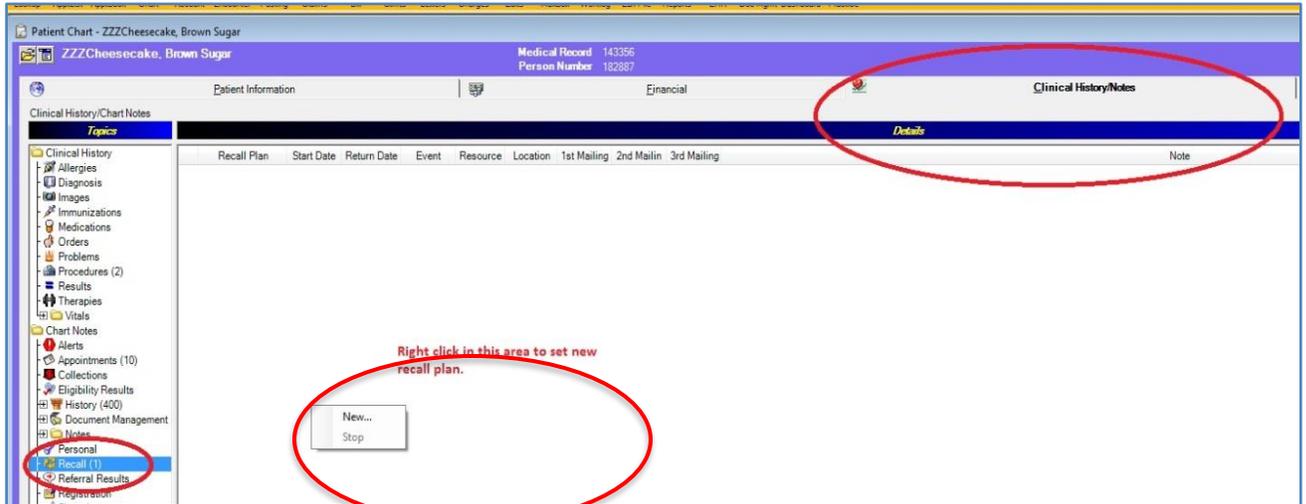
- Have adolescent patients wait 15 minutes after administration of any vaccine, as recommended to prevent syncope-related injuries. In the very rare instance that a patient has an adverse reaction after a vaccine is administered, fill out a VAERS report.
 1. In the Immunization Module, select **Web Links**, then **VAERS**.
 2. Document the patient’s adverse reaction.
- If further doses are needed, the physician documents the need in the Return Plan of the SOAP note.

Assessment/Plan			
Assessments My Plan A/P Details Labs Diagnostics Referrals Office Procedures Review/Cosign Orders View Immunizations Office Diagnostics Physical Therapy Orders Health Promotion Plan	1.	Assessment	Encntr for routine child health exam w/o abnormal findings (Z00.129).
		Plan Orders	Today's instructions / counseling include(s) reinsurance, rtc 2 and 4 months for HPV and Return in 1 year for a well child exam.
	2.	Assessment	Encounter for screening for dental disorders (Z13.84).
		Plan Orders	Referrals: SURHC Dental. Evaluate and treat for Positive Caries Screening.
	3.	Assessment	BMI pediatric, 5th percentile to less than 85% for age (Z68.52).
		Plan Orders	Today's instructions / counseling include(s) Lifestyle education regarding diet.Giving encouragement to exercise

Return plan in SOAP note

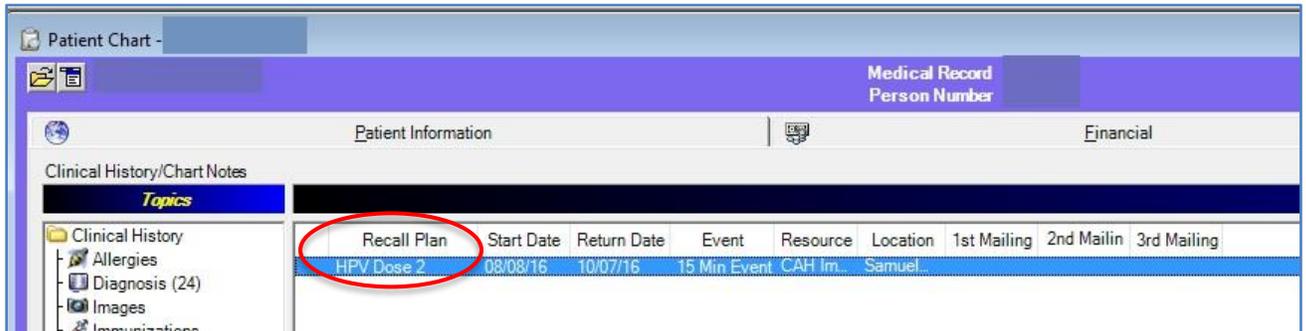
- If the parent/patient requests it, print an updated immunization record. The immunization record can be printed from the state registry immunization record or from the Immunization Module in NextGen Ambulatory EHR.
- Check the superbill, if required by your practice.
- Have the patient schedule an appointment for the next dose before leaving the clinic.
- If the patient does not schedule a subsequent visit, schedule a recall for the appropriate time frame for the next dose. In NextGen Practice Management, under Clinical History/Notes, set up the recall plan.

1. Go to **Clinical History/Notes**.
2. Choose **Recall** on the Topics list.
3. Right click in the open area and select **New**.



Patient Chart

4. Find the appropriate HPV Recall Plan and enter it for the patient.



Patient Recall Plan entry

In **Checkout**, recalls can be part of the Autoflow. AutoFlow Sequences define a set series of windows/screens that users will complete when performing the check-in and check-out processes. Autoflow can be set up in File Maintenance.



Track and follow up

Series completion

Multiple HPV vaccines are required for proper protection, with subsequent doses spaced for optimal immunologic response. Find the current vaccination spacing recommendations on the Center for Disease Control and Prevention's vaccine schedules:

<https://www.cdc.gov/hpv/hcp/schedules-recommendations.html>.

To complete a series effectively requires detailed tracking and follow-up processes within the NextGen Ambulatory EHR so patients return for subsequent doses in a timely manner.

Two activities are key for series completion:

- Have parents schedule an appointment for the next dose at the completion of the current visit. This is the ideal scenario.
- Contact parents to remind them that the next dose is due or overdue if no appointment is scheduled, or if an appointment is missed. A contact list for follow-up can be created by using the Recall Module or by generating standard system reports to identify the patients due for subsequent doses. This process will vary based on the version of software in use and which reports are available.

Use recalls for follow-up

Using the recall functionality in NextGen Practice Management application works well to remind parents/patients to return for subsequent doses. With the ability to generate labels, letters, and reports, all three can be mixed or matched to provide the best follow-up workflow for the practice.

Recall letters and labels

Recall letter and label functionality is flexible. Practices can use recall labels and custom letters or NextGen Ambulatory EHR standard recall letter templates.

1. Log into Practice Management (**PM**).
2. Select **File > Print Forms > Letters > Recall Letters**.
3. In the Search Criteria section, select the **HPV Recall Plan**.
4. Check the **Recall Letters** to include.

The screenshot shows the 'Recall Letters' window with the following search criteria:

- Recall Plan: HPV Dose 2;HPV Dose 3 (circled with a red '3')
- Location: Samuel U Rodgers Hlth Ctr Cl
- Event: (empty)
- Resource: (empty)
- Exclude Expired Patients

The 'Recall Letters' table is as follows:

<input checked="" type="checkbox"/>	Recall Plan	Correspondence	Labels	Patient	Location	Event	Resource
<input checked="" type="checkbox"/>	HPV Dose 2	HPV			Samuel U Rodg..	15 Min Event	CAH Immunization Nurse
<input checked="" type="checkbox"/>	HPV Dose 2	HPV			Samuel U Rodg..	15 Min Event	Moore FNP, Tina
<input checked="" type="checkbox"/>	HPV Dose 2	HPV			Samuel U Rodg..	15 Min Event	Moore FNP, Tina
<input checked="" type="checkbox"/>	HPV Dose 2	HPV			Samuel U Rodg..	15 Min Event	Moore FNP, Tina
<input checked="" type="checkbox"/>	HPV Dose 2	HPV			Samuel U Rodg..	15 Min Event	Moore FNP, Tina

Items Selected: 5

Buttons: Clear, Find (highlighted), Update Dates, Mailing Labels, Preview, Print, Export, Reset, Close

Create Recall Letters

Recall reports

Use recall reports for additional follow-up or as a way to create a list of patients to contact via phone or for other notifications.

1. Log into **PM**.
2. Select **Reports > General > Patient Recall**.
3. Choose **Filter 1** on the Settings List.
4. Search for patients overdue by the **1st Letter Sent** date or use the **Expected Return** date.

NextGen Report Filter: Patient Recall

Settings List

- Columns
- Events
- Filter 1** (3)
- Filter 2
- Locations
- Recall Plans
- Resources
- Sorting
- Totals

Include records that meet the following conditions

1st Letter Sent [dropdown] [calendar] [calendar]

2nd Letter Sent [dropdown] (4) [calendar] [calendar]

3rd Letter Sent [dropdown] [calendar] [calendar]

Expected Return [dropdown] [calendar] [calendar]

Active Plans Only Exclude Include All

Expired Patients Only Exclude Include All

Create Recall Reports

Assign a staff member to follow up on missed appointments and target patients who did not schedule a follow-up appointment.



Reports

Reports can be produced from multiple locations within and external to NextGen® solutions. Options include EHR reports available in NextGen Ambulatory EHR, PM reports from the practice management side, reports from integrated software packages, and custom Crystal reports. Since this functionality will vary based on integrated software package and clinic preference, the list below represents the basic reports that can be used, regardless of the source. In addition, practices may be interfacing with additional reporting software in addition to, or in replacement of, the NextGen report.

Recommended reports

Use this table as a checklist to determine the minimum standard reports you need for HPV vaccination tracking and follow-up.

Report Description	Intent	Details
HPV statistical analysis <i>(See next section for instructions)</i>	Patients who received vaccines in a specific time range	Use this report to track activity, analyze providers, and determine month over month dose administration or trends.
Daily vaccinations	Vaccine dose reconciliation	Include patient information, vaccine dose details, administration details, status.
Target population HPV vaccination status	Identify patients who are not up-to-date on their HPV vaccination or have not completed the series	Include last vaccine date, last appointment date or missed appointment, patient contact information. Use this report to follow up on series completion. <i>The patient recall report (page 23) can be used to identify this patient population.</i>
Missed opportunities	Target population seen in a time range but not given the vaccine	Criteria includes patients 11-12 years old with any type of visit, no HPV vaccine order, and patient not up to date on series.

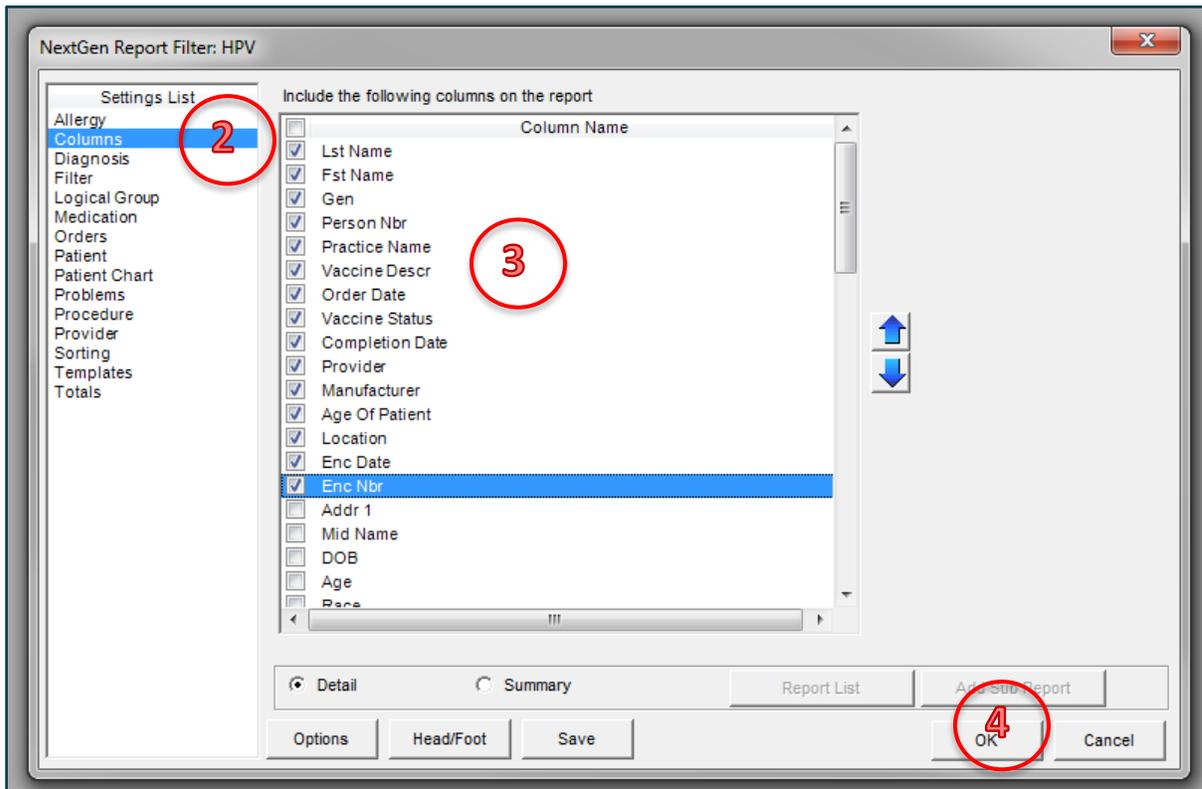
Generating an HPV statistical analysis report from NextGen Ambulatory EHR

The following example shows fields and variables to use for a basic statistical analysis report from the NextGen Ambulatory EHR. This report can be used for different types of analysis, as described above. This report is based on ordering data.

1. Go to **EHR > File > Reports > Generate Report > By Practice**.
2. Choose **Columns** on the Settings List.
3. Check the following columns as a baseline to use in the report, as shown in the screen below. You can include additional fields as needed. If you include "NextGen Status," the report will include patients who refused the vaccine.

Lst Name, Fst Name, Gen, Person Nbr, Practice Name, Vaccine Descr, Order Date, Vaccine Status, Completion Date, Provider, Manufacturer, Age of Patient, Location, Enc Date, and Enc Nbr.

4. Select **OK**.



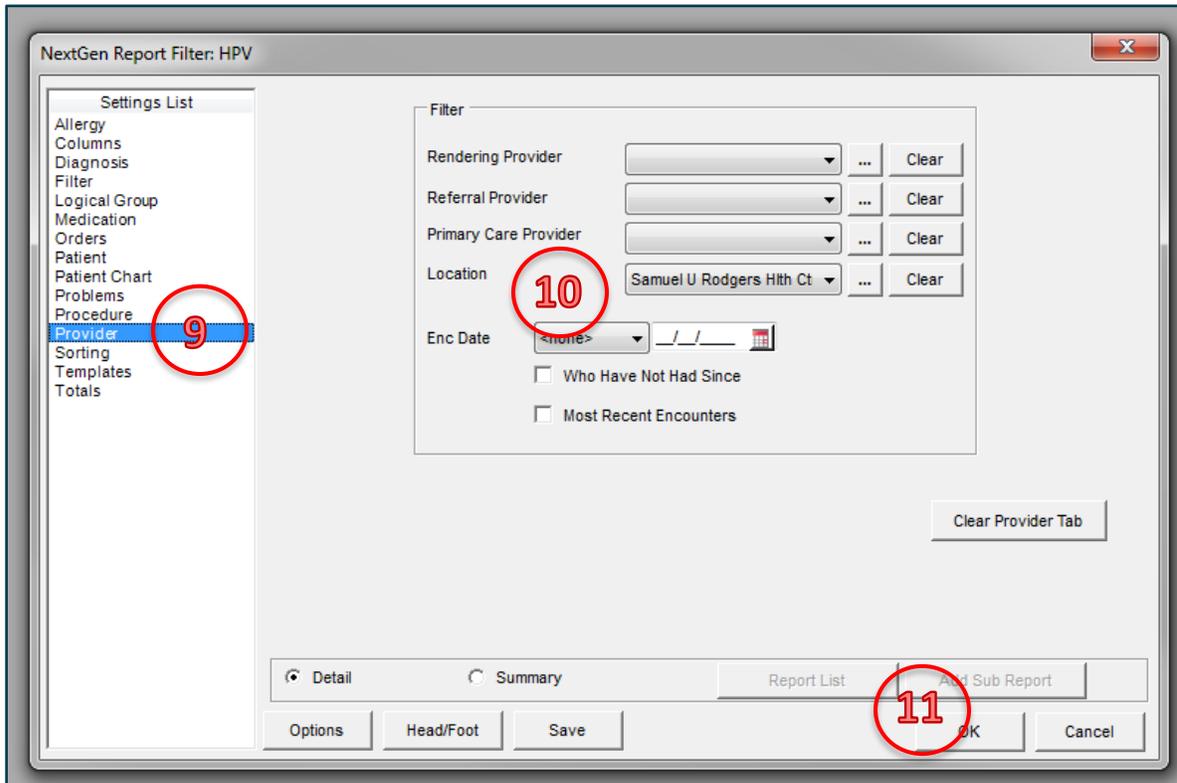
EHR Generate Report screen 1

5. Choose **Orders** on the Settings List.
6. In Select Order Type, choose **Immunization**.
7. In Select Vaccine, include all HPV vaccine names from the drop down menu.
8. Select **OK**.

The screenshot shows the 'NextGen Report Filter: HPV' window. On the left, the 'Settings List' has 'Orders' highlighted with a red circle and the number 5. In the main area, 'Select Order Type' is set to 'Immunization' (circled with 6) and 'Select Vaccine' is set to 'human papilloma virus Vacc' (circled with 7). At the bottom right, the 'OK' button is circled with the number 8. Other visible elements include 'Include Patients' checkboxes, 'Immunization' completion date, 'VFC Reasons', and various filter options like 'Order Date' and 'NextGen Status'.

EHR Generate Report screen 2

9. Choose **Provider** on the Settings List.
10. Select the **date range** in End Date.
11. Choose **OK**. The report will now run.



EHR Generate Report screen 3

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Disclaimer

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