Kentucky Cancer Registry

CPDMS.Net Operator’s Manual

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CPDMS.NET

INTRODUCTION

The Cancer Patient Data Management System (CPDMS.net) is a comprehensive, Web-based system for collecting, managing, and analyzing information related to the diagnosis and treatment of cancer patients. The system was developed by the Kentucky Cancer Registry (KCR) at the University of Kentucky to provide individual hospitals with the ability to monitor, analyze, and follow the different types of cancer patients seen in the hospital.

Because CPDMS.net is Web-based, the software itself resides on servers at KCR rather than on a hospital registry’s individual computers, thus eliminating the need for individual hospitals to maintain and update the software. The data entered are stored at KCR on secure servers, where they are backed up on a daily basis. CPDMS.net allows users to save reports and data files to their own computers. These files may then be opened, manipulated, and printed using word processing, spreadsheets, or analytic applications such as SAS.

CPDMS.net is provided with a complete documentation set. An Abstractor’s Manual describes each data item that is collected and gives precise instruction regarding how the information is to be coded.

CPDMS.net was developed and is maintained by the Information Technology staff of the KCR. For further information and technical support, please contact the IT staff at (859) 218-2222.

KCR regional coordinators are available to assist hospitals in Kentucky using CPDMS.net with training their staff to use the software, abstract data, and analyze the information. For further information, visit KCR’s website at http://www.kcr.uky.edu/, or contact:

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HARDWARE AND SOFTWARE REQUIREMENTS FOR CPDMS.NET

Minimum Hardware
Processor Type: Pentium 4, 2.6 GHz or equivalent or greater
Memory: 1 GB or greater
Hard Disk Capacity: 20 GB or greater
Display Monitor: 17" Color Monitor
Display Resolution: 1024 x 768
Keyboard/Mouse enabled
Access to local or network based printer
LAN Based Internet Access

Minimum Software
Operating System: Windows XP + SP3
Browser Version: Internet Explorer 8.0 w/ Latest Service Pack/Updates

Recommended Hardware
Processor Type: Any type that exceeds minimum hardware specs
Memory: 2 GB or greater
Hard Disk Capacity: Any size that exceeds minimum hardware specs
Display Monitor: Dual display 19" Color Monitors or greater
Display Resolution: 1280 x 1024
Keyboard/Mouse enabled
Access to local or network based printer
LAN Based Internet Access

Recommended Software
Operating System: Windows 7
Browser Version: Internet Explorer 8.0 or Firefox
ESR

Browser Settings
SSL Client Certificates must be installed for access to CPDMS.NET
Pop-up Blocking software must allow pop ups from the following web sites:
https://cpdms.net and https://portal.kcr.uky.edu
Active Scripting (IE) or Javascript (Firefox) must be enabled for the web sites listed above.
Cookies must be enabled for the web sites listed above.
Adobe Reader is required to view some Web Application file downloads.
The most current hardware and software documentation is available at
http://www.kcr.uky.edu/techsupp/cpdmsnetreqments.html
ABOUT CPDMS.NET

CPDMS.net is a web-based application that was developed with contemporary open-source technologies including PHP, MySQL, Java, and Javascript. It was developed to meet information needs specified by the KCR for its statewide cancer patient database. It is a fully functioning Web-based tumor registry system that meets or exceeds all American College of Surgeons (ACoS) tumor registry requirements.

Analytic tools are available to perform descriptive and comparative statistics. These include mean, standard deviation, frequency distribution, z-test, t-test, and chi square. Measure of outcome through survival uses the standard life-table method.

Graphical presentation of data may be performed using histogram, bar chart, or survival plot. Any graphics generated by the system can be downloaded and saved on a user’s computer as a Bitmap image. An interactive interface allows users to create custom queries and reports.
SECURITY FEATURES OF CPDMS.NET

Multiple levels of security guarantee confidentiality of patient data. Users are required to supply a valid user code and password prior to gaining access to CPDMS.net. A 128 bit encrypted web connection ensures the security of the Web-based sessions. Hospital network gateway IP addresses must be registered with KCR to gain access to the system. A client certificate is also issued to authorized users of CPDMS.net.
CPDMS.NET COMPUTERIZED RECORD STRUCTURE

CPDMS.net utilizes a fully relational database design. Each patient record is assigned a unique system-generated identification number that is used to link records for that patient. Patient identification and demographics are stored in the patient record. The patient record can accommodate up to ten optional, user defined fields for patient level data.

Any number of case records may be entered and stored for each patient. Each case is identified by the primary sequence number, site group code, and a unique identification number assigned by the system. Abstracted case records include diagnosis and staging information, as well as follow-up data. Ten optional, user defined fields are available at the patient level and twenty optional, user defined fields are available at the case level for additional case specific data. CPDMS.net also supports type “other” cases that include only sequence, site, and estimated year of diagnosis.

Attached to each case record is a class history record for each hospital associated with the case. Single hospital installation of CPDMS.net will always have one class history record per case. The fields in this segment are updated automatically by the system during data entry. They include the date the patient record was initially entered and the date the patient record was last edited or updated. The class history segment also contains certain case level variables specific to each reporting hospital.

Also attached to each case record are records for therapy, NAACCR therapy, and open text data. Any number of therapy records may be entered and stored for a case. CPDMS.net supports a virtually unlimited volume of text for each case.
GETTING STARTED

The CPDMS.net Operator’s Manual is written to provide detailed instructions for entering, storing, retrieving, and analyzing the cancer patient data collected by an institution. It is a companion reference to the CPDMS Abstrator’s Manual, which provides detailed instructions for abstracting and coding cancer registry data.

This manual is organized into chapters and sections which correspond to the system menus and operations. Each chapter numbered one through five describes the CPDMS.net operation carried out by selection of that option from the Main Menu. Sections within chapters are also organized in accordance with option selections from subsequent menus. These chapters are followed by a comprehensive list of system generated error messages, a glossary of special terms, a section specifically for multi hospital installation, and some guidelines for hospitals with multiple users of CPDMS.net.

Prior to connecting to CPDMS.net for the first time, users must first register their hospital network gateway IP address with KCR and download a client certificate via KCR’s secure file exchange web site. Each user will be assigned a unique username and password by KCR IT staff.
Initiating CPDMS.net

From the Windows desktop, open Internet Explorer 8.0* or Firefox ESR and enter the URL https://www.cpdms.net/. The following page will open:

![CPDMS MAIN WINDOW](image)

**Launch CPDMS Application**
- [Launch CPDMS]

**Links**
- Kentucky Registrars Wiki
- KCR Web Portal
- FES (Secure File Exchange Server)

**CPDMS Support**
- Hours: Monday - Friday, 7AM to 5 PM Eastern
- Phone: 859-218-2222
- Email: cpdmsnetsupport@kcr.uky.edu

Click the “LOGIN” button and a new CPDMS login window will open. (CPDMS.net requires that any pop-up blocking application in your browser allows pop-ups for www.cpdms.net.)

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* Earlier versions of IE, Firefox, or other types of web browsers are not supported.
Enter the hospital ID, login name and password (both provided by KCR), and click the “Submit” button.

Once this information has been submitted, users at multi-hospital institutions will be prompted to select the user hospital before continuing. See Appendix C for instructions regarding logging into a multi-hospital database.

It is important to note that when a user is logged into CPDMS.net and the program is left idle, (defined as failing to submit a data entry page or select a new menu option for 75 minutes) the program will automatically suspend the session and perform a log out. This is a security feature designed to prevent unauthorized users from accessing confidential data on an unattended computer. If an automatic log out occurs, simply log back in and the active session will resume. See the section entitled “CPDMS.net Sessions” for more detailed instructions about resuming an active session.
Following authentication, the CPDMS.net Main Menu will be displayed. The user’s login name appears in the banner at the top of the page in the lower left corner, while the institution name is shown in the middle of the banner. In the example shown below, the user “Tonya Brandenburg” is logged into the database of the facility “Training Database.” The lower right corner of the banner displays the title of the current screen.
Navigating Menus

In order to select a particular menu option from the Main Menu, use the mouse to move the cursor over the desired option and a submenu will appear. [Logout is the exception; it has no submenu and is simply highlighted when the cursor is placed on it.] The menu may also be navigated with the keyboard through the use of “hot keys.” The hot key for each menu item is indicated by an underlined red letter in the title. A menu option may be selected by simultaneously pressing the ALT key and the hot key for that particular option. For example, in the screen below, the hot key for Patient Data is “P.” When ALT + P are pressed, Patient Data is selected and its submenu appears.

The status bar (located at the bottom of the active window) contains “hints” for navigating the current menu. In the above screen, for example, the status bar reads “ALT + (Highlighted Key) – Menu.”
Most Main Menu items contain a submenu. For example, if “Reports” is highlighted, a submenu listing the various types of reports will be displayed. Some submenu items have an arrow to the right, indicating that there is a further submenu within that item (see below).

As seen above, within the Reports submenu, various types of reports may be selected, including Registry, Follow-Up, Case Counts, Q/A, Outcomes, and Support Files. As the cursor is moved down the Reports menu, the submenus appear when an item is highlighted. In the example above, the Case Counts reports include Annual Summary, SEER Summary, Frequency, Incidence, and Counts by Year. The desired report may be selected by moving the cursor to highlight that option and left-clicking the mouse.
Hot keys can also be used to navigate within submenus. As in the Main Menu, hot keys are indicated by an underlined letter in the name of the menu item. It is not necessary to press ALT with submenu hot keys; simply press the key corresponding to the underlined letter to highlight that option. In the example below, pressing “F” within the Reports submenu highlights Follow-Up.
Once the desired submenu option is highlighted, press ENTER to select it. In the example below, by pressing ENTER while Summary is highlighted, the Summary report is selected.

The submenu may be navigated using the up and down arrow keys or the hot keys. Once the desired option is highlighted, press ENTER.

CPDMS.net may also be exited entirely from the Main Menu. Simply select Logout, the session will be terminated, and the window will close.
CPDMS.net Sessions

In the event that a CPDMS.net session times out or is inadvertently terminated, the session may be recovered by launching Internet Explorer and logging in normally. After logging in, a message will be displayed indicating that an active session has been recovered.

Choose “Continue” and CPDMS.net will automatically return to the record that was active prior to logout. If a multi-page data entry form (i.e., Case Data Edit Form, Patient Data Edit Form, etc.) was being edited when logout occurred, all data which had been entered up to the current page (but not including the current page) will be saved. For example, if page four of the Case Data Edit Form had been partially completed when the session was terminated, when the active session is resumed, CPDMS.net will automatically return to page four of that patient’s form. All data items that had been completed on pages one through three will have been saved, but page four will be blank and any data that had been entered must be entered again. This feature of CPDMS.net ensures that if a session is terminated during data entry without logging out properly, the maximum amount of information that can ever be lost is a single data entry page.

User Defined Fields

If desired, user defined variables at the patient or case level can be assigned. As shown in the Abstractor’s Manual, there are ten available fields at the patient level for each institution to define according to its own information needs. There are also twenty user
defined fields available for each site group that individual institutions may use to record site specific diagnostic, therapeutic, or clinical information at the case level that is not recorded elsewhere.

In order to assign labels to the user defined variables in the computer, select Maintenance from the Main Menu and then User Defined from the submenu. See the section entitled “User Defined Labels” in Chapter Four of this manual for detailed instructions for performing this function.
THE MAIN MENU

The Main Menu is the starting point for all operations within CPDMS.net. Each of the Main Menu options is summarized below:

Patient Data

Select this option to enter new patient records, add data or make changes to existing records, delete records, or access the Incomplete Patient List.

Reports

This option allows users to produce accession logs, master patient lists, abstract form summaries, follow-up reports, and case counts by year and site, as well as some standardized quality assurance reports and CP3R reports. Users may also generate lists of physicians, ICD-O topography and histology codes, ICD-9-CM and ICD-10 codes, and state healthcare facilities with their code numbers.
Data Analysis

The analysis component of the system is used to query “study groups” and generate descriptive reports, data lists, comparative statistics, survival analyses, and graphs for the study groups. Study groups may also be exported as NAACCR files.

Maintenance

This option is used for system control and file maintenance. Users can update support files (physician codes, institution codes, etc.), unlock patients, assign labels to user defined fields, update calculated fields, mark patients for upload, and provide feedback to CPDMS.net programmers. Multi-hospital database users may switch to a different facility without logging out of the system.

Data Exchange

This option is used for generating CPDMS.net data output files, such as the National Cancer Data Base (NCDB) call for data and Rapid Quality Reporting System (RQRS). The data exchange option is also used to perform central follow-up and death clearance.

Logout

Selecting Logout will end the CPDMS.net session and close the window.
CHAPTER ONE: PATIENT DATA

This menu option allows the user to create, view, or modify any record in the cancer patient database, as well as to view and edit records which are incomplete or have been saved with errors. The following general rules apply to data entry procedures:

a) There are only enough spaces in each field for the maximum number of characters allowed for that field. If the field is completely filled with a valid entry, the cursor will stop and no further characters can be entered.

b) The cursor will always start in the leftmost column of the field to be entered. Once a field has been completed, press ENTER or TAB to move to the next field.

c) All dates must be stored with a 2-digit month, a 2-digit day, and a 4-digit year- i.e., 01/08/2006. They must be valid dates and not beyond the current date.

d) Validity checks are performed on each data item as it is entered. Only valid codes are accepted. Many of the data items have a list of valid choices associated with that item. The Choice List may be accessed when the cursor is on a field with a drop down menu. To display the choice list, click on the arrow to the right of the field or press ALT and the down arrow key simultaneously. Move through the Choice List using the up and down arrow keys, and press ENTER to select the desired value. It is not mandatory to choose the value using the Choice List. The value may simply be entered in the same manner as a field with no Choice List.

e) Fields that have a very extensive choice list (such as State at Diagnosis) have a magnifying glass icon to the right of the field instead of a drop down menu. Click on the magnifying glass or press F2 to display the Choice List. The longer Choice Lists may be searched for the desired value using either the code for that value or the description. Type in the code or the written description and then select the “Search” button. A dialog box will appear which displays any matches. The list may be navigated using the up and down arrow keys. Lists that are more than one page can be navigated using the Page Up and Page Down keys, or the scroll bar to the right of the list. The cursor can be moved directly to the top of the list by pressing the Home key or directly to the bottom of the list by pressing the End key. To make a selection from the Choice List, highlight the desired entry and press TAB to exit the list and move the cursor to the “Select” button. Press ENTER and the chosen value will appear in the field.

f) The fields of a record segment may be navigated using the TAB key or the ENTER key.

g) When a list is displayed onscreen (i.e. lists of patients, cases, therapies, physicians, etc.), use the up and down arrow keys to scroll through the list and highlight the desired record. Use the page up and page down keys to move through lists that are more than one page long. Use the TAB key to move from the list to the buttons on screen.
h) The various “buttons” on a screen may be selected by left clicking the mouse on the desired button. The TAB key may also be used to navigate among the buttons. Each time TAB is pressed, the focus moves to the next button, which is then “highlighted.” In the example below, the focus is on the “Select” button.

The focus navigates through the buttons and the list in a default order. This order may be reversed by pressing the shift key and TAB simultaneously. In the above example, pressing TAB would result in moving the focus from ‘Select’ to ‘New Search’; pressing shift + TAB would move the focus from ‘Select’ to ‘Next.’
i) Many record edit forms are more than one page long. There are multiple options for navigating within these forms. The “Next” and “Previous” buttons at the bottom of the page may be used to move through the pages sequentially, while clicking on the tab at the top of a page jumps directly to that page.
j) Some operations within a record can be performed using shortcuts. These are listed at the bottom of the screen (see below).

Press the ESC key to cancel editing. Press ALT and the highlighted letter on the tab at the top of each page [referred to as the “hot key”] to go directly to that page (for example, pressing ALT+C would go directly to the page containing all the Collaborative Stage fields). Press F2 to display a searchable Choice List, or ALT + down arrow key to open a drop-down menu (see rules d and e for further instructions regarding Choice Lists). Press F7 to go to the previous page and F8 to go to the next page. The F9 key displays a list of hospitals affiliated with the case, and F10 saves the current record.

k) Some fields contain default values when the data entry screen is first entered. These may be written over with a different valid value.

l) A data entry screen may be exited at any time by pressing the ESC key or selecting the “Cancel” button. After confirming the intention to quit and abandon these changes, the system will return to the menu.
m) To exit a data entry screen and save changes to a record, select the “Save” button at the bottom of the screen, or press F10. If there are any required fields with invalid values (including blanks), an error message will appear. (See example below.)

Choose “Continue Editing” to enter a valid value at this time, or select “Save with Errors” to save the record with errors and correct it later. Please note that there is a limit of only 10 incomplete case records at any given time. See the section entitled “Edit Checks and Error Messages” for more detailed information.
1. Enter a New Patient

From the Main Menu, select Patient Data, and then Patient List. The following screen is displayed:

From this screen an existing patient record may be located or a new one created. Existing patients may be located using the patient’s social security number, name, or registry accession number.
Enter the social security number of the patient to be added to the database. When the field is completed, the system immediately searches the existing patient records for that social security number. If a match is found, the matching patient record is displayed in a patient list. To locate and modify the existing record, use the mouse to click on the button labeled “Select” or press TAB and then ENTER. In order to return to the patient entry screen, TAB once to move out of the patient list and then again to go to “New Search” and press ENTER, or mouse click on the “New Search” button.

If a patient list appears, carefully compare the patient information displayed (name, DOB, sex) with these data values for the patient to be entered. If it is the same patient, the existing record need only be updated with the new information. For instructions, consult section two of this chapter, “Update an Existing Patient.”

If there is a different patient record to be entered, but both have the same social security number, verify the SSN for both patients from the best source documents available. The occurrence of duplicate identification numbers is most likely to happen with temporary numbers. Two different patient records cannot have the same identification number.
If two patients have the same SSN or temporary number, follow the instructions in the CPDMS Abstractor’s Manual for assigning a unique SSN. Use the “New Search” button to return to the entry screen for Patient Keys and re-enter a unique SSN. When the field is filled and no match is found in the existing database, the cursor automatically moves to the Last Name field.

Enter the patient’s full last name, with no special characters or punctuation marks. (Embedded blanks are allowed.) Press ENTER and the cursor moves to the First Name field. Enter the patient’s full first name—again, with no special characters or punctuation marks, and press ENTER. Press ENTER once again to Submit.

The program then searches the database for that first and last name combination and displays all possible matches.

For example:

![Patient List](image)

Once again, use the “Select” button to locate and update an existing patient record, or choose the “Create” button to override the matching names and create the new patient record anyway. Use “New Search” to return to the Enter Patient Information screen.
This may be entered as a new record because it has a unique SSN, even though the first and last name combination is already in the database. CPDMS displays the match only as a warning, to prevent the inadvertent re-entering of an existing patient record.

After a unique SSN and last and first name combination has been entered, a new patient record may be created. Choose “Submit” and the screen displays the SSN and name for the potential new record:

![Image of Patient Information screen]

Select “Create” to create the record and go on to the Patient Data Edit Form. To return to the Patient Key entry screen without creating a new record, press TAB and ENTER to select “Cancel.”
The Patient Data Edit Form is now displayed.

SSN, last name, and first name (the key fields for a patient record) appear as the first three fields on this screen. However, they are protected fields and may not be changed here. (See “Update an Existing Patient” for instructions on how to edit key fields.)

Middle name – This field is mandatory if the patient has a middle name. Only alpha characters and blanks are allowed. This field may be left entirely blank.

Maiden name – This field is mandatory if the patient’s maiden name is available. Only alpha characters and blanks are allowed. This field may be left entirely blank.
Address – Address 1 is a Mandatory field; alphanumeric and special characters are allowed. This field is actually two lines long to allow enough room for apartment numbers, etc. Address 2 is optional.

City – Mandatory field; this field may not be left entirely blank. A help screen of the largest cities and their counties is available by pressing F2 or clicking on the magnifying glass icon.

State – Mandatory field; a Choice List is available using F2 or the magnifying glass. (See below.)
All of the valid state and country abbreviations are listed here (as well as in Appendix B of the CPDMS Abstractor’s Manual). Refer to the discussion of Choice Lists at the beginning of this chapter for detailed instructions on locating and making a selection from a Choice List.

Zip code – Mandatory field; only numbers are allowed. The last four spaces may be left blank but the entire field may not be left blank.

Home phone – Optional field; only numbers are allowed.

Date of birth – Mandatory field; must be entered as MMDDYYYY. The value entered must be a valid date on or before the current date.

State of birth – Mandatory field; a Choice List is available.

Country of birth - Mandatory field; a Choice List is available.

Sex – Mandatory field; a Choice List is available. It is also linked to the Number of Live Births field. When a ’1’ for male is entered, Number of Live Births is automatically set to ‘99’ [the appropriate code for males]. This field is also linked to site group and topography codes, and to the menopausal status field at the case level. Inconsistencies will result in error messages and corrective edits will be required before the case record is stored.

When all the fields on page one of the Patient Data Edit Form have been completed, proceed to page two by using the ‘Next’ button, hitting the F8 key, or pressing ALT and ‘2’. 
Race 1 – Mandatory field; a Choice List is available.

Race 2 through Race 5 – Mandatory fields; these should be filled in with 88’s unless patient has more than one recorded race. Entering ‘88’ in Race 2 will cause Race 3 through 5 to auto-fill with 88’s. These can be written over with a different value.

Spanish Origin – Mandatory field; a Choice List is available.

Tobacco Use – Optional item; a Choice List is available.

Cigarette Pack Years – Optional item; must be numeric. This field defaults to ‘999’ for unknown when the data entry screen is initially displayed. A different value may be typed over the 999, or hit ENTER to preserve this value and proceed to the next field.

Number of Live Births – Optional item; must be numeric. This field defaults to ‘99’ when the code for ‘male’ is entered in the sex field.
Occupation – This field is mandatory to the extent that the information is available in the source documents. It allows alphanumeric characters or may be left blank.

Industry – This field is mandatory to the extent that the information is available in the source documents. It allows alphanumeric characters or may be left blank.

Cause of Death (ICD-9 or ICD-10) – Mandatory field initially calculated and coded automatically by the data entry program. A Support File acts as a Choice List here. Refer to the discussion of Support Files at the beginning of this chapter for detailed instructions on locating and making a selection from a Support File. This field may be completed by entering a code from the ICD-9 or ICD-10 Support File only when the correct code is available from the death certificate.

Place of Death – Optional item; a Choice List is available or leave blank.

Number of Primaries – Calculated field; cannot be entered by the user. This field is initialized at zero, then re-calculated whenever associated case records are entered or deleted.

Vital Status – Calculated field; cannot be entered by the user. The computer initializes this field with a blank, then updates it based on the value for survival status entered in the Follow Up data entry screen. The calculated codes are ‘1’ for alive and ‘0’ for dead. If a patient has more than one case and the survival codes are inconsistent among case records, a correction is required before this patient record may be exited.

ACoS Patient Accession Number – Calculated field; cannot be entered by the user. This field is initialized with a blank, and then updated with the value of the case accession number assigned to the case with the lowest sequence number for this patient.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last user to modify patient data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that patient data was last modified.
NOTE: The data edit form may be abandoned at any time without saving by pressing ESC. To exit and save changes, press F10 or select the “Save” button at the bottom of the screen. The patient record will be displayed with the option to save, return to editing, or cancel (see example).
Once the patient record has been saved, the following screen appears:

![Patient Record](image)

Now several functions are available to display, modify, or delete this record. These functions are listed across the top of the screen and described briefly below.

LOCATE allows users to find a specific case or therapy attached to the current patient record. When a case or therapy is located, its key fields are displayed in a Data Entry Status screen.

VIEW displays the data values stored in any particular segment of the current patient record, without allowing editing of the record.

CREATE allows the addition of a new segment of any type (i.e., case, therapy, follow-up, etc.) to the current patient record.

KEY CHANGE allows the editing of the key fields of the current patient, case, or therapy record.
EDIT allows users to access and make changes to any existing segment of the current patient record.

DELETE enables users to delete an entire patient record, or any particular segment of the current patient record. When deleting a case, however, all records related to that case (except patient data) will be deleted as well. For example, if a case record is deleted, all related therapies and follow-up information will be deleted also.

LOGOUT allows the user to log out of CPDMS.net. Users in a multi-hospital institution may also login as a different facility here.

RETURN takes the user back to the “Enter Patient Information” screen to allow the addition or location of another patient record.

At this point in entering a new patient record, only certain functions are logical (and therefore available) to perform next. The patient data that has been entered may be viewed or edited, patient level user defined fields may be created, a case record related to this patient may be created, or the patient record may be deleted.

The discussion on the subsequent pages will continue with the steps to CREATE new segments for the current patient record. In section two, “Update an Existing Patient,” the other functions are described in detail.

NOTE: These other functions may be used during the initial record entry as long as the appropriate segment has been created.
Additional data may be collected in the user defined fields. To store values for these data items for the current patient record, highlight the word CREATE using the mouse and the submenu is displayed:
Within the “User Defined” category, two options are available—“Patient” or “Case.” Select “Patient” and the following screen will appear:

![Patient User Defined Data Form](image)

Alphanumeric or special characters may be entered in any or all of the ten patient level user defined fields. No validity checks are performed on these items. After all relevant data items have been entered, use the “Save” button or F10 to save the record and exit this screen. (If the screen is left entirely blank, the record is not stored.) See the “Maintenance” chapter for instructions regarding assigning meaning to user defined fields.
The screen then returns to the Data Entry Status screen:

Note that in the Data Entry Status screen, the word “Yes” now appears to the right of “User Defined Data.” This indicates that some or all of the patient level user defined fields have been coded and stored for this patient.
To continue entering data for the current patient, choose CREATE from the Main Menu and then select Case from the CREATE submenu. The following screen is displayed in which the key fields for the case record must be entered:

The sequence number field defaults to the next available sequence number for the current patient. This value may be written over with another number. However, the current patient record may not be saved without errors until all sequence numbers stored for this patient are sequential, starting with number one.

Enter the sequence number or press ENTER to accept the default value. Choose the appropriate case type for the record that is to be created.
If ‘Other Primary’ is selected, the year of diagnosis and site group must be entered. If the year of diagnosis is unknown, use ‘9999.’ A site group Choice List is available by using F2 or clicking on the magnifying glass (see below).

A brief remark regarding the diagnosis and/or treatment of this malignancy, or any other pertinent information (i.e., patient was a resident of another state at diagnosis), may be entered in the “Comment” field. After these fields have been completed, choose “Submit” to save as a Case Type Other.
Now the case is displayed.

Select “Edit” to modify the data that has been entered, or “Cancel” to escape without saving the data. Choose “Create” to create a case record.
If ‘Full Abstract Form’ is selected, an edit form is displayed with the date of diagnosis, ICD-O-3 conversion flag, topography, histology, and behavior code. Choice Lists are available for ICD-O-3 conversion, topography, histology, and behavior.

<table>
<thead>
<tr>
<th>Patient Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc Sec Number</td>
</tr>
<tr>
<td>Last Name</td>
</tr>
<tr>
<td>First Name</td>
</tr>
<tr>
<td>Total Cases</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site Group</th>
<th>Contact Patient</th>
<th>User Defined Data</th>
<th>Death Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Create Case Record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence Number</td>
</tr>
<tr>
<td>Site Group</td>
</tr>
<tr>
<td>Case Type</td>
</tr>
<tr>
<td>ICD-O-3 Conversion Flag</td>
</tr>
<tr>
<td>Date of Diagnosis</td>
</tr>
<tr>
<td>ICD-O-3 Version</td>
</tr>
<tr>
<td>Histology &amp; Behavior Code</td>
</tr>
<tr>
<td>Histology &amp; Behavior Code (ICD-O-2)</td>
</tr>
</tbody>
</table>

Site Group- Calculated field; based upon the topography and histology.

ICD-O Version – Calculated field; this field defaults to ‘3’ for 3rd edition.

Date of Diagnosis – Mandatory field; must be entered as MMDDYYYY. The value entered must be a valid date on or before the current date.

ICD-O-3 Conversion Flag – Mandatory field; a Choice List is available. This field defaults to zero when the date of diagnosis is 1/1/2001 or later.

Topography Code – Mandatory field; a Choice List is available which includes codes from all editions of ICD-O.
Histology and Behavior Code – Mandatory field; this is actually stored as two separate fields. A Choice List is available.

Histology and Behavior Code (ICD-O-2) – Mandatory field for cases diagnosed prior to 1/1/2001; this is actually stored as two separate fields. A Choice List is available.

If Site Specific Factor 25 is required you will need to fill it in, otherwise it will be defaulted.

After the previous fields have been completed, select “Submit” to save the data entered, or “Cancel” to escape without saving. If “Submit” was chosen, the following screen will appear:

Select “Edit” to modify the data that has been entered, or “Cancel” to escape without saving the data. Choose “Create” to create a case record.
The Case Data Edit Form is now displayed, as seen below:

The Case Data Edit Form is eight pages long, and may be navigated using the “Next” and “Prev” buttons, or by pressing F8 or F7. The tabs at the top of each page or ALT + hot key may be used to move directly to a particular page. There is a ninth tab on the top of the page labeled “Text” which opens the text data entry screen. Text may be entered and saved at any point during case data entry. After text has been saved, the cursor is automatically returned to the previous field in the Case Data Edit Form. (See the section on creating text at the end of “Enter a New Patient” for instructions regarding entering text.)

Note that the key fields Sequence Number, Site Group, ICD-O Version, Date of Diagnosis, ICD-O-3 Conversion Flag, Topography, Histology & Behavior, and Histology & Behavior (ICD-O-2) automatically appear on the first page of the Case Data Edit Form with the values which were specified when creating the case record. These fields may not be edited from the case data edit screen. In order to make changes to these fields, see the instructions for Key Changes. In addition, several calculated fields are present. These are described below.
ACoS Sequence Number – Calculated field; cannot be entered by the user. This field value is calculated when the case is created and is recalculated any time the sequence number is key changed.

SEER Sequence Number – Calculated field; cannot be entered by the user. This field value is calculated when the case is created and is recalculated any time the sequence number is key changed.

SEER Site Recode – Calculated field; cannot be entered by the user. This field value is calculated when the case is created and is recalculated any time the topography or histology is key changed.

Age at Diagnosis – Calculated field; cannot be entered by the user. This field value is calculated when the case is created and is recalculated any time a birth date or diagnosis date is edited. A warning message occurs if the age is calculated at less than 10 years old and the cancer site group is unlikely for children.

Tumor Grade – Mandatory field; a Choice List is available. There is a small T next to the drop down box. If you click on the T you can enter text about that field. For further details please see page 81.

Lymph-vascular Invasion – Optional field; a Choice List is available.

Class of Case – Mandatory field; a Choice List is available.

Place of Diagnosis – Optional field; any alphanumeric or special characters are allowed.

Date of First Contact – Mandatory field; must be entered as MDDYYYY. The value entered must be a valid date on or before the current date and on or before the date of initial discharge.

Laterality – Mandatory field; a Choice List is available. This field is linked by to the topography code to a list of paired organs. It should be coded ‘0’ if the anatomic site is not a paired organ, or 1-9 if it is a paired organ.

Use the “Next” button, the F8 key, or the “Personal” tab to go to the next page.
Diagnostic Confirmation Code – Mandatory field; a Choice List is available.

Hospital Chart Number – Optional field; alphanumeric and special characters allowed. The field may be left blank.

Pathology Report Number – Optional field; any alphanumeric or special characters are allowed.

Linked Path Reports – Optional field; Look-up tool to link path reports from facilities to path report.

Family History – Optional field; a Choice List is available.

Marital Status at Diagnosis – Mandatory field; a Choice List is available. If age at diagnosis is <15, a warning will appear if this field is not coded to ‘1’.
Menopausal Status – Optional field; a Choice List is available. Field defaults to ‘9’ for Unknown or not applicable. This field is linked to the variable sex in the patient record. If the patient is coded ‘1’ for male, then menopausal status must remain ‘9.’ Otherwise, it may be written over with any valid choice.

Primary Payer – Mandatory field; a Choice List is available.

Address at Diagnosis – This field is automatically filled in with the patient’s current address but it may be written over with another address.

City at Diagnosis – This field is automatically filled in with the patient’s current city but it may be written over with another city.

State at Diagnosis – This field is automatically filled in with the patient’s current state but it may be written over with another state. A Choice List is available.

Zip Code at Diagnosis – This field is automatically filled in with the patient’s current ZIP code but it may be written over with another ZIP code.

County at Diagnosis – Mandatory field; a Choice List is available. This field is linked to ZIP code and is automatically filled in for ZIP codes that are in just one county. However, for ZIP codes that cross county lines, this field remains blank and must be entered by the user. Both the US Census and US Postal Service web sites have search utilities in which an address may be entered and its county determined.

Registry Accession Number – Mandatory field; this item is actually stored as two fields – the accession year and the order number within that accession year. When concatenated, these must form a unique registry accession number within the database. The order number is automatically calculated with the next available number; however, this may be overridden.

Use the “Next” button, the F8 key, or the “Collab Stg” tab to go to the next page.
CS Tumor Size – Mandatory field; must be numeric. This field is three digits long.

CS Extension – Mandatory field; must be numeric.

CS Size/Extent Evaluation – Mandatory field; must be numeric.

CS Lymph Nodes – Mandatory field; must be numeric.

CS Regional Nodes Evaluation – Mandatory field; must be numeric.

Nodes Positive – Mandatory field; must be numeric. Field defaults to ‘99’ for ‘Unknown’ but may be written over with any number less than or equal to the value entered in Nodes Examined. However, if Nodes Examined is zero, Nodes Positive must be 98. This field is linked to CS Extension and must be 00, 98, or 99 if stage is local or in situ. A Choice List is available.

Nodes Examined – Mandatory field; must be numeric. Field defaults to ‘99’ for ‘Unknown’ but may be written over with any number. A Choice List is available.
CS Mets at Diagnosis – Mandatory field; must be numeric.

CS Mets Eval – Mandatory field; must be numeric.

CS Mets at DX – Bone; Mandatory field; a Choice List is available.

CS Mets at DX – Brain; Mandatory field; a Choice List is available.

CS Mets at DX – Liver; Mandatory field; a Choice List is available.

CS Mets at DX – Lung; Mandatory field; a Choice List is available.

CS Site Specific Factor 1-25 – Mandatory fields; must be numeric. Field is linked to site and will default to ‘988’ whenever appropriate for that site’s CS schema.

Derived T – Calculated field; cannot be entered by the user. This field is calculated based upon the site and CS Tumor Size and Extension.

Derived N – Calculated field; cannot be entered by the user. This field is calculated based upon the site and CS Lymph Nodes.

Derived M – Calculated field; cannot be entered by the user. This field is calculated based upon the site and CS Mets at Dx.

Derived Stage Group – Calculated field; cannot be entered by the user. This field is calculated based on site and the derived T, N, and M values.

Summary Stage 1977 – Calculated field; applicable only for cases diagnosed prior to January 1st, 2001. This field is automatically calculated based upon site and EOD.

Summary Stage 2000 – Calculated field; cannot be entered by the user. This field is automatically calculated based upon site and CS fields.

Use the “Next” button, the F8 key, or the “AJCC/Docs” tab to go to the next page.
AJCC Staging Edition – Mandatory field; a Choice List is available. Field should be ‘8’ when there is no AJCC staging for the site and histology combination in the current case. Entering ‘8’ will auto-fill all of the AJCC fields with 8’s.

cTNM Classification – Mandatory field. This is actually stored as three separate fields: the T value, the N value, and the M value. A Choice List is available for each.

cTNM Stage Group - Mandatory field; a Choice List is available.

cTNM Descriptor – Optional field to be entered only if applicable. A Choice List is available.

Staged by- Clinical – Mandatory field; a Choice List is available.

pTNM Classification – Mandatory field. This is actually stored as three separate fields: the T value, the N value, and the M value. A Choice List is available for each.

pTNM Stage Group – Mandatory field; a Choice List is available.
pTNM Descriptor – Optional field to be entered only if applicable. A Choice List is available.

Staged by- Pathologic – Mandatory field; a Choice List is available.

Alternate (Ped.) Stage System – Optional field; a Choice List is available.

Alternate (Ped.) Stage – Optional field; alphanumeric and special characters are allowed.

Managing Physician – Mandatory field for cases diagnosed after 1/1/2007; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions.)

Primary Surgeon – Mandatory field; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions).

Radiation Oncologist – Optional field; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions).

Medical Oncologist -- Optional field; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions).

Use the “Next” button, the F8 key, or the “Admin/No Tx” tab to proceed to the next page.
Abstracted By – Mandatory field; alphanumeric characters allowed.

ACoS Coding System – Original – Mandatory field; a Choice List is available. This field defaults to ‘8’ when the date of diagnosis is greater than 1/1/03.

ACoS Coding System – Current – Mandatory field; a Choice List is available. This field defaults to ‘8’ when the date of diagnosis is greater than 1/1/03.

Type of Reporting Source – Mandatory field; a Choice List is available.

Reason No Therapy – Mandatory field; this is actually seven fields, one for each type of therapy (surgery, chemotherapy, radiation, hormone, immunotherapy, transplant/endocrine, and other). A Choice List is available for each.

Tx Follow-back Needed – Optional field; a Choice List is available. You can mark patients that you may need to follow back on later.

Systemic Tx/Surgery Sequence – Mandatory field; a Choice List is available.
Date No First Therapy – Mandatory field if no definitive first course therapy was administered; leave blank if a first course therapy was given. Enter a valid date or all 9’s if date is unknown.

Rx Start Date (ACoS) - Calculated field; this field is calculated by the computer every time the entire patient record is saved. The cursor will not go to this field; however, it is displayed for informational purposes and it is available for data analysis. It will be calculated to blank if no first course therapy exists.

Rx Composite: First – Calculated field; this field is calculated by the computer every time the entire patient record is saved. The cursor will not go to this field; however, it is displayed for informational purposes and it is available for data analysis. The therapy composite calculation recognizes only definite surgeries to the primary site as a surgical treatment.

Rx Composite: All – Calculated field; this field is calculated by the computer every time the entire patient record is saved. The cursor will not go to this field; however, it is displayed for informational purposes and it is available for data analysis. The therapy composite calculation recognizes only definite surgeries to the primary site as a surgical treatment.

QA Review Status – Optional field; a Choice List is available.

Central Review Status – Optional field; a Choice List is available.

Case Type Original – Calculated field; this field indicates cases which were originally case type “S” (short forms). Cases which were initially abstracted as short forms have certain restrictions when editing or adding therapy records. Please contact CPDMS.net technical support staff for assistance in editing these records.

Class Hospital ID – Calculated field; this field shows the facility ID number of the hospital that owns the case. For a multi-facility database, this is the hospital with the highest class of case.

Date Case Completed – This is a calculated field; it cannot be filled in by the user. It indicates the date on which was the case was initially saved without errors.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify case data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that case data was last modified.

Use the “Next” button, the F8 key, or the “ACoS” tab to go to the next page.
This page is required only for ACoS approved facilities. Non-approved facilities may leave all these fields blank, or may choose to fill them in. If data items are entered, they must be valid values and pass edits.

Comorbidities – Mandatory field for approved facilities; alphanumeric characters allowed. Up to ten comorbid conditions may be entered.

Comorbid ICD Revision – Calculated field; this field is for future use when ICD-10 codes are implemented for comorbidities.

Institution Referred From – Mandatory field for approved facilities; the Institution Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions.) This field is defined as numeric. It may be left blank but a blank field will default to a zero when the case is saved.

Institution Referred To - Mandatory field for approved facilities; the Institution Support File acts as a Choice List here. (Codes may be inserted into this file from this screen.)
See “Support Files” in Chapter Four for instructions.) This field is defined as numeric. It may be left blank but a blank field will default to a zero when the case is saved.

Palliative Procedure – Mandatory field for approved facilities; a Choice List is available.

Palliative Procedure- This Facility - Mandatory field for approved facilities; a Choice List is available.

Date Surgical Discharge – Mandatory field for approved facilities; must be entered as MMDDYYYY. It must be a valid date on or after the date of surgical treatment.

Re-admit Within 30 Days – Mandatory field for approved facilities; a Choice List is available.

Use the “Next” button, the F8 key, or the “Overrides” tab to proceed to the next page.

Overrides – Optional fields; used only by hospitals that submit data to NCDB and by the central registry. Override flags are used to indicate that a record with apparently inconsistent or unlikely data has been reviewed and is in fact correct as coded. There
are 22 override flags available which correspond to various inter-field and inter-record edit checks. A Choice List is available for each one. These fields default to zero. Consult the CPDMS Abstractor’s Manual for further information regarding overrides.

Use the “Next” button, the F8 key, or the “Historical” tab to proceed to the next page.

Multiplicity Counter – Mandatory field for cases diagnosed after 1/1/2007 and before 1/1/2013; this field is numeric and must be two digits.

Date Multiple Tumors – Mandatory field for cases diagnosed after 1/1/2007 and before 1/1/2013; must be entered as MMDDYYYY and must be a valid date on or before the current date.

Type of Multiple Tumors – Mandatory field for cases diagnosed after 1/1/2007 and before 1/1/2013; a Choice List is available.

Tumor Marker 1 – Mandatory field for cases diagnosed prior to 2004; applicable to breast, ovary, colorectal, liver, prostate, testis, and neuroblastomas only. Leave the default ‘9’ for other sites.
Tumor Marker 2 – Mandatory field for cases diagnosed prior to 2004; applicable to breast, prostate, and testis only. Leave the default ‘9’ for other sites.

Tumor Marker 3 – Mandatory field for cases diagnosed prior to 2004; applicable for testicular cancer only. Leave the default ‘9’ for other sites.

Biopsy Procedure – Mandatory field for cases diagnosed prior to 2004; applicable to breast and prostate only. All other sites should be coded to ‘0’. A Choice List is available.

Guidance – Mandatory field for cases diagnosed prior to 2004; applicable to breast and prostate only. All other sites should be coded to ‘0’. A Choice List is available.

Palpability/Approach – Mandatory field for cases diagnosed prior to 2004; applicable to breast and prostate only. All other sites should be coded to ‘0’. A Choice List is available.

1st Detected/Bx Other Site - Mandatory field for cases diagnosed prior to 2004; applicable to breast and prostate only. All other sites should be coded to ‘0’. A Choice List is available.

Tumor Size – Mandatory field for cases diagnosed prior to 2004; must be numeric. Field defaults to ‘999’ for unknown but may be written over.

SEER Extent – Mandatory field for cases diagnosed prior to 2004; only numeric characters allowed.

PEP (Pathologic Extent for Prostate) – Mandatory field for prostate cancer diagnosed prior to 2004; must be numeric.

SEER Lymph Node – Mandatory field for cases diagnosed prior to 2004; only numeric characters allowed.

Sites of Metastasis 1-5 – Optional fields; must be numeric. A Choice List is available.

NOTE: The Case Data Edit Form may be abandoned at any time without saving by pressing ESC or selecting the ‘Cancel’ button. The form can be exited and any changes saved by using the ‘Save’ button or the F10 key.
After the case has been created and saved, the system returns to the Data Entry Status screen, which will now indicate that this patient has two cases.

The remaining segments of the patient’s record may be created in any order.
To create a therapy record, move the cursor to CREATE at the top of page and click on ‘Therapy.’ The screen shown below will appear.

Type of Therapy – Mandatory field; a Choice List is available.

Course – Mandatory field; a Choice List is available.

Date Therapy Started – Mandatory field; must be a valid date on or before the current date and after the date of diagnosis. It must be entered as MMDDYYYY.
After these fields have been completed, choose the ‘Submit’ button to save the record, or “Cancel” to abandon it without saving. The following screen is displayed:

Select “Create” to create a new case therapy record or “Edit” to modify the data that has been entered. Choose “Cancel” to escape from this therapy without saving it.
Now the Case Therapy Edit Form is displayed.

NOTE: All Case Therapy Edit Forms may be abandoned at any time during editing without saving by pressing ESC or selecting the ‘Cancel’ button. Use the ‘Save’ button or the F10 key to exit the form and save any changes.

The fields that are present in the Case Therapy Edit Form will vary depending upon the type of therapy. The screen seen above is for surgical therapy.

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Surgery Primary Site (FORDS) – Mandatory field; no Choice List is available. Consult Appendix G of the Abstractor’s Manual for the appropriate code. A code validation list exists that has been linked to the topography code so that only relevant surgical codes may be entered.
Scope Regional LN (FORDS) – Mandatory field; a Choice List based on topography code is available.

Surgery Other Site (FORDS) – Mandatory field; a Choice List based on topography code is available.

Surgical Margins (FORDS) – Mandatory field; a Choice List based on topography code is available.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.

Select “Save” to save the therapy record, or “Cancel” to escape without saving.
A confirmation screen is now displayed.

Select “Edit Record” to modify the data that has been entered or “Cancel” to escape without saving the data. Choose “Save Record” to create a case therapy.
There is no limit to the number of therapies that may be created for a patient. Below is an example screen for Radiation Therapy.

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Radiation Therapy Code – Calculated field; cannot be entered by the user.

Radiation Sites – Optional field; a Choice List is available.

Total Rads – Optional field; total rads received in numeric characters.

Use F8 or the ‘Next’ button to go on to the next page, or use the “Page 2” tab.
Location of Radiation – Mandatory field for ACoS flagged hospitals; a Choice List is available.

Rad Treatment Volume – Mandatory field for ACoS flagged hospitals; a Choice List is available.

Regional Tx. Modality – Mandatory field for ACoS flagged hospitals; a Choice List is available.

Regional Dose – Mandatory field for ACoS flagged hospitals; a Choice List is available.

Boost Tx Modality – Mandatory field for ACoS flagged hospitals; a Choice List is available.

Boost Dose - Mandatory field for ACoS flagged hospitals; a Choice List is available.

Num Treatments This Volume - Mandatory field for ACoS flagged hospitals; a Choice List is available.
Date Radiation Ended – Mandatory field for ACoS flagged hospitals; must be a valid date on or after Date Therapy Started. It must be entered as MMDDYYYY.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
The chemotherapy Case Therapy Edit Form is displayed below:

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Chemotherapy Code – Mandatory field; a Choice List is available.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
Below is the Case Therapy Edit Form for hormonal therapy:

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Hormone Therapy Code – Mandatory field; a Choice List is available.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
Below is the Case Therapy Edit Form for immunotherapy:

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Immunotherapy Code – Mandatory field; a Choice List is available.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
Below is the Case Therapy Edit Form for Transplant or Endocrine therapy:

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Transplant Therapy Code – Mandatory field; a Choice List is available.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
Below is the Case Therapy Edit Form for other therapies:

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Other Therapy Code – Mandatory field; a Choice List is available.

Treatment Notes – Optional field; any alphanumerical characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
Non-definitive surgical procedures may also be recorded using a Case Therapy Edit Form, as seen on the screen below:

Therapy Facility – Optional field; a Support File functions as a Choice List.

Therapy Local Hospital Id – Mandatory field; a Choice List is available.

Non-definitive Surgery – Mandatory field; a Choice List is available.

Treatment Notes – Optional field; any alphanumeric or special characters are allowed.

Therapy Clinical Trial Number – Mandatory field; a Choice List is available.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify therapy data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that therapy data was last modified.
After a therapy is exited, the system returns to the Data Entry Status screen. The key fields for the last therapy entered or viewed are now displayed beneath the Case Record. The total number of therapy records stored for this case is shown in the last line of the Case Record.
The next data items on the CPDMS Abstract Form are the case level user defined fields. Like the patient level user defined fields, these items may be recorded by choosing CREATE, User Defined, and then Case (see below).
The Case User Defined Data Form is seen below:

Any alphanumeric or special characters may be entered in any or all of the 20 case level site specific fields. No validity checks are performed on these items. After all relevant data items have been entered, use the “Save” button or F10 to save the record and exit this screen. (If the screen is left entirely blank, the record is not stored.) See the “Maintenance” chapter for instructions regarding assigning meaning to user defined fields. KCR allows hospitals to define their own choice list for custom user defined fields, including the ability to require certain fields to be filled in. In order to get customized user defined fields contact KCR staff.
Note that in the Data Entry Status screen, Case User Defined Data now has a “yes” next to it. This indicates that some or all of the case level user defined fields have been coded and stored for this patient.
To continue entering data related to the current case, move the cursor to CREATE and select ‘Follow-up.’ The following screen appears:

![Case Follow-Up Edit Form](Cancer Patient Data Management System Training Database - Case Follow-Up Edit)

Note that the length of this edit form exceeds the size of the default window, so the scroll bar must be used to view additional fields at the bottom of the page. Text may be added at any time by clicking on the “Text” tab or using ALT + T.

Date of Last Contact or Death – Mandatory field; must be a valid date on or before the current date; entered as MMDDYYYY. The date of last contact must be greater than or equal to the diagnosis date.

Survival Status – Mandatory field; a Choice List is available. This field is used to calculate the field Vital Status in the Patient Data segment of this record.

Cancer Status – Mandatory field; a Choice List is available.
Length of Survival (months) – Calculated field; cannot be entered by the user. The
cursor will not go to this field; however, it is displayed for informational purposes and it
is available for data analysis.

Type of First Recurrence – Mandatory field; a Choice List is available. It is linked to,
and must be consistent with, dates being entered for First Disease Free Start Date and
Date of First Recurrence.

First Disease Free Start Date – Mandatory field if the patient has ever been considered
disease free. It must be a valid date on or before the current date and after the diagnosis
date, entered as MMDDYYYY. This field may be left blank if it is not applicable.

Date of First Recurrence – Mandatory field if the patient has had a recurrence after a
disease free interval. It must be a valid date on or before the current date and after the
diagnosis date, entered as MMDDYYYY. This field may be left blank if not applicable.

Site(s) of First Recurrence – Mandatory field if the patient has had a recurrence. There
are five fields available for coding sites of recurrence. A Choice List is available. These
fields may be left blank if not applicable.

First Disease Free Interval – Calculated field; cannot be entered by the user. This interval
is immediately calculated in months when the Date of First Recurrence is entered and is
recalculated any time the First Disease Free Start Date or Date of First Recurrence is
changed.

Following Registry – Mandatory field; this field is automatically filled in with the ID
number for the user’s hospital. However, it may be written over with any valid facility
ID number. A Choice List is available.

Follow-up Source Central – Mandatory field; a Choice List is available.

Follow-up Source COC – Calculated field; this field is calculated from Follow-up Source
Central.

Next Follow-up Method – Mandatory field. A Choice List is available.

Alternate Follow-up Method – Optional field; a Choice List is available.

Primary Follow-Up Physician – Mandatory field; a Support File acts as a Choice List
here. (Codes may be inserted into this file from this screen. See “Support Files” in
Chapter Four for instructions.)

Follow-Up Physician 2 – Optional field; a Support File acts as a Choice List here.
(Codes may be inserted into this file from this screen. See “Support Files” in Chapter
Four for instructions.)
Follow-Up Physician 3 – Optional field; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions.)

Follow-Up Physician 4 – Optional field; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions.)

Follow-Up Physician 5 - Optional field; a Support File acts as a Choice List here. (Codes may be inserted into this file from this screen. See “Support Files” in Chapter Four for instructions.)

Last Name – Optional field; may contain any alphanumeric or special characters.

First Name – Optional field; may contain any alphanumeric or special characters.

Address 1 – Optional field; may contain any alphanumeric or special characters.

Address 2 – Optional field; may contain any alphanumeric or special characters.

City – Optional field; may contain any alphanumeric or special characters.

State – Optional field; a Choice List is available.

ZIP Code – Optional field; must be numeric.

Phone – Optional field; must be numeric.

Relationship – Optional field; may contain any alphanumeric or special characters.

Follow-up Text - Optional field; may contain any alphanumeric or special characters.

Last Modification By – Calculated field; cannot be entered by the user. The username of the last individual to modify follow-up data is recorded by the computer and is updated each time the record is edited.

Last Modification Time – Calculated field; cannot be entered by the user. The computer automatically records the date and time that follow-up data was last modified.

NOTE: This screen may be abandoned at any time without saving by pressing ESC or the “Cancel” button. Press F10 or the “Save” button to exit and save any changes.
If “Save” is chosen, the Case Follow-Up record will be displayed, as seen below.

Hit ENTER to accept “Save Record,” or select “Edit Record” to return to the edit form. Choose “Cancel” to escape without saving the record.
After the follow-up record has been created and saved, the screen returns to the Data Entry Status screen. Notice that now the follow-up key fields appear to the right of the Case Record.
To complete data entry for this abstract, choose CREATE and then “Text.” Text is divided into ten separate categories: History and Physical, X-rays and Scans, Scopes, Lab Tests, Operative Reports, Pathology Reports, Site Text, Histology Text, Staging Text, and General Remarks. A category is selected by clicking on the corresponding bar in the list on the right of the screen. The category for which text is being entered appears at the top of the text entry box. Each category has guidelines for essential data which should be documented in text; these appear to the left of the text entry box (see below).

Text may be entered in as many or as few categories as necessary. Up to 3360 characters may be entered for each category. Refer to the CPDMS Abstractor’s Manual for further guidance regarding text entry. Text from other applications (such as Word or another window of Internet Explorer) may be cut and pasted into CPDMS.net. After text data entry is completed, select “Save Text” or press F10. As with other segments of the case, the username and date last modified fields are automatically recorded each time the text is updated. Click “Exit Text” or ESC to exit without saving.

Users may jump directly to the Case Text Edit Form from the Case Data Edit Form or the Case Follow-up Edit Form by clicking on the “Text” tab or hot key. Text may also be entered at any time within the Case Data Edit Form by clicking on the ‘T’ button which
appears immediately to the right of field labels. A text box opens, as seen below. Each field is mapped to particular text category. In this example, text documentation for Tumor Grade is mapped to the “Pathology Reports” category. After entering text, simply close the text box to return to the Case Data Edit Form. The text is automatically saved to the case text record.
When the system returns to the Data Entry Status screen, note that in the Case Record, the word “Yes” now appears to the right of Case Text.

At this point, a complete new patient record had been created.
2. Update an Existing Patient

Go to the “Locate Patient” entry screen by selecting Patient Data from the Main Menu or by selecting RETURN from a Patient Record.

In order to locate an existing patient in the database, type the social security number of the desired patient. When the field is filled, the computer immediately searches the existing patient records for that social security number.
If a match is found, the patient record is displayed in a patient list, as in the screen below.

When this list appears, the patient information displayed (name, birth date, sex) should be compared with these data values for the patient being looked up. If it is the same patient, click “Select” to choose this record in order to add or update the existing record with the new information.

If the social security number is entered and no match is found in the existing database, the cursor automatically moves to the Last Name field.
Enter the patient’s full last name, with no special characters or punctuation marks. (Embedded blanks are allowed.) Press ENTER and the cursor moves to the First Name field. If ENTER is pressed again, leaving the First Name field blank, the system will display all patients in the database whose last names start with the character string entered. If only part of the last name is entered, leave the First Name field blank. For example:
The patient’s full first name may also be entered—again, with no special characters or punctuation marks. The computer then searches the existing database for that first and last name combination and displays any matches it finds.

For example:

![Patient List](image)

Click “Select” to select the existing patient record or choose “New Search” to return to “Enter Patient Information.”

Patients may also be located using their class accession year and number.
Once an existing patient record has been selected, the patient key field values are displayed in the Data Entry Status screen. The functions available to modify this record are shown across the top of the screen.
LOCATE

LOCATE displays the key fields of a specific case or therapy in the Data Entry Status screen so that other actions may be performed upon that record segment. For example, if a patient record has been selected from the database and a therapy record is to be edited, the corresponding case must first be found by selecting LOCATE and then “Case.”

![Image of LOCATE screen](https://example.com/locatescreen.png)
All the cases stored for this patient are then listed:

Highlight the case which is related to the therapy to be edited and select “Submit.” The Case Key Field values are displayed beneath the Patient Record. Then LOCATE the therapy record by selecting LOCATE and “Therapy.”
All the therapy records stored for this case are then listed:

Highlight the record to be edited and select “Submit.”
The key field values of the Case Therapy Record are then displayed beneath the Case Record.

Now any of the other functions (VIEW, CREATE, KEY CHANGE, EDIT, or DELETE) may be performed upon the records currently being displayed in the Data Entry Status screen.

In order to view or modify a different case for this patient (or a record segment attached to a different case), first LOCATE that other case and then it may be edited.

If an attempt is made to LOCATE a record that does not exist, an error message will be displayed. If an attempt is made to exit a case record with inconsistent or incomplete data, an error message will be displayed. Refer to Appendix A for steps to resolve these situations.
VIEW

VIEW allows users to see the data values stored for any segment of a patient record, but not to make any changes to the record. This function also permits the user to view a list of any existing errors, view and print a patient abstract report, view NAACCR Therapy fields (which are automatically calculated), or view the patient’s death certificate (if available). For example, to VIEW the Follow-Up information on the current case, click on VIEW and the submenu lists all the possible parts of a record:
Select “Follow-Up” to display the case follow-up record.

Use the “Cancel” button to leave this screen and return to the Data Entry Status screen. Any record segment indicated as current on the Data Entry Status screen may be viewed by clicking on VIEW and then on the desired segment. However, if an attempt is made to VIEW a record which can have multiple records of that type stored (i.e., therapy), then a list of all existing records of this type is displayed. To view the desired record, highlight that record and select “Submit”.

If an attempt is made to VIEW a segment that does not exist, the system will display an error message. In order to VIEW a segment attached to a different case, that case must first be LOCATED.
CREATE

The CREATE function adds new segments to the existing patient record. Choose CREATE from the top menu and the submenu appears.

Then select the segment to be created. The steps to create additional segments in an existing record are exactly the same as those outlined earlier in this chapter in the section “Enter a New Patient.” If an attempt is made to CREATE a segment that already exists and which can appear only once in a patient record, the system will simply open the edit form for the existing segment.

NOTE: Therapy records cannot be created for cases which were originally abstracted as type S (short forms). Users should contact CPDMS.net technical support if such cases are encountered.
KEY CHANGE

This function changes the values stored in the key fields of the patient, case, or therapy segment of the current patient record. Choose KEY CHANGE from the top menu and the submenu appears:
To change Patient level key fields, select Patient from the submenu and the Patient Key Change Form will be displayed. (See example below.)

This form allows a patient’s SSN, Last Name, or First Name to be edited. Be sure to choose a unique SSN. If a SSN that already exists in the database is entered, an error message will be displayed and the duplicate number will not be accepted. After making the desired changes, choose “Submit” to save the new patient keys or “Cancel” to escape without saving.
If “Submit” is selected, the screen will display the current and new values side by side, so that the changes may be reviewed prior to saving. (See below.)

Select “Edit” to return to editing the patient key fields, “Save” to preserve the changes, and “Cancel” to return to the Data Entry Status screen without saving the changes.
To change keys in the current case record, select “Case” from the KEY CHANGE submenu and the Case Key Change Form will be displayed:

This form allows the case sequence number, date of diagnosis, ICD-O-3 conversion flag, topography, or histology and behavior code to be edited. The “Reason for Key Change” field allows a brief explanation (up to 120 characters) of the impetus for the key change to be recorded. Select “Submit” to save the changes or “Cancel” to escape without saving.
If “Submit” is chosen, the screen will display the current and new key case fields side by side, so that the changes may be reviewed prior to saving. (See example below.)

Select “Edit” to return to editing the case keys, “Save” to preserve the changes, and “Cancel” to return to the Patient Record display without saving the changes.

NOTE: If duplicate sequence numbers for the same patient have been stored, an error message will be displayed stating “Case Sequence Numbers must be unique and contiguous.”
To edit key fields for the current therapy record, choose “Therapy” from the KEY CHANGE submenu. The Case Therapy Key Change Form is now displayed:

![Case Therapy Key Change Form](image_url)

The Therapy Course and Date Therapy Started fields may be edited in this form. A brief (up to 120 characters) explanation for the key change may be recorded here as well. Select “Submit” to save the changes or “Cancel” to escape without saving.
If “Submit” is chosen, the screen will display the current and new key case fields side by side, so that the changes may be reviewed prior to saving. (See example below.)

The changes may now be edited, saved, or abandoned without saving and the screen will return to the Data Entry Status screen.
EDIT

EDIT allows users to change the values stored in the data fields (other than the key fields) on any segment of a patient record.

NOTE: If a case was originally abstracted as case type S (short form), some fields in the case and follow-up records will be unavailable for editing. Users should contact CPDMS.net technical support in order to edit these cases.

Select EDIT from the top menu and the following submenu lists all possible segments of a record:

Choose the segment to be edited. For example, if “Patient” is chosen, the Patient Data Edit Form is displayed. Any entry may be written over with another valid value for that field. To escape the form, press F10 or select the “Save” button to save the changes, or press ESC or select the “Cancel” button to exit without saving the changes. The screen then returns to the Data Entry Status screen.
To EDIT a case, choose “Case” and the Case Data Edit Form for the current case is displayed. (To EDIT a different case for a patient, that case must first be located.) Once again, any entry may be overwritten with another valid value for that field. Press F10 or the “Save” button at any time in order to save the changes, or press ESC or the “Cancel” button to quit and abandon the edits. The screen then returns to the Data Entry Status screen.

If an attempt is made to EDIT a case, and no case is currently LOCATED and displayed in the Data Entry Status screen, a list of the cases that exist for the current patient is displayed. Select the case to be edited and the system will immediately display the Case Data Edit Form.

If an attempt is made to EDIT a case when there are no cases stored for a patient, the system will display an error message stating “Case record for the current patient does not exist.”

To EDIT a therapy, choose “Therapy” from the submenu. If there is only one therapy record stored for the case, the screen will immediately display the Case Therapy Edit Form. If there is more than one therapy record stored for the case, then a list of the Therapy record keys will be displayed.

Select the desired therapy record and the system will display the Case Therapy Edit Form for that record. Any entries stored for this therapy type may be written over with another valid value for that field. Press F10 or the “Save” button at any time to in order to save the changes, or press ESC or the “Cancel” button to quit and abandon the changes. The screen will then return to the Data Entry Status screen.

If an attempt is made to EDIT a therapy when no therapies are stored for this case, an error message will be displayed stating “Case Therapy Records do not exist for the current case.”

To EDIT a Follow-up record, choose “Follow-up” from the submenu and the Case Follow-up Edit Form will be displayed. Any entries may be written over with another valid value for that field. Press F10 or the “Save” button at any time to in order to save the changes, or press ESC or the “Cancel” button to quit and abandon the edits. The screen returns to the Data Entry Status screen.

To EDIT User defined fields, choose “User defined” from the submenu and then “Patient” or “Case.” Select the level of user defined fields that to be edited. The screen immediately displays the User defined Data Form for the selected level. Here any entries stored for the user defined fields may be written over with new values. Press F10 or the “Save” button at any time in order to save the changes, or press ESC or the “Cancel” button to quit and abandon the changes. The screen then returns to the Data Entry Status screen.
To EDIT Text, choose “Text” from the submenu and the Case Text Edit screen is displayed. Any comments (up to 3360 characters for each category) may be entered. Press F10 or the “Save” button at any time in order to save the changes, or press ESC or the “Cancel” button to quit and abandon the edits. The screen then returns to the Data Entry Status screen.

DELETE

This function deletes an entire patient record or any portion of a record. Choose DELETE and a submenu appears, listing all the segments of a patient record.

To DELETE the entire current patient record, select “Patient” from the submenu and a dialog box opens which prompts the user to record a reason for the deletion. A Choice List is provided. There is also an area for additional comments. (See below.)

![Image of Delete Patient dialog box]

After completing the required fields, choose “Yes,” to delete the entire patient record and return to the Enter Patient Information screen.

To DELETE a case record related to the current patient, choose “Case” from the submenu. If no case is currently being displayed in the Data Entry Status screen, a message prompting the user to locate a case will appear. Choose LOCATE and then
“Case.” From the list presented, select the case to be deleted. Choose DELETE and then “Case.” Just as when a patient record is deleted, a dialog box will appear in which the reason for deletion must be entered. Then select “Yes” to delete the case record. If “No” is selected, the screen returns to the Data Entry Status screen and nothing is deleted. If “Yes” is selected, the case and all related segments at or below case level are deleted. This includes the follow-up record, all therapies, any case level user defined fields, and text. The program returns to the Data Entry Status screen and updates the case count displayed there.

To DELETE a therapy record, choose DELETE, then “Therapy.” If no therapy is currently being displayed, the screen will display a message prompting the user to LOCATE a therapy first. Choose LOCATE and “Therapy.” The program then displays a list of the keys for all the therapy records stored for the current case. Select the therapy record to DELETE. Then choose DELETE and “Therapy” and the record deletion dialog box will appear. Fill out the required fields and then select “Yes” to delete the therapy record. The screen returns to the Data Entry Status screen. The count of therapies displayed is updated after the DELETE occurs.

To DELETE a Text record, first LOCATE and select a case so that its keys are displayed in the Data Entry Status screen. Choose DELETE, then “Text.” The message “Delete the record from the database?” will be displayed.

Select “No” and the text is not deleted. Choose “Yes” and it is deleted. The screen then returns to the Data Entry Status screen. If a DELETE action occurred, the word “No” appears next to “Case Text” on the diagram.

RETURN

This function allows selection of a different patient. Choose RETURN from the top menu and the program returns to the “Enter Patient Information” screen.
3. Edit Checks and Error Messages

Edit checks are available during multiple levels of data entry in CPDMS.net. When invalid or inconsistent data is entered, an error message is displayed in a pop up window which overlays the current window. The message describes which data element(s) are invalid or inconsistent. Most of the messages in CPDMS.net are self-explanatory. This section of the chapter will describe each level of edit checks and specify when they occur.

As data is entered in each field, checks are performed to ascertain that it is in the correct format. For example, date fields must be in the format MM/DD/YYYY. If a year with only three digits is inadvertently entered, an error message will immediately appear in a pop up window (as seen below).

![Patient Data Edit Form]

When an error message appears, please read the message to understand why it occurred. Press the ENTER key to acknowledge the error and return to the active window. Users may then continue working normally.
When a record segment is saved (for example, the patient record), all fields are subjected to edit checks. At that time, both single field and inter-field edit checks are performed. An error message appears if an invalid value has been entered in a field (including blanks in mandatory fields) or if related fields contain incompatible values. Any errors found are listed in red text and the error window presents the choice of returning to the edit form to enter a valid value or saving the case with errors. (See below.)

If a user chooses to save the case with errors, this patient will then appear in the Incomplete Case List. See the next section of this chapter for further information regarding the list.
If “Continue Editing” is chosen, when the edit form is displayed, the error will appear in red text immediately beneath the invalid field value.
In addition to errors, edit checks may also generate warnings when a record is saved. These appear in blue text at the top of the Data View screen which is displayed prior to saving a record. (See the example below.) Warnings advise users to double check any unusual field values. Choose “Edit Record” to alter the value, or if the value is correct, the warning may be disregarded. The presence of a warning will not result in a case being incomplete.
The final level of edit checks occur when users choose “Return” or “Logout” from a patient’s Data Entry Status screen. At that time, inter-record edit checks are performed and a message displays any errors which are found (see below).

As before, users have the option of editing the case to fix the error, or saving the case with errors (after which it will appear on the Incomplete Patient List). The error message may also be printed using the “Print” button.
4. Incomplete Patient List

The Incomplete Patient List is a list of all records that have been saved with errors (due to either incomplete or invalid data). It is limited to only 10 records per facility at any given time; once the limit has been reached, no more patient records may be created until some of the incomplete records have been resolved.

The list may be accessed by choosing “Incomplete Patient List” from the Patient Data Menu. See below for an example:

![Incomplete Patient List](image)

The list may be ordered by SSN, last name, first name, DOB, or last modified by. The order may be changed by simply clicking on the column heading (in blue) that will be used to sort. The presence of one or more errors in the Patient, Case, Follow-Up, or Therapy segments of a record is indicated by a “Y” in the columns labeled P, C, F, and T. The column labeled I indicates whether an inter-record error is present.

An incomplete case may be selected by highlighting it in the list and choosing “Select.” The Data Entry Status screen is then displayed and the case may be viewed or edited.
Once a case has been saved without errors, it no longer appears in the Incomplete Patient List.

Choose “Print” to generate a hard copy of the Incomplete Patient List, or “Save” to save the list to a local computer or network drive. Select “Cancel” to return to the Main Menu.

It is important to note that patients in the Incomplete Patient List are NOT included in reports, data analysis, or data exchange.
CHAPTER TWO: REPORTS

The reports function of CPDMS.net provides lists and tables useful to the registrar in performing routine functions, such as abstracting charts, following patients over time, reporting cancer data to hospital staff and others, and performing quality checks on the data. Please note that incomplete records are NOT included in Reports. From the Reports section of the Main Menu, any of the following may be produced:

1) Registry Reports
   a) An accession log for any accession year
   b) A master patient list
   c) A patient abstract, which shows the codes entered for each field and the corresponding translations (where applicable)
   d) Patient mailing labels
   e) A list of records which have been key changed or deleted
   f) Deleted patient accession numbers

2) Follow-up Reports
   a) A summary report, which is a count of cases by accession year whose last follow-up contact is not within a specified time frame (i.e., 12 months)
   b) A control list, with the names of all patients whose last follow-up contact is not within the specified time frame (i.e., 12 months)
   c) Mailing labels to the follow-up contact person designated for each patient on the control list
   d) The ACoS follow-up report, with the percentage of analytic cases considered current by ACoS standards (last follow-up contact within 15 months)
   e) The SEER follow-up report, with the percentage of analytic cases considered current by SEER standards for each age group and a list of all patients who need more current follow-up

3) Case Counts
   a) An annual summary listing the total number of cases by site group, by sex, and by stage of disease at diagnosis
   b) The SEER summary report, which lists the total number of cases diagnosed in a given time interval by SEER site group, and is further broken down by sex and summary stage
   c) A frequency distribution, listing total number of cases by site, in order of the most frequently seen types of cancer to those least frequently seen
   d) An incidence report, which shows, by site group, the number of new cases diagnosed in a given accession year, as well as the number of deaths due to each type of cancer occurring for those patients accessioned during that given year
   e) Counts by year, showing the number of cases diagnosed for each site group for each year in a specified range

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4) Quality Assurance (Q/A) Reports
   a) The accession number check finds any missing accession numbers between one and the highest number stored for any given accession year
   b) A case reporting timeliness calculation
   c) Counts for each facility in a multi-facility database over a specified five year period
   d) CoC edits report list to check cases for CoC edits that need to be made

5) Outcomes
   a) Six Cancer Program Practice Profile (CP3R) reports allow facilities to assess their compliance with national standards of treatment recommendations for breast, colon, and rectal cancer

6) Support Files
   a) A physician directory is available numerically by identification number or NPI number, or alphabetically by name
   b) A topography listing is available for all of the ICD-O topography codes by Edition and then in code number order, OR alphabetically by the English description of the topographic site
   c) A histology listing is available for all of the ICD-O histology codes by Edition and then in code number order, OR alphabetically by the English description of the histology
   d) ICD-9-CM and ICD-10 codes may be listed numerically by code number or alphabetically by the English description of the code number’s meaning
   e) An institution list includes all Kentucky healthcare facilities, in order numerically by the code number assigned to each or by NPI number, or alphabetically by the name of the institution
To select a specific report from the Main Menu, move the cursor to “Reports” and the submenu will appear:

1. Registry Reports

To create a registry report, highlight Registry and then click on the desired type of report within the Registry subcategories.

ACCESSION LOG

To create this report, highlight “Accession Log” and another submenu appears. The two options indicate what type of headings may appear on an accession log—either Patient Data items or Case Data items.

The Patient Data option includes the headings: Accession Year/Number, Name, Birth Date, Sex, Vital Status, and Chart Number.
The Case Data option includes: Accession Year/Number, Name, Sequence Number, Date of Diagnosis, Class of Case, and Site Group.

Select the desired headings (Patient or Case) and the following screen appears:

Accession year to report defaults to the current year. This field may be overwritten with a different year, or press ENTER to accept the default value and go on to the next field.

Up to five case class codes may be included in the report. Each of the five fields has a Choice List that may be accessed using F4. If all classes are to be included, all five fields may be left blank by pressing ENTER through them.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
An example of a Patient Accession Log with Patient Data is shown below:

The Accession Log may be ordered by Accession Year/Number (the default setting), Patient Name, or Chart Number (fields that can be used to sort are indicated by blue text in the column heading). The sorting criteria may be changed by clicking on the desired field. Clicking once sorts a field in ascending order, while clicking a second time sorts it in descending order. In the above example, the patient log is sorted in ascending order by Accession Year. Clicking on Name will cause the list to re-load and be displayed sorted in ascending order by last name. Clicking again on Name re-orders the list in descending order by last name.

From any report results screen, four options are available—“Save,” “Print,” “Cancel,” and “Main.” In order to change the parameters and run the report again, use the “Cancel” button to return to the report criteria screen. Select the “Main” button to return to the Main Menu.
“Save” will download the report to the user’s computer or network drive. Word processing or spreadsheet programs may then be utilized to manipulate, save, or print the report. When the “Save” button is selected, a dialog box opens which allows selection of the file format (see below).

The file may be saved as either a comma separated file or a pre-formatted file. Comma separated files are useful for working with spreadsheet applications such as Excel. Pre-formatted files can be opened with word processing applications such as Word. The file will have a default name based upon the report title; however, this may be overwritten with another name. Once the format and name have been specified, click “Submit” to continue the download process or “Cancel” to escape and return to the report.

The File Download dialog box appears with the option to open or save the file. Always select “Save” rather than “Open.”
Next the location in which the file will be saved is specified:

From the “Save in” drop down menu at the top of the box, a location on the local computer or hospital network may be selected. The filename may be edited if desired. Select “Save” to save the file. If the report is saved as a comma separated file (with the file extension .csv), the file may be opened using a spreadsheet application. If it is saved as a pre-formatted file (extension .rpt), use a word processing application to open the file. (Some versions of Word may require a file conversion method to be chosen; select the default Windows option.)
The final option for reports is “Print.” When the “Print” button is selected, a printer-friendly version of the report opens in a new window. See below for an example.

![Pat Accession Log](https://kcrepdms.net/crepdms-5479/Reports/AccessLogMaster.php?CaseClass=00%2C10%2C11%2C12%2C13%2C14%2C)

Click on the printer icon in the upper right corner of the screen in order to print the report. A print dialog box opens and the printer, print settings, etc., may be specified. The print version of the report may be abandoned by closing the window.

These four options (Save, Print, Cancel, and Main) are the same for all reports, regardless of type.
MASTER LIST

A Master Patient List may be produced through this option of the Registry reports menu. This report contains all patients in a particular accession year whose names fall within a specified range. The variables printed include name, SSN, accession year/number, diagnosis date, chart number, sequence number, sex, laterality, topography, birth date, date of last contact, and survival status.

To produce this report, select Master Patient List from the Registry Reports submenu and the following screen appears:

Enter the lowest last name (alphabetically) that is to be included in this report, or press ENTER to accept the default value “A.” Then type in the highest last name (alphabetically) that is to be included, or press ENTER to accept the default value “Z.” Press ENTER to advance the cursor to case accession year. This field defaults to the current year, but may be overwritten with a different year. Hit ENTER and move to Case Class Codes.
Specify up to five Class of Case codes to include in the master list. If all classes are to be included, press ENTER through all five fields to leave these fields blank.

Select “Submit” and the Master Patient List be will be generated. An example is shown below:

The default sorting criteria is Accession Year and Number, but the list may also be sorted by Name, SSN, Diagnosis Date, or Birth Date. Simply click on any word that is highlighted in blue to sort according to that field.
PATIENT ABSTRACT

This report provides a hard copy of the data values and corresponding translations (where applicable) that are stored in the computerized patient record. To produce a Patient Abstract report, select Patient Abstract from the Registry submenu. Patient Abstracts may be reported using one of two methods-- either by the date the abstracts were first entered into the computer, or by patient social security numbers. If Date Entered is selected, the following screen is displayed:

Enter the beginning date for data entry of patients for whom abstract reports are to be generated. This field defaults to the current date. This date may be overwritten with any valid date prior to the default date. Press ENTER to move the cursor to the next line. Now enter the last date for data entry of patients for whom abstracts are to be generated.

Next choose either a full or summary report. A full report contains the actual data values stored in every field of the patient records being reported (i.e., a data dump). A summary report consists of an abbreviated version of the abstract, with many fields and text excluded.
Specify up to five Class of Case codes for the patients for whom abstracts will be generated. If all classes are to be included, press ENTER through all five fields to leave these fields blank.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.

Press “Submit” and a list of all the patient abstracts that fit the search criteria will be displayed.

In order to print abstracts, highlight the first patient abstract to be printed and select either “Download as PDF...” or “Download as XLS...” A printable version of the abstract will then open in a separate window.
# Patient Data

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soc Sec Number</td>
<td>000017780</td>
</tr>
<tr>
<td>Last Name</td>
<td>ALZHEIMERS</td>
</tr>
<tr>
<td>First Name</td>
<td>ALLIE</td>
</tr>
<tr>
<td>Middle Name</td>
<td>Z</td>
</tr>
<tr>
<td>Maiden Name</td>
<td>XX</td>
</tr>
<tr>
<td>Street Address 1</td>
<td>Address1</td>
</tr>
<tr>
<td>Street Address 2</td>
<td>Address2</td>
</tr>
<tr>
<td>City</td>
<td>LOCUST</td>
</tr>
<tr>
<td>State</td>
<td>KY</td>
</tr>
<tr>
<td>Zip Code</td>
<td>40045</td>
</tr>
<tr>
<td>Country</td>
<td>United States (states and armed forces)</td>
</tr>
<tr>
<td>Home Phone</td>
<td>00000000000</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>11/14/1940</td>
</tr>
<tr>
<td>State of Birth</td>
<td>KY</td>
</tr>
<tr>
<td>Country of Birth</td>
<td>United States (states and armed forces)</td>
</tr>
<tr>
<td>Sex</td>
<td>Female</td>
</tr>
<tr>
<td>Race 1</td>
<td>White</td>
</tr>
<tr>
<td>Race 2</td>
<td>88</td>
</tr>
<tr>
<td>Race 3</td>
<td>88</td>
</tr>
<tr>
<td>Race 4</td>
<td>88</td>
</tr>
<tr>
<td>Race 5</td>
<td>88</td>
</tr>
<tr>
<td>Computed Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Spanish Origin</td>
<td>Non-Spanish</td>
</tr>
<tr>
<td>Tobacco Use</td>
<td>Cigarette smoker</td>
</tr>
<tr>
<td>Cigarette Pack Years</td>
<td>56</td>
</tr>
<tr>
<td>Number of Live Births</td>
<td>99</td>
</tr>
<tr>
<td>Occupation</td>
<td>RETIRED</td>
</tr>
<tr>
<td>Industry</td>
<td>RETIRED</td>
</tr>
</tbody>
</table>
The next example demonstrates how to produce abstract reports for specific patients by entering their social security numbers. After selecting Patient Abstract from the Registry reports submenu, highlight and click on Social Security Number. The next screen to appear is shown below:

Enter the social security number of each of the patients for whom abstract reports are to be generated. Up to ten numbers may be entered.

Choose either a full or summary report. A full report contains the actual data values stored in every field of the patient records being reported (i.e., a data dump). A summary report consists of an abbreviated version of the abstract, with many fields and text excluded.

Specify up to five Class of Case codes. If all classes are to be included, press ENTER through all five fields to leave these fields blank.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” and a list of the patients with the social security numbers that were specified will be displayed.

As with the list of Patient Abstracts by Date Entered, individual abstracts may be selected and viewed. Because there is a limit of only 10 patients in the Patient Abstract by SSN report, all the abstracts may be viewed (and thus printed) at once using the “Download All” button.
PATIENT LABELS

This feature from the reports menu allows the creation of mailing labels to any group of living patients specified by site code or class of case. To initiate this report, select Patient Labels from the Registry submenu and the following screen is displayed:

![Screen capture of patient labels interface](image)

Enter the first and last site codes for the range of patients for whom mailing labels are to be generated (a Choice List is available using F2 or the drop down menu). For example, to generate mailing labels for all lung cancer cases in the database, the first code would be 22 and the last code 23.

Specify the Class of Case does for the patients for whom mailing labels will be generated. If all classes are to be included, these fields should be left blank.

If case information is included in the report, the patient’s name, site group, date of diagnosis, accession number/year, sequence number, birth date, and date of last contact will appear to the right of each patient label. This field defaults to “Yes.” If “No” is selected, the report consists of two rows of patient labels per page with no case information.
Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.

Click on “Submit” and the labels will be displayed. An example (with case information) is shown below:

Choose “Cancel” to return to the Patient Label criteria, “Main” to exit to the Main Menu, “Save” to save the report to a local computer or network drive, or “Print” for a hard copy.

Note: Due to the wide variety of printer and label types, many labels will not print with the proper alignment when using the “Print” function directly from CPDMS.net. However, this issue may be resolved by saving the labels and printing them using Microsoft Word Mail Merge. See Appendix E for special instructions regarding label printing using this method.

**KEY CHANGE/DELETE LIST**

This report lists all key changes and deletions which occurred during a specified time period. Users may choose to include only key changes, only deletions, or both.
To generate this report, select Key Change/Delete List from the Registry reports submenu. The screen below is displayed.

Specify a range of dates to be included in the report. Then choose whether to include key changes, deletions, or both. Click “Submit” to generate the report.
Below is an example of a key change/delete list.

![Example of Key Change/Delete List](image)

The list can be sorted by SSN (the default), Last Name, User, Date, or Choice (key change vs. delete) by clicking on the blue labels.

**DELETED PATIENT ACC NO**

This report is used for those facilities that report to NCDB and RQRS. If a patient is deleted and they come back wanting to know about a patient this report will show which patient accession number have been deleted.
Open the file with Excel or Save the file.

The output file will look like this:
There aren’t any deleted accession numbers in this database, but information would be plugged into the fields if there were.
2. Follow-up Reports

To create a follow-up report, select Follow-up from the Reports submenu and a list of available reports appears:
SUMMARY

The Summary Report is a count of all cases by accession year which have not had a follow-up contact within a specified number of months from a specified reference date. To generate this report, select Summary and the following screen appears:

The Report Reference Date defaults to the current date. If this is the desired reference date, press ENTER to accept it and move to the next field. If not, type in a different date.

The Follow-up Interval defaults to a 12 month time frame. Press ENTER to accept that value, or type in a different interval.

The cursor next goes to Registry Reference Year. Enter the 4 digit year of the registry’s reference date and ENTER. The cursor moves to Include Cervix Cases Stage CIS. The default is “No” because CIS of the cervix does not require follow-up. Choose “Yes” to include these cases.

Specify the Class of Case does for the patients for whom mailing labels will be generated. If all classes are to be included, leave these fields blank.
Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.

Select the “Submit” button and the Follow-up Summary Report will be displayed:
CONTROL LIST

The Control List contains the name, SSN, site group, follow-up methods, and other relevant information for all the patients whose last follow-up contact is not within a specified number of months from the specified reference date. It is used to identify which patients need a follow-up contact.

To create this report, select “Control List” from the Follow-up submenu and the following screen is displayed:

The Report Reference Date defaults to the current date. Press ENTER if this is the desired reference date, or enter another valid date. Follow-up Interval defaults to 12 months but may be written over with a different value. Proceed to Registry Reference year and type in the 4 digit year for the registry’s reference date.

Once again, the default for Include Cervix Cases CIS is “No,” but if desired, these cases may be included.
Specify the Class of Case codes for the patients for whom mailing labels will be generated. If all classes are to be included, these fields should be left blank.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.

Choose “Submit” and the report will be displayed as seen in the example below:

![Image of the report](https://kccpdms.net/cpdmis-3479/Reports/FollowUpMaster.php)

The report may be sorted by Name (the default sort order), SSN, Date of Last Contact, Chart Number, or Birth Date by clicking on the fields highlighted in **blue**.

**MAILING LABELS**

Mailing labels may be produced for all patients not contacted within a specified time frame, or for any specified group of patients to be followed. The labels are directed to the follow-up contact person designated by either the Next Follow-up Method code or the Alternate Follow-up Method code.
To create the labels, highlight Mailing Labels from the Follow-up submenu. A further submenu appears with five options for the order in which labels are to be generated: Patient Name, Date of Last Contact, Chart Number, Accession Year/Number, or individually.

The first option produces labels alphabetically by the patient’s last name. The second option orders the labels from the oldest date of last contact to the most recent. The third option creates labels ordered by medical record number, and the fourth option sorts by accession year and number.

Select a sort order and the next screen appears:

![Follow-up interface screenshot](https://kccpdmc.net/cpdmcs-5470/Reports/FollowUp.php?report_id=FollowUpLabelsPatName)

The Report Reference Date defaults to the current date. Press ENTER to use that date, or another date may be typed over the default. Follow-up Interval defaults to a 12 month time frame. This may be overwritten with a different time interval if desired. Next enter the 4 digit year of the registry’s reference date.
At FU Method, indicate whether the primary (individual coded in Next Follow-Up Method) or secondary (individual coded in Alternate Follow-Up Method) contact is to be used when generating this batch of mailing labels.

Once again, the default for Include Cervix Cases CIS is “No,” but these cases may be included if desired.

Specify the Class of Case does for the patients for whom mailing labels will be generated. If all classes are to be included, leave these fields blank.

Cases within a specified range of last names may be reported. The default range A through Z will report all patients.

For convenience in mailing, patients may be sorted by the primary following physician.

Selecting “FollowUp Mailing Letter format” generates form letters with each physician’s name and address instead of labels. Refer to Appendix C for detailed instructions regarding printing follow-up letters.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.

Click “Submit” and the mailing labels will be displayed:
Choose “Cancel” to return to the Patient Label criteria, “Main” to exit to the Main Menu, “Save” to save the report to a local computer or network drive, or “Print” for a hard copy.

Note: Due to the wide variety of printer and label types, many labels will not print with the proper alignment when using the “Print” function directly from CPDMS.net. However, this issue may be resolved by saving the labels and printing them using Microsoft Word Mail Merge. See Appendix E for special instructions regarding label printing using this method.

To generate follow up labels for a specific group of patients, select “Individual” from the Mailing Labels submenu.
Up to ten social security numbers may be entered for specific patients’ follow-up labels.

Enter the social security number of each patient for whom a follow-up label will be generated. Then press ENTER until the cursor moves to the next prompt.

Choose Primary to produce labels addressed to the person coded in the next follow-up method field, or Secondary for labels to the person coded in the alternate follow-up method.

Next specify the Class of Case. Leave these fields blank to include all classes.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.

Selecting “FollowUp Mailing Letter format” generates form letters with each physician’s name and address instead of labels. Refer to Appendix C for detailed instructions regarding printing follow-up letters.
Select “Submit” and the labels will be displayed as shown in the previous Follow-up Label example.

ACoS FOLLOW-UP

This option will calculate the percentage of cases in the registry that are current according to ACoS standards for timely follow-up. ACoS requires that all reportable analytic cases (cases 0, 1, and 2), except cases of CIS of the cervix and residents of foreign countries, be followed annually. A case is considered delinquent (not current) when the last recorded contact is not within 15 months of the current date.

To create the ACoS Follow-up reports, select ACoS from the Follow-up submenu. The next screen appears:

Enter the four digit year of the registry’s reference date, or leave the default ‘0’ for a five year report. Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” to generate the ACoS Follow-up report:

**SEER FOLLOW-UP**

This follow-up report is chiefly for use by the central registry. It calculates the completeness of follow-up prior to a SEER data submission by using this calculation:

Assume that Y is the calendar year ending 22 months prior to the due date for a November 1st submission. The percentage of patients diagnosed during the years prior to Y who have current follow-up is defined as

\[ P = \frac{100(D + A)}{T} \]

where is D is the number who died prior to January 1, Y + 1, A is the number with follow-up dates on or after January 1, Y + 1 (includes both dead and alive patients), and T is equal to A + D + the number of patients who were last known to be alive with follow-up dates prior to January 1, Y + 1.
In order to run this report, choose “Follow-up” from the Reports submenu, and then select “SEER Follow-up.” The following screen will appear:

Enter the year of the submission date, and then enter the diagnosis year for which SEER Follow-up is to be calculated.
Select “Submit” and the results will be displayed.

The report contains the SEER Follow-up percentages for all patients, as well as broken down within age ranges. In addition, the report lists all patients (with fields SSN, Last and First Name, Birth Date, Sequence Number, Site Group, Hospital, Class of Case, Follow-up Date, and County) whose follow-up does not meet SEER standards.
3. Case Counts

To obtain various counts of cases, by accession year and by site of cancer, select Case Counts from the Reports submenu and the following list appears:

ANNUAL SUMMARY

The Annual Summary report lists the total number of cases diagnosed for each site group in a given accession year. It also shows the number of cases by sex and by stage of disease at diagnosis for each site group. This report is frequently used in the annual report of the tumor registry for a hospital’s cancer program.
To create this report, select Annual Summary and the following screen appears:

Accession Year to Report defaults to the current year. However, this field may be overwritten with any valid year.

Next choose the Class of Case codes to report, or leave all five fields blank to include all classes.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” and the report will be displayed, as shown below:

![Image of report](https://placekitten.com/600/400)

<table>
<thead>
<tr>
<th>Site</th>
<th>Total Female</th>
<th>Male</th>
<th>Stage 0</th>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>Stage IV</th>
<th>Stage Unkn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lip</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Tongue</td>
<td>28</td>
<td>5</td>
<td>23</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Salivary glands</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Gum &amp; hard palate</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Floor of mouth</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>34</td>
<td>0</td>
<td>26</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other oral cavity</td>
<td>10</td>
<td>2</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Esophagus</td>
<td>12</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Stomach</td>
<td>26</td>
<td>6</td>
<td>20</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Colon</td>
<td>61</td>
<td>25</td>
<td>36</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Rectum/Anus</td>
<td>80</td>
<td>32</td>
<td>56</td>
<td>9</td>
<td>17</td>
<td>25</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Liver</td>
<td>34</td>
<td>11</td>
<td>23</td>
<td>0</td>
<td>5</td>
<td>3</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pancreas</td>
<td>60</td>
<td>27</td>
<td>42</td>
<td>1</td>
<td>6</td>
<td>35</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Other digestive tract</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Nasal cavities,sinus,ear</td>
<td>11</td>
<td>2</td>
<td>9</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

---
SEER SUMMARY

This report presents case counts from a given range of diagnosis dates by SEER site group. The list is further subdivided by sex and summary stage.

To produce this report, select SEER Summary from the Case Counts submenu. The following screen will appear:

The range of Diagnosis Dates defaults to the current date, but these fields may be written over with any valid dates.

The County Codes range defaults to all Kentucky counties, but any valid county codes may be specified. Similarly, State at Diagnosis defaults to ‘KY’ but may be written over with another state. A Choice List is available.

Specify which Case Class codes to report, or leave these fields blank to include all cases.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” and the report will be displayed, as shown below:

![SEER Summary Report](image)

**FREQUENCY**

A Frequency distribution may be produced using this option, which lists the count of cases by site group. This report shows the site groups in order from the most frequently seen group to the least frequently seen group in the registry.
To generate this report, select Frequency from the Case Counts submenu and the following screen is displayed:

Enter the four digit accession year of the cases to be reported. This field defaults to the current year, but this may be written over.

Choose the case class codes to include, or leave these fields blank to include them all.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” and the report will be generated, as in the example below:

The report may be sorted by Site or by Total Cases (the default sort order).
INCIDENCE

An Incidence report shows, for each site group, both the numbers of new cases accessioned in a specified year, and the number of deaths due to cancer in that year. To produce this report, select Incidence from the Case Counts submenu and the following screen appears:

Enter the four digit accession year of the cases to be reported. This field defaults to the current year, but may be written over.

Choose the case class codes to include, or leave these fields blank to include them all.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” and the report will be displayed:

![Image of a report]

<table>
<thead>
<tr>
<th>Site</th>
<th>New Cases</th>
<th></th>
<th></th>
<th></th>
<th>Deaths</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Other</td>
<td>Male</td>
<td>Female</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Lip</td>
<td>4 (0.49%)</td>
<td>1 (0.10%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Tongue</td>
<td>23 (2.81%)</td>
<td>5 (0.52%)</td>
<td>0 (0.00%)</td>
<td>2 (5.26%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Salivary glands</td>
<td>3 (0.37%)</td>
<td>4 (0.41%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Gum &amp; hard palate</td>
<td>6 (0.98%)</td>
<td>7 (0.73%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Floor of mouth</td>
<td>5 (0.61%)</td>
<td>2 (0.21%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Oropharynx</td>
<td>26 (3.17%)</td>
<td>6 (0.63%)</td>
<td>0 (0.00%)</td>
<td>1 (2.63%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>1 (0.12%)</td>
<td>2 (0.21%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>3 (0.37%)</td>
<td>1 (0.10%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Other oral cavity</td>
<td>8 (0.88%)</td>
<td>2 (0.21%)</td>
<td>0 (0.00%)</td>
<td>1 (2.63%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Esophagus</td>
<td>7 (0.85%)</td>
<td>5 (0.52%)</td>
<td>0 (0.00%)</td>
<td>1 (2.63%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Stomach</td>
<td>20 (2.44%)</td>
<td>6 (0.62%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Small Intestine</td>
<td>3 (0.37%)</td>
<td>2 (0.21%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Colon</td>
<td>36 (4.40%)</td>
<td>25 (2.59%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>2 (8.33%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Rectum/Anus</td>
<td>56 (6.84%)</td>
<td>32 (3.32%)</td>
<td>0 (0.00%)</td>
<td>1 (2.63%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td>23 (2.81%)</td>
<td>11 (1.14%)</td>
<td>0 (0.00%)</td>
<td>3 (7.89%)</td>
<td>1 (4.17%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Gallbladder</td>
<td>3 (0.37%)</td>
<td>6 (0.62%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>42 (5.13%)</td>
<td>27 (2.80%)</td>
<td>4 (10.53%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Other digestive tract</td>
<td>3 (0.37%)</td>
<td>3 (0.31%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
<tr>
<td>Nasal cavities, sinuses, ear</td>
<td>9 (1.10%)</td>
<td>2 (0.21%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td></td>
</tr>
</tbody>
</table>
COUNTS BY YEAR

This report gives a case count, by site group, for each year in a specified range. To create this report, select Counts by Year from the Case Counts submenu. See the screen below:

Enter the first and last accession years to be reported, or press ENTER to accept the default values.

Choose the case class codes to include, or leave these fields blank to include them all.

Users of multi-facility institutions will have the option to choose which facility’s records to include in the report. See Appendix B for instructions.
Select “Submit” and the report will be displayed as shown here:

![Image of a report displaying case counts by years for different sites and years]

<table>
<thead>
<tr>
<th>Site</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lip</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Tongue</td>
<td>24</td>
<td>29</td>
<td>33</td>
<td>32</td>
<td>35</td>
<td>28</td>
</tr>
<tr>
<td>Salivary glands</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Gum &amp; hard palate</td>
<td>7</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Floor of mouth</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Buccal mucosa</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>44</td>
<td>25</td>
<td>45</td>
<td>39</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>5</td>
<td>9</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>8</td>
<td>12</td>
<td>3</td>
<td>3</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Other oral cavity</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Esophagus</td>
<td>18</td>
<td>22</td>
<td>19</td>
<td>13</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Stomach</td>
<td>15</td>
<td>12</td>
<td>22</td>
<td>20</td>
<td>17</td>
<td>26</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Colon</td>
<td>45</td>
<td>60</td>
<td>55</td>
<td>48</td>
<td>63</td>
<td>61</td>
</tr>
<tr>
<td>Rectum/Anus</td>
<td>59</td>
<td>96</td>
<td>65</td>
<td>68</td>
<td>80</td>
<td>88</td>
</tr>
<tr>
<td>Liver</td>
<td>13</td>
<td>18</td>
<td>19</td>
<td>21</td>
<td>20</td>
<td>34</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>3</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Pancreas</td>
<td>54</td>
<td>56</td>
<td>58</td>
<td>70</td>
<td>57</td>
<td>60</td>
</tr>
<tr>
<td>Other digestive tract</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Nasal cavities, sinuses, ear</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>
4. Quality Assurance (Q/A)

To produce a quality assurance report, select Q/A from the Reports submenu and the following list appears:
ACCESSION NUMBER CHECK

This Q/A report is used to ensure that all the accession numbers assigned for each accession year are sequential. To generate this report, select Accession Number Check from the Q/A reports submenu, and the following screen appears:

At Case Class Codes to Report, choose the classes of case codes to be reported (Choice Lists are provided), all analytic, or select all to report all of them.

Choose “Submit” to display the report.
An example of the Accession Number Check is shown below:

CASE REPORTING TIMELINESS

This report displays the number of new cases entered into the registry within four months of date of first contact, within 4 to 6 months of date of first contact, and after 6 months from the date of first contact, ordered by accession year. It also displays a target percent complete for the current reporting year as well as the hospital’s actual percent complete.
To create this report, select Case Reporting Timeliness from the Q/A submenu. The screen below will be displayed:

Users of multi-facility hospitals will be given the opportunity to select which hospitals to include. To generate the report, simply select “Submit.”
The following report will be displayed on screen:

```
CASE BY CASE COMPLIANCE

To run this report, choose Case by Case Compliance from the Q/A reports submenu. The following screen will be displayed:

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt; 4 Months</th>
<th>4-6 Months</th>
<th>&gt; 6 Months</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>(0.00%)</td>
<td>(0.00%)</td>
<td>345 (100.00%)</td>
<td>345</td>
</tr>
<tr>
<td>1989</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>363 (100.00%)</td>
<td>363</td>
</tr>
<tr>
<td>1990</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>379 (100.00%)</td>
<td>379</td>
</tr>
<tr>
<td>1991</td>
<td>27 (7.42%)</td>
<td>141 (38.74%)</td>
<td>196 (53.85%)</td>
<td>364</td>
</tr>
<tr>
<td>1992</td>
<td>5 (1.23%)</td>
<td>130 (32.62%)</td>
<td>271 (66.75%)</td>
<td>406</td>
</tr>
<tr>
<td>1993</td>
<td>189 (44.00%)</td>
<td>168 (40.78%)</td>
<td>50 (14.32%)</td>
<td>412</td>
</tr>
<tr>
<td>1994</td>
<td>332 (79.24%)</td>
<td>88 (13.84%)</td>
<td>29 (0.92%)</td>
<td>419</td>
</tr>
<tr>
<td>1995</td>
<td>193 (21.19%)</td>
<td>457 (50.16%)</td>
<td>261 (28.65%)</td>
<td>911</td>
</tr>
<tr>
<td>1996</td>
<td>32 (3.55%)</td>
<td>572 (63.49%)</td>
<td>297 (32.99%)</td>
<td>901</td>
</tr>
<tr>
<td>1997</td>
<td>30 (3.08%)</td>
<td>258 (26.57%)</td>
<td>603 (70.34%)</td>
<td>971</td>
</tr>
<tr>
<td>1998</td>
<td>93 (8.72%)</td>
<td>423 (42.46%)</td>
<td>524 (48.82%)</td>
<td>1047</td>
</tr>
<tr>
<td>1999</td>
<td>386 (39.51%)</td>
<td>364 (37.26%)</td>
<td>227 (23.23%)</td>
<td>977</td>
</tr>
<tr>
<td>2000</td>
<td>9 (0.85%)</td>
<td>111 (10.47%)</td>
<td>940 (88.68%)</td>
<td>1060</td>
</tr>
<tr>
<td>2001</td>
<td>4 (0.43%)</td>
<td>11 (1.17%)</td>
<td>222 (20.40%)</td>
<td>937</td>
</tr>
<tr>
<td>2002</td>
<td>123 (10.15%)</td>
<td>284 (23.43%)</td>
<td>305 (66.42%)</td>
<td>1212</td>
</tr>
<tr>
<td>2003</td>
<td>131 (11.69%)</td>
<td>375 (33.45%)</td>
<td>615 (54.86%)</td>
<td>1121</td>
</tr>
<tr>
<td>2004</td>
<td>33 (2.63%)</td>
<td>442 (35.22%)</td>
<td>780 (62.15%)</td>
<td>1255</td>
</tr>
<tr>
<td>2005</td>
<td>13 (0.88%)</td>
<td>188 (12.77%)</td>
<td>1271 (86.35%)</td>
<td>1472</td>
</tr>
<tr>
<td>2006</td>
<td>45 (3.12%)</td>
<td>507 (35.18%)</td>
<td>809 (61.69%)</td>
<td>1441</td>
</tr>
<tr>
<td>2007</td>
<td>40 (2.83%)</td>
<td>304 (21.50%)</td>
<td>1070 (75.67%)</td>
<td>1414</td>
</tr>
<tr>
<td>2008</td>
<td>81 (5.49%)</td>
<td>481 (32.61%)</td>
<td>913 (61.90%)</td>
<td>1475</td>
</tr>
<tr>
<td>2009</td>
<td>177 (10.59%)</td>
<td>1245 (74.51%)</td>
<td>240 (14.00%)</td>
<td>1671</td>
</tr>
<tr>
<td>2010</td>
<td>90 (5.70%)</td>
<td>1236 (78.23%)</td>
<td>254 (16.08%)</td>
<td>1580</td>
</tr>
<tr>
<td>2011</td>
<td>1138 (68.30%)</td>
<td>411 (25.11%)</td>
<td>108 (6.60%)</td>
<td>1637</td>
</tr>
<tr>
<td>2012</td>
<td>1230 (72.40%)</td>
<td>383 (22.54%)</td>
<td>86 (5.06%)</td>
<td>1699</td>
</tr>
<tr>
<td>2013</td>
<td>1444 (81.03%)</td>
<td>274 (15.38%)</td>
<td>64 (3.59%)</td>
<td>1762</td>
</tr>
<tr>
<td>2014</td>
<td>756 (41.64%)</td>
<td>133 (14.36%)</td>
<td>37 (4.00%)</td>
<td>926</td>
</tr>
</tbody>
</table>
```

Percent Complete (2014): 52.0%  Target Percentage (2014) 100.0%
FIVE YEAR CASE COUNT

This report lists the number of cases for each year over a five year period for a group of hospitals in a database, ordered by hospital ID. It is utilized mainly by the central registry, but is also helpful for multi-hospital user groups.
To run this report, choose Five Year Case Count Report from the Q/A reports submenu. The following screen will be displayed:

Counts may be reported for large hospitals only, small hospitals only, or non-hospital facilities (the third option is applicable only at the central registry).

The accession year to report defaults to the current year, but this may be overwritten with another date.

Up to five specific site groups may be reported (a Choice List is available), or leave these five fields blank to included all site groups.

The report may include only specified behavior codes (a Choice List is available), or leave this field blank to include all behavior codes.
Select “Submit” and the report will be displayed, as seen in the example below:

![Image of report display](image_url)

<table>
<thead>
<tr>
<th>Hospid</th>
<th>Hospital Name</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>90201</td>
<td>TRAINING DATABASE</td>
<td>1457</td>
<td>1419</td>
<td>1477</td>
<td>1677</td>
<td>1586</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1457</td>
<td>1419</td>
<td>1477</td>
<td>1677</td>
<td>1586</td>
</tr>
</tbody>
</table>
5. Outcomes

Six Cancer Program Practice Profile Reports (CP3R) allow facilities to identify the percentage of breast, colon, and rectal cancer patients who have received therapy according to recommended ACoS guidelines. Please consult ACoS documentation for specific information regarding patient eligibility requirements and treatment recommendations. To generate these reports, from the Main Menu, select Reports, Outcomes, and CP3R.
After selecting the desired CP3R report, the following screen appears:

This screen is identical for each of the six reports. The user is advised to run NCDB clinical edits prior to generating the C3PR report (see the NCDB Call for Data section in Chapter Five for instructions on running clinical edits).

The user is prompted to choose a time frame for the cases which will appear in the report. Users may specify either a range of diagnosis dates (the default option), or a particular registry accession year. Once the time frame has been entered, click “Submit” to generate the report.
The CP3R report for colon cancer cases eligible for chemotherapy is shown below. The report lists all colon cancer patients in the database who meet the ACoS parameters for being recommended to receive chemotherapy following surgical treatment. The report lists the SSN, ACoS patient accession number, diagnosis date, chemotherapy start date, the number of days elapsed from diagnosis to start of treatment, the type of chemotherapy or reason no chemotherapy, the pTMN stage group, and the initials of the registrar who abstracted the case. The report may be sorted in ascending or descending order by any field except pTNM stage group.

The CP3R reports for breast cancer and rectal cancer are similar, with the field for chemotherapy being replaced by hormone therapy, radiation therapy, or number of lymph nodes removed, as applicable. At this point, the user may save or print the report, or return to the report parameters or main menu.
6. Support Files

Each of the support files acts as a Choice List to validate values entered for specific data items in the patient database. The support files and the items they validate are:

Physician Directory—Managing physician, primary surgeon, medical oncologist, radiation oncologist, primary follow-up physician, and follow-up physicians two through five.

ICD-O Topography—Topography

ICD-O Histology—Histology

ICD-9-CM and ICD-10—Cause of death, ACoS Comorbidities

Institution—Institution referred to, institution referred from, following registry, and therapy facility

A screen listing or a printed copy of any of the support files may be generated using this option of the Reports submenu.
Within the Support Files submenu, select the desired file. (See below.)
Next a screen appears prompting the choice of the beginning and ending values for the entries to be included on the report (see example below, using the Topography List).

The entire list may be displayed by changing Show All Topography to “Yes.” After the selection has been made, choose “Submit” to run the report.
Below is an example of the Topography List, sorted by Edition and Topography Code.

The order of a list may be changed by clicking on the fields in blue. In the above example, this list may be re-ordered by clicking on Edition, Topography Code, or Description. As with any report, users have the options of returning to the report criteria, going to the Main Menu, saving the report, or printing.
CHAPTER THREE: DATA ANALYSIS

CPDMS.net Data Analysis provides all of the functions necessary to statistically analyze specific groups of cancer patients. The primary purpose of collecting detailed information on cancer patients is to learn from the experience of managing these patients; thus Data Analysis is one of the most important components of CPDMS.net.

The tools in this component require user input into two major areas: what group of patient records is to be studied, and which types of analytical reports are to be generated.

The first step is to select criteria for the patient records to be included in the analysis. For example, a group may be selected consisting of breast cancer patients with infiltrating ductal carcinoma, who were diagnosed at AJCC stage group 2 or 3, and who had surgery and chemotherapy. A second group may be selected consisting of patients to analyze along with, or compare to, the first group. Continuing with the above example, the second study group may include breast cancer patients with infiltrating ductal carcinoma, diagnosed at AJCC stage group 2 or 3, who had surgery but no chemotherapy.

Each user may create and save as many study groups as desired. Up to two groups may be used for calculation of a statistic, report, or graph.

The second area of specification requires selecting the type of report to be created. These include ordered lists of the values in specific fields, descriptive and comparative statistical reports, and survival rates.

Note that incomplete records are NOT included in data analysis.

Users may view instructional tutorials on a variety of data analysis procedures at www.kcr.uky.edu/cpdms/dataAnalysisTutorials.html.
1. Create a Study Group

From the Main Menu, highlight Data Analysis and select “Manage Study Groups.” The following screen appears:

All existing study groups are listed here. Click once on the column labeled “Name” to list the study groups alphabetically in ascending order. Click on the column heading a second time to re-order the list in descending order. Study groups may also be ordered by the date each was last edited or the date each was last used by clicking on their column headings. You can search for study groups by using the search study groups box under the manage study groups tab.

From this screen, study groups may be created, edited, copied, deleted, or selected for analysis. You can also search for study groups using the “Search Study Groups” box under “Manage Study Groups” tab.

In order to create a new study group, click on the “New” button in the Manage Study Groups toolbar.
The Study Group Editor will open in a new window, as seen below:

Study groups are created and edited using the Study Group Editor. In order to select a specific group of patients to study, click the “plus” button in the upper left corner of the screen to add an expression.
A blank expression has appeared and the blue “plus” sign is now a red “minus.” Clicking the “minus” button will remove the expression.
To construct an expression, first select the record level of the field to be added from the drop-down menu labeled “Category.”

The categories available are Patient data, Case/Follow-Up data, Case Other, Case Text, Therapy data, Class History data, and NAACCR Therapy data. To see a comprehensive list of the variables contained within all these categories, view the Field List (available by clicking on the “Field List” button within the Manage Study Groups menu).
Once a category has been selected, next choose a field by clicking on the drop-down menu labeled “Variable.” (See example below.)

The fields are arranged alphabetically within the list. Move through the list using the scroll bar, or press a letter key to jump directly to fields which start with that letter (i.e. hitting the “R” key while within the list moves instantly to the first field that starts with an R). Select the desired field by clicking on it.
The next step in constructing an expression is selecting a relational operator. Click on the drop-down menu containing the “equal” sign to display the list of relational operators.

These operators define the “relationship” between a value found in the patient record for the field specified, and the value chosen to complete the expression.

A list of the relational operators and their definitions is given below, in the order in which they appear in the drop-down menu:

EQUAL (=) – the field value in the patient record must be exactly the same as the value chosen in the condition in order for that record to be included in the study group

NOT EQUAL (!=) – the field value in the patient record must be anything other than the value specified in the condition in order for that record to be included in the study group

GREATER THAN (>) – the field value in the record must be greater than the value chosen in the condition. Alpha characters are considered greater than numbers or blanks; thus, A-Z is greater than 0-9, which is greater than a blank.
LESS THAN (<) – the field value in the record must be less than the value specified in the condition.

GREATER THAN OR EQUAL TO (>=) – the field value in the record must be exactly the same or greater than the value chosen in the condition.

LESS THAN OR EQUAL TO (<=) – the field value in the record must be exactly the same or less than the value specified in the condition.

CONTAINS – the value in the patient record must contain the exact character string that was specified in the condition. The character substring may appear anywhere in the field value and the record will be included in the study group.

IN – the value in the patient record is the same as one of the values selected in the condition. An unlimited number of values may be specified.

NOT IN – the value in the patient record is anything other than the values selected in the condition. An unlimited number of values may be specified.

BETWEEN - the field value in the record falls within a range of values chosen as the condition. The boundaries selected are included in the range.

A relational expression performs a comparison between two values: one in the database and one in the condition. If the relational expression is evaluated as TRUE, then the record being compared is included in the study group. If the expression is evaluated as FALSE, then the record being compared is not included in the study group.
Choose a value for the expression. If the field has a Choice List, the value may be selected from a menu. Fields that do not have a Choice List have a blank box which is filled in by the user. In the example below, the field “Case Site Code” has a drop-down menu.

Now a complete relational statement (Case Site Code = 27) has been constructed. This condition may be removed by clicking on the red “minus” sign to the left of the statement. A query may have an unlimited number of conditions.

Note that as an expression is constructed, it also appears beneath the blue bar labeled “Summary.” Users may view the query as it appears written in SQL (the language used by CPDMS.net to process the query) by clicking on the gray bar labeled “SQL.”
The screen below shows the previous example query as it appears in SQL. Return to Summary view by clicking on the gray Summary bar.

A hard copy of a query (in either Summary or SQL view) may be obtained by clicking on the printer icon in the upper right corner of the screen.
To add another condition, click on the blue “plus” sign beneath the first expression. A blank condition appears directly below the existing expression.

Note that now the Boolean operator “AND” appears between the two expressions. Clicking once on the word “AND” changes the operator to OR. Clicking again changes it to XOR (exclusive OR).

These three terms are logical operators which connect two relational expressions to form a conditional expression. The Boolean operator performs a comparison between the results of each relational expression and evaluates the combined conditional expression as either TRUE or FALSE. If the final evaluation is TRUE, the record being compared is included in the study group; if it is FALSE, the record is excluded.

For example, in order to study females over age forty, two different relational expressions must be specified: ‘Sex equals female’ and ‘Age is greater than forty.’ The Boolean operator AND confines the selected study group to those patients for whom both expressions are TRUE.
For an example utilizing a different Boolean operator, suppose a user needs to send a brochure on cervical cancer to all patients who live in Lexington as well as all patients who have a history of cervical cancer, regardless of where they live. To select the group, two relational expressions must be specified: ‘Site code equals 30’ or ‘City equals Lexington.’ The Boolean operator OR selects for inclusion in the study group any patient for whom either expression is TRUE. It also includes patients for whom both expressions are TRUE (i.e. cervical cancer patients who live in Lexington).

The third Boolean operator is EXCLUSIVE OR (XOR). Using this operator allows the selection of records for which only one of two relational expressions is TRUE, but not both. If the OR in the previous example is replaced with XOR, then the resulting study group will include cervical cancer patients and patients from Lexington, but not those cervical cancer patients who live in Lexington.

A table summarizing the result of a Boolean operator on two relational expressions is shown below. When the results of a conditional expression are TRUE, then the record being compared is included in the study group.

**BOOLEAN OPERATION RESULTS**

<table>
<thead>
<tr>
<th>Relational Expression #1</th>
<th>Relational Expression #2</th>
<th>AND</th>
<th>OR</th>
<th>Exclusive OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUE</td>
<td>TRUE</td>
<td>TRUE</td>
<td>TRUE</td>
<td>FALSE</td>
</tr>
<tr>
<td>TRUE</td>
<td>FALSE</td>
<td>FALSE</td>
<td>TRUE</td>
<td>TRUE</td>
</tr>
<tr>
<td>FALSE</td>
<td>TRUE</td>
<td>FALSE</td>
<td>TRUE</td>
<td>TRUE</td>
</tr>
<tr>
<td>FALSE</td>
<td>FALSE</td>
<td>FALSE</td>
<td>FALSE</td>
<td>FALSE</td>
</tr>
</tbody>
</table>

The third type of operator that may be used to build complex conditional expressions is parentheses. Parentheses are used to pair two relational expressions at a time, so that the resulting conditional expression is evaluated first. Then the parenthesized expression may be paired with another relational expression in another set of parentheses. Nested parentheses are necessary and common when making complex and precise queries in a database. The main points to remember when using parentheses are:

- Parentheses should be used any time two different Boolean operators are needed to select the desired study group to eliminate ambiguity.

- The innermost parenthetical expression is evaluated first.

The result of each pair of relational expressions is then compared to the next relational expression until the entire conditional expression is evaluated and the record being examined is either included or excluded from the study group.
Parentheses may be added to an expression by clicking the gray right arrow button to the immediate left of that expression. Clicking the gray left arrow button removes the parentheses. Clicking the arrow button to the left of an expression adds parentheses to that expression only. As seen in the example below, the expression “CS SSF2=010” is now in parentheses. This is indicated by a purple bar to the left of the expression, as well as the fact that the expression is now indented in the Summary.
Additional selection criteria may be added until the query precisely describes all the characteristics of the records to be included in the study group. Once the query is completed, move the cursor to the blank box next to “Title.” Type a relevant name for the study group and select the “Save” button to preserve the query. “Save As” is used to save changes made when editing a pre-existing study group without overwriting the original study group. The modified study group is saved as a new group. Selecting “Cancel” will abandon the query without saving it, while the “Reset” button removes all existing conditions, leaving the Study Group Editor blank.

The study group selection procedure described here used relatively simple examples of what is possible in CPDMS.net Data Analysis. A study group can actually be created with no selection criteria (in which case the resulting group contains every record in the database), or it may have a highly complex and precise set of criteria (i.e. females with localized squamous cell carcinoma of the cervix, who were diagnosed after January 1st, 2004, who received surgery or radiation but not both, and who were eventually considered disease free). This level of specificity is all possible using the relational operators, Boolean operators, and parentheses.

If “Save” is chosen, CPDMS.net then displays a screen informing the user that the study group has been successfully saved. Click on the “Ok” button to return to the “Manage Study Groups” menu.
Study Group Editor

Title: Hormone positive breast cancer

Saved

Summary
Case / Follow-Up: Case Site Code = 29 Breast, female & male
AND
Case / Follow-Up: CS Site Spec Factor 1 = 010
OR
Case / Follow-Up: CS Site Spec Factor 2 = 010

SQL
The newly created study group is now visible in the list of available study groups.
2. Edit a Study Group

An existing study group may be modified at any time by highlighting the title of the study and clicking the “Edit” button in the toolbar. In the example below, the study group “2005 Melanoma Cases” is highlighted.
When “Edit” is clicked, the study group opens in the Study Group Editor. Now conditions may be added, removed, or changed, and the study group may be renamed, if desired. When editing is complete, use the “Save” button to save the changes, or “Save As” to save this as a new study group without overwriting the original. “Cancel” to abandon without saving the changes.
3. Copy a Study Group

The next option on the toolbar is “Copy.” This function allows a user to make an exact copy of a study group. The copy may then be edited and renamed. This feature is useful when creating several study groups which share many conditions, but differ in minor ways. To copy a study group, highlight that group and click the “Copy” button. The copied study group appears below the original. It has the same title and word “copy” in parentheses.
4. Delete a Study Group

If a study group is created in error or is no longer needed, it may be deleted. To delete a study group, highlight that group and select the “Delete” button from the toolbar. A dialog box opens as a safeguard against unintentional deletion. Choose “Ok” to go ahead and delete the study group, or “Cancel” to keep it.
5. Select a Study Group

In order to select a study group for analysis, highlight the group and click “Select Group 1” from the toolbar. The title now appears next to “Study Group 1” at the upper left corner of the screen, indicating that it is the active study group (see below).
Follow the same procedure to select a second study group, but instead click “Select Group 2.”

The study group in Group 1 is the active study group for all analysis tools except Comparative, which uses both Study Group 1 and Study Group 2.
The positions of the active study groups may be switched by clicking the button. Now “Age at dx” is selected as Group 1, and “Hormone positive breast cancer” is Group 2, as seen below.
In order to perform Data Analysis on a single study group, first select an active study group, and then click the “Descriptive Tools” tab. The following screen appears:

The Descriptive Tools menu shows the various statistical reports which are available. Briefly described, these are:

**Count** – generates a total count of the number of patient, case/follow-up, case other, case text, therapy, class history, or NAACCR therapy records in a study group.

**Data List** – an ordered list of the values found in specified fields for the records in the selected study group.

**Stats and Graphs** – these are mathematical calculations which provide a composite description of the selected study group on one or two particular variables. The descriptive statistic for categorical variables is the frequency count (and percentage) of the records in the group for each possible value of that variable. For example, the descriptive statistic for the variable “Sex” would be a count of the number of males and females in the study group. A full color bar chart graphing the percentage or count of study group records with each data value is available for categorical variables. The
descriptive statistics for continuous variables are the total number of records involved in the calculation, the sum, the mean, standard deviation, and the minimum and maximum values. A full color histogram graphing the counts or percentages of records with values in specified ranges is also available for continuous variables.

Survival – this analysis includes a censored life table for a study group and graphs of the cumulative proportion surviving.

The following pages describe the precise steps to take to produce each of these reports.
6. Count

Click on “Count” in the toolbar and a drop down menu appears. Users may choose Patient, Case/Follow-Up, Case Other, Case Text, Therapy, Class, NAACCR Therapy, or NAACCR Rx Hosp level records.
Once the record type to be counted has been specified, the count immediately appears, as seen below.

To see the count for a different type of record, simply open the drop-down menu again and choose the desired category. The count will instantly re-calculate and display the new total.
7. Data List

Click on “Data List” on the Descriptive Tools toolbar and the following screen appears.

In order to choose the fields which will be included in the report, open the “Choose Category” drop-down menu. Choose the record level of the desired field.

To illustrate how to use this function, a sample Data List with the names, addresses, and primary following physicians of all hormone positive breast cancer patients will be created.
As soon as a category is selected, a list of all fields within that record level appears. In the example shown below, all Patient level fields are displayed.
In order to include a field in the report, click on the field name to highlight it. Now click the “Add” button beneath the field list.
The field name (in this example, “First Name”) is now displayed in the box on the right of the screen. Repeat this process to add more fields. There is no limit to the number of fields which may be added to the list; however, bear in mind that print settings may need to be altered to accommodate all the columns on a single page.
Now the data list consists of the fields First Name, Last Name, Street Addresses 1 and 2, City, State, and ZIP Code. These are all Patient level fields. To select Following Physician, a Case level field, open the category drop-down menu again and select “Case/Follow-up.”
Now all Case/Follow-Up level fields are listed. As with field lists in the Study Group Editor, the cursor will jump directly to all fields beginning with a particular letter when that key is pressed while the cursor is in the list.
“Primary Follow-Up Physician” has now been highlighted and added to the data list.
Several options are available for modifying the data list. Any of the fields which are listed may be removed by highlighting the field within the box and then clicking the “Remove” button. In the example below, “Stress Address 2” has been removed.
The sequence of fields within the box determines the order in which columns containing values for those fields will be displayed in the data list report. For the example shown below, the data list report will have last name in the leftmost column, first name in the next column, etc. from left to right.

The order may be changed using the “Up” and “Down” buttons. To move a field, highlight it and then use “Up” to move the field closer to the top of the list (thus moving that column to the left in the resulting report), or “Down” to move it closer to the bottom (moving the column to the right). In the example below, the field “Last Name” has been moved to the top of the list.
Any field which appears in the data list may be renamed. Changing the name of a field can be useful for long names, in order to avoid having a very wide column heading. This does not change the name of the field anywhere else in CPDMS.net, only within the report being generated. Click on the field name to be changed, and then on “Rename.”

Now type the new label for the field. To save the label, click “Accept.” To escape without making the change, click “Cancel.”
In this example, the label for the field “Primary Follow-Up Physician” has been changed to “Primary MD.”
The default setting for field values in data lists is to appear un-translated. In this example data list, the field “Primary Follow-Up Physician” will display physician ID numbers rather than names. To show the translation of a field instead of its code, highlight the field and click “Translate.” The word “translated” will now appear to the right of the field in parentheses and the field will be highlighted in purple. (See example below.)

Clicking “Translate” again while a translated field is highlighted will undo the translation. In order to display both the code and the translation for a particular field, add that field to the data list twice (this is done by simply clicking the “Add” button twice while the field is highlighted within the list). Once the field name appears twice in the data list box, highlight one instance and then click the “Translate” button. Now the field will appear on the resulting data list in two columns, one with the code and one with its translation.
If a particular data list is likely to be used for many study groups (for example, a list of names and chart numbers), the list may be saved and then loaded for re-use at any time in the future. This eliminates the necessity of recreating the same data list over and over. In order to save a data list, click the “Save” button beneath the data list field box. The screen which appears prompts the user to enter a name for the current data list. Type a relevant title for the list and select “Save” to save it for later use. Choose “Cancel” to escape without saving. In the example below, the list will be saved as “patient mailing labels.”
To use a list which has been saved, first make certain that the desired study group is selected as Study Group 1. Click the “Descriptive Tools” tab, “Data List,” and then the “Load” button. A drop-down menu displays all saved data lists in alphabetical order. Select a list and then click “Load” and the list will appear. Click the “Copy” button to create an exact copy of the data list. The list can then be loaded and modified. “Delete” permanently deletes a data list. Choose “Cancel” to escape this screen without loading a data list.
In the example below, the data list “Patient Mailing Labels” has been loaded for the study group “2005 melanoma cases.”
To generate the data list report, click the “Go” button. The data list will open in a new window. (See example below.)

The institution name and the title of the study group are displayed at the top of the report. The fields listed may be re-ordered by clicking on any column heading. Clicking once orders that field in ascending order, while clicking a second time re-orders it in descending order.

Once a report has been generated, there are three options, illustrated by the icons in the upper right corner of the screen. Click the icon to save the report to a local computer or network drive. Choose the format (comma separated or pre-formatted), select a location, re-name the file (if desired), and save the file.

The next option is print preview. Click the icon to toggle between print preview and normal view.

The final option is print, represented by the icon. Clicking the print icon opens a dialog box which allows the user to select a printer, modify printer settings and preferences, and print the report.
To escape from the report and return to the Descriptive Tools menu, simply close the window.

8. Stats and Graphs

First select a study group to analyze. Click “Stats and Graphs” in the Descriptive Tools toolbar. The screen shown below will appear:

Users may choose to describe either one or two variables. As seen in the above example, the default is one variable. The following instructions will illustrate how to describe a single variable.
First select a data category from the drop down menu. In the example below, Case/Follow-Up level data is selected.
Next choose a variable to describe from the field list. All fields are either categorical or continuous variables. Categorical variables have discrete values which indicate a qualitative difference. An example is Sex, which can have one of five values (male, female, other, transsexual, or unknown). Continuous variables are numeric values which represent a quantitative difference, such as Age at Diagnosis. In the list of available fields, categorical variables are white, while continuous variables are indicated by pink highlighting.
Once a variable has been selected, further options are available. If the field chosen is a date field (for example, Date of Diagnosis), the “Special Function” option allows the user to display only the year instead of the full date. Use the next drop-down menu to choose whether to show only the translated field description, only the un-translated code, or both. Users may also specify certain values to exclude from analysis. In the example below, typing ‘99’ in the “Omit Values” field will exclude any cases with an unknown best stage group. Some fields have a default value excluded. For example, if Race1 is selected, ‘99’ is automatically filled in the “Omit Values” field. However, the default value can be removed if a user wishes to include that value in analysis. If more than one value is to be omitted, each should be separated by commas. Blanks may be excluded by typing a set of empty single quotation marks (‘’).
Click the “Go” button to generate the descriptive report. Like the Data List report, the result will open in a new window (see below).

The institution name, study group title, and a list of any values which were omitted are shown at the top of the report. The descriptive statistic for a categorical variable such as Best Stage Group is a frequency count (and percentage) of the number of cases in the study group having each of the possible values for this variable. The default order is by percentage, but the report may be re-ordered by clicking on any column heading. Click once for ascending order and twice for descending order.

Icons in the upper right portion of the report represent the various options available for manipulating the results: generate a graph, save, print preview, or print.
Clicking the icon will generate a bar chart (for a categorical variable) or a histogram (for a continuous variable). Seen below is an example using the categorical variable Best Stage Group. The Graph Editor opens in a new window:

The graph appears with default settings, but users may specify the appearance of various components of the graph. The title of the graph is the study group name, and the sub-title is the name of the variable being described. However, either may be re-named by overwriting the default names. The X and Y axis titles may also be re-named. Font sizes may be increased or decreased by typing a new point size over the default value. Users may specify the colors for the Title, Sub-title, X and Y axis Titles, Labels, Bars, and Background.
To choose a color, click on the box in the “Color” column which corresponds to the graph element to be modified. A palette pops up which allows the user to choose from among 70 colors. Click on the desired color and the screen returns to the Graph Editor. The color which was selected is shown in the box. In the example below, the box corresponding to “Background” indicates the color (green) the background will appear in the graph.

Click the “Redraw” button to display the graph with the changes which were made.
Now the background of the graph is green. A graph can be altered and re-drawn as many times as necessary to achieve the desired result.

Click the box to the right of the element “Drop Shadow” to create a shadow effect for the graph. The margins of the graph (in pixels) may be changed by typing a value in any of the four boxes (representing the top, right, bottom, and left margins) in the upper right corner of the screen. The empty box in the center allows users to choose the margin color. These boxes may be left blank to retain the default margin values. Users may also specify the width and height of the graph in pixels. For example, a graph which has many labels along the X axis may need to have the width increased to improve its appearance.
Label Angle allows users to change the orientation (in degrees) of the bar labels. In the example seen below, the labels are angled at 45 degrees.
Field codes which are several words long when translated can be wrapped in order to improve their appearance. The element Wrap Label Length stipulates the maximum number of characters which can be in one line of the label. When the number of character exceeds this length, the label text wraps to the next line. See the example below using the field Survival Status.

The element “Max Label Length” specifies the length (in number of characters) of the bar labels. Leave this element blank to display the entire label, regardless of length. Finally, users may choose to construct the bar graph with either counts or percentages by using the drop-down menu to the right of the element “Display.” The Y-axis of bar graphs show counts by default.

The graph may be saved by right-clicking on the image and selecting “Save Image As.”
A dialog box opens which allows the user to choose a location in which to save the image. By default, the image is saved as a Bitmap (*.bmp) file.

After choosing a location, type an appropriate name for the file and save it. The image may now be inserted into a Word or PowerPoint document, inserted into an Excel spreadsheet, printed, or manipulated using programs such as Microsoft Paint.

To escape from the Graph Editor, simply close the window and the screen returns to the report.
For an example of descriptive statistics using a continuous variable, the same study group will be analyzed by describing the variable Age at Diagnosis.
As before, the institution name appears at the top of the report, followed by the study title and field being described (any values which were omitted will also be listed here). The descriptive statistics for a continuous variable are given: the number of records, the sum of the values, the mean, the standard deviation, and the minimum and maximum values for this study group.

![Training Database](https://rpms.net/cpdm-5479/DataAnalysis/Descriptive.php?reporttype=Descriptive&cached=true&label=Age at Diagnosis&variable=)

**TRAINING DATABASE**

**Hormone positive breast cancer - Age at Diagnosis**

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>1763</td>
</tr>
<tr>
<td>Sum</td>
<td>102119</td>
</tr>
<tr>
<td>Mean</td>
<td>57.9234</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>12.0568</td>
</tr>
<tr>
<td>Minimum</td>
<td>21</td>
</tr>
<tr>
<td>Maximum</td>
<td>98</td>
</tr>
</tbody>
</table>
Click on the graph icon in the upper right corner to create a histogram.

The histogram appears with default values, but as with bar graphs, these may be modified by the user. The graph elements on the left side of the screen (Title, Sub-title, X and Y axis Titles, Labels, Bars, Background, and Drop Shadow) are identical to the options available for bar graphs. Font size and color may be modified, or the default values may be retained. On the right side of the Graph Editor, the elements Margins, Width, Height, and Label Angle are also the same. However, there are five elements which are unique to histograms. Minimum and Maximum determine the range of values shown on the X axis. The default values are the actual minimum and maximum from the descriptive report, but these can be overwritten with other values.
Number of Intervals determines the number of bars in the histogram. The default for this element is set at ten intervals, but this may be overwritten. The number of intervals will determine the value range represented by each bar in the histogram. For example, if Minimum and Maximum are zero and one hundred, respectively, and Number of Intervals is ten, then each bar will correspond to a value range of ten. (See below.)

Next is the element “Closed Intervals.” When an interval between two numbers is closed, this indicates that the upper boundary is included in the range. An open interval is one in which the upper boundary is not included within the range. The default setting for histograms is open intervals. So in the above example, the range 30-40 includes the values 30 through 39.99, but not the value 40. A forty-year-old in this study group would be included in the 40-50 range.
Click the “Closed Intervals” box to change this setting.

Observe that the histogram has changed. Now the interval 30-40 includes the value 40, so the forty-year-old is encompassed within that range.

When Integral Intervals is checked (the default setting), the ranges on the X axis of the histogram are shown as integers, as seen above. When Integral Intervals is unchecked, the range endpoints are displayed with up to two decimal places.

The final element of a histogram is Display, which allows users to choose between displaying counts or percentages on the Y axis.
In order to describe two variables, choose “two variables (cross-tab)” from the drop-down menu.

Users may now select two different variables from the “Category” drop-down menus, using the same method described in previous pages. However, there is an important difference when describing two variables as opposed to one-- only categorical variables can be described. Continuous variables cannot be described when more than one variable is involved. As before, users may choose whether to translate field descriptions and specify any values which are to be omitted.

When the report is generated, the variable on the left will be displayed in rows, and the variable on the right will be displayed in columns. Users may wish to put the variable which is likely to have the most values on the left, in order to ensure that the resulting report isn’t too wide to easily view and print.
In the example shown below, the variables “Best Stage Group” and “Survival Status” will both be described.

As with a single variable, click “Go” to generate the report.
The result is shown below. Note that unlike reports describing a single variable, these reports cannot be sorted by column.

![Image of TRAINING DATABASE](https://cpdms.net/cpdms-5479/DataAnalysis/Descriptive2d.php?reporttype=Descriptive&cached=true&label1=Best%20Stage%20Group&tab1=Best%20Stage%20Group)

One final significant difference when describing two variables is that these cannot be represented graphically. However, the reports may be saved or printed in the same manner as other data lists and descriptive reports.

9. Survival

The survival analysis calculated by CPDMS.net uses the actuarial, or life-table, method for determining survival rates. This method provides a means for using all follow-up information accumulated up to the closing date of the study. The actuarial method has the advantage of providing information about the manner in which the patient group was depleted during the total period of observation. The life table is “censored” monthly—that is, cases which are lost to follow-up, deceased due to other causes, or too recently diagnosed to have survived beyond this interval are withdrawn. Thus, the proportion of patients dying due to this cancer is based only on the number of patients who were exposed to the risk of dying.
In order to perform a survival analysis, select a group as Study Group 1 and click the “Descriptive Tools” tab. Now click “Survival” in the Descriptive toolbar. (See example below.)

![Image of the Descriptive Tools page with the Survival tab selected.](image)

In this screen, users may specify the table layout and length of the study in months. The default length of study value is twenty-four months. You may chose the report type by “Disease-specific” or “Observed.” Disease-specific shows deaths only related to the disease chosen, while observed records all deaths. You can also chose “Staged By.” Click “Go” to generate the survival report.
This tool can display either disease-specific or observed survival rates. If survival by stage is selected, only cases within the appropriate date range will be included in the analysis.

Table Layout: Standard
Number of months: 24 (30 day intervals)
Report Type: Disease-specific
Staged By: All

Go
This tool can display either disease-specific or observed survival rates. If survival by stage is selected, only cases within the appropriate date range will be included in the analysis.

Table Layout: Standard
Number of months: 24 (30 day intervals)
Report Type: Disease-specific
Staged By: All
- S02000 (2001-present)
- CTNM
- CTNM
- Derived AJCC (2004-present)
- Derived AJCC7 (2010-present)
- Best Phase Group
Below is an example table for the study group “NSC lung stage I w/Surgery” for a sixty month period using a disease-specific report. For each monthly interval, the life table displays the number of cases entering that time period, the number withdrawn during that month, the resulting number exposed to the risk of dying during that month, and the actual number of patients who died due to cancer that month. From these figures, the proportion dying, the proportion surviving, and the cumulative proportion surviving are calculated. Finally, in the last column, the standard error of the mean is calculated using the Greenwood formula. This is useful for measuring the extent to which sampling variation influences the computed survival rate.

Use the icons in the upper right corner of the report to print the table or save it. Click the icon to generate a plot of the cumulative proportion of surviving patients.
When a user clicks the graph icon, the Graph Editor opens in a new window (see below).

A default plot is generated, but users may modify specific elements of the graph. The default title is the name of the study group being examined, and the default sub-title is “Survival.” The X- and Y- axis titles are “Months Past Diagnosis” and “% Survival,” but any of these may be overwritten. In the “Size” column, the font size of each title may be specified. Click on the empty box in the “Color” column to the right of a particular element to choose a color from a palette of 70 colors. Click the box to the right of “Drop Shadow” to create a shadow effect for the graph. The four boxes to the right of “Margins” allow the user to specify the top, right, bottom, and left margins (in pixels). Click the empty box in the middle to choose a margin color. The width and height of the graph may also be adjusted, or leave the default values in place. Click “Redraw” to generate the graph after making changes.

Right-click the graph and choose “Save Picture As” to save it as a Bitmap image file. To escape the Graph Editor, simply close the window.

Below are examples of survival analysis using different combinations of table layout, report type, and staged by categories.
This tool can display either disease-specific or observed survival rates.
If survival by stage is selected, only cases within the appropriate date range will be included in the analysis.

Table Layout: ncode
Number of years: 5.0 yr = (1 year intervals)
Report Type: Observed
Staged By: Best Stage Group

<table>
<thead>
<tr>
<th>Stage of Disease</th>
<th>Entered</th>
<th>0.0 yr</th>
<th>1.0 yr</th>
<th>2.0 yr</th>
<th>3.0 yr</th>
<th>4.0 yr</th>
<th>5.0 yr</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0</td>
<td>15</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0 - 100.0</td>
</tr>
<tr>
<td>Stage 1</td>
<td>61</td>
<td>100.0</td>
<td>100.0</td>
<td>96.7</td>
<td>96.7</td>
<td>95.0</td>
<td>93.1</td>
<td>92.8 - 97.3</td>
</tr>
<tr>
<td>Stage 2</td>
<td>14</td>
<td>100.0</td>
<td>92.8</td>
<td>71.4</td>
<td>64.3</td>
<td>64.3</td>
<td>57.1</td>
<td>28.4 - 77.9</td>
</tr>
<tr>
<td>Stage 3</td>
<td>14</td>
<td>100.0</td>
<td>100.0</td>
<td>78.6</td>
<td>78.6</td>
<td>71.4</td>
<td>64.3</td>
<td>34.4 - 83.3</td>
</tr>
<tr>
<td>Stage 4</td>
<td>7</td>
<td>100.0</td>
<td>57.1</td>
<td>14.3</td>
<td>14.3</td>
<td>14.3</td>
<td>14.3</td>
<td>0.7 - 46.4</td>
</tr>
</tbody>
</table>

Confidence Interval (CI) generated using Log-Log Transformation
This tool can display either disease-specific or observed survival rates.
If survival by stage is selected, only cases within the appropriate date range will be included in the analysis.

Table Layout: Standard
Number of months: 24 (30 day intervals)
Report Type: Disease-specific
Stage By: 952000 (2001-present)

2005 melanoma cases: Survival By SS 2000 (2001-present)

<table>
<thead>
<tr>
<th>Month Interval</th>
<th>In Situ</th>
<th>Local</th>
<th>Regional</th>
<th>Distant</th>
<th>Unknown</th>
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</thead>
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<td>1.00</td>
<td>0.250</td>
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</tbody>
</table>
This tool can display either disease-specific or observed survival rates. If survival by stage is selected, only cases within the appropriate date range will be included in the analysis.

Table Layout: Standard
Number of months: 24 (30 day intervals)
Report Type: Disease-specific
Staged By: ptNM

### 2005 melanoma cases: Survival By pTNM

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<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
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<th>Stage Unknown</th>
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<td>0.923</td>
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<td>0.923</td>
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<td>1.000</td>
<td>0.500</td>
<td>0.923</td>
</tr>
<tr>
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<td>0.500</td>
<td>0.923</td>
</tr>
<tr>
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<td>1.000</td>
<td>1.000</td>
<td>0.500</td>
<td>1.000</td>
<td>0.923</td>
</tr>
</tbody>
</table>
10. Field List

Using this option will create a printer-friendly list of all fields available for data analysis is also available from this menu by clicking on the “Field List” button in the toolbar.

11. Comparative Statistics

Using this option, the characteristics of two different study groups may be compared for any variables, as well as for survival. The appropriate statistic is automatically calculated, depending on whether the variable selected for analysis is categorical or continuous. A Chi Square is performed on categorical variables; a means test (t or z test) is applied to continuous variables. Bar charts and histograms showing both groups on one graph are available with comparative statistics.

The comparative statistic for categorical variables is a Chi Square, which measures the difference in the proportion of each group having each of the possible values for the variable under study. The comparative statistic for continuous variables is a z test (or a t test), which measures the difference between two group means for the variable under
study. Comparative statistics also provide the probability range for the likelihood that the difference between the two groups being studied is due to random chance, rather than some causative factor.

The probability that the difference between the two groups is statistically significant is also calculated and displayed.

In very general terms, probability can be interpreted as follows:

- If P is greater than 10% (P>.10), then no statistically significant difference exists between the two groups for the variable being compared.
- If P is less than 10% but greater than 5% (.05<P<.10), then the two groups are approaching a statistically significant difference for the variable being compared.

- If P is less than 5% but greater than 1% (.01<P<.05), then there is a statistically significant difference in the variable being compared between the two groups.

- If P is less than 1% (P<.01), then there is a highly significant statistical difference between the two groups in the variable being compared.
In order to compare two study groups, first select the groups as Study Group 1 and Study Group 2 (the order does not matter for purposes of comparison). Then click the Comparative Tools tab. The screen below is displayed.

Users may now compare a categorical variable, a continuous variable, or survival. A Chi Square calculator is also available for use in computing Chi Square for any data entered by the user.
Click on Categorical to compare a single categorical variable.

Select the data category which contains the field to be compared.
In the example below, the patient level field “Race 1” will be compared for the study groups “Hormone positive breast cancer” and “Ovarian cancer.” As with descriptive tools for a single study group, a special function option is available for date fields which displays only the year. Fields may be shown translated or only as codes in the resulting report. Users may specify values to be omitted, if desired.

Click the “Go” button to generate the report.
The resulting comparative report is shown below.

![Image of the comparative report]

The name of the facility appears at the top of the report. The Chi Square results are displayed, along with a statement explaining the significance of the P value. Any missing values are listed.

The statistics are presented in a chart which shows both numbers and percentages. The percentages are calculated as both percentage of a particular value and of each study group.

The columns may be sorted by clicking on the column name. For example, clicking on “Description” would re-sort the report alphabetically in ascending order. Clicking a second time reverses the sort order.
Further methods of manipulating the chart are available in the menus directly above it. Click on “Edit” to open the drop down menu.

The options available include Combine Rows, Add Row (only available when using the Chi Square Calculator), Remove Selected Rows, Add Column (also only available in the Chi Square Calculator), Rename Columns, and Revert Changes.

The Combine Rows function merges two or more rows into a single row, adding the totals and recalculating the percentages. In order to combine rows, first highlight the rows which are to be merged holding the control key while clicking on the rows. Columns appear blue when highlighted.
In the example below, the columns for 02- Black and 04- Chinese have been highlighted.
Once columns are highlighted, choose “Combine Rows” from the Edit menu.
Now the two columns have been merged, as seen below.
At any time after altering the chart, the changes may be undone by using the Revert Changes function.
Now the original appearance of the chart has been restored.

![Training Database Table]

<table>
<thead>
<tr>
<th>Race 1</th>
<th>Description</th>
<th>Hormone positive breast cancer</th>
<th>Ovarian cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>White</td>
<td>1326</td>
<td>530</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Col: 78% Row: 71%</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Black</td>
<td>364</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Col: 21% Row: 86%</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>Chinese</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Col: 0% Row: 100%</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Vietnamese</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Col: 0% Row: 100%</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>Other Asian or Asian NOS</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>06</td>
<td>Filipino</td>
<td>2</td>
<td>0</td>
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<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Col: 0% Row: 100%</td>
<td></td>
</tr>
</tbody>
</table>
A selected row or rows may be removed from the chart altogether. Simply highlight the desired row(s) and choose Remove Selected Rows from the Edit menu.
Now the row containing code 96 –Other Asian has been removed and the remaining values recalculated.
Users may also choose to rename a column in the chart. Doing so only changes the title of the column; it does not affect the study group title. Choose “Rename Columns” from the Edit menu.
A box opens which allows the user to rename any column heading. Simply type a new name and click “ok.”
Users now have the opportunity to rename each column heading, from left to right. In order to retain the current label, simply click “ok” without typing anything in the box. Continue until every column has been renamed or skipped, at which point the box closes automatically.
As seen below, the column previously entitled “Race 1” is now labeled “Race,” and “Hormone positive breast cancer” is now “ER/PR+ breast cancer.”
The Tools menu allows the user to graph the results or to save the chart as a .csv file. Note that icons in the upper right hand of the page also allow the user to graph or save, as well as to print the report.
Choose “Graph” from the Tools menu to create a bar plot comparing the two study groups on the selected variable. The graph opens in a new window, with a bar plot displayed using default settings (see example below). These settings may be modified as explained on the following pages. Click the “Redraw” button to refresh the graph and display it with the new settings.

The default title of the graph displays the name of both study groups, while the sub-title is the field under comparison. The titles of either, as well as the font size and color may be edited. In order to change the font size, simply type a new value into the box to the right of the titles. Click on the box in the “Color” column to select from a menu of 70 colors.

A legend showing which colors correspond to each study group appears on the right side of the bar plot. The position of this legend may be adjusted using the drop-down menu. The background color of the legend may also be changed.
The default X-axis title is the variable being compared, and Y-axis title is “Total.” Either title may be edited, along with the font size and color. The font size and color of the labels on both axes may be changed as well.

The width, height, and margins of the graph may be modified by typing a new pixel value. The boxes to the right of the word “Margins” correspond to the left, top, right, and bottom margins, respectively. The small box in the central allows users to choose the margin color.

The X-axis labels may be changed in three ways. The labels may be rotated by entering a value in “Rotate degrees.” In the example below, the labels have been rotated 45 degrees.

Longer labels may be wrapped or truncated to better fit in the bottom margin. Enter the maximum desired number of characters in the blank box to the right of “Word wrap at ___ chars” or “Truncate at ___ chars.”
In this example, the labels wrap for any phrase exceeding 15 characters. The label “Other Asian, Asian NOS” wraps to a second line, as seen below.

The plot names as they appear in the legend may be changed in “Plot 1” and “Plot 2.” The color of the plots (within the plot and on the legend) may be modified by clicking on the “Color” boxes.

By default, labels with counts appear directly above the individual bars. In the graph above, the counts for Whites are 580 for the hormone positive breast cancer study group and 401 for the ovarian cancer group. Uncheck the “Labels” box to the right of “Plots” to generate a bar plot without the counts labeled. Users may specify the font size and color of these labels, as well as the number of decimal places displayed.

“Scale” allows the user to choose either counts or percentages to be displayed. “Fill” changes the appearance of the color inside the bars. It can be a gradient (the default setting), solid, or unfilled.

Minimum and maximum values for the Y axis may be adjusted by entering new values.
In order to compare a continuous variable for two groups, select the groups to be studied, and then click on “Continuous” in the Comparative Tools toolbar.

Choose the data category to which the variable to be compared belongs. The default report will display translated field names, but users may opt to show them un-translated. User may also specify certain values to be omitted from analysis.
In the example seen below, the variable “Age at Diagnosis” will be compared. Click “Go” to generate the report.
The output for comparison of continuous variables displays, for each group, the total count of records in the group, the average, standard deviation, variance, and maximum and minimum values. The result of the T-test appears above the chart, and a statement revealing the P value to be highly significant, significant, or not significant.
As with comparative reports for categorical variables, menu options are displayed above the chart. However, some of these options are unique to the continuous variable report. Click on “Edit” to display the options available.

Only “Rename Columns” and “Revert Changes” are available for selection. As with categorical reports, these options allow users to rename the column headings in the chart, and to undo any changes made, respectively.
In the Tools menu, users may choose to graph the results or save them as a .csv file. The icons in the upper right corner of the screen can also be used to graph, save, or print the report.
Finally, users may choose to use a Z-test (instead of the default T-test) as the basis for analyzing variance in that field between the two groups.
Comparisons of continuous variables are represented graphically as a histogram. To generate a graph, either choose “Graph” from the Tools menu, or click the graph icon in the upper right corner. The graph editor opens in a new window.

A graph is automatically generated with default values and colors. However, these can be modified and the graph redrawn (click the “Redraw” button to display any changes). Most of the graph elements for the histogram are identical to those in the bar plot that results from a categorical variable. Users may rename the title, sub-title, and X- and Y-axis titles, as well as changing their size and color. The legend can be moved to a different position, and the color of the legend and background may be modified. The graph can be rendered with or without a drop shadow, and the width and height may be adjusted. The size and color of the margins can also be changed. The X-axis labels can be rotated (although not wrapped or truncated). The names and colors of the plots can be altered, and users may choose to display the plots with or without labels. The plot labels themselves may have their font size and color changed. The scale may be displayed in actual counts or percentages. The default fill appearance of the bar color is a gradient, but users may choose either solid or no fill at all. Maximum and minimum values may be assigned to the X- and Y-axes.
Users may also adjust the intervals in a histogram. The number of intervals will determine the value range represented by each bar in the histogram. For example, if Minimum and Maximum for the X-axis are zero and one hundred, respectively, and the number of Intervals is ten, then each bar will correspond to a value range of ten. (See below.)

The default setting for the intervals displayed is closed. When an interval between two numbers is closed, this indicates that the upper boundary is included in the range. An open interval is one in which the upper boundary is not included within the range. So in the above example, a 40 year old is included with the 30-40 grouping, not the 40-50. When Integral is checked (the default setting), the ranges on the X axis of the histogram are shown as integers, as seen above. When Integral Intervals is unchecked, the range endpoints are displayed with up to two decimal places. Right click on the graph and choose “Save Picture As” to save it as a bitmap image file. Simply close the window to escape the graph editor.
Survival rates for two groups may also be compared and graphed. Select two study groups, and then click “Survival” in the Comparative Tools menu.

The default time period for survival analysis is 24 months, but this may be overwritten with another value. Chose “Disease-specific” or “Observed.” Click “Go” to generate the report.
Below is an example using a sixty month period. An actuarial table with both groups represented is displayed, along with the results of the Chi Square test and the P value. An interpretation of the P value (in this case, very significant) is provided as well.
The Edit menu allows users to rename column headings and to undo any changes.
The Tools menu allows the table to be graphed or saved as a .csv file. The icons in the upper right of the page can also be used to graph or save the table, as well as to print it.
A single method (the log-rank test) is used to generate the table, so no other options are available.
Survival curves can be generated by clicking the graph icon in the upper corner or by selecting “Graph” from the Tools menu. A survival trend is automatically displayed using the default settings and colors (as seen below).

The appearance of many aspects of the survival trend may be modified (click the “Redraw” button to display any changes) as described in the previous sections for bar plots and histograms. The graph elements which are unique to survival trends are the plots and fill. The plots may have each month marked (with either a square or triangle, as indicated by the legend), or displayed as a simple line. Uncheck the “Marks” box to the right of Plots to display only a line. Each mark can be labeled, if desired, by clicking the “Labels” box. The number of decimal places for the labels may be specified. Finally, the area beneath the lines can be filled in with either solid color or a gradient (the default is solid). Right click on the graph to save it as a bitmap image file, and close the browser window to escape the Graph Editor.
A free-standing Chi Square calculator is available for the convenience of users. To access it, click on “Chi Square Calculator” in the Comparative Tools toolbar. A blank chart is now displayed, as seen below.
To begin, open the Edit menu. Here users may combine rows, add and remove rows, add columns, rename column headings, and undo any changes made.
Clicking on “Add row” adds a blank row to the chart.
Double click on the description “new item” and type in a name for the variable being described.
Double-click on the zero in each column to enter the number of that particular variable from each group. Users may add as many columns or rows as desired. As soon as values are entered, the percentages are automatically calculated, as are the Chi Square and P value. The default calculation uses the Yates Chi Square, but users may select Pearson instead by clicking on the Method menu.

The results may be saved as a .csv file, graphed as a bar plot, or printed.
10. Export Data

A group of records may be exported as a NAACCR version 15.0 file. Select the records to be exported as Study Group 1. From the Data Analysis menu, click the “Export” tab.

At this time, records may only be exported in NAACCR 15.0 format, with a record length of 3339 characters. Users may choose the type of record from three levels of confidentiality: incidence only (no confidential identifiers), confidential (includes confidential identifiers), and full case abstract (the entire record).
Users also have the option to create a HIPAA log to record the release of data. In order to specify a recipient, click the “plus” sign to the right of the drop-down menu. Enter the name, address, and contact information of the recipient, and click “Save” to preserve the information.
All recipient records which have been created are thereafter available for selection from the drop-down menu. To edit information for an existing recipient, select the desired record and click the edit icon. That record may then be modified and saved.

Two optional fields are available for users to record the reason for the data release as well as a brief description of the records contained in the export file. Click “Submit” to generate the export file.
A preview of the resulting file (containing only the first 5 records) is available for viewing to ascertain that the file was compiled correctly and contains the type of record specified. Click on the “Download” button to save the file (note that this button also lists the number of records in the file).
To view a HIPAA log, click the drop-down menu beneath “View an existing log” and select the desired log (based on date and recipient). Click the “Submit” button to view the log.
An example HIPAA log is seen below. It can be re-sorted by clicking any of the column headings. Like all reports in CPDMS.net, it can be saved or printed using the icons in the upper right corner of the page.

![Image of HIPAA log]

<table>
<thead>
<tr>
<th>PSrcPatId</th>
<th>PSrcHospId</th>
<th>SSN</th>
<th>LastName</th>
<th>FirstName</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>90201</td>
<td>00000014</td>
<td>BELUSHI</td>
<td>JANE</td>
</tr>
<tr>
<td>1768</td>
<td>90201</td>
<td>000001750</td>
<td>GROAN</td>
<td>MARGE</td>
</tr>
<tr>
<td>2054</td>
<td>90201</td>
<td>000002032</td>
<td>JONES</td>
<td>KATIE</td>
</tr>
<tr>
<td>2535</td>
<td>90201</td>
<td>000002493</td>
<td>BREZING</td>
<td>BELLE</td>
</tr>
<tr>
<td>4259</td>
<td>90201</td>
<td>000004186</td>
<td>PARSNIP</td>
<td>JANE</td>
</tr>
<tr>
<td>4315</td>
<td>90201</td>
<td>000004242</td>
<td>DOE</td>
<td>SALLY</td>
</tr>
<tr>
<td>4505</td>
<td>90201</td>
<td>000004428</td>
<td>CARTOON</td>
<td>CATHY</td>
</tr>
<tr>
<td>4686</td>
<td>90201</td>
<td>000004606</td>
<td>BALL</td>
<td>LUCILLE</td>
</tr>
<tr>
<td>4772</td>
<td>90201</td>
<td>000004688</td>
<td>ELIZABETH</td>
<td>QUEEN</td>
</tr>
<tr>
<td>4834</td>
<td>90201</td>
<td>000004750</td>
<td>MANSON</td>
<td>MORETA</td>
</tr>
<tr>
<td>5186</td>
<td>90201</td>
<td>000005093</td>
<td>BORDEN</td>
<td>LIZZIE</td>
</tr>
<tr>
<td>5875</td>
<td>90201</td>
<td>000005766</td>
<td>RABBIT</td>
<td>RUBY</td>
</tr>
<tr>
<td>6283</td>
<td>90201</td>
<td>000006156</td>
<td>WEST</td>
<td>MAE</td>
</tr>
<tr>
<td>6492</td>
<td>90201</td>
<td>000006536</td>
<td>MAGDELENE</td>
<td>MARY</td>
</tr>
<tr>
<td>6582</td>
<td>90201</td>
<td>000006454</td>
<td>COOKSON</td>
<td>CATHERINE</td>
</tr>
<tr>
<td>6765</td>
<td>90201</td>
<td>000006834</td>
<td>OAKLEY</td>
<td>ANNE</td>
</tr>
<tr>
<td>6769</td>
<td>90201</td>
<td>000006638</td>
<td>BAKER</td>
<td>BETTY</td>
</tr>
<tr>
<td>6930</td>
<td>90201</td>
<td>000006794</td>
<td>MINNIE</td>
<td>MINNIE</td>
</tr>
<tr>
<td>7415</td>
<td>90201</td>
<td>000007266</td>
<td>CLAY</td>
<td>CLAUDIA</td>
</tr>
<tr>
<td>8175</td>
<td>90201</td>
<td>000007990</td>
<td>CLICK</td>
<td>SUSIE</td>
</tr>
<tr>
<td>8429</td>
<td>90201</td>
<td>000008251</td>
<td>SMITH</td>
<td>SUE</td>
</tr>
</tbody>
</table>
CHAPTER FOUR: MAINTENANCE

The maintenance section of CPDMS.net provides functions related to system control and maintenance. These include editing and maintaining Support Files, unlocking patients, assigning labels for the User Defined fields, updating calculated fields, marking patient records for upload, and sending feedback to CPDMS.net developers.

Highlight ‘Maintenance’ from the Main Menu, and the screen displays the following submenu:

The various submenu items are described below.

1. Support Files

Each of the support files acts as a Choice List to validate values entered for specific data items in the patient database. The support files and the items they validate are:

- Physician directory- Managing physician, primary surgeon, radiation oncologist, medical oncologist, primary follow-up physician, and follow-up physicians two through five.
Institution- Hospital referred to, hospital referred from, following registry, and therapy facility

When Support Files is highlighted, the submenu will be displayed.
At this submenu, choose either Physician or Institution and the codes and descriptions (or names) contained in that list will be displayed in a dialog box. For example, if Physician is selected, the directory of physician names and identification codes is displayed:

The lists are displayed in pages of fifty records. To move up and down within a page, use the scroll bar to the right of the list or select an item in the list and use the arrow keys or the page up and page down keys. Go directly to the top of the page by pressing the HOME key or directly to the bottom of the page by pressing the END key. Select the buttons labeled “Prev” or “Next” to go to the previous or next page.
A record in a support file may be located by searching for either the code or the description. Type the character string in the appropriate field and select the “Search” button. The program will then display any matches it finds in the file that begin with the characters entered.

To edit a record in a support file, first locate and highlight the desired record. Then select the “Edit” button to open the record. Overwrite the old record values and save the changes by selecting “Submit.” Choose “Cancel” to exit without saving.

To add a new record in a support file, choose the “Create” button. A blank data entry screen for a complete record for that support file will be displayed. Enter the code and any other data values that are pertinent for the type of record being created. When the entry is completed, choose “Submit”. Choose the “Cancel” button to abandon the record without saving it.

To delete a record from the support field, first highlight the record to be deleted and then choose the “Delete” button. The message “Are you sure you want to delete?” will be displayed. Select “Ok” and the record is erased. NOTE: If users attempt to delete or edit a physician number which is associated with one or more cases, an error message will appear stating “Delete not allowed because Physician ID is currently used in Case Data records.” In order to delete a physician ID, users must first edit all case records which are associated with that ID.

Briefly, the features that are unique to each support file are:

**Physician:**

- Ordered numerically by physician ID
- Record contains license number, NPI code, last name, first name, address line 1, address line 2, city, state, zip code, and phone
- Required fields are license number, name, and state

**Institution:**

- Ordered numerically by institution ID number
- Record contains institution (code) number, NPI code, name, address line 1, address line 2, city, state, zip code, phone, and contact person
- Required fields are institution number, name, and state
2. Unlock Patient

In order to allow multiple users access to the database at the same time, the records that are currently being viewed or modified by one user must be “locked out” to other users at that time. Once a patient record has been exited, then it is “unlocked” and accessible to other users. However, if a user is logged out by the system while viewing or editing a record, then that patient record will remain “locked” to all other users until the user logs back in and resumes the interrupted session.

In the event that a user is logged out while in the midst of viewing or editing a patient and then does not resume the session, the patient may be “unlocked” by another user through this system maintenance procedure.

First, select “Unlock Patient” from the Maintenance submenu. A warning appears not to unlock records that are currently in use by other users. Then the following screen is displayed:

Enter the social security number of the patient record to be unlocked. The system automatically locates and displays the patient’s name. Press ENTER to unlock the record
and the screen displays a message stating that the record has been unlocked and returns to the previous menu. Choose “Cancel” to return to the previous screen without unlocking that patient’s record.

3. User Defined Labels

This feature of CPDMS.net allows meaningful labels to be assigned to the ten patient level and twenty case level user defined fields. The labels for the case level fields may be defined differently for each site group. In order to use this feature, highlight User Defined from the Maintenance submenu and a further submenu appears for Patient level or Case level.
To enter labels for patient level User defined fields, select Patient Labels from the submenu and the following screen will be displayed.

Enter up to fifteen characters for each field which is to be defined. Then choose “Save” to save the entries, or “Cancel” to exit without saving the changes. The screen then returns to the Main Menu. Once labels have been saved in the User Defined Patient Data Labels form, they will automatically be used as the labels on every Patient User Defined data entry screen.
To enter labels for Case level user defined fields, select Case from the User defined submenu and the following dialog box is displayed:

In order to select a site group, highlight the group code and name and choose “Select.” A specific site group may be located by searching for the site group number or name using the “Search” button.
A data entry screen will be displayed for 20 possible labels (each 15 characters long) for this site group.

![Image of data entry screen]

Type meaningful labels for as many fields as desired. When entry is complete, choose “Save” to save the changes or “Cancel” to exit this screen without saving. The system will then return to the Main Menu.

Once labels have been saved in the User Defined Case Data Label form, they will automatically be used as labels on the Case User Defined data entry screens for that site group. Using the above example, when values are entered for case user defined fields during data entry, the labels corresponding to stomach will automatically appear on the User Defined data entry screen.
4. Update Calculated Fields

This feature allows the user to initiate a recalculation of certain system calculated variables. The recalculated values are then stored in the Patient or Case Records. Select “Update Calculated Fields” and the following screen will be displayed:

![Image of the screen with recalculable variables]

All the variables that will be recalculated are listed here. Select “Exit” to return to the Main Menu, or “Run” to proceed with the recalculation.
When the system has completed the calculations, the results are displayed (see below):

![Image of the Cancer Patient Data Management System](https://cpdms.net/cpdms-S479/Maintenance/UpdCalcFields.php)

### Patient Fields
- Place of Birth
- Patient Case Count
- Cause of Death
- Patient Date of Last Contact
- Place of Death
- Vital Status

### Case Fields
- ACOS/SEER Seq
- ICD-0-3 Hist/Beh
- Multi Tumor/Ambig Term
- Cell Stage Stgs
- Reason No Surgery
- Reason No Hormone
- Reason No Other Tx
- Therapy Composite
- Extent of Disease Fields
- Dir Coded Summ Stg 2000
- AD District
- Site Code
- Age @Diagnosis
- Date Multi Tumors Flag
- CS Factor 16 - Breast
- Reason No Chemo
- Reason No Immuno
- Dit No First Tx
- Surg Discharge Date Flag
- ICD Rev Secondary Dx
- Summary Stage 1977
- Reason No Trans/Endo
- ACOS Tx Start Date
- Best Stage Group
- Summary Stage 2000
- Appalachia
- Beake Code

### Follow-Up Fields
- Survival Interval
- Disease Free Interval
- Date of First Recur Flag
- Follow-Up Source

### Therapy Fields
- Tx at this Facility
- Radiation Code
- Date of Last Rad Flag
- ROADS Surgery Fields
- ROADS Radiation Fields
- FORDS Surgery Fields
- FORDS Radiation Fields

### Warnings
- Unable to Calc Site Code (Site=55)
5. Change Login Hospital

This function is available only to multi-hospital facilities. It allows users in a multi-hospital database to log in to a different facility without entirely logging out of CPDMS.net. Choose “Change Login Hosp” from the Maintenance Menu.
The user is now presented with a drop-down menu from which to select a different hospital. After choosing a hospital, click “Submit” to login to that hospital’s registry, or “Cancel” to escape to the Main Menu.
6. Mark Patients for Upload

Rarely, a patient record may be corrupted or deleted in the central database. When this occurs, KCR will request that the patient record be marked for upload in the database of the registry which submitted the record. In order to mark a record, select “Mark Patients for Upload” from the Maintenance Menu. The following screen will appear:

Records may be specified for upload in one of two ways: by Hospital ID and Patient ID, OR by the patient’s Social Security Number. It is not necessary to enter all three fields.
Once a SSN or Hospital ID/Patient ID has been entered, the patient’s name will automatically appear, as demonstrated in the example below:

![Image of a patient database with columns for SSN, Last Name, and First Name]

Up to ten records may be marked at one time. Once all records have been entered, click “Submit” to mark them. The following confirmation message appears:
Click “Ok” to return to the Main Menu.
7. CPDMS.Net Feedback

This function allows users of CPDMS.net to directly communicate with the technical support staff. Users may report bugs, make suggestions for improvements, or request technical support. From the Maintenance Menu, select “CPDMS.net Feedback.”

The following screen appears:

In the “Comment/Suggestion” field, a Choice List is available which allows the user to specify the nature of the comment (reporting a bug, suggesting a change, asking a question, or requesting urgent technical support). Press TAB or ENTER to move the cursor to the text box and type the comment to be sent. Hit TAB to move from the text box to the buttons beneath it. Choose “Submit” to transmit the comment to the technical staff, “Clear” to delete all of the text in the box, and “Cancel” to return to the Main Menu.
CHAPTER FIVE: DATA EXCHANGE

This option of CPDMS.net contains programs for exchanging information between the statewide database and individual hospitals, and between individual hospitals and external organizations. Note that incomplete records are NOT included in files generated by the various data exchange functions.

1. NCDB Call For Data

The first of these programs is a routine to convert cancer registry data into files for submission to the National Cancer Data Base project. Select “NCDB Call for Data” from the Data-Exchange Menu and the following screen is shown:

Select the time period for which data is to be submitted. The diagnosis years required for the most recent Call are all available, as well as a drop down box in which users may specify another year.
Users may run edit checks and view errors as often as desired.

“NCDB Submission File” includes all edit check for a specific annual call for data, and this is the option which must be used when preparing for the actual submission. You will only receive an NCDB Data File in the time period available for submission. During all other times you will receive an NCDB Edit Report.

Select the year of data you wish to received and then click the “Submit” button. When processing is completed, the results are displayed:

![Image of NCDB Data output for JAN 2015]

The edit report is a text document which lists all errors found during edit checks. The data file is the actual data which will be submitted by a facility to NCDB. Click the ‘Download’ button to the right of the files to save them to a local computer or network drive. Select “Cancel” to return to the Main Menu.
Edits may be run as often as necessary. Once the file is free of errors, run “NCDB Submission” a final time and download the data file for transmission to NCDB.

One optional report is available to facilities preparing for NCDB submission. The report is available for the convenience of registries so that they may produce a list of all physician records which lack an NPI number. Again, by specifying a data year and checking “Missing Physician NPI Report” before choosing “Submit,” this report will be generated along with the error report and data file.

An example is shown below in which edit checks, incomplete patients, and the missing physician NPI report were all generated for year 2015 data and are available for download.
2. RQRS Submission
This feature of CPDMS.net allows users to create files for Rapid Quality Reporting System. You can choose multiple years by using control or shift and clicking multiple years. You can choose which year you want to look at for RQRS and then choose if you want to review the COC edits and Missing Physician NPI Report and then click “Submit.”

An example is shown below of what the beginning screen looks like:

![RQRS Submission Window]

The results screen includes the number of patients generated, the incomplete patient report, and the RQRS edit report. An example is shown below:

![Results Screen]

The results screen includes the number of patients generated, the incomplete patient report, and the RQRS edit report. An example is shown below:
An example is shown below in which edit checks, incomplete patients, and the missing physician NPI report were all generated for years 2012 and 2013 data and are available for download.
RQRS Data output for 2013,2012

693 records generated!

COC Edit Report  Download
Incomplete Patient Report  No incomplete patients were found
RQRS Edit Report  Download
Physician NPI Report  Download

Cancel
3. Death Clearance

This feature of CPDMS.net allows individual Kentucky hospitals to match their patient demographic data with the state’s annual death certificate listings. The Kentucky Department of Vital Statistics provides KCR with an electronic file of all death certificates filed in Kentucky each calendar year. This file is then matched with the KCR central database and an individual electronic file is created for each hospital registry in the state. The file sent to each hospital contains the names and other identifying information of all patients in that registry who also appeared on the state death certificate list.

The list of matching names is compiled and transmitted to each hospital annually. Through this process, hospitals may identify patients in their registries who have died (due to any cause) and then update their records accordingly.
In order to perform death clearance, select “Death Clearance” from the Data Exchange menu. The following screen appears:

![Screenshot of Death Certificate List](https://example.com/capture.png)

This screen contains a list of all death certificates which are probable matches to patients in a particular registry. The SSN, Last Name, First Name, Middle Name, and Birth Date from the death certificate are listed, as well as the ID number of the facility which initially created the patient. “Prev” and “Next” are used to scroll through multi-page death certificate lists, while “Cancel” returns to the Main Menu. In order to process the death certificates, highlight a record and click “Select.”
Now the death certificate record is displayed side by side with the values from the patient record.

Choose “Cancel” at any time to return to the Death Certificate List without processing this record. Carefully compare the two records to determine that they are actually the same individual. If they are not, click the “Reject” button at the bottom of the screen. The following message appears:

---

Reject the Death Certificate?
Rejecting the death certificate means this is not the same patient. If the death certificate is rejected, the patient will be removed from the death certificate list and no changes will be made to the patient.

---

308
Choose “OK” to reject the link and “Cancel” to return to the death certificate update screen.

If the death certificate record and patient record are truly a match, the patient and case follow-up values should now be updated. Users may update the following patient level fields: Date of Birth, State of Birth, Country of Birth, Race 1-5, Spanish Origin, State of Death, Country of Death, and Cause of Death. The fields are filled in with default values, but these may be overwritten. The priority which CPDMS.net uses when assigning the defaults is as follows:

Date of Birth- always set to patient record value
State of Birth- set to the death certificate value if the patient record value is ZZ, or if the patient record value is less specific than the death certificate value
Country of Birth - set to the death certificate value if the patient record value is ZZU, or if the patient record value is less specific than the death certificate value
Race 1- set to death certificate value if patient record value is 99 or blank and death certificate value is not 99
Race 2-5- set to 88 if Race 1 is taken from the death certificate; otherwise set to the patient record value
Spanish Origin- set to death certificate value if the patient record is 9 OR if the patient record is 0 but the death certificate record is 1-8
State of Death - set to the death certificate value if the patient record value is ZZ, or if the patient record value is less specific than the death certificate value
Country of Death - set to the death certificate value if the patient record value is ZZU, or if the patient record value is less specific than the death certificate value
Cause of Death- always set to death certificate value
The calculated field Vital Status is set to zero and cannot be edited in the Death Certificate Update form. The Patient DLC is automatically set to the latest Case Follow-Up Date of Last Contact after the Death Certificate Update is saved.

NOTE: Due to the high frequency of inaccuracies in death certificate records, users are not given the option of editing SSN, Last Name, First Name, Middle Name, or Sex in this form. When these fields differ between the patient record and death certificate record, do not edit the patient record unless there is additional evidence that the death certificate record is correct. The exception to this rule is fake SSN’s, which should be updated with the SSN from the death certificate. In order to update any of these fields, simply edit or key change them after escaping from this screen.

Scroll down the page to update the case follow-up record information.
The fields Date of Last Contact, Survival Status, Cancer Status, FU Source Central, Next Follow-up Method, and Alternate Follow-up Method are available for editing. As with patient level fields, the follow-up fields are assigned default values which may be overwritten. The priority for assigning these values is as follows:

Date of Last Contact- always set to death certificate value
Survival Status- set to the value in the follow-up record if value is 4-6; set to blank if value in the follow-up record is 1-3 or 9
Cancer Status- always set to value in follow-up record
FU Source Central- always set to 05 (state death tape/death certificate file)
Next and Alternate FU Methods- both always set to 09 (no follow-up required)

NOTE: If a patient has more than one case, the follow-up record for each case is available for editing in the update screen.

Once all the fields have been compared and edited, click “Update.”
Now the fields which will be updated are shown once more and users have the opportunity to briefly review them for accuracy. Choose “Edit” to go back and change any values, “Cancel” to escape to the Death Certificate List without updating the record, or “Save” to automatically save these changes in the Patient and Case Follow-Up records. If any errors were detected by edit checks, an error message will appear. The screen will then go directly to the Data Entry Status screen, where the patient’s data may be edited at that time or saved with errors. If no errors were found, the screen returns directly to the death certificate list. The death certificate which was processed no longer appears on the list.

Continue until all death certificates have been processed and the list is empty. Any death certificates which remain when a new year’s group of certificates is loaded will be overwritten. If a user attempts to choose Death Clearance from the Data Exchange menu when no death certificates are available, a message appears stating “There are no death certificates to be resolved.”
4. Central Follow-Up

This feature allows hospitals to compare the follow-up data of their patients with that in the KCR central database. This comparison is performed monthly at the central registry, and a report is then generated for each hospital which lists the follow-up data in the central registry next to the data in the hospital registry and highlights the discrepancies. The Follow-Up report is automatically downloaded to a facility’s database and users are notified via email when it is available.

Follow-up data from the central registry is listed when any of the following situations occurs: if the Date of Last Contact is later than the hospital’s date, or if any of the values coded in the fields Survival Status, Type of First Recurrence, Disease Free Start Date, Date of First Recurrence, Treatment Composite First, or Treatment Composite All do not match.

In order to view the Central Follow-Up report, choose “Central Follow-Up” from the Data Exchange menu.
The screen which appears allows users to set parameters for the report. (See example below.)

Users must specify a range of diagnosis dates for the cases to be included. The default range is 1/1/1980 to the present date, but this may be overwritten with any valid date range. The report can be sorted by either name (the default) or social security number. Subsequent primaries which were reported by other institutions can be displayed by choosing “No” for “Skip Missing Sequences.” Change this to “Yes” to avoid including these. Click the ‘Submit’ button to generate the report.
The report is in HTML format, so it must be downloaded to a user’s computer and viewed using a web browser. Click the “Download” button in order to save the report. Choose “Cancel” to return to the main menu.
After saving the Central Follow-Up report, double click to view it. The file should automatically open in a new window in Internet Explorer (note: it can be viewed in any web browser). A sample report is shown below.

The report lists the facility ID number and name, and the date and sorting parameters which were chosen. Each patient is listed with the values from the central database (on the left) and the local registry database (on the right) for the fields Date Last Contact, Survival Status, Type of First Recurrence, Disease Free Start Date, Date of First Recurrence, Treatment Composite First, and Treatment Composite All. Any difference between the values in central versus local is highlighted in pink, with the exception of discrepancies in Survival Status, which are in red. If a user has chosen to include subsequent record sequences which are in central but not in the local database, these will be listed and highlighted in blue. The ID number and name of the institution which was the source of the data in central is listed, as well as the ID number and class of case of any other facilities associated with that record.
APPENDIX A: GLOSSARY

Alphanumeric characters – any of the 26 letters of the alphabet, or the digits 0 to 9, or the special characters such as a comma, colon, semi-colon, dash, asterisk, etc.

Application – a set of programs written in a specific computer language, designed and organized to carry out a specific operation(s), i.e., CPDMS.net is a registry database management application.

Backup – an additional copy; or to create a copy.

Browser - a Web browser, often referred to as a "browser;" an application used to access the World Wide Web. It interprets HTML code including text, images, hypertext links, Javascript, and Java applets. After rendering the HTML code, the browser displays a formatted page. Internet Explorer is the only browser currently supported for CPDMS.net.

Categorical variable – a variable which is divided into distinct, mutually exclusive categories that are usually identified by a code. Patient Race is an example of a categorical variable.

Continuous variable – a quantitative variable which may have any value that occurs along a continuum. Age and tumor size are treated as continuous variables.

Cursor – the blinking location on a computer screen which indicates where the next entered character will appear.

Database – the application used to store and retrieve CPDMS.net data.

Default – action taken; or the value resulting from the failure to specify any particular result.

Disk – the physical device that stores computer data.

Edit – to change the value of a data field.

Edit Check—to validate the value of a data field.

Execute – to carry out a procedure or menu option.

Field – storage allocated for a single data element.

Format – the manner in which values are presented. For example, dates in CPDMS.net are entered and stored in month/day/year (MMDDYYYY) format.
Hardware – the physical components of a computer system; i.e., the monitor, keyboard, printer, and the central processing unit.

Keyboard – the hardware used to enter typed data into the computer.

Key fields – data items which serve to locate and identify specific segments of a patient record.

Menu – a list of options (or paths) from which the user may choose to execute system operations.

Monitor – the hardware attached to a computer to display text and graphics.

Operating System (OS) - this is the software that operates the computer hardware at the most basic level. Without an operating system, no software programs can run. The OS allocates memory, processes tasks, accesses disks and peripherals, and serves as the user interface.

Printer – the hardware connected to the computer or network which generates a paper copy of the information stored or displayed.

Program – a list of commands written in a language that can be interpreted and carried out by the computer, once it has been initiated by the user.

Queue – a set of files, or commands, or requests waiting to be processed.

Record – a related set of data items, such as a patient record or a case record.

Software – the variable components of a computer system, which include the operating system instructions and the program applications. Software can be loaded into, or erased from, the system memory as user needs dictate.

Subdirectory – list of computer files stored in a separate level within a hierarchical directory structure.

Upload – the process of transmitting data files to the statewide Central Registry.

Variable – a name of a data element.
APPENDIX B: MULTI HOSPITAL USERS OF CPDMS.NET

CPDMS.net allows health care organizations to store more than one cancer registry in a combined database. Individual patient records are stored only once in the database, regardless of how many hospitals in the organization include that patient in their registry. Each hospital in the group has at least limited access to all of the records in the database. Specific functions required to maintain the data records (i.e., create, edit, and delete) may be restricted for multi hospital users, depending on the user hospital’s class relationship to the case compared with that of other associated hospitals. Reports may be generated for all patients and cases in the combined database, or they may be specified to include only one hospital’s registry. Further details about using a multi hospital database are outlined in the following paragraphs.

SETUP

When a multi hospital database is initially set up, the number of hospitals (or registries) using that database is entered during the setup procedure. A Group Identification number is also entered at that time, to indicate the name of the user group (i.e., Combined KY Hospitals, Inc.). There is a file related to each case record which indicates every hospital associated with that case, along with the hospital’s class of case code, medical chart number, and registry accession number.

When a multi-hospital registry user logs into CPDMS.net, a screen prompts the user to choose which hospital’s registry they will be representing. The user hospital is selected by choosing the hospital ID number from a drop down menu.
After a user hospital is selected, the program proceeds to the Main Menu. Users may log in to a different hospital without logging out of the system completely by using the “Change Login Hosp” function in the Maintenance menu.
Users may also login as a different facility from within the Data Entry Status screen. From the menu, click “Logout,” and then “Change Login Hosp.”

You may also use a new feature introduced into CPDMS where you view the affiliated hospital and change login hospital that way. This is seen below.
Follow-Up
Date Last Contact: 06/25/1987
Survival Status: Dead from this Ca

Affiliated Hospitals
Currently logged in to 90211

Institution | Owner | Class | Acc Year | Acc No | Pat Acc No
-------------|-------|-------|----------|--------|-------------
0000090211 * | 32 | 1987 | 173 | 198700173
DATA ENTRY

If Patient Data is selected, new patient records may be created or existing records modified. This procedure is the same for multi hospital users as it is for single hospital users, except when accessing cases that are associated with another hospital in the group. Then the functions may be restricted based on the user hospital’s relationship to the patient’s cases, as determined by the user hospital’s class of case for each.

For example, if patient keys are entered to create a new record, but the patient has already been entered in the database by another hospital, the existing record will be displayed with the patient’s social security number, name, date of birth, and sex. Select the existing record, and a message stating “Patient not currently affiliated with your Institution” appears. Now the Data Entry Status screen is displayed. At this point, some of the available functions may be performed on this record, even though the user hospital’s relationship to this patient has not yet been established.
<table>
<thead>
<tr>
<th>YOU MAY:</th>
<th>YOU MAY NOT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATE</td>
<td>CREATE</td>
</tr>
<tr>
<td>any case or therapy attached to this patient</td>
<td>any segment attached to a case which is not associated with your hospital</td>
</tr>
<tr>
<td>VIEW</td>
<td>KEY CHANGE</td>
</tr>
<tr>
<td>any segment of this patient record</td>
<td>case or therapy keys when your hospital is not associated with the case</td>
</tr>
<tr>
<td>CREATE</td>
<td>EDIT</td>
</tr>
<tr>
<td>a new case for this patient and any segments attached to the new case, or user defined fields at the patient level</td>
<td>any case, or segment related to a case, which is not associated with your hospital</td>
</tr>
<tr>
<td>KEY CHANGE</td>
<td>DELETE</td>
</tr>
<tr>
<td>patient keys only</td>
<td>the patient, the case, or any segment related to a case that is not associated with your hospital</td>
</tr>
<tr>
<td>EDIT</td>
<td></td>
</tr>
<tr>
<td>patient record, patient level user defined fields</td>
<td></td>
</tr>
<tr>
<td>DELETE</td>
<td></td>
</tr>
<tr>
<td>user defined fields--patient level</td>
<td></td>
</tr>
</tbody>
</table>

When a situation such as this is encountered—in which a new patient is to be entered into the registry, but the patient already exists in the database—first view the Patient Record to confirm that is in fact the same person. Compare each of the data values in the Patient Record with those that are available, and if they are all in agreement, then nothing in the record need be edited. If there are any significant discrepancies, then check with the other hospital registries in the multi user hospital group to determine the correct data values and enter any changes necessary through EDIT.

If desired, patient level user defined fields may be CREATED or EDITED. Remember, these field definitions apply to all patients in all hospitals in the database.

Now LOCATE the existing cases stored for this patient. Choose LOCATE and “Case” and a list of the cases with their sequence numbers and site groups will be displayed. When an existing case is LOCATED and selected, a warning message will be displayed: “Case not currently associated with your institution.” Choose “OK” to close this message. Now the case keys are displayed in the Data Entry Status screen. Compare the existing cases to the case to be abstracted. VIEW each case in detail to confirm if it is in fact the same primary malignancy that is to be entered. If none of the existing cases is a duplicate of the new case, then a new case record and all the segments attached to that case may be CREATED. The full range of functions (EDIT, DELETE, etc.) will be available on all segments of the record that is created.
If one of the existing case records is the same primary as the one to be entered, then first establish the user hospital’s association with that case.

LOCATE and select the matching case and a warning message will be displayed that it is not currently associated with the user hospital. Press ENTER for “Ok” and then go to CREATE and Case Affiliation. A dialog box appears asking: “Add your institution’s relationship to this case?” Press ENTER for “Yes” and the Class History Edit Form appears:

This screen allows the establishment of the user hospital’s relationship to this case. The user hospital ID number automatically appears, based on the hospital ID selected at login. Enter the hospital chart number, registry accession number, class of case, date of first contact, institution referred from, institution referred to, palliative procedure, QA and Central review status, and abstractor initials. Select the “Save” button or press F10. At this point, the computer compares the user hospital’s class code to that of the other hospital(s) related to this case. Hospitals with the highest priority class of case, or equivalent to the highest, are permitted a greater range of functions on the case record than hospitals with a lower priority class code. The priorities listed from highest to lowest are:
Class of Case Order of Precedence for Case Ownership

14 Initial diagnosis here AND all first treatment here OR no treatment
13 Initial diagnosis here AND part of first treatment here
12 Initial diagnosis by staff physician AND all of first treatment here OR no treatment given
11 Initial diagnosis by staff physician AND part of first treatment here
10 Initial diagnosis here or by staff physician AND part or all first treatment here OR not treated/treatment unknown
22 Initial diagnosis elsewhere AND all of first treatment here
21 Initial diagnosis elsewhere AND part of first treatment here
20 Initial diagnosis elsewhere AND all or part of first treatment here
00 Initial diagnosis here AND all treatment elsewhere
30 Initial diagnosis and treatment elsewhere AND workup or consult done here
38 Initial diagnosis by autopsy here
34 Case not reportable to COC AND initial diagnosis and part or all of first treatment here
36 Case not reportable to COC AND initial diagnosis elsewhere AND part or all of first treatment here
40 First diagnosed and treated at one staff physician office
41 First diagnosed and treated at more than one staff physician office
42 Non-hospital cases abstracted by hospital
43 Pathology or lab specimens only
99 Non-hospital cases abstracted by KCR
31 Initial diagnosis and treatment elsewhere AND in transit care given here
32 Initial diagnosis and treatment elsewhere AND patient seen here for recurrence
33 Initial diagnosis and treatment elsewhere AND patient seen here with disease history
35 Case diagnosed before reference date AND initial diagnosis AND part of first treatment here
37 Case diagnosed before reference date AND initial diagnosis elsewhere AND part of first treatment here
49 Death certificate only

When the Class of Case values are equal, the following rules determine case ownership in the order presented:

- Class record with the most recent Date Last Update is the best
- Class record with the most recent Accession Year
- Class record with the highest Accession Number

Only hospitals with the highest priority are able to EDIT the case record. If the user hospital has the highest priority class code (or equal to the highest), the case data edit screen will now be displayed.

The values which were just entered in the “Associated Hospital” record will automatically appear in the fields for chart number, registry accession number, class of case, date of first contact, institution referred from and to, palliative procedure, QA review status, central review status, and abstracted by. The user hospital ID will be displayed in the class hospital ID field. Compare the available case data values to be
entered with those on the screen. If there are discrepancies with any of the items entered by another hospital user, determine the correct data values and edit the screen record or the available data, if necessary. [In order to determine which other hospital(s) in the group is affiliated with this case, go to VIEW, Case, and Case Affiliations.]

Hospitals with a lower priority may edit any record segments attached to the case, but not the case record itself. When a lower priority hospital attempts to edit a case, the screen which appears is the “Associated Hospital” screen. This hospital user may edit only those fields specific to the hospital: chart number, registry accession number, class of case, QA status, and central review status.

Hospitals of any priority may LOCATE, VIEW, or CREATE any segment of a patient record. They may EDIT any segment, except lower priority hospitals may not edit the case segment. Once the user hospital’s association to a case has been established, additional therapies or text may be added. The follow-up record should be updated if the user hospital has more current information.

Only hospitals with the highest priority may make key changes to the case. Other associated hospitals may make key changes to the patient and therapy records, but not the case record.

No hospital may delete an existing patient record when that patient is associated with more than one hospital. No hospital may delete a case record when that case is associated with more than one hospital. If an individual hospital within a multi-user group wishes to delete a patient from its registry, that hospital accomplishes this by deleting its association with the case record. To do this, select DELETE and then Case. The following message appears on the screen: “Delete Your Institution’s Affiliation with This Case?”

Choose the reason for the deletion from the drop-down menu and type a comment, if desired. Select “Yes” and the user hospital’s association record for this case will be deleted. When only one hospital in a multi hospital group is associated with an existing patient record, then that hospital may delete the patient, case, or any other segment just like a single hospital user of CPDMS.net. Any hospital associated with a case, regardless of priority, may delete any of the case’s therapy records.

The following table summarizes the data entry functions available to each type of user in a multi hospital group:
<table>
<thead>
<tr>
<th>USER HOSPITAL NOT ASSOCIATED WITH CURRENT PATIENT RECORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAY:</td>
</tr>
<tr>
<td>LOCATE</td>
</tr>
<tr>
<td>VIEW</td>
</tr>
<tr>
<td>CREATE</td>
</tr>
<tr>
<td>KEY CHANGE</td>
</tr>
<tr>
<td>EDIT</td>
</tr>
<tr>
<td>MAY NOT:</td>
</tr>
<tr>
<td>CREATE</td>
</tr>
<tr>
<td>KEY CHANGE</td>
</tr>
<tr>
<td>EDIT</td>
</tr>
<tr>
<td>DELETE</td>
</tr>
</tbody>
</table>
### USER HOSPITALS ASSOCIATED WITH THE CURRENT PATIENT’S CASE RECORD BY A LOWER CLASS PRIORITY

<table>
<thead>
<tr>
<th>MAY:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATE</td>
<td>any patient, case or therapy segment</td>
</tr>
<tr>
<td>VIEW</td>
<td>any segment of any record</td>
</tr>
<tr>
<td>CREATE</td>
<td>any segment for new or existing records</td>
</tr>
<tr>
<td>KEY CHANGE</td>
<td>patient and therapy keys</td>
</tr>
<tr>
<td>EDIT</td>
<td>any segment except case or another hospital's association to a case record</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAY NOT:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIT</td>
<td>case records</td>
</tr>
<tr>
<td>DELETE</td>
<td>case or patient records</td>
</tr>
</tbody>
</table>

### USER HOSPITALS ASSOCIATED WITH THE CURRENT PATIENT’S CASE RECORD BY THE HIGHEST CLASS PRIORITY

<table>
<thead>
<tr>
<th>MAY:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATE, VIEW, CREATE, KEY CHANGE, and EDIT any segment of the record</td>
<td></td>
</tr>
<tr>
<td>DELETE</td>
<td>that hospital’s association with the case record; or any segment attached to the case record</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MAY NOT:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DELETE</td>
<td>any case or patient when other hospitals are associated with that record</td>
</tr>
</tbody>
</table>
REPORTS

Multi-hospital groups have the ability to generate reports from the entire database or to select one or more specific registries. The registry data to be included on a report is specified on the report criteria screen. See below for an example using Patient Accession Log.

At “Select hospital(s) to report,” choose which facility’s records are to be included in the report. Hold down the control key while making selections in order to highlight multiple facilities. Use the “Select All” button to highlight every facility in the database, and “Unselect All” to clear selections.

Cases will never be counted more than once. Each case will carry the data values for Class of Case, Chart Number, Registry Accession Number, QA Status, and Central Review Status from the associated hospital record with the highest class priority. If multiple hospitals have the highest class priority, each case will carry the data values from the record of the hospital that most recently updated the case.
MAINTENANCE

The maintenance procedures for multi hospital users are the same as for single hospital users of CPDMS.net. The support files are stored only once and apply to all hospitals using the database, as are the User defined labels.
APPENDIX C: LABEL PRINTING USING MAIL MERGE- OFFICE 2013

From the Reports submenu, create the desired label type (Follow-up, Patient, etc.). The labels will then be displayed, as seen in the example below:

![Image of label printing example]

*Note: Once labels have been generated by CPDMS.net and saved to a user’s computer, the file may be manipulated and printed using any type of spreadsheet and/or word processing software. However, KCR only supports label printing using Microsoft® Excel and Microsoft® Word.
Choose the “Save” button and a dialog box will appear with the default filename “Labels.csv” and “comma separated” as the specified file format. The filename may be overwritten with another name, but be sure to preserve the .csv extension.

Select “Submit” and then “Save” to save the file to the desired location on a local computer or network drive. In the screen below, for example, the file is saved to the user’s computer desktop.
Once the file has been saved, open it in Excel. Now choose “Save As” from the “File” menu. In the dialog box that opens, click the arrow to the right of the “Save as type” drop-down menu at the bottom of the screen. Choose Excel Workbook (scroll to the top of the list to see this option). The file name will now show the extension .xlsx. Click “Save.”
Now open Microsoft Word, go to the “Mailings” menu, and select “Start Mail Merge.”

Under “Start Mail Merge,” choose “Labels” and then click on “Ok” at the bottom right of the screen.
The following screen will now be displayed.
Under “Select Recipients” choose “Use an Existing list” selected. Click on the location where you saved your list and click “Open.”

Next the “Select Table” dialog box will appear. Click “Ok.”

The following screen will then appear:
To edit the recipient list, choose the “Edit Recipient List” option under the “Mailings” menu.
Choose the “Insert Merge Field” and insert the items you want in the label.

You can match the fields with parts of the label as well.
Now click on the “Update all labels” button below “Replicate Labels.”
The following screen demonstrates that the layout of the first label has been duplicated in every label.
Once finished click on “Finish & Merge.”
The labels are now ready to be printed. You can make any changes needed and then print when ready.

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Brief Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABB, MOHAMMAD Z</td>
<td>Address1</td>
<td>REG ACC #: 19970695 SEQ #: 1BD: 07/01/1969 DLC: 06/21/2011</td>
</tr>
<tr>
<td></td>
<td>Address2 HOSKINSTON, KY 40844</td>
<td></td>
</tr>
<tr>
<td>SUSAN JACKSON</td>
<td>8 MEDICAL CIRCLE</td>
<td>REG ACC #: 19981135 SEQ #: 1BD: 08/17/1984 DLC: 04/04/2011 MD: DOCE JACkSON</td>
</tr>
<tr>
<td></td>
<td>GEORGETOWN,KY 40824</td>
<td></td>
</tr>
<tr>
<td>LastName, FirstName</td>
<td>Address1</td>
<td>REG ACC #: 200000403 SEQ #: 1BD: 10/05/1953 DLC: 08/29/2000</td>
</tr>
<tr>
<td></td>
<td>Address2 CROPPER, KY 40057</td>
<td></td>
</tr>
<tr>
<td>ABB, MOHAMMAD I</td>
<td>Address1</td>
<td>REG ACC #: 200100304 SEQ #: 1BD: 05/13/1959 DLC: 05/05/2012</td>
</tr>
<tr>
<td></td>
<td>Address2 LEXINGTON, KY 40950</td>
<td></td>
</tr>
<tr>
<td>ABB, MOHAMMAD Z</td>
<td>Address1</td>
<td>REG ACC #: 20021400 SEQ #: 1BD: 05/05/1961 DLC: 12/08/2007</td>
</tr>
<tr>
<td></td>
<td>Address2 LOUISVILLE, KY 40253</td>
<td></td>
</tr>
<tr>
<td>ABB, MOHAMMAD I</td>
<td>Address1</td>
<td>REG ACC #: 20030020 SEQ #: 1BD: 09/08/1962 DLC: 11/02/2008</td>
</tr>
<tr>
<td></td>
<td>Address2 GRAYSKNOB, KY 40829</td>
<td></td>
</tr>
<tr>
<td>JONATHAN JOHNSON</td>
<td>1405 MAIN ST</td>
<td>REG ACC #: 19970695 SEQ #: 1BD: 07/01/1969 DLC: 06/21/2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D: LABEL PRINTING USING MAIL MERGE-OFFICE 2007

From the Reports submenu, create the desired label type (Follow-up, Patient, etc.). The labels will then be displayed, as seen in the example below:

*Note: Once labels have been generated by CPDMS.net and saved to a user’s computer, the file may be manipulated and printed using any type of spreadsheet and/or word processing software. However, KCR only supports label printing using Microsoft® Excel and Microsoft® Word.

345
Choose the “Save” button and a dialog box will appear with the default filename “Labels.csv” and “comma separated” as the specified file format. The filename may be changed to whatever you wish, but be sure to preserve the .csv extension.

![DOWNLOAD REPORT -- Webpage Dialog](https://cpdms.net/cpdms/Reports/Include/GetFileNameType.php?C)

File Name: [labels.csv]
File Format:
- Comma Separated
- Pre Formatted
Submit  Cancel

https://cpdms.net/cpdms/Reports/Include, Internet  SSL

Select “Submit” and then “Save” to save the file to the desired location on your own computer or network drive. In the screen below, for example, the file is saved to the user’s computer desktop.

![Save As](https://cpdms.net/cpdms/Reports/Include, Internet  SSL)

Save in: [Desktop]
File name: Labels
Save as type: Microsoft Office Excel Comma Separated Value  Cancel
Once the file has been saved to your computer, open it using Excel. In Excel, click the Office Button (in the top left corner) and choose “Save As” and “Excel Workbook.” A dialog box will open. At this point, you can choose where to save the file and assign a different name if you wish. Once you have specified a location and name, hit “Save” and close Excel.
Now open Microsoft Word, click the “Mailings” tab, then “Start Mail Merge” and “Labels.”
The label options dialog box is now displayed.

Select the type of printer and labels you wish to use. When choosing label size and shape, keep in mind the number of lines which will be displayed. Some labels may be too small for a four or five line address to fit properly. After making the selections, click “Ok.”
Next, from the “Mailings” menu, choose “Select Recipients” and “Use Existing List.” The “Select Data Source” dialog box is now displayed. Click the arrow to the right of “Files of type” and select “Excel Files” from the drop down menu (you may have to scroll down the list to find it). Next go to the location on your computer or network drive where the label file was saved (in the example below, the computer desktop). Highlight the file and click on “Open.”
Next the “Select Table” dialog box will appear. Click “Ok.”

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Modified</th>
<th>Created</th>
<th>Type</th>
</tr>
</thead>
</table>

- First row of data contains column headers

- OK
- Cancel
The screen featured below should appear. In order to properly format the data from the Excel spreadsheet in the labels, click on “Insert Merge Field” in the “Write & Insert Fields” submenu.
The following dialog box will appear. Keep the default “Database Fields” selected. Make sure that “ITEM1” is highlighted and select “Insert” and then “Close.”
“<ITEM1>” now appears on the first line of the first record (see example below.) The cursor should be to the right of “ITEM1.” Hit ENTER to move to the next line and then click on “Insert Merge Field” again.
This time, highlight “ITEM2” and select “Insert” and “Close.”
Now “ITEM2” appears beneath “ITEM1” in the first record.
Repeat this process until all items have been inserted into the first record. When complete, the result should resemble the example below.

Now click on “Update labels” in the “Mailings” menu.
The following screen demonstrates that the layout of the first label has been duplicated in every label. Click “Preview Results” to view the labels populated by the merged data from the Excel spreadsheet.
The labels are now displayed as they will be printed. At this point, if anything needs to be changed, repeat the previous steps. Otherwise, choose “Finish and Merge” to print the labels.
APPENDIX E: PRINTING FOLLOW-UP LETTERS USING MAIL MERGE-OFFICE 2013

From the Reports submenu, create Follow-up Labels using whatever criteria you wish. At the bottom of the screen, change “FollowUp Mailing Letter format?” to “yes” in order to generate letters instead of labels.
As seen below, the output for follow-up letters, as displayed in CPDMS.net, appears identical to the label output. However, when the report is saved as .csv file, the format will be optimized for letters rather than labels.

<table>
<thead>
<tr>
<th>Last Name, First Name</th>
<th>Address1</th>
<th>Address2</th>
<th>Date of Birth</th>
<th>Date of Diagnosis</th>
<th>Disease Type</th>
<th>Disease Code</th>
<th>Registry Code</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABE, MOHAMMAD Z</td>
<td></td>
<td></td>
<td>Testis 02/20/1997</td>
<td></td>
<td></td>
<td></td>
<td>19970695</td>
<td></td>
</tr>
<tr>
<td>ABE, MOHAMMAD P</td>
<td></td>
<td></td>
<td>Kidney 10/08/1999</td>
<td></td>
<td></td>
<td></td>
<td>19991125</td>
<td></td>
</tr>
<tr>
<td>ABE, MOHAMMAD E</td>
<td></td>
<td></td>
<td>Liver 07/28/2000</td>
<td></td>
<td></td>
<td></td>
<td>20000403</td>
<td></td>
</tr>
</tbody>
</table>
Choose the “Save” button and a dialog box will appear with the default filename “Labels.csv” and “comma separated” as the specified file format. The filename may be changed to whatever you wish, but be sure to preserve the .csv extension.

Select “Open with” and then “Save As” to save the file to the desired location on your own computer or network drive. In the screen below, for example, the file is saved to the user’s computer desktop.
Now open Microsoft Word, click the “Mailings” tab, then the “Start Mail Merge” button and “Letters.”
Next, from the “Mailings” menu, choose “Select Recipients” and “Use Existing List.” The “Select Data Source” dialog box is now displayed. Highlight the file and click on “Open.”

A dialog box opens, as seen below:

In order to add the names and addresses of the physicians to each letter, click on “Address Block” in the “Write and Insert Fields” section of the Mailings menu. A dialog box opens, as seen below:
Click on “Match Fields” to fill in the address blocks with the data from the Excel spreadsheet.

Now the “Match Field” dialog box is available. Use this box to format the address properly.

![Match Fields dialog box](image)

In the follow-up letter format, Item 1 contains both first name and last name, so leave First Name as ‘not matched’ and select Item 1 from the drop-down box next to Last Name. Item 2 contains the address, so select Item 2 from the drop-down box next to ‘Address 1.’ Item 4 contains city, state, and ZIP code, so select Item 4 from the drop-down box next to ‘City.’ Leave all other segments of the address block as ‘not matched.’
Once you have assigned each item to its corresponding place in the address block, the “Match Fields” dialog box should appear as it does in the example below. Check the box labeled “Remember this matching…” in order to preserve this address block format for future follow-up letter mail merges. Click “Ok” to go on to the next step.
The address block is now previewed. If any part of the address block is incorrect or misaligned, click on “Match Fields” to repeat the previous steps. The arrow buttons above the preview address block can be used to scroll through the addresses in order. Click “Ok” to proceed.
As seen below, ‘<<AddressBlock>>’ appears in the upper left of the page. This is where the name and address of the person to whom the follow-up letter is addressed will appear.

The cursor is immediately to the right of the address block. Hit ‘Enter’ to move to the next line and click on “Greeting Line” in the “Write and Insert Fields” section of the Mailings Menu.
The “Insert Greeting Line” dialog box is now displayed. Click on “Match Fields” and select Item 1 from the drop-down box to the right of First Name.

The name of the first letter recipient is previewed, as seen below. Subsequent greetings can be previewed using the forward and back arrows above the preview.

Click “Ok” to insert the greeting.
Now the Greeting Line is visible. Hit ‘Enter’ to move to the next line.

At this point, type the body of your follow-up letter.
In order to insert the fields for the name and information of the patient for which you are seeking follow-up, place the cursor in the area of the letter where you wish this information to appear, and click on “Insert Merge Field” from the “Write and Insert Fields” menu. The dialog box seen below should appear. Click on Item 5 to list the patient’s first and last name. Then click “Insert” and “Close.”
“Item 5” now appears where the patient’s name will be listed. Repeat this process to add as many fields as you wish. Item 6 contains type of cancer and diagnosis date, Item 7 the registry accession number, Item 8 the date of birth and date of last contact, and Item 9 the physician’s name.
After you have inserted all the patient fields, complete the body of the letter. The finished letter will look something like the example seen below.

```
<AddressBlock>
<GreetingLine>

The cancer registry of _____ Hospital is seeking current follow-up information on the patient listed below. Please send us the most recent date of contact and disease status for this patient.

#ITEMS#
#ITEMS#
#ITEMS#
#ITEMS#

If you have any questions, please don't hesitate to contact the _____ Cancer Registry at (839) 555-5555. Thank you for your assistance in this matter.

Sincerely,

Jane Smith, CTR
```
Click the “Preview Results” button in the “Preview Results” section of the Mailings Menu. The fields will be shown filled in, as seen below.

You may use the left and right arrows in the “Preview Results” submenu to view subsequent letters. If you wish to make any changes to the address block, greeting lines, or the merge fields, repeat the previous steps. Click on “Finish and Merge” in order to print the follow-up letters. You may also use mail merge to create labels for the envelopes, or you may position the address block such that it will be displayed in the window of an envelope.