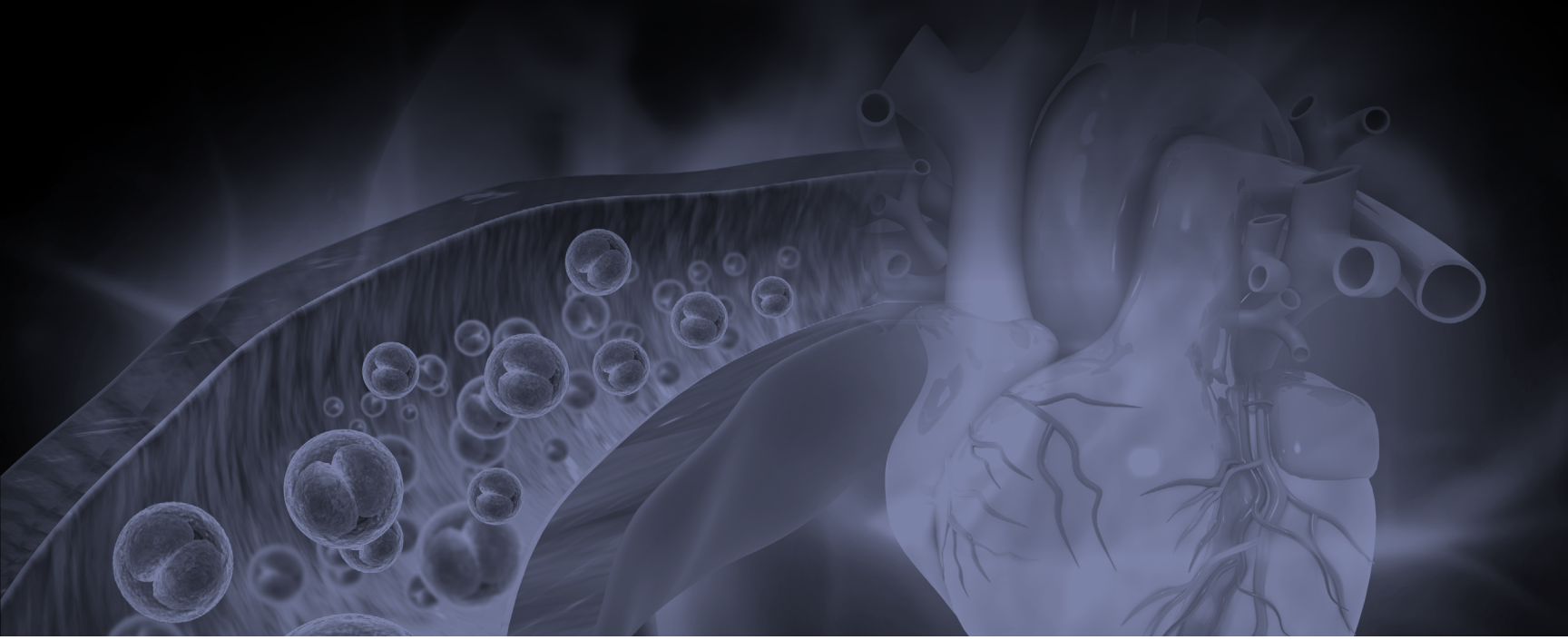
For Health Systems Using Epic®

CV RISK MANAGEMENT:

Using EHR SmartSets, SmartTools, Flowsheets, and Discharge Summaries to Support Documentation and Treatment of Patients With Cardiovascular Risk

For Patients With Very High-Risk (VHR) Atherosclerotic Cardiovascular Disease (ASCVD), Who Have Had a Recent Myocardial Infarction (MI)



EHR=Electronic Health Record

STANDARDIZE

Use SmartSets to group standard orders together and promote consistent care

SIMPLIFY

Use SmartTools and Flowsheets to simplify authorizations and documentation

INFORM

Use Discharge Summaries to share clinical and educational information for follow-up care

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About This Guide

Amgen has developed this overview guide for educational purposes only, to assist health systems in configuring their Epic® capabilities to help improve outcomes for very high-risk atherosclerotic cardiovascular disease (VHR ASCVD) patients who have had a myocardial infarction (MI).

This resource provides insights and examples to help implement automated EHR functionalities that can help standardize and simplify health system protocols for treatments and follow-up care for VHR ASCVD patients who have had an MI. It does not constitute guidance for medical advice or treatment.

Important Reminders:

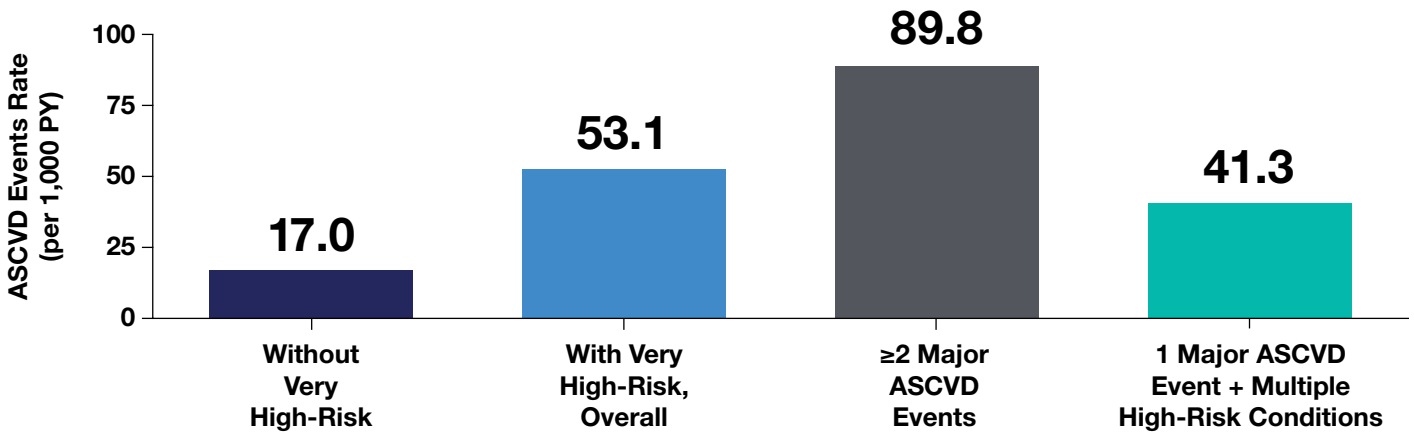
- The information listed in this resource is based upon Epic's® 2022 version
- Functions and features may change as new software versions are released
- This resource is meant to serve as summary information only and should not replace detailed instructions provided to you by your internal or external EHR support resources
- Screen images shown within represent hypothetical screens in Epic®
- Amgen makes no claims or warranties about the applicability or appropriateness of this information
- Amgen does not endorse specific EHR systems

See Glossary of Terms for Epic®.

Millions of Americans Have VHR ASCVD[1] and Are at Higher Risk for Recurrent Cardiovascular (CV) Events,[2] Yet They Are Undertreated According to 2018 AHA/ACC/Multi-Society Guideline[3,4]

Patients With VHR ASCVD Are at Higher Risk for Recurrent CV Events Compared to Non-VHR ASCVD Patients[2]

Among patients with VHR ASCVD, those with multiple major ASCVD events had the highest risk of further ASCVD events[2,*]



The ASCVD event rate was 3 times higher among those who met the definition of VHR in the 2018 ACC/AHA/Multi-Society Guideline than for those who did not meet this definition.[2,*]

~43% of ASCVD patients are considered very high-risk.[5]

*Analysis of 27,775 US adults with a history of ASCVD from the MarketScan database (Truven Health Analytics, IBM Watson Health). A history of ASCVD was defined as a history of myocardial infarction (MI), stable angina, unstable angina; previous coronary artery bypass grafting (CABG) or percutaneous coronary intervention (PCI); ischemic stroke, transient ischemic attack, carotid endarterectomy, carotid, vertebral, or basilar stenting; peripheral artery disease (PAD); artery aneurysm, or endovascular stent graft placement. All available claims prior to January 1, 2016, were used to define very high ASCVD risk. Consistent with the 2018 ACC/AHA blood cholesterol guideline, a very high ASCVD risk was defined as a history of multiple major ASCVD events or 1 major ASCVD event in addition to multiple high-risk conditions.[2]

The 2018 ACC/AHA/Multi-Society Guideline Recommends Reducing CV Risk by Optimizing LDL-C Management in VHR ASCVD Patients[3]

In patients with VHR ASCVD, the guideline recommends a threshold of LDL-C ≥70 mg/dL. For some patients, non-statin therapies may be needed to achieve this LDL-C level.[3]

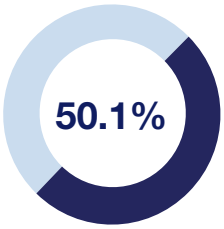
The 2022 ACC Expert Consensus Pathway to Address Gaps in LDL-C Management Lowers LDL-C Thresholds[6]

The 2022 ACC Consensus Pathway recommends a lower LDL-C threshold for ASCVD patients:

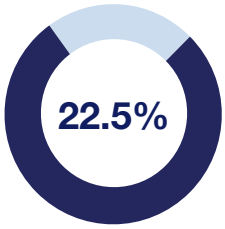
- ≥ 55 mg/dL for adults with ASCVD at very high-risk†
- ≥ 70 mg/dL for adults with ASCVD, not at very high-risk[6]

Though the Relationship Between LDL-C Reduction and CV Risk Management Is Clear for ASCVD Patients, Few Receive Guideline Recommended Treatment[4]

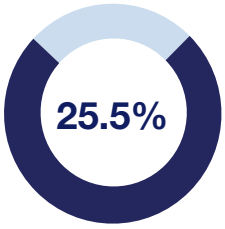
In a retrospective cohort study of pharmacy and medical claims data from a commercial health plan including 601,934 patients with established ASCVD, significant clinical inertia was shown. Statin use on an index date of January 31, 2019 was evaluated:[4]



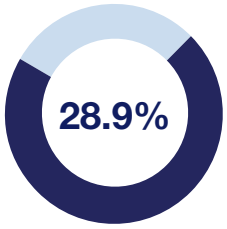
Only **50.1%** of ASCVD patients are prescribed a statin at all



Only **22.5%** are appropriately prescribed a high intensity statin



Only **25.5%** of patients had been tested for LDL-C in the past 12 months



Only **28.9%** of those tested met the current recommended goal of ≤70 mg/dL

†Nonstatin pharmacologic options are considered after optimizing lifestyle, controlling ASCVD risk factors, adhering to guideline-recommended statin therapy (and increasing to high-intensity statin if not already taking), and evaluating for statin intolerance.[6]

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EHR Capabilities Can Help Standardize and Simplify Care Which May Help Improve Outcomes for VHR ASCVD Patients Who Are Undertreated

- Clinical Champions can support the implementation of health system-wide EHR functions to help standardize and simplify care for VHR ASCVD patients who have had an MI
- Population health programs using EHRs can successfully identify high-risk ASCVD patients and significantly improve guideline-directed LDL-C control[7]

STANDARDIZE

Use SmartSets to group standard orders together and help promote consistent care.

SmartSets help promote consistency of care and efficiency with ordering by allowing healthcare providers to select multiple orders at once.

SIMPLIFY

Use SmartTools and Flowsheets to simplify authorizations and documentation.

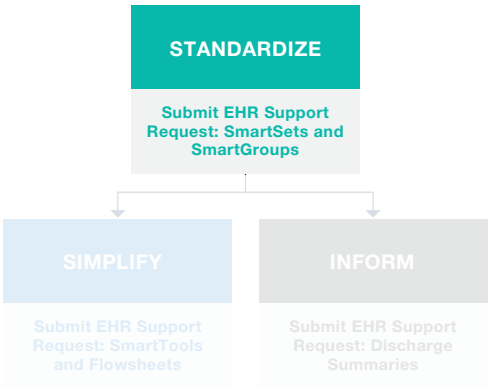
SmartTools include SmartPhrases, SmartText, and SmartLinks that can be configured to pull-in predetermined content and clinical data and simplify the completion of Chart Notes. SmartTools may also be used for authorization forms and letters. Flowsheets provide a visual summary of a patient's progress over time.

INFORM

Use Discharge Summaries to share clinical and educational information for follow-up care.

It is important to share clinical information and medical history of the patient's hospital stay with their primary care provider. Discharge Summaries can include follow-up care instructions and patient education materials.

Role of SmartSets



SmartSets

A SmartSet provides a list of common orders grouped together for easy selection, usually listed by diagnosis. SmartSets enable healthcare providers to select multiple orders at the same time and help promote consistency of care and efficiency with ordering.

SmartSets comprise groups of orders, called SmartGroups. A SmartSet can be updated by editing SmartGroups to add, modify, or delete items. An update to a SmartGroup is reflected in SmartSets in which the SmartGroup is included.

Updating existing or adding new SmartSets and SmartGroups is typically managed by the Health System EHR Support Team using an established process for requesting, approving, and implementing EHR changes. Clinical decision makers, along with their EHR Support team determine what categories, as well as, what specific items are included in the SmartSets used by the health system.

This guide encompasses both creating a new SmartSet and SmartGroup and updating an existing SmartSet and SmartGroup.

SmartSet Example

Order Set

Clear All Orders

Coronary Artery Disease Order Set Remove Order Sets

- **Ad Hoc Orders**
- **Diagnosis**
  - Hyperlipidemia LDL goal <70 [E78.5]
  - Hyperlipidemia, unspecified [E78.5]
  - Familial hyperlipidemia [E78.49]
  - Essential familial hypercholesterolemia [E78.01]
  - Hyperlipidemia [E78.5] - select a sub-type
- **Treatment Options**

LABS

- **LABS (Now)**
  - LIPID PROFILE
  - LIVER FUNCTION PANEL
  - COMPREHENSIVE METABOLIC PANEL
  - ALANINE AMINOTRANSFERASE (ALT) CREATINE KINASE-CPK
- **LABS (In 3 Months)**
  - LIPID PROFILE
  - LIVER FUNCTION PANEL
  - COMPREHENSIVE METABOLIC PANEL
  - ALANINE AMINOTRANSFERASE (ALT) CREATINE KINASE-CPK
- **LABS (In 6 Months)**
  - LIPID PROFILE
  - LIVER FUNCTION PANEL
  - COMPREHENSIVE METABOLIC PANEL
  - ALANINE AMINOTRANSFERASE (ALT)CREATINE KINASE-CPK

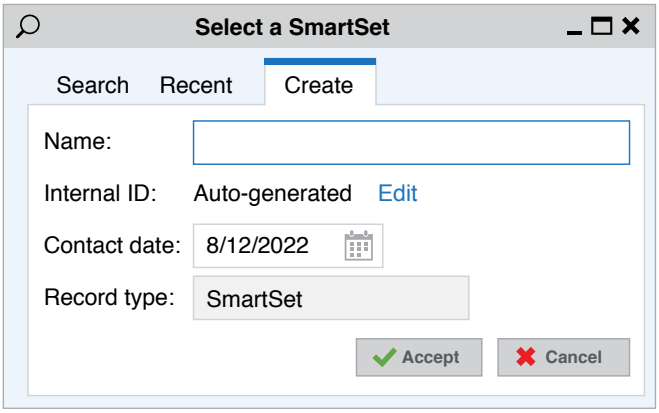
REFERRAL

- Referral to Cardiology Heart Health Clinic
- Referral to Nutrition
- E-communication with cardiology

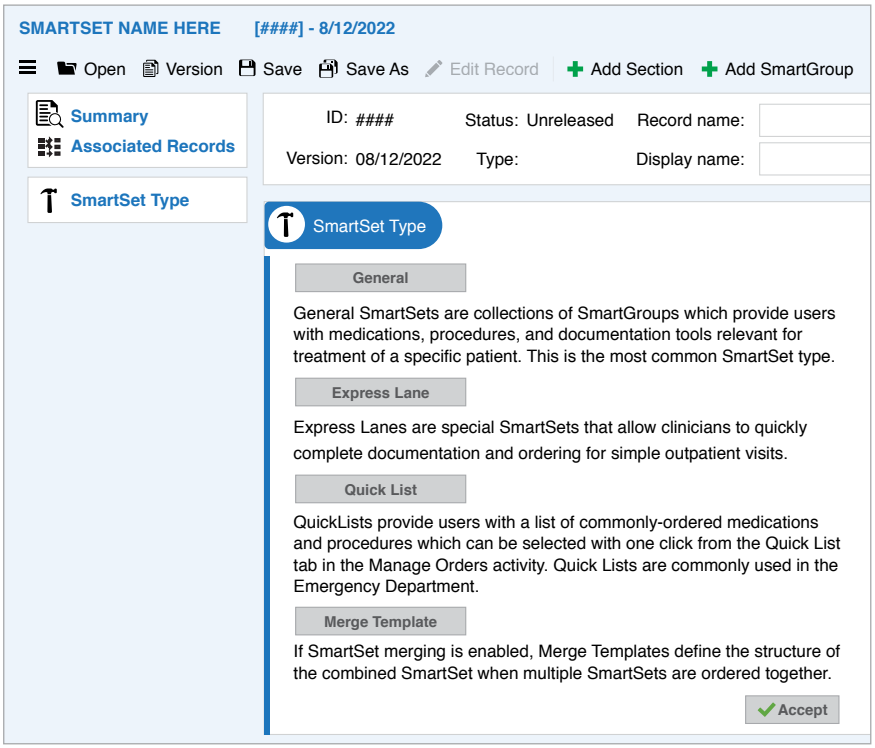
Example of a SmartSet.

Creating a SmartSet

1. From **Chart Search**, select **SmartSet**.
2. Select the **Create tab**. Enter a **Name** according to organizational standards, such as Secondary Prevention of MI.
3. Set the **Internal ID** option per organization standards.
4. Select **Accept**, then select **Accept**
5. Select the SmartSet type **General**; select **Accept**. again.
6. The SmartSet Display Name defaults to the SmartSet record name. Change the **Display Name** as appropriate for end users' recognizability, as appropriate.
7. Select **Save**.



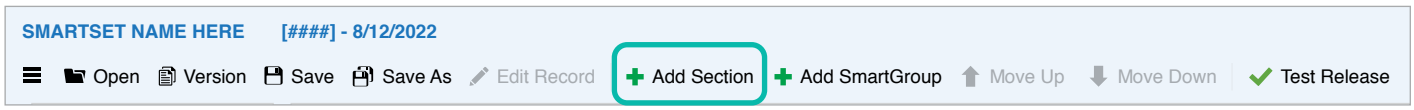
Example of creating a new SmartSet.



Example of setting the SmartSet options.

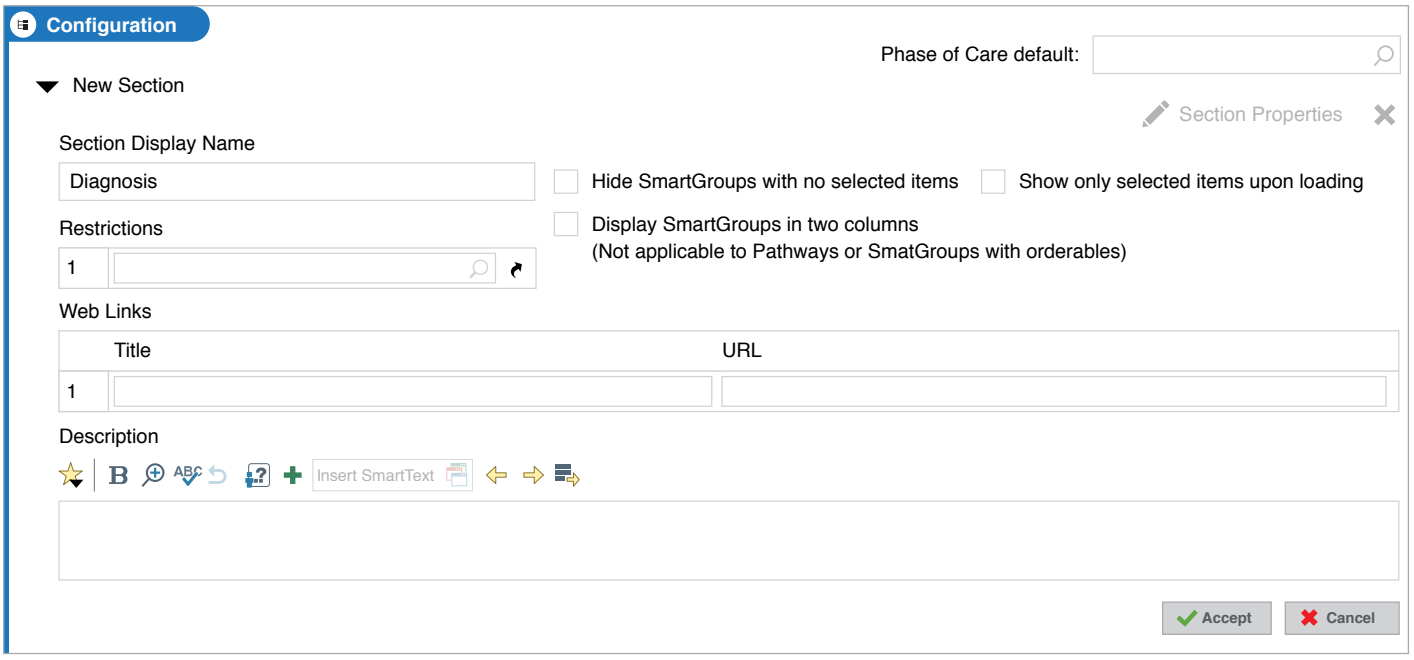
Adding SmartGroups to a SmartSet

1. From the toolbar, select **Add Section**.



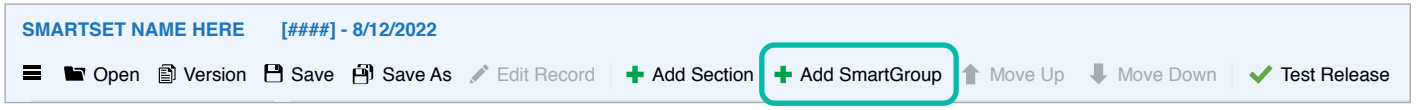
Example of Add Section menu option.

2. In the section **Configuration**, enter a **Name**, such as Diagnosis. Select options and restrictions.
3. Select **Accept**.



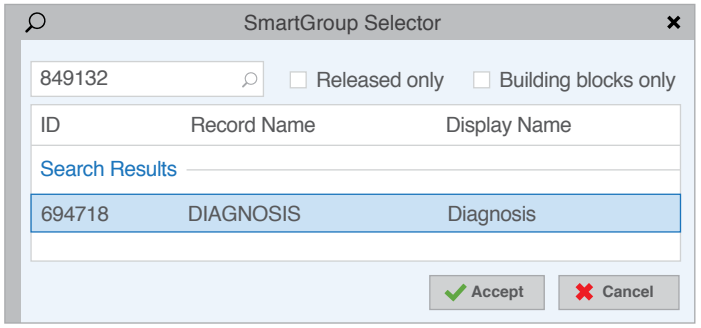
Example of the Section Configuration.

4. Once the section is created, select **Add SmartGroup**.

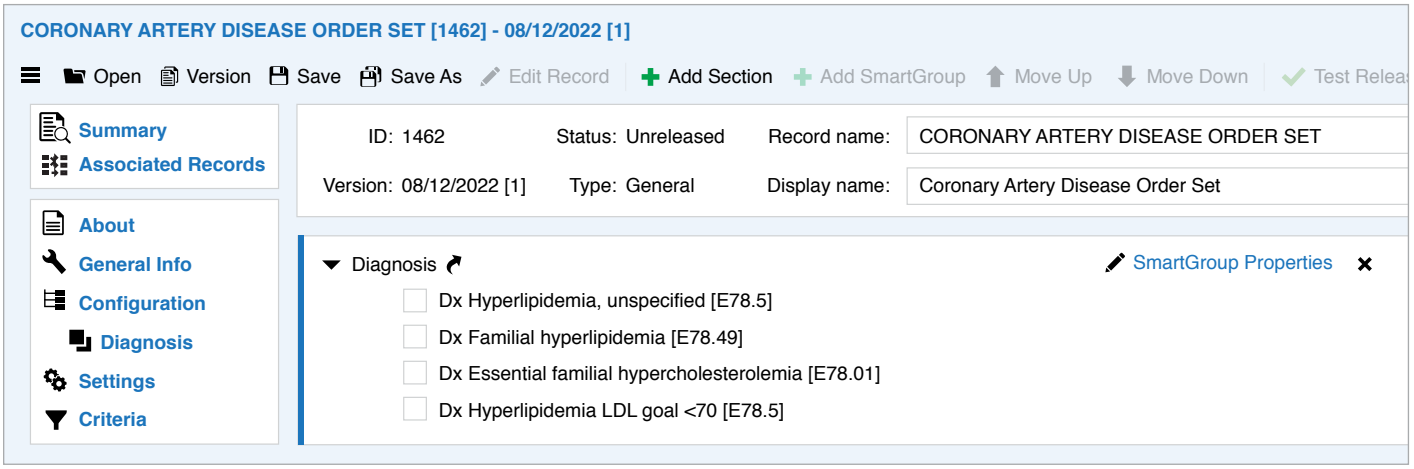


Example of the Add SmartGroup menu.

5. In the SmartGroup Selector, enter **ID** or name from the build for appropriate SmartGroup.
6. Select the SmartGroup, then select **Accept**.



Example of the SmartGroup Selector.



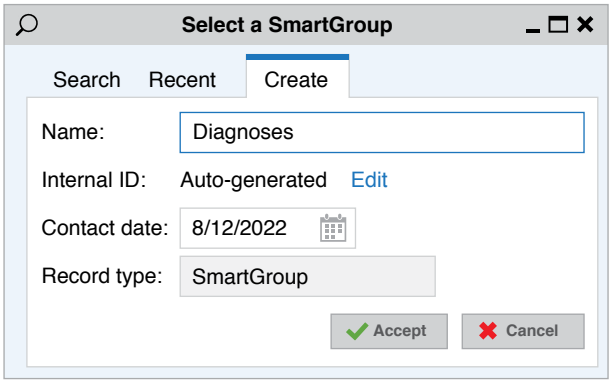
Example of Coronary Artery Disease Diagnosis SmartGroup.

7. Repeat steps 1 – 6 to add desired sections and SmartGroup.

   Note: A Section may contain multiple SmartGroups.

Creating a New SmartGroup

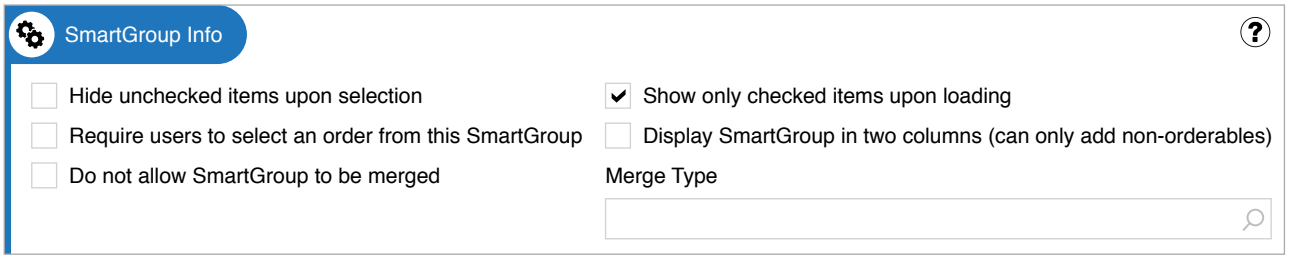
1. From the left-side Table of Contents options, select **SmartGroup Editor**.
2. Select the **Create** tab; enter a **SmartGroup Name**, for example, **Diagnoses**.
3. Select **Accept**, then select **Accept** again.



Example of creating a SmartGroup.

4. In the **About** tab, enter relevant information related to the build and version.
5. In the **General Info** tab, add information related to how the SmartSet should work, including synonyms, descriptions, and appropriate web-related information. Define whether the section is single- or multiple-select. Set appropriate defaults.

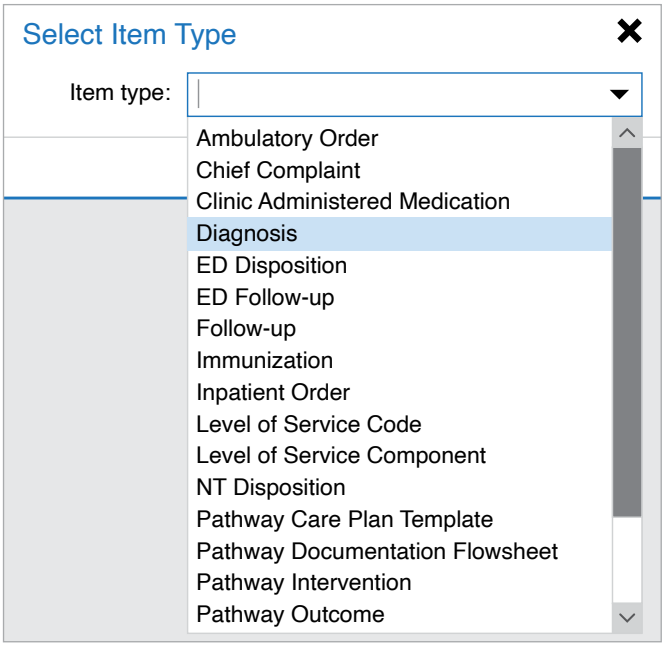
6. From the **SmartGroup Info** tab, set group selectivity requirements and the display columns. Defaults are appropriate.



Example of a SmartGroup Info tab.

7. From the **Criteria** tab, set visibility qualifications for displaying the items appropriately to the end user.
8. Select the **Configuration** tab to define the orders to be included in the group.
9. Select **Add item** from the toolbar.
10. From the **Item Type** dropdown, select the appropriate Item type; for example, **Diagnosis**.
11. Select **Accept**.

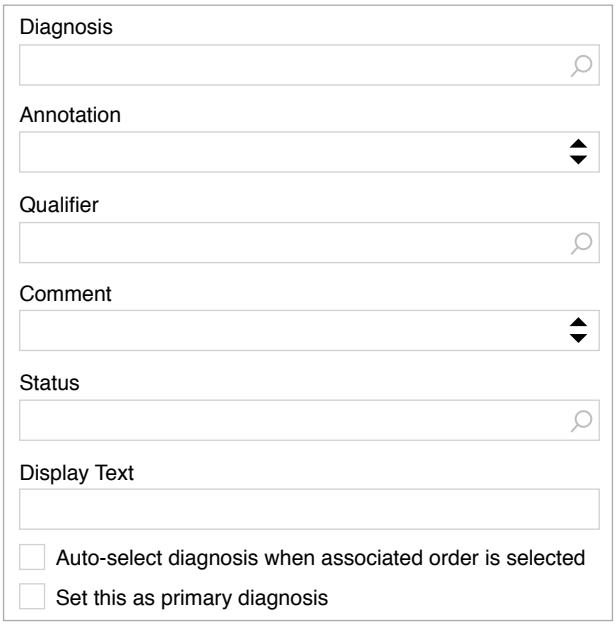
Example of setting Criteria User Restrictions.



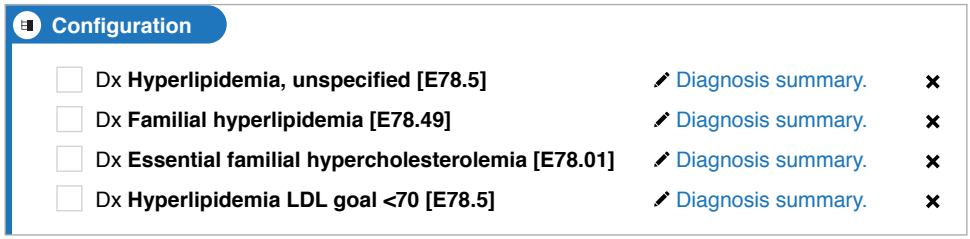
Example of the Item Type selection.

12. Search for desired diagnoses and set preferred defaults including applicable annotations, qualifiers, comments, status, and display texts for the end users. Check options for auto-select based on order selection or designate as the primary diagnosis.

13. Select **Accept**.

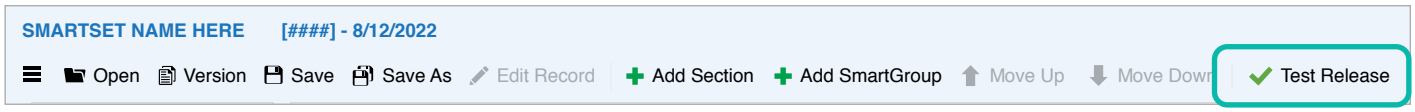


Example of Selecting Item details.



Example of the Configured items.

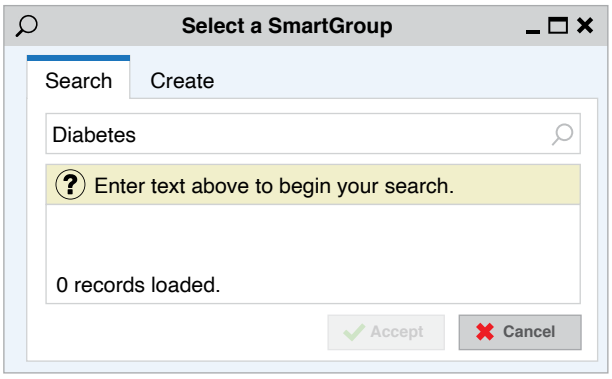
14. When the group is completed, select **Test Release** to test the group.



Example of a SmartSet build menu.

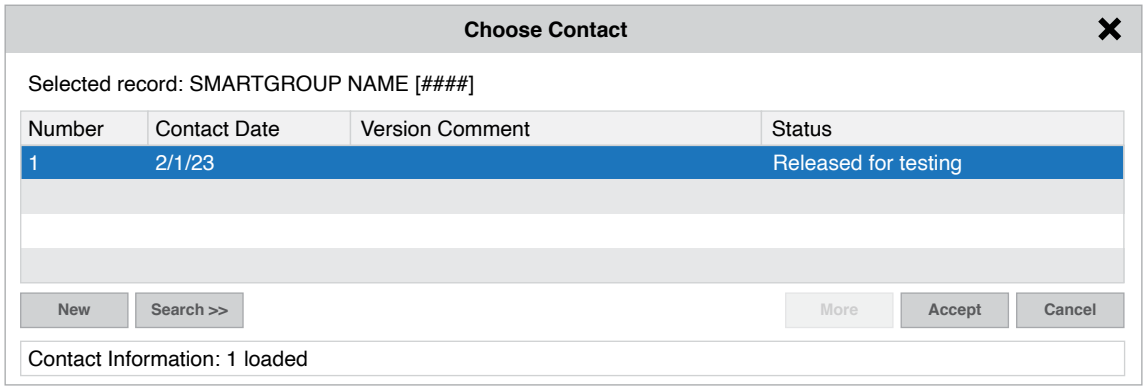
Adding Orders to an Existing SmartGroup to Update the SmartSet

1. From Chart Search, select **SmartGroup**.
2. Search for and select the **SmartGroup** to be modified.

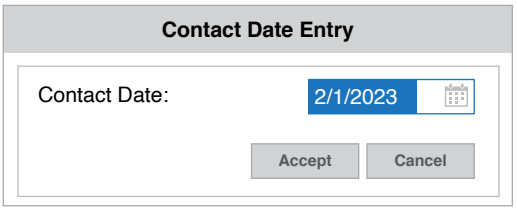


Example of Selecting a SmartGroup.

3. Select **Accept**, then click **New** to create a new version.



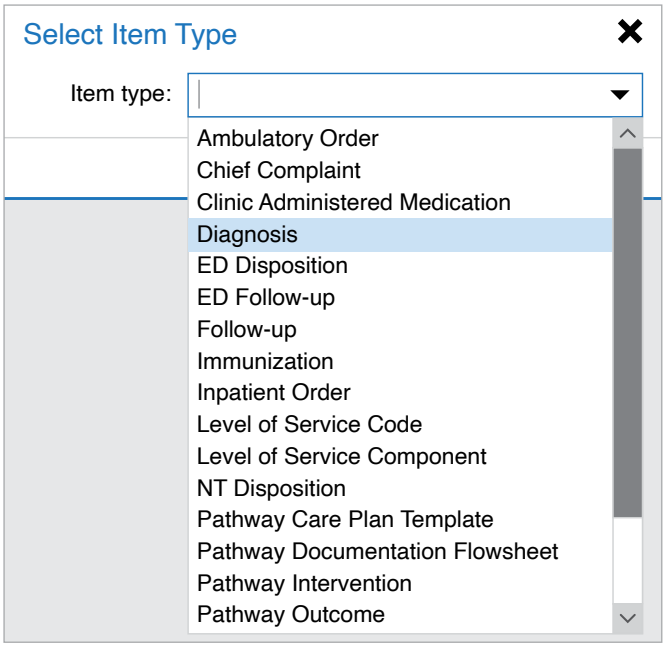
4. Select **Accept** to update the **Contact Date** and create the new version.



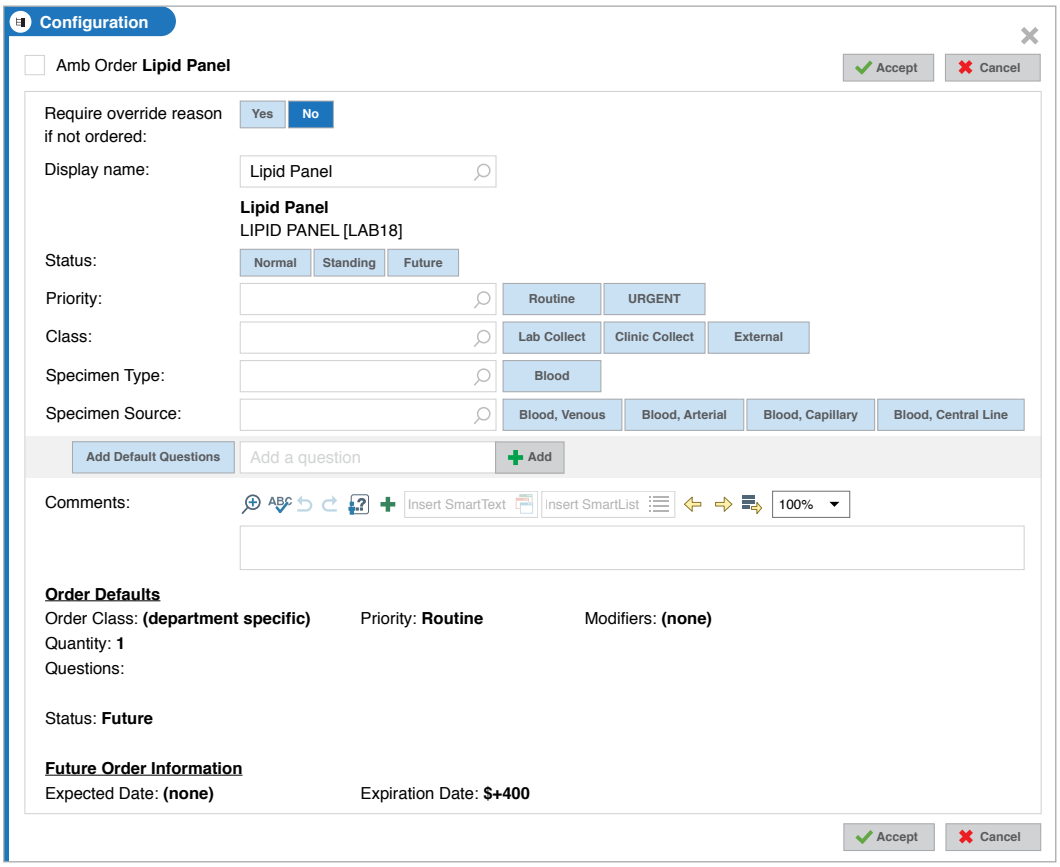
Example of creating a new version.

5. Select **Add item** from the toolbar.
6. From the **Item Type** dropdown, select the appropriate Item type.
7. Search for and select the order(s) to be added. Add appropriate details.

   (See Appendix for examples of appropriate Orderable Items.)

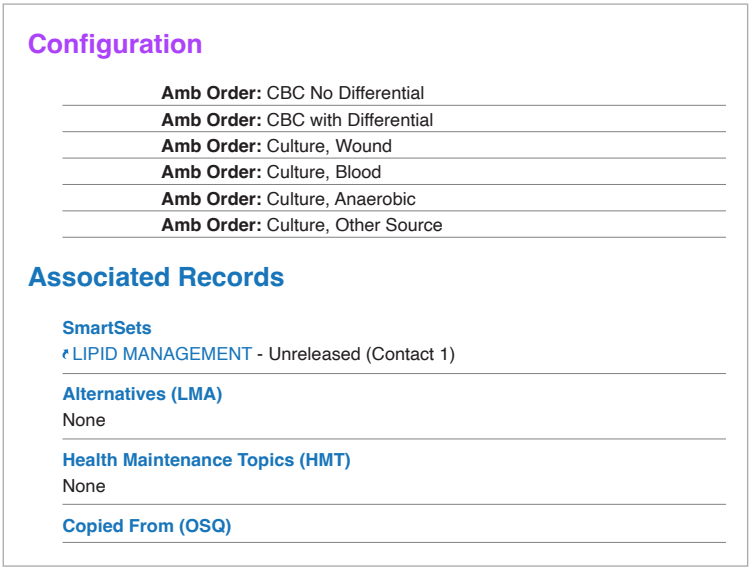


Example of the Item Type selection.

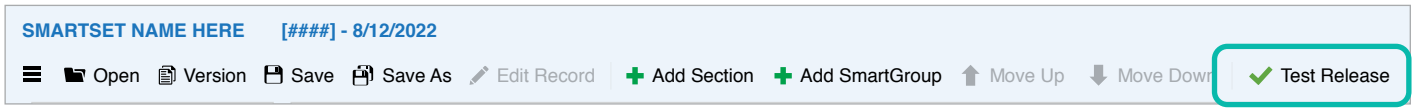


Example of adding lab order details.

8. Select **Accept**.
9. Review the **SmartGroup Associated Records** to ensure the update is appropriate in all SmartSets in which the SmartGroup is used.
10. When the group update is completed, select **Test Release** to test the new group.
11. Select **Release** for the update to be visible to end users.



Example of Associated Records for all SmartSets.

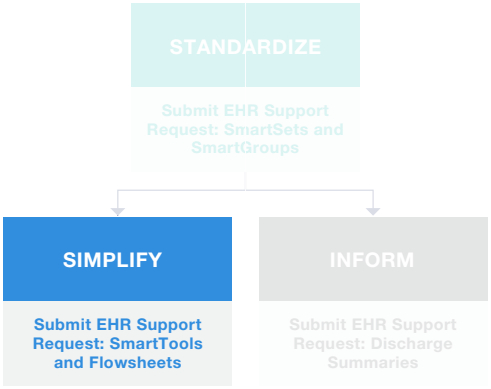


Example of a SmartSet build menu.

Including Additional SmartGroups

1. Repeat the above steps in **Building a SmartGroup** to create each new SmartGroup. *(See Appendix for examples of appropriate Orderable Items).*

Use of SmartTools



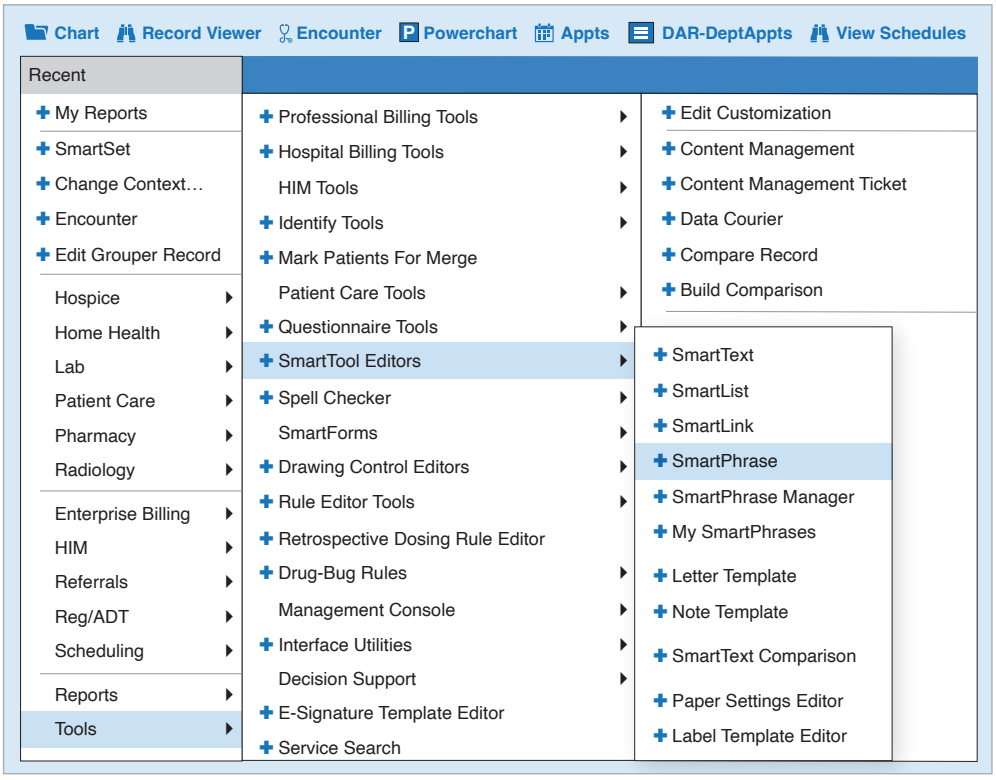
This section of the Guide outlines how to use SmartTools to enhance visit documentation or to create letters. SmartTools consist of SmartPhrases, SmartText, and SmartLinks. The criteria can be changed to align with the healthcare organization's guidelines.

SmartTools can be used to easily insert information such as lab results and medication history into visit notes.

Letter Templates including SmartLinks and SmartLists are used to create a pre-formatted letter as an example. The same features can be used to create any type of correspondence, pulling in clinical data from the patient's chart.

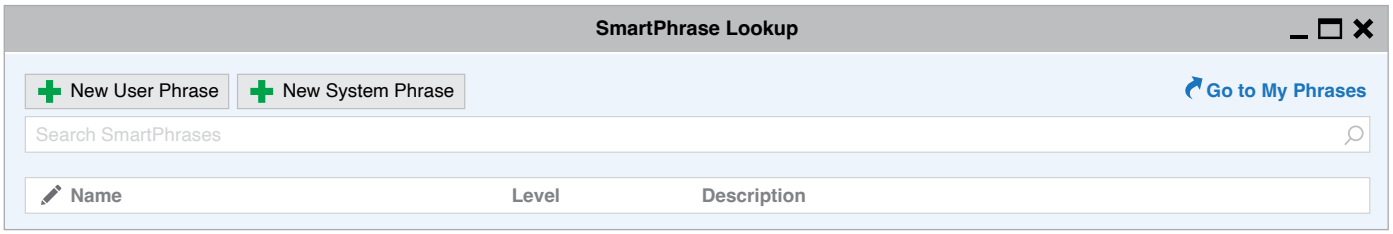
Create SmartPhrases for Visit Notes

1. Access the SmartPhrase builder via Epic> **SmartTool Editors** > **SmartPhrase**



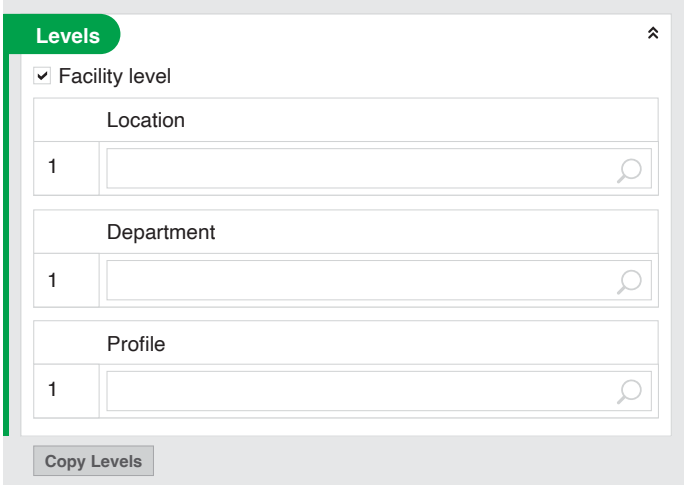
Example of navigation to SmartPhrase Setup

2. Select **New System Phrase**



Example of New System Phrase selection

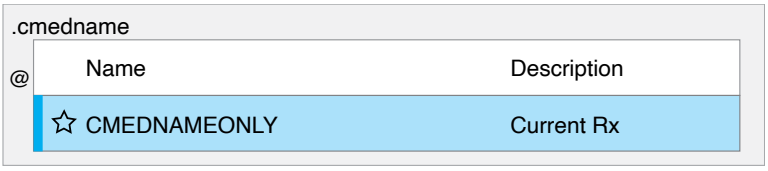
3. Type name for your new SmartPhrase, no spaces allowed.
4. Add a description if desired.
5. Change any of the additional options as appropriate.
6. Add a synonym to enable easier searching for the new System Phrase.
7. In Levels options set up restrictions as to where and by whom the SmartPhrase will be available to use.



Example of Levels selection

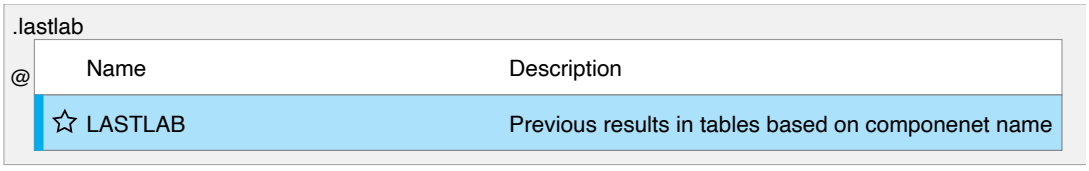
8. In the text area add data that is desired to be populated from the patient's chart. For example type .cmednameonly to display the current medication list with only the name. Use .lastlab[LDL] to display the patient's most recent LDL-C result and the Lab (LRR) component name.

   Note: Utilize the appropriate .lastlab code for your organization.



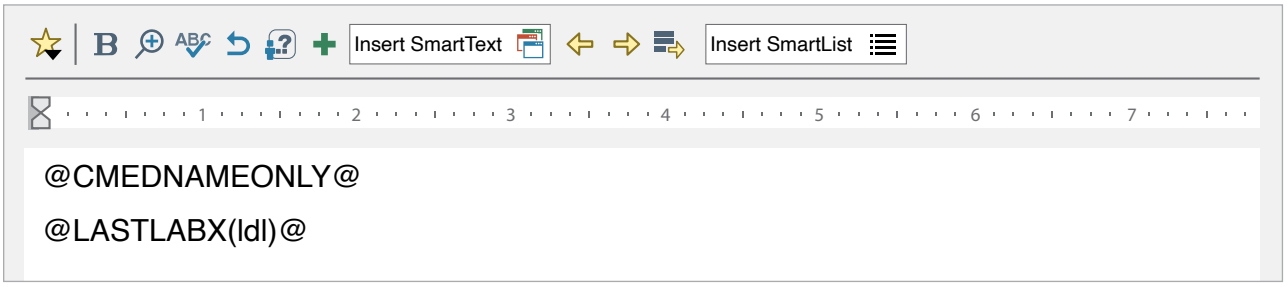
Example of adding Medications data

9. Select **Save** after all new SmartPhrases have been added.

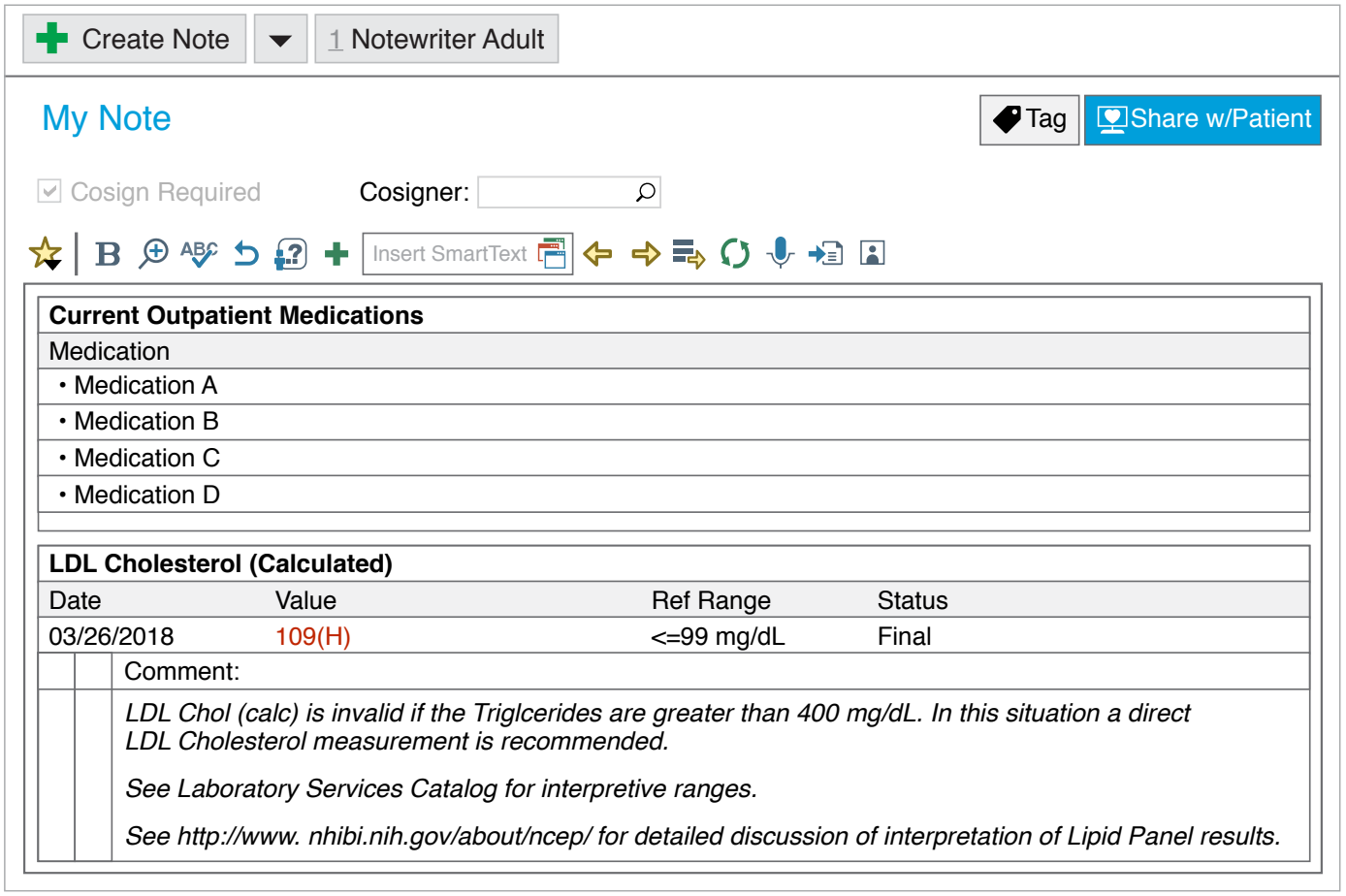


Example of adding Lab Results data

10. When creating a visit note, use the appropriate code for each of the newly created SmartPhrases to pull the corresponding data into the visit note.



Example of adding SmartPhrases to the Visit Note



Current Outpatient Medications

Medication
• Medication A
• Medication B
• Medication C
• Medication D

LDL Cholesterol (Calculated)

Date	Value	Ref Range	Status
03/26/2018	109(H)	<=99 mg/dL	Final

Comment:

LDL Chol (calc) is invalid if the Triglcerides are greater than 400 mg/dL. In this situation a direct LDL Cholesterol measurement is recommended.

See Laboratory Services Catalog for interpretive ranges.

See http://www. nhibi.nih.gov/about/ncep/ for detailed discussion of interpretation of Lipid Panel results.

Example of Visit Note when SmartPhrases have been used.

Sample Letter

Physician Letterhead

[Addressee]
[Address Line 1]
[Address Line 2]

[Date]

RE: Patient Name:_____
Policy ID:_____
Policy Group:_____
Date of Birth:_____

Dear [@PATIENTNAME@]

I am writing this letter to share your most recent lab results.

- Current Labs:

  [@CURRENTLABRESULTS@]

Please call my office at [@OfficePhoneNumber@] if any additional information is required.

Sincerely,
[@Physician's Name@]

Sample letter with potential variables.

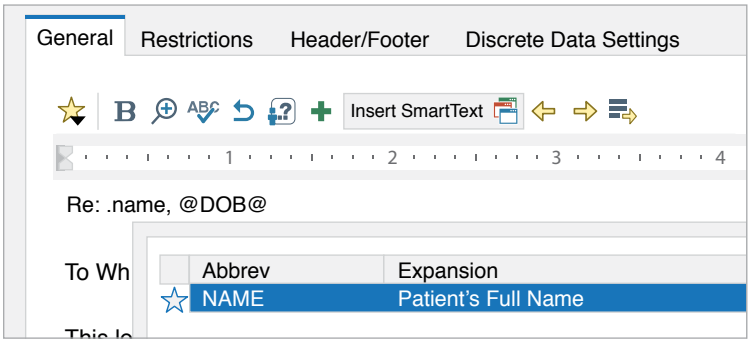
Create a Letter Template With Embedded SmartLinks and SmartLists

1. From **Chart Search**, select **Letter Template**.
2. From the Create Tab, enter a Name for the letter template, such as a Documentation letter of a patient's condition.
3. Allow auto-generated ID or create an ID according to health system convention.
4. Select **Accept**. Then select **Accept** again.

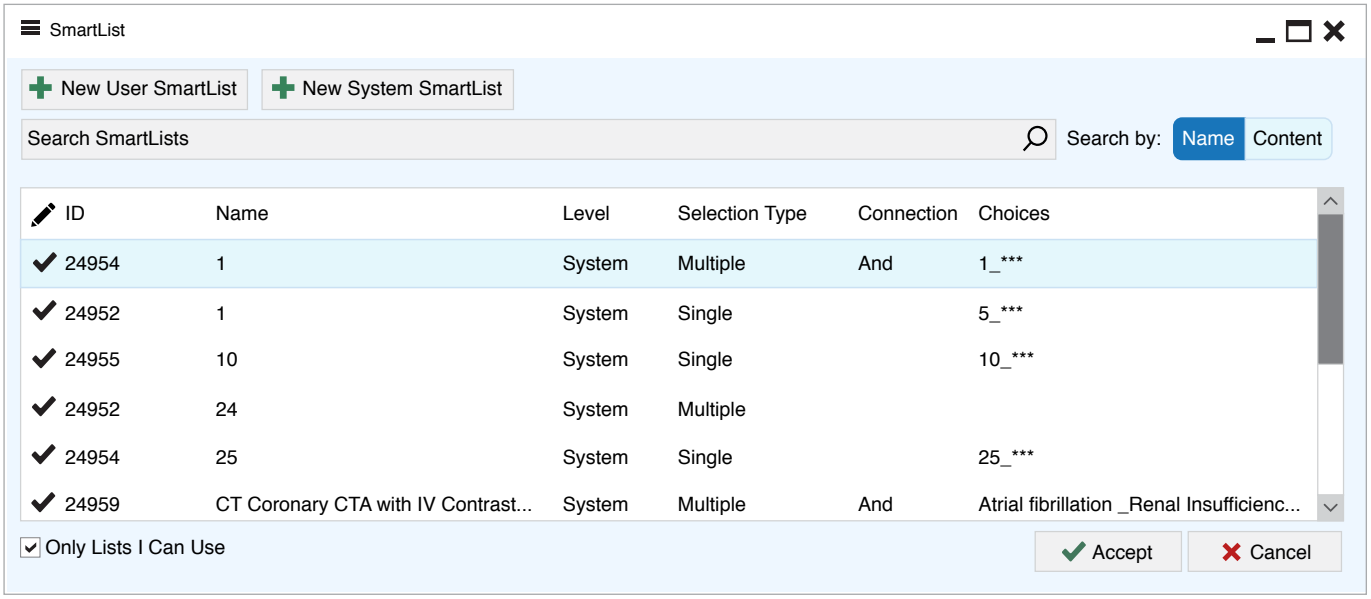
Create a Letter Template With Embedded SmartLinks and SmartLists

5. On the **General** tab, enter text content as requested for the letter, selecting SmartLinks or SmartLists for data to be auto-populated.

6. Insert **SmartLinks** appropriate fields, such as Patient Full Name (for example . name) and Date of Birth (.dob), for data to be pulled from the patient information.



Example of inserting SmartLinks.



Example of a SmartList search.

7. **SmartLists** can be used where clinical data needs to be chosen or selected. From the **Insert SmartLists** panel, search for an existing list. If an existing list is found, choose it, and select **Accept**.

   SmartLists can be used or created for <variables> such as:

   - Patient Medication Reactions
   - List of all Statins tried and failed
   - Number of Statins tried
   - ACS Medical History

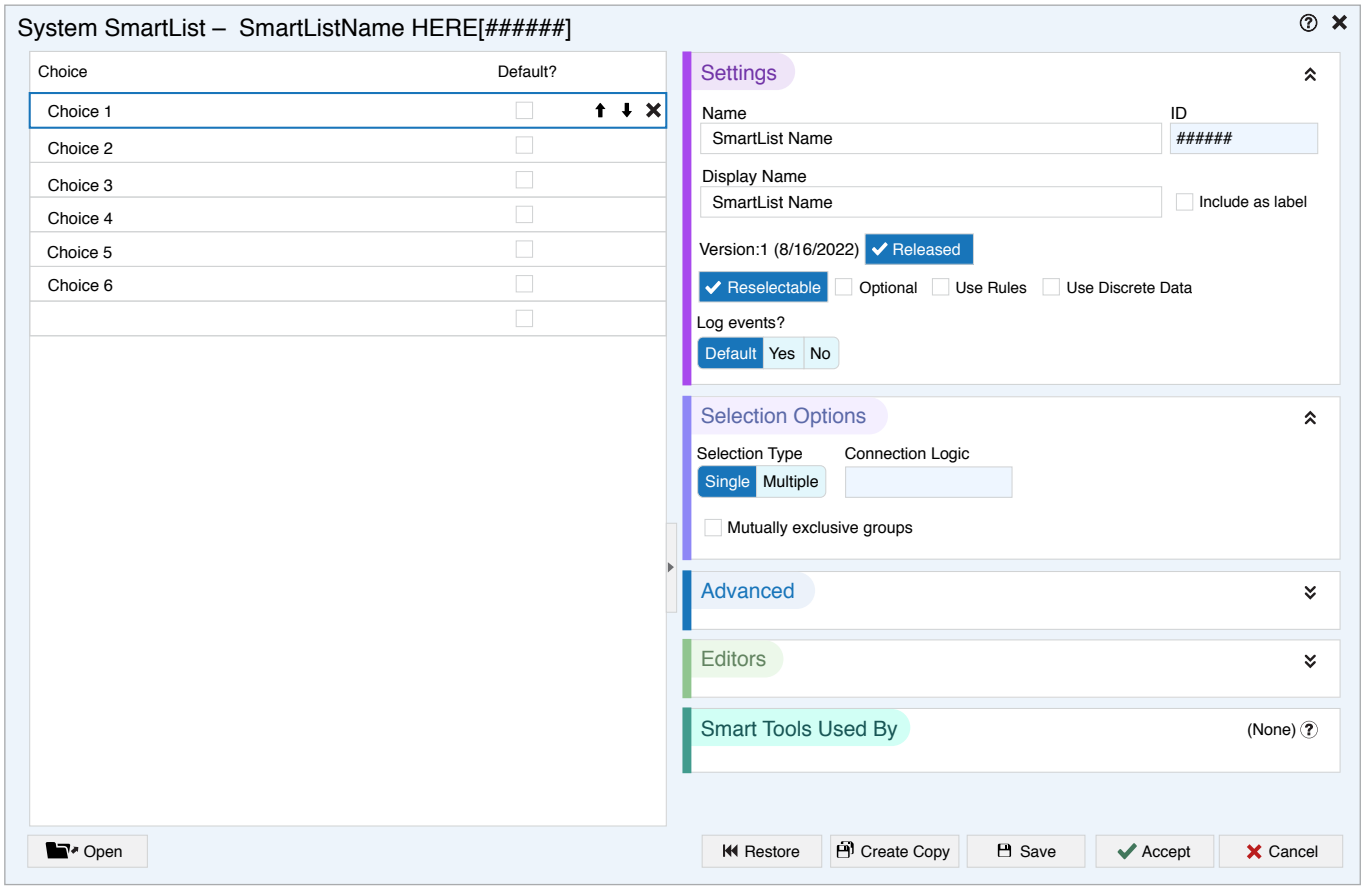
   (See Appendix for examples of appropriate variables)

8. If an appropriate SmartList is not found, select **New System SmartList** to create a system-wide SmartList.

   *Note: Choose **New User SmartList** to create a SmartList for specific users only.*

9. In the SmartList activity, add selection options; note the record ID.

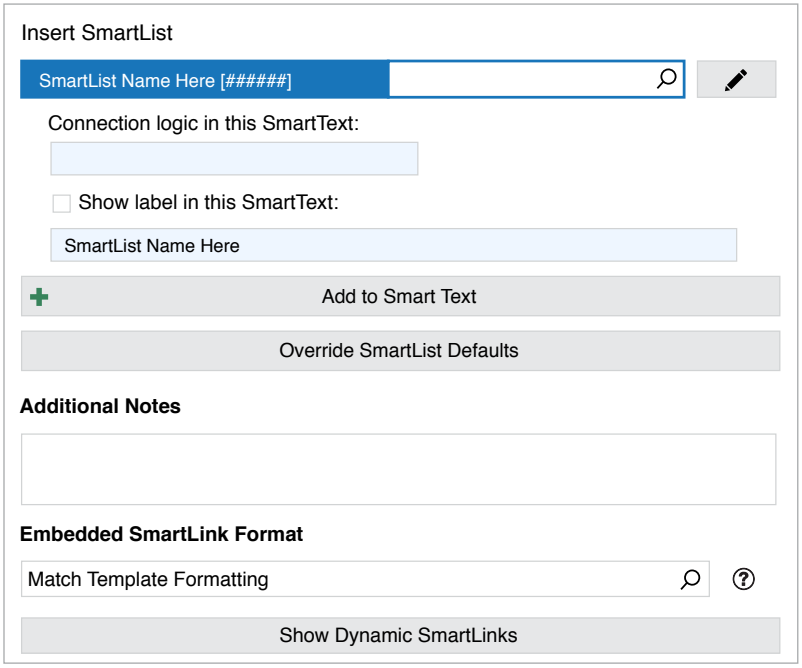
   - Name the SmartList
   - Optionally, add a different display name which displays to the end user
   - Verify or select defaults and options
   - Add selection choices



Example of a System SmartList.

10. Select **Accept** to finalize the SmartList.
11. In the letter template window, add the new SmartList to the insert SmartList field and select **Add to SmartText**.
12. Repeat steps 7-12 as needed for additional SmartLists.

    (See Appendix for examples of appropriate variables)

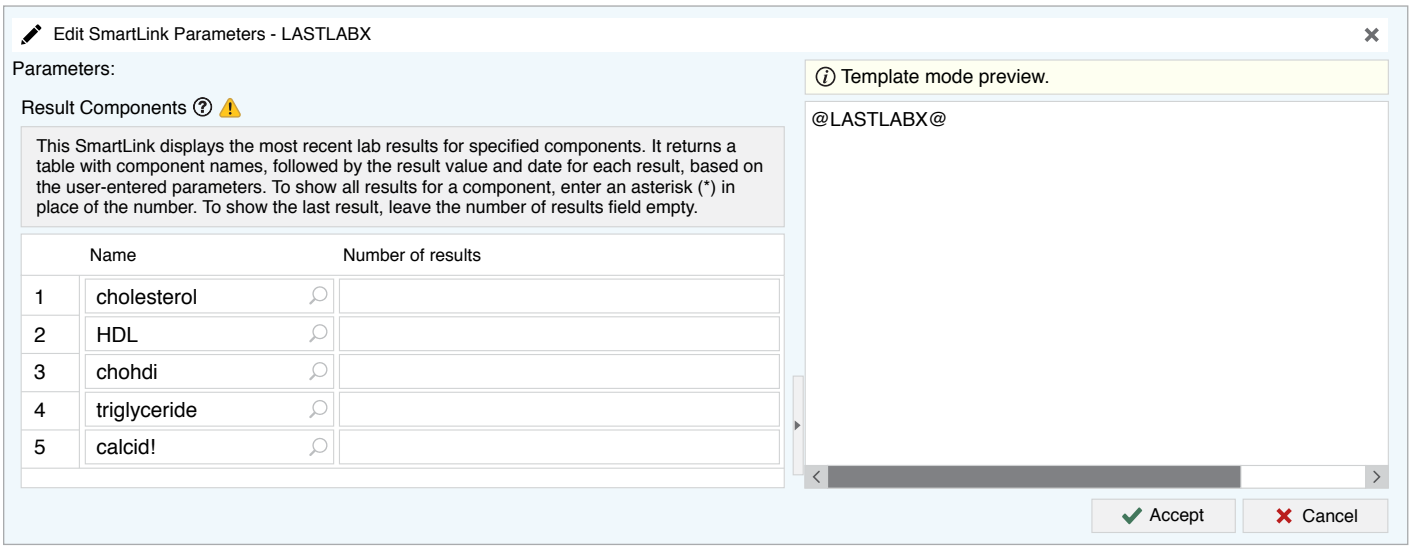


Example of the Insert SmartList window.

Adding Lab Results to the Letter using a SmartLink

1. To include a list of most recent result values for specific tests, in the letter text, enter **.LASTLABX** and press **Enter**.
2. In the **Edit SmartLink Parameters** window, enter each component to be included in the letter.

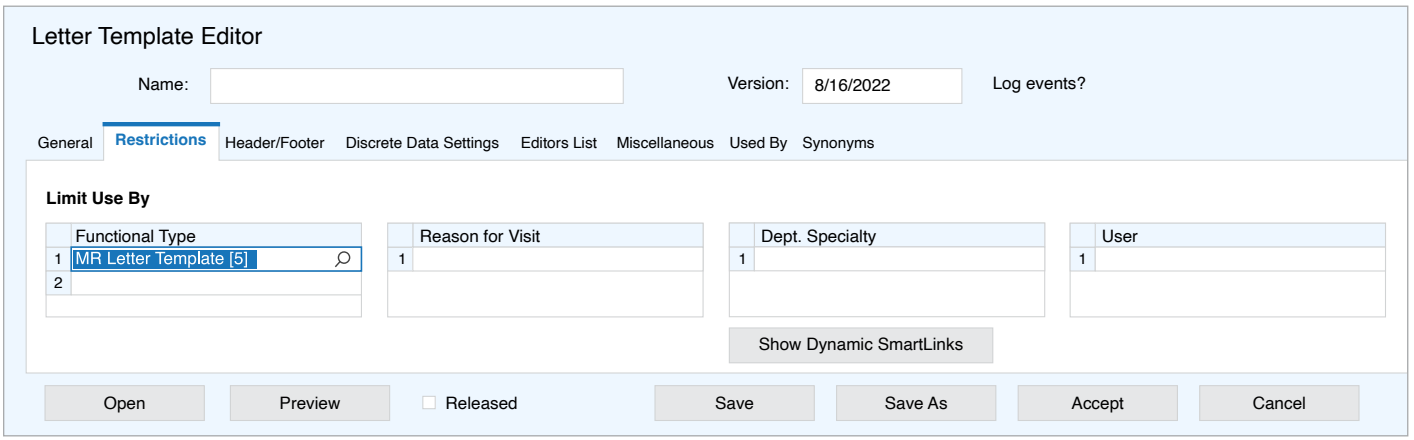
   Note: Component names used in this document are examples and may differ from organization component names for a lab result. Leave the Number of Results field blank to include only the most recent result.



Example of the Edit SmartLink Parameters.

3. Select **Accept**.

4. When the template is completed, navigate to the **Restrictions** tab, and confirm that the **Functional Type** defaults to **MR Letter Template**.

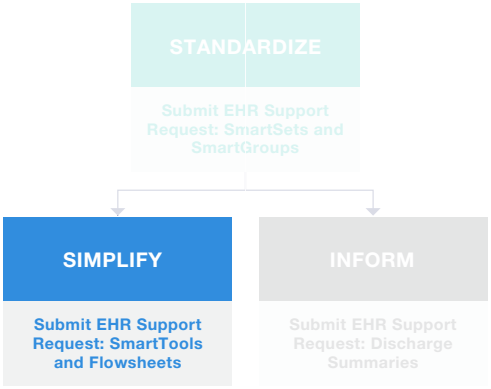


Example of Letter Template Editor.

5. To allow users access to the letter template, from the General tab, check **Released**.

6. Select **Accept**.

Role of the Epic® Review Flowsheet



A flowsheet provides an at-a-glance view of clinical data within the EHR. Multiple types of clinical data can be included in the flowsheet.

Using a flowsheet can provide a visual summary of a patient's progress over time. The summary can be used to identify the need for clinical intervention to ensure appropriate care.

For example, a flowsheet can be created which shows a patient's LDL test results with an overlay of the patient's current medications to monitor the patient's LDL progress.

Flowsheet Example

Rooming | Chart Review | Review Flowsheets | Order Review | Enter/Edit Results | Communications | Immunizations | MAR

Flowsheet Report

Select Flowsheets to View

LDL AND MEDICATIONS [888]

Load More

LDL AND MEDICATIONS	Latest Ref Rng & Units	8/18/2022	8/10/2022	2/26/2021	8/28/2019	10/23/2018	10/31/2016	7/15/2015	1/15/2007
LDL	≤99 mg/dL		137 (H)	131 (H)	123 (H)	136 (H)	91	105 (H)	144 (H)
Medication A									
Medication B									

Abnormal/Panic | Dates in: ◉ Columns ○ Rows | Copy to Clipboard | Refresh | Print Flowsheet | Graph Region

Example of Flowsheet with LDL and Medication Data.

Creating a Review Flowsheet

1. Navigate to **Chart Search**, **Edit Flowsheets**.
2. Select the **Create** tab. Enter the flowsheet name in the **Flowsheet Name** field.
3. Select **Accept**, then select **Accept** again.
4. As appropriate, enter a user-friendly name for the flowsheet in the **Display Text** field.
5. Select **Type: Review FS.**

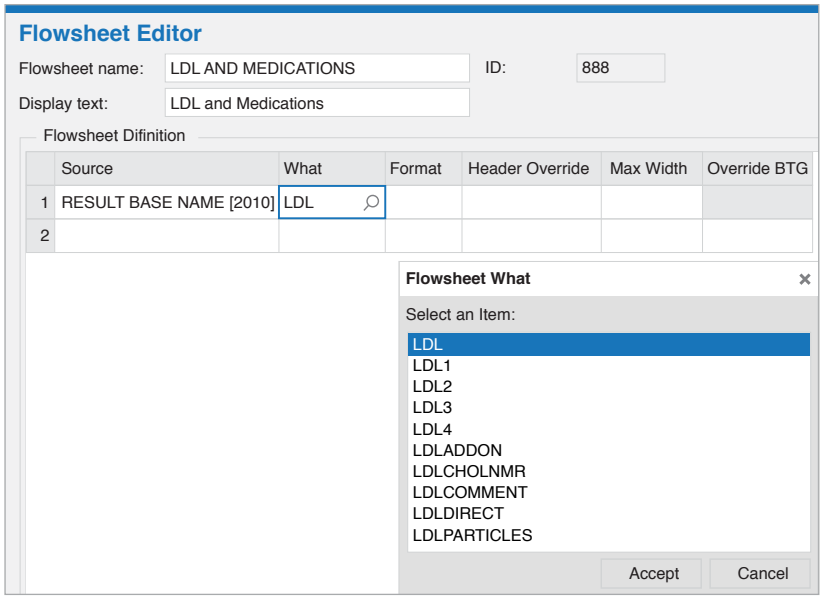
6. In the **Source** column, search for and select **Result Base Name [2010]**.

   Note: Source choices will include the organization's Base Name. It is possible that multiple Source choices will need to be selected.

7. In the **What** column, search for and select the desired component.

8. Select **Accept**.

   Note: Leave all other columns blank.



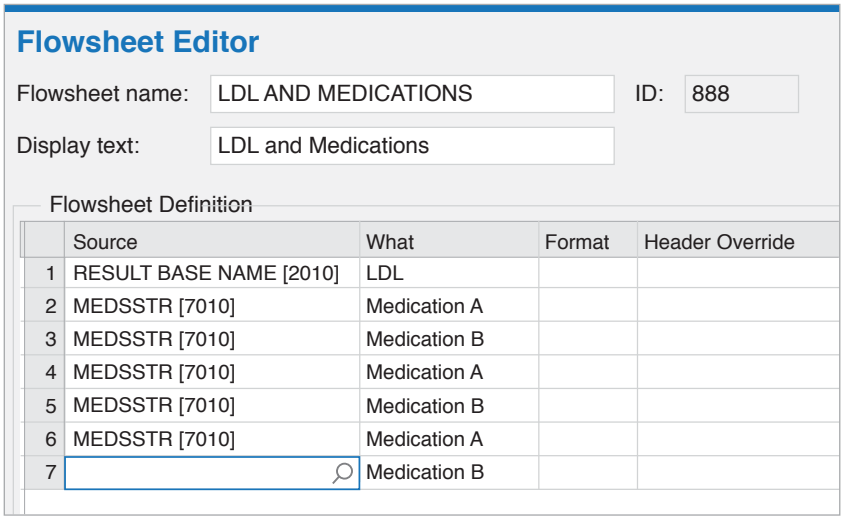
Example of Source Selection for LDL.

9. In the Row 2 **Source** column, search for and select **MEDSSTR [7010]**.

10. In the Row 2 **What** column, search for and select a medication to include in the flowsheet.

11. Add multiple MEDSSTR rows to include other medications, for example, additional strengths or alternative treatments.

    Note: Rows will display in the flowsheet if the patient is taking the medication identified in that row.



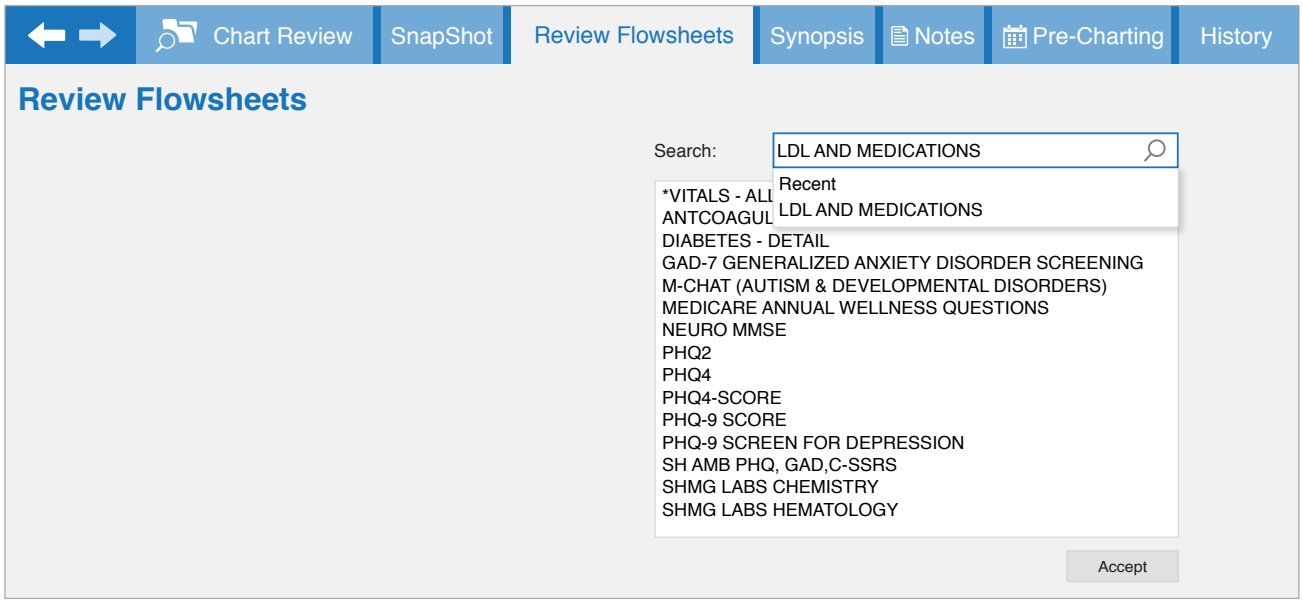
Example of Source selection for medications.

12. After all Source data has been added, select display options (defaults are bolded):
    - Date Order: **Reverse Chronological** (most recent first)
    - Orientation: **Column Dates** (dates display at the top of the graph)
    - Stop after: **Use default** values of 9999
    - Initial load: **Use default** values of blank
    - Release: Use the default value of **No**, until ready to release

    Note: Custom and Setup Code options are not currently used.

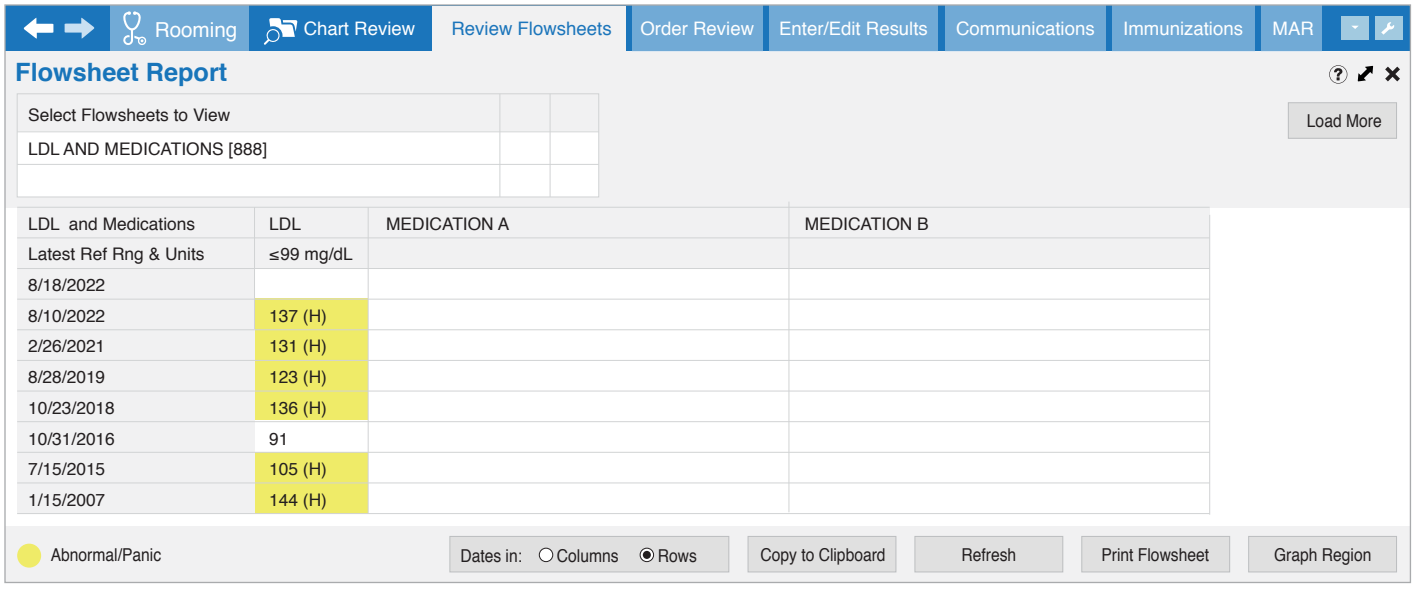
13. Select **Save**.

14. Test the flowsheet.
    - Search for and select a patient with **LDL and appropriate medications**
    - In Chart Search: select **Review Flowsheets**
    - Search for and select the newly created Flowsheet
    - Select **Accept**



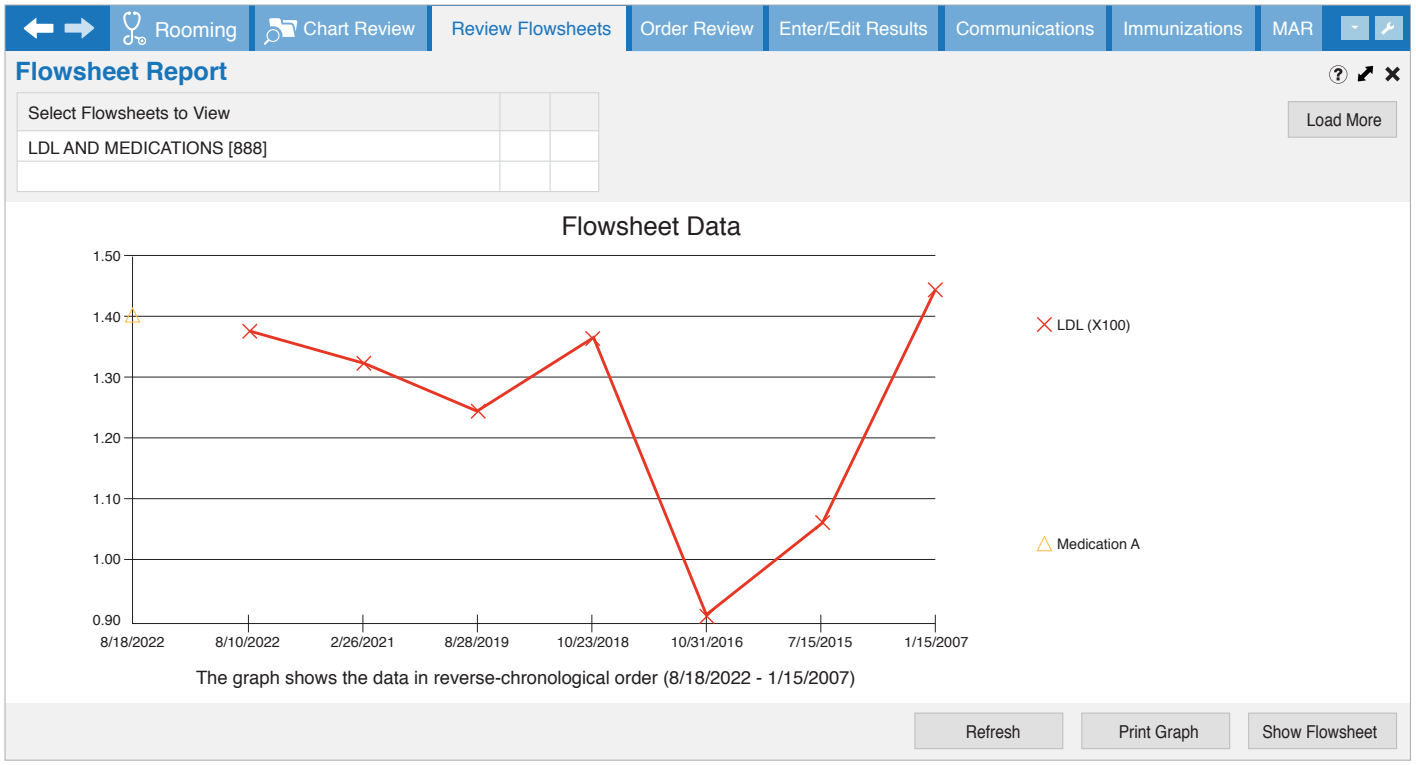
Example of Review Flowsheets in Patient Chart.

15. Review the flowsheet:
    - Data can be copied to clipboard to put into notes
    - Data can be refreshed if more recent data has been added to print the flowsheet
    - Using the **Dates In** option, toggle the data from Columns to Rows
    - Select **Graph Region** to display in a timeline analysis graph



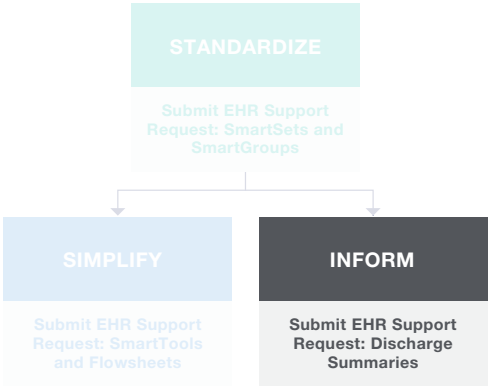
Example of Flowsheet with LDL and Medication Data with columns toggled.

– Select **Show Flowsheet** to return to the flowsheet view



Example of Flowsheet data graph.

Role of Discharge Summaries



Discharge summaries provide the patient with important information from the hospital care team. The report often includes clinical information about what occurred during the hospital stay, follow-up care instructions, and patient education materials.

Using discharge summaries can help engage the patient by communicating the need for follow-up care and by providing educational information about their condition and instructions for at-home care.

Base Criteria

This section of the Guide outlines adding information to the Discharge Order Set to ensure it is included in the Discharge Summary for the patient. The criteria can be changed to align with the healthcare organization's cardiovascular guidelines.

All interactions and orders during the duration of the stay are included in the Discharge Summary. Orders appropriate for discharge are added to the Discharge Order Set, and Orders issued at the time of discharge are automatically included in the Discharge Summary.

Discharge Summary Example

Discharge Summary
Signed

Date of Service: 8/15/2022 2:16 PM

BRIEF OVERVIEW:

Discharge Provider:
Primary Care Provider:
Admission Date: 08/12/2022
Discharge Date: 08/15/2022

Active Hospital Problems

Diagnosis	Date Noted	POA
• NSTEMI (non-ST elevated myocardial infarction) (HCC)	08/13/2022	Unknown
• Chest pain		

Resolved Hospital Problems

No resolved problems to display.

The patient's most recent ejection fraction per echo was:

Active Hospital Problems

Diagnosis	Value	Date
EJECFRACECHO	53	08/12/2022

At discharge, the following medications/referrals/education was given/prescribed:

See bottom of note for full list of medications including changes.

Smoking cessation not indicated: the patient does not smoke
Cardiac Rehab referral was placed; the patient will be contacted to set this up

Discharge Disposition: home health care svc

INPATIENT PROCEDURES:

Surgery and Procedures

Past Procedres (8/12/2022 to Today)

Date	Procedures	Providers
08/13/2022	CV LEFT HEART CATHETERIZATION, CORONARY ANGIOGRAM CV PERCUTANEOUS CORONARY INTERVENTION (psb)	

Non-surgical Procedures (From admission, onward)

None

Medication List

START taking these medications

Medication A
Medication B

CONTINUE taking these medications

Medication C
Medication D

MULTIVITAMIN ADULT PO:

STOP taking these medications

Medication E

Where to Get your Medications

These medications were sent to pharmacy
• Medication A

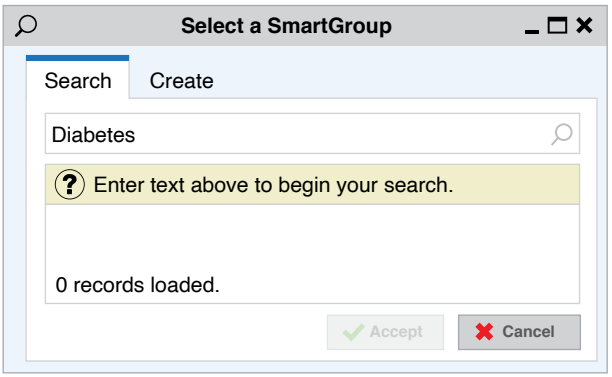
Cosigned by: at 8/15/2022 4:42 PM
Electronically singed by at 8/15/2022 2:48 PM
Electronically singed by at 8/15/2022 4:42 PM

Example of Discharge Summary.

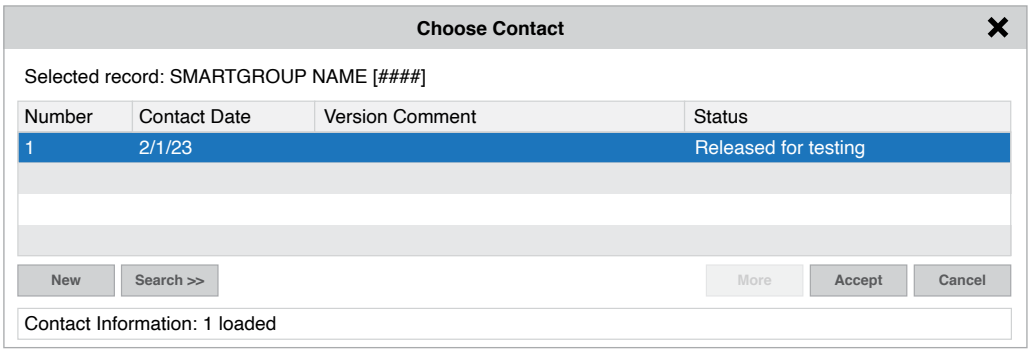
Adding Orders to the Discharge Order Set

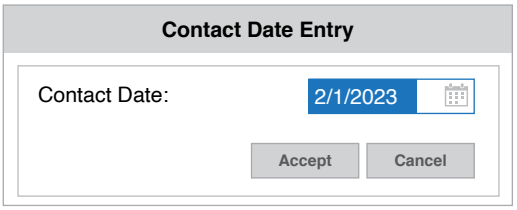
SmartSets are built on SmartGroups which are a group of similar order types for usability. Often, editing a SmartGroup to add or modify items will suffice. Updating a SmartGroup enables the changes for all associated SmartSets.

1. From Chart Search, select **SmartGroup**.
2. **Search** and select the **SmartGroup** to be modified.
3. Select **Accept**, then click **New** to create a new version.

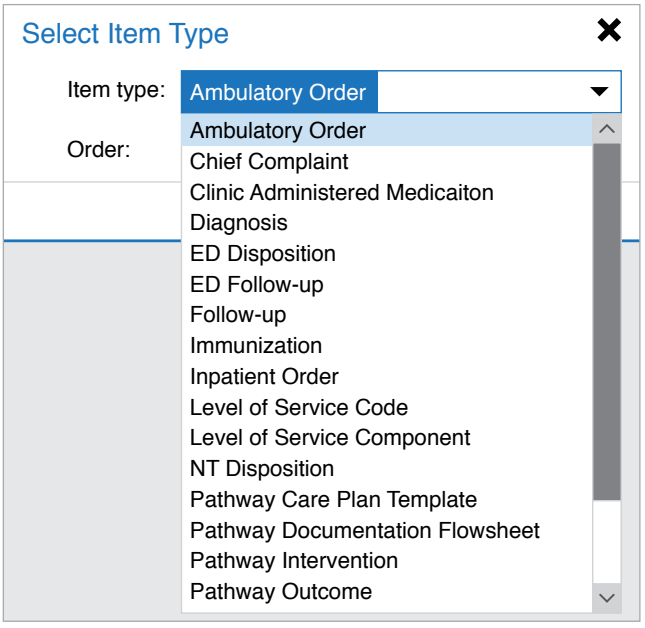


Example of searching for a SmartGroup.





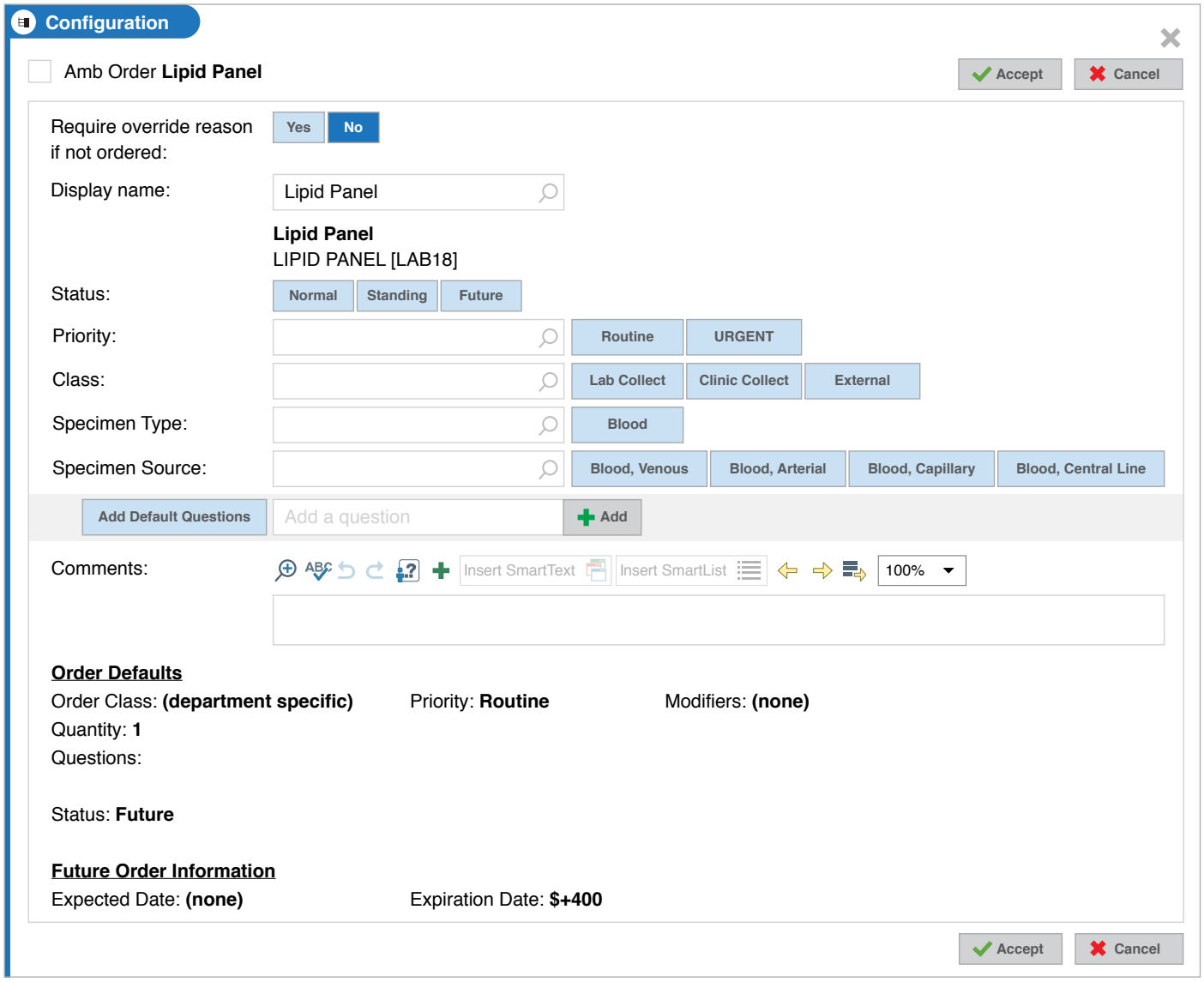
Example of creating a new version.



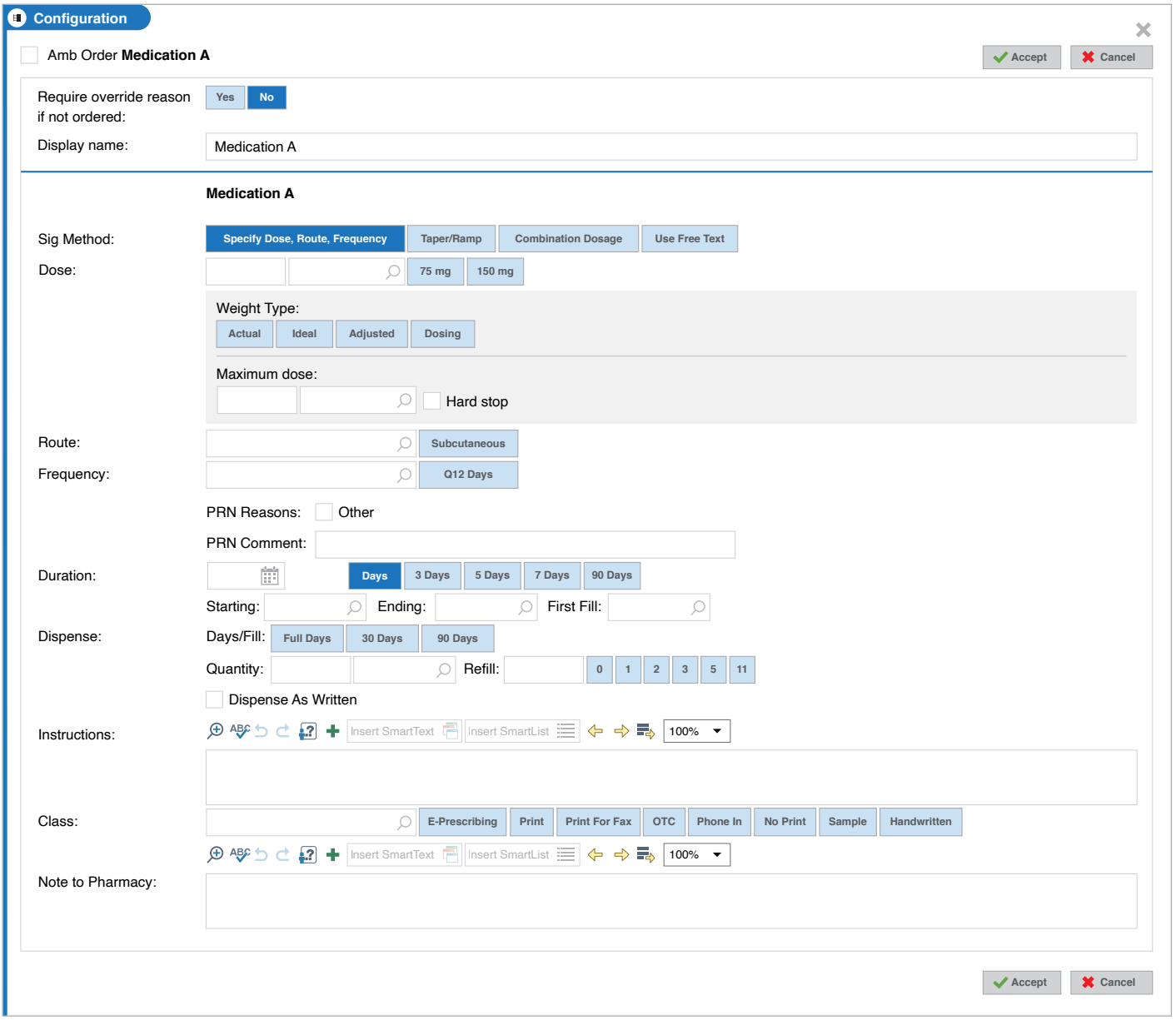
Example of the Item Type selection.

4. Select **Accept** to update the Contact Date and create the new version.
5. Select **Add item** from the toolbar.
6. From the **Item Type** dropdown, select the appropriate Item type.

7. Search for and select the order(s) to be added. Add appropriate details. *(See Appendix A for examples of appropriate Orderable Items.)*

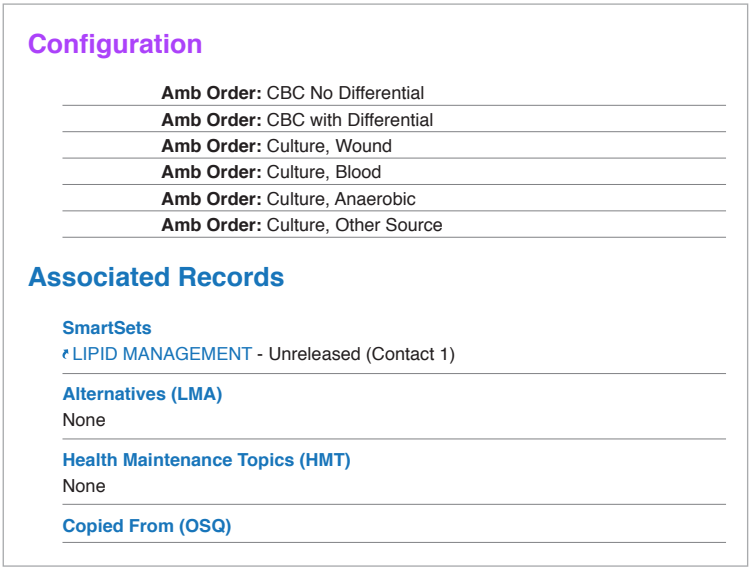


Example of Configuration for adding lab order details.

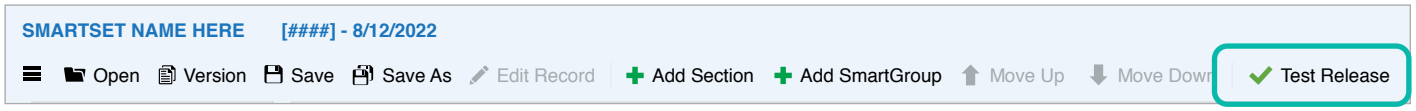


Example of adding medication order details.

8. Select **Accept**.
9. Review the SmartGroup Associated Record to ensure the update is appropriate in all SmartSets in which it is used.
10. When the group update is completed, select **Test Release** to test the new group.
11. Select **Release** for the update to be visible to end users.



Example of Associated Records for all SmartSets.

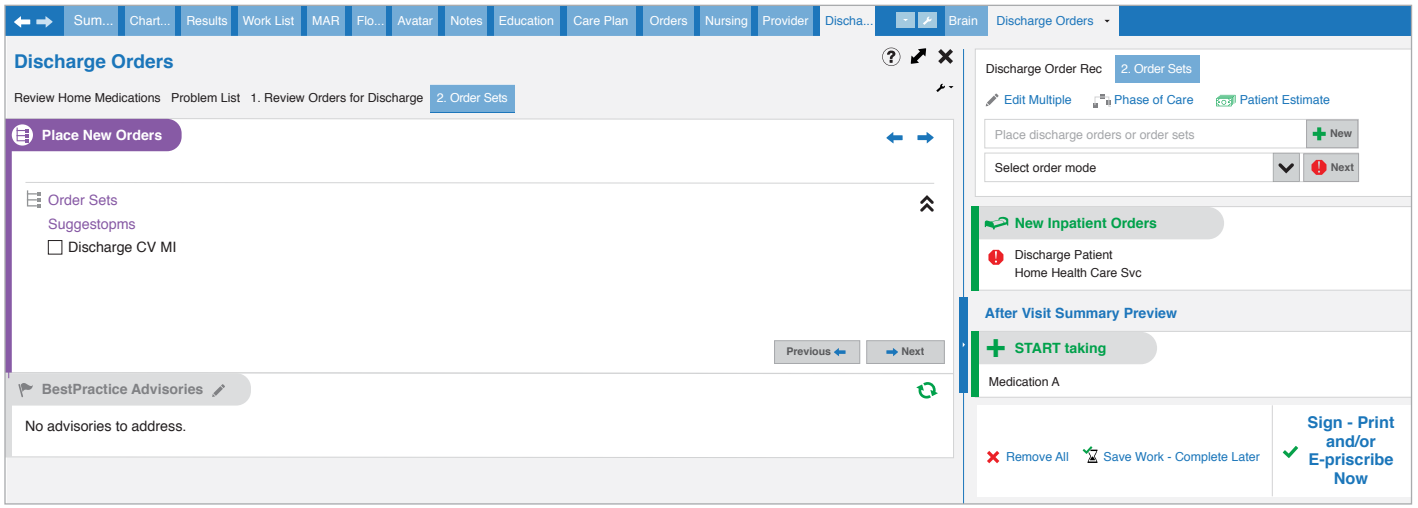


Example of a SmartSet build menu options.

Discharge Navigator

In the Discharge Navigator, the **Discharge Order Set** is selected.

All orders selected in the Discharge Order Set are included in the patient Discharge Summary.



Example of Discharge Navigator.

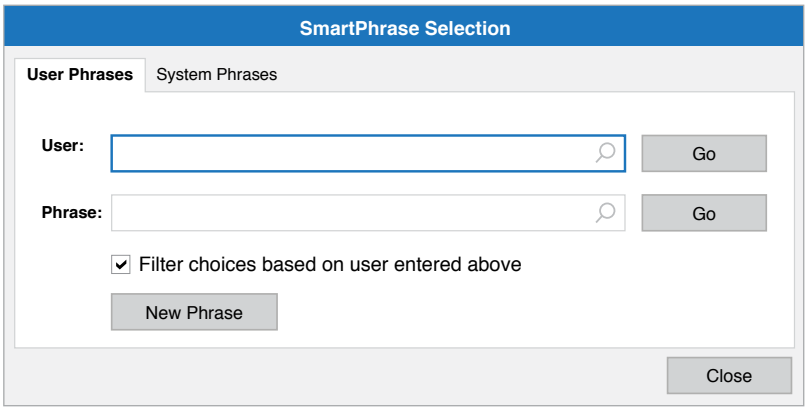
Using SmartPhrases in Discharge Summary

SmartPhrases can be used for consistency and efficiency in commonly used text details on orders and in the Discharge Summary patient directions or information.

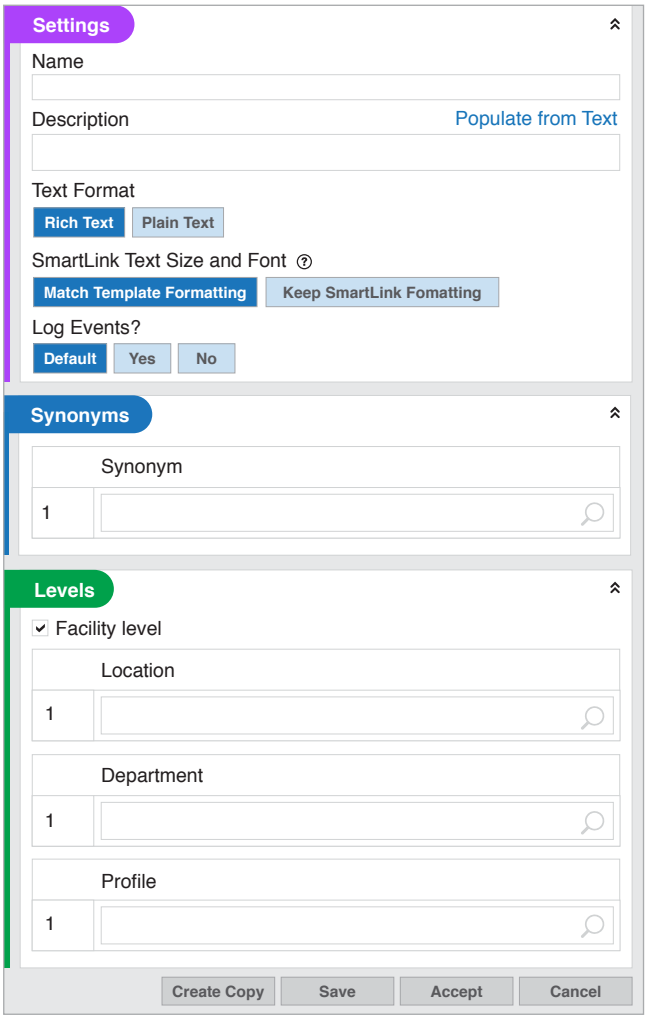
By default, SmartPhrases are created as health system-wide System SmartPhrases. System SmartPhrases can be set up to be accessible by facility location, department, EHR role, or individual EHR user.

To Create a SmartPhrase

1. Navigate to SmartPhrase Manager.



Example of the initial SmartPhrase Manager.

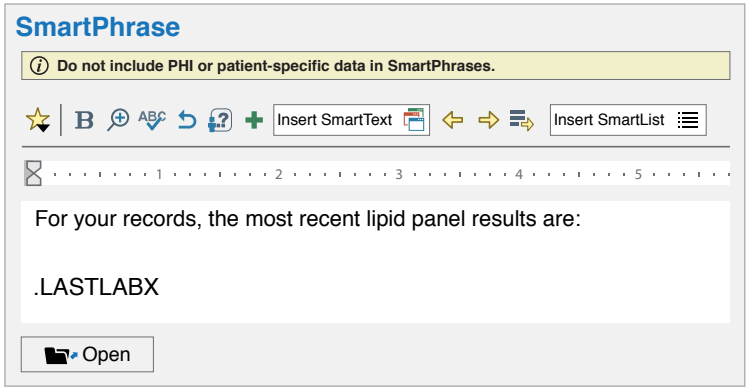


Example of the Setting detail sidebar.

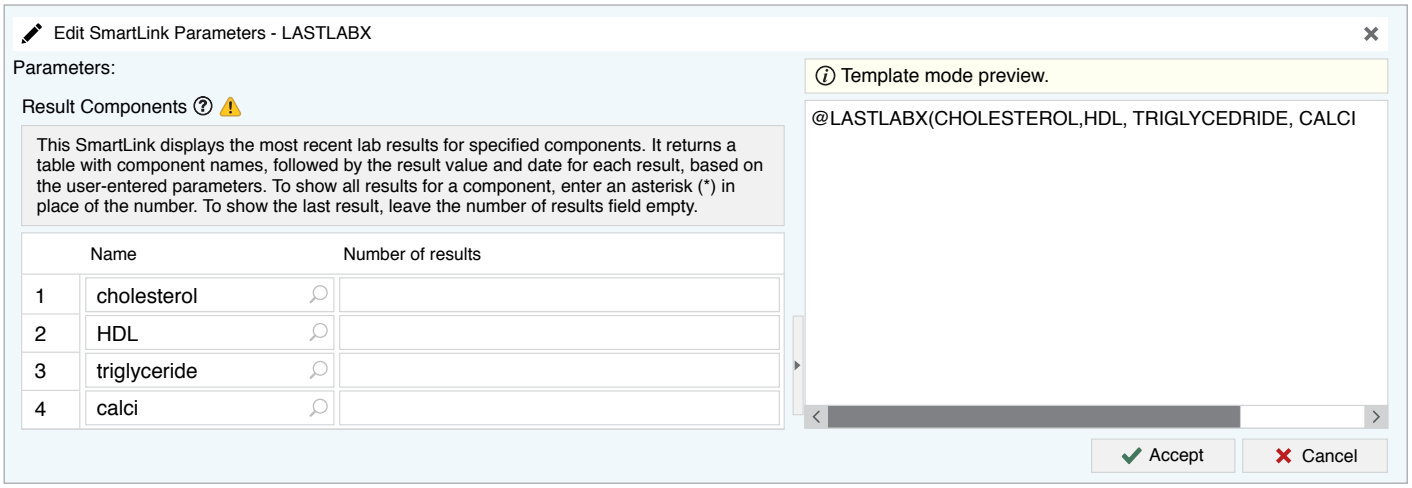
2. In the **SmartPhrase Selection** window, select **New Phrase**.
3. In the SmartPhrase window **Settings** sidebar, enter the desired **Name** for the phrase.

   Note: Use text only in the name, the @ signs will be added automatically upon Save or Accept.

4. Enter a **Description**.
5. Default options, such as **Text Format**, **SmartLink Text**, and **Log Events**, can be used or changed if desired.
6. Add **Synonyms** as appropriate.
7. In the **Levels** section, check **Facility** level to define system-wide use, or search for and select Location(s), Department(s), and (Profile(s), as appropriate.
8. In the left-side text pane, enter text to be displayed, for example: "For your records, the most recent lipid panel results are:"
9. To include a list of most recent result values for specific tests, in the letter text, enter **.LASTLABX** and press **Enter**.
10. In the **Edit SmartLink Parameters** window, enter each component to be included in the letter.



Example of SmartPhrase for Lab Results.



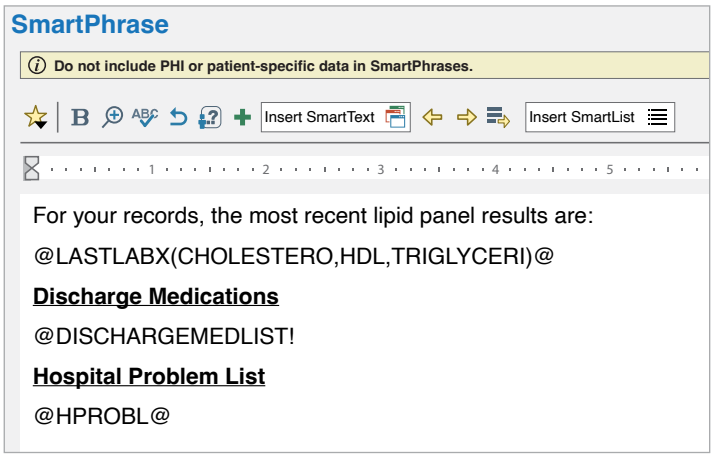
Edit SmartLink Parameters for LASTLABX SmartLink with lab results selected.

Note: Component names used in this document are examples and may differ from organization component names for a lab result. Leave the Number of Results field blank to include only the most recent result.

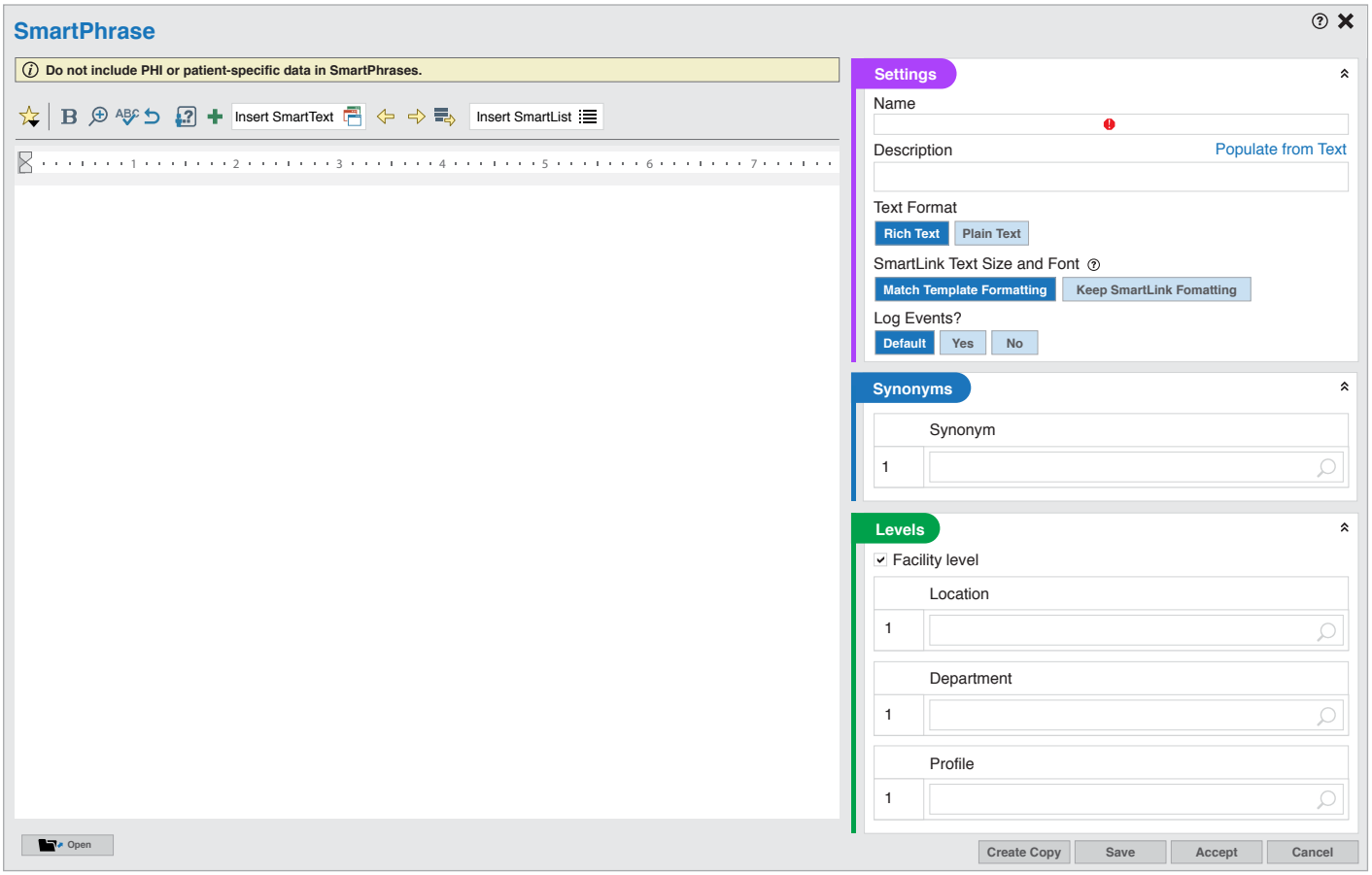
11. Select **Accept**.

12. Similar phrases can be created to be used for discharge medications (@DISCHARGEMEDSLIST@) and the hospital problem list (@HPROBL@)
    - Example 1: The following table lists your at-home medications with appropriate instructions for each. @DISCHARGEMEDSLIST@
    - Example 2: Your hospital problem list includes: @HPROBL@

    Note: A SmartLink for specific ACS Medical History can be custom-built by the health system, for example, @ACSMEDHIST@.



Example of the Completed SmartPhrase text with SmartLinks.



Example of the full-screen SmartPhrase window.

Appendix A

Examples of Orderable Items that might be added to a SmartSet or a Discharge Order Set:

- Medications
- Labs
- Patient Education
- Referrals

Appendix B

Examples of SmartLinks and SmartLists Which Might Be Added to a Letter Template

Description	SmartLink (data from Patient Info)	SmartList
Patient Full Name	@NAME@	
Date of Birth	@DOB@	
Denial Med Name		<insert medication name/dose denied>.
# of Other Statins Tried		<# of statins tried>
Medications Tried		<List of all Statin Drug Name/ Statin Generic Name tried>
Medication Reactions Patient Experienced		<list of patient statin reactions>
Personal Pronouns	@CAPHE@, @CAPHIS@ (for upper case) @HIS@ (lower case)	
Lab Results Most Recent Values for Cholesterol, Hdl, Chohdi, Triglyceride, Calcid!	@LASTLABX	
Statin being requested for consideration		<insert medication name/dose denied>.
Risk conditions for consideration		<ACS Past Medical History>
Practice/location Identifier		<Practice Identifier>

Glossary of Terms

EHR Term	Definition
BestPractice Advisories	An Epic®-specific term for reminders that display in the EHR for the healthcare professional, based upon the patient meeting certain criteria.
Clinical Champion	A key decision maker within the health system who believes in implementing EHR changes to help improve healthcare
Flowsheet	A spreadsheet for documenting patient care consisting of a template that holds rows or groups of rows. Epic® supports both documentation flowsheets and review flowsheets.
In Basket	Electronic messaging system used within Epic® applications.
Inclusion/Exclusion Criteria	Information that is used to determine whether a patient should not be included in a report, or whether a BPA should be displayed for a patient or not. Criteria include (but are not limited to) diagnosis, gender, age, lab results, medication history, and procedure history.
MyChart	Epic® application that allows patients to view their medical records and interact with their physicians over the internet.
Patient Follow-ups	Communication with patients generated from within the EHR using a variety of methods.
Reporting Workbench	An Epic® tool that provides flexible, template-based reporting integrated with Hyperspace.
SmartForm	A customizable form in Hyperspace used for gathering clinical and other patient data.
SmartGroup	Groups of orders that comprise a SmartSet.
SmartLink	A SmartTool that pulls or links information from the patient record directly into your documentation. For example, if you enter .name, the patient's name populates the document.
SmartList	A SmartTool that allows you to choose from a list of pre-configured choices in a SmartText of SmartPhrase. These can be single- or multiple-response lists.
SmartPhrase	A SmartTool that allows you to type a few characters that automatically expand into a longer phrase or block of text. For example, .pt becomes patient.
SmartSet	A group of orders and other elements, such as notes, chief complaints, SmartGroup Panels, and levels of service, that are commonly used together to document a specific type of visit.
SmartText	A text template that can include text, SmartPhrases, SmartLists, and SmartLinks.
Workflow	A collection of forms arranged in a specific order for collecting and editing information. For example, the registration activity uses records in the Workflow (HFL) master file to organize the forms it includes.
Workqueue	Generic term for a work list for Epic® users. Common workqueues include patient workqueues, follow-up workqueues, claim edit workqueues, charge review workqueues, and many others.

References: 1. Klimchak AC, Patel MY, Iorga ŞR, et al. Lipid treatment and goal attainment characteristics among persons with atherosclerotic cardiovascular disease in the United States. *Am J Prev Card.* 2020;1:100010. **2.** Colantonio LD, Shannon ED, Orroth KK, et al. Ischemic event rates in very-high-risk adults. *J Am Coll Cardiol.* 2019;74:2496-2507. **3.** Grundy SM, Stone NJ, Bailey AL, et al. 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA guideline on the management of blood cholesterol: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation.* 2019;139:e1082-e1143. **4.** Nelson AJ, Haynes K, Shambhu S, et al. High-intensity statin use among patients with atherosclerosis in the U.S. *J Am Coll Cardiol.* 2022;79(18):1802-1813. https://www.jacc.org/doi/abs/10.1016/j.jacc.2022.02.048. **5.** Virani SS, et al. Very High-Risk ASCVD and Eligibility for Nonstatin Therapies Based on the 2018 AHA/ACC Cholesterol Guidelines. *J Am Coll Cardiol.* 74;5:712-714. **6.** Lloyd-Jones DM, Morris PB, Ballantyne CM, et al. 2022 ACC expert consensus decision pathway on the role of nonstatin therapies for LDL-cholesterol lowering in the management of atherosclerotic cardiovascular disease: a report of the American College of Cardiology Solution Set Oversight Committee. *J Am Coll Cardiol.* 2022. **7.** Plutzky J, Benson MD, Chaney K, et al. Population health management of low-density lipoprotein cholesterol via a remote, algorithmic, navigator-executed program. *Am Heart J.* 2022;243:15-27.

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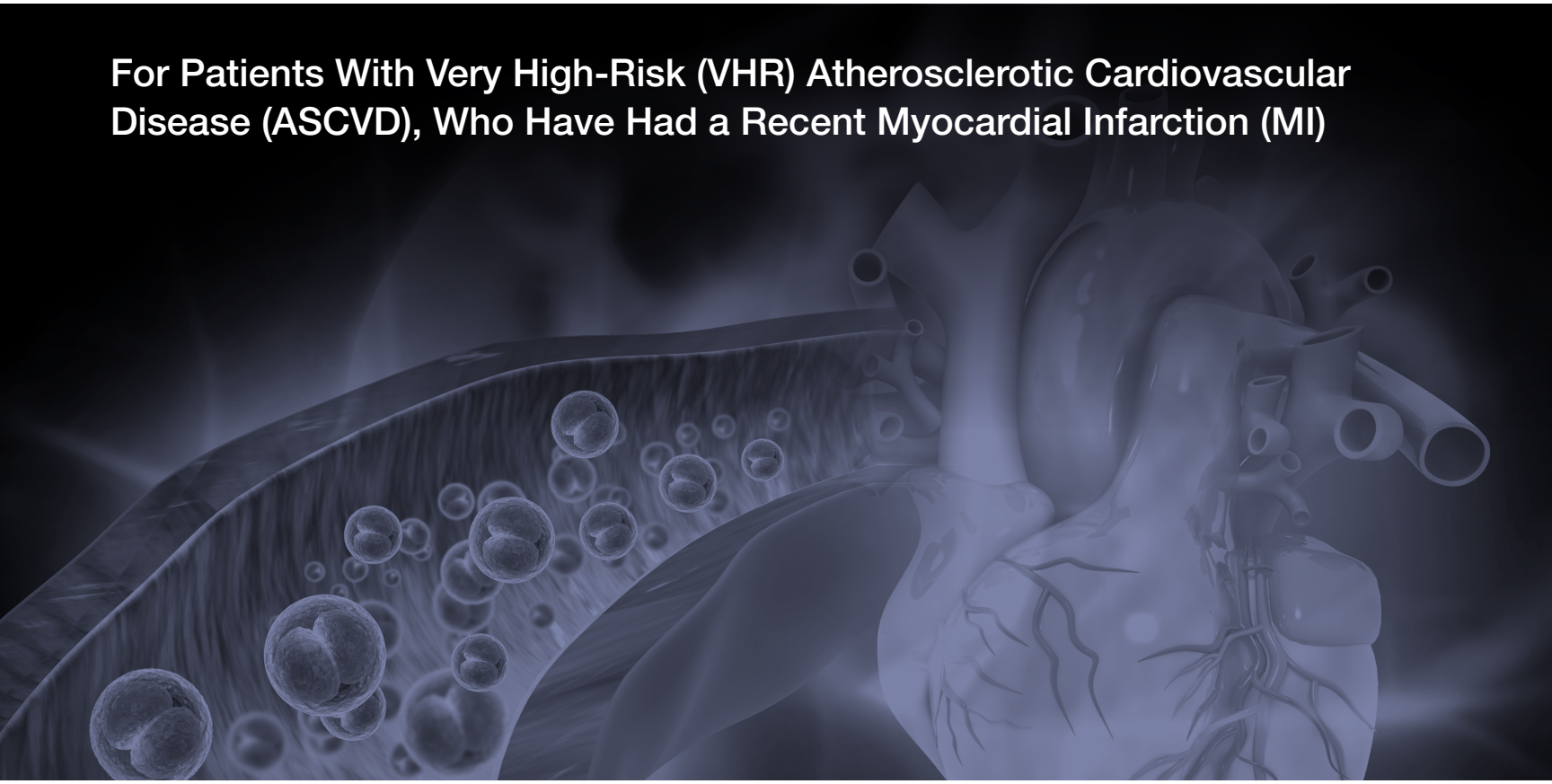
Other interior pages: 8 1/2" x 11"
.125" bleed

For Health Systems Using Epic®

CV RISK MANAGEMENT:

Using EHR SmartSets, SmartTools, Flowsheets, and Discharge Summaries to Support Documentation and Treatment of Patients With Cardiovascular Risk

For Patients With Very High-Risk (VHR) Atherosclerotic Cardiovascular Disease (ASCVD), Who Have Had a Recent Myocardial Infarction (MI)



EHR=Electronic Health Record

STANDARDIZE

Use SmartSets to group standard orders together and promote consistent care

SIMPLIFY

Use SmartTools and Flowsheets to simplify authorizations and documentation

INFORM

Use Discharge Summaries to share clinical and educational information for follow-up care

AMGEN®

Table of Contents

About This Guide

Amgen has developed this overview guide for educational purposes only, to assist health systems in configuring their Epic® capabilities to help improve outcomes for very high-risk atherosclerotic cardiovascular disease (VHR ASCVD) patients who have had a myocardial infarction (MI).

This resource provides insights and examples to help implement automated EHR functionalities that can help standardize and simplify health system protocols for treatments and follow-up care for VHR ASCVD patients who have had an MI. It does not constitute guidance for medical advice or treatment.

Important Reminders:

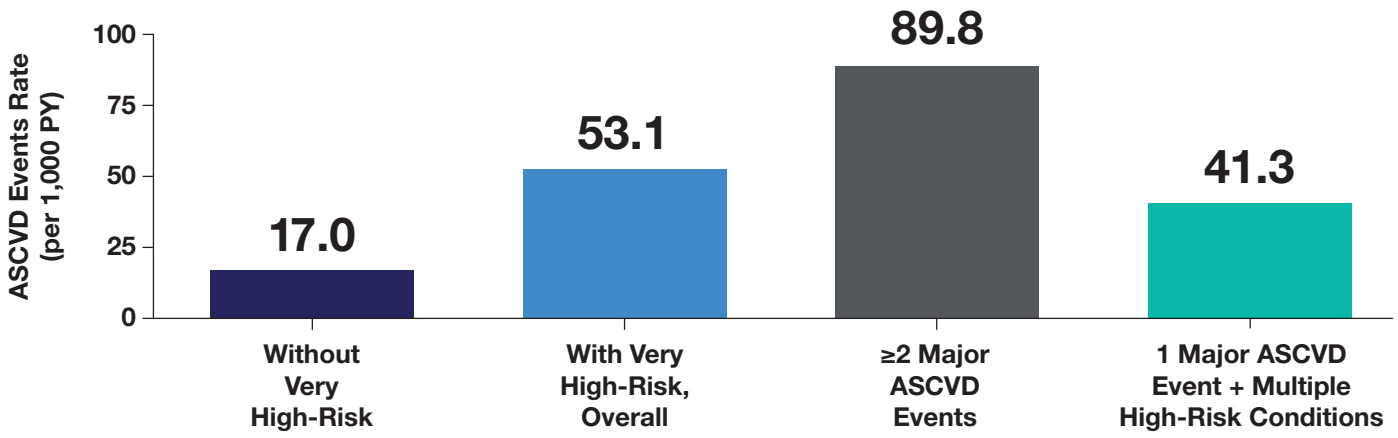
- The information listed in this resource is based upon Epic's® 2022 version
- Functions and features may change as new software versions are released
- This resource is meant to serve as summary information only and should not replace detailed instructions provided to you by your internal or external EHR support resources
- Screen images shown within represent hypothetical screens in Epic®
- Amgen makes no claims or warranties about the applicability or appropriateness of this information
- Amgen does not endorse specific EHR systems

See Glossary of Terms for Epic®.

Millions of Americans Have VHR ASCVD[1] and Are at Higher Risk for Recurrent Cardiovascular (CV) Events,[2] Yet They Are Undertreated According to 2018 AHA/ACC/Multi-Society Guideline[3,4]

Patients With VHR ASCVD Are at Higher Risk for Recurrent CV Events Compared to Non-VHR ASCVD Patients[2]

Among patients with VHR ASCVD, those with multiple major ASCVD events had the highest risk of further ASCVD events[2,*]



The ASCVD event rate was 3 times higher among those who met the definition of VHR in the 2018 ACC/AHA/Multi-Society Guideline than for those who did not meet this definition.[2,*]

~43% of ASCVD patients are considered very high-risk.[5]

*Analysis of 27,775 US adults with a history of ASCVD from the MarketScan database (Truven Health Analytics, IBM Watson Health). A history of ASCVD was defined as a history of myocardial infarction (MI), stable angina, unstable angina; previous coronary artery bypass grafting (CABG) or percutaneous coronary intervention (PCI); ischemic stroke, transient ischemic attack, carotid endarterectomy, carotid, vertebral, or basilar stenting; peripheral artery disease (PAD); artery aneurysm, or endovascular stent graft placement. All available claims prior to January 1, 2016, were used to define very high ASCVD risk. Consistent with the 2018 ACC/AHA blood cholesterol guideline, a very high ASCVD risk was defined as a history of multiple major ASCVD events or 1 major ASCVD event in addition to multiple high-risk conditions.[2]

The 2018 ACC/AHA/Multi-Society Guideline Recommends Reducing CV Risk by Optimizing LDL-C Management in VHR ASCVD Patients[3]

In patients with VHR ASCVD, the guideline recommends a threshold of LDL-C ≥70 mg/dL. For some patients, non-statin therapies may be needed to achieve this LDL-C level.[3]

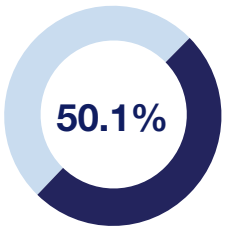
The 2022 ACC Expert Consensus Pathway to Address Gaps in LDL-C Management Lowers LDL-C Thresholds[6]

The 2022 ACC Consensus Pathway recommends a lower LDL-C threshold for ASCVD patients:

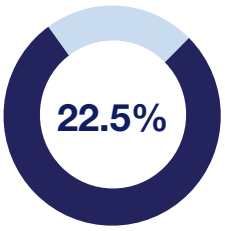
- ≥ 55 mg/dL for adults with ASCVD at very high-risk†
- ≥ 70 mg/dL for adults with ASCVD, not at very high-risk[6]

Though the Relationship Between LDL-C Reduction and CV Risk Management Is Clear for ASCVD Patients, Few Receive Guideline Recommended Treatment[4]

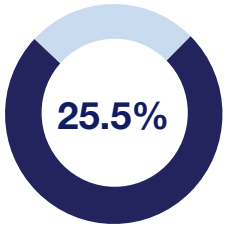
In a retrospective cohort study of pharmacy and medical claims data from a commercial health plan including 601,934 patients with established ASCVD, significant clinical inertia was shown. Statin use on an index date of January 31, 2019 was evaluated:[4]



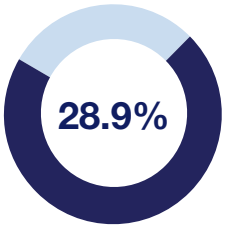
Only **50.1%** of ASCVD patients are prescribed a statin at all



Only **22.5%** are appropriately prescribed a high intensity statin



Only **25.5%** of patients had been tested for LDL-C in the past 12 months



Only **28.9%** of those tested met the current recommended goal of ≤70 mg/dL

†Nonstatin pharmacologic options are considered after optimizing lifestyle, controlling ASCVD risk factors, adhering to guideline-recommended statin therapy (and increasing to high-intensity statin if not already taking), and evaluating for statin intolerance.[6]

EHR Capabilities Can Standardize and Simplify Care Which May Help Improve Outcomes for VHR ASCVD Patients Who Are Undertreated

- Clinical Champions can support the implementation of health system-wide EHR functions to help standardize and simplify care for VHR ASCVD patients who have had an MI
- Population health programs using EHRs can successfully identify high-risk ASCVD patients and significantly improve guideline-directed LDL-C control[7]

STANDARDIZE

Use SmartSets to group standard orders together and help promote consistent care.

SmartSets help promote consistency of care and efficiency with ordering by allowing healthcare providers to select multiple orders at once.

SIMPLIFY

Use SmartTools and Flowsheets to simplify authorizations and documentation.

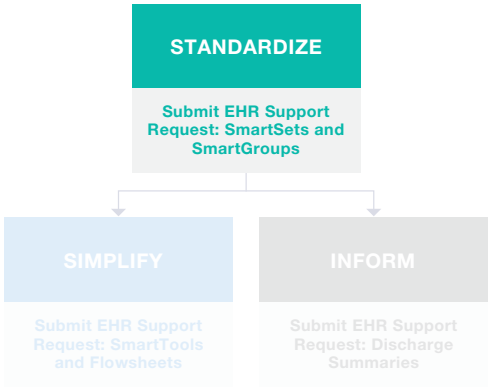
SmartTools include SmartPhrases, SmartText, and SmartLinks that can be configured to pull-in predetermined content and clinical data and simplify the completion of Chart Notes. SmartTools may also be used for authorization forms and letters. Flowsheets provide a visual summary of a patient's progress over time.

INFORM

Use Discharge Summaries to share clinical and educational information for follow-up care.

It is important to share clinical information and medical history of the patient's hospital stay with their primary care provider. Discharge Summaries can include follow-up care instructions and patient education materials.

Role of SmartSets



SmartSets

A SmartSet provides a list of common orders grouped together for easy selection, usually listed by diagnosis. SmartSets enable healthcare providers to select multiple orders at the same time and help promote consistency of care and efficiency with ordering.

SmartSets comprise groups of orders, called SmartGroups. A SmartSet can be updated by editing SmartGroups to add, modify, or delete items. An update to a SmartGroup is reflected in SmartSets in which the SmartGroup is included.

Updating existing or adding new SmartSets and SmartGroups is typically managed by the Health System EHR Support Team using an established process for requesting, approving, and implementing EHR changes. Clinical decision makers, along with their EHR Support team determine what categories, as well as, what specific items are included in the SmartSets used by the health system.

This guide encompasses both creating a new SmartSet and SmartGroup and updating an existing SmartSet and SmartGroup.

SmartSet Example

Order Set — Clear All Orders

Coronary Artery Disease Order Set — Remove Order Sets

- **Ad Hoc Orders**
- **Diagnosis**
  - Hyperlipidemia LDL goal <70 [E78.5]
  - Hyperlipidemia, unspecified [E78.5]
  - Familial hyperlipidemia [E78.49]
  - Essential familial hypercholesterolemia [E78.01]
  - Hyperlipidemia [E78.5] - select a sub-type
- **Treatment Options**

LABS

- **LABS (Now)**
  - LIPID PROFILE
  - LIVER FUNCTION PANEL
  - COMPREHENSIVE METABOLIC PANEL
  - ALANINE AMINOTRANSFERASE (ALT) CREATINE KINASE-CPK
- **LABS (In 3 Months)**
  - LIPID PROFILE
  - LIVER FUNCTION PANEL
  - COMPREHENSIVE METABOLIC PANEL
  - ALANINE AMINOTRANSFERASE (ALT) CREATINE KINASE-CPK
- **LABS (In 6 Months)**
  - LIPID PROFILE
  - LIVER FUNCTION PANEL
  - COMPREHENSIVE METABOLIC PANEL
  - ALANINE AMINOTRANSFERASE (ALT)CREATINE KINASE-CPK

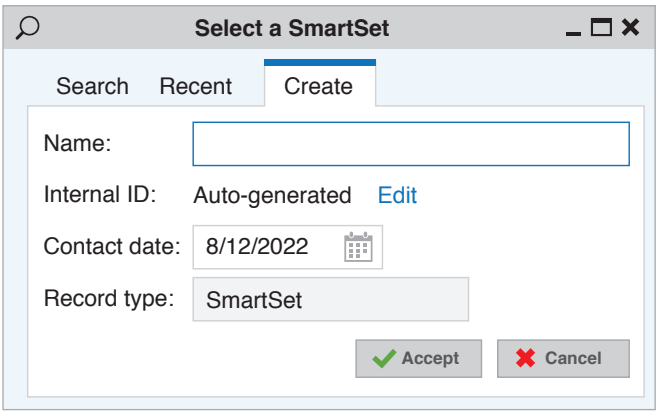
REFERRAL

- Referral to Cardiology Heart Health Clinic
- Referral to Nutrition
- E-communication with cardiology

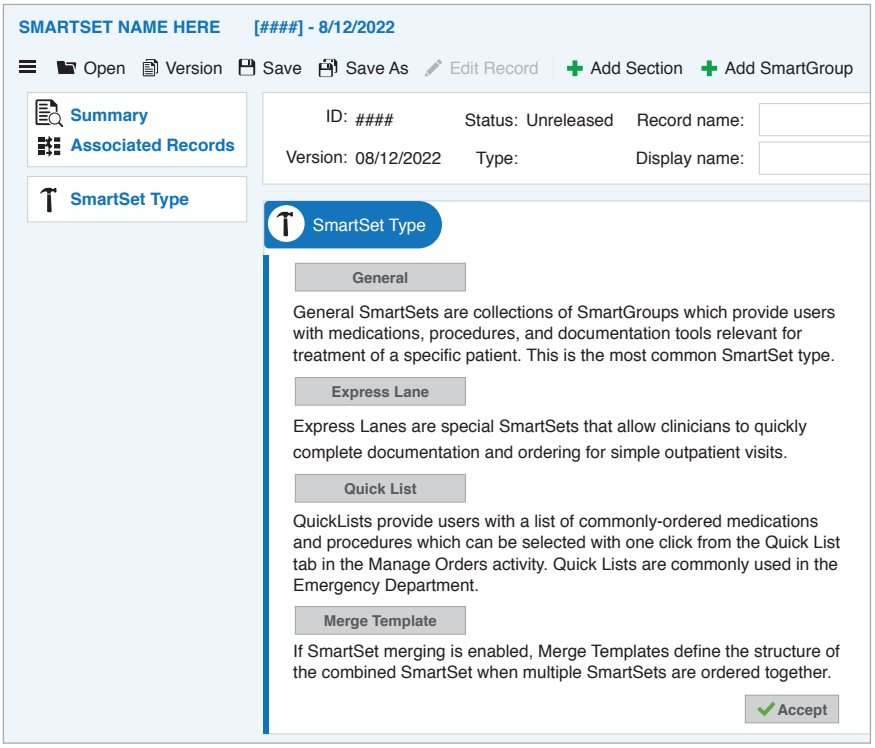
Example of a SmartSet.

Creating a SmartSet

1. From **Chart Search**, select **SmartSet**.
2. Select the **Create tab**. Enter a **Name** according to organizational standards, such as Secondary Prevention of MI.
3. Set the **Internal ID** option per organization standards.
4. Select **Accept**, then select **Accept**
5. Select the SmartSet type **General**; select **Accept**. again.
6. The SmartSet Display Name defaults to the SmartSet record name. Change the **Display Name** as appropriate for end users' recognizability, as appropriate.
7. Select **Save**.



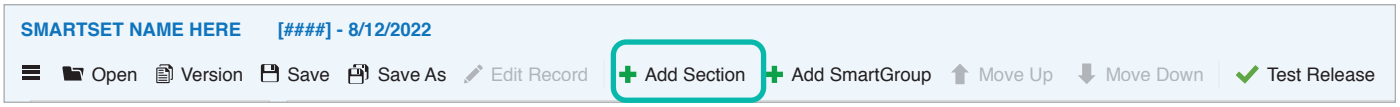
Example of creating a new SmartSet.



Example of setting the SmartSet options.

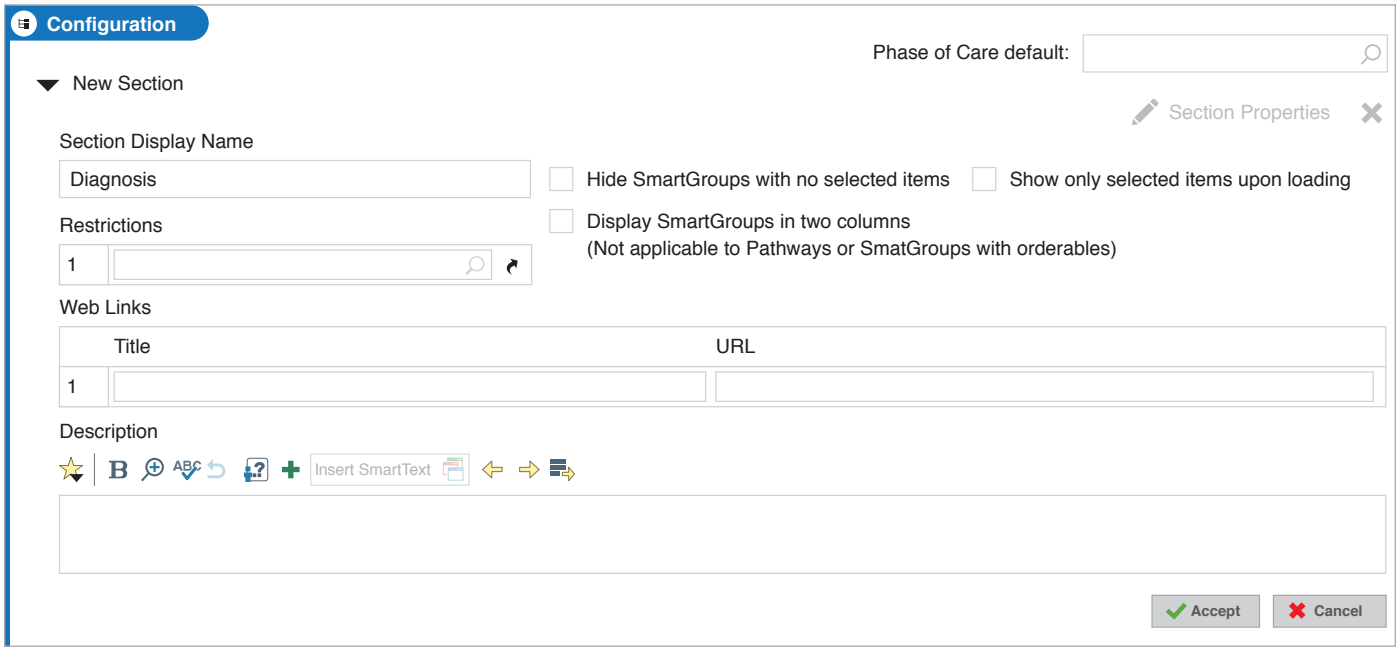
Adding SmartGroups to a SmartSet

1. From the toolbar, select **Add Section**.



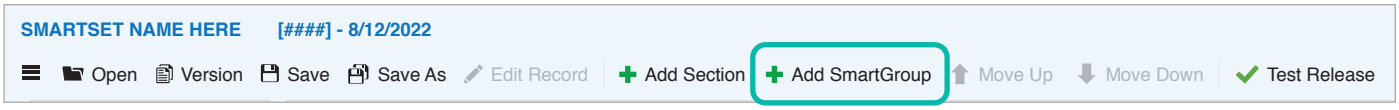
Example of Add Section menu option.

2. In the section **Configuration**, enter a **Name**, such as Diagnosis. Select options and restrictions.
3. Select **Accept**.



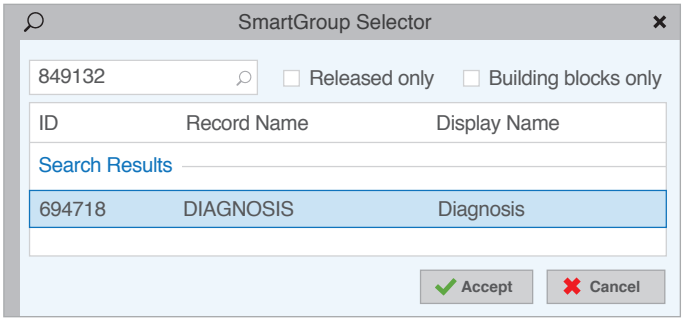
Example of the Section Configuration.

4. Once the section is created, select **Add SmartGroup**.

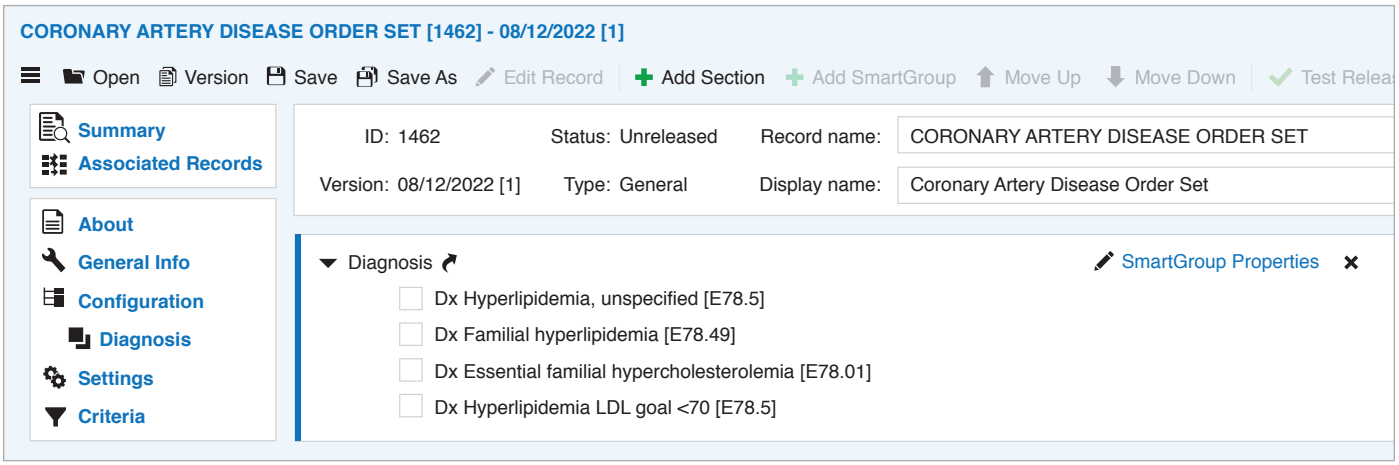


Example of the Add SmartGroup menu.

5. In the SmartGroup Selector, enter **ID** or name from the build for appropriate SmartGroup.
6. Select the SmartGroup, then select **Accept**.



Example of the SmartGroup Selector.



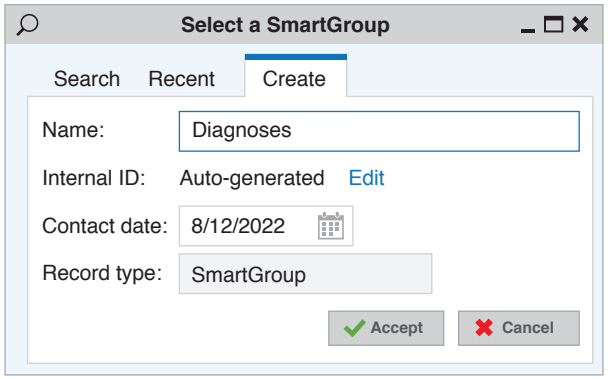
Example of Coronary Artery Disease Diagnosis SmartGroup.

7. Repeat steps 1 – 6 to add desired sections and SmartGroup.

   Note: A Section may contain multiple SmartGroups.

Creating a New SmartGroup

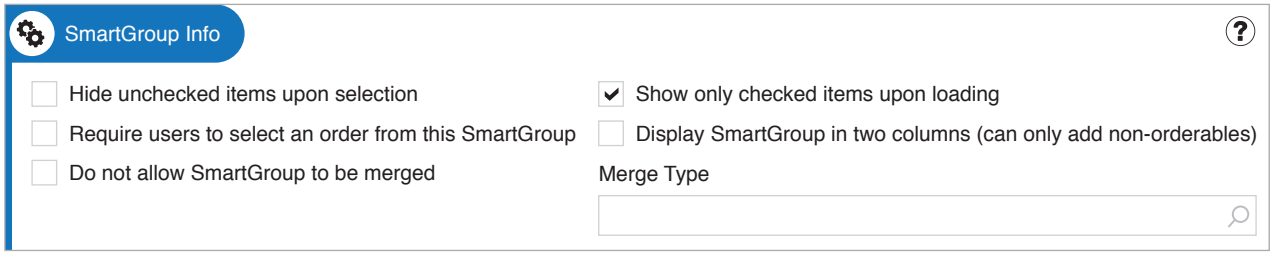
1. From the left-side Table of Contents options, select **SmartGroup Editor**.
2. Select the **Create** tab; enter a **SmartGroup Name**, for example, **Diagnoses**.
3. Select **Accept**, then select **Accept** again.



Example of creating a SmartGroup.

4. In the **About** tab, enter relevant information related to the build and version.
5. In the **General Info** tab, add information related to how the SmartSet should work, including synonyms, descriptions, and appropriate web-related information. Define whether the section is single- or multiple-select. Set appropriate defaults.

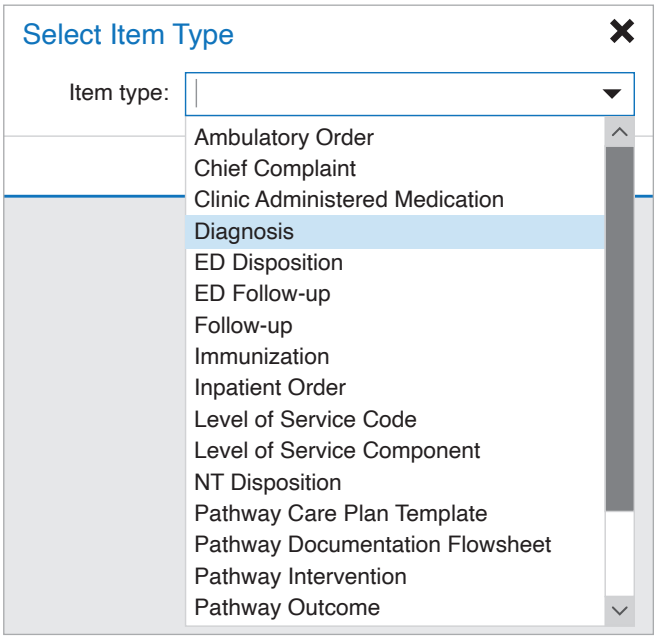
6. From the **SmartGroup Info** tab, set group selectivity requirements and the display columns. Defaults are appropriate.



Example of a SmartGroup Info tab.

7. From the **Criteria** tab, set visibility qualifications for displaying the items appropriately to the end user.
8. Select the **Configuration** tab to define the orders to be included in the group.
9. Select **Add item** from the toolbar.
10. From the **Item Type** dropdown, select the appropriate Item type; for example, **Diagnosis**.
11. Select **Accept**.

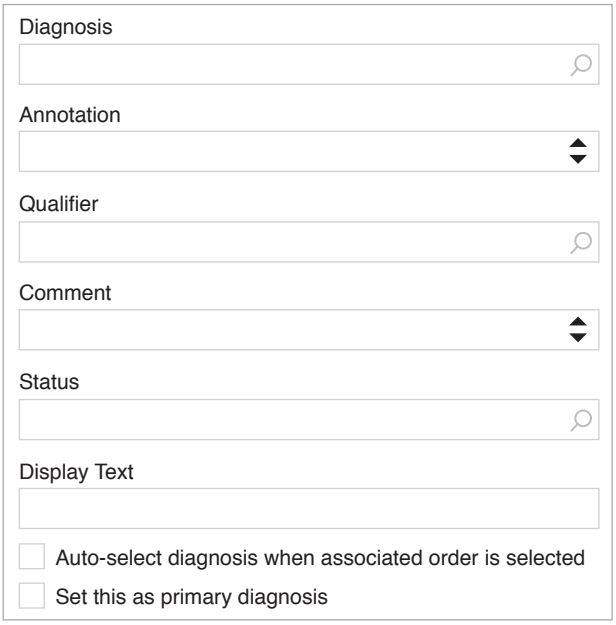
Example of setting Criteria User Restrictions.



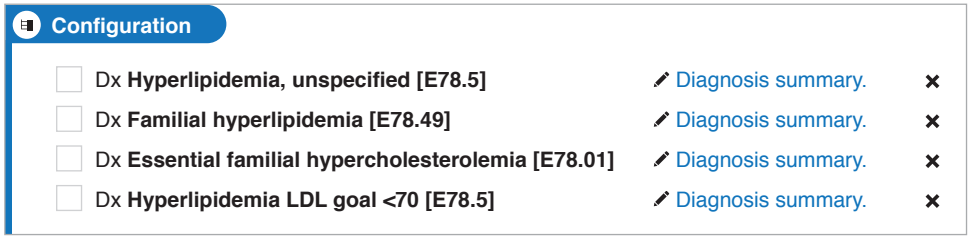
Example of the Item Type selection.

12. Search for desired diagnoses and set preferred defaults including applicable annotations, qualifiers, comments, status, and display texts for the end users. Check options for auto-select based on order selection or designate as the primary diagnosis.

13. Select **Accept**.

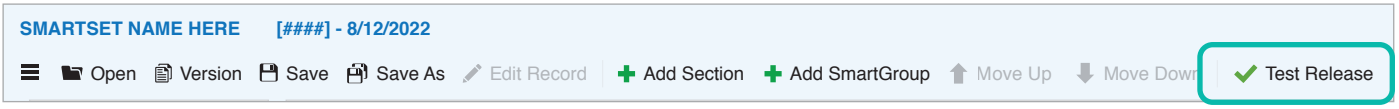


Example of Selecting Item details.



Example of the Configured items.

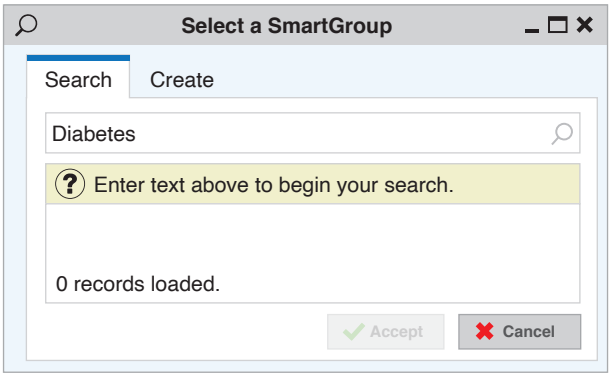
14. When the group is completed, select **Test Release** to test the group.



Example of a SmartSet build menu.

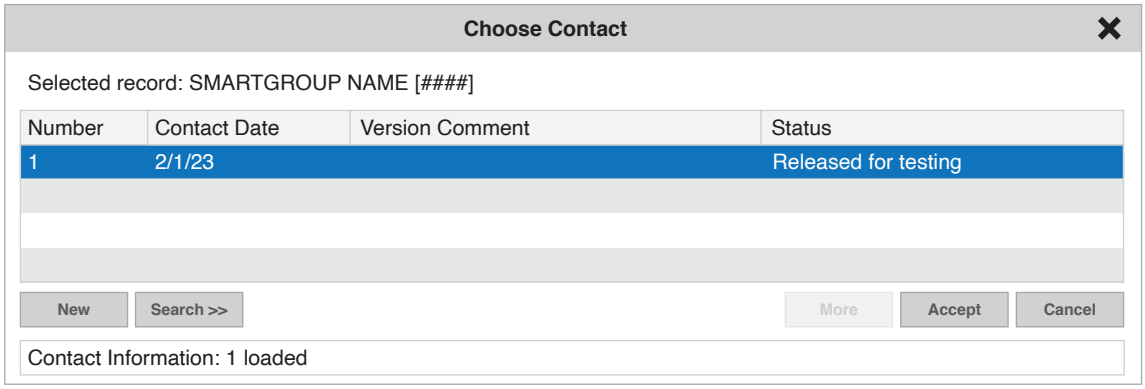
Adding Orders to an Existing SmartGroup to Update the SmartSet

1. From Chart Search, select **SmartGroup**.
2. Search for and select the **SmartGroup** to be modified.

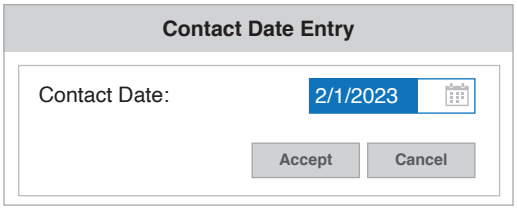


Example of Selecting a SmartGroup.

3. Select **Accept**, then click **New** to create a new version.



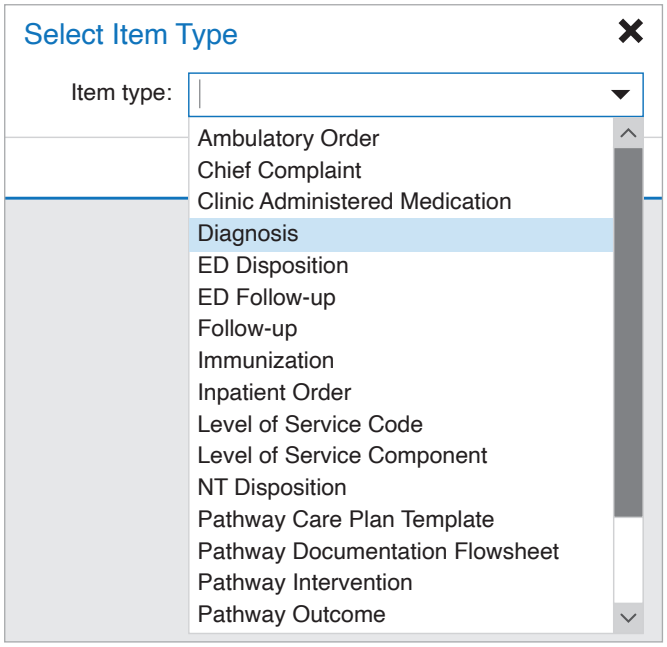
4. Select **Accept** to update the **Contact Date** and create the new version.



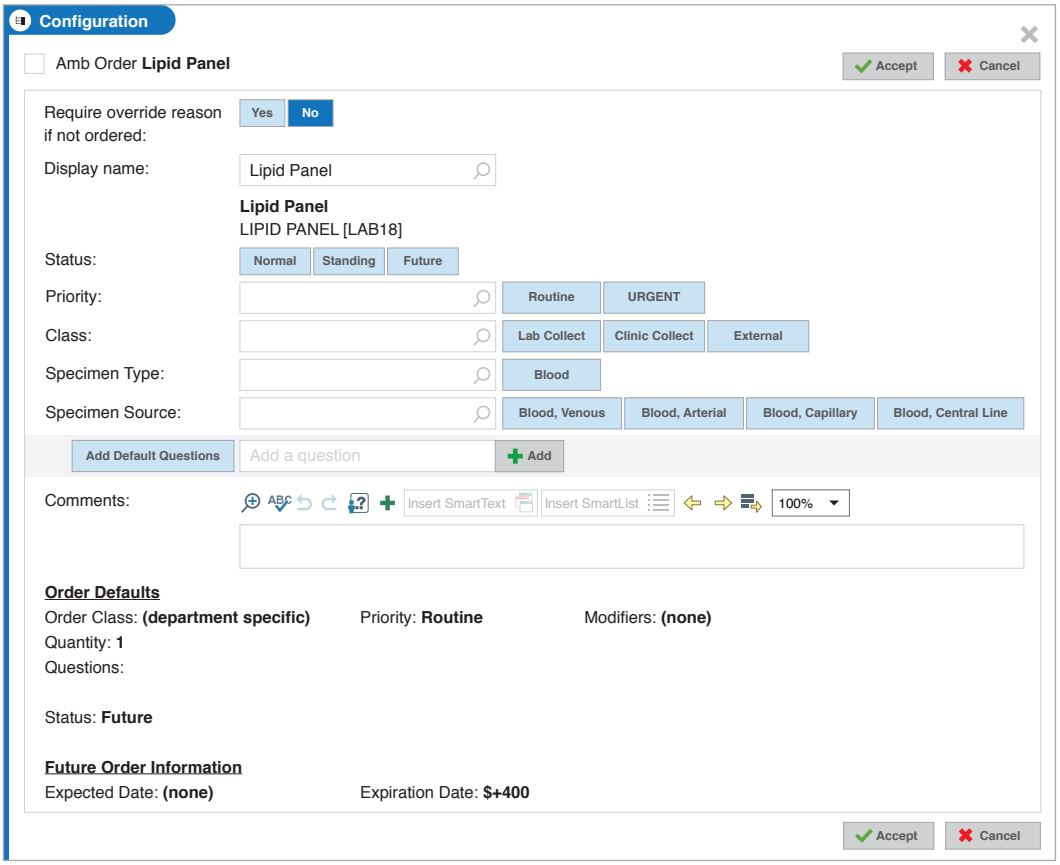
Example of creating a new version.

5. Select **Add item** from the toolbar.
6. From the **Item Type** dropdown, select the appropriate Item type.
7. Search for and select the order(s) to be added. Add appropriate details.

   (See Appendix for examples of appropriate Orderable Items.)



Example of the Item Type selection.



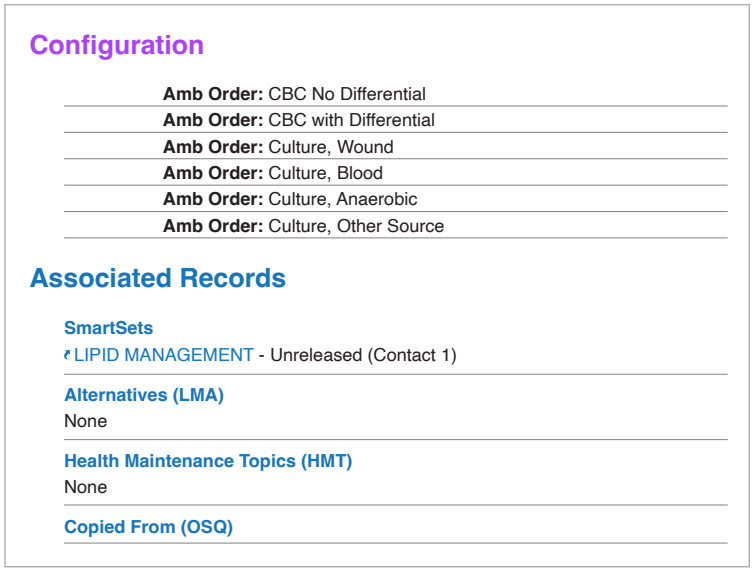
Example of adding lab order details.

8. Select **Accept**.

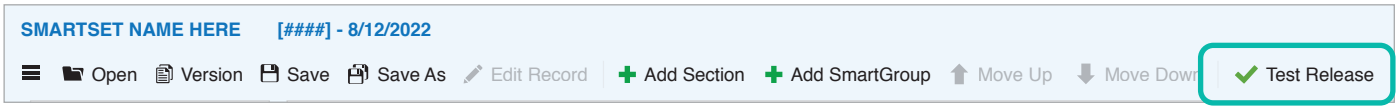
9. Review the **SmartGroup Associated Records** to ensure the update is appropriate in all SmartSets in which the SmartGroup is used.

10. When the group update is completed, select **Test Release** to test the new group.

11. Select **Release** for the update to be visible to end users.



Example of Associated Records for all SmartSets.

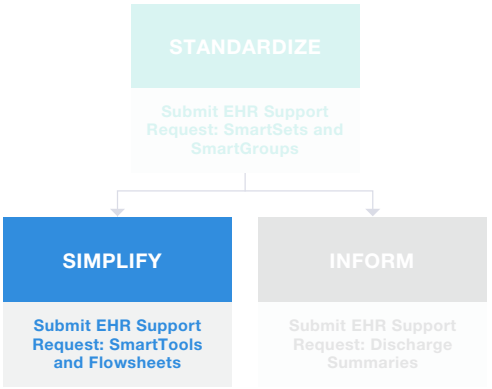


Example of a SmartSet build menu.

Including Additional SmartGroups

1. Repeat the above steps in **Building a SmartGroup** to create each new SmartGroup. *(See Appendix for examples of appropriate Orderable Items).*

Use of SmartTools



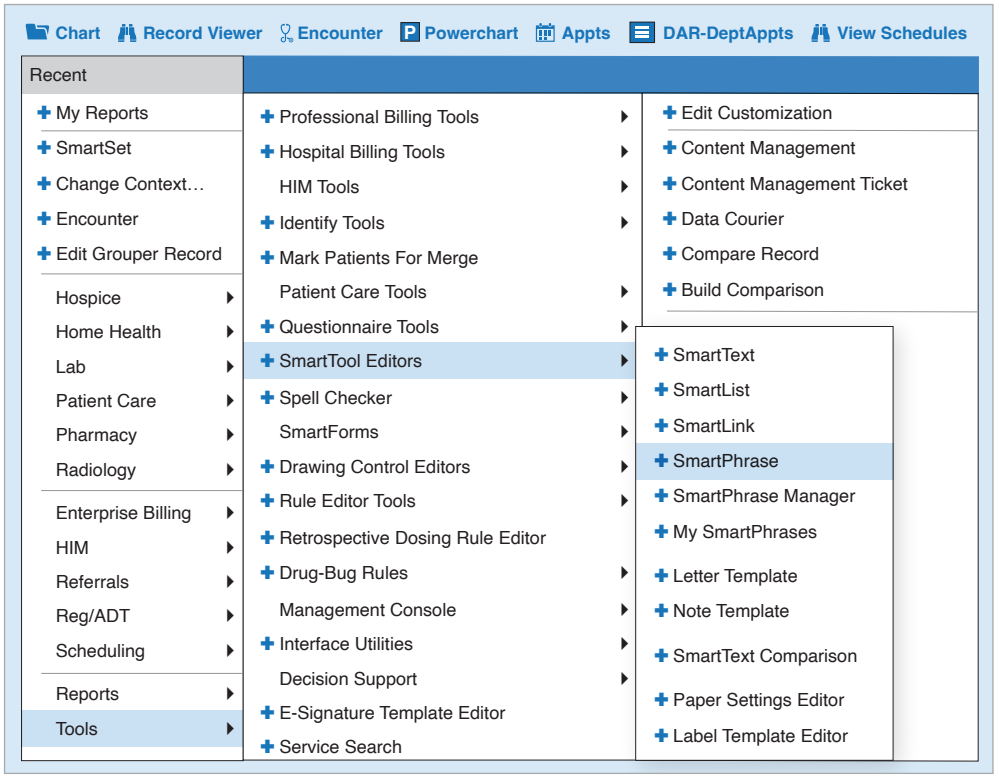
This section of the Guide outlines how to use SmartTools to enhance visit documentation or to create letters. SmartTools consist of SmartPhrases, SmartText, and SmartLinks. The criteria can be changed to align with the healthcare organization's guidelines.

SmartTools can be used to easily insert information such as lab results and medication history into visit notes.

Letter Templates including SmartLinks and SmartLists are used to create a pre-formatted letter as an example. The same features can be used to create any type of correspondence, pulling in clinical data from the patient's chart.

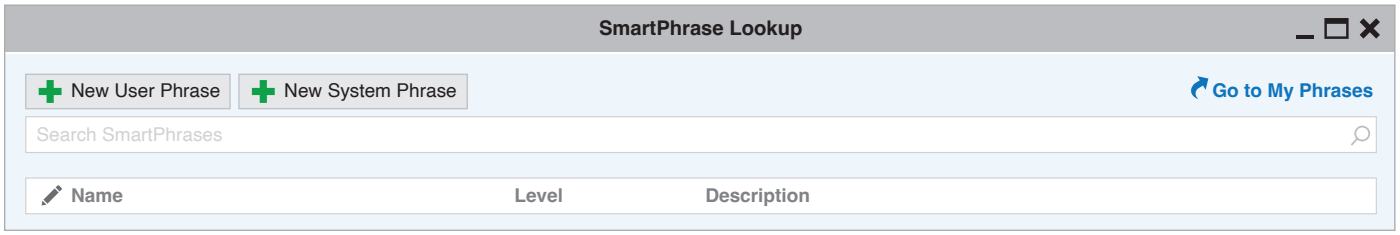
Create SmartPhrases for Visit Notes

1. Access the SmartPhrase builder via Epic> **SmartTool Editors** > **SmartPhrase**



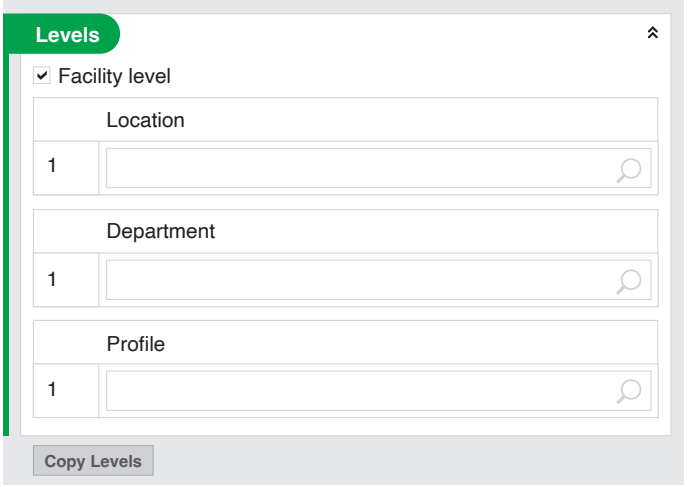
Example of navigation to SmartPhrase Setup

2. Select **New System Phrase**



Example of New System Phrase selection

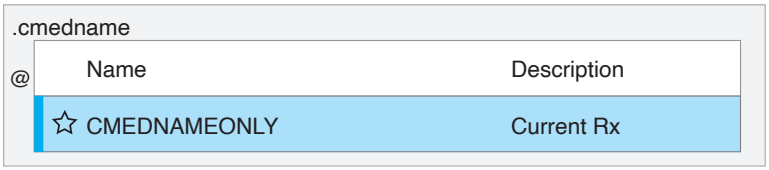
3. Type name for your new SmartPhrase, no spaces allowed.
4. Add a description if desired.
5. Change any of the additional options as appropriate.
6. Add a synonym to enable easier searching for the new System Phrase.
7. In Levels options set up restrictions as to where and by whom the SmartPhrase will be available to use.



Example of Levels selection

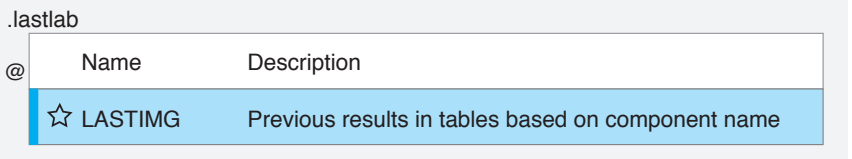
8. In the text area add data that is desired to be populated from the patient's chart. For example type .cmednameonly to display the current medication list with only the name. Use .lastlab[LDL] to display the patient's most recent LDL-C result and the Lab (LRR) component name.

   Note: Utilize the appropriate .lastlab code for your organization.



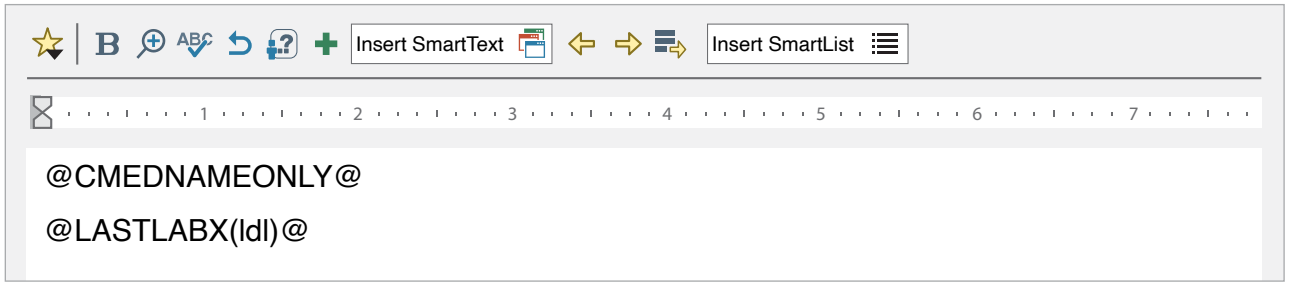
Example of adding Medications data

9. Select **Save** after all new SmartPhrases have been added.

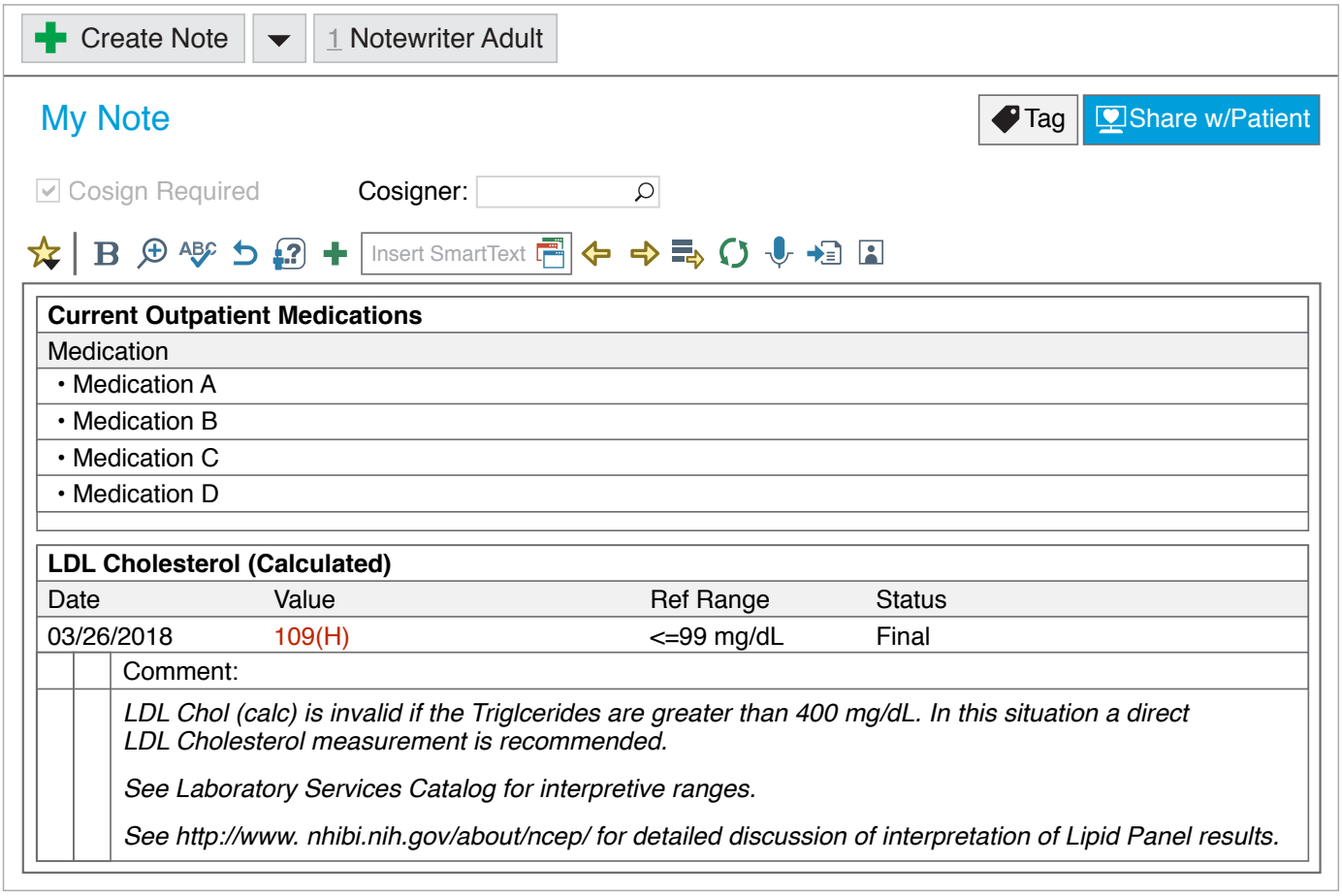


Example of adding Lab Results data

10. When creating a visit note, use the appropriate code for each of the newly created SmartPhrases to pull the corresponding data into the visit note.



Example of adding SmartPhrases to the Visit Note



Example of Visit Note when SmartPhrases have been used.

Sample Letter

Physician Letterhead

[Addressee]
[Address Line 1]
[Address Line 2]

RE: Patient Name:_____
Policy ID:_____
Policy Group:_____
Date of Birth:_____

[Date]

Dear [@PATIENTNAME@]

I am writing this letter to share your most recent lab results.

- Current Labs:

  [@CURRENTLABRESULTS@]

Please call my office at [@OfficePhoneNumber@] if any additional information is required.

Sincerely,
[@Physician's Name@]

Sample letter with potential variables.

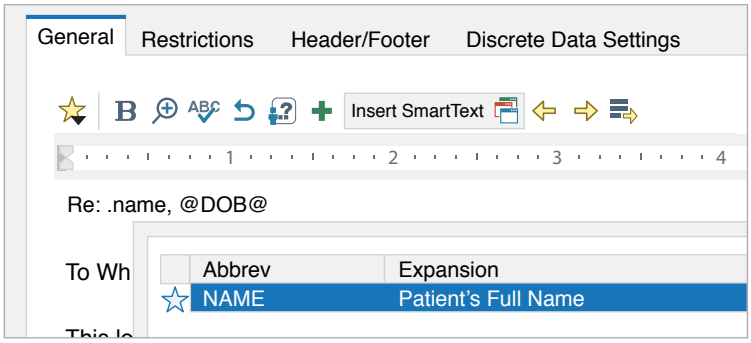
Create a Letter Template With Embedded SmartLinks and SmartLists

1. From **Chart Search**, select **Letter Template**.
2. From the Create Tab, enter a Name for the letter template, such as a Documentation letter of a patient's condition.
3. Allow auto-generated ID or create an ID according to health system convention.
4. Select **Accept**. Then select **Accept** again.

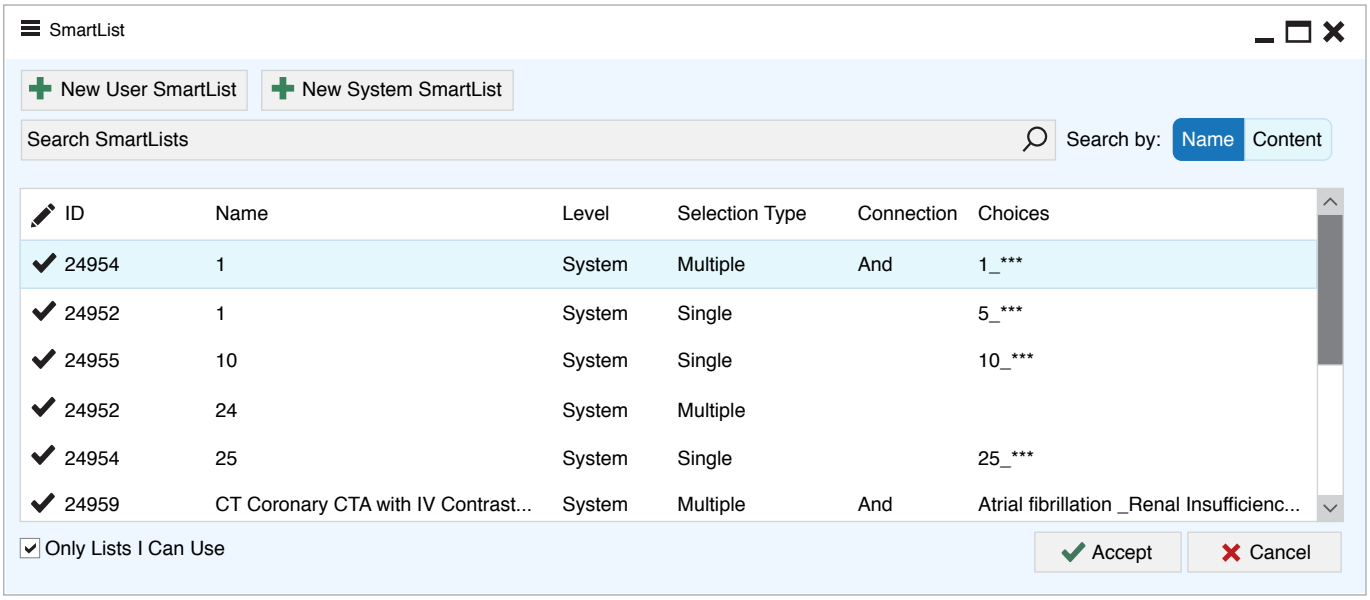
Create a Letter Template With Embedded SmartLinks and SmartLists

5. On the **General** tab, enter text content as requested for the letter, selecting SmartLinks or SmartLists for data to be auto-populated.

6. Insert **SmartLinks** appropriate fields, such as Patient Full Name (for example . name) and Date of Birth (.dob), for data to be pulled from the patient information.



Example of inserting SmartLinks.



Example of a SmartList search.

7. **SmartLists** can be used where clinical data needs to be chosen or selected. From the **Insert SmartLists** panel, search for an existing list. If an existing list is found, choose it, and select **Accept**.

   SmartLists can be used or created for <variables> such as:

   - Patient Medication Reactions
   - List of all Statins tried and failed
   - Number of Statins tried
   - ACS Medical History

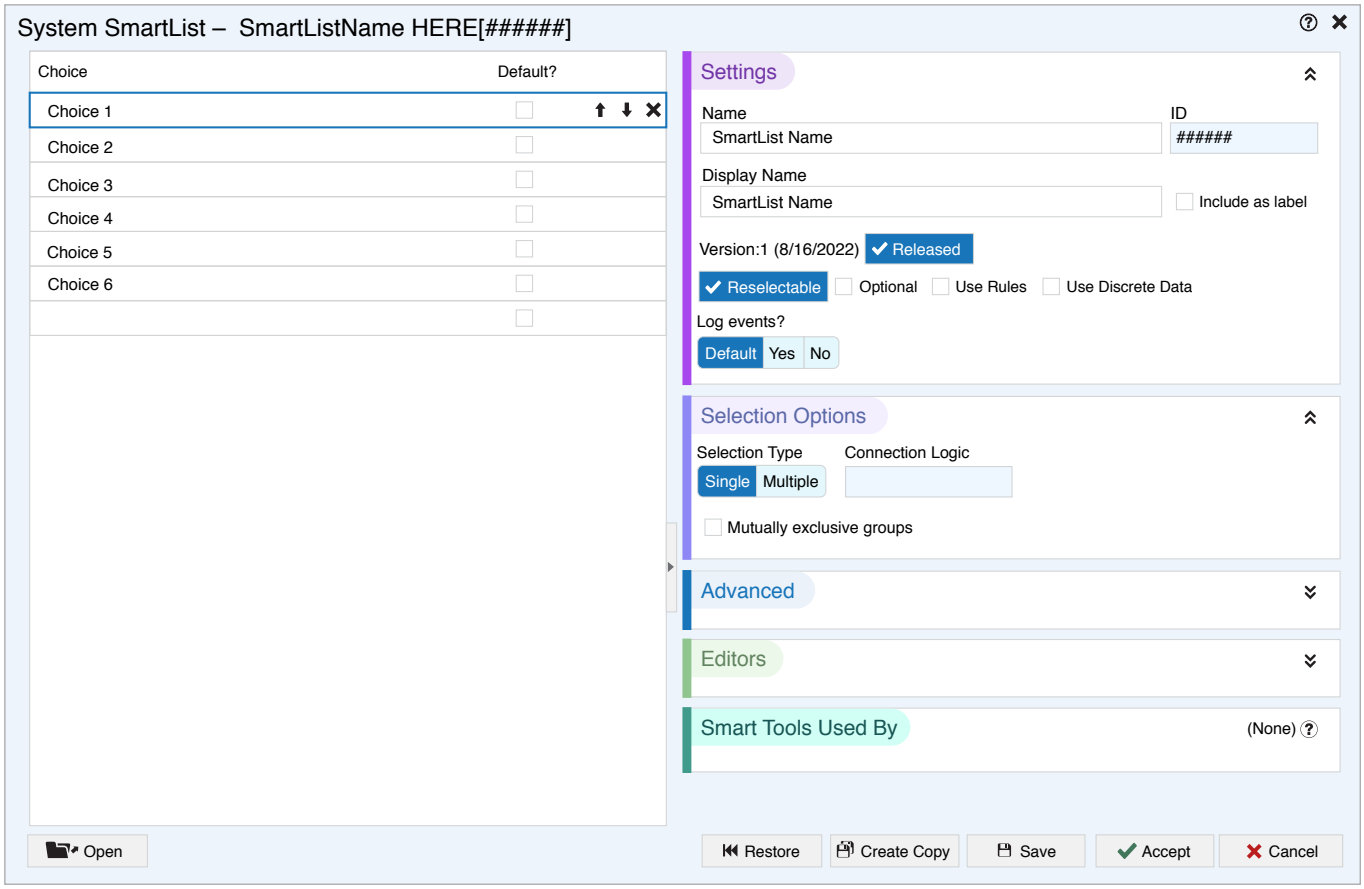
   (See Appendix for examples of appropriate variables)

8. If an appropriate SmartList is not found, select **New System SmartList** to create a system-wide SmartList.

   *Note: Choose **New User SmartList** to create a SmartList for specific users only.*

9. In the SmartList activity, add selection options; note the record ID.

   - Name the SmartList
   - Optionally, add a different display name which displays to the end user
   - Verify or select defaults and options
   - Add selection choices



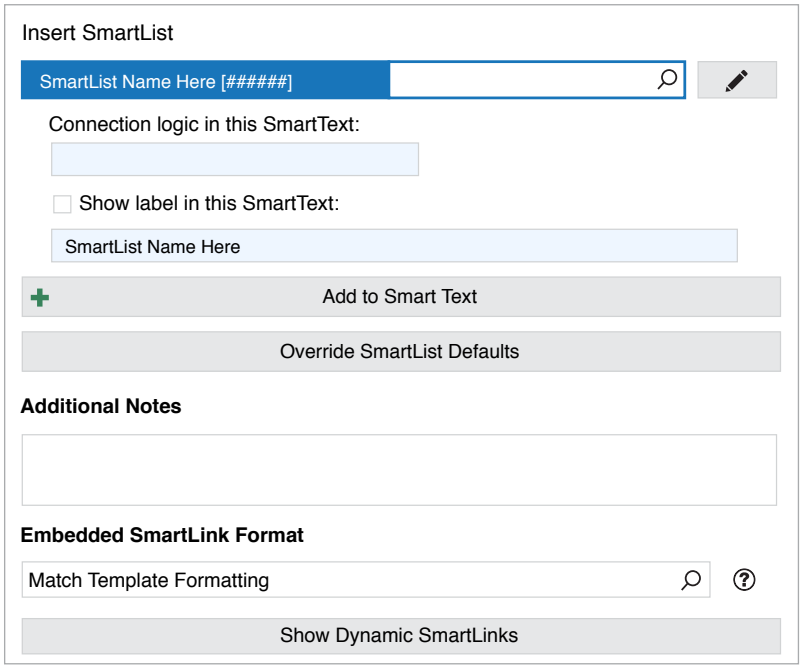
Example of a System SmartList.

10. Select **Accept** to finalize the SmartList.

11. In the letter template window, add the new SmartList to the insert SmartList field and select **Add to SmartText**.

12. Repeat steps 7-12 as needed for additional SmartLists.

    (See Appendix for examples of appropriate variables)



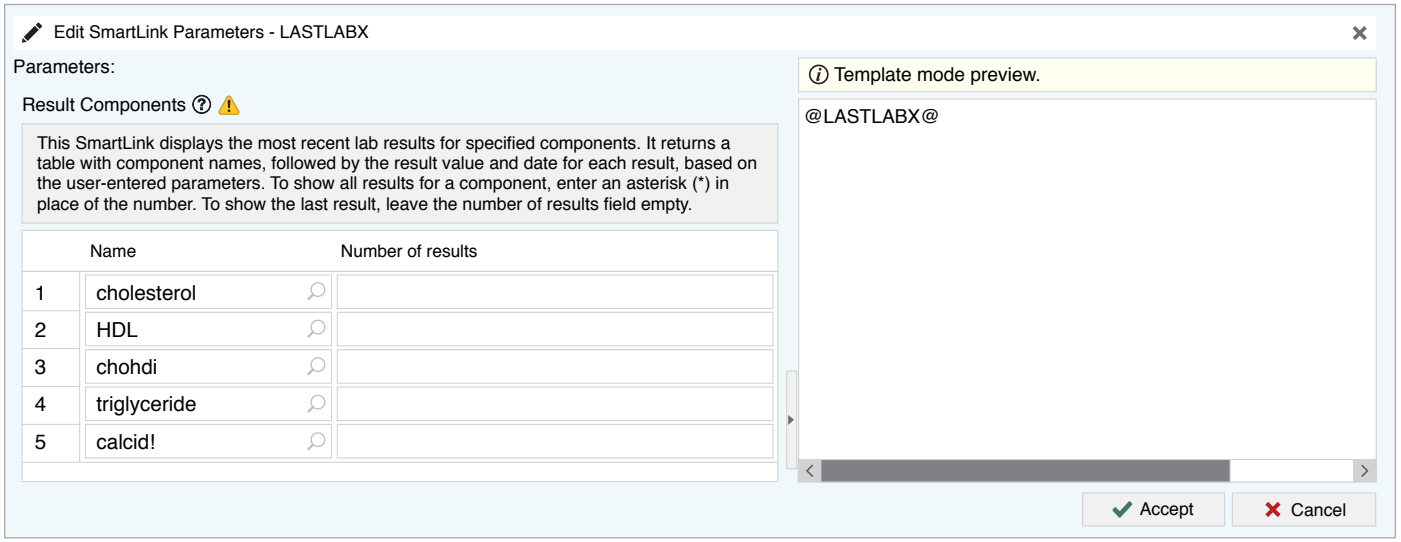
Example of the Insert SmartList window.

Adding Lab Results to the Letter using a SmartLink

1. To include a list of most recent result values for specific tests, in the letter text, enter **.LASTLABX** and press **Enter**.

2. In the **Edit SmartLink Parameters** window, enter each component to be included in the letter.

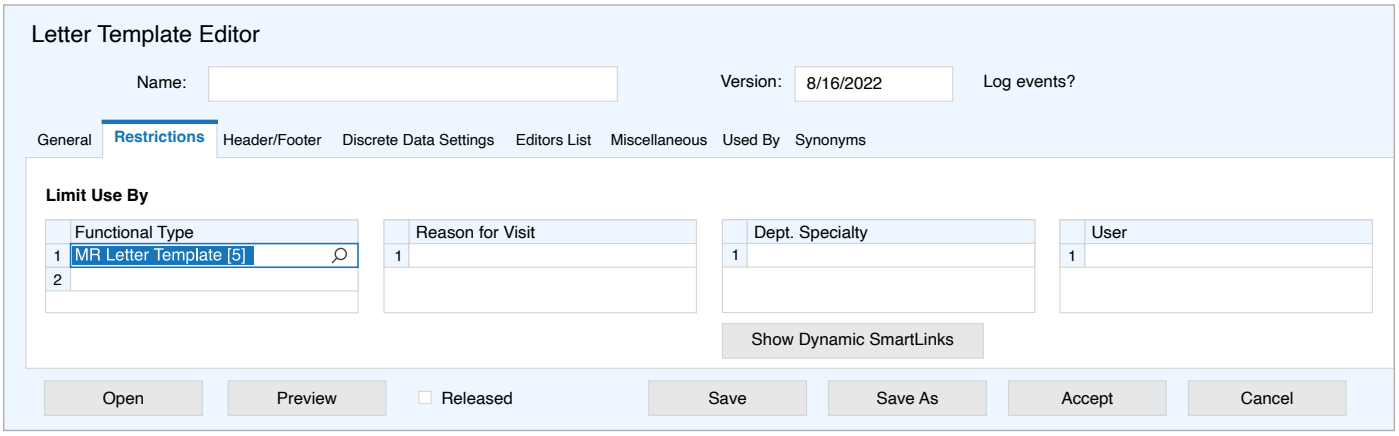
   Note: Component names used in this document are examples and may differ from organization component names for a lab result. Leave the Number of Results field blank to include only the most recent result.



Example of the Edit SmartLink Parameters.

3. Select **Accept**.

4. When the template is completed, navigate to the **Restrictions** tab, and confirm that the **Functional Type** defaults to **MR Letter Template**.

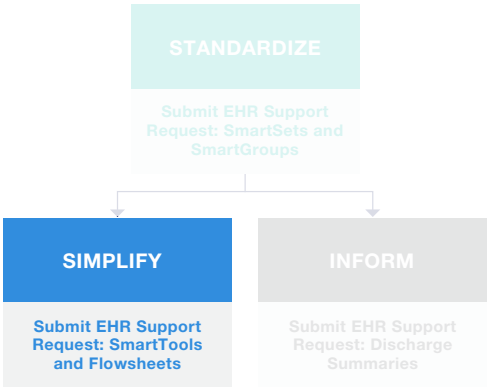


Example of Letter Template Editor.

5. To allow users access to the letter template, from the General tab, check **Released**.

6. Select **Accept**.

Role of the Epic® Review Flowsheet



A flowsheet provides an at-a-glance view of clinical data within the EHR. Multiple types of clinical data can be included in the flowsheet.

Using a flowsheet can provide a visual summary of a patient's progress over time. The summary can be used to identify the need for clinical intervention to ensure appropriate care.

For example, a flowsheet can be created which shows a patient's LDL test results with an overlay of the patient's current medications to monitor the patient's LDL progress.

Flowsheet Example

Rooming | Chart Review | Review Flowsheets | Order Review | Enter/Edit Results | Communications | Immunizations | MAR

Flowsheet Report

Select Flowsheets to View

LDL AND MEDICATIONS [888]

Load More

LDL AND MEDICATIONS	Latest Ref Rng & Units	8/18/2022	8/10/2022	2/26/2021	8/28/2019	10/23/2018	10/31/2016	7/15/2015	1/15/2007
LDL	≤99 mg/dL		137 (H)	131 (H)	123 (H)	136 (H)	91	105 (H)	144 (H)
Medication A									
Medication B									

Abnormal/Panic | Dates in: Columns Rows | Copy to Clipboard | Refresh | Print Flowsheet | Graph Region

Example of Flowsheet with LDL and Medication Data.

Creating a Review Flowsheet

1. Navigate to **Chart Search**, **Edit Flowsheets**.
2. Select the **Create** tab. Enter the flowsheet name in the **Flowsheet Name** field.
3. Select **Accept**, then select **Accept** again.
4. As appropriate, enter a user-friendly name for the flowsheet in the **Display Text** field.
5. Select **Type: Review FS.**

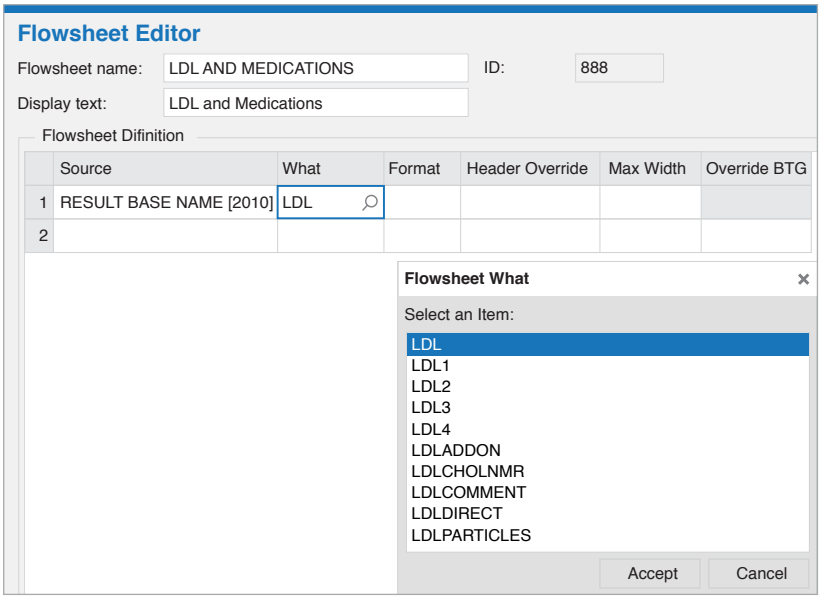
6. In the **Source** column, search for and select **Result Base Name [2010]**.

   Note: Source choices will include the organization's Base Name. It is possible that multiple Source choices will need to be selected.

7. In the **What** column, search for and select the desired component.

8. Select **Accept**.

   Note: Leave all other columns blank.



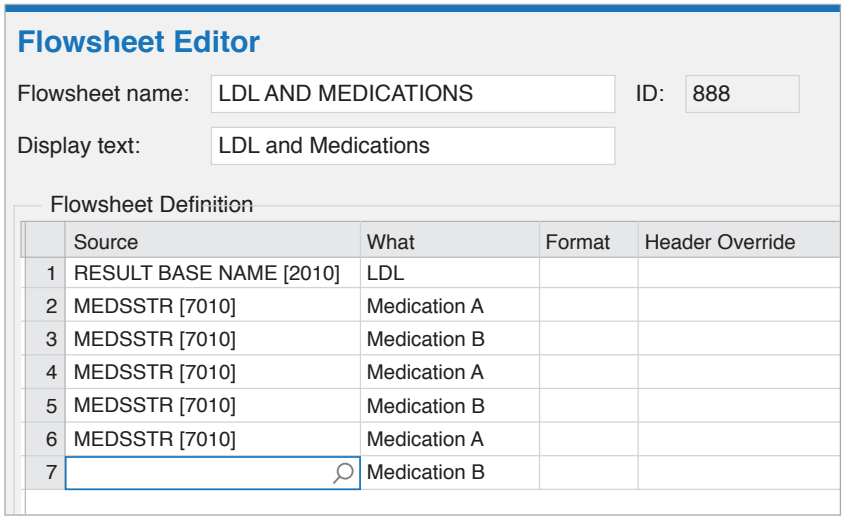
Example of Source Selection for LDL.

9. In the Row 2 **Source** column, search for and select **MEDSSTR [7010]**.

10. In the Row 2 **What** column, search for and select a medication to include in the flowsheet.

11. Add multiple MEDSSTR rows to include other medications, for example, additional strengths or alternative treatments.

    Note: Rows will display in the flowsheet if the patient is taking the medication identified in that row.



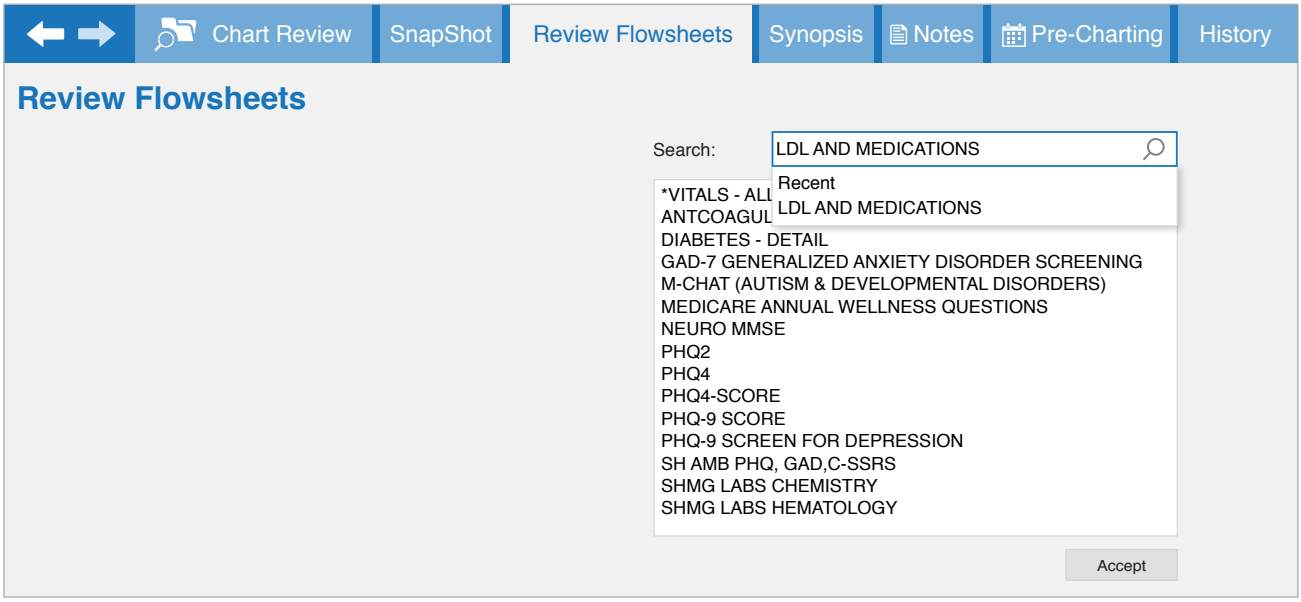
Example of Source selection for medications.

12. After all Source data has been added, select display options (defaults are bolded):
    - Date Order: **Reverse Chronological** (most recent first)
    - Orientation: **Column Dates** (dates display at the top of the graph)
    - Stop after: **Use default** values of 9999
    - Initial load: **Use default** values of blank
    - Release: Use the default value of **No**, until ready to release

    Note: Custom and Setup Code options are not currently used.

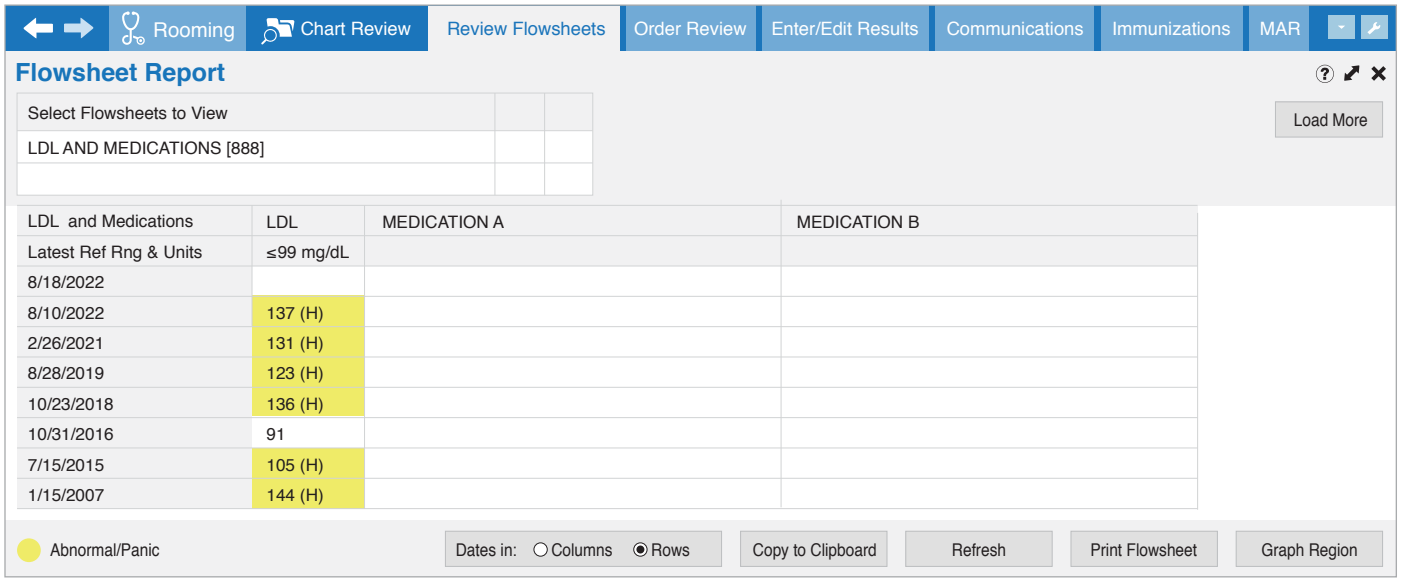
13. Select **Save**.

14. Test the flowsheet.
    - Search for and select a patient with **LDL and appropriate medications**
    - In Chart Search: select **Review Flowsheets**
    - Search for and select the newly created Flowsheet
    - Select **Accept**



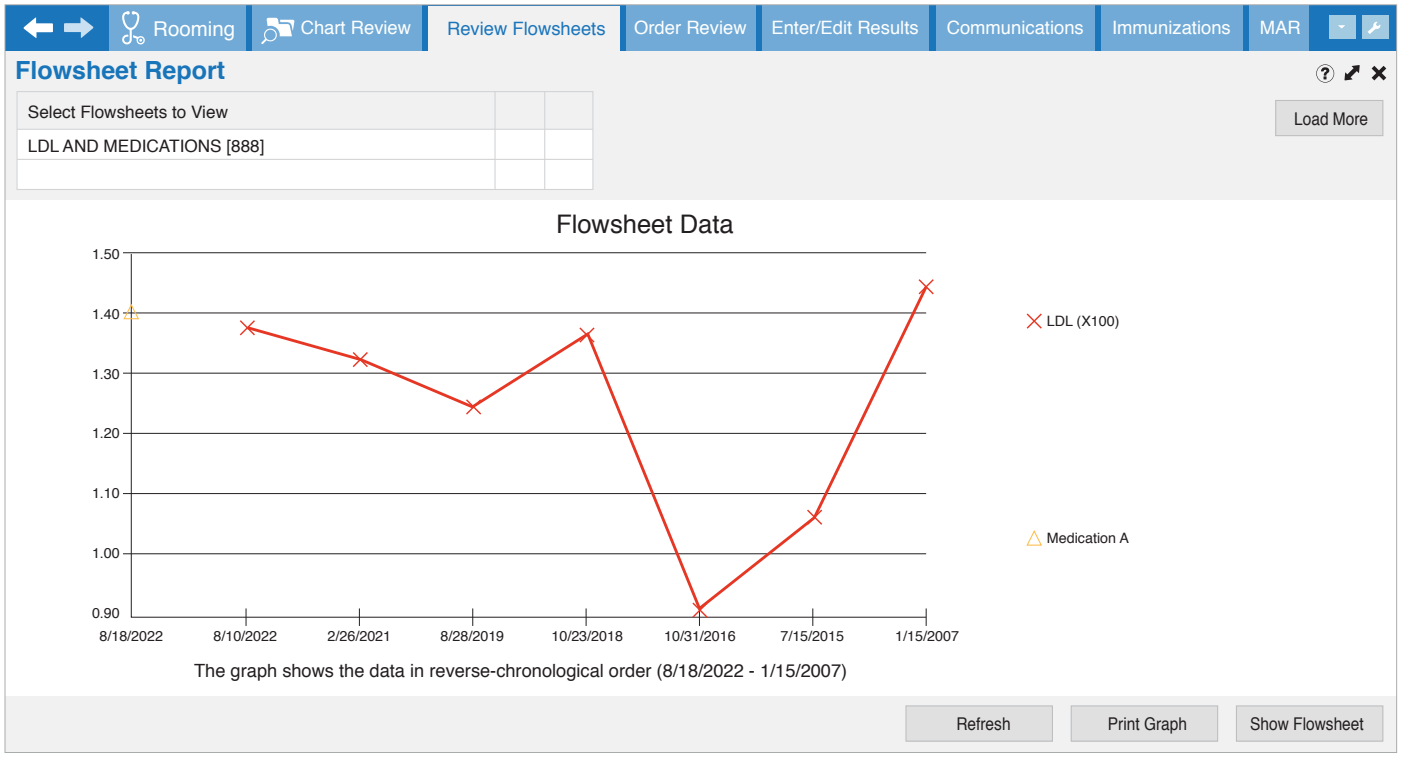
Example of Review Flowsheets in Patient Chart.

15. Review the flowsheet:
    - Data can be copied to clipboard to put into notes
    - Data can be refreshed if more recent data has been added to print the flowsheet
    - Using the **Dates In** option, toggle the data from Columns to Rows
    - Select **Graph Region** to display in a timeline analysis graph



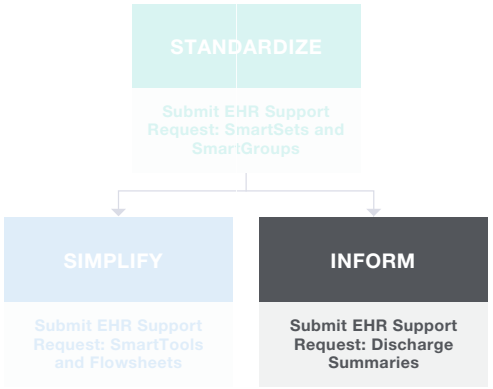
Example of Flowsheet with LDL and Medication Data with columns toggled.

– Select **Show Flowsheet** to return to the flowsheet view



Example of Flowsheet data graph.

Role of Discharge Summaries



Discharge summaries provide the patient with important information from the hospital care team. The report often includes clinical information about what occurred during the hospital stay, follow-up care instructions, and patient education materials.

Using discharge summaries can help engage the patient by communicating the need for follow-up care and by providing educational information about their condition and instructions for at-home care.

Base Criteria

This section of the Guide outlines adding information to the Discharge Order Set to ensure it is included in the Discharge Summary for the patient. The criteria can be changed to align with the healthcare organization's cardiovascular guidelines.

All interactions and orders during the duration of the stay are included in the Discharge Summary. Orders appropriate for discharge are added to the Discharge Order Set, and Orders issued at the time of discharge are automatically included in the Discharge Summary.

Discharge Summary Example

Discharge Summary
Signed

Date of Service: 8/15/2022 2:16 PM

BRIEF OVERVIEW:

Discharge Provider:
Primary Care Provider:
Admission Date: 08/12/2022
Discharge Date: 08/15/2022

Active Hospital Problems

Diagnosis	Date Noted	POA
• NSTEMI (non-ST elevated myocardial infarction) (HCC)	08/13/2022	Unknown
• Chest pain		

Resolved Hospital Problems

No resolved problems to display.

The patient's most recent ejection fraction per echo was:

Active Hospital Problems

Diagnosis	Value	Date
EJECFRACECHO	53	08/12/2022

At discharge, the following medications/referrals/education was given/prescribed:

See bottom of note for full list of medications including changes.

Smoking cessation not indicated: the patient does not smoke
Cardiac Rehab referral was placed; the patient will be contacted to set this up

Discharge Disposition: home health care svc

INPATIENT PROCEDURES:

Surgery and Procedures

Past Procedres (8/12/2022 to Today)

Date	Procedures	Providers
08/13/2022	CV LEFT HEART CATHETERIZATION, CORONARY ANGIOGRAM CV PERCUTANEOUS CORONARY INTERVENTION (psb)	

Non-surgical Procedures (From admission, onward)

None

Medication List

START taking these medications

Medication A
Medication B

CONTINUE taking these medications

Medication C
Medication D

MULTIVITAMIN ADULT PO:

STOP taking these medications

Medication E

Where to Get your Medications

These medications were sent to pharmacy
• Medication A

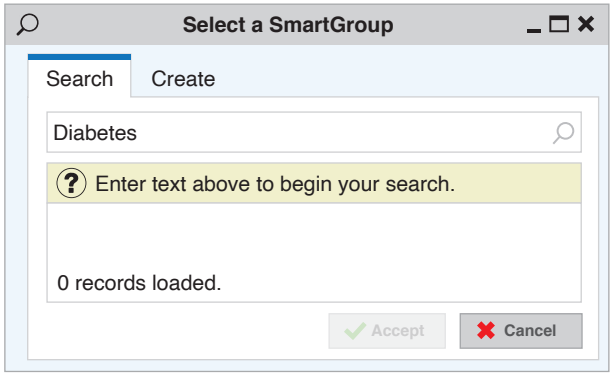
Cosigned by: at 8/15/2022 4:42 PM
Electronically singed by at 8/15/2022 2:48 PM
Electronically singed by at 8/15/2022 4:42 PM

Example of Discharge Summary.

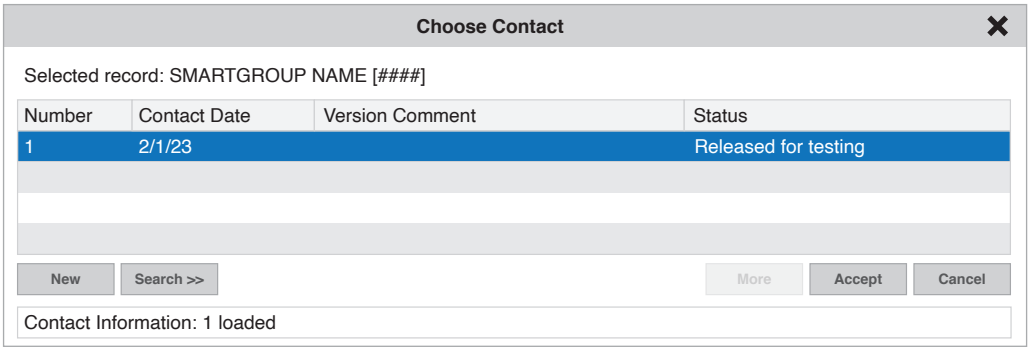
Adding Orders to the Discharge Order Set

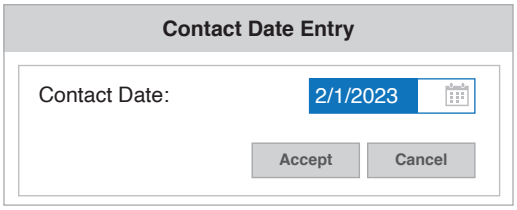
SmartSets are built on SmartGroups which are a group of similar order types for usability. Often, editing a SmartGroup to add or modify items will suffice. Updating a SmartGroup enables the changes for all associated SmartSets.

1. From Chart Search, select **SmartGroup**.
2. **Search** and select the **SmartGroup** to be modified.
3. Select **Accept**, then click **New** to create a new version.

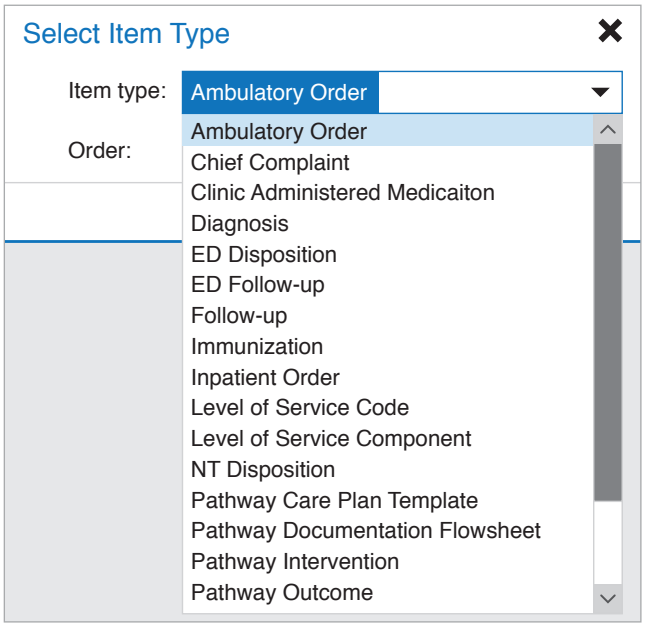


Example of searching for a SmartGroup.





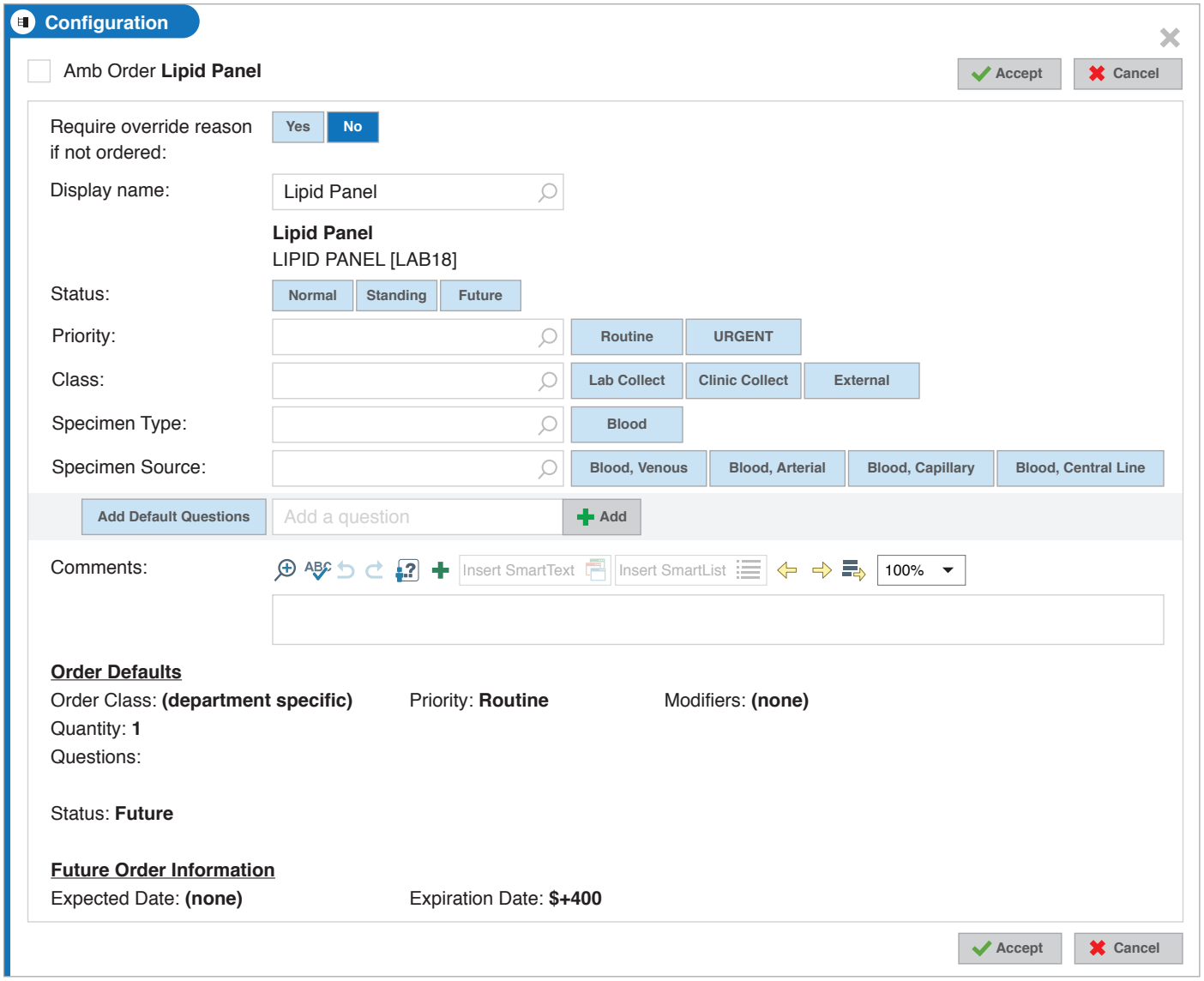
Example of creating a new version.



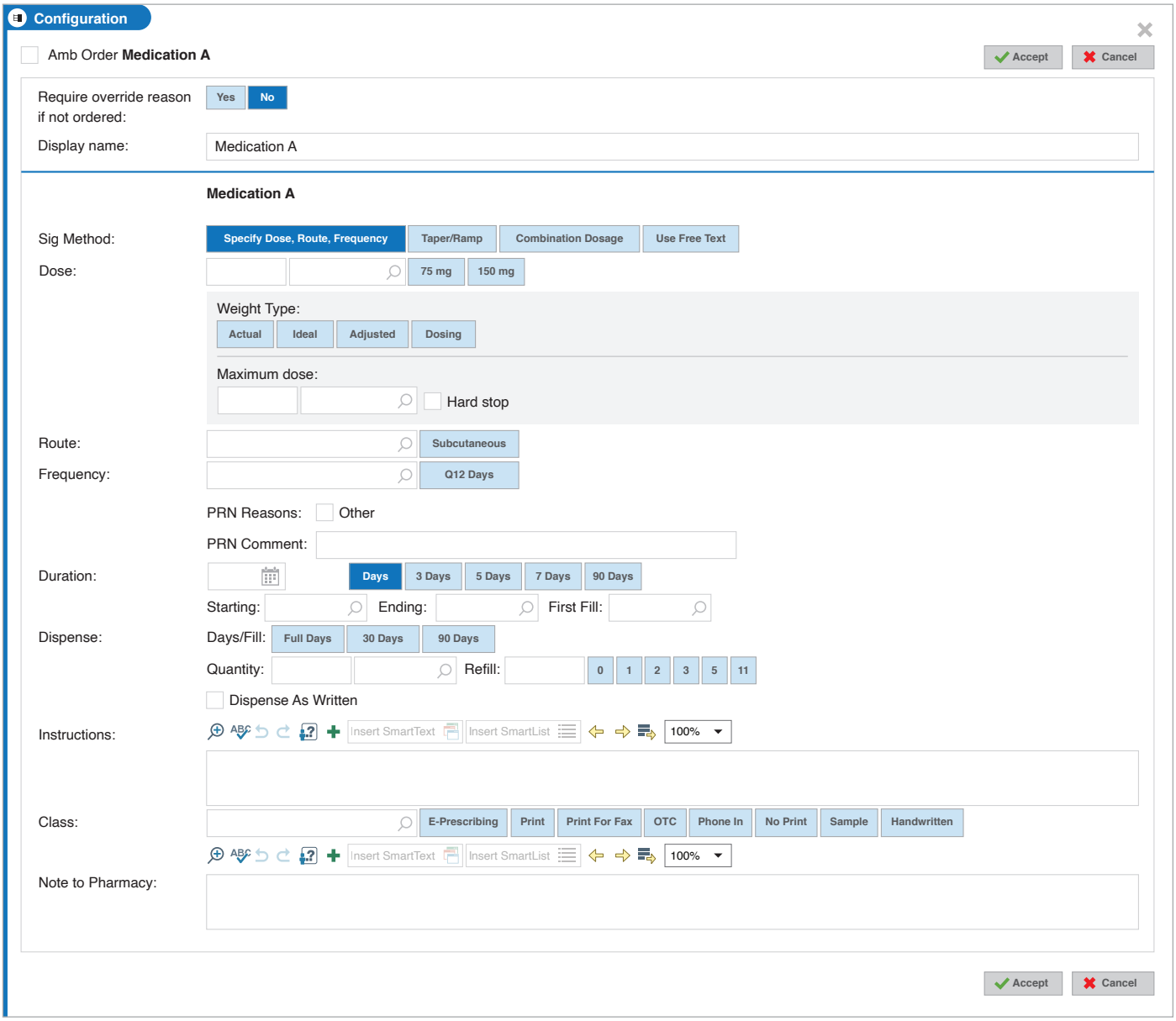
Example of the Item Type selection.

4. Select **Accept** to update the Contact Date and create the new version.
5. Select **Add item** from the toolbar.
6. From the **Item Type** dropdown, select the appropriate Item type.

7. Search for and select the order(s) to be added. Add appropriate details. *(See Appendix A for examples of appropriate Orderable Items.)*

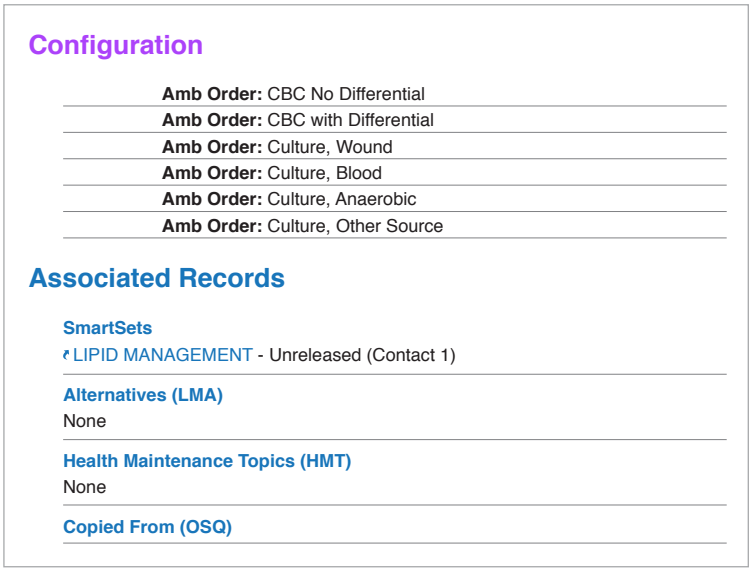


Example of Configuration for adding lab order details.

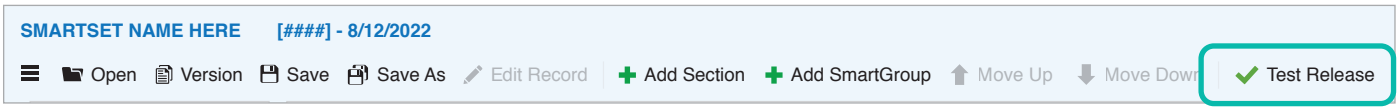


Example of adding medication order details.

8. Select **Accept**.
9. Review the SmartGroup Associated Record to ensure the update is appropriate in all SmartSets in which it is used.
10. When the group update is completed, select **Test Release** to test the new group.
11. Select **Release** for the update to be visible to end users.



Example of Associated Records for all SmartSets.

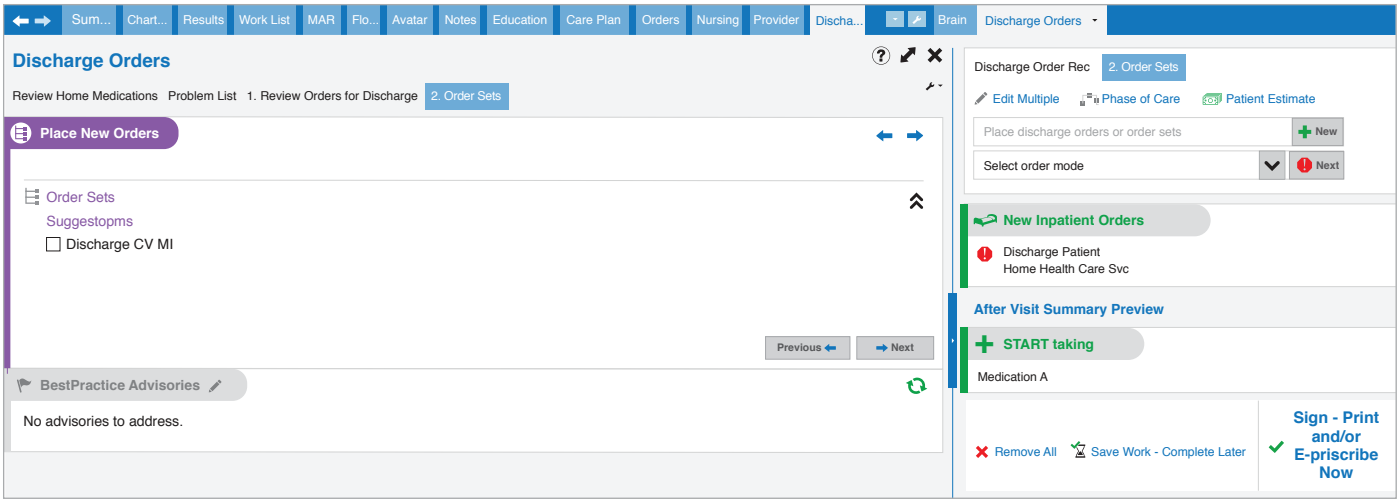


Example of a SmartSet build menu options.

Discharge Navigator

In the Discharge Navigator, the **Discharge Order Set** is selected.

All orders selected in the Discharge Order Set are included in the patient Discharge Summary.



Example of Discharge Navigator.

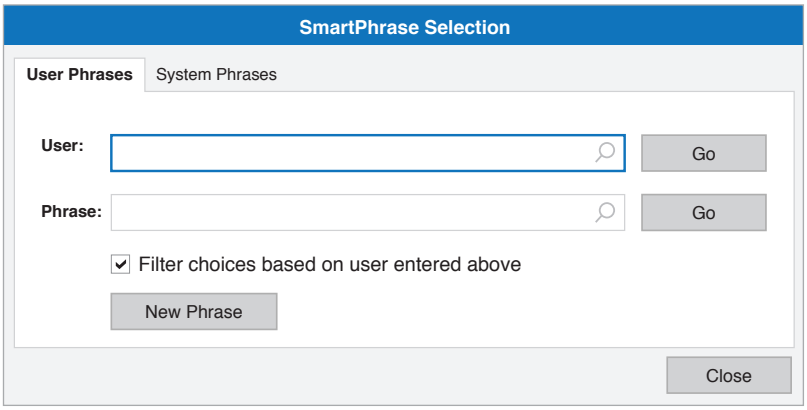
Using SmartPhrases in Discharge Summary

SmartPhrases can be used for consistency and efficiency in commonly used text details on orders and in the Discharge Summary patient directions or information.

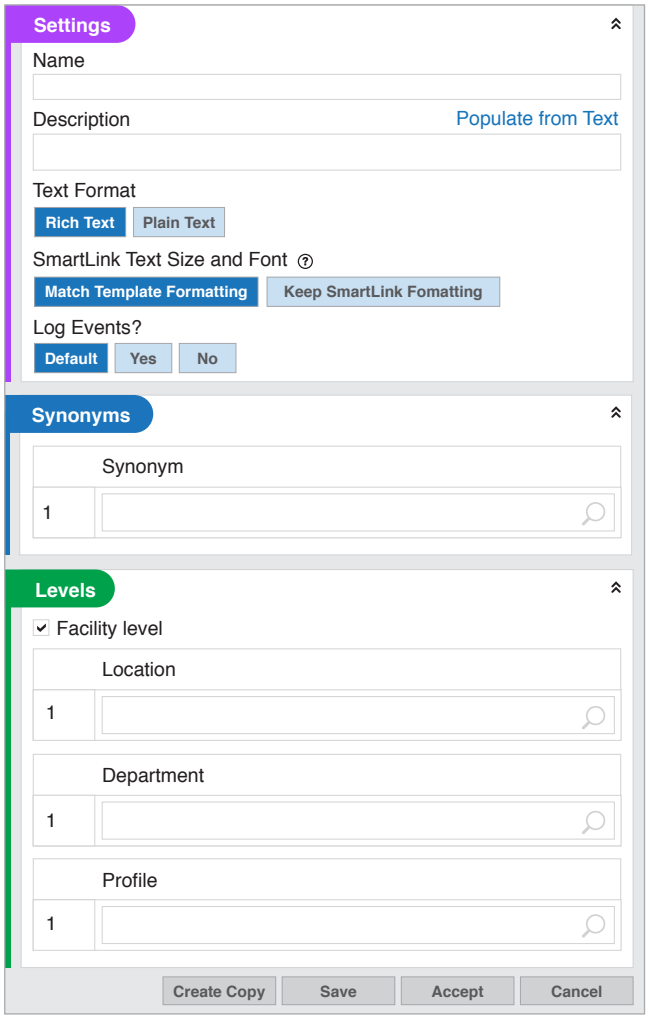
By default, SmartPhrases are created as health system-wide System SmartPhrases. System SmartPhrases can be set up to be accessible by facility location, department, EHR role, or individual EHR user.

To Create a SmartPhrase

1. Navigate to SmartPhrase Manager.



Example of the initial SmartPhrase Manager.

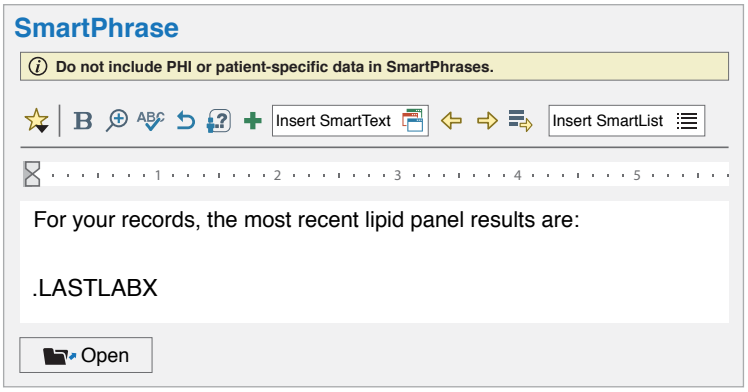


Example of the Setting detail sidebar.

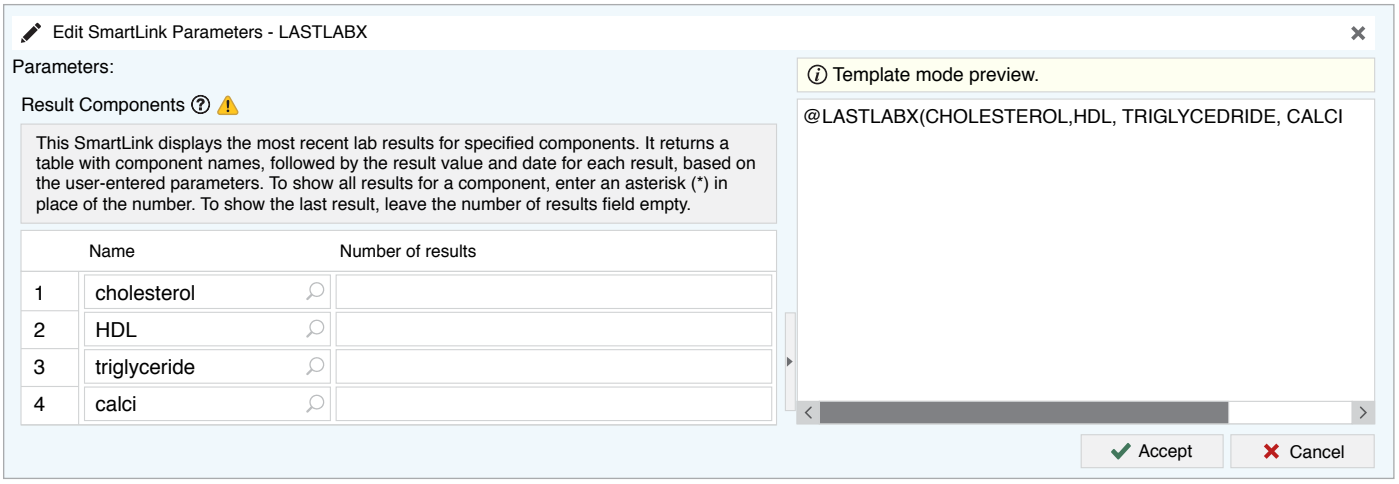
2. In the **SmartPhrase Selection** window, select **New Phrase**.
3. In the SmartPhrase window **Settings** sidebar, enter the desired **Name** for the phrase.

   Note: Use text only in the name, the @ signs will be added automatically upon Save or Accept.

4. Enter a **Description**.
5. Default options, such as **Text Format**, **SmartLink Text**, and **Log Events**, can be used or changed if desired.
6. Add **Synonyms** as appropriate.
7. In the **Levels** section, check **Facility** level to define system-wide use, or search for and select Location(s), Department(s), and (Profile(s), as appropriate.
8. In the left-side text pane, enter text to be displayed, for example: “For your records, the most recent lipid panel results are:”
9. To include a list of most recent result values for specific tests, in the letter text, enter **.LASTLABX** and press **Enter**.
10. In the **Edit SmartLink Parameters** window, enter each component to be included in the letter.



Example of SmartPhrase for Lab Results.



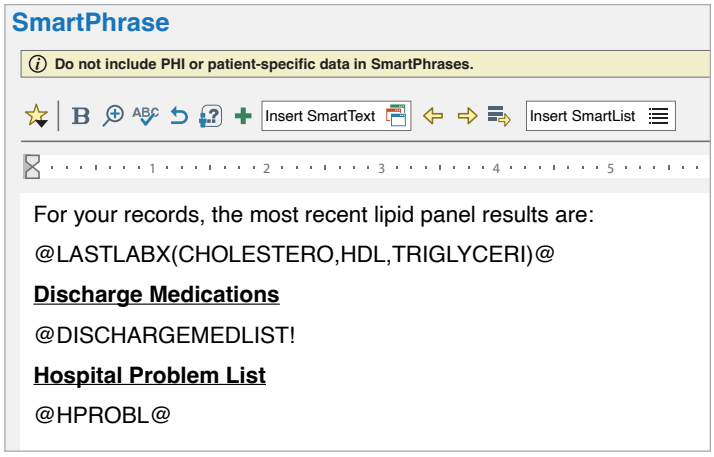
Edit SmartLink Parameters for LASTLABX SmartLink with lab results selected.

Note: Component names used in this document are examples and may differ from organization component names for a lab result. Leave the Number of Results field blank to include only the most recent result.

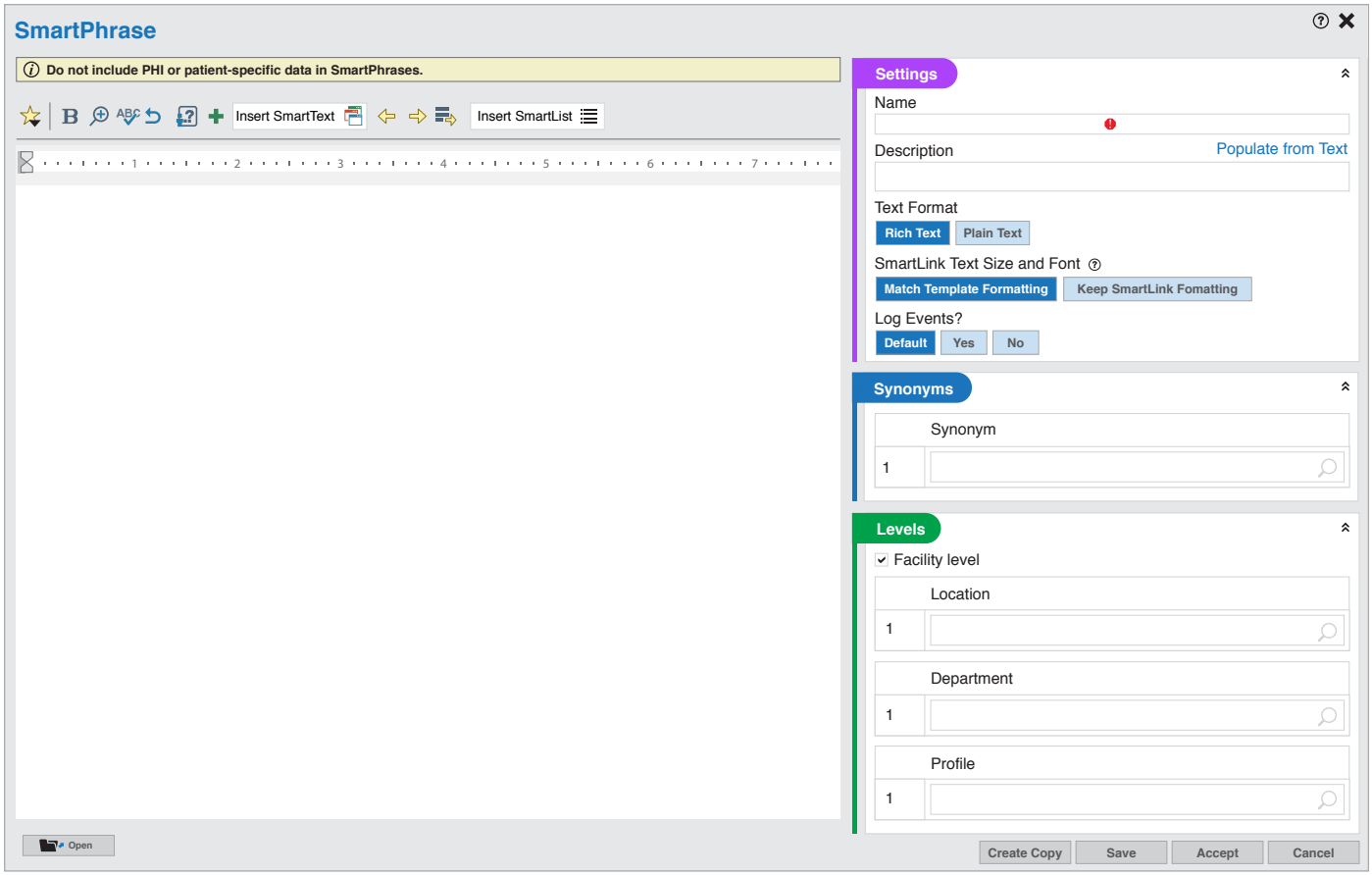
11. Select **Accept**.

12. Similar phrases can be created to be used for discharge medications (@DISCHARGEMEDSLIST@) and the hospital problem list (@HPROBL@)
    - Example 1: The following table lists your at-home medications with appropriate instructions for each. @DISCHARGEMEDSLIST@
    - Example 2: Your hospital problem list includes: @HPROBL@

    Note: A SmartLink for specific ACS Medical History can be custom-built by the health system, for example, @ACSMEDHIST@.



Example of the Completed SmartPhrase text with SmartLinks.



Example of the full-screen SmartPhrase window.

Appendix A

Examples of Orderable Items that might be added to a SmartSet or a Discharge Order Set:

- Medications
- Labs
- Patient Education
- Referrals

Appendix B

Examples of SmartLinks and SmartLists Which Might Be Added to a Letter Template

Description	SmartLink (data from Patient Info)	SmartList
Patient Full Name	@NAME@	
Date of Birth	@DOB@	
Denial Med Name		<insert medication name/dose denied>.
# of Other Statins Tried		<# of statins tried>
Medications Tried		<List of all Statin Drug Name/ Statin Generic Name tried>
Medication Reactions Patient Experienced		<list of patient statin reactions>
Personal Pronouns	@CAPHE@, @CAPHIS@ (for upper case) @HIS@ (lower case)	
Lab Results Most Recent Values for Cholesterol, Hdl, Chohdi, Triglyceride, Calcid!	@LASTLABX	
Statin being requested for consideration		<insert medication name/dose denied>.
Risk conditions for consideration		<ACS Past Medical History>
Practice/location Identifier		<Practice Identifier>

Glossary of Terms

EHR Term	Definition
BestPractice Advisories	An Epic®-specific term for reminders that display in the EHR for the healthcare professional, based upon the patient meeting certain criteria.
Clinical Champion	A key decision maker within the health system who believes in implementing EHR changes to help improve healthcare
Flowsheet	A spreadsheet for documenting patient care consisting of a template that holds rows or groups of rows. Epic® supports both documentation flowsheets and review flowsheets.
In Basket	Electronic messaging system used within Epic® applications.
Inclusion/Exclusion Criteria	Information that is used to determine whether a patient should not be included in a report, or whether a BPA should be displayed for a patient or not. Criteria include (but are not limited to) diagnosis, gender, age, lab results, medication history, and procedure history.
MyChart	Epic® application that allows patients to view their medical records and interact with their physicians over the internet.
Patient Follow-ups	Communication with patients generated from within the EHR using a variety of methods.
Reporting Workbench	An Epic® tool that provides flexible, template-based reporting integrated with Hyperspace.
SmartForm	A customizable form in Hyperspace used for gathering clinical and other patient data.
SmartGroup	Groups of orders that comprise a SmartSet.
SmartLink	A SmartTool that pulls or links information from the patient record directly into your documentation. For example, if you enter .name, the patient's name populates the document.
SmartList	A SmartTool that allows you to choose from a list of pre-configured choices in a SmartText of SmartPhrase. These can be single- or multiple-response lists.
SmartPhrase	A SmartTool that allows you to type a few characters that automatically expand into a longer phrase or block of text. For example, .pt becomes patient.
SmartSet	A group of orders and other elements, such as notes, chief complaints, SmartGroup Panels, and levels of service, that are commonly used together to document a specific type of visit.
SmartText	A text template that can include text, SmartPhrases, SmartLists, and SmartLinks.
Workflow	A collection of forms arranged in a specific order for collecting and editing information. For example, the registration activity uses records in the Workflow (HFL) master file to organize the forms it includes.
Workqueue	Generic term for a work list for Epic® users. Common workqueues include patient workqueues, follow-up workqueues, claim edit workqueues, charge review workqueues, and many others.

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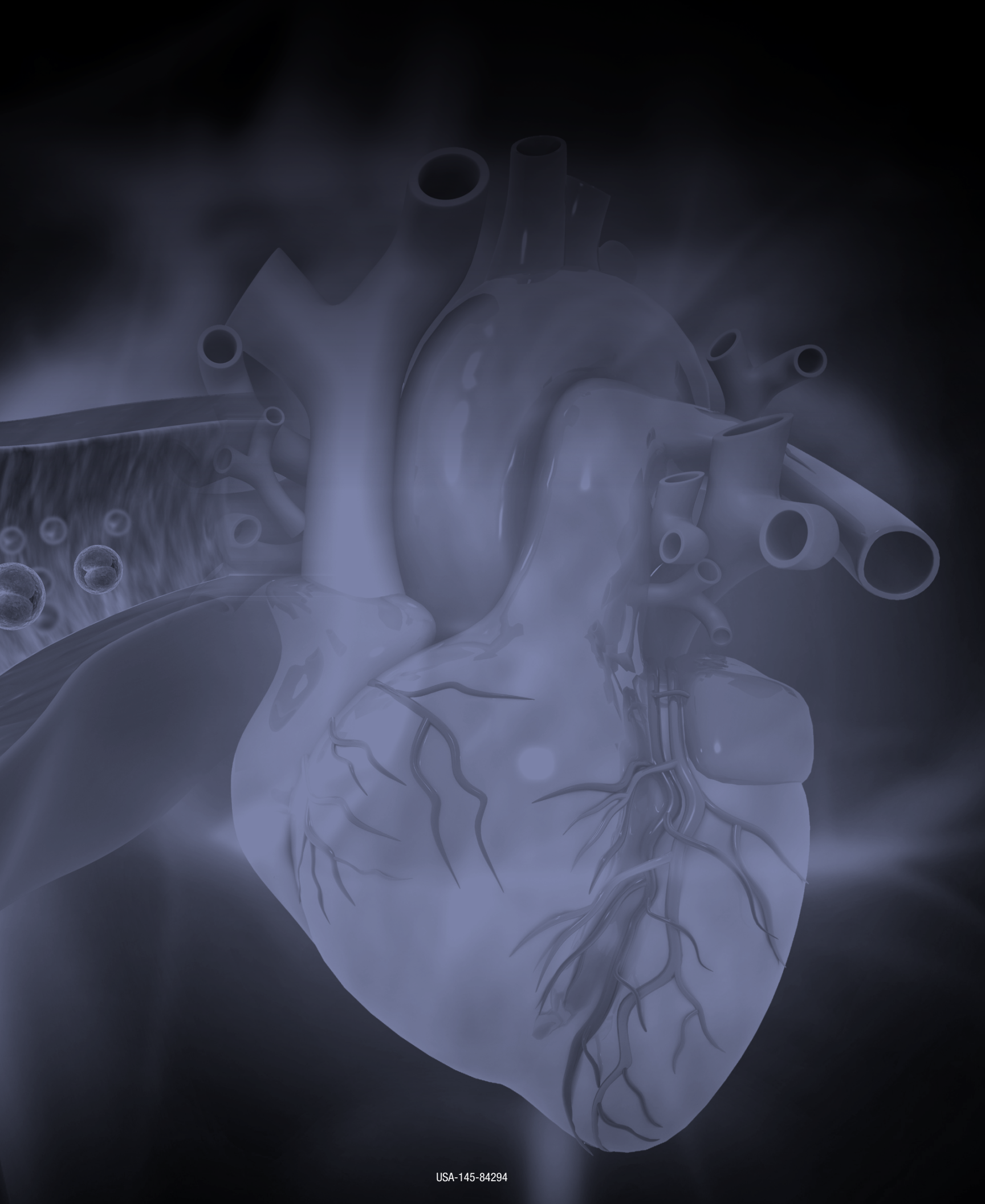

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