

Using Common EHR Functionality in Cerner™* to Help Improve Population Health

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- This document summarizes common functionality in Electronic Health Record (EHR) software and the corresponding nomenclature used by Cerner to describe a particular function.
- The functionality described in this document may help health care systems and health care providers improve clinical quality and population health through more consistent patient identification, communication, and adherence to clinical pathways.

Objective	Functionality
1 Identifying gaps in care; assessing patient adherence and practicing performance	<u>Registry Reports</u> <u>Dashboards / Smart Registries</u>
2 Expanding communications with patients via the patient portal, email, or hard copy	<u>Appointment Reminders</u> <u>Visit Summary</u>
3 Enhancing point-of-care interactions	<u>Immunization Schedule</u> <u>Clinical Alerts</u> <u>Order Sets (Power Plans)</u> <u>Documentation Templates</u>

Please note:

- This document has not been reviewed or endorsed by Cerner. The user is solely responsible for implementation, testing, and monitoring to ensure proper orientation in the EHR system. Merck does not take responsibility to revise this high-level summary if the software changes.
- The high-level summary document is for the Cerner EHR software. The functionality described in this summary may not apply to all available versions of Cerner and capabilities may vary based on each individual EHR system.
- While EHRs may assist providers in identifying appropriate patients for vaccination, the decision regarding whom to vaccinate should ultimately be decided by a provider in consultation with a patient, after a review of the patient's records .

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Functionality: Registry Reports

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Reports can be run based on many criteria, including demographics, lab results, diagnosis, procedures, prescriptions, immunizations, and vital signs.

To create a Missed Appointment Report, use the Appointment Report within the Scheduling function.

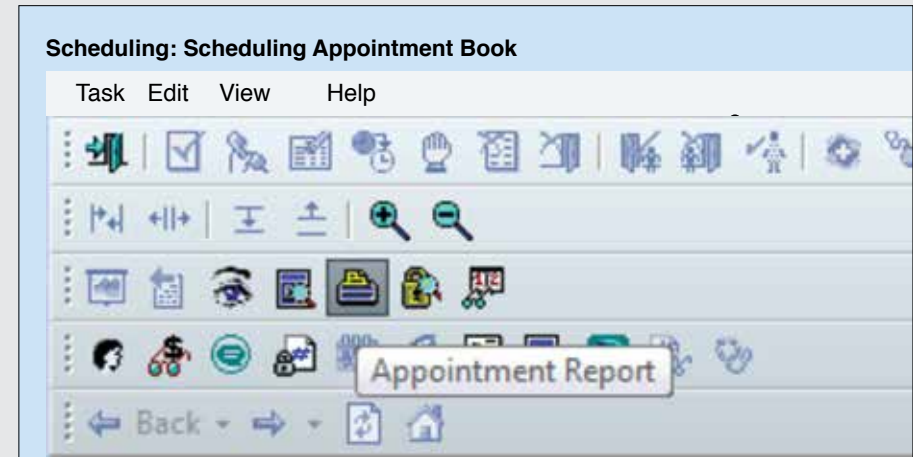
To create a Patient List with Missed Vaccination Appointments:

1. Navigate to the Scheduling Appointment Book, click the Appointment Report icon
2. Choose a "No Show" List, and select appropriate date range options
3. Email, print, or view the report on screen

quick tips

- If the standard appointment report is too broad in scope, consider creating a custom report from Discern Analytics, using the Report Design tool.

Example



The screenshot shows the configuration dialog for the Appointment Report. It has a menu bar with Task, Edit, View, and Help. Below the menu are tabs for Person, Resource, Location, Eligibility, Request List, Medical Intensity, and Benefits. The 'Location' tab is selected. The form contains the following fields:

- Report: Location No Show List
- Location type: Ambulatory(s)
- Location: WDPC
- Start date: 01/01/2016
- Start time: 0000
- End date: 05/16/2016
- End time: 2705
- Copies: 1

At the bottom of the dialog are buttons for Email, Print, Save As, View, Clear, and Close.

Identifying gaps in care; assessing patient adherence and practicing performance

Functionality: Dashboards / Smart Registries

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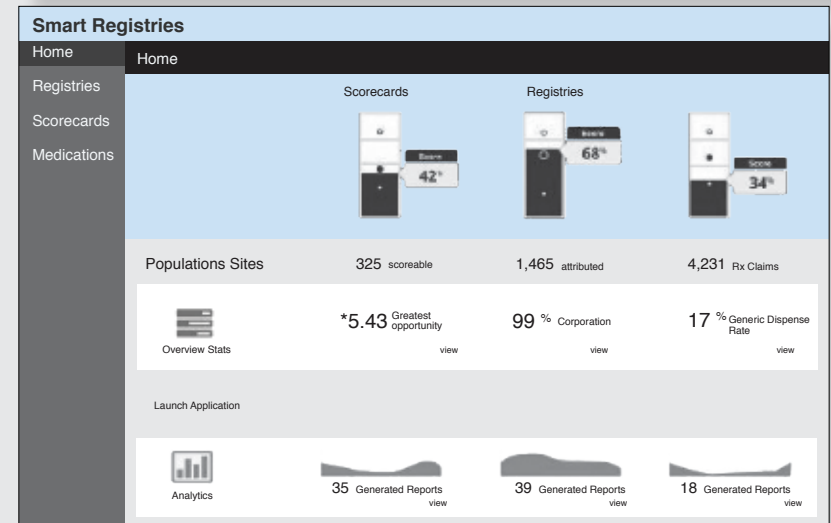
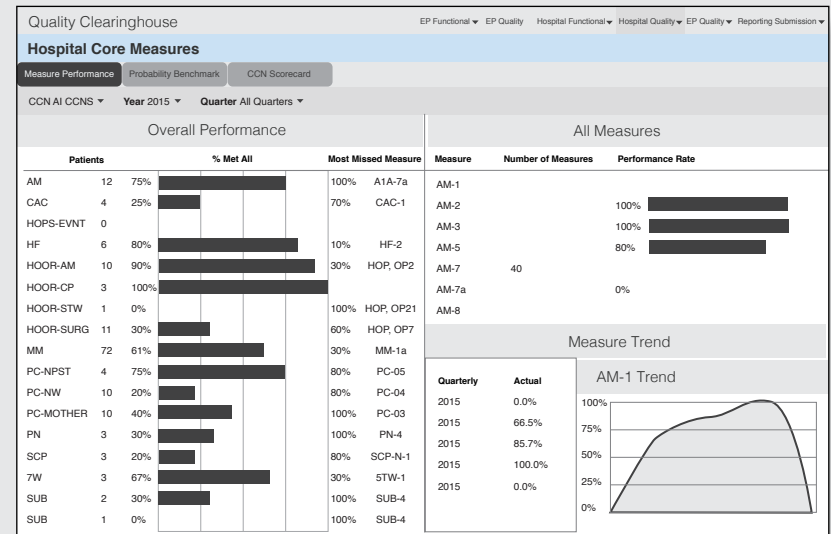
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Using the QM Dashboard:

Cerner provides several quality measure dashboards. Some are configurable with the ability to change the date range included in the view, or by viewing a custom group.

Cerner also supplies Smart Registries, which include a variety of metrics at both the patient- and the population-level.

Example



quick tips

- Dashboards provide an at-a-glance view of progress toward quality goals.
- Routinely review the dashboard of a health care provider (HCP) patient population to identify and address outliers.
- Some HCPs may be tracking Quality Measures for incentive program reporting. Utilize these dashboards and registries to proactively manage patient care.

Functionality: Appointment Reminders

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To set up Pre-Visit Appointment Reminders:

1. Ensure that the system setup includes reminder notices for Immunization appointment types
2. Include appropriate immunization-specific messages on reminders
3. Ensure Staff personnel are adding Patient reminder information in demographics entry
4. Include a reminder when making an immunization appointment

To set up Appointment Reminders defaults:

5. Navigate to **Tables, Practice, EDI Services Setup, Appointment Reminders**
6. Fill in the Submitter Information and select the **File Submission** options
7. Set the Patient Default to include **“Allow Call for Appointment Reminder”**

quick tips

- E-mail Message is automatically selected by the calling system based upon the patient’s preferred contact method.
- Check **Call for Appointment Reminders** in the Appointment Type Setup to enable:
 - “Allow Call for Appointment Reminder” option on Patient Data Entry
 - “Call For Reminder” check box to appear in the appointment entry window.

Example

Patient Data Entry

Basic Extended Billing Eligibility

Patient ID: Chart ID:

Prefix First M Last Suffix

Nickname: Salutation:

Address:

City: State / Province:

Zip: Country:

Country Subdivision:

Home: (555) 123-4567 Work: () EXT.:

Mobile: () Doc Sec:

Birth Date: Driver's Lic:

Sex: Marital St:

Race: Ethnicity:

Language: Contact Pref:

Veteran? Deceased? Date of Death:

Allow Call for Appointment Reminder Leave Message

Enable Portal Access Inactive?

Ok Cancel

Appointment Type Setup

Appointment Code
 Code: Description:

Appointment Category: New Patient
 Inactive?

Defaults
 Length (mins): Appointments Per Slot:

Appointment Reminders
 Call for Appointment Reminder Msg: Note:

Ticket Type
 New Delete

Authorizations
 Decrement Authorization
 Prompt When Insurance Requires

Eligibility and Benefits
 Request Insurance Verification

271 Response Options
 Service Types:

Provider Overrides
 Staff ID Name Length (mins) Appt. Per Slot

New Edit Delete

Ok Save Cancel

Functionality: Visit Summary

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To generate the Visit Summary:

1. From the left menu, navigate to **Visit Summary**
2. For a portal patient, select **Publish** to complete the Visit Summary and send it to the patient portal
3. For a non-portal patient, select **Publish** to complete the Visit Summary, and select **Print** to provide a printed copy

Example

Visit Summary I

Race: | Ethnicity: | Gender: Male | DOB: March 2, 2010 | Language: eng
Patient IDs:

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Encounter
FIN Date 9s):

Attending Physician:
Admitting Physician:

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Reason for Visit
Immunization

Back to Top

Vital Signs
2/5/16

Current Weight

Back to Top

Problem List

Hypertension
 Diabetes

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Allergies, Adverse Reactions, Alerts

Corn Starch (Behavior)

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Medications

acetaminophen (acetaminophen 160 mg/5 mL oral suspension)
5.6 mL, Oral, every 6 hours, As Needed, For Mild Pain, Refills:
0
Ordering provider:

quick tips

Cerner provides a standard Visit Summary which includes:

- Allergies
- Orders
- Problems
- Labs
- Vital Signs
- Immunizations
- Procedures
- Radiology
- Microbiology
- Plan
- Appointments

Additional content can be added by creating a new report template and a page master in the Clinical View Manager Tool.

Enhancing point-of-care interactions

Functionality: Immunization Schedule

Using the Immunization Schedule in Cerner:

- The Immunization Schedule can be used to identify when action needs to be taken.
- Vaccination schedules can be set up to identify items that “are due” or “past due”.
- Immunization forecasts are recommendations provided by ICE Web Service.

To Access the Immunization Schedule:

1. Navigate to the **Immunization Schedule** from the left menu within the patient chart,
2. From the Immunization Schedule window, health care providers can review, order, or record administered vaccines

quick tips

- The Vaccination Schedule in Patient Manager is the source for reminders of due and past due vaccines.

Example

Immunizations

	0mo	1mo	2mo	4mo	6-11mo	12-15mo	16-17mo	18mo	19-20mo	21mo-2yr	4-6yr	11-12yr	13yr	14-18yr
Influenza					Influenza Dose 1									
Vaccine 1										Dose 2				
Vaccine 2		Dose 2			Dose 3									
Vaccine 3												Dose 1		
Vaccine 4			Dose 1	Dose 2	Dose 3						Dose 4			

Previous Immunizations Hide Unchecked Records **Future Immunization Schedule**

Vaccine	Contraindicated	Status	Due Date	Due Date	Due Date	Due Date
Influenza			#1: 08/31/2016			
Vaccine 1		Overdue	#1: 01/02/2004	#2: 06/30/2004		
Vaccine 2		Overdue	#1: 01/02/2003	#2: 03/03/2003	#3: 06/25/2004	
Vaccine 3		Overdue	#1: 12/30/2013	#2: 02/28/2014	#3: 06/28/2014	
Vaccine 4		Overdue	#1: 03/03/2003	#2: 05/02/2003	#3: 07/01/2003	#4: 06/29/2008

History Chart Modify Adhoc

Using an Alert to Notify the Health Care Provider of Due or Past Due Vaccines:

Alerts are based on a standard set of rules.

- When the patient meets the requirements of the rules, based on the information in his/her chart, an alert is triggered.
- Immunization alerts are included in the standards rules included in Cerner.

Cerner includes more than 60 event/trigger points, based on the rules for a particular event.

To Create a Reminder Template:

1. Navigate to **DCPTools, Documentation Management, Clinical Documentation Tool**
2. Select **Template Definition, Message**
3. Select **Reminder** message type and select **New**
4. Add the **Reminder Name** and **Text** for reminder, select **File, Save**
5. From the **Clinical Documentation Management Tool**, find the newly created template and use **Move** to associate the template to the message type
6. Select **Apply and OK** to save

Example

Patient Overdue for Vaccination

This patient is overdue for annual Influenza Vaccination.

Alert Action

- Cancel warning
- Order vaccination

Ok

quick tips

- Cerner clients can create their own Reminder Templates using a Developer Tool if they have needs beyond Cerner logic functions.
- The Developer Tool is typically a function of the IT/IS staff.

Order Sets are called PowerPlans in Cerner.

To update and use a PowerPlan in Cerner:

1. Navigate to **Orders**, and access **PowerPlans**
2. Select desired **PowerPlan**, and click **+ Add**
3. Add an immunization as appropriate, and **Save**
4. The added immunization displays in the **PowerPlan** component grid
5. To order, select the appropriate items from the Component Grid
6. Select **Initiate** to order the selected item(s)

Example

+ Add | Document Medication by Hx

Status: Meds History | Adm. Meds Rec

Orders Medication List

Filter setting

Display: [dropdown] ...

	\$	Order Name	Start	Status	Ordering...	Details
<input type="checkbox"/>						
<input type="checkbox"/>		Active				
<input checked="" type="checkbox"/>		Influenza Vaccine	5/1/2015	Ordered		
<input checked="" type="checkbox"/>		Tdap Vaccine	5/1/2015	Ordered		
<input type="checkbox"/>		Medications				
<input type="checkbox"/>		Active				
<input checked="" type="checkbox"/>		acetaminophen	5/1/2015	Ordered		

Orders for Signature

Plans **Power Plans**

Immunizations
Influenza
Tdap

Suggested Plans (0)

Orders **All Activated orders**

Non Categorized
 Patient Care
 Vital Signs
 ADLs

quick tips

- PowerPlans can include orders for vaccines, follow-up appointments, and patient education.
- Order Sets can be established at the health care provider-level or at the Practice or IDN-level.

Enhancing point-of-care interactions

Functionality: Documentation Templates

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Immunizations are included in the default visit note template provided by Cerner. If immunizations are not included in a template, update the template using the Clinical View Manager tool.

To add a template to a visit note to include immunizations:

1. From within the patient chart, **Add a Document**
2. Select **Insert Template**
3. Select the appropriate template from the list of **All Existing Templates**
4. Choose **Insert, Append, or Replace** as needed to include immunizations in the visit note documentation

quick tips

- Use of templates helps to ensure consistency of care by enabling a uniform mechanism to evaluate patients.
- Visit Note Templates can be shared for use by multiple HCPs
- Visit Note Templates can be single-purpose (eg, a single condition or diagnosis), or multi-purpose (across multiple conditions)

Example

The screenshot shows the 'Add Documents' dialog box. At the top, there are fields for *Type, *Author, *Date (05/15/2016), and Status (In Progress). Below these is a Subject field. A 'Patient Level Documents' checkbox is present. The main area is titled 'All existing templates' and contains a list of templates: Fracture Open Close_HIM, General - Routine Telephone Enc, General message, Gestational Age At Birth, GI Bleeding_HIM, History of_HIM, HT_WT_BMI, ICD10CM Diagnosis_HIM, ICD10PCS Procedure_HIM, and Immunization. The 'Immunization' template is highlighted. Below the list is an 'Insert Temp' button. At the bottom, there are buttons for Insert, Append, Replace, and Cancel. A text area below the list explains the actions: Insert (at cursor), Append (at end), and Replace (all unsigned text).

The screenshot shows the 'Add Documents' dialog box after a document has been added. The *Type, *Author, *Date, and Status fields are the same. The Subject field is empty. The 'Patient Level Documents' checkbox is present. The main area is titled 'Times New Roman' and contains the text '09/01/2015 - influenza virus vaccine'. At the bottom, there are buttons for Sign, Save, Save & Close, and Cancel.