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ChartMaker® Clinical

Added Features

- **Export Patient Document – Clinical Summary –** The Clinical Summary User Preferences dialog has been updated with two new preferences, "Display exclusions dialog when manually sending a note to the PatientPortal," and "Do no display 'information not applicable to today's visit' sections in the Clinical Summary." See Figure 1. The former preference allows you to view the exclusions dialog when manually sending a note to the PatientPortal via the right-click functionality in the note; while the latter allows you to exclude any information in the Clinical Summary that does not pertain to today's visit.

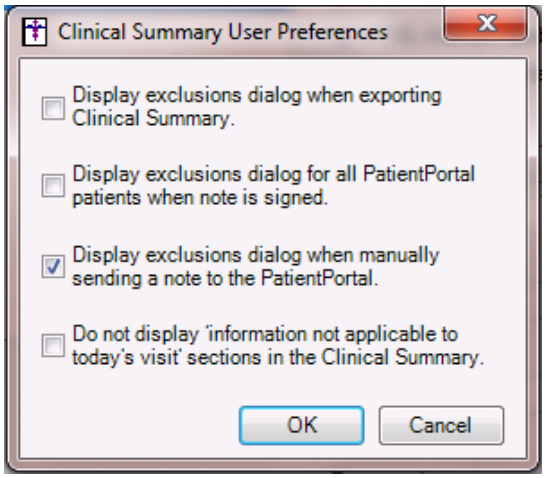

Figure 1 – Clinical Summary User Preferences

- **Export Patient Document – Clinical Summary –** The Clinical Summary export functionality has been updated to export information based on a Note or Lab instead of a selected date. This allows the system to better generate applicable export files that relate specifically to the note or lab information, while also enabling the system to correctly credit the providers for providing clinical summaries/patient health information. When the Clinical Summary is generated (either via the Export Patient Document dialog or when signing a note and exporting that summary to the PatientPortal), the system will consider all events associated with the note. If the note only has lab results, it will generate a lab report either via the PatientPortal or regular printing. If any other kind of event exists, it will generate a normal clinical summary but still contain any results as usual.

Added Features (continued)

- **Export Patient Document – Clinical Summary –** The Export Patient Dialog has been updated with a Note Selection section that becomes activated when the Office Visit Clinical Summary is selected. See Figure 2. In this section you can select the date range for the note you want to export, and then select the specific note or lab in which to export. This new Note Selection section replaces the Encounter/Visit Selection section in legacy versions.

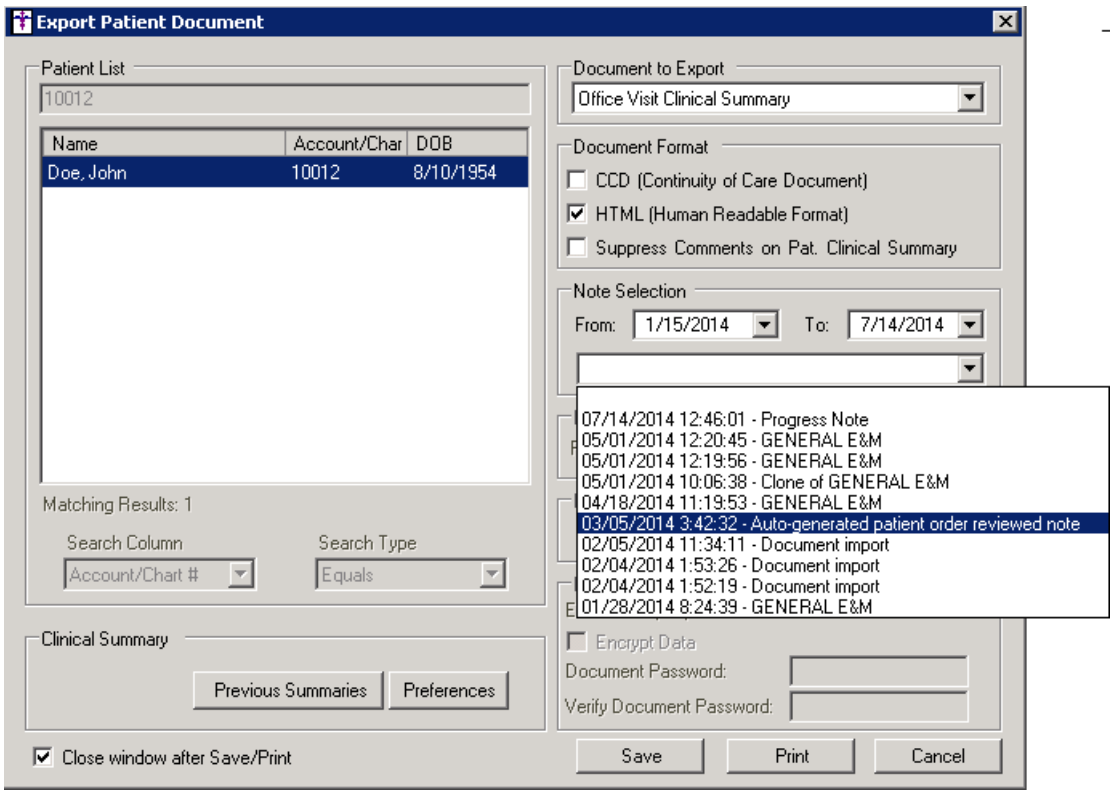

Figure 2 – Export Patient Document

- **Export Patient Document – Transition of Care –** The Transition of Care Summary document has been updated to include Chief Complaint information when it has been entered for a patient. Likewise, the Patient Information Document Exclusions dialog has also been updated with a Chief Complaint section, allowing you to exclude any applicable Chief Complaint information if needed.

Immunization – Registry Configuration – The program has been updated with a new Registry Configuration dialog (Chart > Registries > Immunization > Configuration) that allows you to easily configure registry information for vaccine registries and formats. In the Registry Configuration dialog you have the ability to set up Office Location and Site ID information for each Registry Format for those formats that do not support bidirectional functionality, while also setting up Bidirectional Credentials (Practice, User ID, and Password) for those that do. Likewise, in the Instructions for Sending Immunizations you are able to specify whether you are sending immunizations to the registry as production or as a test, as well as a service date that immunizations should not be sent prior to. See Figure 3. This Registry Configuration dialog can also be accessed via the Vaccine Registry module via the Tools menu (Tools > Configure Site IDs).

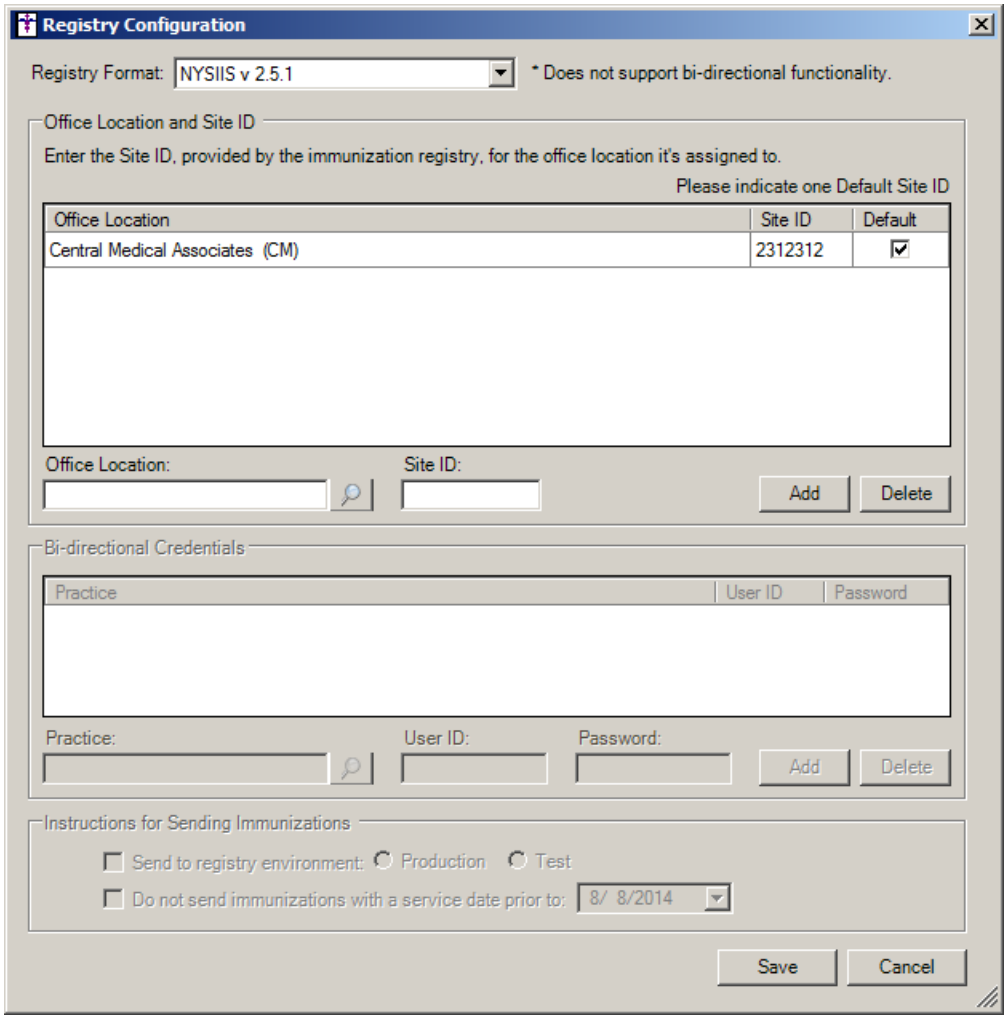

Figure 3 – Registry Configuration

Added Features (continued)

- **Immunization – Invalid Data Report** – The program has been updated with a new Registry option that is available via the Chart menu (Chart > Registries > Immunization > Invalid Data Report) that allows you to easily run the Invalid Data Report to view bad data in a vaccine registry file. In the Report Viewer dialog you can view, export, print and copy the invalid data. See Figure 4. This Invalid Data Report option can also be accessed via the Vaccine Registry module via the Tools menu (Tools > Invalid Data Report).

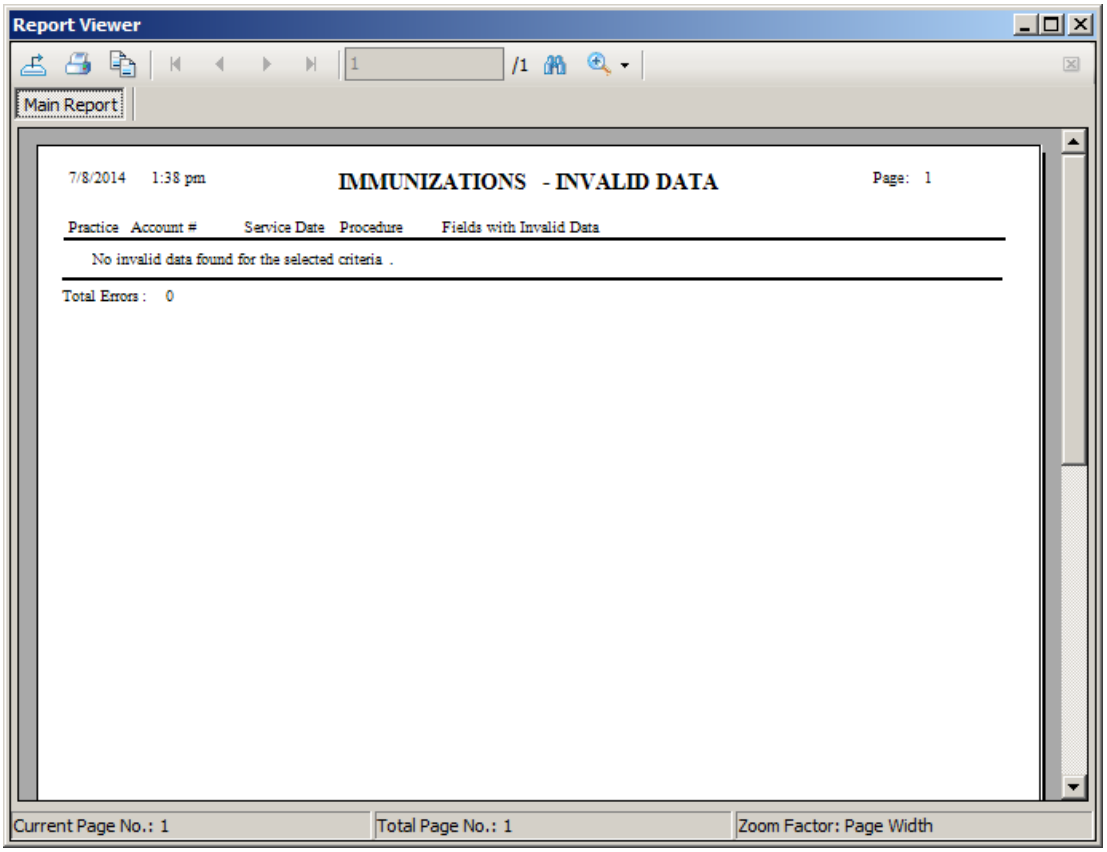

Figure 4 – Report Viewer

Added Features (continued)

- **Immunization – Register Patients** – The program has been updated with a new Registry option that is available via the Chart menu (Chart > Registries > Immunization > Register Patients) that allows you to easily register the patient for bidirectional transmission to vaccine registries. The registry needs to be configured (via Chart > Registry > Immunization > Configuration) for bidirectional transmission prior to registering patients.

  In the Register Patient dialog you have the ability search for the patient you want to register. When a patient's chart is opened and the Register Patients menu option is selected, the patient's chart number will default into the Account # field, and the applicable information populate the applicable fields. Do note that Name and DOB are required. If these items are not currently configured for the patient, then you need to update that information prior to registering. Once all of the applicable information is displayed as desired, you can click the Submit button to register the patient. See Figure 5.

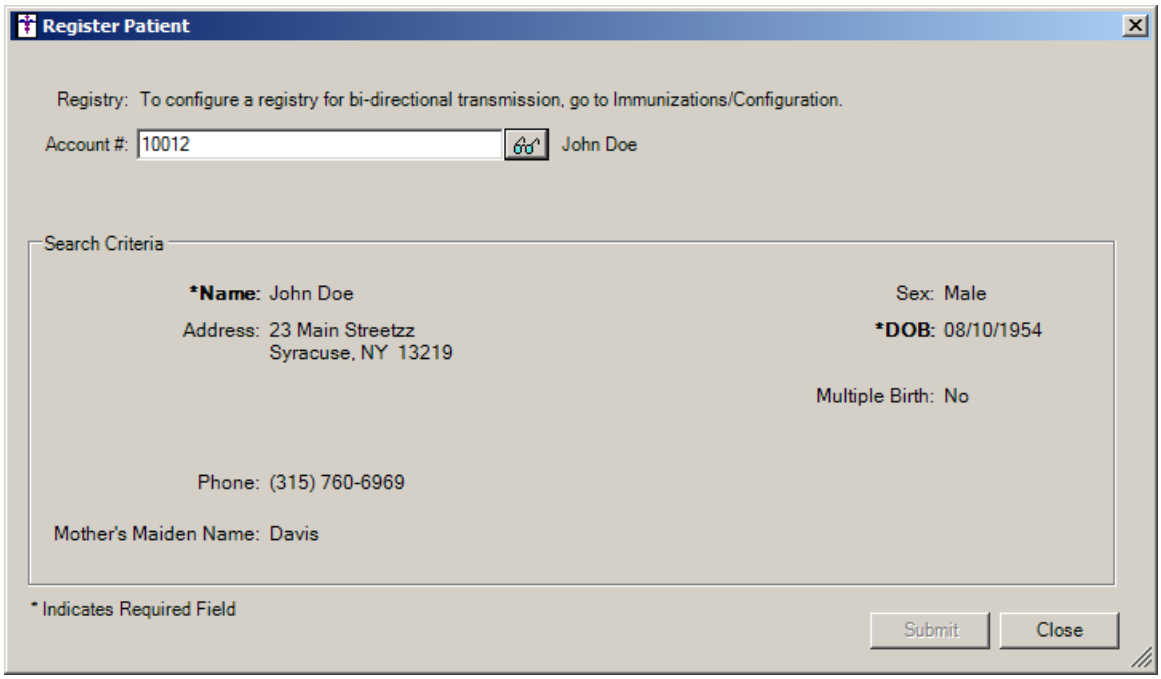

Figure 5 – Register Patient

Added Features (continued)

- **Immunization – Submission Status** – The program has been updated with a new Registry option that is available via the Chart menu (Chart > Registries > Immunization > Submission Status) that displays the submission status of immunizations to each registry. In the Submission Status dialog you have the ability to filter the results of the submission status by Account # (for a single patient), Practice, Status (<All>, Connection Error, Excluded, Failed, Invalid Data, Not Registered, Not Sent, and Successful), and Send From/To date range. See Figure 6. When a patient's chart is opened and the Submission Status menu option is selected, the patient's chart number will default into the Account # field, and the applicable information populate the applicable fields.

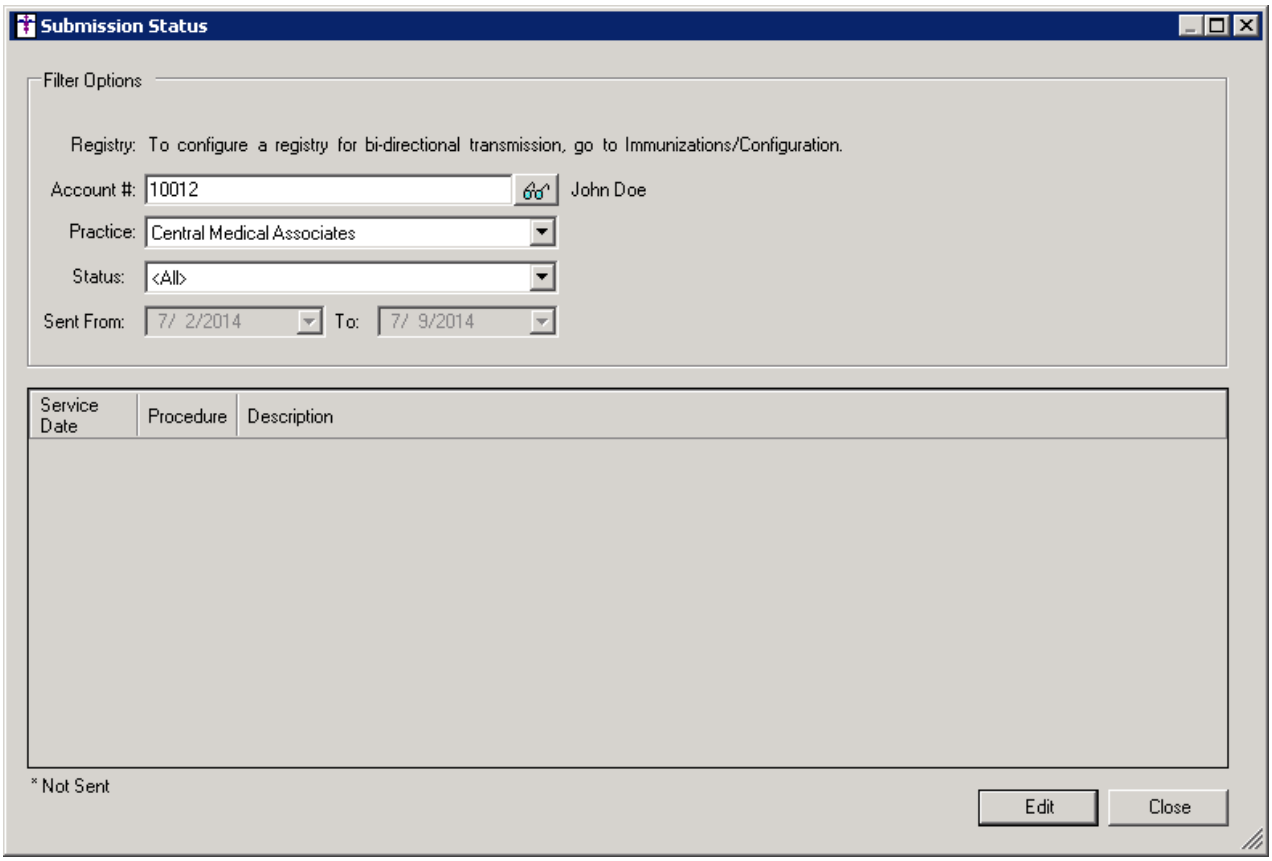

Figure 6 – Submission Status

Added Features (continued)

- **Immunization – View Registry Records** – The program has been updated with a new Registry option that is available via the Chart menu (Chart > Registries > Immunization > View Registry Records) that allows you to download and view registry records for a patient. In the Registry Records dialog once the patient's account number has been entered you have the ability download any applicable registry records by clicking the Download button. After the reports have been downloaded, they will be displayed below and you can print, delete, and refresh these records as needed by clicking the corresponding button. See Figure 7. When a patient's chart is opened and the View Registry Records menu option is selected, the patient's chart number will default into the Account # field, and the applicable information populate the applicable fields for the patient.

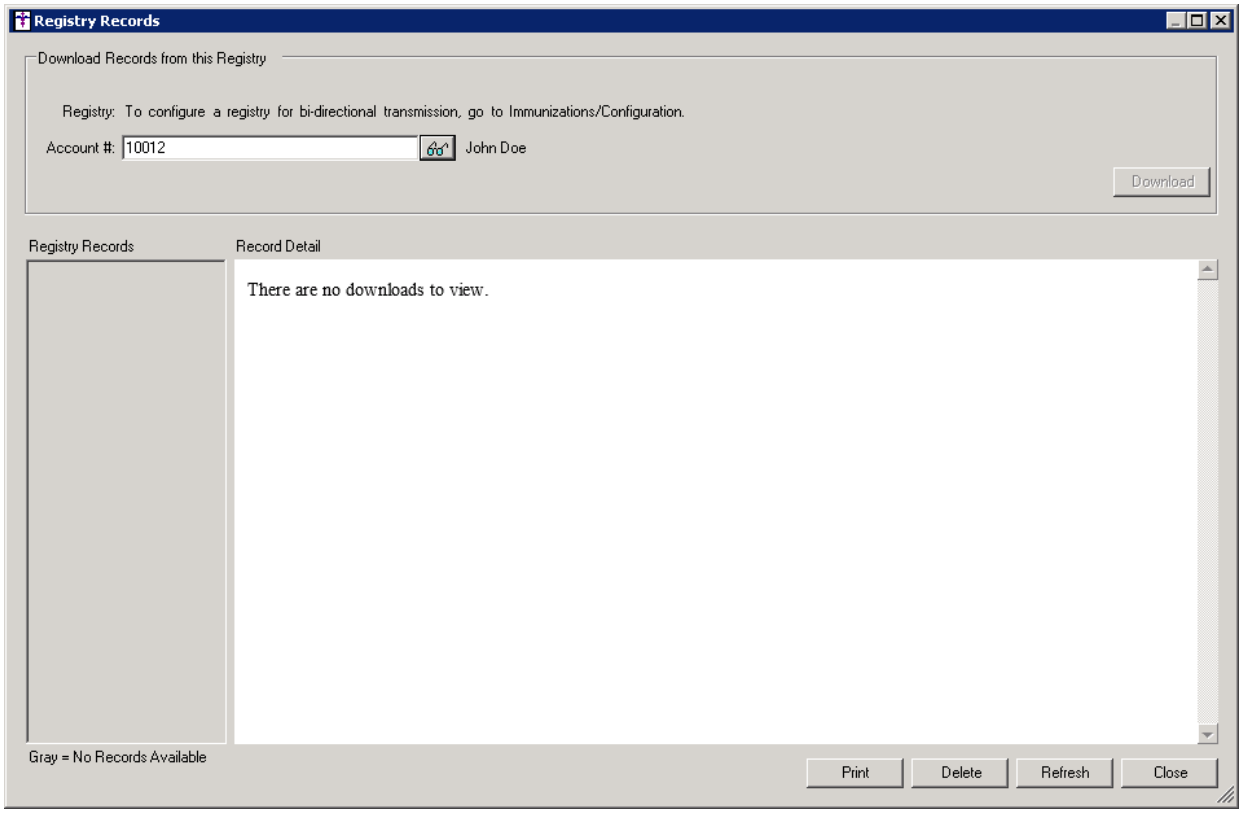

Figure 7 – Registry Configuration

- **Meaningful Use Stage 1 2014 – Meaningful Use Dashboard – Clinical Summary –** The Provide Clinical Summary for each visit core performance measure has been updated to calculate the percentage based on the note ID that was exported in order to account for multiple notes on the same day and provide a more accurate accounting for this measure. Legacy records will still be calculated based on date.

- **Meaningful Use Stage 2 – Meaningful Use Dashboard – Clinical Summary –** The Provide Clinical Summary for each visit core performance measure has been updated to calculate the percentage based on the note ID that was exported in order to account for multiple notes on the same day and provide a more accurate accounting for this measure. Legacy records will still be calculated based on date.

- **Meaningful Use Stage 2 – Meaningful Use Dashboard – Patient Health Information –** To provide a more accurate accounting of the percentage for the Patient View/Download/Transmit their Health Information (10B) core performance measure, the system has been updated to include all providers that saw the patient within the reporting period if one of the provider's meet the requirements for this measure.

- **Meaningful Use Stage 2 – Meaningful Use Dashboard – Secure Messaging –** To provide a more accurate accounting of the percentage of secure messages received from patients, the system has been updated so that General, Appointment, and Billing secure messages sent via the PatientPortal will be included in the calculation of the Secure Messaging from patient (17) core performance measure. Previously, only Health Information and Prescription Refill messages were included in the calculation of this message.

Added Features (continued)

- **The Note Tab – Note Header –** The note header of a Scan or ICPN (scan as note) has been updated to include a Send to PatientPortal on Sign option for patient's that are registered for the PatientPortal. When this option is checked and the scan is signed, the usual process of queuing the note to be sent to the PatientPortal will occur. If this is unchecked, no documents will be sent when the scan is signed.

- **The Note Tab – Send Note to PatientPortal –** The program has been updated to allow you to manually send a Clinical Summary for a specific chart note or scanned image to the PatientPortal without having to sign the note or scanned image. To do this right-click anywhere in the note or scan and a Send Note to PatientPortal option will appear. See Figure 8. This option will only be enabled if the patient is registered for the PatientPortal. If sending a note, and the "Display exclusions dialog when manually sending a note to the PatientPortal" clinical summary preference is activated (see above), the Patient Information Document Exclusion dialog will appear in a similar as when signing a note. However, when sending a scan, if the Create Notes for Scans preference is not selected, the Patient Information Document Exclusion dialog will not appear.

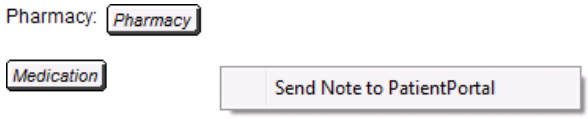

Figure 8 – Send Note to PatientPortal

- **Scan Management** – The Scan Management dialog has been updated with a Send to PatientPortal on Signing option. When this option is checked and the scan is signed, the usual process of queuing the note to be sent to the PatientPortal will occur. If this is unchecked, no documents will be sent when the scan is signed. By default, this option is checked each time they enter the scan manager. See Figure 9. Do note that this option will be grayed out if the patient is not registered for the PatientPortal.

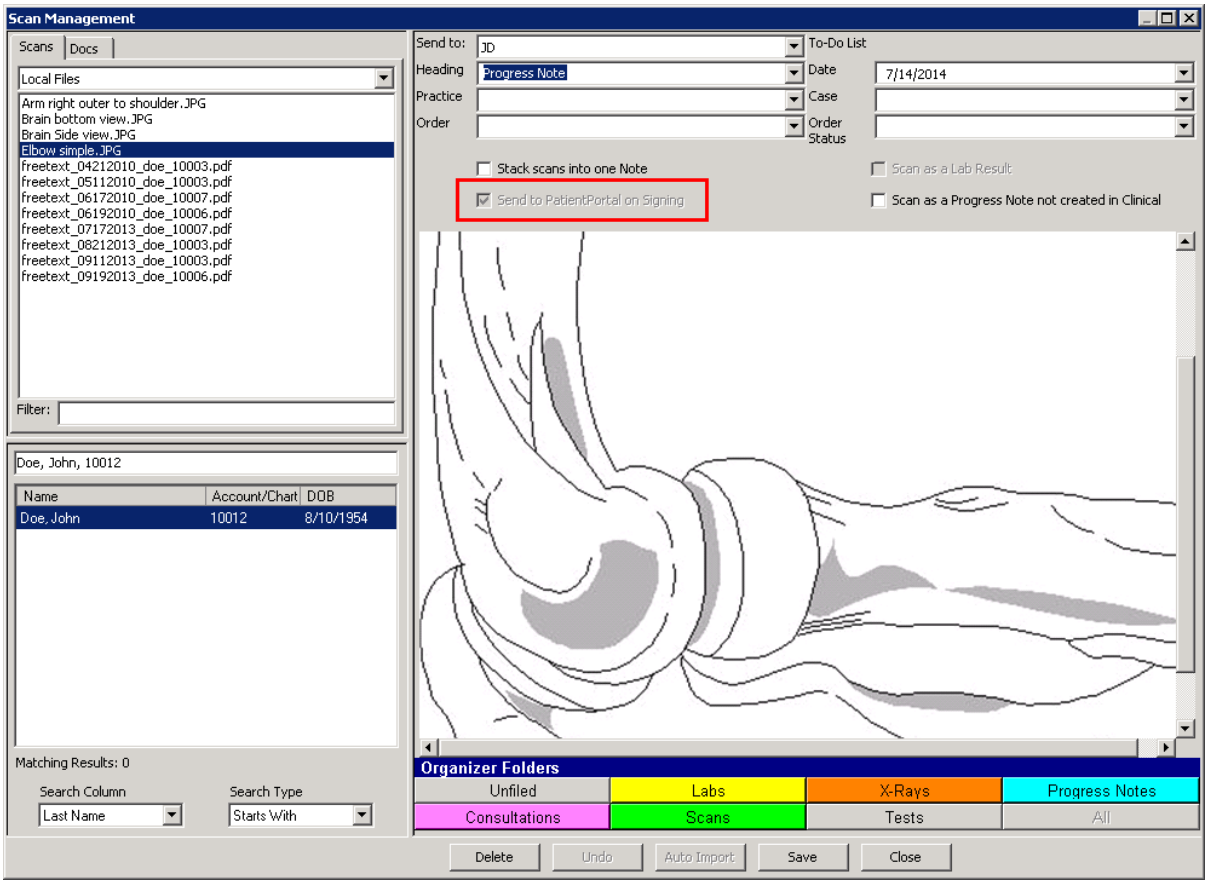

Figure 9 – Scan Management

Addendum

Immunization Consent Reminder for HL7 2.5.1 Format

In the version 5.2 release of the ChartMaker Medical Suite (Clinical and Practice Manager), there was an important enhancement that was made to the Consent dialog to that allows you to configure patient consent regarding immunization information when sending immunization data to registries in the HL7 2.5.1 format. For all 2.5.1 Immunization programs Consent information is now set at the patient level.

The Consent dialog is accessed:

- In **Clinical**: Open Chart > ID Tab > Consent button
- In **Practice Manager**: Patient > Enter Acct # > Consent button.

The Consent dialog has been updated with an Immunization section that allows you to configure Registry Status, Reminder Preference, and to Protect the immunization data from other clinicians, as well as the Effective Dates, when applicable. See Figure A1.

When sending immunization information to immunization registries in the H7 Version 2.5.1 format, you must access the Consent button (in either Practice Manager via the Patient screen, or in Clinical via the ID tab) for each applicable patient to configure whether or not the patient wants to share this information with the registry. This process replaces the **Consent for Immunization** and **Permission to Share** options in the Order Procedure dialog in Clinical, and the Immunization Entry dialog in Practice Manager, *for sending immunization information to registries in the 2.5.1 HL7 format*. Do note, however, that the **Consent for Immunization** option should still be configured at the procedure level (in the Order Procedure dialog in Clinical, and the Immunization Entry dialog in Practice Manager) to provide accurate documentation within the chart note and patient's record, when applicable.

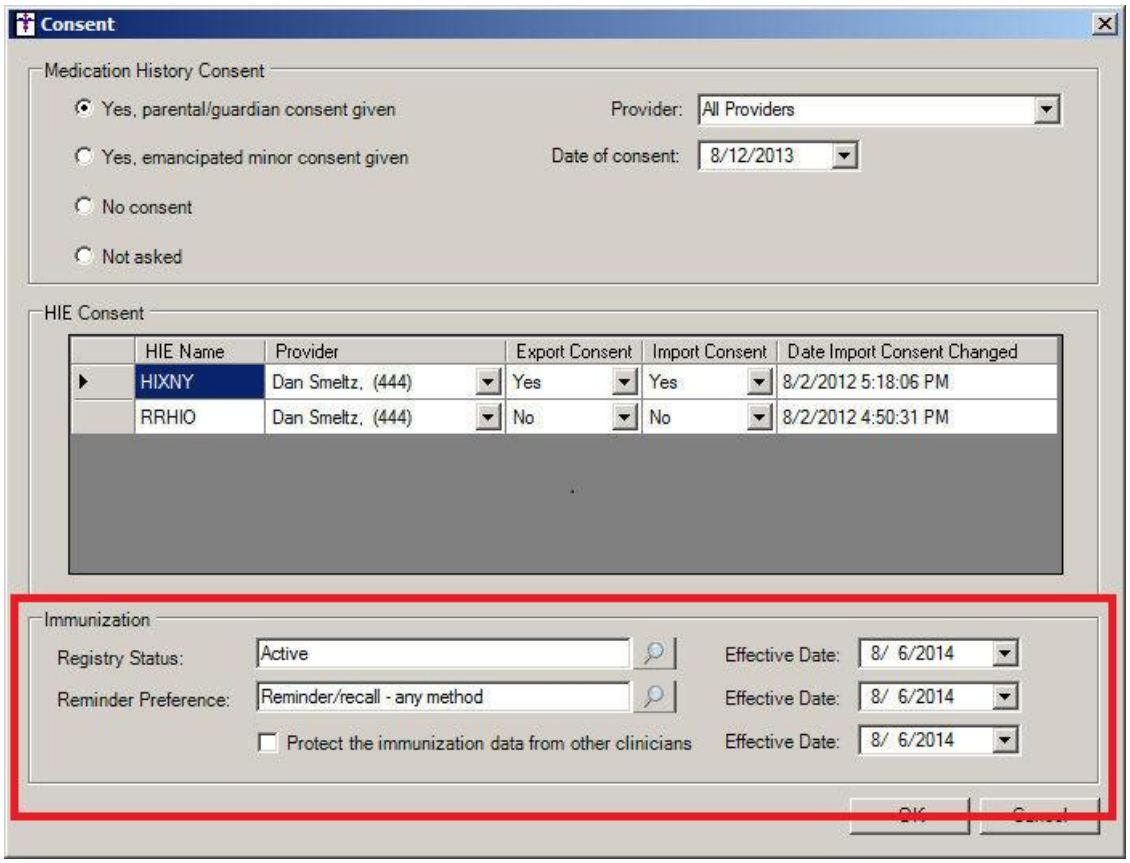

Figure A1 –Consent

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.
- 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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