McKESSON

TRENDSTAR

Resource Utilization Analyst

2012 Version 1-2
December 2012

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Chapter 1 - Resource Utilization Analyst

This chapter contains the following topics:

Introduction

The Resource Utilization Analyst (RUA) is a supplemental option to the Clinical Cost Accounting system. RUA expands the power of CCA by providing a more detailed view of procedure utilization, charges, and costs. It breaks down this information by each day of a patient's stay, and enables you to report on that data. Ordering physician can also be detailed.

The Resource Utilization Analyst enhances the analytic and management capabilities of CCA by:

- Providing you with the capabilities for a wide variety of utilization review and physician monitoring studies, thus supplying you with a better means of assessing health care quality and effectiveness. It enables you to monitor the resource utilization of consulting physicians, residents, and interns, and to focus on care and physician variances.

  For example, should similar groups of patients experience significantly different outcomes, you can consult RUA to see whether the sequence in which the prescribed procedures were administered might have affected the results. Such quality of care management is only possible when you know the date of service. Date of service data reveals inefficiencies in scheduling or communications, and helps to eliminate costly, unnecessary inpatient days.
- Providing a mechanism for retaining and accessing detailed charge data. Since this data is usually purged from other financial systems, RUA is often the only source for critical analyses of detailed charge data.
- Providing more complete contract analysis and modeling capabilities. RUA enables you to establish the relationship between date of service and pricing. By knowing exact costs of care for a given day or type of service, you are better equipped for negotiating contracts.

  For example, RUA can help you compute the following: per diem rates by service area, rates that vary over the course of the stay, package prices for all service related to a procedure, and pricing for add-on days in a package.

General Information

To run the Resource Utilization Analyst, an RUA data base is required. The RUA data base stores procedure charge information detailed by day of stay and ordering physician. It includes the following data elements:

- Charge value
- Date of service
- Day of stay
- Charge code
- Department in which charge was incurred
- Optional fields (units, ordering physician, mapping code)

The units field should be used if each transaction will contain multiple units; e.g., if two aspirin constitute a single unit. The ordering physician field should be used if you have ordering physician data available. The mapping code field must be used if mapping codes are used in CCA.

The RUA data base is created simultaneously with your CML data base, and updated automatically when you update your CML data base. Detailed RUA data is processed first, then summed up to create and update CML data. Thus, RUA can access all CML data. However, since RUA calculations are done at the procedure level, costs must be defined as units, charges, and cost factors in your cost table. If costs are not defined this way, they will be reported as zero.

Your RUA data base must be stored in the same directory as your CML data base. Although RUA reports will not prompt for the RUA data base, it will be accessed automatically when you enter the CML data base to which it corresponds. Also, whenever you run CCA, and reimbursement method 27 is stored in your cost table, the RUA data base will be accessed. Therefore, data base names should not be altered.

An RUA data base is three or four times larger than your CML data base. Therefore, you should always use an MBE table to limit the data sample. An MBE table is more efficient then using just report qualifiers, and you can save substantially on report processing time. Also, before generating lengthy RUA reports and printing them to log files, you should ascertain that there is sufficient disk space to hold them.

There are several categories of days included in your RUA data base. The characteristics and processing for each are shown in the following table.

Table 1-1
Categories and Processing of Days
in an RUA Data Base

Category	How Referenced	Default for Reporting *	Related Qualifiers
Pre-admission	Day 0	Excluded, unless there is routine area usage. Note that the **Day of stay** sort key will include pre-admit data unless excluded.	-Day of stay -Include post- discharge data -Include ancillary departments without routine -Exclude pre-admit data
Days of LOS	Day 1,2,...nwhere n=LOS	Included, unless there is no routine area usage.	-Day of stay-Include post -discharge data - Include ancillary departments without routine
Discharge date	Day n+1where n=LOS	Excluded, unless there is routine area usage.	-Day of stay -Include post-discharge data -Include ancillary departments without routine
Post-discharge	Post-discharge	Excluded	-Include post-discharge data -Include ancillary departments without routine

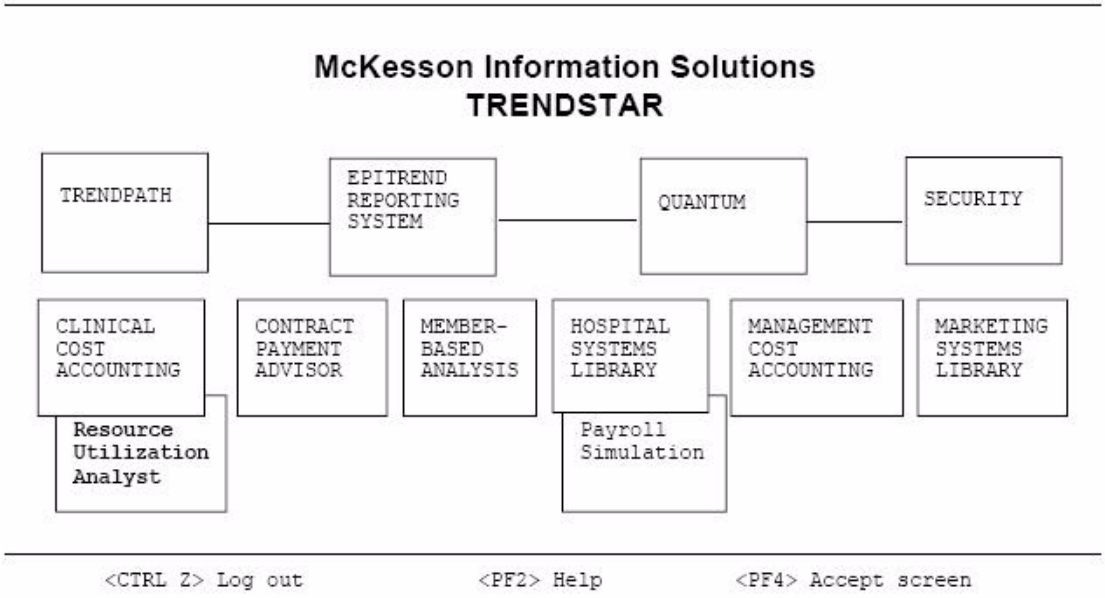
* All categories are included by default in the **Patient audit** reports.

Note that Days of LOS is the only day category that is included in reimbursement calculations, and that the Post-discharge day category does not represent valid data. Note also that ancillary usage without an associated routine area is excluded from some reports by default. To include this data when generating **Utilization analysis** reports, choose the **Include ancillary departments not associated with a routine department** qualifier. In general, you will need to choose this qualifier to report data for day zero and the day of discharge.

For each day of a patient's stay, ancillary departments will be matched to the corresponding routine departments. If for one day of stay there are two routine departments, the second routine department will be grouped with the ancillary departments.

To select the Resource Utilization Analyst, log into TRENDSTAR and choose RUA from the main product menu.

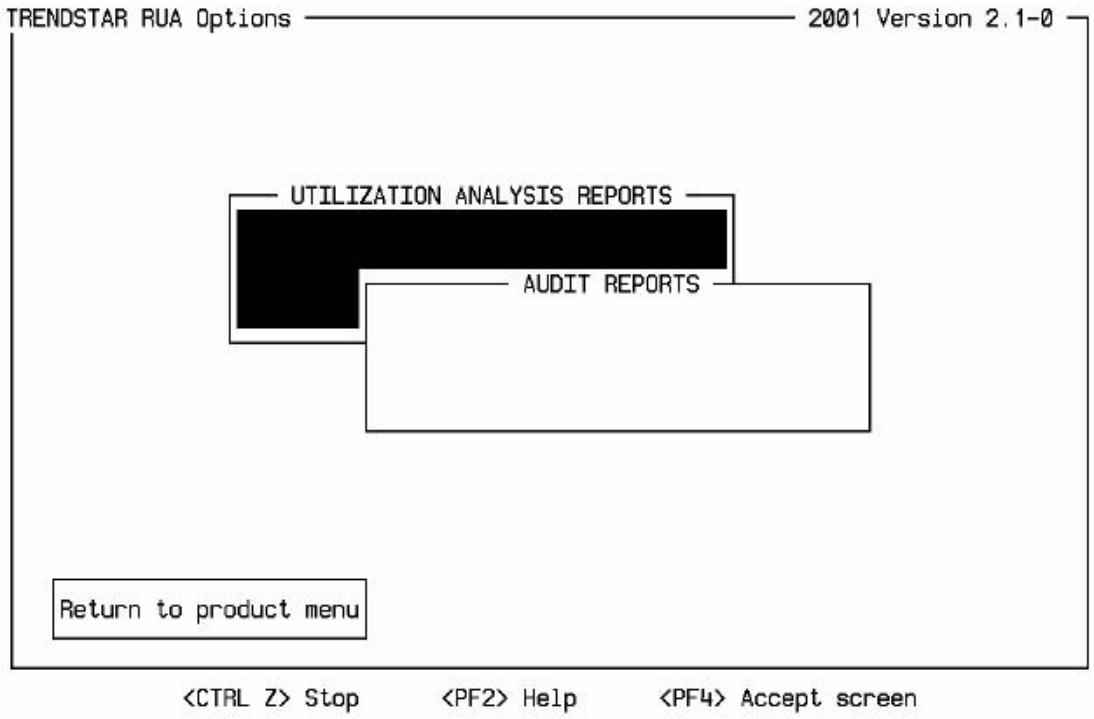
Example 1-1
Main Product Menu



The Resource Utilization Analyst is presented to you in the form of screens from which you choose the options that you want to use.

RUA has two options: **Utilization Analysis Reports** and **Audit Reports**. These options provide a series of reports that enable you to analyze RUA data. Each of these options also enables you to select one of the CCA table maintenance options such as **See a directory**, **Copy a table**, etc.

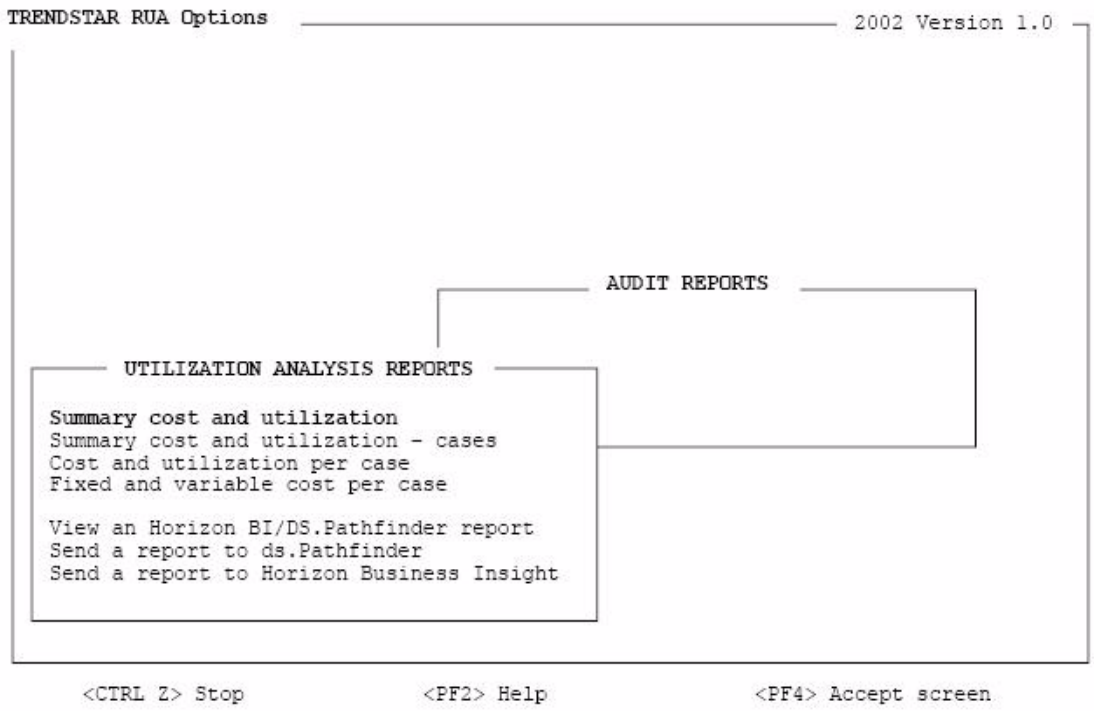
Example 1-2
Resource Utilization Analysis Options



Utilization Analysis Reports

Choose the **Utilization Analysis Reports** option from the RUA main menu, and you will see a list of available reports.

Example 1-3
Utilization Analysis Reports



There are four **Utilization Analysis** reports:

The **Summary cost and utilization** report provides information on cost and utilization patterns over the course of the stay.

The **Summary cost and utilization - cases** report also provides information on cost and utilization patterns over the course of the stay, but adds a number of cases column.

The **Cost and utilization per case** report supplements the previous two reports with average charges, units, and cost detail.

The **Fixed and variable cost per case** report analyzes charges and fixed and variable costs on a per case basis.

When you choose one of these reports, the next screen prompts you for your CML data base, MBE table, cost table, and physician table.

CML data base

Enter the name of a CML data base that corresponds to an RUA data base. Note that you will not be prompted for the name of your RUA data base, although it will be used in the report. The RUA data base will be accessed automatically when you enter the CML data base to which it corresponds.

To see a list of your CML data bases, press **<RETURN>** and a box displaying all data bases with the extension .DBC will appear in the lower right corner of the screen. You can then choose a data base from this list.

MBE table

An MBE table should always be used to define data to include in this report, since an RUA data base stores a large volume of data. By focusing only on the subset of data that you want to see, you can save processing time and disk storage space.

Enter the name of an MBE table here. To see a list of your MBE tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all MBE tables in your DCML directory with the extension .MBE. You can then choose an MBE table from this list.

Cost table

Enter the name of the cost table that you want to use with this data base. To see a list of your cost tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all tables on your DCML directory with the extension .COS. You can then choose a cost table from this list.

Physician table

Enter the name of a physician table that corresponds to the data base that you are using in this report. To see a list of your physician tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all physician tables on your DCML directory with the extension .PSP. You can then choose a physician table from this list.

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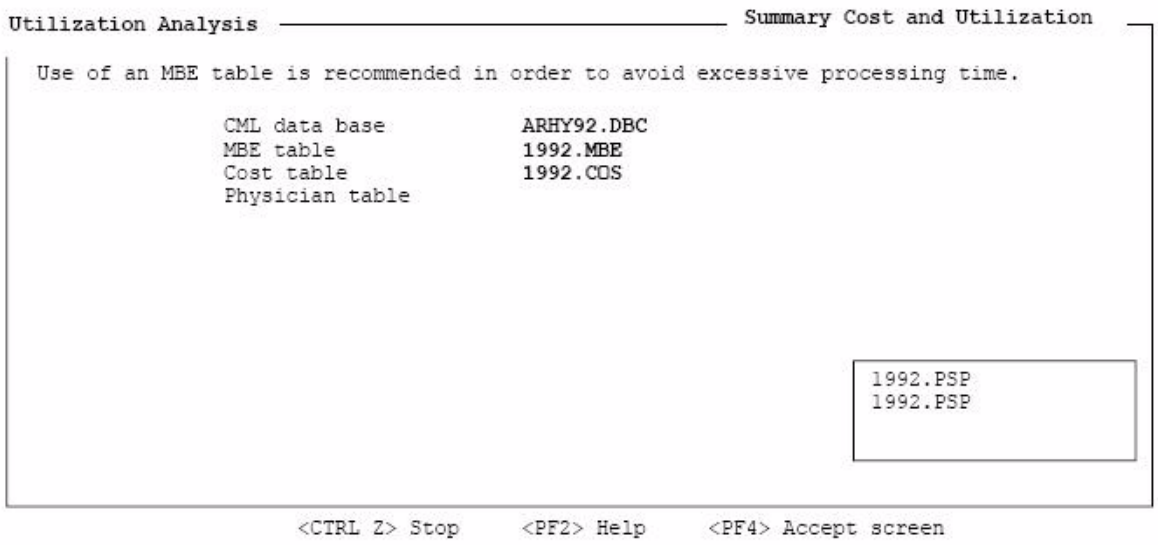
Example 1-4
Utilization Analysis
Specifying a CML Data Base and
MBE, Cost, and Physician Table



Defining Rows

The rows of your report are determined by sorting options called sort keys. There are seven categories of sort keys. The table below shows the sort categories and keys for the **Utilization analysis** reports. You can define up to four row sort levels.

Table 1-2
Utilization Analysis Reports - Row Sort Categories and Keys

Patient Data	
Day of stay Date of service Day of week DRG MDC Payor Patient identification	Medical record number * Patient type Discharge date Discharge status Hospital financial class Age Zip/Postal code
Clinical Data	
ICD-9-CM principal diagnosis ICD-9-CM secondary diagnoses ICD-9-CM principal and secondary diagnoses ICD-9-CM principal procedure ICD-9-CM secondary procedures ICD-9-CM principal and secondary procedures CPT4 codes 1st date for ICD-9-CM prin. proc. * 1st dates for ICD-9-CM sec. procs. * 1st dates for ICD-9-CM principal and secondary procedures *	2nd date for ICD-9-CM prin. proc. * 2nd dates for ICD-9-CM sec. procs. * 2nd dates for ICD-9-CM principal and secondary procedures * 1st phy. for ICD-9-CM prin. proc. * 1st phys. for ICD-9-CM sec. procs. * 1st phys. for ICD-9-CM principal and secondary procedures * 2nd phy. for ICD-9-CM prin. proc. * 2nd phys. for ICD-9-CM sec. procs. * 2nd phys. for ICD-9-CM principal and secondary procedures *
Physician Data	**Utilization**
Attending physician Attending physician specialty Nonattending physician A-D Nonattending physician A-D specialty Nonattending physician E-S Nonattending physician E-S specialty Ordering physician	Department Procedure charge code Routine department - total utilization Routine and ancillary departments - detailed
Summary Data	**Supplemental Data**
DRG summary group number Attending physician summary group number Ordering physician summary group number Product summary group number Department summary group number Payor summary group number Zip/Postal code summary group number Age summary group number Procedure summary group number User-defined item summary group number	MQ admission severity group MQ midstay non-responder MQ admission source MQ admission reason MQ unusual occurrence flags MQ first attending physician MQ first attending service CSI overall severity A,B,C,D,E
Product Data	**User-Defined Items**
Products in product fields A-J	These are the user-specific items that are stored in your data base.

* Will appear only if defined in your data base as a supplementary field.

When you choose more than one row sort key, each additional key will be further sorted within the parameters of the previous key. For example, if you choose to sort only by day of stay, each row will contain a subtotal of data for an individual day of stay. However, if you sort by DRGs broken out by day of stay, the day of stay rows will be grouped by DRG subtotals.

The row definition screen prompts you for row sort keys. You can enter row sort keys in two ways. You can type in a sort key name, or you can choose a key from several menus of sort key categories.

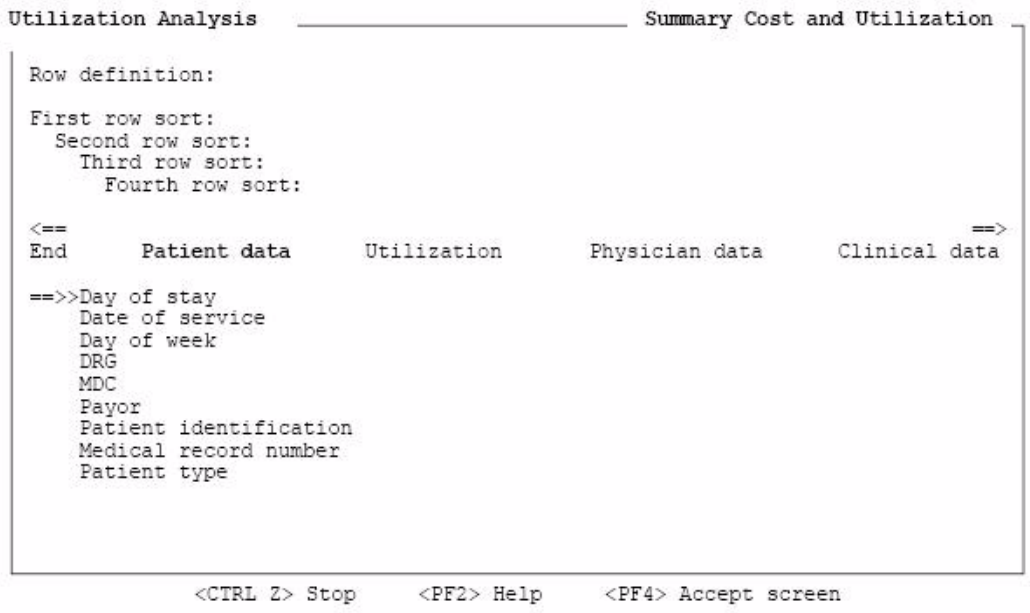
If you type in a name, you need enter only the first few letters. When you press **<PF4>**, the complete sort key name will appear.

To see the sort key categories, press **<PF4>** without typing in a name. Choose a row sort category by moving the cursor with the left/right arrow keys and pressing **<PF4>** or **<RETURN>.** You will see a menu of the sort keys available within that category. Choose a sort key from the category menu by moving the cursor with the up and down arrow keys and pressing **<RETURN>,** then **<PF4>**.

Repeat the above process for each row sort entry that you want to make. To create a report such as the one mentioned above, where DRGs are further broken out by day of stay, choose DRG as your first row sort option and day of stay as your second.

When you are finished with your row sort entries, press **<PF4>.** If this is not the last available row sort, you will need to press **<PF4>** twice. You can also end your row sort definition by selecting **End** from the sort key category menu.

Example 1-5
Utilization Analysis Reports
Defining Rows



Day of Stay: Aligning Rows About an Event

When you choose **Day of stay** as a row sort option you will be asked to define an **Event** about which days of stay are shown as report rows. The event can be defined as **Admit date**, **Discharge date**, first or last occurrence of the utilization of a **Department**, or first or last occurrence of a **Procedure charge code** or **ICD-9-CM principal procedure code**. This enables you, for example, to report on a certain number of days following a specified procedure rather than simply certain days of stay.

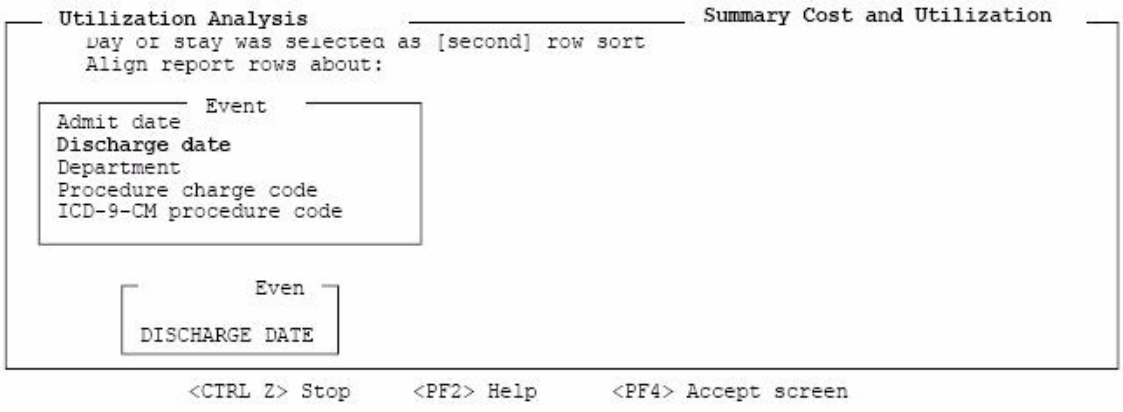
The first line of this screen will remind you of the row sort level you selected for day of stay.

The **Event** box lists the definitions about which you can align day of stay report rows. If the event you select is Discharge date, Department, or Procedure charge code, you will then be asked to enter an **Event name** of up to 20 characters in length. This event name will be included on subsequent screens as you further define the selected event and will be printed on the appropriate utilization analysis report.

Admit Date

If you select **Admit date** as the event, the subsequent report qualifier screen will include an option in the **Patient data** category to specify days of stay. This option is not available when you choose any of the other three events, since you specify days of stay when you define them.

Example 1-6
Utilization Analysis Reports
Defining Rows: Day of Stay
Selecting an Event and Entering an Event Name



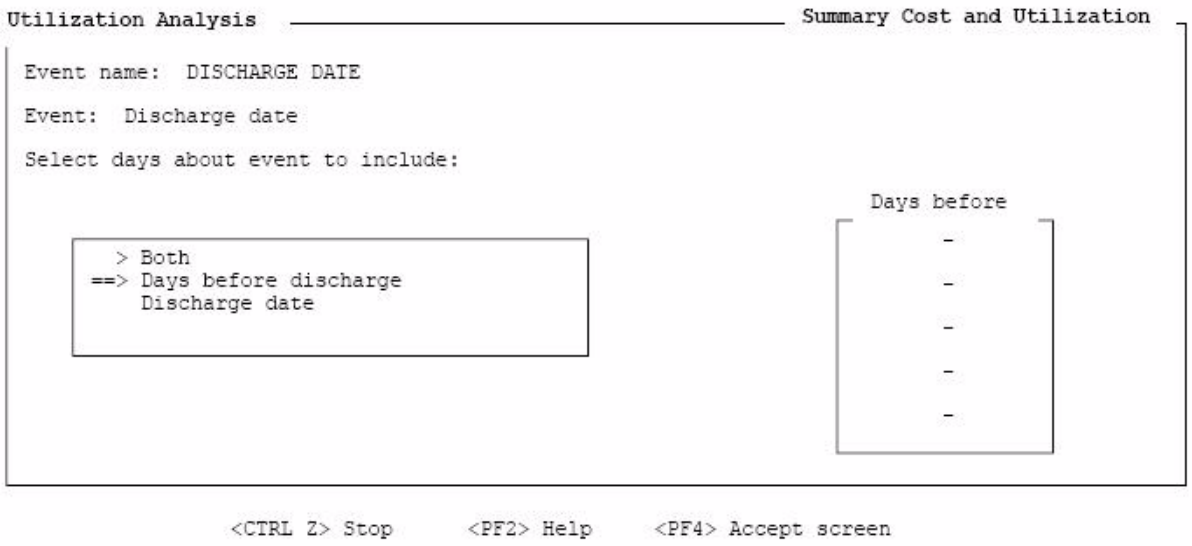
Discharge Date

If you select **Discharge date** as the event, you will be asked to define the days of stay about the discharge date that you want included as report rows.

You can select **Days before discharge** only, **Discharge date** only, or **Both** days before the discharge date and the discharge date itself.

If you select **Days before discharge** or **Both**, you will be prompted to specify ranges of days before discharge to include as report rows. Largest acceptable day entry is 9999. If you select only **Discharge date**, the report will include only the discharge day.

Example 1-7
Utilization Analysis Reports
Defining Rows
Aligning Rows About an Event: Discharge Date

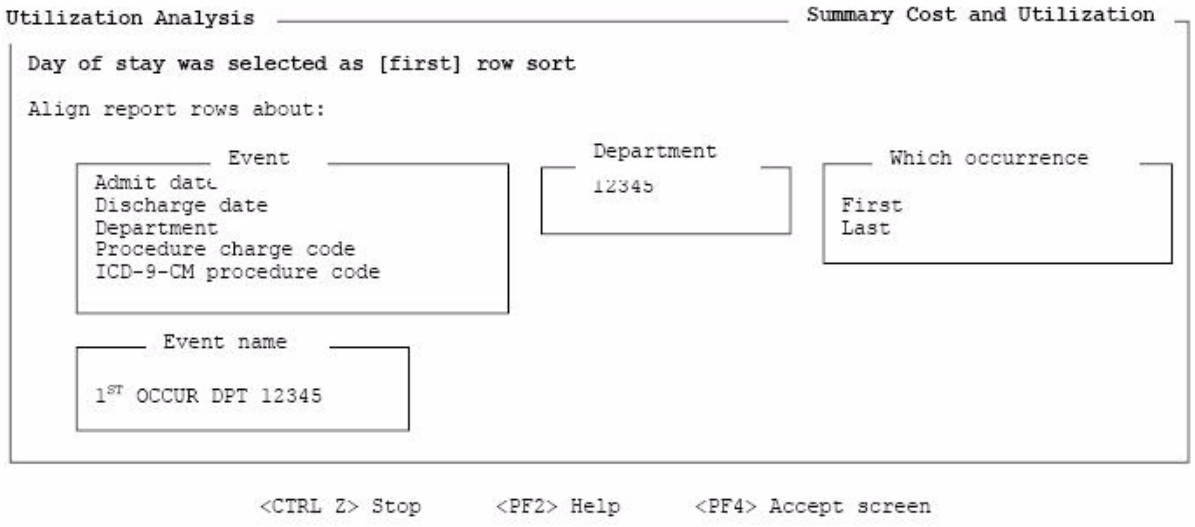


Department

If you select **Department** as the event, you will be asked to define the days of stay about the first or last utilization of the department that you want included as report rows.

After providing an event name, you are asked to specify the department number. Then you will choose whether you want to show days of stay around the first or the last occurrence of that department's utilization.

Example 1-8
Utilization Analysis Reports
Defining Rows
Aligning Rows About an Event: Department

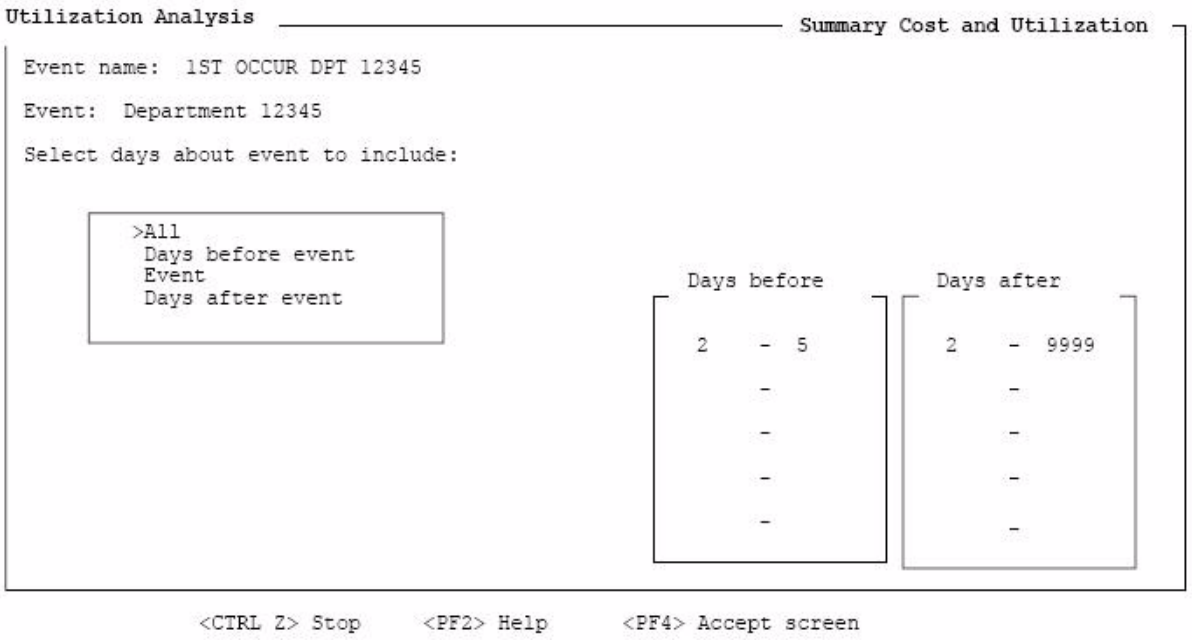


When you have chosen department, number, and occurrence, you will be asked to select days of stay about the department's utilization that you want to include as rows in your report.

You can select any combination of **Days before event**, **Event**, or **Days after event**, or you can select **All**.

You will be prompted to specify ranges of days before and/or after the specified department use to include as report rows. Largest acceptable day entry is 9999. Entering **<PF4>** without specifying days will include all days before and after the event. If you select only **Event**, the report will include only the day of stay that the department was utilized.

Example 1-9
Utilization Analysis Reports
Defining Rows
Aligning Rows About an Event: Department
Select Days About Event to Include

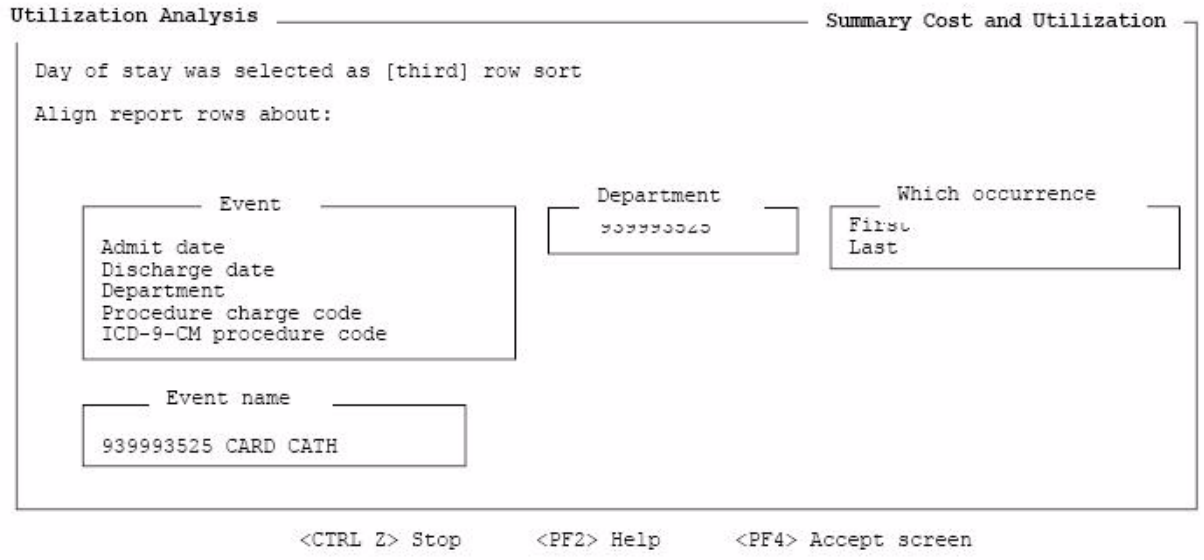


Procedure Charge Code

If you select **Procedure charge code** as the event, you will be asked to define the days of stay about the first or last use of the procedure charge code that you want included as report rows.

After providing an event name, you asked to specify the procedure charge code number. Then you will choose whether you want to show days of stay around the first or the last occurrence of that procedure charge code.

Example 1-10
Utilization Analysis Reports
Defining Rows
Aligning Rows About an Event: Procedure Charge Code

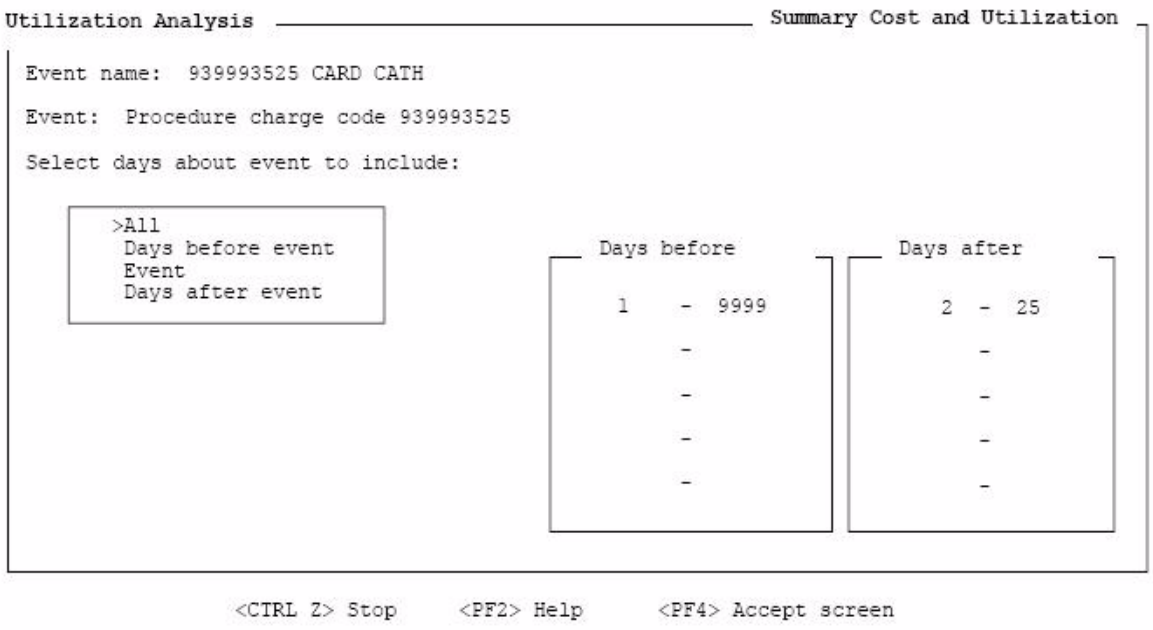


When you have chosen procedure charge code, number, and occurrence, you will be asked to select days of stay about the procedure charge code's use that you want to include as rows in your report.

You can select any combination of **Days before event**, **Event**, or **Days after event**, or you can select **All**.

You will be prompted to specify ranges of days before and/or after the specified procedure charge code use to include as report rows. Largest acceptable day entry is 9999. Entering **<PF4>** without specifying days will include all days before and after the event. If you select only **Event**, the report will include only the day of stay that the procedure charge code was used.

Example 1-11
Utilization Analysis Reports
Defining Rows
Aligning Rows About an Event: Procedure Charge Code
Select Days About Event to Include



Utilization: Routine and Ancillary Departments

In order to properly sort by routine or ancillary departments, it is necessary to understand the best ways to use combinations of sort keys, and sort keys in conjunction with report qualifiers, to set up a useful report. But however you sort a report, report qualifiers can always be used to limit by number or type (routine or ancillary) the departments that will be included.

Department - This key causes departments to be listed in numerical order without regard to whether they are routine or ancillary.

Procedure charge code - This sort key creates a separate row or sub-row for each procedure. This is usually used as a sort within a department-level sort.

Routine department - total utilization - This creates a row for each routine department. Associated ancillary department utilization is included in the routine department line.

Routine and ancillary departments - detailed - This sort key is to be used as a sub-sort within the previous sort key. Each routine department is broken out by associated ancillary departments. A row is created for values specific to the routine department and for each associated ancillary department.

Some examples of sorting and qualifying combinations include:

Sort by: Department
Procedure charge code
Qualify by: Include routine or ancillary departments only

This would produce a report showing procedures within routine or ancillary departments only.

Sort by: Routine department - total utilization
Routine and ancillary departments - detailed
Qualify by: Include ancillary departments not associated with a routine department

This would produce a report showing ancillary departments within routine departments and also those not associated with routine departments.

Note that you can sort by **Routine and ancillary departments - detailed** within **Routine department - total utilization**, but not vice versa. Also, you should not sort by department level within **Procedure charge code**, only by procedure within department.

Report Qualifiers

Report qualifiers allow you to choose data for the **Utilization analysis** reports on the basis of values for certain patient, day of stay, and charge level data. This enables you to generate reports for select groups of data. This is particularly useful if you want to produce a series of similar reports for different sets of data.

Report qualifiers are arranged into categories. The table on the following pages lists the available categories and qualifiers.

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Table 1-3
Report Qualifiers by Category

Patient Data	
Day of stay Date of service Day of week Include post-discharge data Exclude pre-admit data DRG MDC Payor Hospital financial class	Discharge status Discharge date Patient Identification Patient type Sex Age Days Medical record number *
Clinical Data	
ICD-9-CM principal diagnosis ICD-9-CM secondary diagnoses ICD-9-CM principal and secondary diagnoses ICD-9-CM principal procedure ICD-9-CM secondary procedures ICD-9-CM principal and secondary procedures CPT4 codes 1st date for ICD-9-CM prin. proc. * 1st dates for ICD-9-CM sec. procs. * 1st dates for ICD-9-CM principal and secondary procedures *	2nd date for ICD-9-CM prin. proc. * 2nd dates for ICD-9-CM sec. procs. * 2nd dates for ICD-9-CM principal and secondary procedures * 1st phy. for ICD-9-CM prin. proc. * 1st phys. for ICD-9-CM sec. procs. * 1st phys. for ICD-9-CM principal and secondary procedures * 2nd phy. for ICD-9-CM prin. proc. * 2nd phys. for ICD-9-CM sec. procs. * 2nd phys. for ICD-9-CM principal and secondary procedures *
Physician Data	**Utilization**
Attending physician Attending physician specialty Nonattending physician A-D Nonattending physician A-D specialty Nonattending physician E-S Nonattending physician E-S specialty Ordering physician	Department Include routine departments only Include ancillary departments only Procedure charge codeInclude non-accumulated units Include ancillary departments not associated with a routine department **
Summary Data	**Supplemental Data**
DRG summary group number Attending physician summary group number Ordering physician summary group number Product summary group number Department summary group number Payor summary group number Zip/Postal code summary group number Age summary group number Procedure summary group number User-defined item summary group number	MQ admission severity group MQ midstay non-responder MQ admission source MQ admission reason MQ unusual occurrence flags MQ first attending physician MQ first attending service CSI overall severity A,B,C,D,E

Product Data	User-Defined Items
Products in product fields A-J	These are the user-specific items that are stored in your data base.

* Will appear only if defined in your data base as a supplemental field.

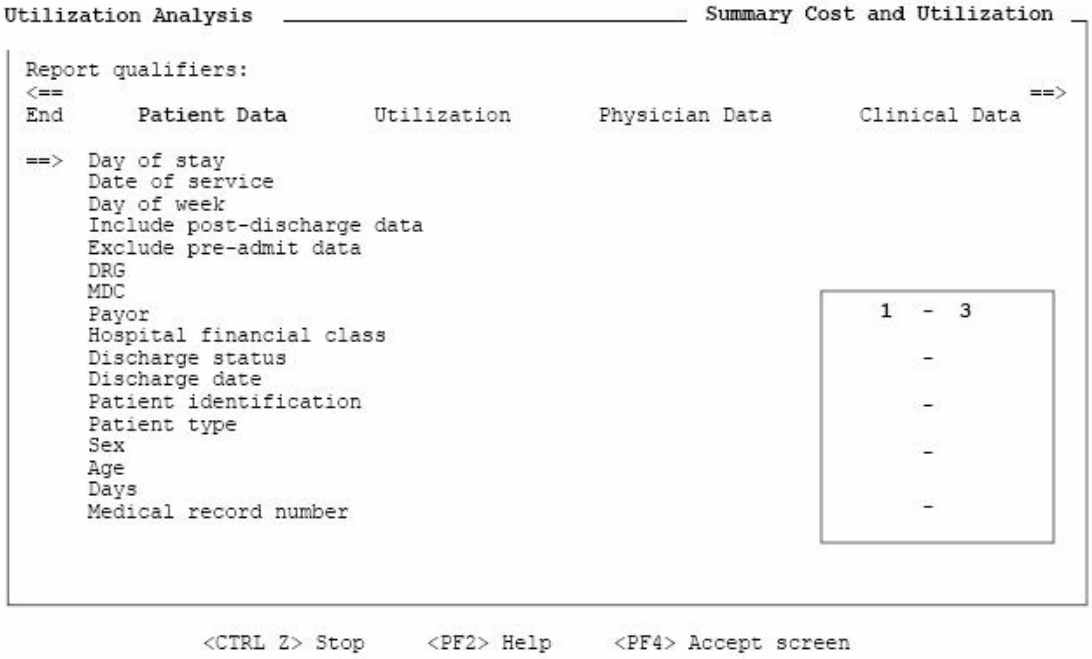
** Available only if you are sorting by **Routine department - total utilization**.

If you are using an MBE table, the qualifiers that you choose will be applied only to the data that is specified by that MBE table; otherwise, those qualifiers will be applied to all of the data in your RUA data base.

You can specify up to 10 qualifiers. Data meeting all of these specifications will be included in your report.

Choose a category first, then choose the qualifier or qualifiers from the menu that appears for that category. You can then choose qualifiers from other categories in the same way. When you are finished selecting qualifiers, choose the **End** option from the category list.

Example 1-12
Utilization Analysis
Choosing Report Qualifiers



After selecting a qualifier, if applicable, you will be prompted to enter data values for that qualifier in a box that appears in the lower right corner of the screen. The qualifiers, and the acceptable data values for those qualifiers, are described below. Note that in this description, the words nonattending physician A, B, C, or D will be replaced, as appropriate, by the nonattending physician group names in your physician table.

Patient data - The qualifiers in this category are described below:

Day of stay - Enter lists or ranges of day of stay values. Cost and utilization for these days will be included in your report. Note that pre-admit data will be included unless the **Exclude pre-admit data** qualifier is selected. Also, if you sort by **Routine department - total utilization** or **Routine and ancillary departments - detailed**, days with no routine utilization will be ignored unless you also select **Include ancillary departments not associated with a routine department.**

This qualifier is not available if you have selected a sort key of **Day of stay**, and defined the day of stay **Event** as **Discharge date**, **Department**, or **Procedure charge code**. These sort keys include day of stay as part of their definitions. Note that this qualifier is available if **Admit date** is defined as your **Day of stay** event.

Date of service - Enter lists or ranges of calendar dates of service. Report will include only those date periods selected.

Day of week - Indicate which days of the week you want the report to include.

Note that for both **Date of service** and **Day of week**, pre-admit data will be included unless you specifically exclude it, and post-discharge data will be excluded unless you specifically include it; see the next two qualifiers.

Include post-discharge data - Post-discharge data refers to those charges with a date of service after the patient's discharge date. These post-discharge service dates usually represent data entry errors.

When you choose this qualifier, you will be prompted to choose between including both pre- and post-discharge data and including post-discharge data only. If you select post-discharge data only, and you also have also selected **Day of stay**, the day of stay will be displayed. Note, however, that if you also choose **Day of stay** as a qualifier, pre-discharge data will automatically be included. If you sort by **Routine department - total utilization** or **Routine and ancillary departments - detailed**, days with no routine utilization will be ignored.

Exclude pre-admit data – If you choose this qualifier, all pre-admit data will be excluded from the report.

DRG - Specify a list or a range of DRGs. Patient records associated with these DRGs will be included.

MDC - Specify a list or a range of MDCs. Patient records associated with these MDCs will be included.

Payor - Enter a list or a range of payor numbers. Patient records associated with these payors will be included.

Hospital financial class - Enter a list or range of hospital financial class codes. Patient records with these codes will be included.

Hospital financial class codes can include only alphanumeric characters. Each entry must have the same number of characters. If you want to include values of variable length, you can use wildcards when selecting them. A wildcard is a symbol (*) that stands for all acceptable alphanumeric characters. If used, the wildcard symbol must be the final character in a value (e.g., 333*). When entering a range, enter an asterisk after the start and end values; you must use the wildcard with both values or not at all.

Discharge status - There are ten discharge status codes, and a category for unknown discharge status:

	Unknown status
1 -	Home, self-care
2 -	Short-term hospital
3 -	SNF
4 -	Intermediate care facility
5 -	Other facility
6 -	Home health service
7 -	Against medical advice
8 -	Home IV service
20 -	Died
30 -	Still a patient

Select the codes that you want from the menu that appears. Patient records containing these codes will be included. Unknown status includes any codes not listed above.

Discharge date - Enter a list or a range of discharge dates using the format MM/DD/YY or M/D/YY. If you enter a list, patients discharged on those dates will be included. If you enter a range, patients discharged within the time period defined by the range will be included.

Patient identification - Enter a list or range of patient identification numbers. The records of patients with these numbers will be included.

Patient type - There are three patient types:

Inpatient

Same day surgery

Other

Select the patient types that you want from the menu that appears. Patient records containing these patient types will be included.

Sex - There are three sex specifications:

Male

Female

Unknown

Select the sex specifications that you want from the menu that appears. Records for patients with these sex specifications will be included.

Age - Specify a list or range of patient ages. The records of patients whose ages are within the specified list or range will be included.

Days - Specify a list or range of lengths of stay. Patients with the selected lengths of stay will be included.

Medical record number – This qualifier is included only if it has been added as a supplementary field in your data base. Contact McKesson Information Solutions for more information.

Utilization - There are five or six qualifiers in this category.

Department - Enter a list or range of department numbers. You may choose department 0 to show cases with no billing data. Day of stay and charge level data associated with the selected departments will be included.

To see ancillary usage for a particular routine area if your report is sorted by **Routine department - total utilization** or **Routine and ancillary departments - detailed**, qualify your report by the routine area and all or selected ancillaries. Since ancillary usage is reported as a subset of routine data, reports qualified exclusively by ancillary areas are invalid.

Include routine departments only - Day of stay and charge level data associated with routine departments only will be included.

Include ancillary departments only - Day of stay and charge level data associated with ancillary departments only will be ncluded.

Procedure charge code - Enter a list or range of procedure charge codes. Charge level data with these procedure charge codes will be included.

Include non-accumulated units - This allows you to include non-accumulated units in a column that stores either unit or unit per case data.

Include ancillary departments not associated with a routine department - This allows you to include ancillary department usage on days when no routine department was used, such as on a discharge date, or preadmission days. You can include all ancillary departments (those that are not associated with a routine department as well as those that are) or only those ancillary departments that are not associated with a routine department.

This qualifier is available only if you are sorting by **Routine department - total utilization**.

Physician data - The following qualifiers can be used:

Attending physician - Specify a list or a range of physician numbers. Patients treated by these attending physicians will be included.

Attending physician specialty - Enter a list or a range of specialty numbers. Patients treated by attending physicians in these specialties will be included.

Nonattending physician [A - S] - Specify a list or range of physician numbers. Patients treated by the physicians in this nonattending physician group will be included.

Nonattending physician [A - S] specialty - Enter a list or range of specialty numbers. Patients treated by the physicians in this nonattending physician group associated with these specialties will be included.

Ordering physician - Specify a list or a range of ordering physician numbers. Charges ordered by these physicians will be included.

Clinical data - The availability of some of these qualifiers depend on whether or not they have been defined as supplemental fields in your CML data base.

ICD-9-CM principal diagnosis - Enter a list or range of diagnosis codes. Codes must be entered as five characters, and cannot include decimals. The first character can be a digit or the letter E or V; the remaining characters must be digits. Zeros should be added to the end of codes that are less than five characters long. For example, the code 345.6 should be entered as 34560. Records with these codes listed as the principal diagnosis will be included.

ICD-9-CM secondary diagnoses - Enter a list or range of diagnosis codes. See ICD-9-CM principal diagnosis above.

ICD-9-CM principal and secondary diagnoses - Enter a list or range of diagnosis codes. See principal diagnosis above.

ICD-9-CM principal procedure - Enter a list or range of procedure codes. Codes must be entered as four digits, and cannot include decimals. Zeros should be added to the end of codes that are less than four digits long. For example, the code 434 should be entered as 4340. Records with these codes listed as the principal procedure will be included.

ICD-9-CM secondary procedures - Enter a list or range of procedure codes. See ICD-9-CM principal procedure above.

ICD-9-CM principal and secondary procedures - Enter a list or range of procedure codes. See principal procedure above.

CPT4 codes - Enter a list or range of CPT4 codes. This qualifier is available only if it is defined as a supplemental field in your CML data base.

The following qualifiers are available only if you have added this data into a supplementary field of your data base. Contact McKesson Information Solutions for more information.

1st date for ICD-9-CM principal procedure - The first date associated with the ICD-9 principal procedure code for each case.

1st dates for ICD-9-CM secondary procedures - The first dates associated with the ICD-9 secondary procedure codes for each case.

1st dates for ICD-9-CM principal and secondary procedures - The first dates associated with the ICD-9 principal and secondary procedure codes for each case.

2nd date for ICD-9-CM principal procedure - The second date associated with the ICD-9 principal procedure code for each case.

2nd dates for ICD-9-CM secondary procedures - The second dates associated with the ICD-9 secondary procedure codes for each case.

2nd dates for ICD-9-CM principal and secondary procedures - The second dates associated with the ICD-9 principal and secondary procedure codes for each case.

1st phy for ICD-9-CM principal procedure - The first physician associated with the ICD-9 principal procedure code for each case.

1st phys for ICD-9-CM secondary procedures - The first physicians associated with the ICD-9 secondary procedure codes for each case.

1st phys for ICD-9-CM principal and secondary procedures - The first physicians associated with the ICD-9 principal and secondary procedure codes for each case.

2nd phy for ICD-9-CM principal procedure - The second physician associated with the ICD-9 principal procedure code for each case.

2nd phys for ICD-9-CM secondary procedures - The second physicians associated with the ICD-9 secondary procedure codes for each case.

2nd phys for ICD-9-CM principal and secondary procedures - The second physicians associated with the ICD-9 principal and secondary procedure codes for each case.

Product data - There are ten qualifiers in this category:

Products in product field [A-J] - Enter a list or range of product numbers in this product field. Patient records using these products will be included.

Summary data - There are ten qualifiers in this category:

DRG summary group number - Enter lists and ranges of DRG summary groups. You will subsequently be prompted for a DRG summary group table name.

Attending physician summary group number - Enter lists and ranges of attending physician summary groups. You will subsequently be prompted for a physician summary group table name.

Ordering physician summary group number - Enter lists and ranges of ordering physician summary groups. You will subsequently be prompted for a physician summary group table name.

Product summary group number - Enter lists and ranges of product summary groups. You will subsequently be prompted for a product summary group table name.

Department summary group number - Enter lists and ranges of department summary groups. You will subsequently be prompted for a department summary group table name.

Payor summary group number - Enter lists and ranges of payor summary groups. You will subsequently be prompted for a payor summary group table name.

ZIP/Postal code summary group number - Enter lists and ranges of ZIP/Postal code summary groups. You will subsequently be prompted for a ZIP/Postal code summary group table name.

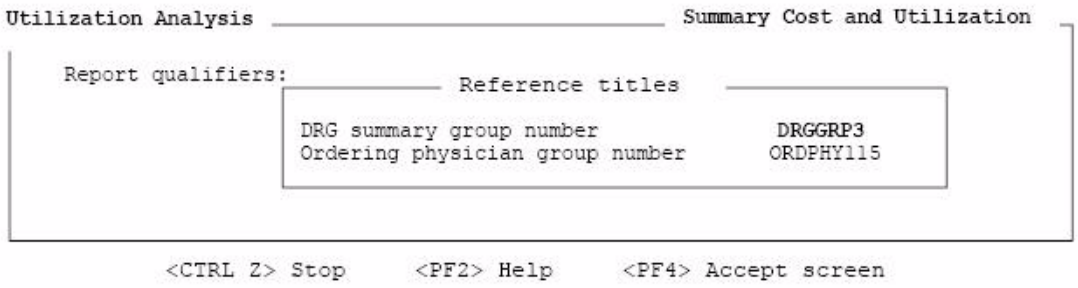
Age summary group number - Enter lists and ranges of age summary groups. You will subsequently be prompted for an age summary group table name.

Procedure summary group number - Enter lists and ranges of procedure summary groups. You will subsequently be prompted for a procedure summary group table name.

User-defined item summary group number - Enter lists and ranges of UDI summary groups. You will subsequently be prompted for a UDI summary group table name.

If one or more summary groups are selected as qualifiers, you will be prompted for summary table reference titles. These titles are used in subsequent prompting for summary group tables.

Example 1-13
Utilization Analysis
Choosing Report Qualifiers: Summary Group Reference Titles



Supplemental data - There are up to thirteen qualifiers in these supplemental fields in your CML data base. See McKesson Information Solutions for more information.

MQ admission severity group - Specify MQ admission severity groups, numbered 0 through 4. Patient records within these admission severity groups will be included.

MQ midstay non-responder flag - An indicator of non-responder flags. Patient records, which contain the morbidity flag, will be included.

MQ admission source - Specify lists or ranges of MQ admission sources. Maximum of 100 entries.

MQ admission reason - Admission reason is a three digit code identifying the patient's primary treatment. Specify lists or ranges of MQ admission reasons. Maximum of 100 entries.

MQ unusual occurrence flags - This is a five digit code for unusual occurrences where each digit of the code refers to a particular event (such as unplanned return to surgery). A list allows you to pick the codes you want to use.

MQ first attending physician - This is the physician first assigned to a case. Specify lists or ranges of MQ first attending physicians. Maximum of 100 entries.

MQ clinical service - Clinical service is the MQ first attending physician's specialty. Specify lists or ranges of MQ clinical services. Maximum of 100 entries.

MQ admit time - The admit time indicates the time or times (for multiple visits) that a patient enters a hospital. Time is a two-digit number indicating hour, 00 through 23. Specify lists or ranges of MQ admit times. Maximum of 100 entries.

CSI overall severity A - Specify lists or ranges of CSI overall severity numbers. Patient records which fall within the list or range will be included. Maximum of 100 entries.

CSI overall severity B, C, and D - Same as **CSI overall severity A**.

User-defined items - This category of qualifiers can be used only if your CML data base contains user-defined items. Which qualifiers are available to you depends on the items defined in your data base.

User-defined items can be either numeric or alphanumeric. If the user-defined item you choose is numeric, enter lists and ranges of numeric values appropriate to the user-defined item. If the user-defined item you choose contains alphanumeric values, enter lists or ranges of alpha or numeric characters. These can include some symbols and spaces. Symbols that are not accepted are colons, semicolons, parentheses, and circumflexes (upward arrows).

Each entry for an alphanumeric user-defined item must have the same number of characters. If you want to include values of variable length, you can use wildcards when selecting them. A wildcard is a symbol (*) that stands for all acceptable alphanumeric characters. If used, the wildcard symbol must be the final character in a value (e.g., LV1*). When entering a range, enter an asterisk after the start and end values; you must use the wildcard with both values or not at all.

Tables to Use

If applicable, you will see a screen that prompts for a product table, procedure name and weight tables, and/or one or more summary group tables.

[summary group reference title] summary table

You will see this prompt for each summary group you have selected as a row sort key or as a report qualifier. Enter a name of the appropriate summary group table. Press **<RETURN>** to see a list of summary group tables.

Product table to be applied to field [A-J]

You will see this prompt only if you chose to sort by a product field.

Enter the name of a product table for the product field shown. Press **<RETURN>** to see a list of all those tables with the extension .PDF, and to choose a product table from this list. Note that this table must have already been applied to your CML data base. If you enter the name of a product table that has not been applied to the product field in your data base, you will receive a message to this effect.

Procedure name table

You will see this prompt only if you chose to sort by procedure.

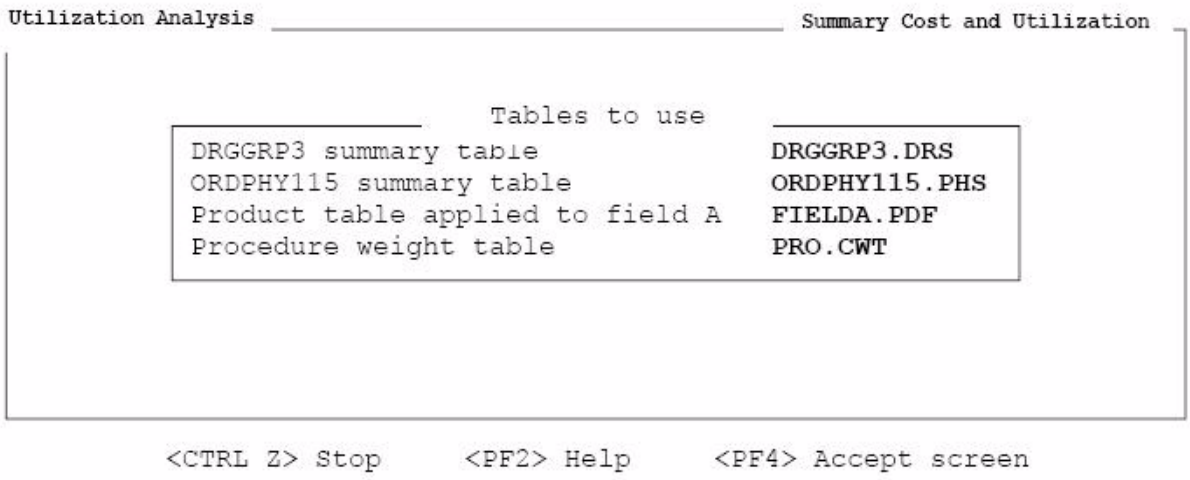
Enter the name of a procedure name table. Press **<RETURN>** to see a list of procedure name tables with the extension .NAM, and to choose a procedure name table from this list.

Procedure weight table

You will see this prompt only when your CML data base has cost factors.

Enter the name of a procedure weight table. Press **<RETURN>** to see a list of all those tables with the extension .CWT, and to choose a procedure weight table from this list.

Example 1-14
Utilization Analysis
Choosing Tables to Use



Format Options

The way in which your report is printed is determined by the format options you choose. The next screen provides a menu of the available format options from which you can select the options that you want. If you choose not to select any of the format options, you will receive a report with standard print features.

Standard print features include printing the report to a log file and paging that report in accordance to the number of lines of data.

Format Options: Text file for exports
Create a McKesson Business Insight/ds.Pathfinder report
Page by [first row sort key]

Choose the format options that you want to use. Note that you cannot choose to send a report to both a screen and a printer.

When you choose the **Page by [first row sort key]** option, your report will have a separate page for each element of that first row sort.

Text File For Exports

When you choose the **Text file for exports** format option, you create a text file for use on your microcomputer as well as a report. The text file is formatted for use with graphics programs such as the Lotus Development Corporation's 1-2-3 program or Ashton-Tate's dBASE. For information on transferring files to a PC, see the “System Procedures” topic in the General Information manual.

When you choose this option you will see the following prompts in the upper right corner of the screen:

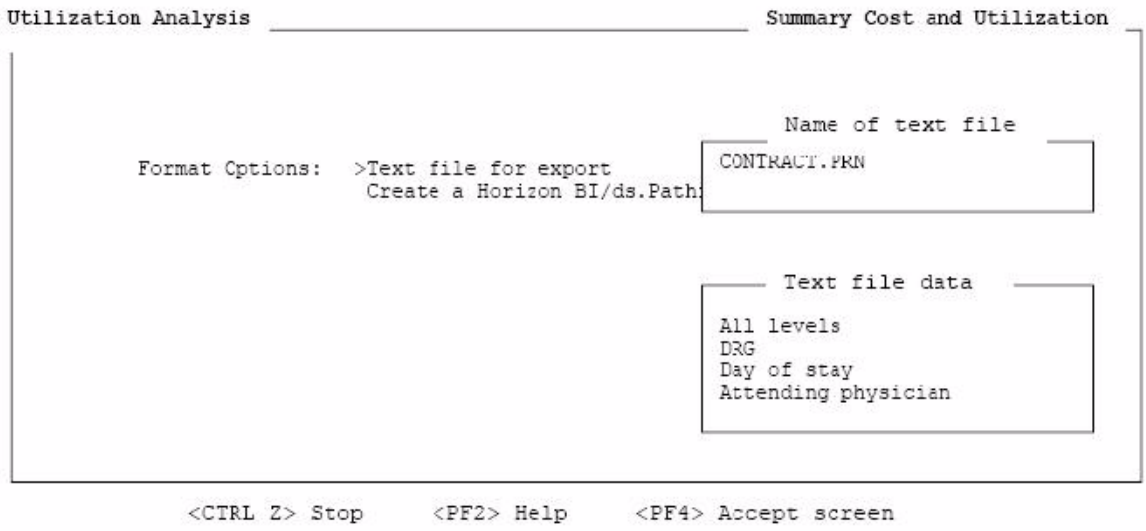
Name of text file

Enter the name of the file to be created. For ease of use with Lotus 1-2-3, it must have the standard file name extension .PRN.

Text file data

This prompt enables you to choose the level of row sort data at which your graphics text file will store subtotals. All of the row sort keys in your report format will be listed, along with the option to include all levels of row sort data. Choose one of these options.

Example 1-15
Utilization Analysis
Format Options
Text File for Exports



You can use the List or print a table option to list the contents of a text file for exports.

Example 1-16
Listing a Text File for Exports
Showing Cost and Utilization Data

```
"AMHERST REGIONAL HOSPITAL"
"EXPORT TEXT FILE"
"04?SEP?91"
"COLUMN"   6 1

" " "" "" "VARIABLE" "FIXED" "TOTAL"
" " "UNITS" "CHARGES" "COST" "COST" "COST"
" " "" "" "" "" ""
"DRG 155 STOM/ESOPH/DUOD AGE "
"  DAY 1 "
"    19 INTENSIVE CARE UNIT " 57.00 4255.75 1012.19 1711.83 2724.02
"    40 EAST PAVILLION " 13.00 715.15 178.14 392.96 571.10
"  TOTAL DAY 1 " 70.00 4970.90 1190.33 2104.79 3295.12

"  DAY 2 "
"    40 EAST PAVILLION " 30.00 2952.75 599.23 898.95 1498.18
"    41 WEST PAVILLION " 64.00 2346.50 1514.62 3227.82 4742.44
"  TOTAL DAY 2 " 94.00 5299.25 2113.85 4126.77 6240.62

"  DAY 3 "
"    40 EAST PAVILLION " 11.00 572.20 121.65 251.07 372.72
"    41 WEST PAVILLION " 38.00 1247.75 282.07 460.71 742.78
"  TOTAL DAY 3 " 49.00 1819.95 403.72 711.78 1115.50

"TOTAL DRG 155 STOM/ESOPH/DU " 213.00 12090.10 3707.90 6943.34 10651.24


"DRG 182 ESOPH/GAST/MISC DIG "
"  DAY 1 "
"    41 WEST PAVILLION " 48.00 2416.25 777.58 1595.49 2373.07
"    43 SOUTH PAVILLION " 12.00 697.70 219.31 538.43 757.74
"  TOTAL DAY 1 " 60.00 3113.95 996.89 2133.92 3130.81

"  DAY 2 "
"    41 WEST PAVILLION " 10.00 588.95 166.42 303.16 469.58
"    43 SOUTH PAVILLION " 8.00 738.50 211.21 605.70 816.91
"  TOTAL DAY 2 " 18.00 1327.45 377.63 908.86 1286.49

"  DAY 3 "
"    41 WEST PAVILLION " 4.00 423.45 111.99 297.93 409.92
"    43 SOUTH PAVILLION " 16.00 621.00 150.86 389.50 540.36
"  TOTAL DAY 3 " 20.00 1044.45 262.85 687.43 950.28

"TOTAL DRG 182 ESOPH/GAST/MI " 98.00 5485.85 1637.37 3730.21 5367.58

"REPORT TOTAL " 311.00 17575.95 5345.27 10673.55 16018.82
```

Create a McKesson Business Insight/ds.Pathfinder Report

Choose this option when you want to create a report for McKesson Business Insight, ds.Pathfinder, the Epitrend Reporting System (ERS) or TRENDPATH. The report you are generating will be written to an .ERS table that can then be sent to McKesson Business Insight/ds.Pathfinder/ERS/TRENDPATH at a later time. Sending a report generated with **Utilization Analysis** to one of these reporting systems supplies the executives of your hospital with cost and utilization information in a timely and efficient manner. The report will not be incorporated into ds.Pathfinder, ERS, or TRENDPATH until it is sent via the **Send a report to ds.Pathfinder** option, nor to McKesson Business Insight until it is sent via the **Send a report to McKesson Business Insight**, both located on the Resource Utilization Reports option menu.

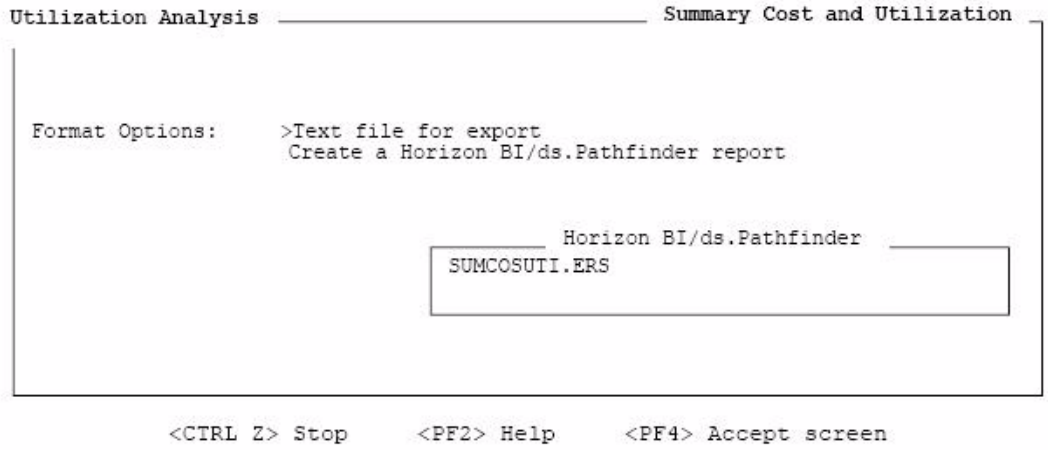
When you select this option you will be prompted:

McKesson Business Insight/ds.Pathfinder table

Assign a name to the table. The extension .ERS must be used.

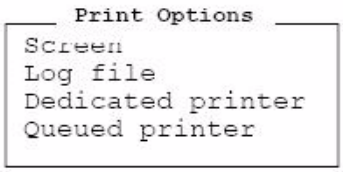
The first three letters of the name should be your hospital's three-letter code. In multi-facility hospitals, incorporating the code into the name enables the person who maintains .ERS reports for your hospital to identify the originating hospital branch. The name you enter should allow the person who maintains reports to identify easily the contents of the report. It can be up to sixteen characters long, including the three-letter .ERS extension.

Example 1-17
Utilization Analysis
Format Options
Create a McKesson Business Insight/ds.Pathfinder Report



Print Options

After you accept the format options for your .ERS report, you will receive the standard print options. Print options allow you to choose where your report will be printed. You can send it to your screen, to a log file, which is saved in your directory for later use, to a dedicated printer attached directly to your terminal, or to a queued printer that may be available to you through a print queue on your computer system.



Screen

This option displays your output on your video terminal screen. It does not print a hard copy, and it does not save the report to a file. This option is useful for a quick glance at your output.

Log file

This option saves your output to a log file that can be recalled for later use, for example, editing or printing. You will be prompted to enter a log file name, which must end in the extension .LOG. A log file will be saved until you delete it. You can list out the contents of this log file using the **List or print a table** option.

Dedicated printer

Choose this option to direct your output to a printer that is attached directly to your terminal or computer.

Queued printer

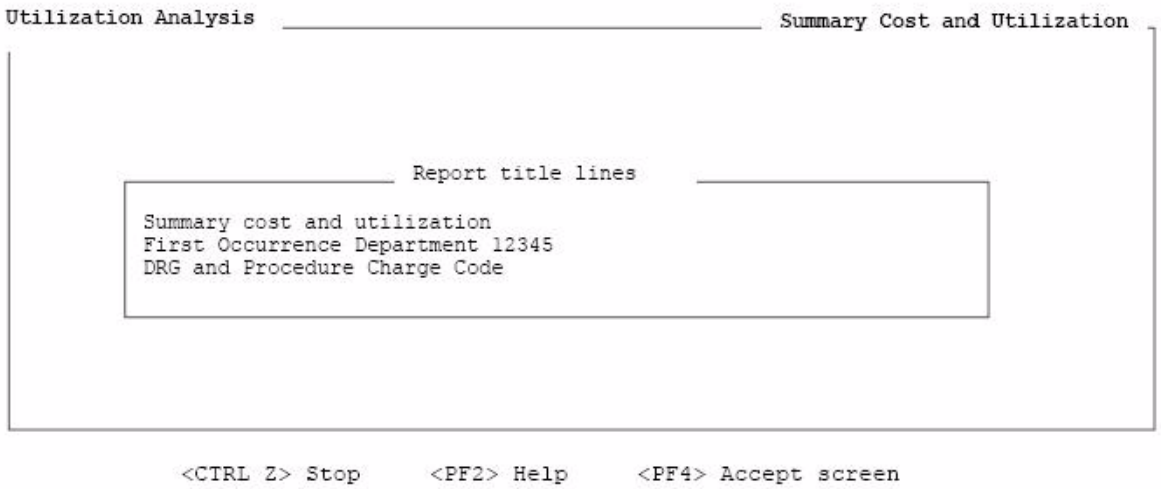
Choose this option to direct your output to a printer that is available through a print queue on your computer system. Queued printers offer a wide range of options not available on a dedicated printer. For information about queued printers, see your system manager.

Report Title Lines

After you have selected the print options for your report, you will be asked to provide a report title. You may enter up to four title lines. Each line can have a maximum of 64 characters. The first title line cannot be blank.

A default first title line will appear on the screen. This default represents the type of utilization analysis report you have selected: **Summary cost and utilization**, **Summary cost and utilization - cases**, **Cost and utilization per case**, or **Fixed and variable cost per case**. You may accept this default title line or enter your own.

Example 1-18
Utilization Analysis
Entering a Report Title



Suppress Row Titles

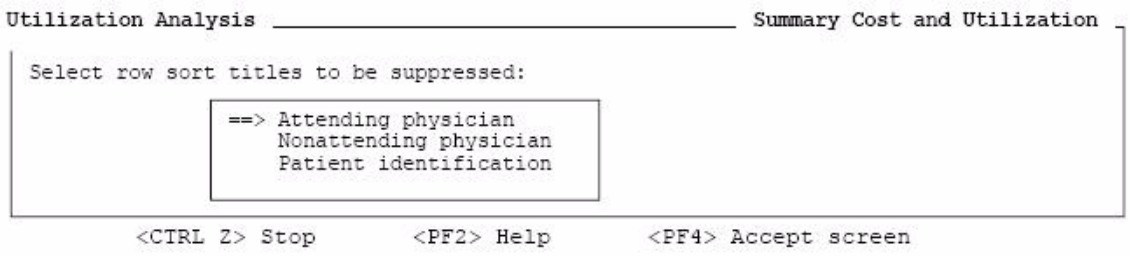
You may not want the numerical or personal identification of certain row sorts such as patient name or identification, or physician numbers to appear on your report. If you are generating a report that has at least one of the following row sorts, you will be given the option to suppress the row titles:

Patient identification
Patient name
Medical record number
Attending physician
Attending physician name
Nonattending physician
Nonattending physician name
Ordering physician
Ordering physician name
MQ first attending physician
MQ first attending physician name

Any of the row sort keys listed above that are defined in your report will be listed in the form of a menu. You can choose to suppress any or all of these as row sort titles. You will not see this screen if your report does not contain any of these sort keys.

The following example illustrates the options that would appear if a report contained attending physician, nonattending physician, and patient identification row sorts.

Example 1-19
Utilization Analysis
Suppressing Row Sort Titles



Detaching

While your report is being processed, you can detach.

```
Want to remain attached to this job [Y/N]?
```

Type **Y** to remain attached; press **<RETURN>** to detach. If you detach, you will be logged off the system when processing is complete.

Report Descriptions

Sample reports and descriptions of the four **Utilization analysis** reports will be found on the following pages.

All reports are preceded by a report header that shows the data bases used, report qualifiers, print options chosen, file names created, and the number of cases selected for the report. A sample report header is shown in the next example.

Example 1-20
Utilization Analysis Report Header

```
AMHERST REGIONAL HOSPITAL                          04-SEP-92,  1:05 PM
UTILIZATION ANALYSIS
Summary cost and utilization
First Occurrence Department 12345
DRG and Procedure Charge Code

TABLES
    CML data base:             DCDB:ARHY92.DBC
    RUA data base:             DCDB:ARHY92.DBR
    MBE table:                 1992.MBE
    Cost table:                1992.COS
    Physician table:           1992.PSP
    Procedure weight table:    PRO.CWT

REPORT ALIGNED ABOUT AN EVENT:
    Event name: 1ST OCCUR DPT 12345
    Event is first occurrence of department 12345
    DAY OF STAY:    1-3 DAYS BEFORE; EVENT; 1-5 DAYS AFTER

REPORT QUALIFIERS
    DRG  209?210
    Procedure charge code:  4100700-4102699

LOG FILE:                      RUAREPORT1.LOG

PRINT OPTIONS
    Page by:                   DRG
    Text file for exports:     CONTRACT.PRN
       Text file data:         DRG
    Text file and ERS report only
    Create and send ERS report:     CONTRACT.ERS

NUMBER OF CASES SELECTED FOR REPORT =      244
```

Summary Cost and Utilization

The columns of the **Summary cost and utilization** report are defined as follows:

UNITS column: The number of units used. This is taken from your RUA data base and represents an aggregate of individual patient units if more than one patient is included in your report.

CHARGES column: The total charges for the units used. This is taken from your RUA data base and represents an aggregate of individual patient charges if more than one patient is included in your report.

VARIABLE COST column: The total variable cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

FIXED COST column: The total fixed cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

TOTAL COST column: The total of both variable and fixed cost, found by adding the VARIABLE COST and FIXED COST columns together.

An example of the **Summary cost and utilization** report follows.

Example 1-21
Summary Cost and Utilization Report
Rows Defined by DRG and Procedure Charge Code, Aligned About First Occurrence of Department 12345

AMHERST REGIONAL HOSPITAL Page: 1
Summary cost and utilization Date/time: 04-SEP-92 1:05 PM
First Occurrence Department 12345
DRG and Procedure Charge Code

	UNITS	VARIABLE CHARGES	FIXED COST	TOTAL COST	COST
DRG 209 MAJ JOINT & LIMB REATTACH					
4100796 MEPERIDINE INJ. 25MG					
3 DAYS BEFORE EVENT	3.00	2.88	1.35	0.45	1.81
1 DAYS BEFORE EVENT	1.00	0.96	0.45	0.15	0.60
2 DAYS AFTER EVENT	1.00	0.96	0.45	0.15	0.60
TOTAL 4100796 MEPERIDINE INJ.25	5.00	4.80	2.26	0.76	3.01
4100797 MEPERIDINE INJ. 50MG					
1 DAYS BEFORE EVENT	6.00	6.30	2.96	1.00	3.95
1ST OCCUR DPT 12345	6.00	6.27	2.96	1.00	3.95
1 DAYS AFTER EVENT	20.00	20.85	9.86	3.32	13.18
2 DAYS AFTER EVENT	16.00	19.95	7.89	2.66	10.54
3 DAYS AFTER EVENT	5.00	5.25	2.46	0.83	3.29
4 DAYS AFTER EVENT	2.00	3.15	0.99	0.33	1.32
TOTAL 4100797 MEPERIDINE INJ.50	55.00	61.77	27.11	9.13	36.24
4100798 MEPERIDINE INJ. 75MG					
1ST OCCUR DPT 12345	1.00	1.18	0.53	0.18	0.71
1 DAYS AFTER EVENT	2.00	2.36	1.06	0.36	1.42
2 DAYS AFTER EVENT	4.00	4.72	2.12	0.72	2.84
3 DAYS AFTER EVENT	1.00	1.18	0.53	0.18	0.71
4 DAYS AFTER EVENT	4.00	4.71	2.12	0.72	2.84
5 DAYS AFTER EVENT	8.00	9.44	4.24	1.43	5.67
TOTAL 4100798 MEPERIDINE INJ 75	20.00	23.59	10.60	3.58	14.18
4100799 MEPERIDINE INJ. 100MG					
2 DAYS AFTER EVENT	2.00	2.46	1.15	0.39	1.54
4 DAYS AFTER EVENT	6.00	7.38	3.46	1.16	4.62
TOTAL 4100799 MEPERIDINE INJ. 10	8.00	9.84	4.61	1.55	6.16
4100801 MEPERIDINE TAB. 50MG					
4 DAYS AFTER EVENT	2.00	1.05	0.59	0.20	0.78
TOTAL 4100801 MEPERIDINE TAB. 50	2.00	1.05	0.59	0.20	0.78
4100807 METAPROTERENOL INH. 15ML					
1ST OCCUR DPT 12345	1.00	9.06	4.37	1.47	5.85
3 DAYS AFTER EVENT	1.00	9.06	4.37	1.47	5.85
TOTAL 4100807 METAPROTERENOL INH	2.00	18.12	8.75	2.95	11.70
4100808 METAPROTERENOL SOLN. 5%					
1 DAYS AFTER EVENT	1.00	7.95	3.86	1.30	5.16
TOTAL 4100808 METAPROTERENOL SOL	1.00	7.95	3.86	1.30	5.16
4100826 METHYLDOPA INJ. 250MG					
1 DAYS AFTER EVENT	7.00	11.13	0.69	0.23	0.92
2 DAYS AFTER EVENT	3.00	4.77	0.29	0.10	0.39
4 DAYS AFTER EVENT	?1.00	?1.59	?0.10	?0.03	?0.13
TOTAL 4100826 METHYLDOPA INJ. 25	9.00	14.31	0.88	0.30	1.18
4100828 METHYLDOPA TAB. 125MG					
1ST OCCUR DPT 12345	3.00	0.54	0.25	0.08	0.34
1 DAYS AFTER EVENT	3.00	0.54	0.25	0.08	0.34
2 DAYS AFTER EVENT	4.00	0.72	0.34	0.11	0.45
3 DAYS AFTER EVENT	3.00	0.54	0.25	0.08	0.34
4 DAYS AFTER EVENT	3.00	0.54	0.25	0.08	0.34
5 DAYS AFTER EVENT	3.00	0.54	0.25	0.08	0.34
TOTAL 4100828 METHYLDOPA TAB. 12	19.00	3.42	1.60	0.53	2.13

Example 21 (continued)
Summary Cost and Utilization Report
Rows Defined by DRG and Procedure Charge Code,
Aligned About First Occurrence of Department 12345

4100839 METHYLPRED. SOD. SUCC. 4					
2 DAYS AFTER EVENT	4.00	9.20	4.09	1.38	5.47
3 DAYS AFTER EVENT	2.00	4.60	2.05	0.69	2.74
4 DAYS AFTER EVENT	1.00	2.30	1.02	0.34	1.37
5 DAYS AFTER EVENT	1.00	2.30	1.02	0.34	1.37
TOTAL 4100839 METHYLPRED. SOD. S	8.00	18.40	8.18	2.76	10.94
4100851 METOPROLOL TAB. 50MG					
3 DAYS BEFORE EVENT	1.00	0.97	0.39	0.13	0.52
1 DAYS BEFORE EVENT	3.00	2.91	1.17	0.39	1.57
1ST OCCUR DPT 12345	2.00	1.94	0.78	0.26	1.04
1 DAYS AFTER EVENT	7.00	6.79	2.74	0.92	3.65
2 DAYS AFTER EVENT	11.00	10.67	4.30	1.44	5.74
3 DAYS AFTER EVENT	3.00	2.91	1.17	0.39	1.57
4 DAYS AFTER EVENT	5.00	4.85	1.96	0.66	2.61
5 DAYS AFTER EVENT	4.00	3.88	1.56	0.52	2.09
TOTAL 4100851 METOPROLOL TAB. 50	36.00	34.92	14.08	4.72	18.79
4 DAYS AFTER EVENT	28.00	16.20	6.64	2.27	8.90
5 DAYS AFTER EVENT	25.00	14.50	5.93	2.03	7.95
TOTAL 4102632 HYDROXYZINE INJ 50	207.00	119.87	49.06	16.77	65.83
TOTAL DRG 209 MAJ JOINT & LIMB REA	2594.00	3066.99	2071.55	698.29	2769.84
TOTAL DRG 210 HIP/FEMUR EXC MAJ JN	1444.00	1932.81	1226.49	413.12	1639.61
REPORT TOTAL	4038.00	4999.80	3298.04	1111.4	4409.45

Summary Cost and Utilization - Cases

The columns of the **Summary cost and utilization - cases** report are defined as follows:

CASES column: The total number of cases included in a given row.

UNITS column: The number of units used. This is taken from your RUA data base, and represents an aggregate of individual patient units if more than one patient is included in your report.

CHARGES column: The total charges for the units used. This is taken from your RUA data base, and represents an aggregate of individual patient charges if more than one patient is included in your report.

VARIABLE COST column: The total variable cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

FIXED COST column: The total fixed cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

TOTAL COST column: The total of both variable and fixed cost, found by adding the previous two columns together.

An example of the **Summary cost and utilization - cases** report follows.

Example 1-22
Summary Cost and Utilization - Cases Report
Rows Defined by DRG, Department, and Ordering Physician

AMHERST REGIONAL HOSPITAL Page: 1
Summary cost and utilization - cases Date/time: 04-SEP-92 1:22 PM

	CASES	VARIABLE UNITS	VARIABLE CHARGES	FIXED COST	TOTAL COST	TOTAL COST
DRG 185 DENTAL/ORAL EXC EXT						
1 OPERATING ROOM						
400 RANDALL RICHARD	1	3.00	1287.50	308.13	538.01	846.14
TOTAL 1 OPERATING ROOM	1	3.00	1287.50	308.13	538.01	846.14
4 RADIOLOGY?DIAGNOSTIC						
300 DUNN RONALD	1	1.00	62.50	20.11	48.19	68.30
400 RANDALL RICHARD	1	3.00	300.00	61.57	144.22	205.79
TOTAL 4 RADIOLOGY?DIAGNOSTIC	2	4.00	362.50	81.68	192.41	274.09
6 LABORATORY						
300 DUNN RONALD	1	8.00	209.50	30.64	47.09	77.73
400 RANDALL RICHARD	1	3.00	77.50	12.90	17.38	30.28
TOTAL 6 LABORATORY	2	11.00	287.00	43.54	64.47	108.01
13 PHARMACY						
300 DUNN RONALD	1	2.00	47.00	1.60	3.40	5.00
400 RANDALL RICHARD	1	23.00	186.00	23.83	39.10	62.93
TOTAL 13 PHARMACY	2	25.00	233.00	25.43	42.50	67.93
16 EMERGENCY ROOM						
400 RANDALL RICHARD	1	3.00	47.50	72.14	219.12	291.26
TOTAL 16 EMERGENCY ROOM	1	3.00	47.50	72.14	219.12	291.26
17 RECOVERY ROOM						
400 RANDALL RICHARD	1	1.00	254.00	83.74	113.23	196.97
TOTAL 17 RECOVERY ROOM	1	1.00	254.00	83.74	113.23	196.97
40 EAST PAVILLION						
400 RANDALL RICHARD	1	3.00	1125.00	367.56	1074.18	1441.74
TOTAL 40 EAST PAVILLION	1	3.00	1125.00	367.56	1074.18	1441.74
•						
•						
•						
41 WEST PAVILLION						
300 DUNN RONALD	1	3.00	1710.00	392.61	980.28	1372.89
TOTAL 41 WEST PAVILLION	1	3.00	1710.00	392.61	980.28	1372.89
53 PATHOLOGY GENERAL						
300 DUNN RONALD	1	1.00	97.75	7.97	15.25	23.22
400 RANDALL RICHARD	1	3.00	256.50	41.00	43.63	84.63
TOTAL 53 PATHOLOGY GENERAL	2	4.00	354.25	48.97	58.88	107.85
60 PHARMACY IV						
300 DUNN RONALD	1	33.00	679.55	121.90	76.62	198.52
TOTAL 60 PHARMACY IV	1	33.00	679.55	121.90	76.62	198.52
TOTAL DRG 185 DENTAL/ORAL E	2	117.00	7805.75	1802.62	3859.92	5662.54
REPORT TOTAL	2	117.00	7805.75	1802.62	3859.92	5662.54

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Cost and Utilization Per Case

The columns of the **Cost and utilization per case** report are defined as follows:

CASES column: The total number of cases included in a given row.

CHARGES column: The total charges for the cases included. This is taken from your RUA data base, and represents an aggregate of individual patient charges if more than one patient is included in your report.

UNITS column: The number of units used. This is taken from your RUA data base, and represents an aggregate of individual patient units if more than one patient is included in your report.

COST column: The total cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

CHARGES PER CASE: The average charge for each case, found by dividing the CHARGES column by the CASES column.

UNITS PER CASE: The average units for each case, found by dividing the UNITS column by the CASES column.

COST PER CASE: The average cost for each case, found by dividing the COST column by the CASES column.

An example of the **Cost and utilization per case** report follows.

Example 1-23
Cost and Utilization Per Case Report
Rows Defined by DRG, Day of Stay, and Department

```
AMHERST REGIONAL HOSPITAL                          Page:     1
Cost and utilization per case                        Date/time:    04-SEP-92,  1:02 PM

                                                      CHARGES       UNITS       COST
                          CASES   CHARGES   UNITS   COST    PER CASE    PER CASE  PER CASE

DRG 155 STOM/ESOPH/DUOD AGE
 DAY 1
 19 INTENSIVE CARE UNIT
  1 OPERATING ROOM          1  1197.00    2.00  532.05    1197.00        2.00     532.05
  4 RADIOLOGY?DIAGNOSTIC    1   273.00    3.00  226.65     273.00        3.00     226.65
  7 BLOOD STORAGE           1   235.50    6.00  119.40     235.50        6.00     119.40
 13 PHARMACY                1   209.75    7.00   81.74     209.75        7.00      81.74
 17 RECOVERY ROOM           1   276.25    1.00  222.24     276.25        1.00     222.24
 19 INTENSIVE CARE UNIT     1   995.00    1.00 1110.05     995.00        1.00    1110.05
 50 PATHOLOGY CHEMIST       1    21.75    1.00    9.03      21.75        1.00       9.03
 51 PATHOLOGY HEMATOL       1   150.00    2.00  126.95     150.00        2.00     126.95
 60 PHARMACY IV             1   320.00    3.00   84.55     320.00        3.00      84.55
 65 CENTRAL SUPPLY          1   231.25   26.00   76.84     231.25       26.00      76.84
 70 RESPIRATORY THERAPY     1    90.00    3.00   41.59      90.00        3.00      41.59
 72 ANESTHESIA              1   256.25    2.00   92.93     256.25        2.00      92.93
TOTAL 19 INTENSIVE CARE UNIT     1   4255.75   57.00 2724.02   4255.75       57.00    2724.02
                                      .
                                      .
                                      .
 DAY 3
 43 SOUTH PAVILLION
 13 PHARMACY                1    32.75    5.00    6.55      32.75        5.00       6.55
 43 SOUTH PAVILLION         1   375.00    1.00  478.35     375.00        1.00     478.35
 60 PHARMACY IV             1    56.25    1.00   29.22      56.25        1.00      29.22
 70 RESPIRATORY THERAPY     1   154.00    9.00   26.24     154.00        9.00      26.24
9999                        1     3.00    0.00    0.00       3.00        0.00       0.00
TOTAL 43 SOUTH PAVILLION    1   621.00   16.00  540.36     621.00       16.00     540.36

 41 WEST PAVILLION
   4 RADIOLOGY - DIAGNOSTIC 1    34.75    1.00   49.67      34.75        1.00      49.67
   5 NUCLEAR MEDICINE       1  -100.00   -2.00  -35.02    -100.00       -2.00     -35.02
   8 OXYGEN THERAPY         1    84.00    2.00   44.93      84.00        2.00      44.93
  13 PHARMACY               1     9.70    2.00   10.42       9.70        2.00      10.42
  41 WEST PAVILLION         1   395.00    1.00  339.92     395.00        1.00     339.92
   TOTAL  41 WEST PAVILLION 1   423.45    4.00  409.92     423.45        4.00     409.92

  TOTAL DAY 3               2  1044.45   20.00  950.28     522.23       10.00     475.14

TOTAL DRG 182 ESOPH/GAST/MI 2  5485.85   98.00 5367.58    2742.93       49.00    2683.79

   REPORT TOTAL             4 17575.95  311.00 16018.82   4393.99       77.75    4004.70
```

Fixed and Variable Cost Per Case

The columns of the **Fixed and variable cost per case** report are defined as follows:

CASES column: The total number of cases included in a given row.

CHARGES column: The total charges for the cases included. This is taken from your RUA data base, and represents an aggregate of individual patient charges if more than one patient is included in your report.

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VARIABLE COST column: The total variable cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

FIXED COST column: The total fixed cost is calculated based on information stored in your cost table. Costs must be defined as units, charges, and cost factors in this table. See the “Data and Information” chapter in the CCA user manual for more information on units, charges, and cost factors.

CHARGES PER CASE: The average charge for each case, found by dividing the CHARGES column by the CASES column.

VARIABLE COST PER CASE: The average variable cost for each case, found by dividing the VARIABLE COST column by the CASES column.

FIXED COST PER CASE: The average fixed cost for each case, found by dividing the FIXED COST column by the CASES column.

An example of the **Fixed and variable cost per case** report follows.

Example 1-24
Fixed and Variable Cost Per Case Report
Rows Defined by DRG, Day of Stay, and Routine Department

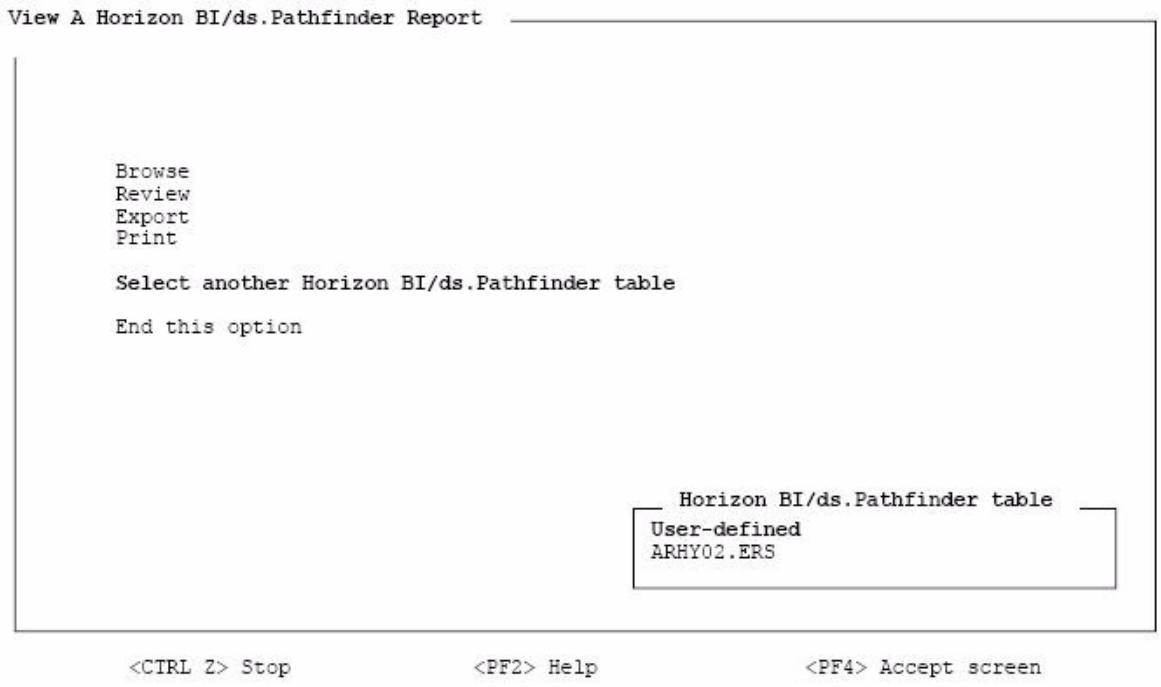
AMHERST REGIONAL HOSPITAL Page: 1
Fixed and variable cost per case Date/time: 04-SEP-92, 12:57 PM

	CASES	CHARGES	VARIABLE COST	FIXED COST	CHARGES PER CASE	VARIABLE COST PER CASE	FIXED COST PER CASE
DRG 155 STOM/ESOPH/DUOD AGE							
DAY 1							
19 INTENSIVE CARE UNIT	1	4255.75	1012.19	1711.83	4255.75	1012.19	1711.83
40 EAST PAVILLION	1	715.15	178.14	392.96	715.15	178.14	392.96
TOTAL DAY 1	2	4970.90	1190.33	2104.79	2485.45	595.16	1052.39
DAY 2							
40 EAST PAVILLION	1	2952.75	599.23	898.95	2952.75	599.23	898.95
41 WEST PAVILLION	1	2346.50	1514.62	3227.82	2346.50	1514.62	3227.82
TOTAL DAY 2	2	5299.25	2113.85	4126.77	2649.62	1056.92	2063.39
DAY 3							
40 EAST PAVILLION	1	572.20	121.65	251.07	572.20	121.65	251.07
41 WEST PAVILLION	1	1247.75	282.07	460.71	1247.75	282.07	460.71
TOTAL DAY 3	2	1819.95	403.72	711.78	909.97	201.86	355.89
TOTAL DRG 155 STOM/ESOPH/DU	2	12090.10	3707.90	6943.34	6045.05	1853.95	3471.67
			•				
			•				
			•				
DRG 182 ESOPH/GAST/MISC DIG							
DAY 1							
41 WEST PAVILLION	1	2416.25	777.58	1595.49	2416.25	777.58	1595.49
43 SOUTH PAVILLION	1	697.70	219.31	538.43	697.70	219.31	538.43
TOTAL DAY 1	2	3113.95	996.89	2133.92	1556.98	498.44	1066.96
DAY 2							
41 WEST PAVILLION	1	588.95	166.42	303.16	588.95	166.42	303.16
43 SOUTH PAVILLION	1	738.50	211.21	605.70	738.50	211.21	605.70
TOTAL DAY 2	2	1327.45	377.63	908.86	663.73	188.81	454.43
DAY 3							
41 WEST PAVILLION	1	423.45	111.99	297.93	423.45	111.99	297.93
43 SOUTH PAVILLION	1	621.00	150.86	389.50	621.00	150.86	389.50
TOTAL DAY 3	2	1044.45	262.85	687.43	522.23	131.42	343.72
TOTAL DRG 182 ESOPH/GAST/MI	2	5485.85	1637.37	3730.21	2742.93	818.68	1865.11
REPORT TOTAL	4	17575.95	5345.27	10673.55	4393.99	1336.32	2668.39

View a McKesson Business Insight/ds.Pathfinder Report

This option appears on the Utilization Analysis Reports screen only if you subscribe to **McKesson Business Insight**, **ds.Pathfinder**, the **EpiTREND Reporting System (ERS)** or **TRENDPATH**. If you have created a McKesson Business Insight/ds.Pathfinder/ERS/TRENDPATH report but have not yet sent it, you can view it first with this option. You are prompted with a list of the .ERS report tables currently on your DRUA: directory. The ERS functions you can use include **Browse**, **Review**, **Export**, and **Print**. For instructions on the use of these options, see your ERS manual.

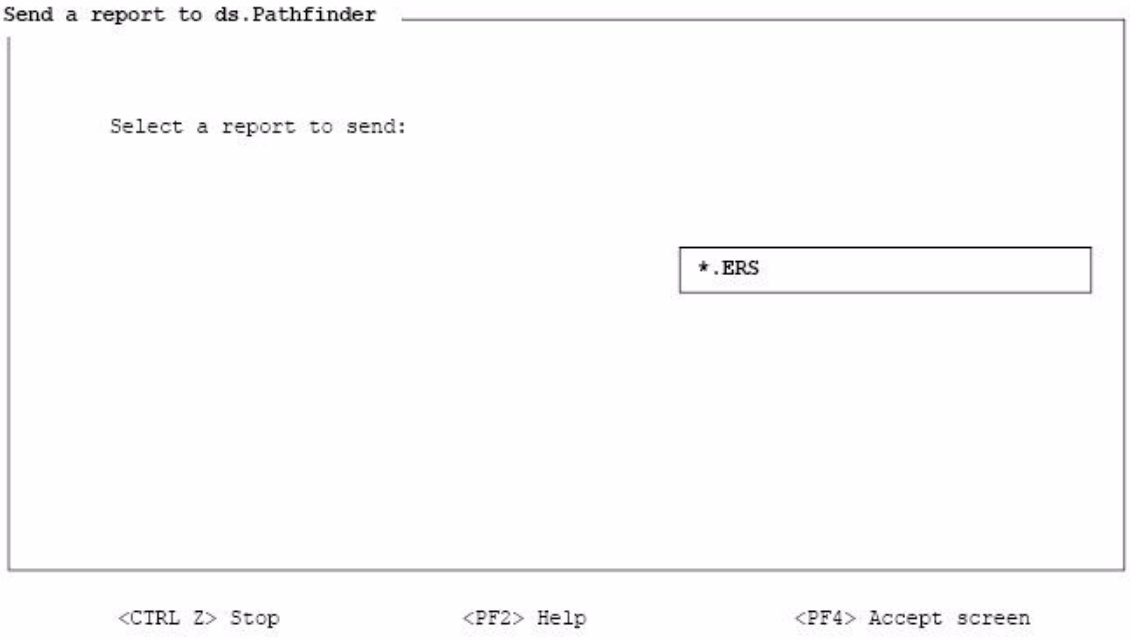
Example 1-25
View a McKesson Business Insight/ds.Pathfinder Report



Send a Report to ds.Pathfinder

This option appears on the Utilization Analysis Reports screen only if you subscribe to **ds.Pathfinder**, the **EpiTREND Reporting System (ERS)** or **TRENDPATH**. An .ERS report table can be created via the format option **Create a McKesson Business Insight/ds.Pathfinder report**. Use this option to send the .ERS report table to ds.Pathfinder, ERS, or TRENDPATH. You will see a popup prompt that shows a wildcard and the .ERS extension.

Example 1-26
Send a Report to ds.Pathfinder



If you accept this prompt, all .ERS tables are shown in a secondary popup. You can, however, change the table designation with wildcards or a single table name. For example, if you enter a table designation such as *ABC*.ERS, all .ERS tables with ABC in the name are listed, along with the **ALL** option. You can then send either one or all of your .ERS tables to ds.Pathfinder, ERS, or TRENDPATH. Move the cursor to ALL or one of the table names and press **<PF4>** or **<RETURN>**.

ALL
XYZABC1.ERS
XYZABC2.ERS
XYZABC3.ERS

Finally, if you select ALL, you will see the following prompt:

```
Same names in McKesson Business Insight/ds.Pathfinder will be
overwritten.  Continue [Y/N]?
```

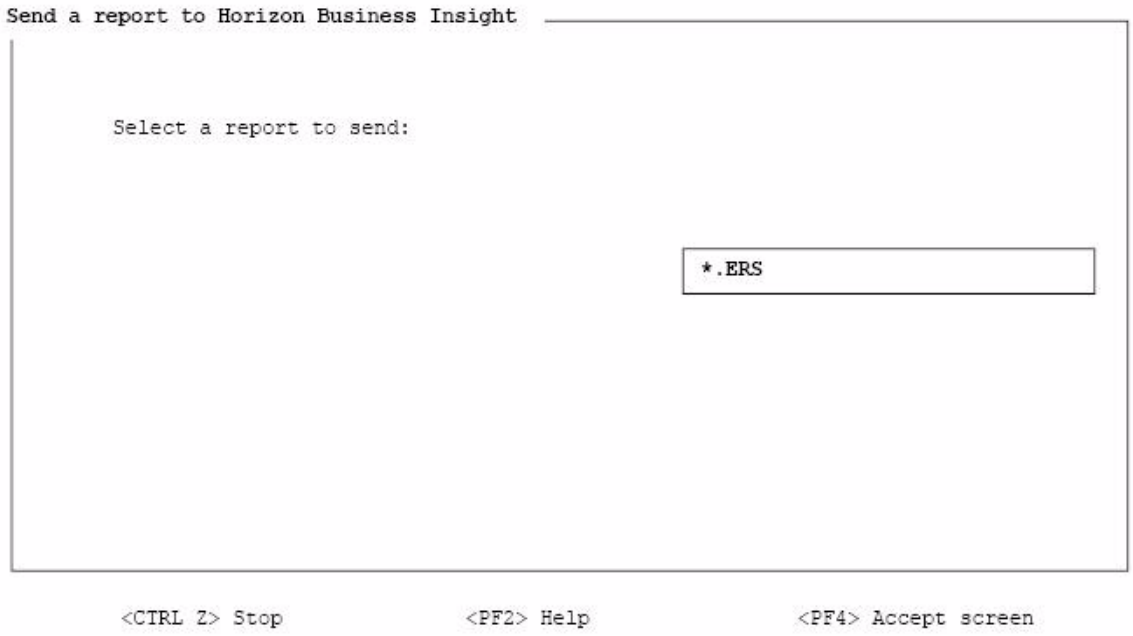
Respond **Y** to transfer all listed tables. The originals in your DRUA: directory will be deleted.

Once a table is in ds.Pathfinder, ERS, or TRENDPATH, the person who maintains .ERS reports for your hospital can assign the report to a category and ensure that it can be viewed by the appropriate executives.

Send a Report to McKesson Business Insight

This option appears on the Utilization Analysis Reports screen only if you subscribe to McKesson Business Insight. Use this option to send an .ERS report table, created via the **Create a McKesson Business Insight/ds.Pathfinder report** format option, to McKesson Business Insight. You will see a popup prompt that shows a wildcard and the .ERS extension.

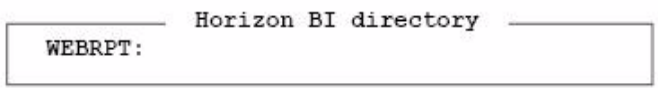
Example 1-27
Send a Report to McKesson Business Insight



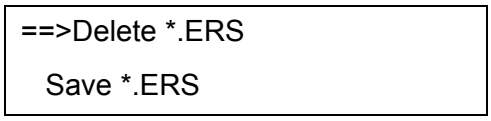
If you accept this prompt, all .ERS tables are shown in a secondary popup. You can, however, change the table designation with wildcards or a single table name. For example, if you enter a table designation such as *ABC*.ERS, all .ERS tables with ABC in the name are listed, along with the **ALL** option. You can then send either one or all of your .ERS tables to McKesson Business Insight. Move the cursor to ALL or one of the table names and press **<PF4>** or **<RETURN>**.

ALL
XYZABC1.ERS
XYZABC2.ERS
XYZABC3.ERS

Respond **Y** to transfer all listed tables. You are prompted for a McKesson Business Insight directory. Specify the directory that has been setup in your McKesson Business Insight installation as the McKesson Business Insight reports directory.



You then have an option to save or delete the specified .ERS file, or all the .ERS files, after they have been sent to the McKesson Business Insight reports directory:



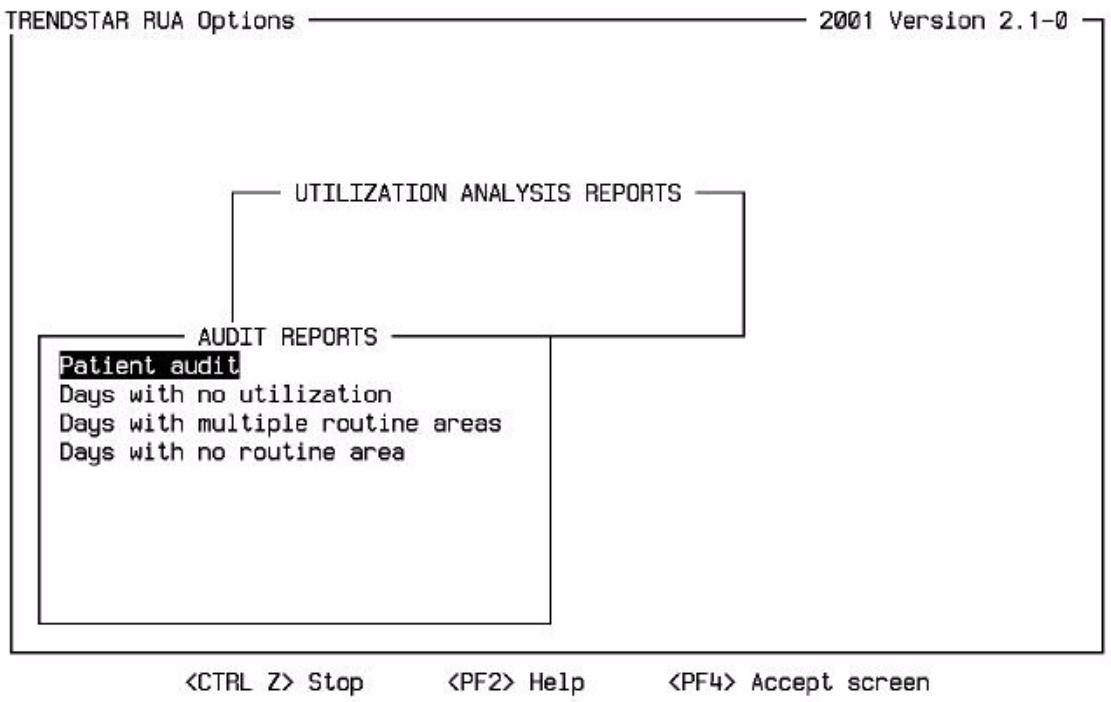
This is followed by a confirmation prompt.

Once a table is in the McKesson Business Insight reports directory, the person who maintains McKesson Business Insight reports for your hospital can assign the report to a category and ensure that it can be viewed by the appropriate executives.

Audit Reports

When you choose the **Audit Reports** option from the RUA main menu, you will be given a menu containing the four audit reports.

Example 1-28
Audit Reports



The **Patient audit** report option is the same as the detailed patient audit report within the **CCA Audit Reports** option. However, the **RUA Patient audit** report also allows you to focus on day of stay data. It provides detailed information for each patient included on the report.

The **Days with no utilization** report provides a listing, by patient, of those days with no utilization.

The **Days with multiple routine areas** report allows you to focus on days with multiple routine departments by patient. Charges and units of procedure charge codes are shown by routine department.

The **Days with no routine area** report provides a listing, by patient, of days of stay with no routine areas and days of stay with routine areas with only non-accumulated units.

When you choose one of these reports, the next screen prompts you for your CML data base, MBE table, and physician table. If you have chosen the **Days with multiple routine areas** report or the **Days with no routine area** report, you will also be prompted for a cost table here.

CML data base

Enter the name of a CML data base that corresponds to an RUA data base. Note that you will not be prompted for the name of your RUA data base, although it will be used in the report. The RUA data base will be accessed automatically when you enter the CML data base to which it corresponds.

To see a list of your CML data bases, press **<RETURN>** and a box displaying all data bases with the extension .DBC will appear in the lower right corner of the screen. You can then choose a data base from this list.

MBE table

An MBE table should always be used to define data to include in this report, since an RUA data base stores a large volume of data. By focusing only on the subset of data that you want to see, you can save processing time and disk storage space.

Enter the name of an MBE table here. To see a list of your MBE tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all MBE tables in your DCML directory with the extension .MBE. You can then choose an MBE table from this list.

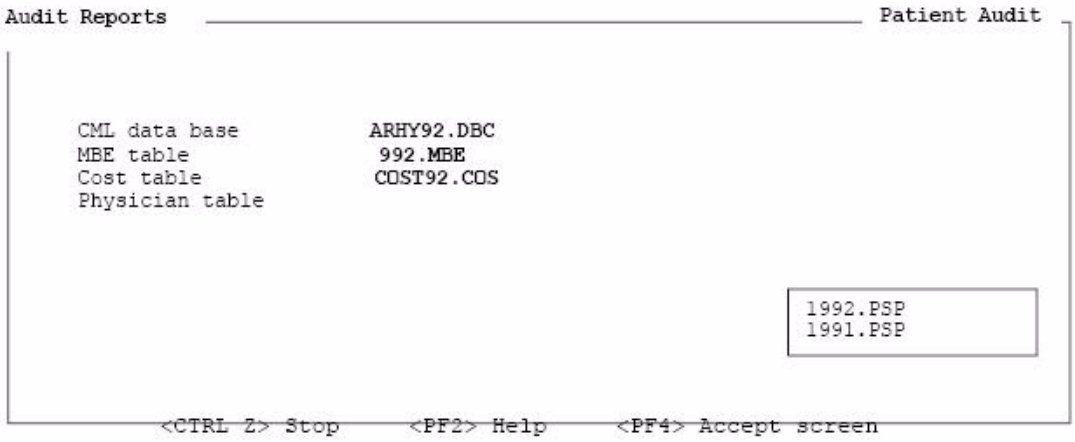
Cost table

Enter the name of the cost table that you want to use with your CML data base. To see a list of your cost tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all tables on your DCML directory with the extension .COS. You can then choose a cost table from this list.

Physician table

Enter the name of a physician table that corresponds to the data base that you are using in this report. To see a list of your physician tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all physician tables with the extension .PSP. You can then choose a physician table from this list.

Example 1-29
Patient Audit Report
Specifying a CML Data Base, MBE Table, Cost Table, and Physician Table



Detail to Include

You will see the next screen only when you are generating the **Patient audit** report. It prompts you for the detail to include in this report. You can include any or all of the following types of detail:

- Medical record data
- Product field assignment
- Departmental cost factors
- User-defined data
- Summarized procedure charge information
- Procedure charge information by day

Note that the report detail you choose to include will be shown for each patient included in the report.

When you choose to include medical record data in your report, you will see ICD-9-CM diagnoses and procedures for each patient.

When you choose to include product field assignments in your report, you will see the products assigned to each product field for each patient.

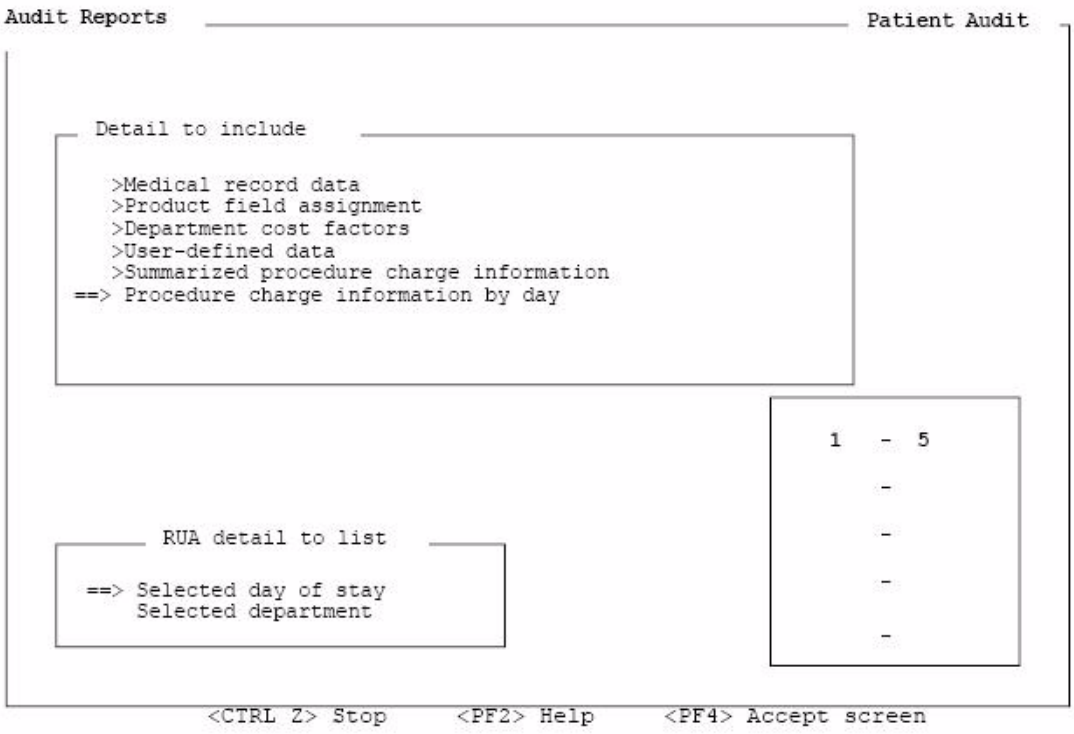
When you choose to include departmental cost factors in your report, you will see cost factors for departments used by each patient.

When you choose to include user-defined data in your report, you will see user-defined item names and values for each patient.

When you choose to include summarized procedure charge information in your report, you will see an itemized list of all charges for each patient.

When you choose to include procedure charge information by day in your report, you will be prompted to choose how you want this RUA detail included. It can be included on the basis of selected days of stay and/or selected departments. You will then be prompted accordingly to enter a list or range of values for days of stay and/or departments and finally, you will see a listing of procedure charge information for each day of stay associated with each patient.

Example 1-30
Patient Audit Report
Detail to Include



Report Qualifiers

Report qualifiers allow you to choose data for the audit reports on the basis of values for certain elements of a patient record. This enables you to produce reports for select groups of patient data.

If you are using an MBE table, the qualifiers that you choose will be applied only to the data that is specified by that MBE table; otherwise, those qualifiers will be applied to all of the data in your data base.

You can specify up to 10 qualifiers. Data meeting all of these specifications will be included in your report.

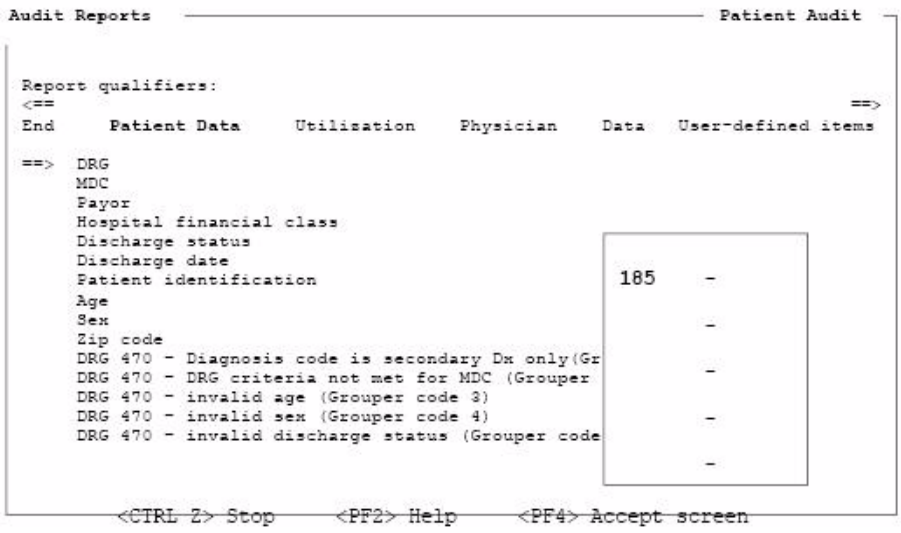
There are three to four categories listed on the screen from which you can select qualifiers. They are:

- Patient data

- Utilization
- Physician data
- User-defined items

Choose a category first, then choose the qualifier, or qualifiers, from the menu that appears for that category. You can then choose qualifiers from other categories in the same way. When you are finished selecting qualifiers, choose the **End** option from the category list.

Example 1-31
Patient Audit Report
Choosing Report Qualifiers



After selecting a qualifier, if applicable, you will be prompted to enter data values for that qualifier in a box that appears in the lower right corner of the screen. The qualifiers, and the acceptable data values for those qualifiers, are described below. You can enter up to 50 lists and ranges for each qualifier.

Patient data - There are up to 17 qualifiers in this category:

DRG - Specify a list or a range of DRGs. Patient records associated with these DRGs will be included.

MDC - Specify a list or a range of MDCs. Patient records associated with these MDCs will be included.

Payor - Enter a list or a range of payor numbers. Patient records associated with these payors will be included.

Hospital financial class - Enter a list or range of hospital financial class codes. Patient records with these codes will be included.

Hospital financial class codes can include only alphanumeric characters. Each entry must have the same number of characters. If you want to include values of variable length, you can use wildcards when selecting them. A wildcard is a symbol (*) that stands for all acceptable alphanumeric characters. If used, the wildcard symbol must be the final character in a value (e.g., 333*). When entering a range, enter an asterisk after the start and end values; you must use the wildcard with both values or not at all.

Discharge status - Discharge status codes include the following:

0 Unknown
1 Home, self-care
2 Short-term hospital
3 Skilled Nursing Facility
4 Intermediate care facility
5 Other facility
6 Home health service
7 Against medical advice
8 Home IV service
9 Admitted as an inpatient to this hospital
20 Expired
30 Still a patient
40 Expired at home [for Hospice care] •
41 Expired, medical facility [for Hospice care] •
42 Expired, place unknown [for Hospice care] •
50 Hospice, home ••
51 Hospice, medical facility ••
62 Swing bed
63 To another rehab facility
64 To long term care facility
71 Outpatient, other institute
72 Outpatient, this institute

•Not recognized by 3M Grouper
••Not a valid Medicare code

Select the codes that you want from the menu that appears. Patient records containing these codes will be included. Unknown status includes any codes not listed above.

Discharge date - Enter a list or a range of discharge dates using the format MM/DD/YY or M/D/YY. If you enter a list, patients discharged on those dates will be included. If you enter a range, patients discharged within the time period defined by the range will be included.

Patient identification - Enter a list or range of patient identification numbers. The records of patients with these numbers will be included.

Age - Specify a list or range of patient ages. The records of patients whose ages are within the specified list or range will be included.

Sex - There are three sex specifications:

Male

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Female

Unknown

Select the sex specifications that you want from the menu that appears. Records for patients with these sex specifications will be included.

ZIP/Postal code - Specify a list or range of ZIP/Postal codes. Records of patients with these ZIP/Postal codes in their home addresses will be included. Wild cards may be used.

The following patient data qualifiers are available only when you generate the **Patient audit** report:

DRG 470 - Diagnosis code is secondary Dx only (Grouper code 1)- Lists cases that are assigned to DRG 470 because, although valid, the ICD-9-CM diagnosis code is not available as principal diagnosis.

DRG 470 - DRG criteria not met for MDC (Grouper code 2) - Lists cases that are assigned to DRG 470 because there was no DRG within the applicable MDC that matched the patient's diagnosis and procedure information.

DRG 470 - invalid age (Grouper code 3) - Lists cases that are assigned to DRG 470 when a patient's age is less than 0 or greater than 124, or when a patient's age is inappropriate for the principal diagnosis. For example, a record with a diagnosis of craniotomy age <18 for a 52 year old patient.

DRG 470 - invalid sex (Grouper code 4) - Lists cases that are assigned to DRG 470 when a patient's sex is inappropriate for the principal diagnosis. For example, a male patient with a diagnosis indicating childbirth.

DRG 470 - invalid discharge status (Grouper code 5) - Lists cases that are assigned to DRG 470 because of an invalid or nonexistent discharge status code.

DRG 470 - illogical principal diagnosis (Grouper code 6) - Lists cases that are assigned to DRG 470 because, although valid, the principal ICD-9-CM diagnosis code is incompatible with other patient codes. For example, a record with measles as principal diagnosis, and coronary bypass as the principal procedure.

DRG 470 - invalid principal diagnosis (Grouper code 7) - Lists cases that are assigned to DRG 470 because of an invalid or nonexistent ICD-9-CM diagnosis code.

Utilization - There are eight qualifiers in this category:

Department - Enter a list or range of department numbers. All data for those cases associated with the selected departments will be included.

Procedure charge code - Enter a list or range of procedure charge codes. Cases associated with these procedure charge codes will be included.

Days - Enter a list or range of LOS days. Data for patients whose total stay falls within this list or range will be included.

LOS data does not equal total units for routine departments - Includes cases for which length of stay and total units for routine departments, which are assumed to be days, are not equal.

Exclude newborns - Cases that are newborns will be excluded. Available only when generating the **Days with no utilization** report.

Include non-accumulated units - Cases with non-accumulated units will be included. Available only when generating the **Days with multiple routine areas** report.

The following utilization qualifiers will be available only when generating the **Patient audit** report:

Department 0 - no billing data - Cases with no billing data will be included.

Department -9999 - unmapped billing data - Cases containing billing data that is not mapped to a department will be included.

Physician data - The following qualifiers can be used:

Attending physician - Specify a list or a range of physician numbers. Patients treated by these attending physicians will be included.

Nonattending physician [A - S] - Specify a list or range of physician numbers. Patients treated by the physicians in this nonattending physician group will be included.

Attending physician specialty - Enter a list or a range of specialty numbers. Patients treated by attending physicians in these specialties will be included.

Nonattending physician [A - S] specialty - Enter a list or range of specialty numbers. Patients treated by the physicians in this nonattending physician group and associated with these specialties will be included.

User-defined items - Which user-defined qualifiers are available depends on the items defined in your data bases.

User-defined items can be either numeric or alphanumeric. If the user-defined item you choose is numeric, enter lists and ranges of numeric values appropriate to the user-defined item. If the user-defined item you choose contains alphanumeric values, enter lists or ranges of alpha or numeric characters. These can include some symbols and spaces. Symbols that are not accepted are colons, semicolons, parentheses, and circumflexes (upward arrows).

Each entry for an alphanumeric user-defined item must have the same number of characters. If you want to include values of variable length, you can use wildcards when selecting them. A wildcard is a symbol (*) that stands for all acceptable alphanumeric characters. If used, the wildcard symbol must be the final character in a value (e.g., LV1*). When entering a range, enter an asterisk after the start and end values; you must use the wildcard with both values or not at all.

Tables to Use

The next screen appears only when generating the **Patient audit** report. It prompts you for a cost table and a procedure name table.

Cost table

You will see this prompt only when you have chosen to include department cost factors or procedure charge information in the report, or if LOS does not equal total units for the routine department.

Enter the name of the cost table that you want to use with your CML data base. To see a list of your cost tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all tables on your DCML directory with the extension .COS. You can then choose a cost table from this list.

Procedure name table

You will see this prompt only if you are printing procedure charge information or summarized procedure charge information.

This table is optional. If you want to supply procedure names for this report, then enter the name of your procedure name table. Otherwise, press **<PF4>**.

To see a list of your procedure name tables, press **<RETURN>** and a box will appear in the lower right corner of the screen that displays all tables on your DCML directory with the extension .NAM. You can then choose a procedure name table from this list.

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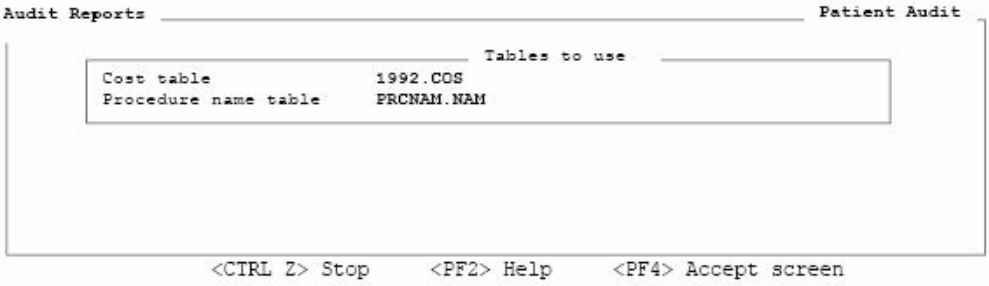
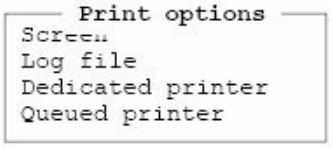
Example 1-32
Patient Audit Report
Choosing Tables to Use



After you accept the above screen, you will receive the standard print options.

Print Options

Print options allow you to choose where your report will be printed. You can send it to your screen, to a log file, which is saved in your directory for later use, to a dedicated printer attached directly to your terminal, or to a queued printer that may be available to you through a print queue on your computer system.



Screen

This option displays your output on your video terminal screen. It does not print a hard copy, and it does not save the report to a file. This option is useful for a quick glance at your output.

Log file

This option saves your output to a log file that can be recalled for later use, for example, editing or printing. You will be prompted to enter a log file name, which must end in the extension .LOG. A log file will be saved until you delete it. You can list out the contents of this log file using the List or print a table option.

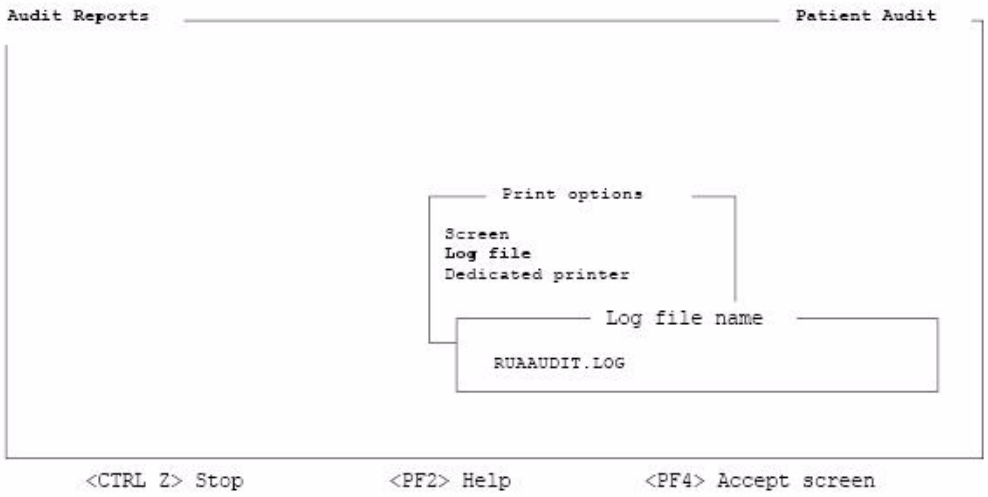
Dedicated printer

Choose this option to direct your output to a printer that is attached directly to your terminal or computer.

Queued printer

Choose this option to direct your output to a printer that is available through a print queue on your computer system. Queued printers offer a wide range of options not available on a dedicated printer. For information about queued printers, see your system manager.

Example 1-33
Patient Audit Report
Creating a Report Log File



Detach ing

While your report is being processed, you can choose to detach.

```
WANT TO REMAIN ATTACHED TO THIS JOB [Y/N]?
```

Type Y to remain attached to this job; press **<RETURN>** to detach. When you detach, you will be logged off the system when processing is complete.

Report Descriptions

Patient Audit

Depending on the detail you chose to include in your **Patient audit** report, you will see up to six different sets of columns. There is a separate set of columns for each of the following patient details:

- Medical record data
- Product field assignments
- Departmental cost factors
- User-defined data
- Summarized procedure charge information

- Procedure charge information by day.

All of these columns are described below:

Columns for Medical Record Data

PATIENT NUMBER column: The patient identification number.

DISCHARGE columns:

DATE: The date the patient was discharged.

STATUS: The discharge status code.

PAT TYPE column: The patient type.

PATIENT NAME column: The patient's name, if this is stored in your CML data base.

AGE column: The patient's age.

SEX column: The patient's sex.

LOS column: The length of stay in days.

PAYOR columns:

HOSP. column: The hospital financial class code. This is the code used on your billing tape to identify payors.

AAI column: The McKesson Information Solutions payor code number. This is the payor code defined in your cost table.

PHYS. column: The attending physician number. Any nonattending physician associated with the case, up to a total of four, will be listed on a separate line below the attending physician.

DRG column: The DRG to which the client was assigned if there was sufficient information to make an assignment.

MDC column: The MDC to which the patient was assigned.

PRINCIPAL DIAGNOSIS column: The principal diagnosis used by the GROUPER program to determine MDC classification.

DRG PROC column: The ICD-9-CM operating procedure, if any, that GROUPER used to determine DRG assignment.

DRG DIAG column: Any diagnosis used by GROUPER to determine the DRG assignment. GROUPER refers to this as Any Diagnosis.

DRG SEC. DIAG column: The secondary diagnosis or complicating comorbidity used to determine the DRG assignment.

Columns for Product Field Assignments

FIELD column: The product field.

VALUE column: The product field value for the given patient.

Columns for Departmental Cost Factors

DEPARTMENT column: The department name and number.

COST FACTOR columns: One column will be printed for each of your cost factors, showing the cost factor value.

Columns for User-defined Data

NAME column: The user-defined item name.

VALUE column: The user-defined item value for the patient.

Columns for Summarized Procedure Charge Information

DEPARTMENT column: The department in which the charge was incurred.

PROCEDURE CHARGE CODE column: The procedure charge code number for the charge.

UNITS column: The total number of units used.

CHARGE column: The total charge for the units used.

MAPPING CODE column: The code used to map the procedure charge code to the department.

Columns for Procedure Charge Information by Day

DAY OF STAY column: The day of stay number.

PROCEDURE CHARGE CODE column: The procedure charge code number. Note that since a separate row is printed for each charge transaction, a single procedure charge code may be listed multiple times for a given day.

CHARGES column: The total charge for the procedure.

DEPARTMENT column: The department in which the procedure was performed.

ORDERING PHYSICIAN column: The physician who ordered the procedure, if this information is stored in the RUA data base. Otherwise, this column will not print.

UNITS column: The number of units used, if this information is stored in the RUA data base. Otherwise, this column will not print.

MAPPING CODE column: The code used to map the procedure charge code to the department, if this information is stored in the RUA data base. Otherwise, this column will not print.

Example 1-34
Patient Audit Report
Including All Details

```
                                                    PAGE:           1
AMHERST REGIONAL HOSPITAL                                  DATE/TIME:       06-MAR-92, 01:47 PM
PATIENT AUDIT                                                CML DATA BASE:   DCDB:ARHY92.DBC
DISCHARGES: 07/01/91 TO 10/31/91

PATIENT  **DISCHARGE**  PATIENT PAT AGE SEX  LOS **PAYOR** PHYS.DRG MDC PRINCIPAL DRG DRG  DRG SEC.
NUMBER  DATE   STATUS      NAME     TYPE       HOSP. AAI             DIAGNOSIS  PROC   DIAG   DIAG

462391 07/10/91  1  JONES,MATTHEW 1  27   M   8   10    10    300 280   9    87500
                                                 300
                                                1010
 2 DIAGNOSES:           87500  51280

 1 PROCEDURES:           3404

PRODUCT FIELD ASSIGNMENTS:      FIELD     VALUE
                                 A          0
                                 B          0
                                 C          0

     DEPARTMENT     COST       COST       COST       COST
    FACTOR 1   FACTOR 2   FACTOR 3   FACTOR 4
   7 BLOOD STOR        9.10      41.73       0.05      11.99
  16 EMERGENCY       150.40     533.91       7.13     598.40
  41 WEST PAVIL      170.06     664.21       7.00      34.75
  50 PATHOLOGY         3.60      56.09       0.08      38.47
  51 PATHOLOGY         2.06      18.22       0.07       5.71
                                                .
                                                .
USER-DEFINED ITEMS:        NAME                              VALUE

                           HOSSVC                          NEU
                           NURSTA                          5W
                           PATTYPE                           1
                           INSPLNS                           3
                           SOURCE                            2
                           DIST CODE                        46
                           RELIGION                          2
                           LEVEL                            21
                           ULDXCAT                         239
                           ULSTAGE                          21
                           ULPDXFLG                        P
                           PSDXCAT                         239
                           PSSTAGE                          21
                           PSPDXFLG                        P
```

Example 34 (continued)
Patient Audit Report
Including All Details

```
                                                PAGE:                2
AMHERST REGIONAL HOSPITAL                                DATE/TIME:           06-MAR-92, 01:47 PM
PATIENT AUDIT                                                                 CML DATA BASE:
DCDB:ARHY92.DBC
DISCHARGES: 07/01/91 TO 10/31/91
                                  PROCEDURE
CHARGES:      DEPARTMENT             CHARGE CODE        UNITS            CHARGE         MAPPING CODE
         7 BLOOD STORAGE               50060772            6               235.50               0
        13 PHARMACY                    59481810            1                 1.25               0
        16 EMERGENCY ROOM              43344982            2               240.00               0
        16 EMERGENCY ROOM              43345245            1                23.75               0
        16 EMERGENCY ROOM              43345278            1                 9.00               0
        16 EMERGENCY ROOM              43345427            1               140.50               0
        16 EMERGENCY ROOM              43345450            1               200.00               0
        16 EMERGENCY ROOM              43345484            1                30.00               0
        16 EMERGENCY ROOM              43345575            1                57.50               0
        16 EMERGENCY ROOM              43345948            1                25.00               0
        16 EMERGENCY ROOM              43345971            1                26.75               0
        16 EMERGENCY ROOM             43346227             1                45.00               0
        41 WEST PAVILLION             47295075             9              3555.00               0
                                                  .
                                                  .
                                                  .
        60 PHARMACY IV                 59281877            2                13.70               0
        60 PHARMACY IV                 59281943           17                85.00               0
                                                           7483.55

DAY OF          PROCEDURE                 CHARGES              DEPARTMENT                  UNITS
 STAY         CHARGE CODE
   1     43344966   TUBE,CHEST              31.75         41 WEST PAVILLION                 1
   1     43346052   TRAY,SKIN SCRUB          4.25         41 WEST PAVILLION                 1
   1     43346250   TRAY,CATH.              37.00         41 WEST PAVILLION                 1
   1     43346318   TRAY,CATH CARE          16.00         41 WEST PAVILLION                 1
   1     43346342   GAUZE ? SEL PL1          5.25         41 WEST PAVILLION                 1
   1     43346342   GAUZE ? SEL PL1          5.25         41 WEST PAVILLION                 1
   1     43347514   UNIFLEX 4               25.00         41 WEST PAVILLION                 1
   1     46489533   IDOFORM 2                0.00         50 PATHOLOGY CHEMISTRY            1
   1     46495885   S.O.P. CONTRACTUAL     395.00         50 PATHOLOGY CHEMISTRY            1
                                                  .
                                                  .
                                                  .
   5     54725400   AMPICILLAN 250 MG       23.50         13 PHARMACY                       1
   5     54725780   AMPICILLAN 500 MG       23.50         13 PHARMACY                       1
   5     54725780   AMPICILLAN 500 MG       23.50         13 PHARMACY                       1
                                                  .
                                                  .
                                                  .

NUMBER OF PATIENTS ON REPORT: 1
```

Days with No Utilization

The **Days with no utilization** report provides a listing by patient of days with no utilization. The columns include patient number and name, discharge date and status, age, sex, LOS, financial class, payor, attending physician, DRG, and MDC.

PATIENT NUMBER column: The patient identification number.

DISCHARGE columns:

DATE: The date the patient was discharged.

STATUS: The discharge status code.

PATIENT NAME column: The patient's name, if this is stored in your CML data base.

AGE column: The patient's age.

SEX column: The patient's sex.

LOS column: The length of stay in days.

FIN CLASS column: The patient's financial class.

PAYOR column: The patient's payor code number.

ATTENDING PHYSICIAN column: The patient's attending physician.

DRG column: The DRG assigned to the patient.

MDC column: The MDC to which the patient was assigned.

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Example 1-35
Days with No Utilization Report

```
                                                                PAGE:          1
AMHERST REGIONAL HOSPITAL                                  DATE/TIME:      3-JUN-92, 11:16 AM
Days with no utilization                                        RUA DATA BASE:   DCDB:ARHY92.DBR

PATIENT       **DISCHARGE**     PATIENT              GE   SEX    LOS   FIN   PAYOR  ATTENDING  DRG  MDC
 NUMBER  DATE    STATUS      NAME                     CLASS       PHYSICIAN

580023          07/13/91   20    JOHNSON,HAROLD    32     M    1    50      50       410    269    9

Days with no utilization
        1

596680          07/10/91    1   ROGERS,THOMAS      16     M    3    50      50       680    269    9

Days with no utilization
        1

633345          07/11/91   20   BARNES,BABY GIRL    0     F    1    71      71       430    385    15

Days with no utilization
        1

699386          10/18/91  20    MILLER,GIRL        0     F    1    60      60       110    385    15

 Days with no utilization
        1

952353           10/23/91  1    FORBES,MARGARET    54    F    1    60      60       730    266     9

Days with no utilization
        1

957730             08/23/91 1    MALLER,BARBARA    17     F   1    60      60       450    255     8

Days with no utilization
        1

987001             07/12/91 1    HOLMES,LUTHER     68     M   1    50      50       800    256     8

 Days with no utilization
        1

992003           09/14/91  1    PERLE,VINCENT      18     M  1     40      40      400     261    9

 Days with no utilization
        1

NUMBER OF CASES ON REPORT =   23
```

Days with Multiple Routine Areas

The **Days with multiple routine areas** report shows data on days with multiple routine areas by patient. Note that negative departments with procedure charge codes mapped to them will not be counted as routine areas unless you select the **Include non-accumulated units** report qualifier.

Patient data is stored in the following columns:

PATIENT NUMBER column: The patient identification number.

DISCHARGE columns:

DATE: The date the patient was discharged.

STATUS: The discharge status code.

PATIENT NAME column: The patient's name, if this is stored in your CML data base.

AGE column: The patient's age.

SEX column: The patient's sex.

LOS column: The length of stay in days.

FIN CLASS column: The patient's financial class.

PAYOR column: The patient's payor code number.

ATTENDING PHYSICIAN column: The patient's attending physician.

DRG column: The DRG assigned to the patient.

MDC column: The MDC to which the patient was assigned.

The day of stay data is then shown in the following columns:

DAY OF STAY column: The day of stay with multiple routine areas.

PROCEDURE CHARGE CODE column: The procedure charge code number.

CHARGES column: The total charge for the procedure.

DEPARTMENT column: The department in which the charge was incurred.

ORDERING PHYSICIAN column: The physician who ordered the procedure, if this information is included in the RUA data base. Otherwise, this column will be filled with zeros.

UNITS column: The number of units used, if this information is included in the RUA data base. Otherwise, this column will be filled with zeros.

MAPPING CODE column: The code used to map the procedure charge code to the department, if this information is included in the RUA data base. Otherwise, this column will be filled with zeros.

Example 1-36
Days with Multiple Routine Areas Report

AMHERST REGIONAL HOSPITAL DATE/TIME: 3-JUN-92, 12:56 PM
Days with multiple routine areas RUA DATA BASE: DCDB:ARHY92.DBR

PATIENT NUMBER	**DISCHARGE** DATE	STATUS	PATIENT NAME	AGE	SEX	LOS	FIN CLASS	PAYOR	ATTENDING PHYSICIAN	DRG	MDC
500742	09/20/91	1	BADGE,MARSHA	17	F	2	60	60	431	261	9

DAY OF STAY	PROCEDURE CHARGE CODE	CHARGES	DEPARTMENT	ORDERING PHYSICIAN	UNITS	MAPPING CODE
1	46589633	0.00	41 WEST PAVILLION	0	1	0
1	46597071	425.00	41 WEST PAVILLION	0	1	0
2	46589633	0.00	41 WEST PAVILLION	0	1	0
2	46597071	425.00	41 WEST PAVILLION	0	1	0

523993	10/10/91	1	DODGE,KATHERINE	40	F	12	40	40	540	253	8

DAY OF STAY	PROCEDURE CHARGE CODE	CHARGES	DEPARTMENT	ORDERING PHYSICIAN	UNITS	MAPPING CODE
2	46502329	235.00	41 WEST PAVILLION	0	1	0
2	46597121	335.00	41 WEST PAVILLION	0	1	0
3	46502329	235.00	41 WEST PAVILLION	0	1	0
3	46597121	335.00	41 WEST PAVILLION	0	1	0
4	46502329	235.00	41 WEST PAVILLION	0	1	0
4	46597121	335.00	41 WEST PAVILLION	0	1	0
5	46502329	235.00	41 WEST PAVILLION	0	1	0
5	46597121	335.00	41 WEST PAVILLION	0	1	0
6	46502311	180.00	41 WEST PAVILLION	0	1	0
6	46597212	375.00	41 WEST PAVILLION	0	1	0

•
•
•

793445	08/10/91	1	HARRISON,TONY	32	M	2	22	22	570	270	9

DAY OF STAY	PROCEDURE CHARGE CODE	CHARGES	DEPARTMENT	ORDERING PHYSICIAN	UNITS	MAPPING CODE
1	46489522	0.00	40 EAST PAVILLION	0	1	0
1	46495802	395.00	40 EAST PAVILLION	0	1	0
2	46489511	0.00	40 EAST PAVILLION	0	1	0
2	46495802	395.00	40 EAST PAVILLION	0	1	0

NUMBER OF CASES ON REPORT = 19

Days with No Routine Area

The **Days with no routine area** report provides a listing, by patient, of:

- days of stay with no routine area
- days of stay with routine area with only non-accumulated units

The patient data in the report is displayed under the following columns:

PATIENT NUMBER column: The patient identification number.

DISCHARGE columns:

DATE: The date the patient was discharged.

STATUS: The discharge status code.

PATIENT NAME column: The patient's name, if this is stored in your CML data base.

PATIENT TYPE column: The patient type -- INP (inpatient), OUT (outpatient), or OTH (other).

AGE column: The patient's age.

SEX column: The patient's sex.

LOS column: The length of stay in days.

FIN CLASS column: The patient's financial class.

PAYOR column: The patient's payor code number.

ATTENDING PHYSICIAN column: The patient's attending physician.

DRG column: The DRG assigned to the patient.

MDC column: The MDC to which the patient was assigned.

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Example 1-37
Days with No Routine Area Report

```
                                                    PAGE:                 1
AMHERST REGIONAL HOSPITAL                                  DATE/TIME:            3-JUN-92 12:59 PM
Days with no routine area                                  RUA DATA BASE:        DCDB:ARHY92.DBR
                                                  COST TABLE:           COST92.COS

PATIENT    **DISCHARGE**     PATIENT     PAT   AGE    SEX   LOS    FIN  PAYOR  ATTENDING  DRG    MDC
NUMBER      DATE   STATUS      NAME     TYPE                      CLASS       PHYSICIAN

60387     10/01/91    1  SMITH,ARLEN    INP   29      M     9     60    55     128       1      1

Day of stay with no routine area:
       3     4     5

Day of stay with routine area with only non-accumulated units:  1

62245     11/03/91    5  BUECHELE,RON   INP   26      M     30    99    60     584       7      1

 Day of stay with no routine area:
       2     3     4     5

 Day of stay with routine area with only non?accumulated units:  none

71291     09/25/91    1   QUIRK,ANNETTE INP   54      F      1    22    40     280      56      3

 Day of stay with no routine area:
       1

     Day of stay with routine area with only non?accumulated units:  none
                                                 .
                                                 .
                                                 .

98324    10/17/91    1  CARLOS,BETTINA  INP   38      F      2    40    70     329    175      6

 Day of stay with no routine area:
       1     2

 Day of stay with routine area with only non-accumulated units:  2

NUMBER OF CASES SELECTED FOR REPORT =       27
```