STI Computer Services, Inc. 2700 Van Buren Ave, Eagleville PA 19403 800-487-9135 Fax: 610-650-9272

ChartMaker® Clinical

Please note that the ChartMaker Medical Suite can no longer be installed on computers using the Windows XP or Windows 2003 Server operating system. Since Microsoft has discontinued support for Windows XP in April 2014, and Windows 2003 Server in July 2015, we can no longer guarantee the stability of computers using this operating system, and recommend that you upgrade the operating system on any computers currently using Windows XP or Windows 2003 Server.

Added Features

- **Audit Trail –** The Audit Trail (accessed via **Chart** > **Audit** > **Audit Trail...**) has been updated to track allergy severity whenever an allergy is added or modified. See Figure 1.

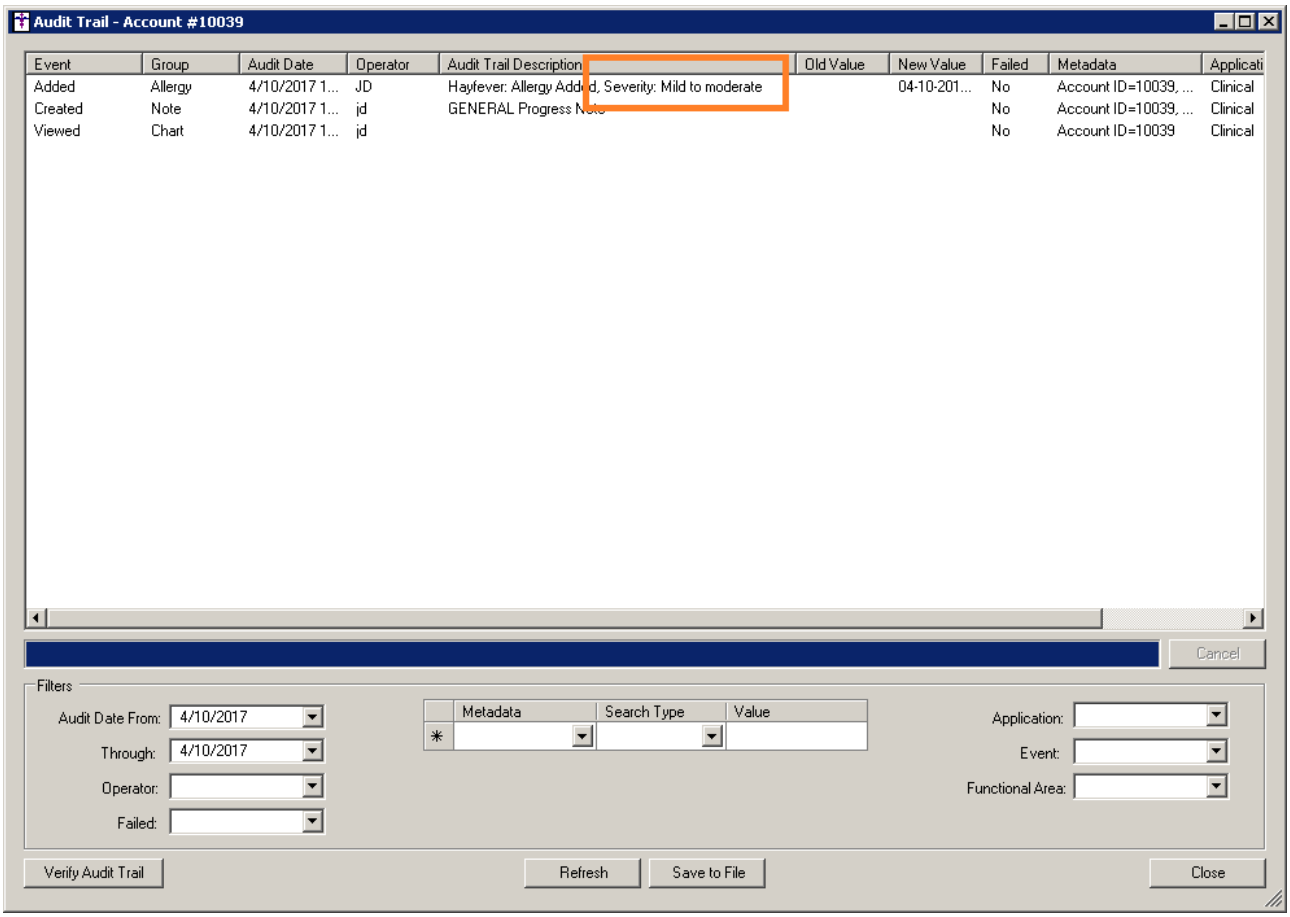


Figure 1 – Audit Trail

- **Direct Messaging – Manage Direct Addresses –** The system has been updated with a new **Direct Address Manager** dialog (accessed via **To-Do** > **Direct Messaging** > **Manage Direct Addresses...**), that offers you the ability to administer not only which users can send and reply to direct messages, but also determine which specific addresses they can use when sending and replying to them. See Figure 2. This allows you to limit who can send messages, and for whom, to ensure that only the appropriate users are sending direct messages for appropriate addresses.

  Only users authorized with the **Manage Direct Addresses** privilege (configured via **Edit** > **System Tables** > **User**) will be allowed access to the Direct Address Manager dialog.

  The system will default with the **Use Simplified Direct Messaging** option selected, which allows all active users to send direct messages for all valid direct message addresses in the practice. Likewise, when this option is selected, the **Users** and **Associated Addresses** sections will be disabled.

  When the **User Simplified Direct Messaging** option is deselected (unchecked), the **Users** and **Associated Addresses** sections will become active, allowing you to assign specific direct message addresses for users.

  To assign an address for a user, highlight a user in the Users section, select the applicable addresses in the Available Addresses column, and then click the **>** button. The selected addresses will then appear in the Assigned Addresses column, and these are the addresses that will be available in the **From** field of the **New Direct Message** dialog when sending and replying to direct messages.

  Assigned Addresses can be removed for the selected user by highlighting the applicable address, and then clicking the **<** button.

  When the User Simplified Direct Messaging option is deselected, if a user is not assigned an address, they will not be allowed to send or reply to direct messages. This is how the administrators would limit who cannot send and reply to direct messages.

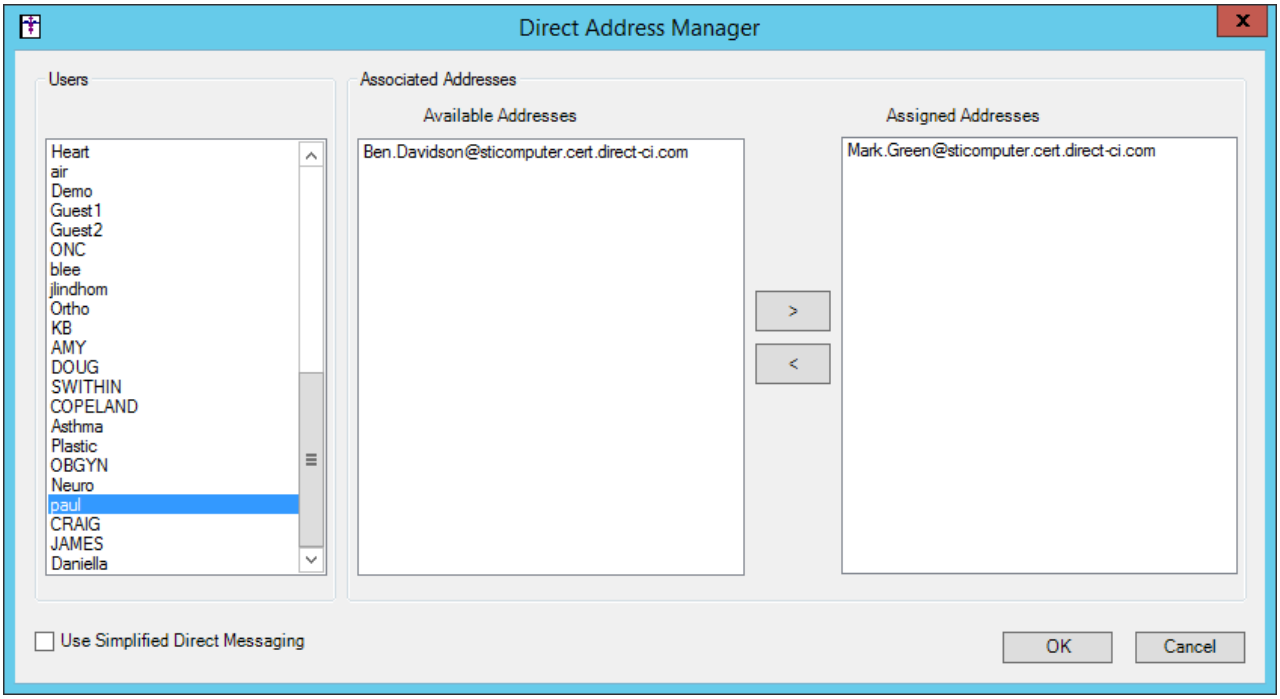


Figure 2– Direct Message Warning

- **EPCS Audit Trail and Drug Log –** The **Audit Trail** tab of the EPCS Auditing dialog (accessed via **Chart** > **Audit** > **EPCS Audit Trail and Drug Log**) has been updated to track Rx Cancel and Rx Change events. See Figure 3.

  When a Rx Cancel is initiated for a controlled substance, an event will be created an Action of **Prescription canceled**, an Outcome of **Pending**, and a Comments and Metadata of **Cancel Prescription Request** along with the event details. When a Rx Cancel response is received, an event will be created with an Action of **Prescription canceled**, an Outcome of **Pending**, and a Comments and Metadata of **Cancel Prescription Response** along with the event details.

  When a Rx Change for a controlled substance is Approved, or Approved with Changes, an event will be created with an Action of **Prescription Transmission**, and Outcome of **Pending**, and Comments and Metadata of **RxChange Response** along with the event details. When Rx Change response is received, an event will be created with an Action of **Prescription Transmission**, and Outcome of **Success**, and Comments and Metadata of **Success** along with the event details.

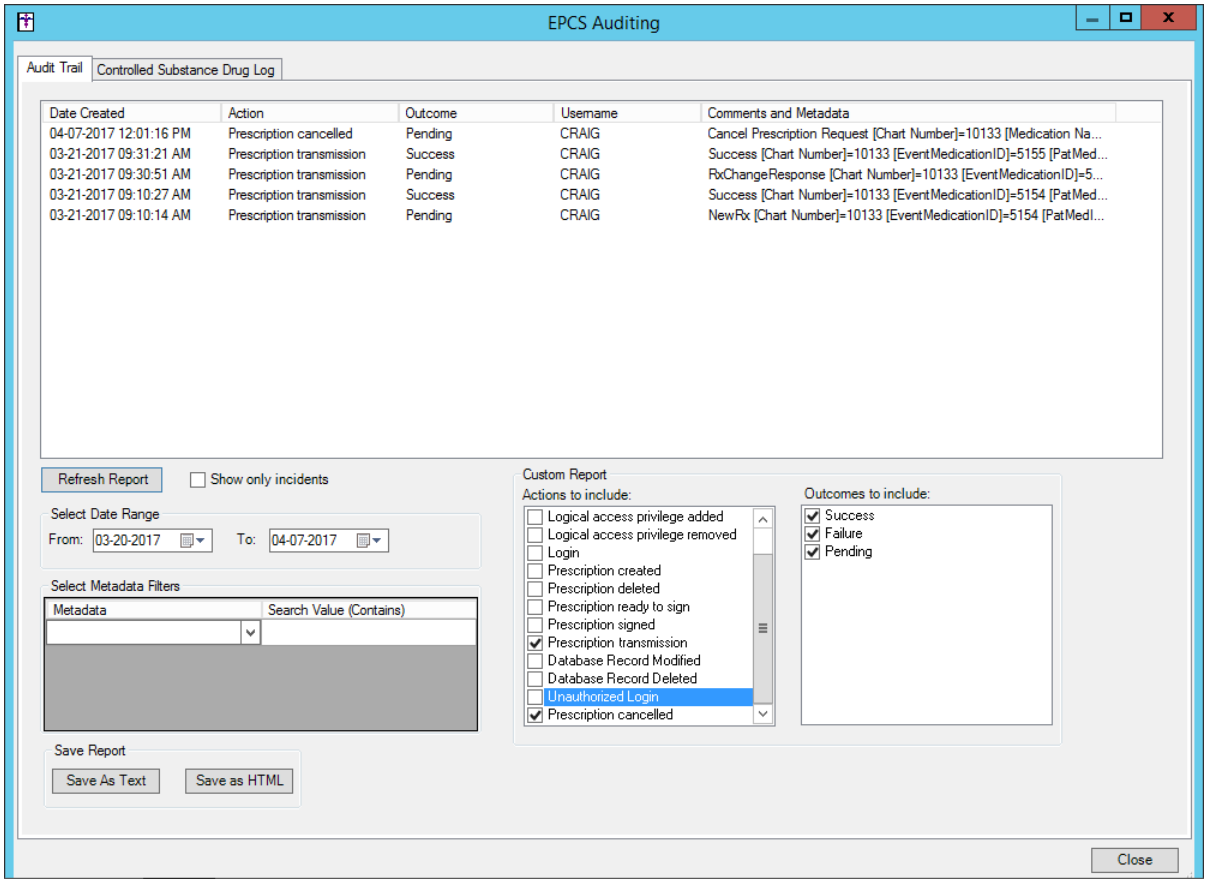


Figure 3 – EPCS Auditing

- **Export Patient Data –** The Export Patient Data dialog (accessed via **Chart** > **Export** > **Patient Data**) has been redesigned and updated with ability to export a Clinical Summary document for a single patient using the **Note Selection (Clinical Summary)** option; or export a Continuity of Care Document (CCD) for a single patient, or for multiple patients using the **Date Range** option. See Figure 4. Do note, however, when accessing this dialog when a patient's chart is opened, that patient will default as the selected patient and you will not be able to export CCDs for multiple patients, just for the selected patient.

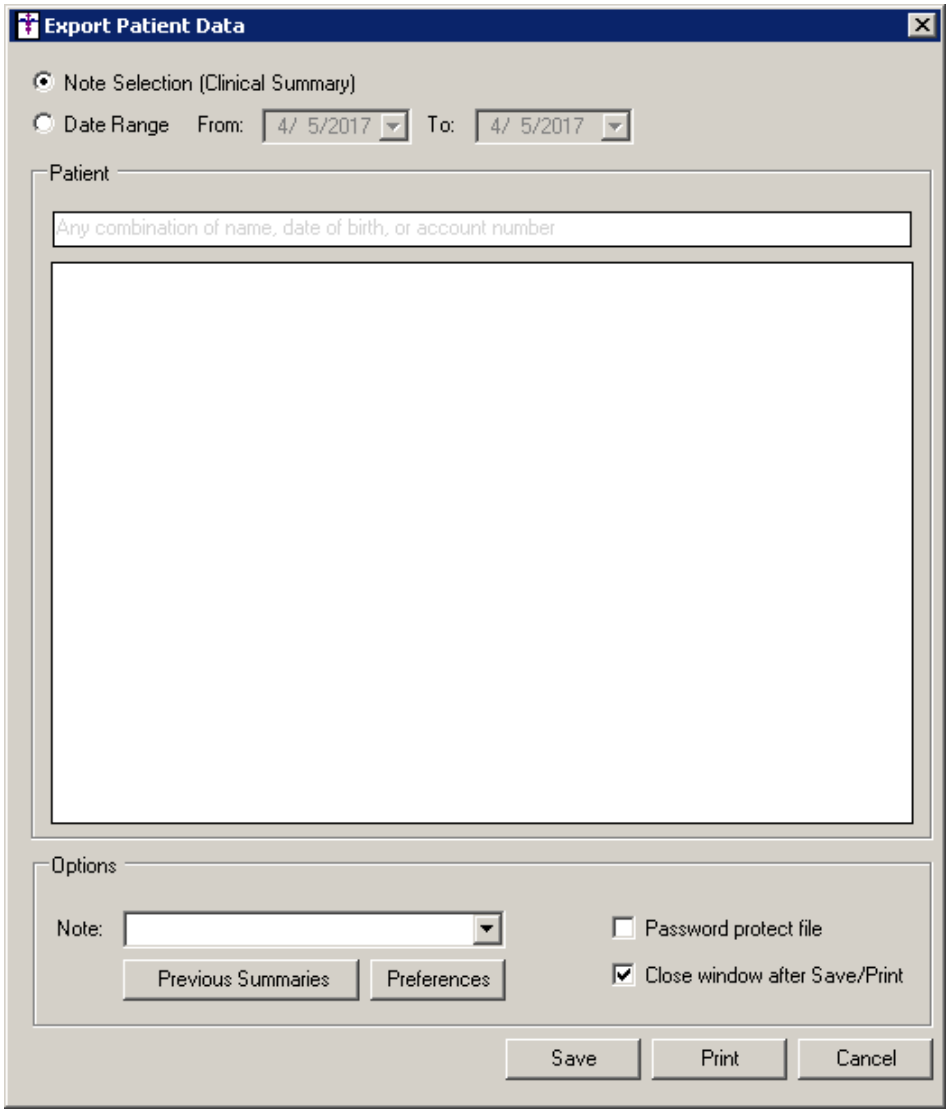


Figure 4 – Export Patient Data

Export Patient Data (continued)

When the **Note Selection (Clinical Summary)** option is selected, the Patient section allows you to search for and select the patient for whom you would like to export a Clinical Summary. See Figure 5. The Options section allows you to select the **Note** for export, view **Previous Summaries** for the selected patient, configure the user **Preferences** for the clinical summary, **Password protect file**, as well as **Close window after Save/Print**. These options work as they did in previous versions of Clinical, however, when the **Password protect file** option is selected, a Document Encryption dialog will appear allowing you to enter and verify a document password, after the **Save** or **Print** button is clicked.

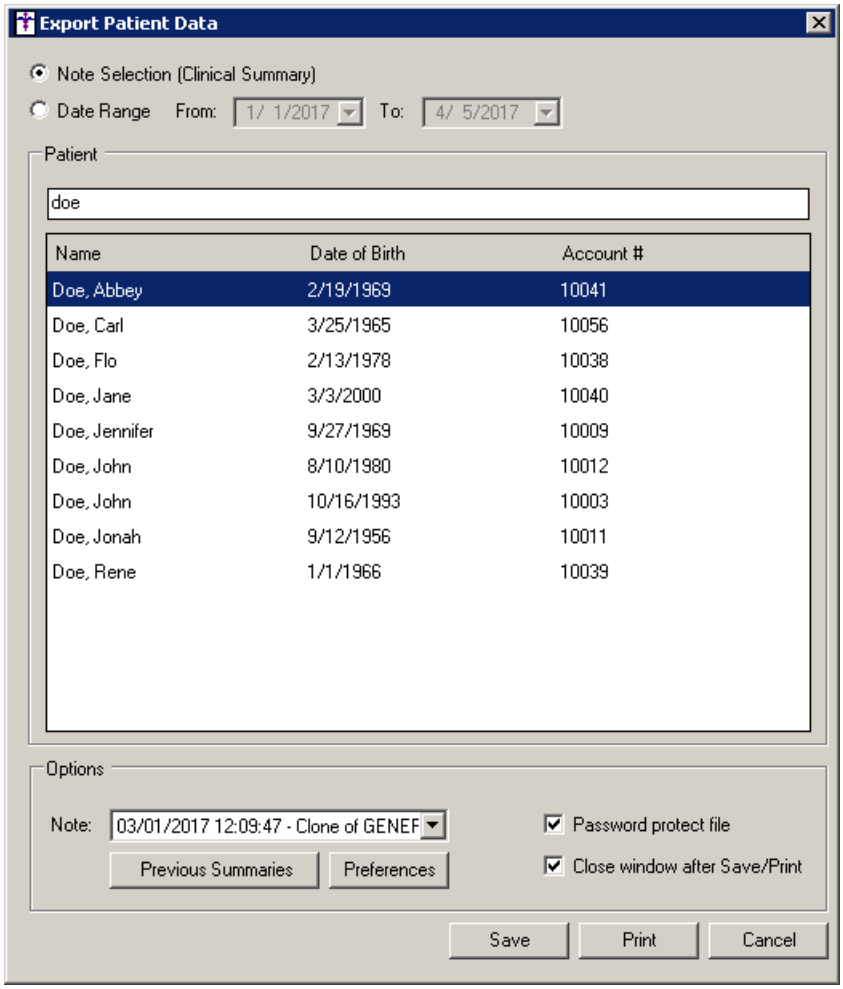


Figure 5 – Export Patient Data – Note Selection (Clinical Summary)

When the **Date Range** option is selected, you can configure a **From** and **To** date for the date range you would like to capture in the exported document. The Patient section allows you to search for and select patients for whom you want to include in the CCD. See Figure 6. Patients are selected by highlighting applicable patients in the search results (upper) pane, and clicking the **Add selected patients** button. Likewise, patients can be removed from the selected patients (lower) pane, by highlighting the applicable patient(s), and then clicking the **Remove patients** button.

The Options section allows you to select the **Provider**, **Document Type**, **Password protect file**, as well as **Close window after Save/Print**. These options work as they did in previous versions of Clinical, however, when the **Password protect file** option is selected, a Document Encryption dialog will appear allowing you to enter and verify a document password, after the **Save** or **Print** button is clicked.

Export Patient Data (continued)

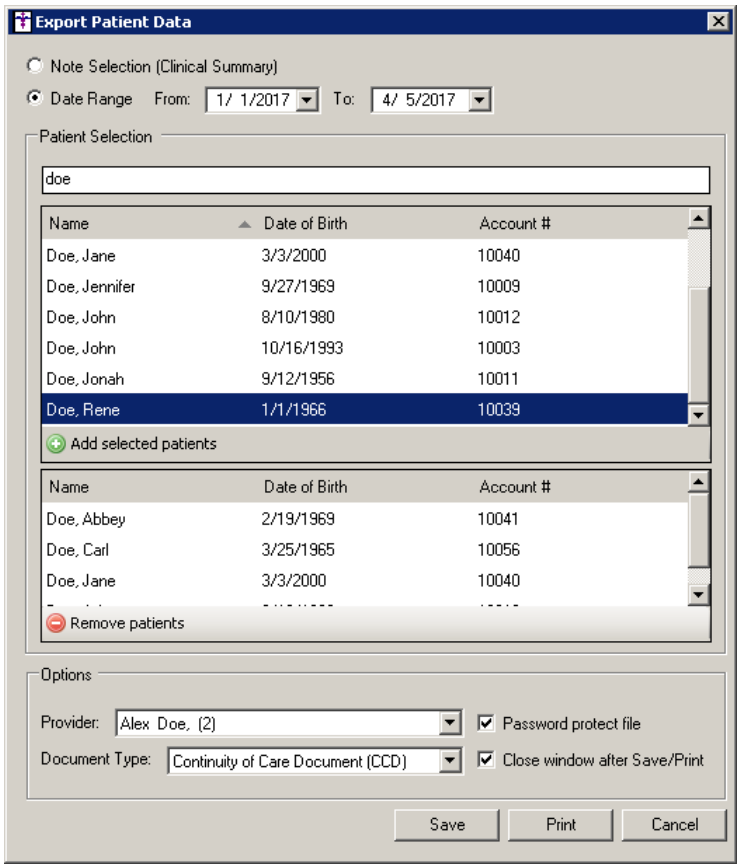


Figure 6 – Export Patient Data – Date Range (CCD)

Due to the changes made to the Export Patient Data dialog, as well as to streamline functionality, the HIE Export options have been moved to a separate HIE Export dialog (accessed via **Chart** > **Export** > **To HIE**). See Figure 7. The **Patient List**, **Provider Selection**, **HIE Selection**, and **Note Selection** options work, and will become active, as they did in previous versions of Clinical.

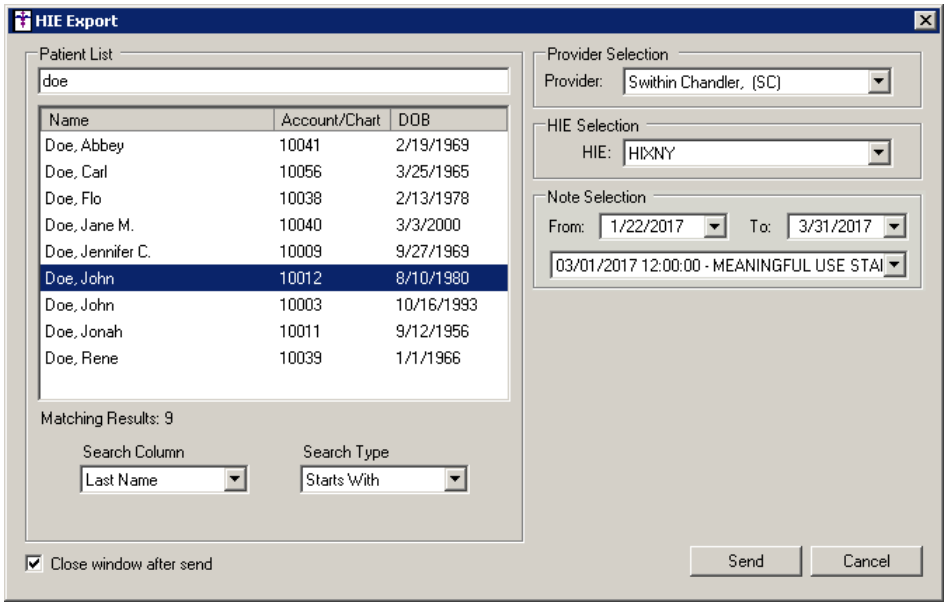


Figure 7 – HIE Export

- **Export Schedule Patient Data –** The system has been updated with a new **Schedule Patient Data Export** dialog (accessed via **Chart** > **Export** > **Schedule Patient Data**) that gives you the ability to configure scheduled exports of patient data. See Figure 8. You can **Add** multiple exports as your needs dictate, modify the configurations of those exports via the **Properties** button, and **Remove** export configurations when they are no longer needed.

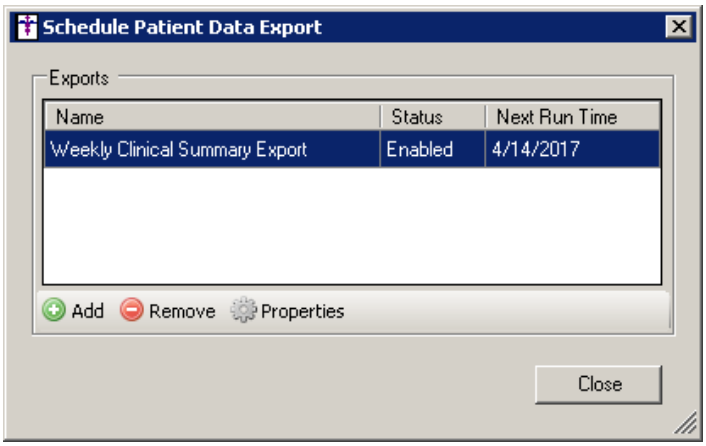


Figure 8 – Schedule Patient Data Export

When adding, or modifying, scheduled export configurations via the **Add** and **Properties** button, you will access a **Schedule Patient Export** dialog that allows you to configure the various parts of the scheduled export from **General** information, to the **Schedule** parameters, to the **Patient Selection** process, to **Information Selection** of data to be sent, to a **Summary** of the scheduled export configuration.

In the General stage, you can **Name** the export configuration you are adding or modifying, as well as configuring the **Status** to enable or disable the export. See Figure 9. The **Output directory** field displays the location where the generated export file will reside when finished.

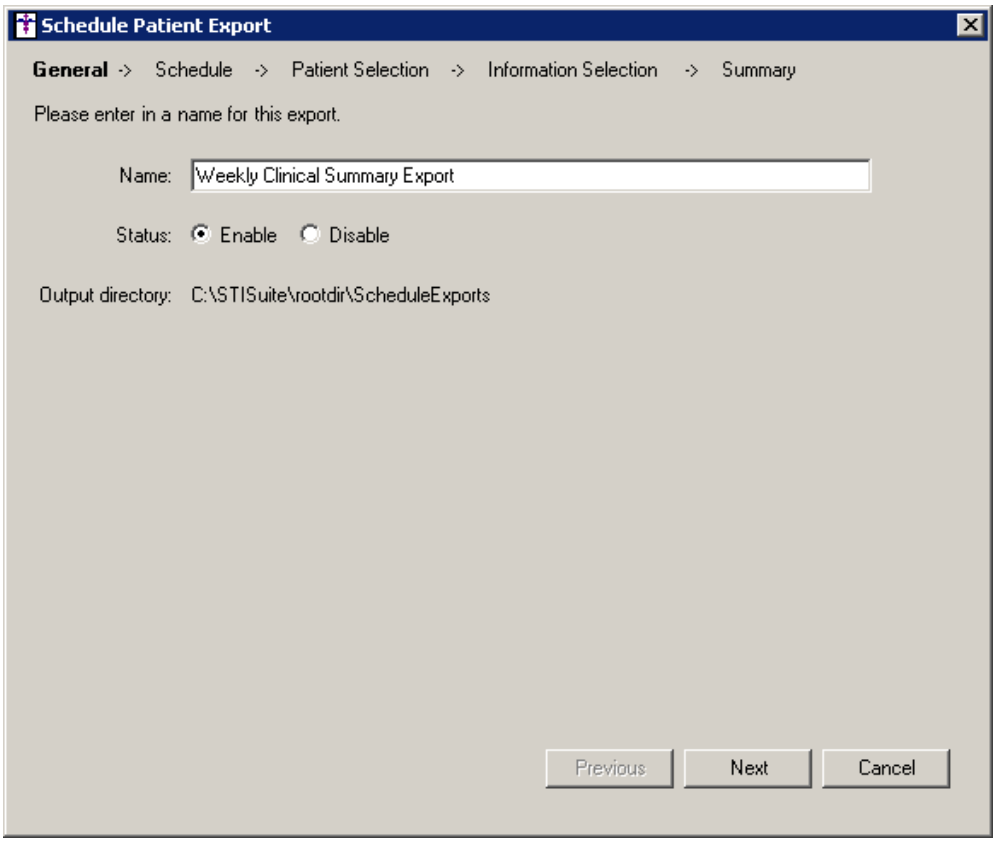


Figure 9 – Schedule Patient Export – General

Export Schedule Patient Data (continued)

In the Schedule stage, you can choose when you would like to **Start** the export, whether it starts **Now**, or **Later** at a selected date and time. See Figure 10. You can also determine the Frequency in which the export will be performed: **One Time** or **Recurring**. When the Recurring option is selected, you can choose whether the export will occur **Daily**, **Weekly**, or **Monthly**.

When **Daily** option is selected, you can choose to export every user-configured number of days, or every weekday. When the **Weekly** option is selected, you can choose to export every user-configured number of weeks. When the **Monthly** option is selected, you can choose to export every user-configured number of months, or on a specific day of the week for every user-configured number of months.

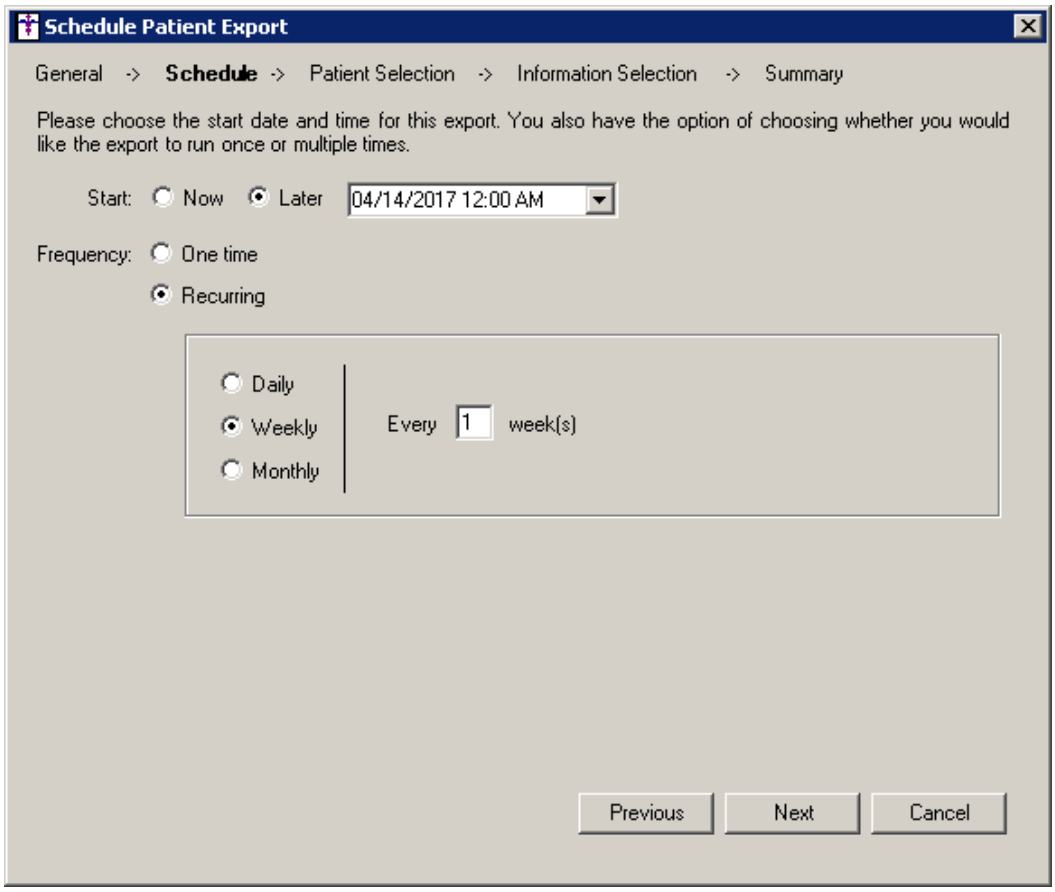


Figure 10 – Schedule Patient Export – Schedule

Export Schedule Patient Data (continued)

In the Patient Selection stage, you can choose patients by **Provider** or **Patient's name**. See Figure 11. When the **Provider** option is selected, you can select the applicable provider, and then select patients based on patients seen in the last user-configured days, months, years, or a selected date range. When the **Patient's name** option is selected, you can search for and select applicable patients in the system.

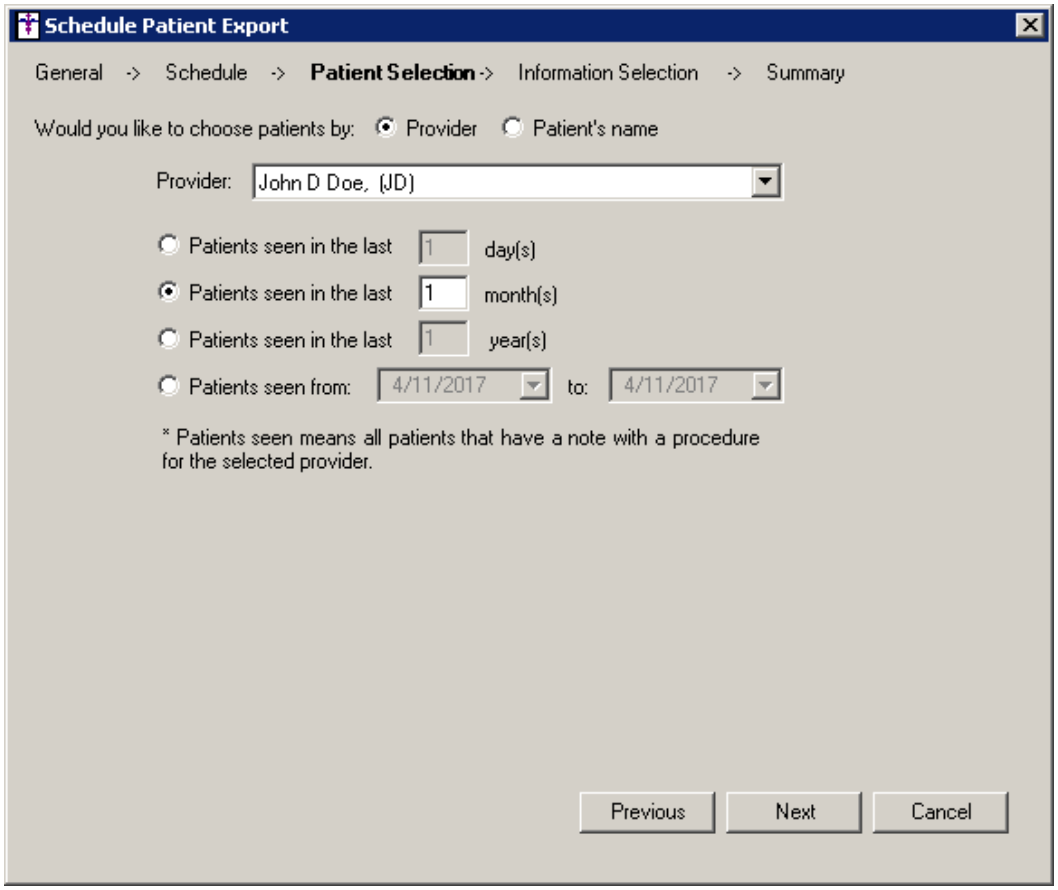


Figure 11 – Schedule Patient Export – Patient Selection

In the **Information Selection** stage, you can the amount of information to be included in the export. See Figure 12. Here you can select to include all information from the last visit, all information from all visits, all information for the user-configured number of last days, months, or years, or for a selected date range.

Export Schedule Patient Data (continued)

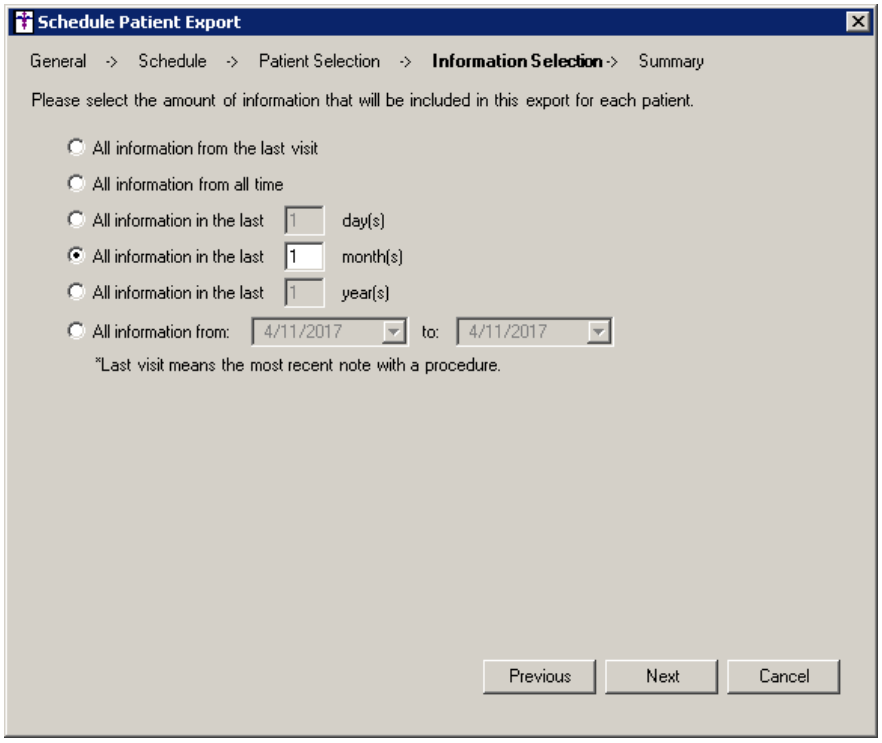


Figure 12 – Schedule Patient Export – Information Selection

In the **Summary** stage, you will be able to review the scheduled export configuration. See Figure 13. If the information appears correct, you can click the Finish button. The scheduled export will become active and you will be returned to the Schedule Patient Data Export dialog where you can add, modify, and remove scheduled exports as needed.

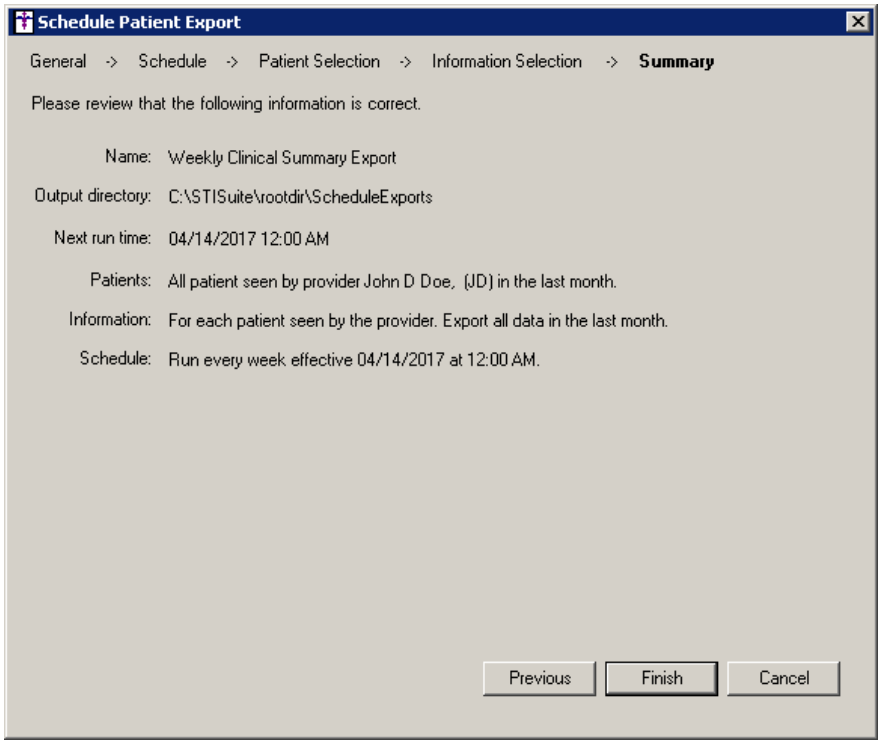


Figure 13 – Schedule Patient Export – Summary

- **The Facesheet – Allergy List –** The system has been updated so that whenever the **Severity** of an allergic reaction is added or modified in a chart note, it will be updated and displayed in the patient's facesheet. See Figure 14. The Severity will be listed below the Allergy after the allergic Reaction, if a reaction is entered in the chart note. If no reaction is entered, it will appear below the Allergy.

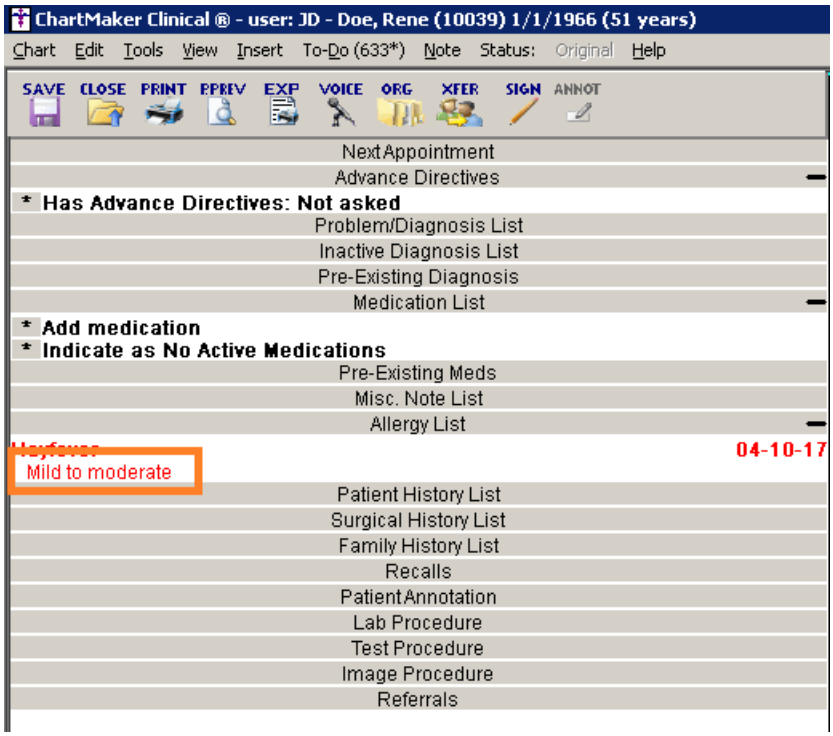


Figure 14– Facesheet – Allergy List

- **The Facesheet – Pre-Existing Medications –** The system has been updated so that whenever an **Estimated Start Date** is configured for a pre-existing medication, it will be displayed in the context menu accessed via the facesheet. See Figure 15. If an Estimated Start Date was not configured, the system will show a question mark (?) in the corresponding field in the context menu. In addition, the context menu has been updated with a **Date Entered** field which will display the chart note date for which the pre-existing medication was entered.

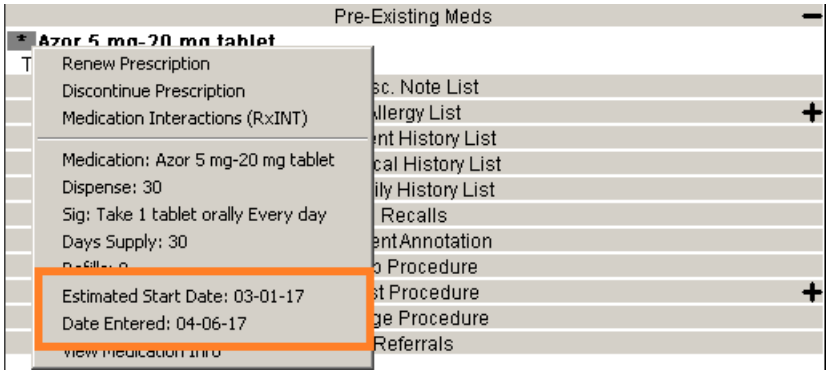


Figure 15– Facesheet – Pre-Existing Meds

- **The ID Tab – Consent –** The **Immunization** section of the Consent dialog has been updated to display previously entered consent information for the registry with the latest **Effective Date** upon accessing the Consent dialog. See Figure 16. This allows you to easily determine if consent information has been entered for the applicable state registry.

  Upon accessing the Consent dialog, if no consent information is entered for an immunization registry, the Registry Name will default to the first registry in the alphabetical list (DHIN DELVAZ v 2.5.1). If consent is entered for a single registry, that registry will be displayed in the Registry Name field, and the applicable consent information will be displayed as previously configured. If consent is entered for multiple registries, the registry will the latest Effective Date for any of the four registry options will be displayed in the Registry Name field, and the applicable consent information will be displayed as previously configured.

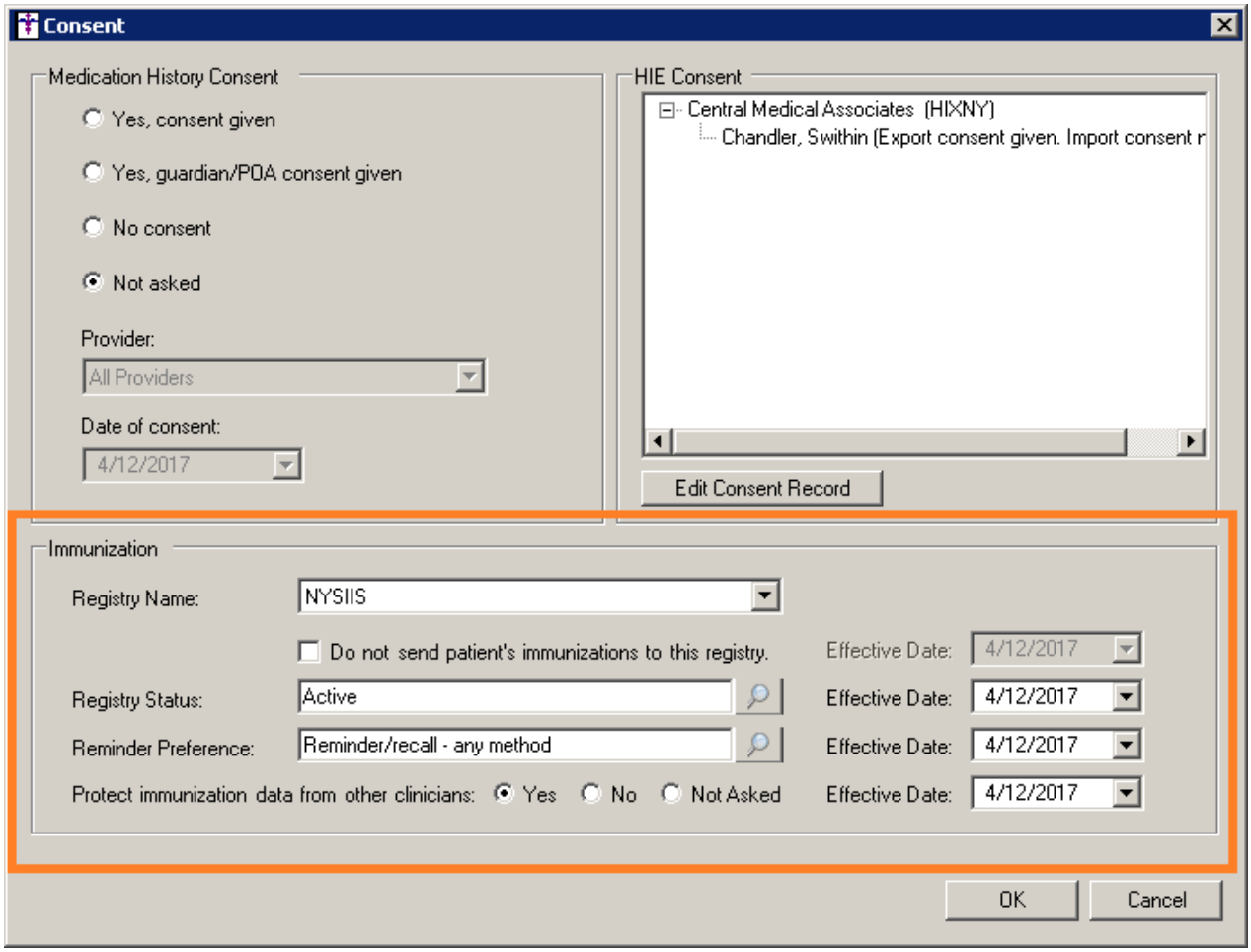


Figure 16 – Import Document

- **Import Patient Data –** The Import Document dialog (accessed via **Chart** > **Import** > **Patient data**) has been updated with an **Import Configuration** section that allows you to select, via the **Configure** button, what sections of the imported document, and the order they will appear, in the chart note. See Figure 17.

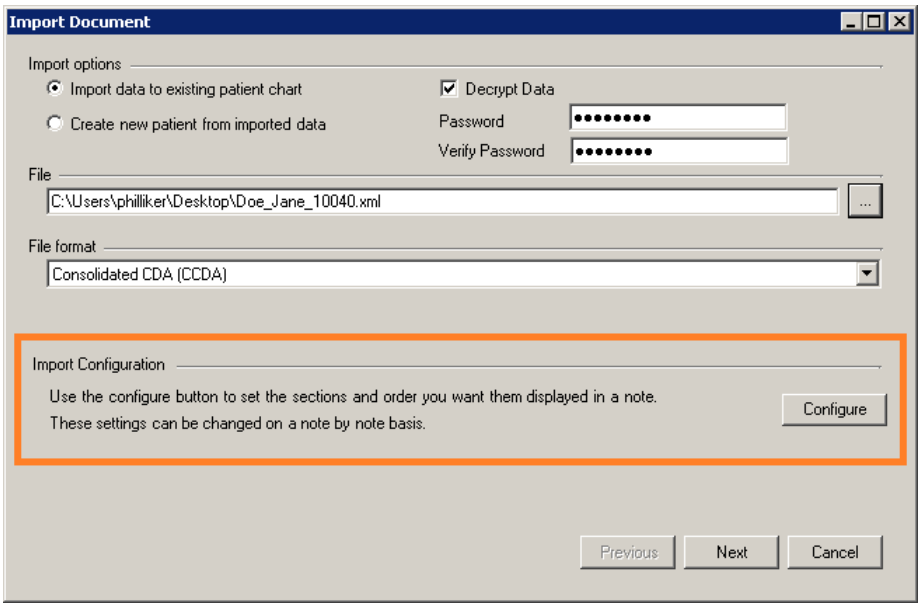


Figure 17 – Import Document

After the Configuration button is clicked, a CDA Section User Preferences dialog will appear allowing you to select which sections you want to be displayed, as well as the order in which those sections should appear. See Figure 18. Only those sections that have a check in the **Display** column will initially appear in the chart note. To change the order of a section, highlight the applicable section, and then use the **Move Up** and/or the **Move Down** buttons to modify that sections position.

Whenever a user modifies the preference settings in the CDA Section User Preferences dialog and saves those changes by clicking the **OK** button, the system will save these user-specific preferences, and the selected sections to display and order will default when importing subsequent documents for the user.

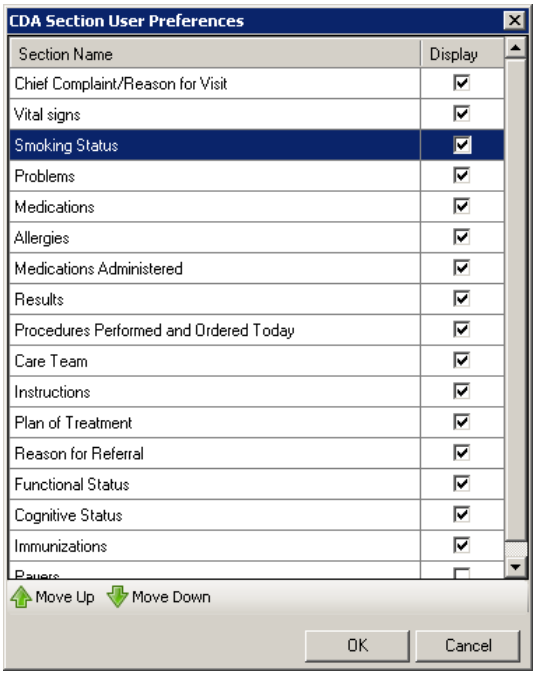


Figure 18 – CDA Section User Preferences

Import Patient Data (continued)

After the parameters are configured for the imported document and the **Finished** button has been clicked, the patient's chart will open with the Clinical Document embedded in the note with a new display widget. See Figure 19. The new display widget has a **Configure display** button and **Print** button at the top of the display widget that allows you to override the display configuration for this specific note, if desired, and print the information in the imported document per the display parameters selected.

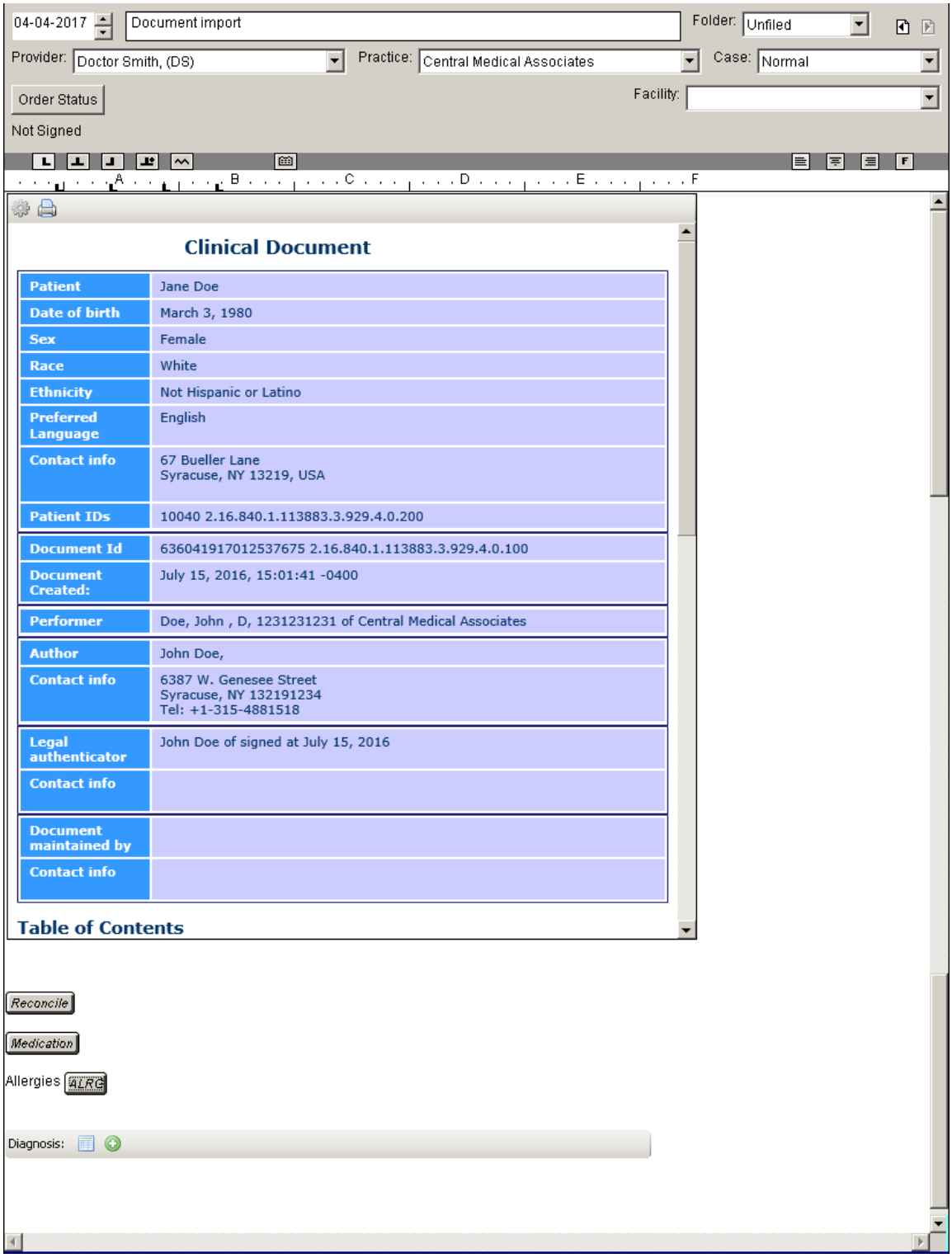


Figure 19 – Chart Note – Clinical Summary Display Widget

Import Patient Data (continued)

When you click the **Configure display** button, a CDA Section User Preferences dialog will appear allowing you to select which sections you want to be displayed, as well as the order in which those sections should appear. See Figure 20. Do note, only those sections contained within the imported document will be displayed as selectable options. Also, any modifications made in the CDA Section User Preferences, accessed via the display widget, will be for that specific note only and will not affect any default settings configured in the Import Document dialog.

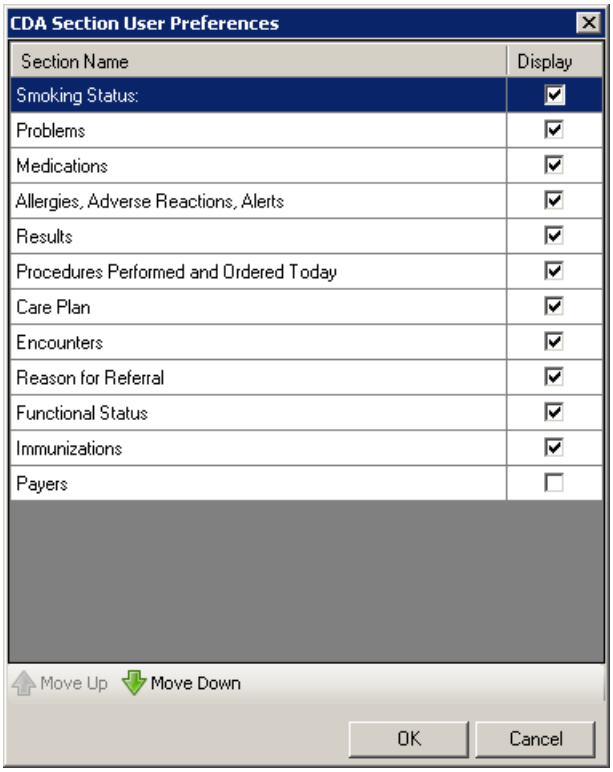


Figure 20 – CDA Section User Preferences

- **The Note Tab – Allergies –** The system has been updated so that whenever the **Severity** of an allergic reaction is configured for an allergy, that severity information will be outputted in the chart note. See Figure 21.



Figure 21 – Note – Allergies

- **The Note Tab – Immunizations –** The program has been updated so that the latest immunization codes from the CDC are being used when configuring immunization information.

- **The Note Tab – Vitals –** The Vital Signs Entry dialog has been updated with a **BSA** section, when configured to display via the Template Editor, below the **BMI** section, that will automatically calculate the **Body Surface Area**, when the **Height**, or **Length**, and **Weight** is entered in the Vital Signs Entry dialog. See Figure 22. The BSA will be recalculated whenever a modification is made to the Height, Length, or Weight fields. Likewise, the system will display the BSA in red to warn when the calculated value is outside the preconfigured high and low warning limits. When a BSA is configured, it will be outputted in the chart note and will be tracked in the History tab.

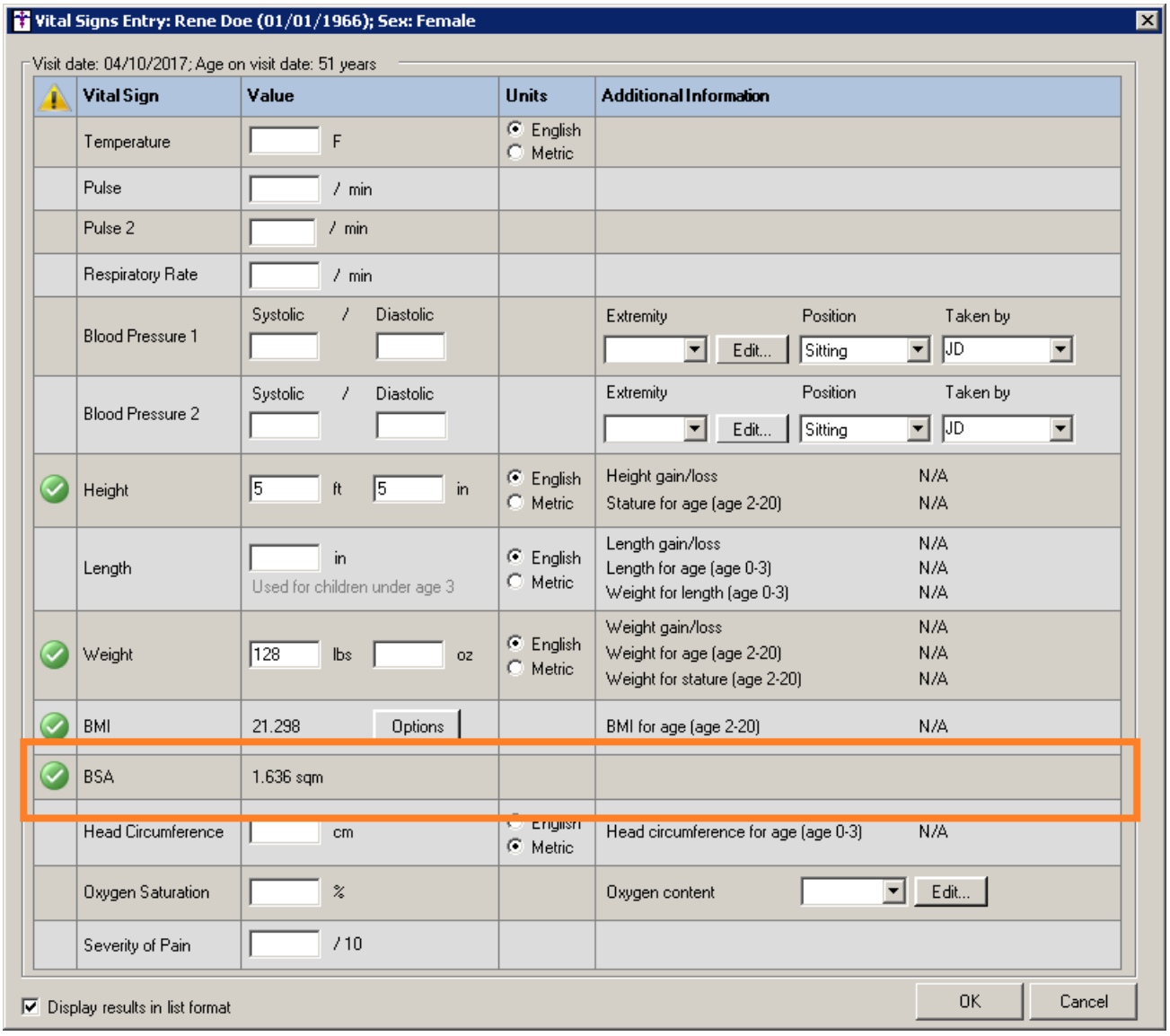


Figure 22 – Vital Signs Entry

- **Reports – Reports** – The Reports dialog has been updated with **Date** field for the **With Procedure** and the **With Results** reporting options. See Figure 23.

  When **With Procedure** report option is selected, and the **Date** field is activated, the system will list those patients that have the selected procedure with a status of **All Status**, **Pending**, **Completed**, or **Reviewed** within the selected date range, in addition to any other options selected. The Date field will be disabled when the **Due** status is selected.

  When the **With Results** report option selected, and the **Date** field is activated, the system will list those patients that have the selected result(s) within the selected date range(s), in addition to any other options selected. You can add up to five (5) results and a separate date range for each selected result.

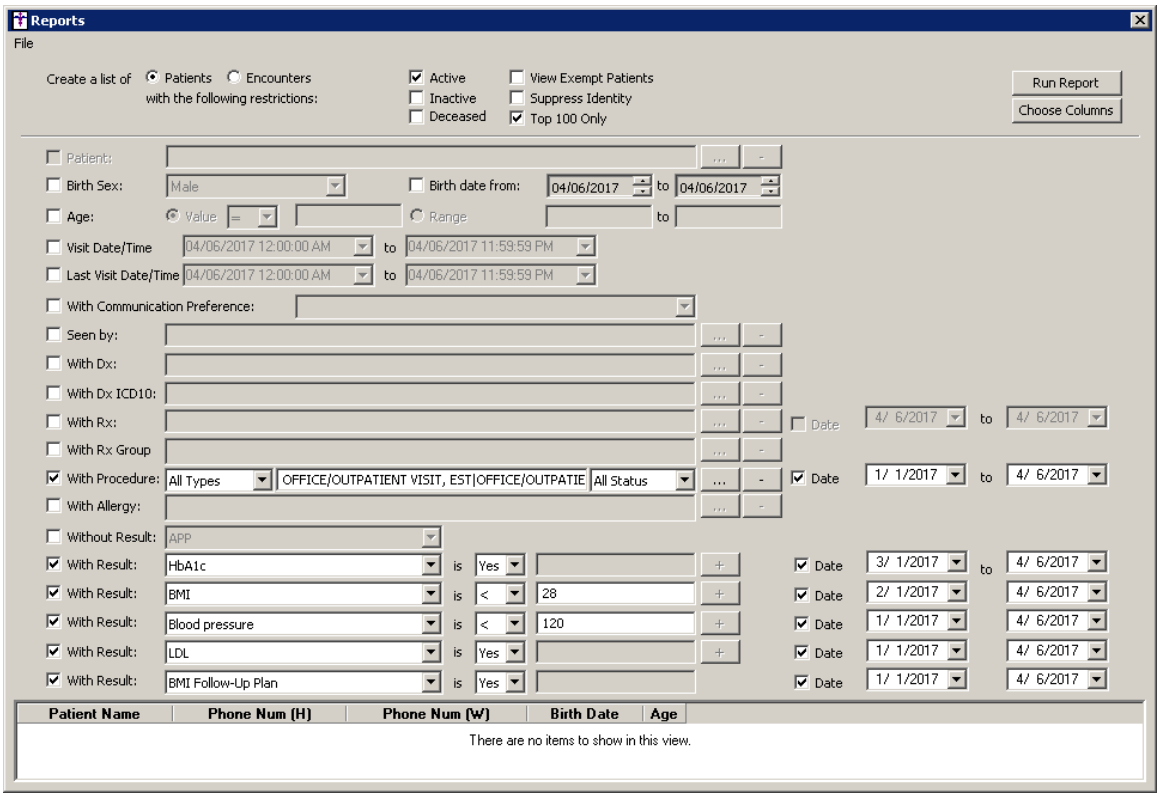


Figure 23 – Reports

- **STI Quality Reporting Registry (STI MIPSPRO)** – The system has been updated to send patient data to the STI Quality Reporting Registry (STI MIPSPRO) that allows MIPS Eligible Clinicians (ECs) to easily track and report their MIPS quality measures. With STI MIPSPRO, ECs can continually follow their progress throughout their MIPS performance period and make any necessary changes before submitting their data. See Figure 24.

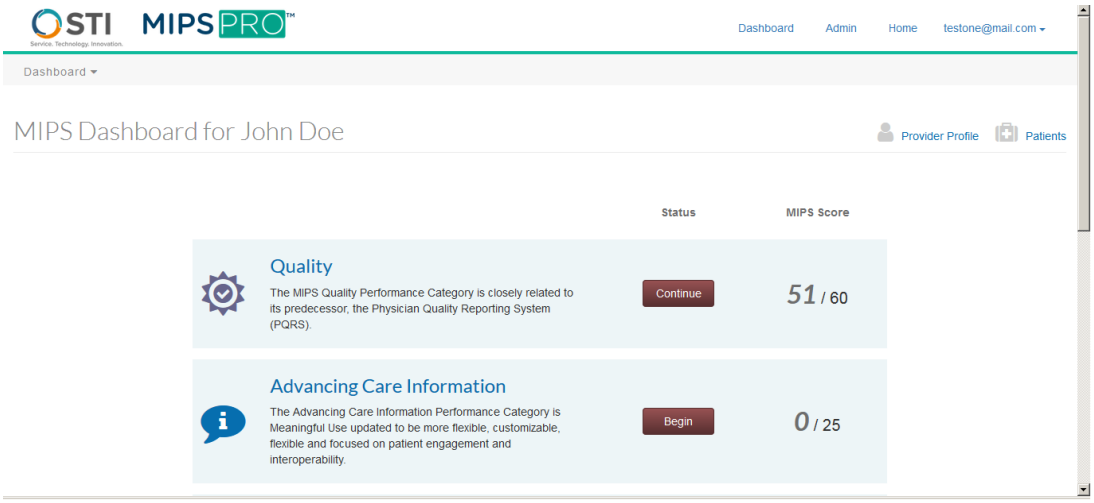


Figure 24 – STI MIPSPRO – MIPS Dashboard

With the STI MIPSPRO you can select the various quality measures your office wants to qualify for (at least 6, but you can select as many as 50 measures), and then as your data is transferred from Clinical to STI MIPSPRO you have access to CMS Performance and Quality Score reports that present an overview of your progress, and STI MIPSPRO will also determine the best 6 measures to determine your MIPS Quality Score. See Figure 25.

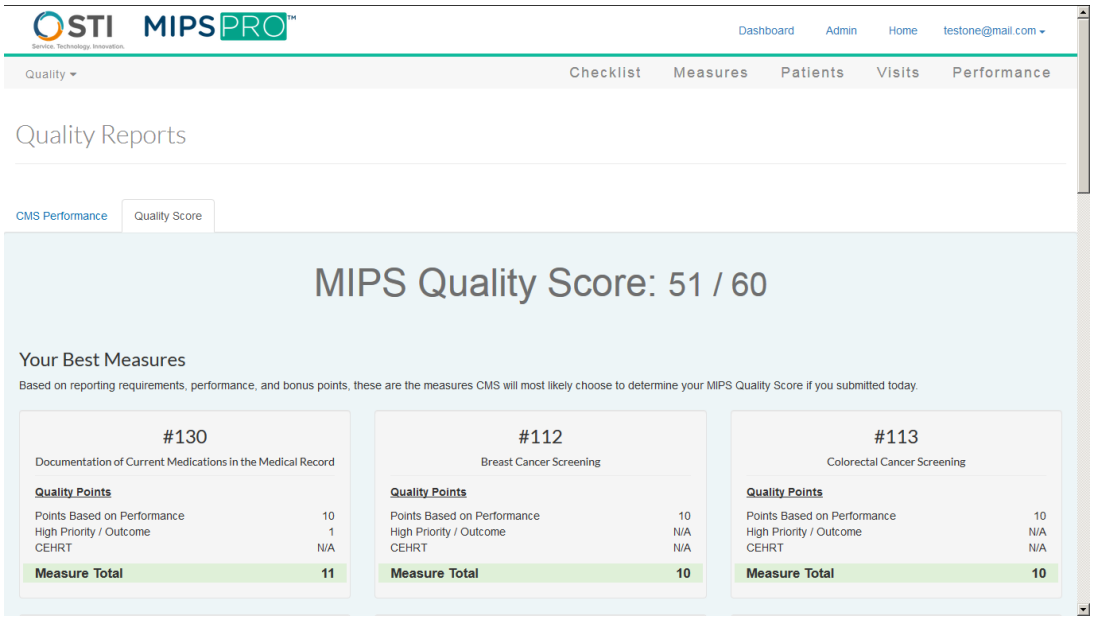


Figure 25 – STI MIPSPRO – Quality Reports

STI Quality Reporting Registry (STI MIPSPRO) (continued)

In addition to performance and quality reports you have access to detailed raw patient and visit data to view how measures are determined at the visit level and how those measures are either met or not. See Figure 26. Throughout the reporting period you can make modifications to patient chart notes in the Clinical system when needed, and that information gets updated within the STI Quality Reporting Registry daily, just as any new data gets updated daily.

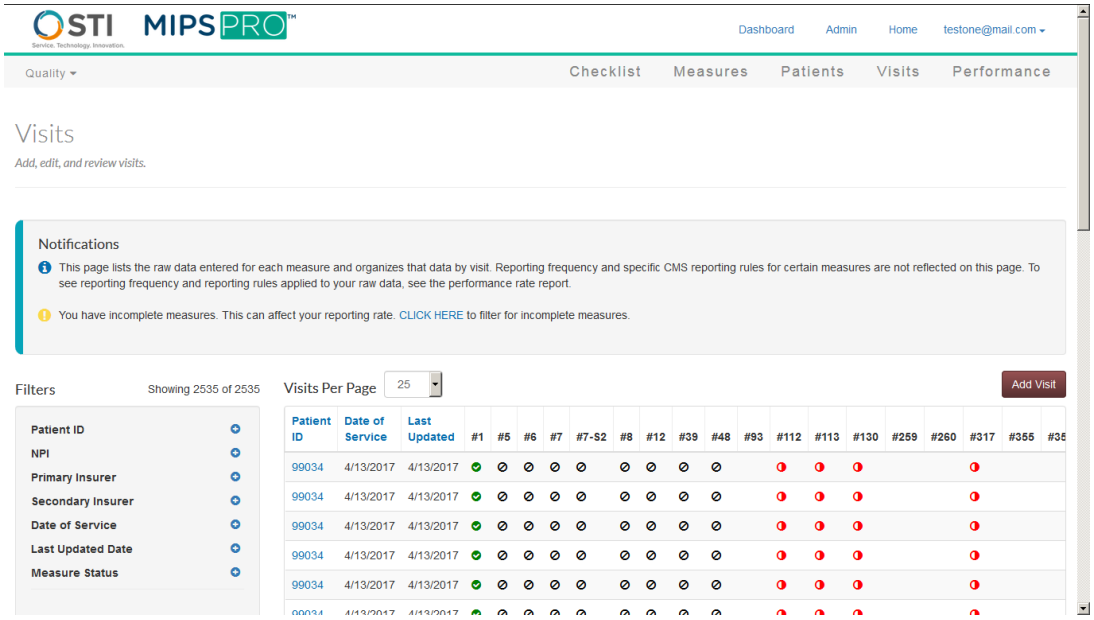


Figure 26 – STI MIPSPRO – Visits

And once your reporting period is over, and you have sufficiently tracked your reporting, STI MIPSPRO will be there to provide data validation and finalize your data for review and attest your Quality reporting data.

Do note, to utilize the STI Quality Reporting Registry (STI MIPSPRO), there is an enrollment process and additional fees per provider. The fee is waived for MIPS Assistance Program clients. See the Quality Reporting Registry (MIPSPRO) enrollment form on our website here, http://sticomputer.com/quality-registry-enrollment/, for enrollment details and pricing.

- **System Tables – Users – Privileges –** The system has been updated with a new Manage Direct Addresses privilege that allows Authorized users to access the Direct Address Manager dialog (**To-Do** > **Direct Messaging** > **Manage Direct Addresses...**), where they can assign the direct message addresses a user can use when sending or replying to direct messages. See Figure 27.

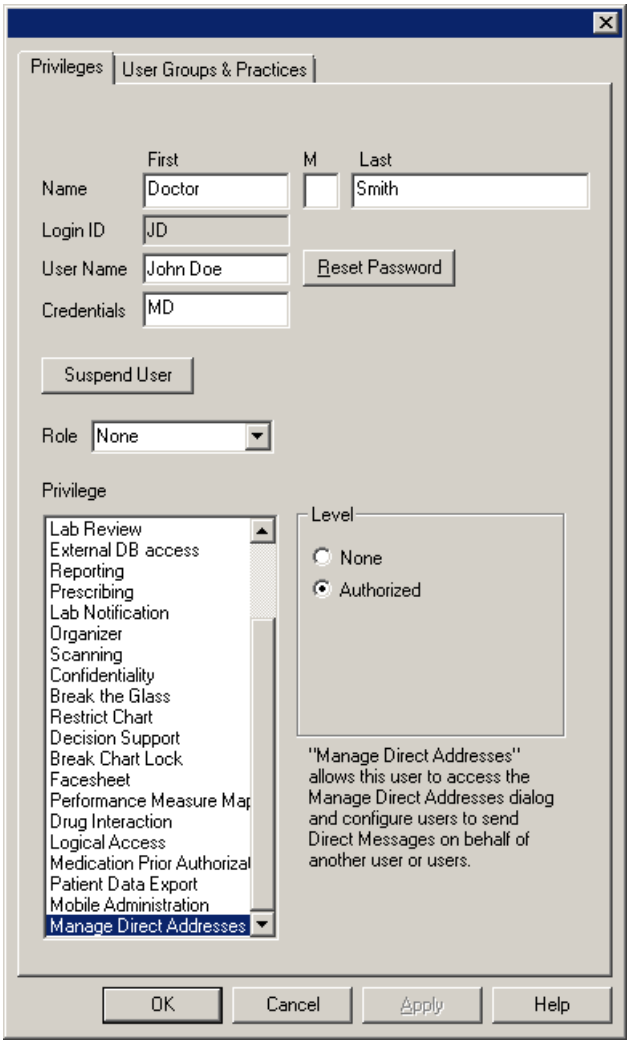


Figure 27 – System Tables – User – Manage Direct Addresses Privilege

- **System Tables – Users – Privileges –** The system has been updated with a new **Patient Data Export** privilege that allows administers to limit what users have access to the patient data exporting functionality. The Patient Data Export option has three levels of exporting privilege: **None**, **Export**, and **All**. See Figure 28.

  When the **None** option is selected, the selected user will not be able to access the Export Patient Data dialog (**Chart** > **Export** > **Patient Data**), or the Schedule Patient Data Export dialog (**Chart** > **Export** > **Schedule Patient Data**) to export patient data and schedule patient data to export. Likewise, the selected user will not have access to the Transaction of Care Export dialog (**Chart** > **Export** > **ToC for All Patients**) to export TOC documents for all patients in the system.

  When the **Export** option is selected, the selected user will have access the Export Patient Data dialog and the Schedule Patient Data Export dialog to export patient data and schedule patient data to export. However, the selected user will not have access to the Transaction of Care Export dialog to export TOC documents for all patients in the system.

  When the **All** option is selected, the selected user will have access the Export Patient Data dialog and the Schedule Patient Data Export dialog to export patient data. Likewise, the selected user will also have access to the Transaction of Care Export dialog to export TOC documents for all patients in the system.

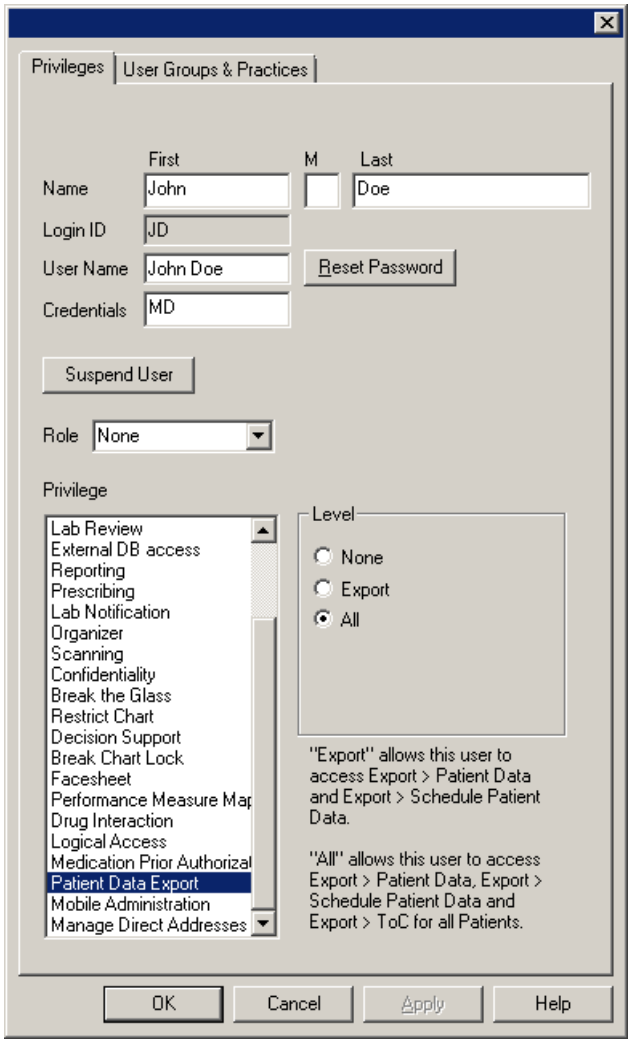


Figure 28 – System Tables – User – Patient Data Export Privilege

- **Template Editing – Vitals –** The Vital Signs Preferences dialog (accessed by right-clicking the **Vitals** button in the Template Editor, and selecting **Edit Properties…**) has been updated with a **Body Surface Area (BSA)** option, that allows you to configure whether the BSA option should be displayed in the Vital Signs Entry dialog, as well as to configure **Settings** preferences such as how it should be displayed, high and low warning limits, as well as connecting it to any E&M guidelines. See Figure 29. Do note, that the BSA will default to not show in Vital Signs Entry dialog.

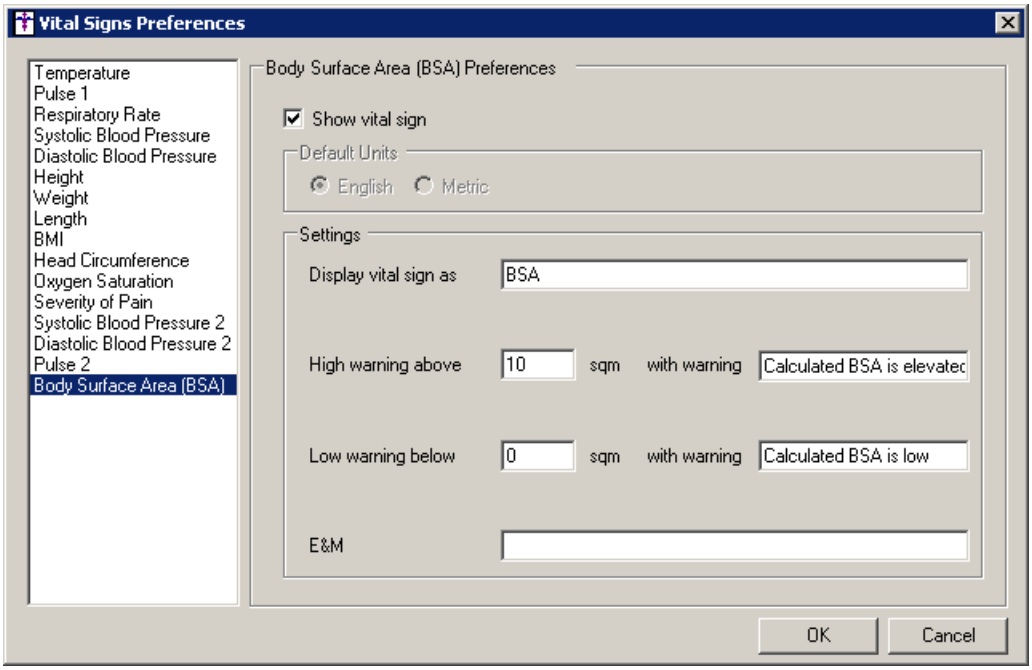


Figure 29 – Vital Signs Preferences.

Addendum

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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ChartMaker® Practice Manager

Please note that the ChartMaker Medical Suite can no longer be installed on computers using the Windows XP or Windows 2003 Server operating system. Since Microsoft has discontinued support for Windows XP in April 2014, and Windows 2003 Server in July 2015, we can no longer guarantee the stability of computers using this operating system, and recommend that you upgrade the operating system on any computers currently using Windows XP or Windows 2003 Server.

Clinical

- **Clinical – Immunization** – The program has been updated so that the latest immunization codes from the CDC are being used when configuring immunization information.

Addendum

Insurance Billing Updates Reminder

In the version 4.1 release of Practice Manager, there was an important enhancement that was made to the Insurance Billing screen to alert you whenever a new insurance billing update is available. Once alerted you can then download these updated billing components at your convenience. **Do note that if you are running the 4.1 version of Practice Manager, the update process needs to be performed on the server.**

In the version 4.2 release of Practice Manager, the system was updated so that billing components reside on each individual workstation. **Therefore, if you are running the 4.2 version or higher of Practice Manager, the update process (described below) will need to be initiated for each workstation that will be doing insurance billing.** If the updates are not downloaded and registered on each workstation that will be doing insurance billing, then claims generated for those workstations may be denied if they are not updated.

- **Insurance Billing Updates** – The Insurance Billing tab has been updated with an Update button that allows you to download the latest insurance billing components if new components are available. See Figure A1. An Update button is available in both the Manual Billing and Automatic Billing sub-tabs and will become highlighted to alert you when new billing components are available.

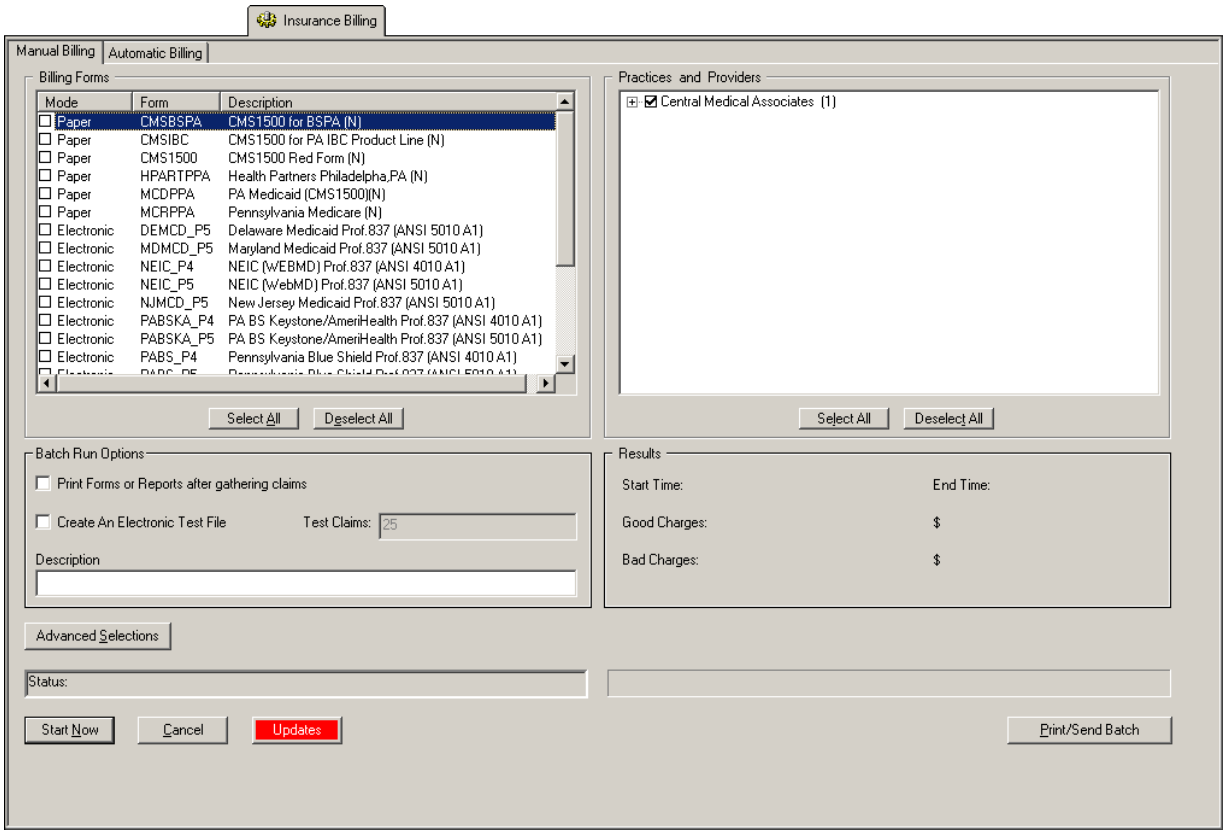


Figure A1 – Insurance Billing – Manual Billing

Once the download is initiated by clicking the **Updates** button, another dialog will appear confirming that you want to download and install the latest billing updates. See Figure A2.

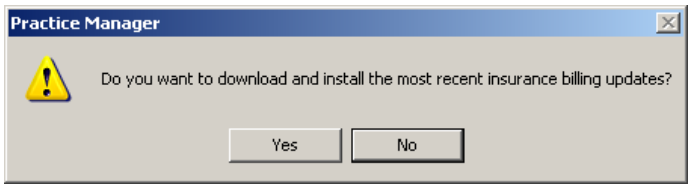


Figure A2 – Insurance Billing Updates Download

Once the **Yes** button is clicked the insurance billing updates will start to download and the following message will appear in Figure A3. Do note that once the billing updates are initiated by a user, the Updates button will disable for all users and other users who try to initiate the download will receive a message stating that updates have started from another machine. Once the updates have been downloaded you will be prompted to install the updates, as well as to close out of the Practice Manager application to ensure a successful update.

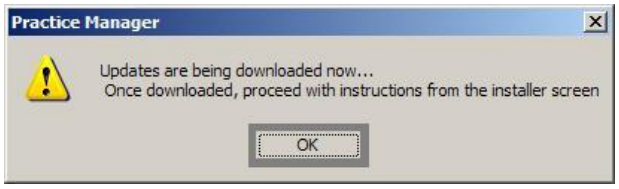


Figure A3– Insurance Billing Updates Download Confirmation

Once the updates have been successfully downloaded and installed, log back into Practice Manager and be sure to register the Billing Component Manger (Add-Ins > Insurance Billing > Billing Component Manager).

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