Chapter 12: Consolidating Data

One of the primary functions of a central cancer registry is to consolidate cancer data from multiple reporting facilities for the same patient. This involves combining data received on multiple records into one comprehensive data set. In SEER*DMS, the consolidated data for a registrant are stored in a single packet of data known as a "patient set." The consolidation process may involve consolidating data from multiple records and creating a new patient set, or consolidating data from one or more records into an existing patient set.

The SEER*DMS Patient Set Editor includes features specifically designed for consolidating data. You will use the Show Differences feature to compare data fields on the incoming record to the same fields in the patient set. To save time and avoid potential keying errors, you will also use this tool to copy values from fields in the record to the appropriate fields in the patient set. While reviewing the patient set data pages, you may review data values from multiple records at one time. Finally, you will be able to review a log of the changes already made to the patient set and document the changes that you make to the data. The features of the Patient Set Editor used specifically for consolidation are described in this chapter. If you haven't already, you should review the general description of the editor provided in *Chapter 11: The Patient Set Editor*.

The Patient Set Editor is an extremely flexible tool. It does not impose a specific sequence of steps or restrict the methods that you use to consolidate data; however, it is recommended that you follow the practices and guidelines described in this chapter. First, you must confirm that all data pertain to the same patient. Second, incorporate the data into the appropriate section of the patient set. Once you have linked the incoming data and updated the summarized patient set data, you may either resolve data errors or you may save the consolidated patient set and allow the errors to be resolved in a Resolve Patient Set Errors task (these procedures are determined by registry policies).

"Consolidate" tasks in SEER*DMS involve the consolidation of medical data from reportable records. A separate discussion of the manual and automatic tasks to consolidate follow-up data obtained on motor vehicle records, non-reportable death certificates, and other supplemental records can be found in *Chapter 16: Follow-up*.

In this chapter, you'll learn about

- Data Consolidation in SEER*DMS
- Opening a Consolidate Task
- Overview of the Consolidate Task
- Verifying the Patient Match
- Linking the Incoming Records
- The Show Differences Feature
- Consolidating Demographics Data
- Selecting a Record to Build a Patient Set
- Consolidating CTC Data
- Requesting Follow-back Information
- Saving Changes
- Undoing Changes

Data Consolidation in SEER*DMS

When consolidating data in SEER*DMS, you will perform these basic steps:

1. **Confirm that the data are for the same person.** Data should not be consolidated until it is determined that the data to be combined are for the same person. This determination is made during matching tasks and is either confirmed or rejected in the consolidate task.

2. **Link the incoming records to data in the patient set.** You must review each record to determine whether the data are related to a CTC previously defined for this patient or represent a new CTC. Records may be linked to a CTC or linked at the patient level. SEER*DMS provides tools to facilitate your review and link the data.

3. **Update the demographic page of the patient set with data from the incoming records.** The Show Differences feature allows you to review discrepancies between each record and the patient set. If an incoming record contains more current or complete information, use Show Differences to copy data from the record to the patient set.

4. **Update the CTC data with the best record data.** Click **View Text**. Review all text before proceeding (you may want to leave the window open or print a copy).

   a. **Review and edit data on the patient set's CTC data page.** If you determine that the record contains more complete or accurate information, manually edit or use Show Differences to copy data from the record to the patient set. Do not set the Review flag on this page until all treatment and facility data for the CTC are reviewed. The CTC review flag also affects warnings on facility, treatment, and summary treatment pages.

   b. **Review newly created Facility pages and new admissions on existing pages.** Review data and resolve edits for new admissions in the patient set data. Links to new pages are shown in bold. If new admissions were added to an existing Facility page, the Facility link would not be shown in bold. Check the data for each facility that provided an incoming record.

   c. **Review newly created Treatment data pages (TX and TXr links).** Resolve edit errors, compare coded data to supporting text, and review associated admission data. Links to newly created TX and TXr pages are shown in bold.

   d. **Review and resolve edit errors that are not associated with review flags**. Typically, most edits would have been resolved as you reviewed demographics, CTC, facility, and treatment data pages. The remaining edits should be related to review flags which ensure that the summary treatment data are reviewed. It is important to confirm that all edits affecting treatment data have been resolved prior to reviewing the summarized treatment data. If you do not know how to resolve an edit or do not have the appropriate permissions to do so, you will have the opportunity to save the patient set with edit errors. They will be resolved in a Resolve Patient Set Errors task later.

   e. **Review the summary treatment data (Summary TX link).** Review the summarized data that the polishers set for each treatment modality. If the polisher could identify missing or conflicting data, the review flag associated with the treatment modality will be set to 0 (Needs Reviewed) and an error will be generated to ensure that you review the data. If changes are required in the underlying treatment data, the summarized data will be updated and require a second review.

5. **Save the Patient Set and Exit the Consolidate Task.** Once you consolidate the data, save the patient set and allow it to move forward to the next task in the workflow. If you save a patient set with edit errors, it will be forwarded to a Resolve Patient Set Errors task.

Opening a Consolidate Task

Requires system permission: *consolidate and pat_edit; other permissions that may be involved are: pat_delete, pat_undelete, pat_edit_overrides*

Data are not consolidated unless it is determined that the data are for the same person. This process begins in automated and manual matching tasks, and continues with a final confirmation in the Consolidate task. Since matching is a prerequisite to consolidation, the manual matching task is known as "Match-Consolidate". The match is refreshed when the Match-Consolidate task is opened to ensure that the incoming record was matched against all appropriate data, including data that were recently loaded. (see *Chapter 10: Matching Incoming Records to Existing Data*.)

The person performing the Match-Consolidate task selects records and/or a patient set to consolidate. If that person has the Consolidate system permission, a Consolidate task will be created, opened, and assigned to that user. If the user does not have the Consolidate permission, an unassigned Consolidate task will be created in the worklist.

To start a Consolidate task by completing a Match-Consolidate task:

1. Follow the instructions in *Chapter 10: Matching Incoming Records to Existing Data* to begin a Match-Consolidate task and review the possible matches.

2. If you conclude that one or more items in the list of Matches contain data for the same patient as the incoming record:

   a. Check the box in the left column for each data item that matches the incoming record.

   b. Click **Consolidate**. The next step will vary depending on the data involved:

      i. A reportable abstract or a patient set is required for consolidation. If the incoming and matching data include at least one reportable abstract record or patient set, a manual Consolidate task will be created in the worklist. If you have the *consolidate* and *pat_edit* permissions, the Consolidate task will open automatically. To continue, please review the information provided in the *Overview of the Consolidate Task* section of this chapter.

      ii. If the incoming record was not a reportable record and it matched to one or more records that could not be used to build a patient set, a manual Non-Rpt Rescreening task will be created. This task allows for the manual review of two non-reportable records that match each other but do not match any reportable records or patient set data. Verify the match and combine the data if appropriate. Refer to *Chapter 15: Re-screening of Non-reportable Records* for instructions.

      iii. The data can be consolidated if the record is being consolidated into an existing patient set or there are sufficient data to create a new patient set. If a patient set or reportable abstract are not available, the following message will be displayed at the top of the page: "*Cannot create Consolidate task: A reportable abstract or patient set is required to consolidate these data at this time. Click No Matches to end the task; the records will remain in the database for future matching.*" Click **No Matches**. The incoming record will be retained in the database. A new patient set will be created at a later time, when a reportable abstract record is loaded.

To open a Consolidate task in the worklist:

1. Click a **Consolidate** link in the worklist summary on the home page.

2. Use the worklist filters to search for the task, if necessary. Click **Apply**.

3. Click the task ID to open a Consolidate task.

Overview of the Consolidate Task

A Consolidate task enables you to combine data received on multiple records into one comprehensive data set, i.e., the patient set. You may be creating a new patient set by consolidating data from multiple incoming records; or you may be consolidating incoming data from one or more records into an existing patient set.

You will use a specialized version of the Patient Set Editor to complete the Consolidate task. The navigation on the left-hand side of the editor is modified to provide information and access to various data, including the incoming records, the patient set data, and records that were previously linked to the patient set (if any exist). If incoming records are being consolidated to create a new patient set, a patient set will have been auto-built from one of the incoming abstract records. This provides a starting point for creating the consolidated patient set If you would prefer to build the patient set from a different record, refer to the instructions in the *Selecting a Record to Build a Patient Set* section of this chapter. For more information regarding auto-build, please refer to *Chapter 2: Records and Patient Sets*.

The navigation section of a Consolidate task has three sections as displayed in the diagrams on the following pages. Codes and other visual cues are used to convey information in these navigation sections as described below.

The following codes are displayed next to the IDs of the records involved in the Consolidate task:

1. P - The record is linked at the patient level (non-health records are auto-linked at the patient level during passive follow-up processing). P indicates that the record did not provide data specifically related to an existing CTC. Death certificate, casefinding, and short health records may be linked at the patient level, temporarily, even though they indicate a new cancer. You will link the record to the CTC that is created when the abstract is received. If no abstract is received, you will be able to use the record to create a CTC that is an CFO, DCO, or SHO case.

2. C *NN* – The record is linked to the CTC with a central sequence number equal to *NN*. If this is an incoming record that was used to auto-build the patient set, this code will be displayed in a box (as shown in the table of examples on the following page). Otherwise, it will be shown on a white background.

3. ? – The record has yet to be linked. This icon will only be displayed for incoming records. All records must be linked to a CTC or the patient set to complete the consolidation.

Site and facility information are indicated as follows:

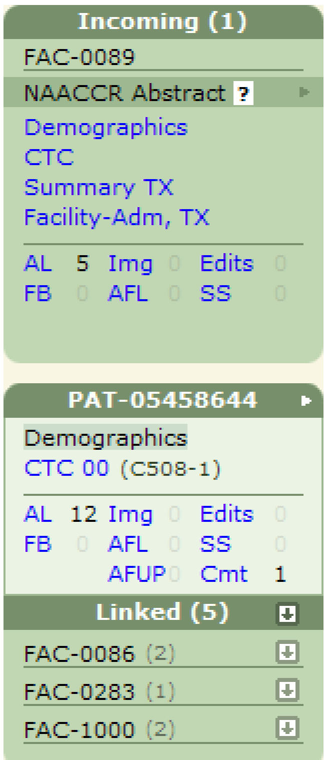
1. The site code is displayed next to the CTC label in the patient set navigation box. For example, CTC 01 (C649) indicates that the sequence number of 01 and the site is C649. Laterality, if not zero or blank, is displayed with the site code (e.g., C508-1).

2. The ID of the reporting facility is displayed above the incoming records from that facility. The incoming records are sorted by facility.

3. The numeric segment of a facility ID is displayed in parentheses next to the links for TX and Facility/Admission data pages in the patient set. For example, TX (0120) indicates that the treatment data were reported by FAC-0120. If a treatment procedure was not performed at the reporting facility, the IDs for both facilities will be displayed. For example, TX (0120 ~ 0026) indicates that FAC-0026 reported a treatment that was performed at FAC-0120.

Sample Navigation Boxes in Consolidate Tasks

These examples illustrate the type of information displayed in the navigation boxes of a Consolidate task.

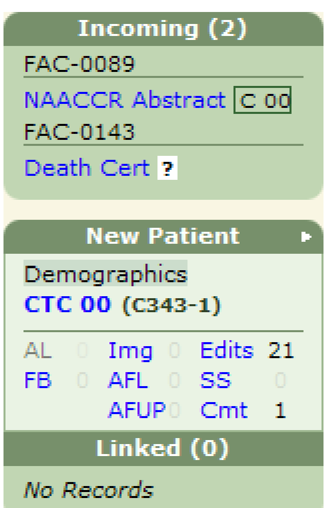


Overview: A record received from FAC-0089 was loaded into SEER*DMS. The record contains data for a registrant in the database, i.e., it matches an existing patient set.

Incoming (1): In this task, a single incoming record is being consolidated with an existing patient set. Since there is only one incoming record, the Incoming section provides direct links to that record's data pages. The reporting facility (FAC-0089) is displayed above the record's type. The ? icon next to the record type indicates that the incoming record has not yet been linked.

Pat-05458644: The patient set ID is shown as the header of the Patient Navigation box. You may click on the links in this box to view the patient set data. The page currently being displayed is the patient set's Demographics page (as indicated by the shading of the word Demographics). This patient set includes one CTC that has C508 coded for site and 1 coded for laterality (cancer of the right breast).

Linked (5): At some point prior to this Consolidate task, five records were consolidated into this patient set. Two records were received from FAC-0086, one from FAC-0283, and two from FAC-1000. To see the record type or view record data from a facility, click the down arrow adjacent to the facility ID. To expand the list for all facilities, click the down arrow adjacent to "Linked (5)".

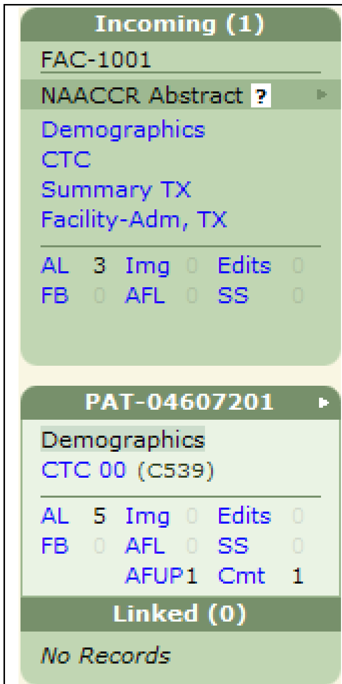


Overview: Two records received from two facilities (FAC-0089 and FAC-0143) were loaded into SEER*DMS. The records did not match a patient set in the database, but matched each other. These records provide data for a new patient.

Incoming (2): Data from two records for the same patient are being consolidated into a new patient set. Patient set data was auto-built from the record that has "C 00" next to it (the CTC for the base record is displayed in a box). The other record has not yet been linked, as indicated by the ? icon. If you click a record type, the navigation for that record will expand so that you can access the data pages for that record. If you hold your cursor over a record type, the record ID and reportability status will be displayed.

New Patient: A patient set ID has not yet been assigned; therefore "New Patient" is displayed as the header of the Patient Navigation box. You may click on the links in this box to view other patient set data pages (the shading of Demographics indicates that it is the current page being displayed). This patient set includes one CTC that has C343 coded for site and 1 for laterality.

Linked (0): Since this is a new patient set, the patient set was never saved with linked records. Records will not appear in this box until they are linked and the patient set is saved.



Overview: One record received from FAC-0086 was loaded into SEER*DMS. The record matched a migrated patient set in the database.

Incoming (1): This consolidation involves combining a single incoming record with an existing patient set.

PAT-04607201: The patient set ID is shown as the header of the Patient Navigation box.

Linked (0): There are no records in SEER*DMS linked to this patient set. This patient's data were entered and consolidated in the registry's prior data management system. The consolidated data were loaded into SEER*DMS when the registry switched to the new system, but the source records were not linked. Sufficient linkage information may not have been available in the migrated data; or the source records may be older and may not be available in electronic format. This situation cannot occur in patient sets created in SEER*DMS and only affects migrated patient sets.

Verifying the Patient Match

Requires system permission: *consolidate* and *pat_edit*

Matches are initially selected in the Match-Consolidate task. The first step of the Consolidate task is to review additional data fields to confirm that the data to be combined are for the same person.

To verify the patient match for incoming records in a Consolidate task:

1. The Demographic Info window is displayed when you first open a Consolidate task. The values of demographic data fields from each record are displayed. New records being consolidated into the Patient Set are listed in the Incoming Records section at the top. A record field is highlighted if the value differs from the value in the Patient Set. The exception is Medical Record Number; it is highlighted if there is a discrepancy between any records from the same facility.

Demographic Information

Type	Facility	First	Mid	Last	Suf	Maiden	Alias	SSN	DOB	Sex	Med Rec #	Race	Birth Place	Hisp	Marit
Incoming Records															
NAACCR Abstract	FAC-0089	JANE	L	DOE				444-34-4444	08-29-1961	2	1111111	01 88 88 88 88	999	0	2
Patient Set		**JANE**	**L**	**DOE**				**444-44-4444**	**08-29-1961**	**2**		**01 88 88 88 88**	**999**	**0**	**2**
Health Record	FAC-0086	JANE		DOE				444-44-4444	08-29-1961	2	177777790	01 88 88 88 88	999	0	2
Casefinding	FAC-0089	JANE		DOE				000-00-0000	08-29-1961	2	1111112	00			0
NAACCR Modified	FAC-0089	JANE	L	DOE				444-44-4444	08-29-1961	2	1111111	01 88 88 88 88	999	0	2
Short Health Record	FAC-0283	JANE		DOE				444-44-4444	08-29-1961	2	1777777	00 88 88 88 88		9	9
Short Health Record	FAC-0283	JANE		DOE				444-44-4444	08-29-1961	2	1777777	00 88 88 88 88		9	9
Supplemental N/A	FAC-1000	JANE	L	DOE				444-44-4444	08-29-1961	2		99 99 99 99 99			

Accept Reject

2. Review all discrepancies in the data fields and determine if the records contain data for the same patient as each other and the patient set.

   a. If the records are for the same patient, click **Accept** to close the popup window. Refer to the *Consolidating Demographic Data* section of this chapter for further instructions.

b. If any of the incoming records are for a different patient, click **Reject**. The Consolidate task will be canceled. You will be returned to the match portion of the Match-Consolidate task. The patient set will be unchanged.

An incoming record may be rejected during subsequent steps in the consolidation process using the Reject item on the record's menu. However, data from the record may have been incorporated into the patient set. You may need to edit data fields manually to remove that data.

The Reject All item in the record menu is equivalent to rejecting the match in the Demo Info popup. The Consolidate task will be canceled and you will be returned to the match portion of the Match-Consolidate task. If the focus record that triggered the original Match-Consolidate task is rejected, the task must be canceled so that the focus record can be rematched. Therefore, Reject All is the only option for rejecting the focus record.

Linking the Incoming Records

Requires system permission: *consolidate* and *pat_edit;*

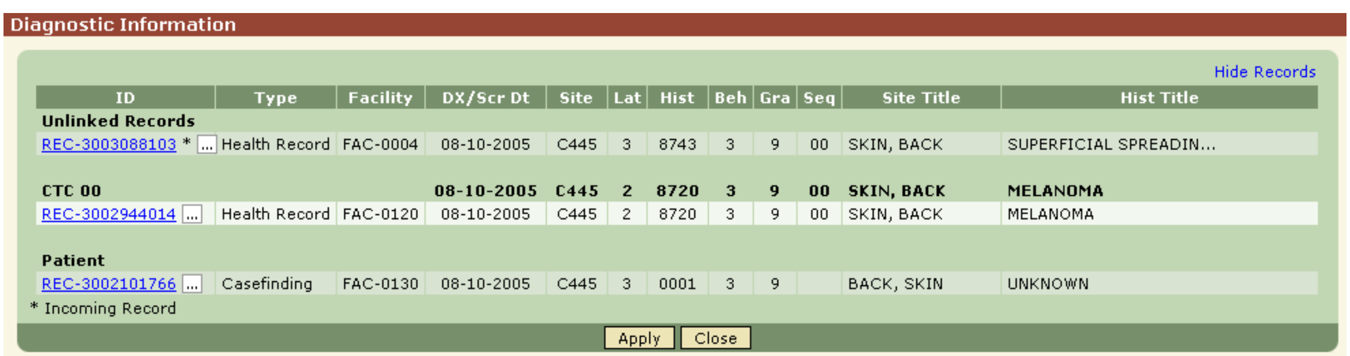
In the SEER*DMS database, a *Cancer/Tumor/Case (CTC)* is a packet of data related to a single incident cancer; all diagnostic, staging, and treatment data for a reportable tumor are stored in a CTC. The CTC includes summarized treatment information, as well as data regarding each admission and treatment procedure. A patient set may include multiple CTCs, one for each primary cancer diagnosed for the patient.

You must review each incoming record to determine whether the data are related to a CTC previously defined for this patient or represent a new CTC. If the data on the record are related to an existing CTC, you will link the record to that CTC. If the data are for a new CTC, you can create a new CTC based on the record. The data entities in the new CTC will be auto-built based on values in the record. If the incoming record is not an abstract record and is for a new CTC, you should temporarily link the record at the patient level and defer creating the new CTC until an abstract is received. Later, when the abstract record is received and used to build the new CTC, you can reassign this link to the CTC. This will minimize the level of effort required to consolidate the data for the new CTC.

To link a record to the appropriate data structure in the patient set:

1. If you have not verified that all data being consolidated are for the same person, refer to the *Verifying the Patient Match* section of this chapter.

2. Click **DX Info** in the title bar of the page to open the Diagnostic Information window.


Diagnostic Information

Hide Records

ID	Type	Facility	DX/Scr Dt	Site	Lat	Hist	Beh	Gra	Seq	Site Title	Hist Title
Unlinked Records											
REC-3003088103 * ...	Health Record	FAC-0004	08-10-2005	C445	3	8743	3	9	00	SKIN, BACK	SUPERFICIAL SPREADIN...
CTC 00			**08-10-2005**	**C445**	**2**	**8720**	**3**	**9**	**00**	**SKIN, BACK**	**MELANOMA**
REC-3002944014 ...	Health Record	FAC-0120	08-10-2005	C445	2	8720	3	9	00	SKIN, BACK	MELANOMA
Patient											
REC-3002101766 ...	Casefinding	FAC-0130	08-10-2005	C445	3	0001	3	9		BACK, SKIN	UNKNOWN

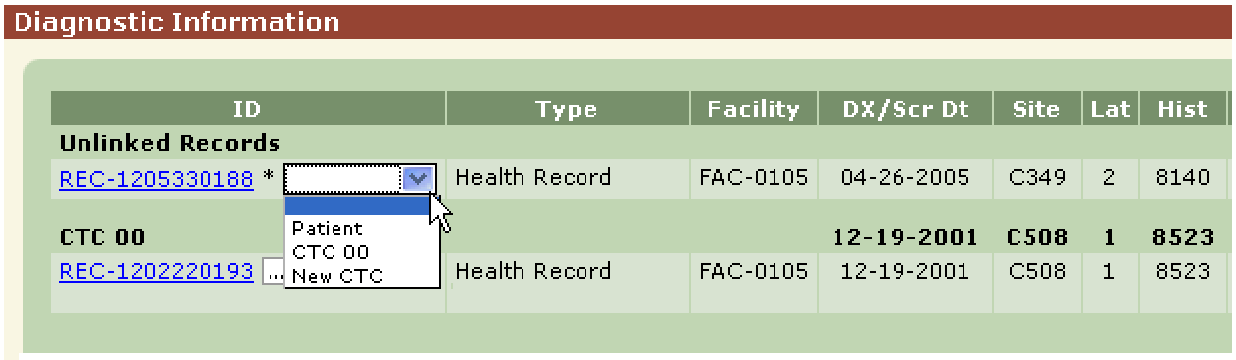
* Incoming Record

Apply Close

3. The Diagnostic Information displays diagnostic data fields from all unlinked incoming records, records previously linked to a CTC, and records previously linked at the patient level. The consolidated values for each CTC are shown in bold, just above the record(s)

that are linked to that CTC. If the entire window (including the Apply and Close buttons) is not displayed, enlarge the window so that you see all records and the window's buttons.

4. Compare the diagnostic information of the first unlinked record to the CTC and patient set data fields (you may also click the Record ID to view additional fields). When you complete your review, click the icon next to the record's ID. A drop-down menu will be displayed.



a. If you determine that the incoming record should be linked to an existing CTC, select that CTC.

b. If the incoming records represent one new CTC and a reportable abstract record is available, use one abstract record to create the CTC. **Warning:** A CTC will be created for each record for which you select "New CTC". Do not apply "New CTC" to multiple records if you are trying to link them to the same, new CTC.

   i. If one of the incoming records is a reportable abstract record, select New CTC.

   ii. Click the **Apply** button at the bottom of the window to create the CTC. You will then be able to link other incoming records to that new CTC, if appropriate.

c. If the incoming record is not an abstract record, you should temporarily link the record at the patient level and defer creating the new CTC until an abstract is received. Later, when the abstract record is received and used to build the new CTC, you can reassign this link to the CTC.

d. Click **Apply**. If the record is linked to a CTC, "C *NN*" will be displayed next to the record type in the record navigation box. This indicates that the record is linked to the CTC that has a central sequence number equal to *NN*. If the record is linked at the patient level, P is displayed. SEER*DMS attempts to set the sequence number appropriately, based on the central sequence number coded in the record and the number of CTCs in the patient set. If you have multiple CTCs with the same sequence number, you should review the CTCs and manually adjust the sequence numbers.

5. If you created a new CTC in step 4, determine whether other records need to be linked to the new CTC. Review records previously linked at the patient level as well as incoming records that remain unlinked. In the patient set navigation box, the labels for newly created CTCs are shown in bold type.

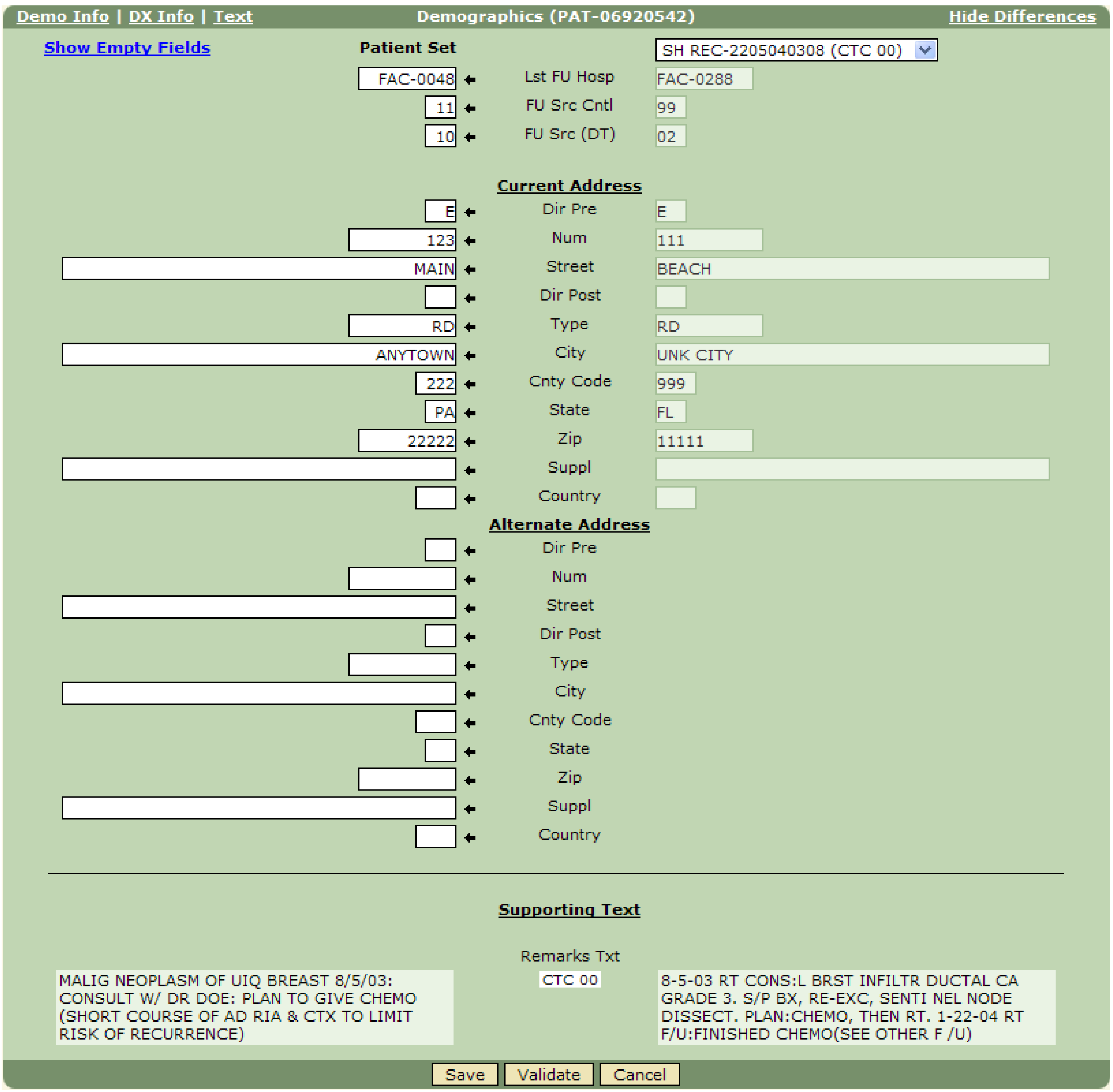
The Show Differences Feature

In a consolidate task, you can use the Show Differences feature to compare data fields on a record to the same fields in the patient set. To save time and avoid potential keying errors, you can also use this tool to copy values from fields in the record to the appropriate fields in the patient set.

Before consolidating demographic or CTC data, review the features of the Show Differences tool:

1. Show Differences can be accessed via a link in the title bar of the data page. It is only available on data pages that display fields from multiple records (Demographics and CTC).

2. Show Differences displays values from the patient set on the left and values from a record on the right. By default, the first incoming record is shown on the right. A pull-down menu on the top right allows you to choose which record you wish to compare to the patient set (an abbreviation showing the type of record, the record ID, and the entity to which it is linked are listed in the drop-down men). By default, fields are only shown if they differ and are not blank in the record data. You may include fields with blank values in the records by clicking **Show Empty Fields**. Once shown, you may click **Hide Empty Fields** to toggle the display of these fields.



3. To assist in your review of discrepancies in the data, supporting text fields are displayed at the bottom of the Show Differences page.

4. If there are no discrepancies between the non-blank data fields in the record and the patient set data fields, *No Differences* will be displayed in the top section of the page. The Supporting Text section of the page is always shown.

5. Records and patient sets do not have the same set of data fields. To allow you to compare record data to patient set data, SEER*DMS auto-builds patient set fields from the record data. The process of auto-building is described in *Chapter 2: Records and Patient Sets.*

6. In some cases, groups of fields are displayed if the value of any field within that group differs between the patient set and the record. This enables you to review supporting information when reviewing data discrepancies. Data fields shown in groups include data related to: census tract, course of treatment, the medical practitioner care fields, address, aliases, cause of death, and informants.

7. An arrow 🡐 is displayed next to each patient set field, pointing from the record toward the patient set. This arrow moves data from the record into the patient set and overwrites the values in the patient set. You may also paste or type values directly into patient set fields. For some fields, a plus sign ✚ is displayed to allow you to append the text from the record's data field to the text in the patient set field.

8. The patient set includes multiple instances of certain data; there are multiple addresses, multiple sets of informant data fields, etc. If there are differences between the record and the patient set in fields that have multiple instances, you may either overwrite the patient set fields or create new instances in the patient set. Consider the example shown above in the Show Differences diagram. If you determine that the address in the record represents a second address for the patient, click the arrows 🡐 next to the alternate address fields to add that information to the patient set. If you determine that this is the patient's primary address, click the arrows 🡐 next to the primary address fields to overwrite the values in the patient set.

Consolidating Demographics Data

Requires system permission: *consolidate* and *pat_edit*

After verifying the patient match, begin the consolidation process by resolving discrepancies between the patient information on the demographics page of the patient set with the same data fields in the incoming records. If you are consolidating multiple records to create a new patient set, the patient set fields will contain data from the record used to auto-build the patient set.

If you determine that a record contains more complete or accurate information, update the patient set with the best data. The Show Differences feature enables you to compare data fields on each incoming record with the fields in the patient set, and it provides a convenient method to copy values into the appropriate patient set fields.

To consolidate the demographics data:

1. Confirm the patient match and link each record to the patient set as described in the *Verifying the Patient Match* and *Linking the Incoming Records* sections of this chapter.

2. If you are not viewing the patient set's Demographics page, click **Demographics** in the patient set navigation box.

3. Click the **Show Differences** link in the title bar of the Demographics page. (This link changes to Hide Differences when clicked, allowing you to toggle back and forth.)

4. If there are no discrepancies between the non-blank data fields in the record and the patient set data fields, *No Differences* will be displayed in the top section of the page. (The Supporting Text section of the page is always shown.)

5. Review each field that is listed. If you determine that the data provided on the incoming record is more current or complete, click the arrow to overwrite the patient set field with the new data. You may also paste or type values directly into the patient set fields.

6. Select the next incoming record in the drop-down list. Review the differences for each of the incoming records.

7. Click **Hide Differences** when you finish consolidating the data on the Demographics page.

Selecting a Record to Build a Patient Set

If incoming records are being consolidated to create a new patient set, a patient set will be built from one of the incoming abstract records. If there are two abstract records for the same case, SEER*DMS chooses one based on dates. You may determine that a different abstract record has more detailed information, for example, it may have more staging information. You may be able to reduce data entry and save time by building the patient set from the other abstract record.

If you would prefer to build the patient set from a different record, you may re-build the patient set. Any changes that you entered manually will be lost. The consolidate task will essentially start over and the patient set will be built from the record that you choose.

To re-build a patient set using a different abstract record:

1. In the left navigation panel, click the record type for the record that you wish to use to build the patient set.

2. Click the menu indicator to open the record's menu.

3. Select **Re-build Patient Set**

Consolidating CTC Data

Once you link a record to a CTC, SEER*DMS will use the record data to create TX (treatment), TXr (treatment reportedly given at a different facility), and Admissions data fields. The SEER*DMS polishers will then update the Summary TX data fields based on all available TX and TXr data, including the treatments created from the newly linked record.

As outlined in the following instructions, you will use Show Differences to review and resolve discrepancies between the record and patient set values on the CTC data page. You will then visually edit the newly created TX and TXr data pages; and review the newly created Admissions. If you make changes to the TX and TXr data, the polishers will refresh the Summary TX data fields. Finally, you will review the summarized treatment data generated by the polishers.

To consolidate data on an incoming record into a CTC:

1. Confirm the patient match and link each record to the patient set as described in the *Verifying the Patient Match* and *Linking the Incoming Records* sections of this chapter.

2. Review the Incoming Records section of the navigation box to determine which CTCs require consolidation of data from the new records (a linkage indicator is displayed next to each record type, e.g., "C 00").

3. In the patient set navigation, click the link for the first CTC to which an incoming record is linked. Review and edit the data on the main CTC page. If you determine that the record contains more complete or accurate information, manually edit or use Show Differences to copy data from the record to the patient set:

   a. Click **Show Differences** in the title bar of the CTC data page. (This link changes to Hide Differences when clicked, allowing you to toggle back and forth.) To consolidate the data on the main CTC data page:

      i. Select the first record in the drop-down list that is linked to this CTC.

      ii. If there are no discrepancies between the non-blank data fields in the record and the patient set data fields, *No Differences* will be displayed in the top section of the page. (The Supporting Text section of the page is always shown.)

      iii. Review each field that is listed. If you determine that data provided on the incoming record is more current or complete, click the arrow ← to overwrite the patient set field with the new data. You may also paste or type values directly into patient set fields.

      iv. Repeat the process of reviewing and updating the CTC data page for each incoming record that is linked to this CTC. Use the drop-down list to select each record.

   b. Click **Hide Differences** when you finish consolidating the data on the CTC page.

4. Note: Do not set the Review flag on the main CTC page until all treatment and facility data for the CTC are reviewed. The CTC review flag also affects warnings on facility, treatment, and summary treatment pages.

5. Review data and resolve edits for new admissions in the patient set data. Be sure to look for newly created Facility pages and new admissions on existing pages. If a new page was created, the Facility link in the left navigation box will be shown in bold. If new admissions were added to an existing Facility page, the Facility link will not be bold. To be sure that you review all new data, check for new admissions from each facility that provided an incoming record.

6. Review newly created Treatment data pages (TX and TXr links). Links for newly created pages will be shown in bold. Resolve edit errors, compare coded data to supporting text, and review associated admission data (if an admission is related to the treatment, a link to the admission will be displayed on the treatment page in the Adm FAC-ID field). SEER*DMS polishers use the data on the TX and TXr pages to update the consolidated Summary TX data. Therefore, it is important to review and visually edit these data prior to completing the consolidation of the Summary TX page. If you would like to view the source record during this review, the record type of the source record is displayed as a link on the right side of TX and TXr pages.

7. Review and complete the consolidation of the summary treatment data page:

   a. Click the Summary TX link in the left navigation box. Review the summarized data that the polishers set for each treatment modality. If the polisher could identify missing or conflicting data, the review flag associated with the treatment modality will be set to 0 (Needs Reviewed) and an error will be generated to ensure that you review the data.

i. Review the summarized Surgery Treatment data. Click the multi-page icon next to the Surgery Review field. A popup window will open that displays the contributing data on the TX and TXr data pages. You may move the popup window so that you can see the summarized and contributing data at the same time.

ii. Modify the Summary Treatment fields, as necessary. When you complete the process for Surgery Treatment data, set the Surg Rev flag to 1 (Reviewed). As you work, you can re-open the popup window at any time by clicking the icon.

iii. The values of the SEER Course 1 dates and the Summarized Diagnostic Procedures are automatically set by the polishers. Therefore, these fields are read-only and cannot be modified by the user.

iv. Repeat this process for the Radiation and Systemic sections. There is a separate review flag for each. To change the set of fields shown in the popup window, you may either use the drop-down menu in the popup or click the icon next to the appropriate variable.

8. When you have reviewed all data pages, return to the main CTC page and set the CTC Review flag to reviewed.

9. Repeat steps 2 through 8 for each CTC that requires consolidation.

Requesting Follow-back Information

Requires system permission: *consolidate* and *fb_initiate*

In SEER*DMS, a request for follow-back information is referred to as a “follow-back need”. If you determine that additional information must be obtained from the reporting facility, you should submit a follow-back need. It will be added to a bundle of requests to the same facility. Note: If you are creating a new patient set by consolidating record data, you must submit the follow-back needs using the record navigation.

Periodically, a manager will review, edit, and send a batch of follow-back requests to a physician or other representative at a facility. Subsequently, the manager will process the facility’s responses.

You will receive an e-mail when a response to your request is processed and the need is closed. You or another staff member may update data fields based on the new information. As determined by registry policy, one staff member may be responsible for processing all follow-back responses, or the information may be given directly to the staff members who entered the follow-back needs.

If you suspended a task pending the receipt of follow-back information, you must re-open and complete the task to allow the data to move forward in the workflow. You must either make changes to data fields based on the new information or verify that the appropriate changes were made. If you completed the task but need to update the patient set with the new information, use the Patient Lookup to search for the patient set. Instructions for submitting follow-back requests and processing the responses are provided in *Chapter 22: Follow-back*.

Saving Changes

The following describes the procedures to save patient set data during a Consolidate task.

Save Changes and Exit the Task

If you have finished consolidating the data:

1. Click **Save**.

2. Enter comments to document your changes.
3. Check the **Forward to next workflow task on Save & Exit** box.
4. Click **Save & Exit**. If there are edit errors in the patient set, it will be forwarded to a Resolve Patient Set Errors task. If there are no errors, the patient set will complete the workflow and will be accessible via the Patient Lookup, but not the worklist.

Save Changes and Continue Editing

This option is available if you are consolidating data into an existing patient set. If you are creating a patient set from two or more records, you must use the Save & Exit feature to save changes.

To save changes to the patient set and continue consolidating:

1. Click **Save**.
2. Enter comments to document your changes.
3. Click the **Save** button at the bottom of the Review Changes page.

Save Changes and Keep the Consolidate Task in your Worklist

If you have made changes but are unable to complete the consolidation, you may save the task without forwarding the data to the next task in the workflow. This option is only available if you are consolidating data into an existing patient set. A Consolidate task cannot be saved for a patient set that does not yet exist in the database.

If you would like to save changes, but need to continue the task at a later time:

1. Click **Save**.
2. Enter comments to document your changes.
3. Uncheck the **Forward to next workflow task on Save & Exit** box. When saved, the patient set will remain in a Consolidate task assigned to you. You will only be able to save this data in a Consolidate task if you are consolidating data into an existing patient set.
4. Click **Save & Exit**.

Undoing Changes

Requires system permission: *pat_edit*

If you made changes that you do not want to save, use the undo feature. This will reverse all unsaved changes made during the consolidation process. If consolidating data into an existing patient set, the values of the patient set data fields will be reloaded from the database. In addition to reverting changes made to data fields, the linking of records and all other modifications will be reverted. If you rejected a record during the task, that change was saved immediately and is not reverted by the undo feature. If you wish to consolidate that record into this patient set, you would need to find the record and rematch.

To reload the patient set from the database and revert changes in a Consolidate task:

1. Hold your mouse near the menu indicator in the patient navigation box. The patient set menu will be displayed.
2. Select **Undo Changes**.
3. Click **OK** to confirm.