ChartMaker® Clinical Release Notes

ChartMaker® 2016 (fv6.2.7)

Added Features

- **Audit Trail –** The Audit Trail has been updated to track immunization information when viewing registry records for a patient for immunization registries that support bidirectional transmission (i.e., DelVax and PASIIS). A new immunization audit event occurs when accessing the Registry Records dialog (via **Chart** > **Registries** > **Immunization** > **View Registry Records**), and clicking the **Download** button to initiate a request. When an audit event occurs the Event column will display **Export**; the Group column will display **Immunization**; the Audit Trail Description will display **Immunization history data** (or **history and forecast data**) **request sent to [Immunization Registry] for [Account #] on [Date/Time]**; and the patient's **Account #**, and **Response Received** or **No Response Received** (in comments) will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track whenever Screening information has been added, modified, or deleted in a chart note. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Screening**; the Audit Trail Description will display **[Screening Form] Added/Modified/Deleted**; the Old Value and New Value columns will contain a string of items that were modified; and the **Account ID**, **Note ID**, **Visit Date**, and **Comments= Note heading** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track whenever a user's account is suspended and reactivated via **Edit** > **System Tables** > **Users**. When an audit event occurs the Event column will display **Modified**; the Group column will display **User**; the Audit Trail Description will display **Suspended user account: [Login ID]-[User Name]** or **Reactivated user account: [Login ID]-[User Name]**; and the **Login ID** and **User Name** of the user modified will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to include the patient's **Account ID** in the Metadata column whenever a direct message sent audit event occurs, and a patient's account is associated with the direct message being sent.

- **Audit Trail –** The Audit Trail has been updated to track whenever a Procedure Order (Lab, Image, or Test) is printed from a patient's facesheet. When printing multiple orders at the same time, a separate audit record will be created for each order. When an audit event occurs the Event column will display **Print**; the Group column will display **Order**; the Audit Trail Description will display **[Procedure Name]**; the New Value column will display the first two **Diagnostic Codes**, **Type** of order (Lab, Image, or Test), and **Target Date**; and the **Account ID**, **Note Title** (in comments), **Note ID**, **Provider ID**, **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track whenever Public (Syndromic) Surveillance Data file is generated for export (via **Chart** > **Export** > **Public Surveillance Data**). When an audit event occurs the Event column will display **Export**; the Group column will display **Reports**; the Audit Trail Description will display **Syndromic Surveillance file: [Date Range selected in Public Surveillance dialog]**; the New Value column will display the contents of the file; and the **Practice Name**, **File Format**, **Output File Path**, **Practice ID**, and **Provider ID** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track whenever a Decision Support Alert occurs for a patient, either upon opening a chart note, or when entering information in a chart note that triggers the alert. In the latter case, the audit event will occur when the note is saved. When there are multiple alerts, a single audit event will be created for each alert, or decision support rule, triggered. When an audit event occurs the Event column will display **Alerted**; the Group column will display **DSS Rule**; the Audit Trail Description will display the **Rule Description**; the New Value column will display **LOGIC: [Rule Logic] ACTION: [Any Action Text associated with the Rule]**; and the **Account ID** and **DSS Rule Name** will be listed in the Metadata column.

Added Features (continued)

- **Audit Trail –** The Audit Trail has been updated to track when a user performs a CQM import and calculates the results (**Reports** > **Meaningful Use** > **CQM Import**). There will be two audit events: the first will occur when the user clicks the **Calculate** button to start the importation, and then second will occur after the importation has been completed (without canceling). An audit event will also occur if the user starts the import, and then cancels anytime during the importation. When the initial audit event occurs the Event column will display **Created**; the Group column will display **Reports**; and the Audit Trail Description will display **CQM Import Dashboard: [Reporting Period]**. When the completed audit event occurs the Event column will display **Completed**; the Group column will display **Reports**; and the Audit Trail Description will display **CQM Import Dashboard: [Reporting Period]**. When the canceled audit event occurs the Event column will display **Canceled**; the Group column will display **Reports**; and the Audit Trail Description will display **CQM Import Dashboard: [Reporting Period]**.

- **Audit Trail –** The Audit Trail has been updated to track when a QRDA file is generated in the Meaningful Use Dashboard via the **CQM Reporting** button. When an audit event occurs the Event column will display **Created**; the Group column will display **Reports**; and the Audit Trail Description will display **QRDA Category 1 (or 3): [Reporting Period]**.

- **Audit Trail –** The Audit Trail has been updated to track when a file is generated to be sent to a special registry (i.e., CECity). When an audit event occurs the Event column will display **Export**; the Group column will display **Note**; and the Audit Trail Description will display **Patient CCD queued for Specialized Registry Export**; and the **Account ID**, **Provider ID** and **Registry Name** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Family History Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Family History**; the Audit Trail Description will display **Family history relationship added/modified/removed**; the Old Value and New Value columns will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Family History Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Family History**; the Audit Trail Description will display **Family history relationship added/modified/removed**; the Old Value and New Value will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when **Drug Interaction Setting** is modified in the Prescription tab of the Preferences dialog. An audit event will occur for the modification once the **Set** button is clicked. When an audit event occurs the Event column will display **Modified**; the Group column will display **Configuration**; the Audit Trail Description will display **Drug Interaction Settings modified**; the Old Value and New Value columns will contain a modified settings; and the **Provider ID** will be listed in the Metadata column.

- **Audit Trail –** The audit details for printing CCD files via the Export Patient Data dialog have been updated. When multiple records are printed, a single audit event will be created for each individual printed file. When an audit event occurs the Event column will display **Print**; the Group column will display **Clinical Summary**; the Audit Trail Description will display **Clinical Summary Printed** or **Continuity of Care Document Printed: [Date Range]** or **Referral Summary Printed: [Date Range]**; and the **Account ID**, **Note Heading**, **Note**, and **Visit Date** will be listed in the Metadata column for Clinical Summaries (Note Selection); and **Account ID** and **Provider ID** will be listed in the Metadata column for CCDs (Data Rage); and **Account ID**, **Referral IH Code**, and **Provider ID** will be listed in the Metadata column for Referral Summaries (Data Rage).

- **Audit Trail –** The audit details when printing medication prescriptions have been updated. When multiple medications are printed, a single audit event will be created for each individual medication. When an audit event occurs the Event column will display **Print**; the Group column will display **Medication**; the Audit Trail Description will display the **Medication**; and the **Account ID** will be listed in the Metadata column.

Added Features (continued)

- **Audit Trail –** The Audit Trail has been updated to track when a medication is renewed. When an audit event occurs the Event column will display **Modified**; the Group column will display **Medication**; the Audit Trail Description will display the **Medication**; the Old Value column will display the previously prescribed medication **SIG**; the New Value column will display the currently prescribed medication **SIG**; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when No Active Medications has been configured, renewed, and discontinued for a patient. When an audit event occurs the Event column will display **Created**, **Reviewed**, or **Deleted**; the Group column will display **Medication**; the Audit Trail Description will display **No Active Medications**; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The audit details when a new medication has been added for a patient have been updated. When an audit event occurs the Event column will display **Created**; the Group column will display **Medication**; the Audit Trail Description will display the **Medication**; the New Value column will display the medication **SIG**; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The audit details when a medication has been discontinued for a patient have been updated. When an audit event occurs the Event column will display **Deleted**; the Group column will display **Medication**; the Audit Trail Description will display the **Medication**; the Old Value column will display the discontinued medication **SIG**; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when a drug interaction warning is generated for a patient, either when a warning is automatically generated, or when manually checking Medication Interactions (RxINT). When an audit event occurs the Event column will display **Alerted**; the Group column will display **Medication** or **Allergy**; the Audit Trail Description will display **Drug Interaction Warning Displayed**; the New Value column will display the drug **Name**, the **Interaction**, and the **Clinical Effect**; and the **Account ID**, **Note Description**, **Triggered By**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Implantable Device Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Implantable Device**; the Audit Trail Description will display **Implantable Device Added/Modified/Removed**; the Old Value and New Value columns will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Educational Materials Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Educational Material**; the Audit Trail Description will display **Educational Materials Added/Modified/Deleted**; the Old Value and New Value columns will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Smoking History Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Smoking History**; the Audit Trail Description will display **Smoking Status Added/Modified/Deleted**; the Old Value and New Value columns will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Vital Sign Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Vital Signs**; the Audit Trail Description will display **Vital Signs Added/Modified/Deleted**; the Old Value and New Value columns will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date** will be listed in the Metadata column.

Added Features (continued)

- **Audit Trail –** The Audit Trail has been updated to track when a chart note is deleted for a patient via the Edit menu, or via the Organizer. When multiple notes are deleted in the Organizer, a separate audit event will be created for each individual note deleted. When an audit event occurs the Event column will display **Deleted**; the Group column will display **Note**; the Audit Trail Description will display the **Note Heading (from Edit menu/Org.)**; the Old Value column will contain the note text of the deleted note; and the **Account ID**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Chief Complaint Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Chief Complaint**; the Audit Trail Description will display **Chief Complaint Added/Modified/Deleted**; the Old Value and New Value will contain a string of items that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Diagnosis Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Diagnosis**; the Audit Trail Description will display the **Diagnosis**; the Old Value and New Value columns will contain the diagnostic details that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track whenever User is added, modified, and deleted. When an audit event occurs the Event column will display **Created**, **Modified**, or **Deleted**; the Group column will display **User**; the Audit Trail Description will display **New User Added**/**User information modified**/**Deleted user**; the Old Value and New Value columns will display the user account details added/modified/deleted; and the **Login ID** and **User Name** of the user will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Immunization Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Immunizations**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Imagining Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Imaging**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Lab Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Lab**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Surgery Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Surgery**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Injection Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Injection**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

Added Features (continued)

- **Audit Trail –** The Audit Trail has been updated to track when Test Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Test**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when general Procedure Information is added, modified, and deleted. When an audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Procedure**; the Audit Trail Description will display the **Procedure Description (CPT Code)**; the Old Value and New Value columns will contain the procedure details that were added/modified/deleted; and the **Account ID**, **Note Heading**, **Note ID**, and **Visit Date/Time** will be listed in the Metadata column.

- **Audit Trail –** The Audit Trail has been updated to track when Diagnosis Information is added or modified during a CIR importing process in the Clinical Information Reconciliation (CIR) dialog. When an audit event occurs the Event column will display **Added** or **Modified**; the Group column will display **Diagnosis**; the Audit Trail Description will display the **Diagnosis**; the Old Value and New Value columns will contain the diagnostic details that were added/modified; and the **Account ID**, **Note Heading**, **Note ID**, **Visit Date,** and **Source** will be listed in the Metadata column.

- **Meaningful Use Dashboard – Stage 3 2018 –** The Meaningful Use Dashboard has been updated with an optional **Practice (TIN)** field that allows you to select a Practice Tax ID Number to further filter the selected measures for Stage 3 2018, if applicable. See Figure 1. This field will only become accessible only when the **Stage 3 2018** option is selected in the Stage field, and will be disabled whenever a different stage is selected. When a Practice TIN is selected, it will be used as a filter on all applicable measures, for the Eligible Provider selected, and will appear in the in the header when printing.

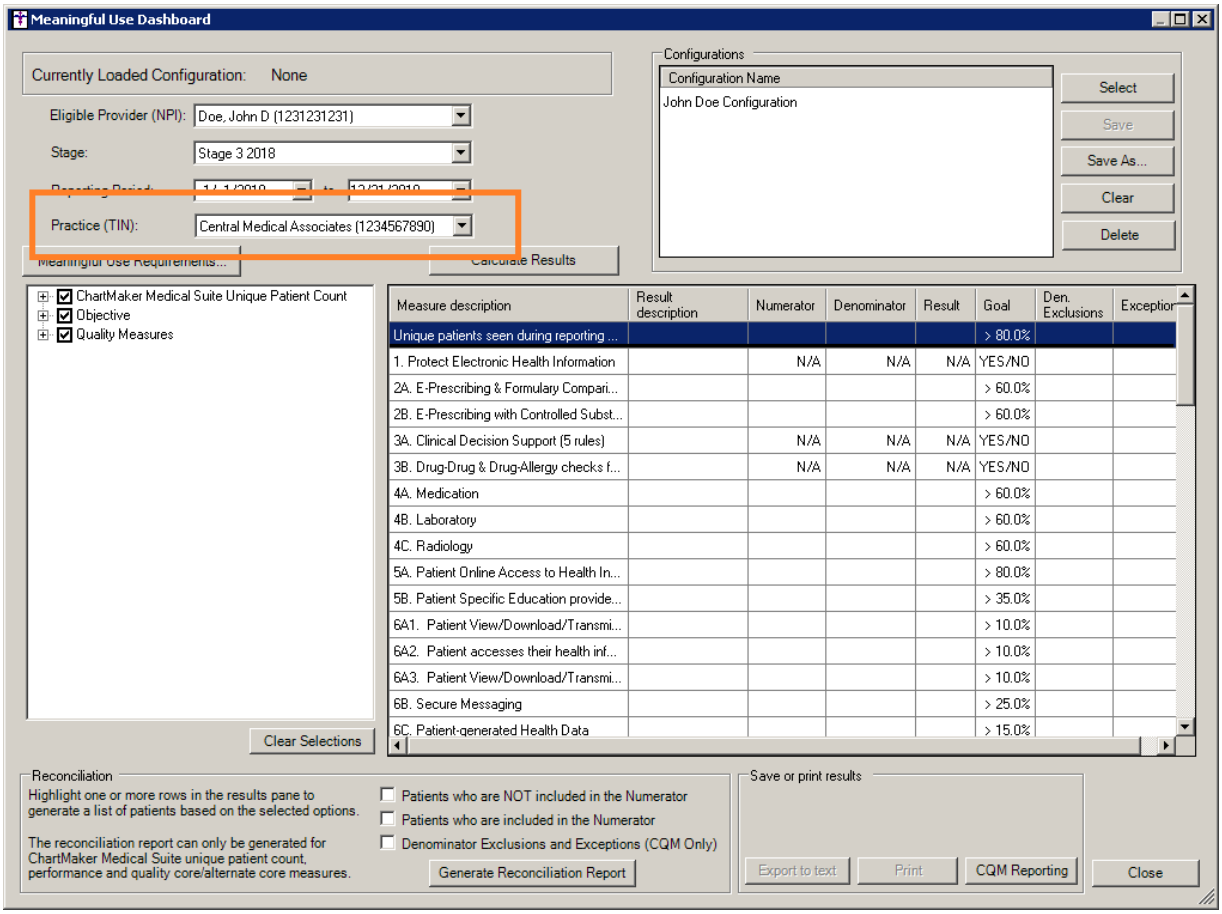


Figure 1 – Meaningful Use Dashboard

- **Medications – Process Change Request** – The Medication Requested field, in the General Change Response dialog, has been updated with an **Other…** button that allows you to search and select a medication other than the medications originally specified in the change request drop-down list. See Figure 2.

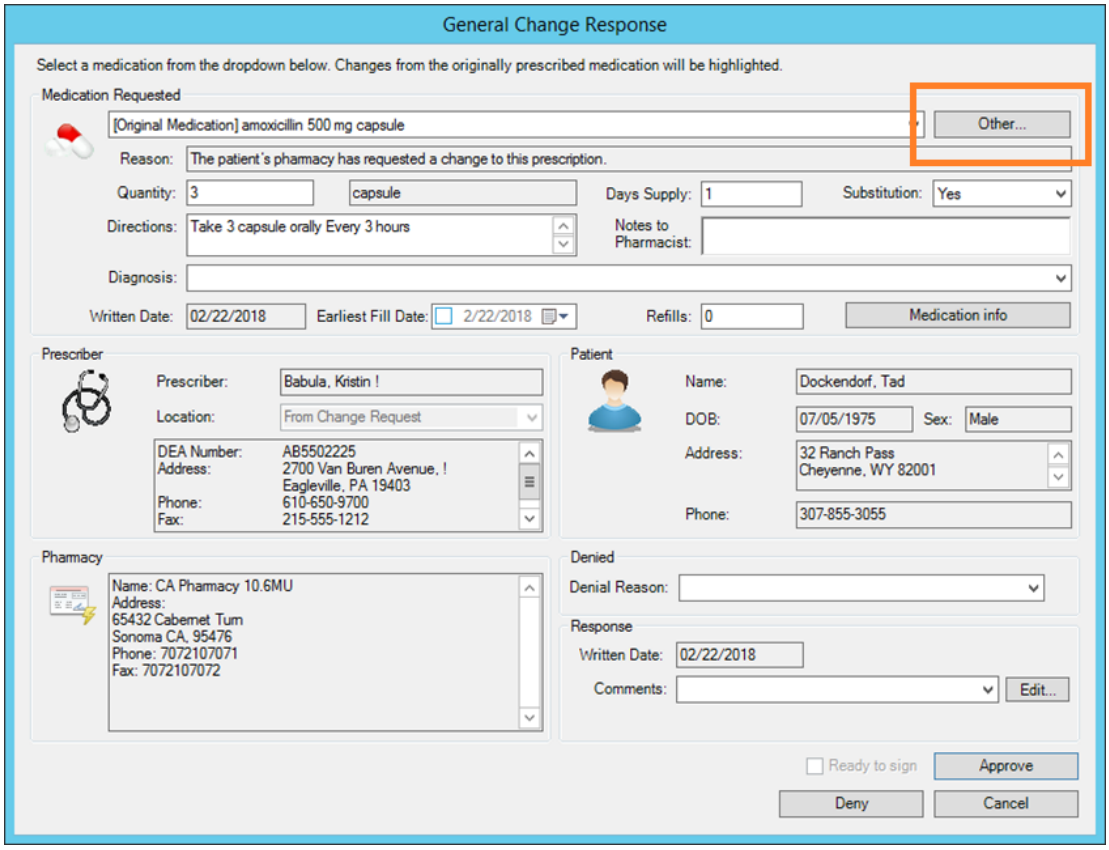


Figure 2 – General Change Response

When the Other… button is clicked, a Medication Search dialog will appear allowing you to locate the medication and form you want to use for the change. See Figure 3. Once the medication is selected, you can proceed with the change request using that medication.

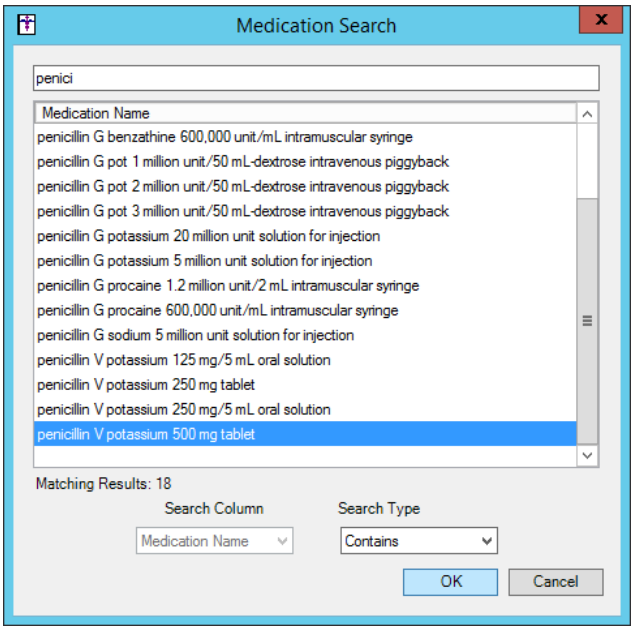


Figure 3 – Medication Search

- **MIPS Dashboard –** The MIPS Dashboard has been updated with a **Generate File for Submission** button that allows you to generate a QRDA Category 3 file to submit for MIPS and CPC+ incentive programs. See Figure 4.

  After the Generate File for Submission button has been clicked, a variety warning messages may appear depending upon the status of your MIPS process. Some of these messages not allow you to continue (i.e., if the Quality section has not been calculated or is incomplete, or if you are using configured the STI Quality Reporting Registry option for Quality Measures in the MIPS Dashboard Configuration dialog), while other will prompt you to confirm that you want to continue (i.e., if you have not calculated for Quality and/or Advancing Care Information in over a day).

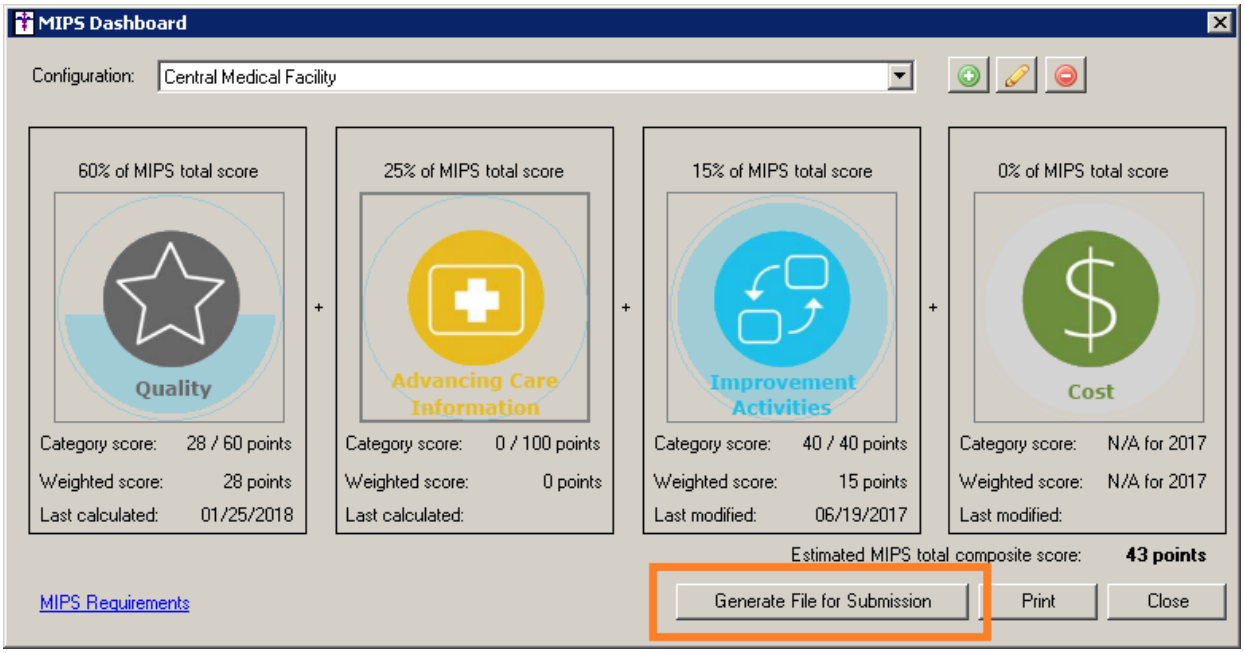


Figure 4 – MIPS Dashboard

Once the warnings have been satisfied, or if there were no warnings, then a Generate File for Submission dialog will appear, allowing you to select which incentive program you are creating the file for: **MIPS Individual**, **MIPS Group**, or **CPC+**. See Figure 5. Once the selection is made, you can select a location to save file, and then a message will appear after the file has been generated in the selected location.

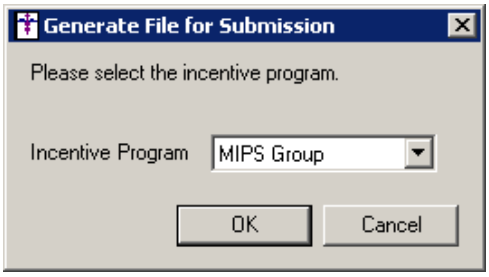


Figure 5 – Generate a File for Submission

- **MIPS Dashboard – Configuration–** The MIPS Dashboard Configuration dialog has been updated with an optional **Practice (TIN)** field that allows you to select a Practice Tax ID Number to further filter the selected measures in the MIPS Dashboard for MIPS 2017 and MIPS 2018, if applicable. See Figure 6. When a Practice TIN is selected, it will be used as a filter on all applicable measures, for the selected Eligible Clinicians, and will appear in the in the header when printing.

- **MIPS Dashboard – Configuration–** The MIPS Dashboard Configuration dialog has been updated with a **CPC+ Identifier** field that allows you to enter your Practice Site Location Identifier that will be used for validating QRDA files for the CPC+ incentive program. See Figure 6. When a CPC+ Identifier is entered, it will be included in any QRDA files generated (via the **Generate File for Submission** button) from the MIPS Dashboard.

- **MIPS Dashboard – Configuration–** The MIPS Dashboard Configuration dialog has been updated so that when the **Performance period** is for 2018, a new **Advancing Care Information Measures** section will appear, allowing you to select to use the **2018 Transition Objectives and Measures** (which are like the 2017 objectives and measures), or to use the **2018 Objective and Measures**. See Figure 6. For more information on which selection should be used, you can click the **Which should I choose?** option. The objectives and measures reflected in the Advancing Care Information dialog will be dependent on the choice selected in the MIPS Dashboard Configuration dialog for the 2018 performance period.

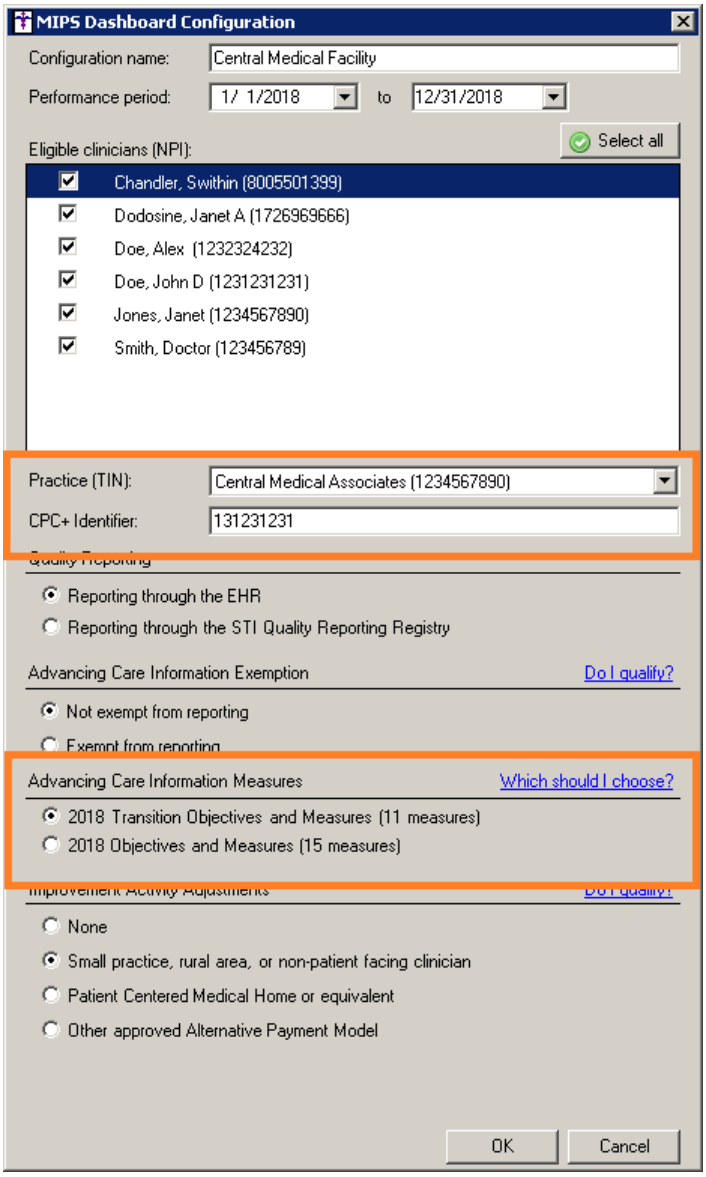


Figure 6 – MIPS Dashboard

- **MIPS Dashboard – Quality Measures –** The **Generate File for Submission** button in the Quality Measures dialog, of the MIPS Dashboard, has been updated to allow you to generate a QRDA Category 3 file to submit for MIPS and CPC+ incentive programs. See Figure 7.

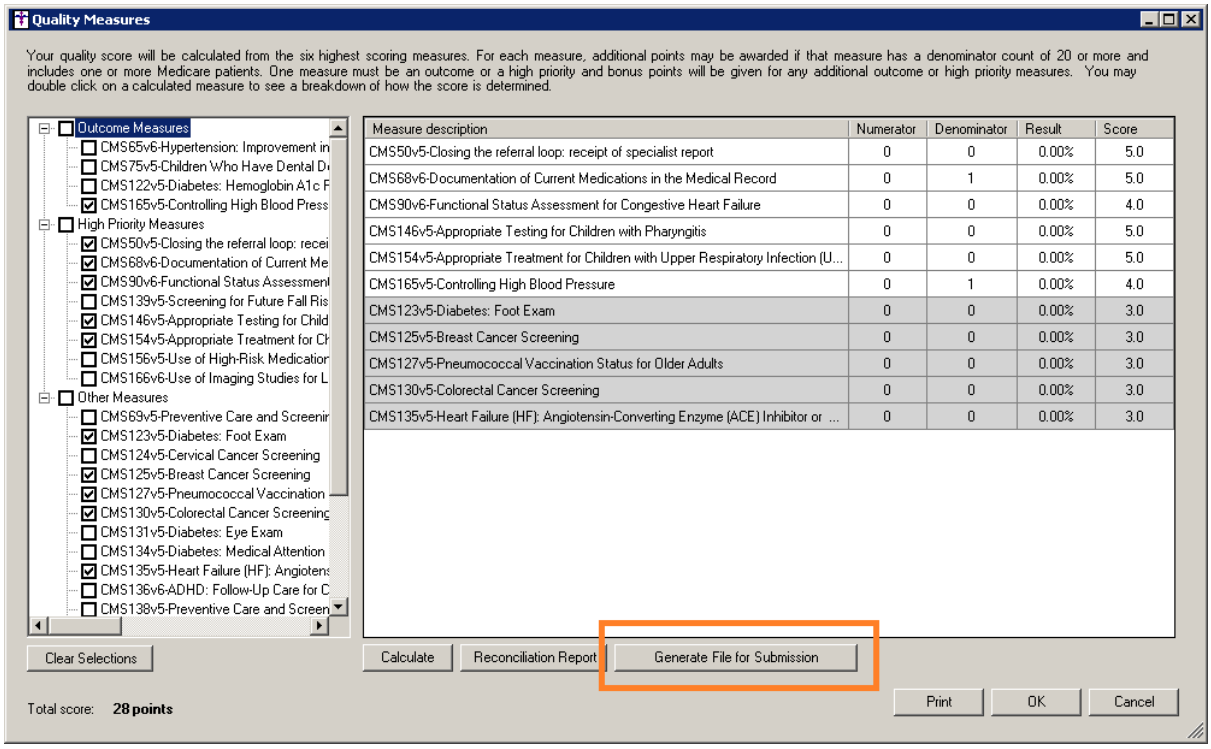


Figure 7 – MIPS Dashboard – Quality Measures

After the Generate File for Submission button has been clicked, a confirmation message will appear prompting you to continue. See Figure 8.



Figure 8 – Generate Category 3 QRDA Files

Once the warning has been satisfied, a Generate File for Submission dialog will appear, allowing you to select which incentive program you are creating the file for: **MIPS Individual**, **MIPS Group**, or **CPC+**. See Figure 9. Once the selection is made, you can select a location to save file, and then the system will calculate the measures, and then a message will appear after the file has been generated in the selected location.

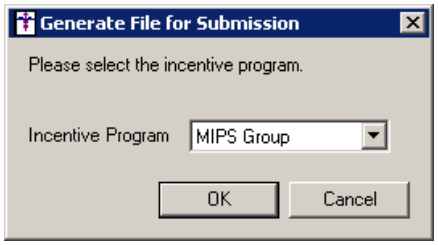


Figure 9 – Generate a File for Submission

- **MIPS Dashboard – Advancing Care Information –** The Base Score section of Advancing Care Information dialog has been updated with a **Reconciliation Report** button that allows you to generate a reconciliation report for any of the measures in this section. See Figure 10. The new Reconciliation Report button works in a similar manner as the Reconciliation Report button in the Performance Score section. Once the desired measure is highlighted, you can simply click the corresponding button to view the Reconciliation Report. In the Reconciliation Report dialog, you can view the patients not included and included in the numerator, as well as those patient with denominator exclusions. You can also print and/or save this report as needed.

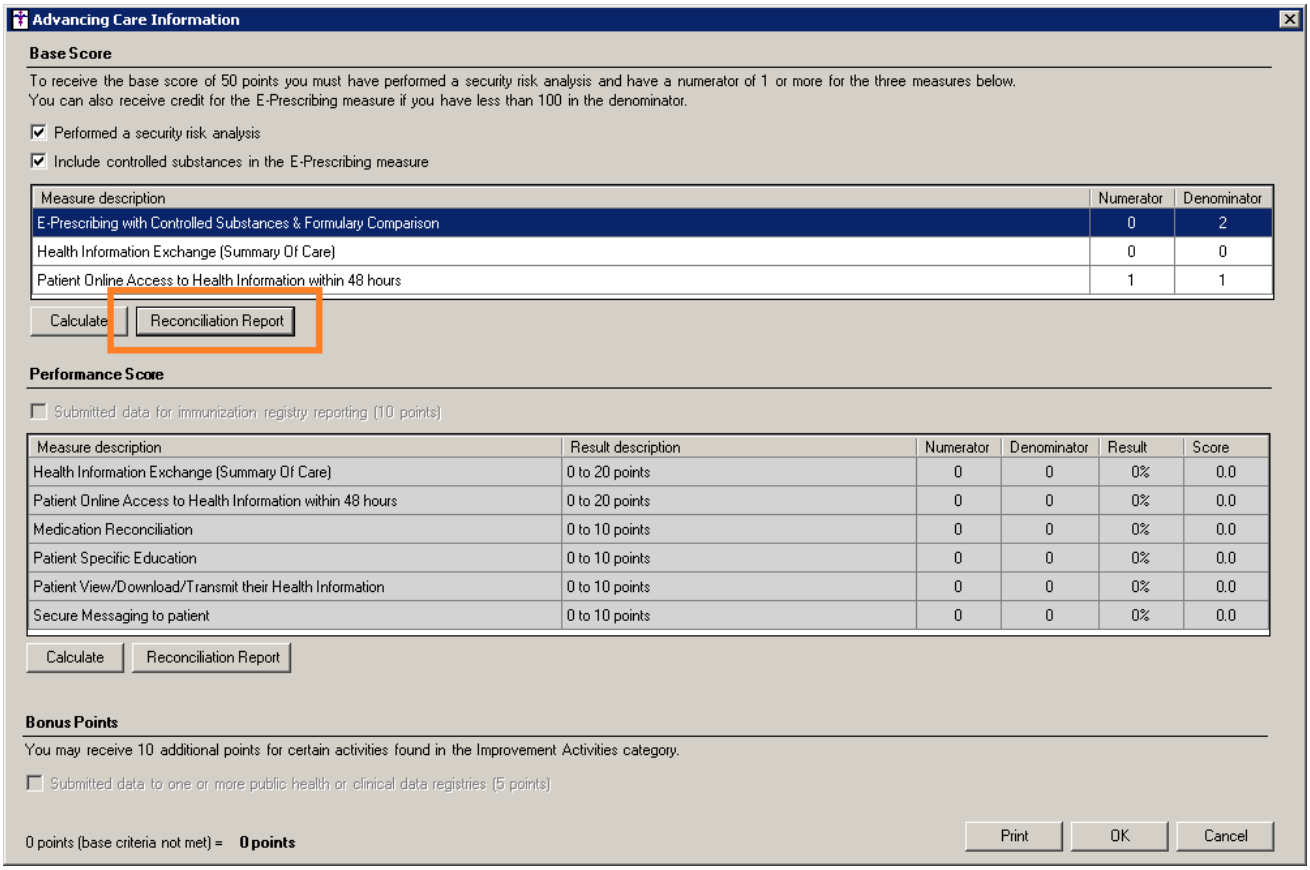


Figure 10 – MIPS Dashboard – Advancing Care Information

- **The Note Tab – Document Import – Clinical Information Reconciliation –** The system has been updated with the ability to reconcile ended medications and diagnosis codes from an imported file in the Clinical Information Reconciliation (CIR) dialog. See Figure 11. Additionally, the **Skip** checkbox will be enabled for these ended medications and diagnoses in the middle column, allowing you to use the **Add All** option to merge all applicable medications/diagnoses with the Final Merged List.

- **The Note Tab – Document Import – Clinical Information Reconciliation –** The Clinical Information Reconciliation dialog has been updated to include the **Source** for each medication, diagnosis, or allergy in each of the columns of the dialog. See Figure 11.

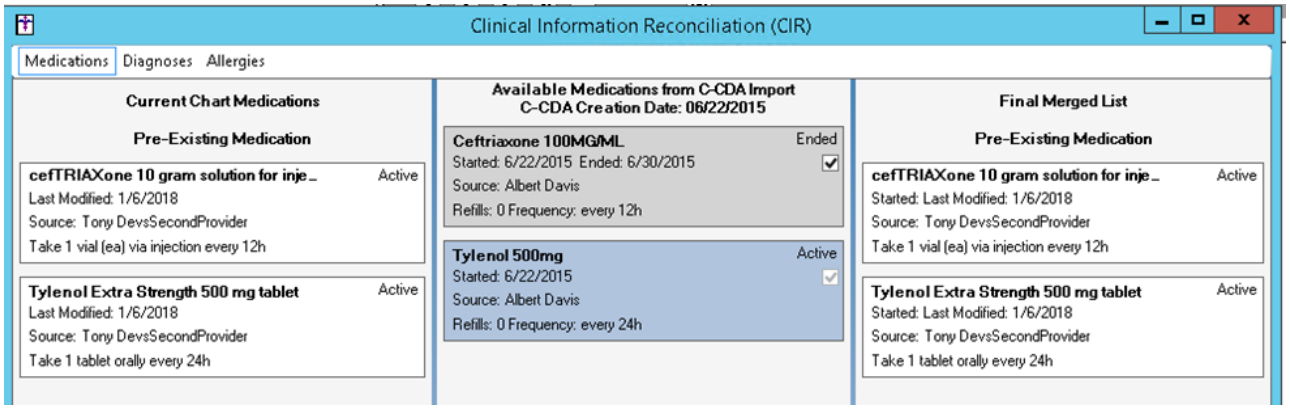


Figure 11 – Clinical Information Reconciliation

- **The Note Tab – Lab Location –** The system has been updated with the ability to set a Lab Location for individual chart notes. To set a lab location for an open chart note, access the Select Lab Location dialog, by clicking **Note** > **Lab Location**. When in the Select Lab Location dialog you can select the applicable lab to be associated with the note in the Lab Location field. Likewise, you can add and maintain lab locations by using the corresponding **Add**, **Edit**, and **Delete** buttons to the right of the field. See Figure 12. When a lab location is configured for a chart note, if a Clinical Summary is generated for the note, and the note has results, the lab location information will appear at the top of the Results section of the Clinical Summary. If the note does not have results, or they were excluded, the lab location will not be present.

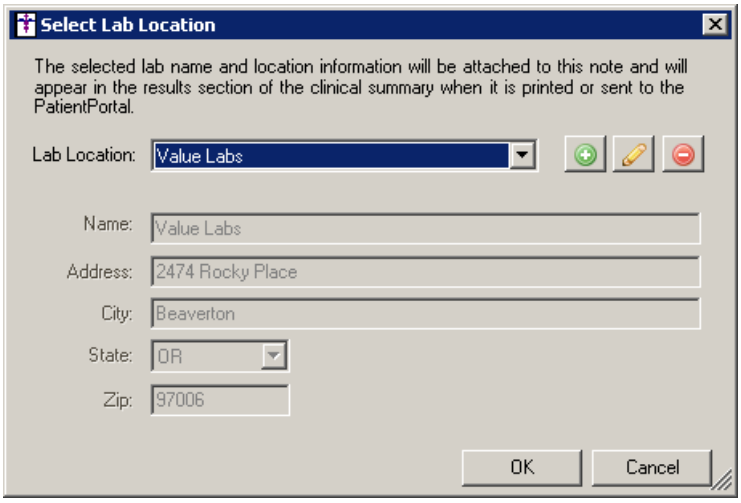


Figure 12 – Select Lab Location

SureScripts® E-Prescribing Best Practice Guidelines

Below are best practices that have been developed to assist in the construction of complete, non-contradictory, and clear patient directions:

Ensure that Directions are complete and accurate

- All information in the Sig must be accurate, complete, and include all the required components written in the following order: action, dose, dose units, route, frequency, and finally auxiliary information.
    - The exception to this syntax is Sigs which simply state "Take/Use as Directed/Instructed as per manufacturer labeling."
- Information within the Sig must not conflict with itself

Example: *Use "**Take 1 tablet by mouth** daily" instead of just "Daily."*

Always qualify "...as Directed" with a source

- Statements such as "Take as directed" and "Use as instructed" should only be used when followed by a source that clearly dictates to the patient where or from whom they can obtain the specific directions.
- If a Sig builder tool is used, ensure that prescribers enter the specific source of the instruction after selecting the "Take/Use as directed/instructed" option before they can proceed with finalizing the e-prescription.

*Example: Use "Use as instructed **per instructions on package**" instead of "Use as instructed."*

Always qualify "PRN (as needed)" with an indication

- The use of "PRN" (i.e. "as needed") should only be used in conjunction with an indication.
- For all other non-PRN directions, inclusion of an indication is also recommended; alternatively, there is also a designated structured field for Diagnosis, in which ICD-10 codes may be used to communicate the appropriate diagnosis or indication relevant for the prescribed product
- If a Sig builder tool is used, ensure that the Sig builder tool requires prescribers to enter the specific indication or conditions for PRN use if the prescriber selects a "PRN" frequency

*Example: Use "Take 1 tablet by mouth every 4 hours as needed **for mild to moderate pain**" instead of "Take 1 tablet by mouth every 4 hours as needed."*

Always specify the Duration of Therapy for Acute Treatments

- Duration of therapy should **only** be specified for medications for acute treatments with a defined length of therapy, e.g., antibiotics.

Avoid Abbreviations, Acronyms or Symbols

- ISMP (Institute for Safe Medication Practices) provides the complete list of *Error-Prone Abbreviations, Symbols, and Dose Designations* that should never be used in a prescription
- If the use of Latin abbreviations is desired, the system should include the ability to expand Latin abbreviations into plain English text via keystroke accelerators. The expanded text form of the Sig should be displayed to the prescriber to ensure correct transition from abbreviations to full text

Example: *Use "**Instill 1 drop into both eyes once daily**" instead of "1 gtt ou qd."*

Never Truncate or Split Directions between multiple fields

- If the patient directions are being transmitted exceeds the 140-character limit, it should be communicated by other means, e.g. as a fax or printed handout
- Sig information should **not** be written into the Notes field if it exceeds the 140-character limit.

Send only Patient Directions (Sig) within the Directions field

- The Sig should not contain information for which another designated field exists in the SCRIPT standard (e.g. the Sig should never include the quantity, drug name, NDC or RxCUI values, or Notes to pharmacists, etc.)

*Example: Use "**Take 1 tablet by mouth once daily**" instead of "Take 1 tablet by mouth once daily. Dispense #30, 3 Refills, Thank you."*

Do not include Clinical or Prescription Information in the Notes field.

- The Notes field be used to contain information related to, but not part of the prescription. While clinical and prescription information should appear in the designated fields for these data elements, not in the Notes field.

SureScripts® E-Prescribing Best Practice Guidelines (continued)

Category II—Prescription Data Elements Requiring Extra Care and Attention When Input.

(1) Guidelines that apply to name, strength, dosage form, and quantity of drug prescribed as well as the directions for use (the "Sig")

- Drug names should be spelled out in full, avoiding the use of abbreviations.
  - While it might be possible to make the case that abbreviations save time in the world of paper prescriptions, no such time savings accrue in the electronic world in which the prescriber simply picks a medication from a drug database.
  - Abbreviations can lead to a misinterpretation of the prescriber's intent, which can result in medication errors.
  - Examples:
    - Use "Hydrochlorothiazide 50 mg" instead of "HCTZ 50 mg."
    - Use "Zidovudine 300 mg" instead of "AZT 300 mg."
- Drug descriptions should include complete name, strength, strength units and dosage form information (if applicable) in the same exact order, and all should appear in one drug description field.
  - Not doing so causes problems in pharmacies due to missing data components.
  - It is preferred that either the generic or the brand name be used in the drug description, but not both. Using both unnecessarily complicates the information in the drug description field.
  - Examples:
    - Use "Doxycycline Monohydrate 50 mg oral capsule" instead of "Doxycycline caps."
    - Use "Ciprofloxacin 500 mg tablet" instead of "Ciprofloxacin tablet 500 mg."
    - Use "Atorvastatin calcium 20 mg tablet" or "Lipitor 20 mg tablet" instead of "Lipitor (Atorvastatin calcium) 20 mg tablet."
    - Drug descriptions for generic products should use the naming conventions found in the Food and Drug Administration's "Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations."
  - This helps pharmacists to accurately choose the product to be dispensed when brand names are not used.
  - Examples:
    - Use "Glipizide 10mg tablets, extended release" instead of "Glipizide TAB OSM 24 10mg."
    - Drug strength information should be consistent across all fields in which it appears.
  - The strength in the drug description should match that in the drug strength field.
  - Drug strength units in the drug description should match those in the drug strength units field. Drug strength units should not be sent in the drug strength field.
  - Example of improper use: The drug description is "Amoxicillin 500 mg oral capsule" and the drug strength field contains the value of "250."
- Dosage form codes should match the forms sent in drug description fields.
  - Example of improper use: The drug description is Amoxicillin 500 mg capsule and the dosage form code field contains "10," which is the NCPDP code that stands for tablet.
- All orders should be written using metric measurements of weight (e.g., mg, gm and kg) and volume (e.g., ml).
  - The apothecary and avoirdupois systems of weights and volumes are no longer considered appropriate in the world of pharmaceuticals.
  - Example: Use "Aspirin 81 mg" instead of "Aspirin 1 ¼ grains."
- A zero should be used before a decimal (use 0.X mg instead of .X mg), but not after (use X mg instead of X.0 mg).
  - Trailing zeros are particularly dangerous in that they can lead to ten-fold overdoses. Thus, trailing zeros should never be used.
  - Examples:
    - Use "Digoxin 0.25 mg" instead of "Digoxin .25 mg."
    - Use "Haloperidol 5 mg" instead of "Haloperidol 5.0 mg."
- Arabic (decimal) numerals are preferable to Roman numerals, and in some instances it is preferable for numbers to be spelled out.
  - Example: Use "Aspirin 325 mg" instead of "Aspirin V grains."
- Other specific abbreviation issues:
  - The term "microgram" can be abbreviated as "mcg," but it should not be abbreviated as "ug," which can easily be mistaken for the abbreviation for "mg," standing for "milligram."
  - The word "unit" should be spelled out and never abbreviated as "U" or "u."
  - "M" should not be used as an abbreviation for thousands (e.g., 5 M units), as it has been mistaken as meaning one million.
  - Do not use commas when expressing thousands as they might be misinterpreted as periods.

Category II—Prescription Data Elements Requiring Extra Care and Attention When Input. (Continued)

(2) Issues related specifically to the Sig field or directions for use.

- The directions for use should not be split between the Sig and Notes fields.
    - Depending upon the design of the pharmacy system and/or the effectiveness of the training of pharmacy personnel, splitting directions between the Sig and Notes fields can result in part of the directions being missed, thereby preventing complete directions from being conveyed to patients. Patients may experience significant negative therapeutic outcomes when this occurs.
    - Examples of improper use:
        - Sig field—"Take one tablet daily," Notes field—"Take only on Monday, Wednesday and Friday." NOTE: This is an actual example from a warfarin e-prescription, which if not taken according to the complete directions, could possibly result in serious patient harm.
        - Sig field—"Dissolve one tablet under the tongue every 10 minutes for chest pain," Notes field—"Call physician immediately if relief is not obtained after three doses."
        - Sig field—"Apply and rub well into affected area twice a day," Notes field—"Discontinue use and call physician if rash worsens."
        - Sig field—"One drop to eye having surgery three times daily," Notes field—"Start two days prior to surgery."
- Information in the Sig field should not conflict with information in the Notes field.
    - Conflicting information in these fields usually requires pharmacists to contact prescribers to ascertain their actual intent with respect to the directions, which compromises the efficiencies related to e-prescribing.
    - Inconsistent information in the Sig versus the Notes fields can result in incorrect directions being conveyed to patients.
    - Example of improper use: Sig field—"1 cap orally 3 times a day", Notes field—"One capsule by mouth daily."
- Care must be taken so that Sigs are not truncated because important information can be lost.
    - Example of improper use: "Take 1 tablet once a month in the am 1 hr before eating or drinking, with 1 C water. Remain upright x 1 hour and nothing by mouth, then resu"
- Sig information should be clinically correct.
    - Example: Use "Amoxicillin 500 mg Oral Capsules"—Sig "One capsule three times a day" instead of "500 caps 3 times a day."
- Directions for use should be spelled out clearly in proper English.
    - Since the pharmacist must interpret—and nearly always writes—the label in English, the use of abbreviations (particularly Latin) or symbols is unnecessary and discouraged because it can lead to medication errors.
    - Example: Use "Take 1 tablet by mouth twice a day" instead of "1 T PO BID."
- Information in the Sig field should be limited to the Sig.
    - Quantity to be dispensed should not be placed in the Sig field.
        - Example: Use "One capsule by mouth three times daily" instead of "One capsule by mouth three times daily – Disp # 30."
    - Duration of therapy should not be placed in the Sig field.
        - Example: Use "One capsule by mouth four times daily" instead of "One four times daily – Disp 10 day supply."
    - Drug description should not be placed in Sig field.
        - Example: Use "One capsule by mouth at bedtime" instead of "One by mouth at bedtime– Paxil CR 20 mg."
    - Example of improper use:
        - "One drop to eye having surgery three times daily. Start two days prior to surgery. May substitute Acular LS, Xibrom, or Voltaren if less expensive." (i.e., the indication of alternative approved drugs "May substitute Acular LS, Xibrom, or Voltaren if less expensive" should be placed in the Notes field.)
- Sigs should be complete, properly formatted, and not repeated.
    - Sig should be complete.
        - ☐ Example: Use "Apply topically to forearm three times a day" instead of "Topical each day."
    - Sig should be properly formatted.
        - ☐ Example: Use "Take one capsule three times a day" instead of "1 3 times a day."
    - Sig should not be repeated.
        - ☐ Example: Use "Take one capsule daily" instead of "1 PO QD – Take one tablet every day."
- The inclusion of the intended use or the indication for the medication in the directions for use is helpful to patients, pharmacists and other prescribers, and is strongly encouraged.
    - Intended use can help patients to organize and better understand their medications and why they are taking them.
    - Including the indication in the Sig field can help prevent dispensing errors, and it provides pharmacists with a foundation for patient counseling and medication therapy management.
    - Other prescribers may find the indication helpful when a patient brings their medication bottles with them to office visits.
    - Example: "Take according to instructions in dosepak for poison ivy rash."

Category II—Prescription Data Elements Requiring Extra Care and Attention When Input. (Continued)

- The instruction "take as directed" is rarely appropriate and should be avoided by prescribers.
    - Such an instruction assumes an understanding on the part of the patient that may not exist, and even if it does, will very likely be short lived.
    - Using the term "take as directed" provides little information upon which the pharmacist can base their counseling of the patient.

(3) Proper use of the Notes field (referred to as "free text" in the NCPDP SCRIPT Standard).

- Prescription information that has a designated, standardized data field should not be placed in the Notes field.
    - For example, neither the drug name, strength nor quantity should be placed in the Notes field because there are specific fields in the NCPDP SCRIPT Standard for these data elements. This is important because if this information isn't placed in the fields in which pharmacy personnel are trained to look for it, it might be missed.
- Clinical information that has a designated, standardized data field should not be placed in the Notes field.
    - As with prescription information, the clinical information should appear in the designated fields for these data elements. This is important because if this information isn't placed in the fields in which pharmacy personnel are trained to look for it, it might be missed.
- Reserve use of the Notes field for information related to, but not part of, the prescription.
    - For example, a comment such as: "Please have the patient call the office when they have finished taking this prescription" would be an appropriate use of the Notes field.
- To reiterate, as mentioned above, the directions for use should not be split between the Sig and Notes fields nor should the information in the Sig field conflict with information in the Notes Field.
    - The former can lead to critical information being missed by pharmacy personnel and possibly not being transmitted to the patient, and the latter normally requires pharmacists to contact the prescriber to clarify their intent, thereby compromising the potential efficiencies of e-prescribing.

(4) Refills authorized, if any

- Although allowed both by convention and NCPDP SCRIPT, the indication of "PRN" (refill as needed) is not considered to be good practice and should be discouraged.
    - Example: Use "Refill 11 times" instead of "Refill PRN."

(5) Other items unique to electronic prescribing.

- Representative NDC number requirements.
    - Representative NDC numbers, which contain 11 digits, must be correct, as incorrect representative NDC numbers may cause drug identification problems in the receiving pharmacies.
    - Representative NDC numbers must be current and included in e-prescription messages unless the items do not have assigned NDCs.
- Quantity Qualifiers must be correctly associated with drug descriptions.
    - Correct mapping procedures are available in the Units of Measure table, which can be found in the NCPDP External Code List and the Surescripts Implementation Guides.
    - Where possible, quantities should reflect the actual metric quantity to be dispensed.
        - Example: Use "Amoxicillin 250mg/5ml, 150 ml" instead of "Amoxicillin 250mg/5ml, 1 bottle."
    - The use of "ZZ", "EA" and "00" should be limited to instances in which none of the available qualifiers in the Units of Measure table can be applied.
        - ☐ Examples of improper use: Drug description—Amoxicillin 500 mg Oral Capsule, Quantity 30 and Quantity Qualifier sent "ZZ"—mutually defined, "EA"—each or "00"—unspecified instead of "AV"—capsules.

Category III—Prescription Common Mistakes

Even though providers using the ChartMaker Medical Suite strive to be accurate in entering information for E-prescription, there are common mistakes made that can easily be corrected. Please read through the examples below in order to understand E-prescription best practices.

(1) Incorrect or incorrectly formatted SIG

This occurs when the appropriate dose is entered incorrectly. The following examples demonstrate typical errors:

Category III—Prescription Common Mistakes (continued)

Drug Description	SIG	Notes	Nomenclature Description	Comment
Combivent Respimat 20 mcg-100 mcg/actuation Aerosol Inhaler	Spray 1 aerosol with adapter (gram) puff(s) 4 times a day		Incorrect or incorrectly formatted SIG	"1 aerosol" is not an appropriate dose for Combivent
Advair HFA 115 mcg-21 mcg/actuation Aerosol Inhaler	Take 2 aerosol with adapter (gram) puff(s) twice a day		Incorrect or incorrectly formatted SIG	"2 aerosol" is not an appropriate dose for Advair HFA
ProAir HFA 90 mcg/actuation Aerosol Inhaler	Take 2 puffs puff(s) q 4-6 hrs prn cough or wheeze or before exercise		Incorrect or incorrectly formatted SIG	Part of the patient instructions are duplicated
Proctosol HC 2.5 % Rectal Cream	Apply 1 cream (gram) rectally 4 times a day		Incorrect or incorrectly formatted SIG	"1 cream" is not an appropriate dose for Proctosol
dicyclomine 10 mg capsule	Take 1 capsule (hard, soft, etc.) orally Three times a day	prn as directed	Incorrect or incorrectly formatted SIG	SIG should be free of all extraneous characters All patient instructions should be sent in their designated SIG field; No parts of the SIG should be in the Notes
Lotrel 5 mg-10 mg capsule	Take 1 capsule (hard, soft, etc.) orally Daily	Name Brand Medically Nec.	Incorrect or incorrectly formatted SIG; Conflicting or Supplementary Drug Substitution information in the Notes	SIG should be free of all extraneous characters All Drug Substitution information should be sent in its designated field; No parts of the Drug Substitution information should be in the Notes
Suprax 400 mg capsule	Take 1 capsule (hard, soft, etc.) orally qd		Incorrect or incorrectly formatted SIG; Incorrect, Missing or Incomplete Dosage Form sent in Drug Description	SIG should be free of all extraneous characters - Suprax 400mg is not available in capsule form; Appropriate dosage form: **Oral Tablet**

Category III—Prescription Common Mistakes (continued)

(2) Incomplete SIG

The following examples indicate incomplete SIG:

Drug Description	SIG	Comment
Suprep 17.5 gram-3.13 gram-1.6 gram Oral Solution	Take 1 solution, reconstituted, oral orally As Needed	SIG should include the **dose, route and frequency** of the prescribed medication
Coumadin 4 mg tablet	Take 2 tablet orally as directed	SIG should include the **dose, route and frequency** of the prescribed medication
Zithromax Z-Pak 250 mg tablet	Take 1 tablet orally As Directed	SIG should include the **dose, route and frequency** of the prescribed medication

Category III—Prescription Common Mistakes (continued)

(3) Conflicting or Supplementary SIG information included in the Notes

Drug Description	SIG	Notes	Comment
nystatin 100,000 unit/gram Topical Ointment	Apply 1 ointment (gram) topically Twice a day	FOR CORNER OF LIP	All patient instructions should be sent in their designated SIG field; No parts of the SIG should be in the Notes
metformin 500 mg tablet	Take 1 TABLET orally bid	*take 1 tablet daily for 1 month, then increase to 1 tablet twice a day	All patient instructions should be sent in their designated SIG field; No parts of the SIG should be in the Notes
Augmentin 875 mg-125 mg tablet	Take 1 tablet orally Every 12 hours	x 5 days	All patient instructions should be sent in their designated SIG field; No parts of the SIG should be in the Notes
Mobic 7.5 mg tablet	Take 1 tablet orally twice a day	as needed	All patient instructions should be sent in their designated SIG field; No parts of the SIG should be in the Notes

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Administration

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track when an immunization export file is generated in the Vaccine Registry (PCVaccine). A new immunization audit event will occur when a file is saved or previewed in the Vaccine Registry (PCVaccine) dialog, and one audit record per immunization per patient will be generated. When an audit event occurs the Event column will display **Export**; the Group column will display **Immunization**; the Audit Trail Description will display the **[Procedure Description]**, **[CPT Code] on [Service Date] by [Provider Name] included in file for export to [Immunization Registry]**; and the patient's **Account #**, **Provider ID**, **Practice ID**, **Selection Criteria** (in comments), and the **File Path** will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track immunization information when an immunization procedure is modified in the Immunization Manufacturers & Lot Numbers dialog (**Administration** > **Transaction Tables** > **Procedure** > **Immunization** button). When a new immunization audit event occurs the Event column will display **Modified**; the Group column will display **Immunization**; the Audit Trail Description will display **Procedure added** (or **modified** or **deleted**), **[Procedure description]**, **CPT Code**, **[Service Date]**; the Old Value and New Value columns will contain a string of items that were modified; and the **User ID** and **User Name** will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track immunization information when an immunization entry is created, modified, or deleted in the Clinical > Immunization tab in Practice Manager. When a new immunization audit event occurs the Event column will display **Added**, **Modified**, or **Deleted**; the Group column will display **Immunization**; the Audit Trail Description will display **Procedure added** (or **modified** or **deleted**), **[Procedure description]**, **CPT Code**, **[Service Date]**; the Old Value and New Value columns will contain a string of items that were modified when applicable; and the patient's **Account #**, and the **Note ID** will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track when an immunization export message is queued for sending to immunization registries that support bidirectional transmission (i.e., DelVax and PASIIS). A new immunization audit event occurs when information in the Immunization Entry dialog (in the Clinical > Immunization tab in Practice Manager) is created or modified, and saved, then after the **Next Account** button is clicked in the Clinical screen, thereby generating an immunization file to be sent to the applicable immunization registry. When an audit event occurs the Event column will display **Export**; the Group column will display **Immunization**; the Audit Trail Description will display **[Procedure Description]**, **[CPT Code] on [Service Date] included in message for export to [Immunization Registry]**; and the patient's **Account #**, **Provider ID**, and the **Note ID** will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track when viewing immunization registry records for a patient for those registries that support bidirectional transmission (i.e., DelVax and PASIIS). A new immunization audit event occurs when accessing the Registry Records dialog (**Administration** > **Registries** > **Immunization** > **View Registry**), and clicking the **Download** button to initiate a request. When an audit event occurs the Event column will display **Export**; the Group column will display **Immunization**; the Audit Trail Description will display **Immunization history data** (or **history and forecast data**) **request sent to [Immunization Registry] for [Account #] on [Date/Time]**; and the patient's **Account #**, and **Response Received** or **No Response Received** (in comments) will be listed in the Metadata column.

Administration (continued)

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track when Practice Manager Administration Rights have granted and revoked for a user in the Practice Manager for Windows Administration (PCAdmin) module. A new user audit event occurs when the selecting or deselecting the **Has Practice Manager Administration Rights** checkbox in the User Maintenance dialog. When an audit event occurs the Event column will display **Modified**; the Group column will display **User**; the Audit Trail Description will display **Granted Practice Manager Administration Rights** or **Revoked Practice Manager Administration Rights**; and the **Login ID** and **User Name** of the user modified will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track whenever user privileges are manually modified in the Practice Manager for Windows Administration (PCAdmin) module. When an audit event occurs the Event column will display **Modified**; the Group column will display **User**; the Audit Trail Description will display **User privileges**; the Old Value and New Value will display the specific privileges that changed; and the **Login ID** and **User Name** of the user modified will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track whenever user privileges are modified using the **Modify this user's settings to be like another user's settings** option in the User Maintenance dialog of the Practice Manager for Windows Administration (PCAdmin) module. When an audit event occurs the Event column will display **Modified**; the Group column will display **User**; the Audit Trail Description will display **User Privileges Set Like User [User ID]**; the Old Value and New Value columns will display any specific privileges that changed; and the **Login ID** and **User Name** of the user modified will be listed in the Metadata column.

- **Administration – Utilities – Audit – Audit Trail –** The Audit Trail has been updated to track whenever user is deleted in the Practice Manager for Windows Administration (PCAdmin) module. When an audit event occurs the Event column will display **Deleted**; the Group column will display **User**; the Audit Trail Description will display **Deleted user**; the Old Value column will display the user account details; and the **User ID** and **User Name** of the user will be listed in the Metadata column.

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