Clinical Monitoring System V.1.0 ADPAC Guide

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Introduction

This guide was designed as an educational and resource manual to support the Quality Management Automated Data Processing Application Coordinator (ADPAC) in installation, testing, training, use, and maintenance of the Monitoring System software.

The ADPAC Guide first gives you a checklist to follow to implement the Monitoring System. The menu options and their assignment to users are then discussed. A series of functional flow exercises illustrate step-by-step typical use of the package and provide examples of building several different monitors. Examples of JCAHO monitors at shown in Appendix A of this guide.

Package Management

Personal data within the package is covered by the Privacy Act. Data from any monitors considered a quality assurance activity is considered confidential and privileged. Title 38 U.S.C. 5705, as amended by Public Law 99-166, and the implementing HSRO (Health Services Review Organization) regulations (Title 38 Part 17) provide that HSRO records and documents which refer to individual practitioners are confidential and privileged. Exempt from this protection are aggregate statistical data, such as trend reports that do not identify individual patients or employees. Access to the software should be restricted to those personnel who meet the site's established access criteria to data for the above purposes.

Implementation Check List

- ❑ 1. Read the Introduction, Orientation, and Package Management sections of the User Manual.

- ❑ 2. Thoroughly cover the contents of this ADPAC Guide and glossaries in the documentation. Read the Package Operation section of the User Manual to learn about individual menu option functionality.

- ❑ 3. The following software is used by the Clinical Monitoring System. To capture patients with the conditions MH Seclusion/Restraint or RXS 2+ Drugs in the Same Class, the Mental Heath or Outpatient Pharmacy software must be running and routinely used. If a condition is chosen that looks at a non-existent file (say Mental Health), the user will be beeped. If the file is there but empty, meaning the site is not using the software or entering data into the file, no fall-outs will result.

  - VA FileMan Version 19 or later
  - MAS Version 5.2 or later (includes PTF and Scheduling)
  - Kernel Version 7.0 or later
  - Lab Version 5.1 or later
  - Mental Health Version 4.18 or later
  - Outpatient Pharmacy Version 5.5 or later

- ❑ 4. Appendix A of this manual shows you how to set up JCAHO Anesthesia, Trauma, and Cardiovascular Indicators of Care. We recommend that if you want to build the JCAHO monitors, you ask IRM to enter YES at the prompt "Do you want to load the ICD Diagnosis/Procedure groups now?" during installation of the software. If the software has already been installed, the groups can be loaded at a later time by IRM. Directions are in the Installation Guide.

- ❑ 5. Set up a test/training account under the direction of IRM. Remember, in order to see fall-out results, you may also have to enter data into **V***IST***A** packages (admit patients, give them lab tests, etc.) in the test account.

- ❑ 6. At this time IRM should populate (or help you populate) or edit the site parameters through the Site Parameters Edit option. Use the instructional portion of the User Manual for direction.

- ❑ 7. Check with IRM to make sure they have queued the Tasked Run of Auto Enroll option so that it will run every night after midnight.

- 8. Turn to the Exercises section of this ADPAC Guide and run through the exercises in your test database. Create a hard copy of the conditions, build a group, design a monitor, and enter and retrieve data. You might want to do this with your IRM support person present. Keep the hard copy of the conditions' descriptions as a reference that can be added to with future versions.

- 9. Show the QM staff the information available to the software (conditions descriptions) and ask them for suggestions of appropriate monitors that you can set up in your test database for practice. If possible, enter patients into the test database that meet the conditions for your monitors and use the Auto/Manual Enroll Monitors Run option to see if they are picked up. Test as much of the software as you can. Become well acquainted with the Outputs Menu.

- 10. Once you feel comfortable with the software, discuss its function with the QM staff. Determine who the users will be and what options they will be given. You will want to review the Menu Option Assignment section in this guide for suggestions. Give the list of users with the menu options they will need to your IRM support person so that the menu options can be assigned to each user. While it is assumed that this software could be used by any number of services interested in automating data collection for QM monitors, it is suggested that the number of users be kept to a minimum until you, IRM, and the QM staff are comfortable with its use and ready to support/train other users.

- 11. Ask the users to define the mail group(s) that will receive bulletins from the active monitors. If these mail groups have not been developed, give the information to IRM. (The mail groups must be PUBLIC, not PRIVATE.)

- 12. Discuss the time frame for setting up a training account, training staff, and going live with the software with both the IRM staff and the QM staff and any other services that might be involved in the use of the software.

- 13. When you are satisfied that you have mastered the program, show the users how the package works and let them practice in the test account area.

- 14. Once you and/or the users turn on any of the monitors in the live account, check the outputs frequently for two or three weeks to see if the auto enrollment feature is capturing the records that are expected. If not, you will want to review the conditions selected for those monitors with inaccurate outputs. IRM support may be helpful in fine-tuning the monitors.

- 15. Set up a routine maintenance schedule to check the outputs. Remember to check after each new monitor is built.

Menu Option Assignment

It is suggested that access to the options be provided according to the way the menu is presented. The manager/ADPAC would be given all of the menu options as seen below and the end users would be given just those seen in the User Menu. The User Menu could be further divided to differentiate between users that require edit access and those that just need reports access.

IRM may choose to retain control of the Site Parameter Edit option because it addresses fields that control the auto enroll function which can be very computer intensive.

Monitoring System Manager Menu

Group Edit
Patient Group
Manually Run Auto Enroll
Rationale Edit
Site Parameters Edit
Build Monitor Menu
  Enter/Edit a Monitor
  Copy/Edit a Monitor
  Quick Monitor Edit
Purge Menu
  Auto Enroll Run Dates File Purge
  Fall Out File Purge
  History File Purge
Outputs Menu
  Ad Hoc Fall Out Report
  Ad Hoc Monitor Report
  Audit File Inquire
  Auto/Manual Enroll Monitors Run
  Build a Monitor Worksheet
  Condition File Inquire
  Data Element File Inquire
  Fall Out File Inquire
  Group File Inquire
  Monitor Description Report
  Monitor History Report
  Patients With Multiple Fall Outs

Monitoring System User Menu
- Fall Out Edit
- Sample Size Edit
- Outputs Menu
  - Ad Hoc Fall Out Report
  - Fall Out File Inquire
  - Monitor Description Report
  - Monitor History Report
  - Patients With Multiple Fall Outs

Monitoring System User Menu

You will notice that the reports available within the Monitoring System User Menu are also found under the Manager's Outputs Menu. They were placed in both menus to make them easier for the manager to access and assign.

You will also notice that access to building monitors was not intended for the users, but for those few managers/ADPACs that have a good working knowledge of **V***IST***A**, and who will give the time needed to design worthwhile monitors. The managers or ADPACs could be from any service, if there is a need and if the information they require can be/is accessed by the software.

Monitoring System Programmer Menu

It should be mentioned here that there is a menu for programmers that is not shown. That menu allows a programmer to add conditions, data elements, time frames, and application groups to the software. They can also edit finished monitors. You must understand that some IRM departments will not be able to provide all of the programming services that this software allows. The Programmer Menu also includes the entire Manager Menu.

Package Operation

Functional Flow

The following is an example of the general flow of the software and how it is best utilized. It takes you through designing a monitor and reviewing summaries of totals, percentages and thresholds. You will gain a better understanding of the flow if you follow up this discussion with the exercises shown in the Exercises Section of this manual.

Condition File Inquire Option (Outputs Menu)

Before designing a monitor with this package, you should become acquainted with the types of information the software can access through the exported conditions. The Condition File Inquire option provides descriptions of all the conditions, defines the information the condition requires, and lists data elements for each condition.

Conditions such as the following are used to define fall out records.
All men (SEX)
admitted (MAS MOVEMENT TYPE)
to Medicine Service (ON SERVICE)
age 65 or greater (AGE).

Data elements are patient information you will want to capture for each record that falls out. Note that the list of data elements differs with each condition. For each condition you choose, the data elements lists combine to produce one unique list.

Groups are defined when conditions call for them. As an example, when the *MAS Movement Type* condition is used, you are prompted "for a group that consists of specific movement types that fall under the transaction type selected." This group could consist of all discharge types. Each condition description tells you when a group is needed.

It is suggested that a manual of conditions be compiled and added to with each new version of the software (See Appendix B - Condition Descriptions). Determine whether or not the information you need for your monitor is found within the CONDITION file (#743.3). If it is, then you can design an auto enrolled monitor.

Functional Flow

Build a Monitor Worksheet Option (Outputs Menu)

Print out a worksheet and fill in the information requested. If the conditions you choose do not call for groups, you may skip the Group Edit option. If they do call for groups, decide whether or not you want every item in the group. If you want every item, skip the Group Edit option. If you want a subset of the items, then you must build a group.

Group Edit Option

Once you determine which conditions to use, look through the descriptions of each to see if a group will need to be defined for the condition. If it does, then use the Group Edit option before designing your monitor.

Enter/Edit a Monitor Option (Build Monitor Menu)

Now you are set to begin the design of the monitor. Use the Build a Monitor Worksheet as your guide to the required information. You have the choice of designing an auto enroll monitor (one that uses your conditions to capture fall out records on a regular basis) or a manual enroll monitor (one that requires you to manually enter the records).

Copy/Edit a Monitor Option (Build Monitor Menu)

Once you create a monitor, you may find that you want to build a similar monitor. You may want the exact monitor for another service. You may want monitors that are similar; where one will provide daily fall outs while the other will look at the percentage of fall outs over given time frames.

Patients With Multiple Fall Outs Option (Outputs Menu)

Instead of daily printouts (of the fall out patients) which lists each monitor on a separate sheet, you may want to use the Patients with Multiple Fall Outs and Fall Out File Inquire options. The Patients With Multiple Fall Outs option can print sheet(s) of patients that fell out listed alphabetically.

Fall Out File Inquire Option (Outputs Menu)

Use the Fall Out File Inquire option and print each patient separately, along with their data elements. Each printout can be used as a worksheet.

Fall Out Edit Option (Monitoring System User Menu)

Whenever a manual enroll monitor is created, it requires the user to input the records that meet the definitions of what the monitor intends to track. These records can only be entered via the Fall Out Edit option.

Functional Flow

Sample Size Edit Option (Monitoring System User Menu)

If you also intend to track percentages and thresholds on manually entered records, then the Sample Size Edit option must be used to enter changes in the sample reviewed.

Auto/Manual Enroll Monitors Run Option (Outputs Menu)

To troubleshoot and keep on top of dates when monitors have been run, you will need to use the Auto/Manual Enroll Monitors Run option. This report shows which monitors ran for each date.

Automatic Report

The following is a sample of the report that is automatically printed every night after the tasked auto enroll finishes processing. Note the dates on the report. July 20, 1998 was the day the Monitor was scanning. July 21, 1998 was the day the program ran and printed out the report.

```
                              AUTO/MANUAL ENROLL MONITORS RUN          JUL 21, 1998
                                     FOR JUL 20, 1998                  PAGE: 1


AUTO ENROLL RUN DATE
 MONITOR CODE (a/m=AUTO/MANUAL)      MONITOR TITLE                     DATE RUN
-------------------------------------------------------------------------------
--
JUL 20, 1998

 AMA-1 (a)                           IRREG DISCHARGES                 JUL 21, 1998
 AMA-2 (a)                           PSYCH IRREG DISCHARGES           JUL 21, 1998
 CH-1 (a)                            LITHIUM                          JUL 21, 1998
 CH-2A (a)                           XFER FROM E/R TO CCU             JUL 21, 1998
 CH-2B (a)                           ACUTE MI DX                      JUL 21, 1998
 LAB-1 (a)                           Elevated WBC's                   JUL 21, 1998
 LITHIUM-1 (a)                       LITHIUM BLOOD LEVEL DONE         JUL 21, 1998
 MANUAL MONITOR (m)                  MANUAL                           JUL 21, 1998
 PSY-3 (a)                           LOS ON SUBSTANCE ABUSE           JUL 21, 1998
```

Functional Flow

Manually Run Auto Enroll Option

Active monitors are normally run as a nightly task. IRM Service can schedule this task for you (see Technical Manual). The main purpose for the Manually Run Auto Enroll option is to use it only when one or more monitors has not run for a day. If a monitor has already been run for a given date in the past, the monitor will not rerun for that same day. Auto enroll looks at **V***IST***A** transactions from the previous day (this includes updating Monitor History Statistics for records/fall outs manually entered). In other words, when auto enroll runs "tomorrow," it will only pick up fall outs with event dates of "today", not "yesterday", or any time before that.

For manually enrolled monitors, it is important to remember that it is the entry date, not the event date, that determines whether or not the data will be counted. A manually enrolled monitor requires total manual entry of fall out data. This option should be used whenever the auto enroll mechanism fails to run due to down time.

Monitor History Report Option (Outputs Menu)

To follow-up and track changes in the monitors over time frames for reporting purposes, the Monitor History Report option provides a brief summary of percentages of fall out records to samples reviewed, and whether or not the threshold was met or surpassed. There will be one Monitor History summary per time frame for any given monitor.

Auto Enroll Monitors

Building a Monitor that Automatically Enters/Enrolls Fall Outs

Building a monitor is defined as entering the conditions and how they relate to each other that will produce a needed record. A fall out record is one that meets the conditions as entered by the user. Records captured in this way are enrolled by the daily automatic enrollment feature of the software.

Enter/Edit a Monitor Option (Build Monitor Menu)

The following explains the major portions of the Enter/Edit a Monitor option. Refer to Appendix C, Build a Monitor Worksheet, if necessary.

Standardizing Code Names

Before utilizing this software, determine a method of standardizing the code names so monitors for each service can easily be identified. The list of monitors does not differentiate between users. If Surgical Service accesses the software, it will see all the monitors, not just theirs.

Choosing Conditions

Run off a hard copy of the definitions for each condition and its contents (data elements) to use as a reference. You may also refer to Appendix B, Condition Descriptions, at the end of this guide. Before building a monitor, review the hard copy to determine which conditions you plan to use.

Discuss your choice with the ADPAC for the package that will be accessed by the Monitoring System or with IRM to make sure the information you want will be found in the condition(s) you choose.

Sometimes you need to use the same condition twice in one monitor. To enter the condition a second time, use quotes (" ") around the condition. For the longer conditions, put quotes around a sufficient portion of the name to distinguish it from others like it, such as the following:

Condition #1	**Previous Discharge T**reat Spec
Condition #2	"**Previous Discharge T**"reat Spec

You can always see the conditions previously chosen by entering a "?" at the "Select CONDITION:" prompt.

Auto Enroll Monitors

Defining Groups

Depending on the condition selected, you may need to define a group before completing the monitor enter/edit. Read the condition description (available through the Condition File Inquire option) to find out if you need a group. Some conditions require a group. Some conditions ask questions that narrow down the scope of possible fall outs and do not require groups. The *Age* condition, for example, does not require a group because it asks for age ranges.

Other conditions ask a series of questions and give you the opportunity to select a group (which must be predefined through the Group Edit option). For these conditions, the series of questions may sufficiently narrow down the scope of possible fall outs for your purposes; in which case, you would press <RET> at the group prompt. If you determine that the scope needs to be further narrowed down, you must define a group. You will need to know what parent file (e.g., HOSPITAL LOCATION file, FACILITY TREATING SPECIALTY file, MOVEMENT TYPE file, etc.) has the information you will need. The condition descriptions tell you from which file you will select entries to be included in the group.

Let's walk through a difficult example using the *Appointment* condition. We want a list of all patients who were not seen in GU clinic and did not receive another appointment. Here is a copy of the description for the *Appointment* condition.

```
DESCRIPTION:
     This condition produces a list of all appointments on the day that auto
     enroll is scanning.  The user may screen the appointments by entering a
     clinic group, the appointment status, the purpose of the visit, and/or an
     appointment type group.

     This condition will request the following information:

     CLINIC GROUP
     A group of entries from the HOSPITAL LOCATION file (#44).

     STATUS
     The status of the appointment, i.e., No-show, Cancelled, etc.

     PURPOSE OF VISIT
     The purpose of the patient visit, i.e., C&P, 10/10, Unscheduled, etc.

     APPOINTMENT TYPE GROUP
     A group of entries from the APPOINTMENT TYPE file (#409.1).

     LOOK BACK DAYS
     The number of days (in addition to yesterday) to look into the past for
     an appointment.
```

Auto Enroll Monitors

The condition will ask for a clinic group. Leaving the Clinic Group blank would give me every clinic. Since I only want GU Clinic, I know I must define a group that contains just the GU clinic from the HOSPITAL LOCATION file.

The condition will ask for appointment status for this group I defined. From the status list I see I will need the following statuses but I will not need a group.

No Show
Cancelled by Clinic
Inpatient Appointment
Cancelled by Patient

The condition will ask if it needs to look at the purpose of the visit for the clinic group. We don't need to monitor any of the purposes, so I know I will be able to bypass the "Purpose of Visit" prompt.

I don't have to define the second group (appointment type) as the definition uses "and/or". However I need to check out the contents of the APPOINTMENT TYPE file just in case it would help. After reviewing it, I see that I could make a group for just Regular appointments. But, there is no need, so I will bypass this prompt by striking the <RET> key when I am building the monitor. It also means I can bypass the look back days.

HOSPITAL LOCATION file contents differ from site to site but the Status, Purpose of Visit, and Appointment Types are taken from the PIMS software and are the same for everyone.

Determining Condition for Date of Event
Enter the condition number that should be used to capture the event date.

You will be given a list of all the conditions you chose for your monitor. You must decide which one of the conditions will provide the Date of Event for the software. This date is important for setting the fall out record within your chosen time frame. Conditions that happen on specific days such as deaths, admissions, discharges, and transfers are typically the conditions you should choose from. However, there are exceptions when a condition that does not seem to be date-related can be chosen.

Auto Enroll Monitors

Determining Fall Out Relationships
This field specifically states the relationship between the conditions you entered. You may use the following to specify the relationship.

&	and
!	or
'	not
()	parentheses

How do your chosen conditions relate to each other to define the records you want to fall out? If necessary, consult with IRM about defining relationships. This is very important to the functioning of the auto enrollment feature.

Example: You want to see records for all patients age greater than 65 & (and) were discharged from either this ward ! (or) that ward &' (and did not) die.

Condition		
Greater than 65	Age	C1
Discharged Ward A	MAS Movement Type	C2
Discharged Ward B	MAS Movement Type	C3
Death	Death	C4

The Fall Out Relationship would be entered like this: C1&(C2!C3)&'C4
If this is confusing to you, the best way for you to begin is to select only one or two conditions for each monitor until you feel more adept at using the software.

Defining Sample and Sample Relationship
Some monitors do not require a sample because the data from the monitor will not be used for comparisons across time frames. Perhaps you are just looking for a list of patients to review or a list of fall outs to use for another monitor. If such is the case, bypass all questions relating to Sample by striking the <RET> key. Just before finishing the monitor, you will receive the messages "Warning: SAMPLE RELATIONSHIP not specified" and "No errors found". This is acceptable. A warning statement does not always need to be corrected. It depends entirely on what you intend the monitor to do for you. Error statements, on the other hand, must be corrected.

Auto Enroll Monitors

When you do want to track the number of fall outs (numerator) per the sample (denominator), you will need to define for the monitor which of the conditions make up the sample size or denominator. As you build your monitor, you will be asked to tell the software which of your chosen conditions helps to make up the sample. The sample becomes the denominator for determining what the percent of fall outs for the time frame is and is also used to determine when thresholds are met or exceeded.

- Contributes to Sample - This field determines whether or not this condition contributes to the sample size (denominator). This affects how information is collected to determine the size of the sample (denominator). Once you tell the software which conditions contribute to the sample, the software will display all those conditions for you so that you may define how those conditions relate to each other in determining the sample. You will respond YES or NO to this question for each condition entered.

Once you tell the software which conditions contribute to the sample, the software will display all those conditions for you so that you may define how those conditions relate to each other in determining the sample.

- Sample Size Relationship - Enter the relationship among the conditions. This field specifically states the relationship between the conditions that contribute to the sample size. You may use & (and), ! (or), ' (not) and parentheses () to specify the relationship. Does this look familiar? It is the same method used in defining Fall Out Relationship. Once again, if defining samples is not easy for you, discuss this with your IRM support person.

What Does Time Frame Really Mean?
Time frame tells the software when to start counting anew the number of fall outs and when to begin building the sample. Fall outs are NOT purged automatically at the end of a monitor's time frame. Time frame then tells the software when to quit counting and begin all over again. Time frames are used by the MONITOR HISTORY file (#743.2) to show you stats for each chosen monitor so that one time frame can be compared to the next. At the end of a monitor's time frame, a new monitor history record is created for it and cumulative counting begins again.

Time frame does not tell the monitor when to quit auto enrolling records. That is done by the 'ON/OFF' switch, the 'START and END DATES', and the UNDER CONSTRUCTION or FINISHED 'MONITOR STATUS'. **You must always enter a time frame** even if a time frame does not seem essential to the output you wish to capture.

Auto Enroll Monitors

Choosing a Threshold

This discussion is not intended to explain how thresholds are derived. It is meant to discuss what happens when a threshold, either a number or percent, is entered. For the threshold to be calculated the following fields must be completed: Conditions, Condition for Date of Event, Fall Out Relationship, Sample Relationship, Time Frame.

If a **number threshold** is entered, the software will calculate the threshold by counting each fall out from the beginning of the time frame until the threshold is met or exceeded. If a **percent threshold** is entered, you must also enter a number of records that will make up a minimum sample before the percent of fall outs to sample is calculated,

```
THRESHOLD: 3%

Minimum Sample
For PERCENT thresholds this field defines the minimum sample size
(denominator) that must be reached before threshold checking occurs.
For NUMERIC thresholds this field may be used along with the BULLETIN
WHEN MIN SAMPLE MET field (set to YES) as a pre-threshold notification.
```

and whether the percent calculated should be greater than or equal to, or less than or equal to the percent threshold.

```
Hi/Lo Percent
     If the user chooses 'Hi', the threshold will be met when the
percentage is calculated to be >= the threshold.
     If the user chooses 'Lo', the threshold will be met when the
percentage is calculated to be <= the threshold.
     Hi/Lo Percent is only meaningful for percent thresholds.
     CHOOSE FROM:
       H        HIGH
       L        LOW
```

What is Meant by Duplicate Fall Outs?

Duplicate fall outs does not mean enrolling the very same event (same day and same time) twice for a patient. It refers to two or more separate but like events for a patient within the time frame. Think about how you would handle the problem if you were looking at patient records. Do you want to know every instance of when a condition occurs to a patient within the same time frame, or will once be sufficient? Think about the definitions of your sample and your fall outs. Will 'duplicates' (every admission, every transfer, every CBC, every chest x-ray) muddy the findings or are they necessary to the findings?

Auto Enroll Monitors

Determining Other Data to Capture
Decide what information you want for every fall out record before you build your monitor. That will help you limit yourself to what is really needed. The condition description list will show which data items are available for each condition. Then when you choose from the available information listed, you can pick those things that match your list. Remember that not all information you might need can be found within **V***IST***A** and may not be available to you through the conditions you choose.

Bulletins
Bulletins are simple mail messages that provide data on what is going on with the monitor. Bulletins can report when a threshold or alert level has been met and when the time frame is up.

Activating/Deactivating a Monitor
Activating and deactivating monitors depend on the following four fields.

Start Date: This is the date the monitor should begin. The start date may fall in the middle of the time frame chosen for the monitor. In such cases, statistics for the first time frame will not reflect a full time frame set of data.

End Date: If the end date is reached, the monitor will quit auto enrolling records. This field does not have to be completed for the monitor to run.

On/Off Switch: This field controls whether or not a monitor is active. For an auto enroll monitor to capture data, the switch must be turned ON. For a manual entry monitor to be selectable, the switch must be turned ON. When you wish to stop using a monitor, this switch should be turned OFF.

Monitor Status: Answer FINISHED to this field only when you are sure you are completely finished entering/editing this monitor; otherwise the monitor will be labeled as UNDER CONSTRUCTION. Once you answer FINISHED you will no longer be able to edit selected monitor fields, such as the conditions and their relationships.

Manual Enroll Monitors

Building a Monitor that Accepts Manually Entered/Enrolled Fall Outs

There will be monitors that cannot be automatically enrolled due to the type of information or data that needs to be reviewed. An example would be those patient records that are reviewed for documentation. Say at discharge, the record is reviewed for a discharge note and the content of the note. The reviewer checks for the presence of the note, discussion of medications, the follow-up outpatient visit, any discharge precautions, etc. This information can only be found in the hard copy patient record, so it cannot be auto enrolled. However, a monitor can be designed that will accept the manual entry of a record of this type. You would manually enter all those records that fail review and enter the total count of records reviewed so the Monitoring System can track the percentage of fall out records for you.

After one or more records are manually entered via the Fall Out Edit option, they are counted by the nightly run of auto enroll based on their entry date. The count is then stored in the MONITOR HISTORY file (#743.2).

Enter/Edit a Monitor Option

The same option is used to design the manually entered monitor as the auto enrolled monitor, but there are two major differences.

- At the AUTO ENROLL MONITOR prompt, the user answers NO.

- At the CONDITION prompt, the user answers MANUAL ENROLL CONDITION.

Sample Size Edit Option

The other main option that is needed for the manually enrolled monitor is Sample Size Edit. To keep a current count of fall outs versus sample, the user must routinely edit the sample size.

Conditions, Groups, and Data Elements

Conditions
A condition (or set of conditions) defines which records become fall out records. Conditions may be dependent upon defining a group. Be sure to read the description of each condition to see if a group will be needed.

Data Elements
These are the pieces of patient information that you want captured along with the fall out record. They vary in availability with the conditions that are chosen.

Building Groups (Group Edit)
Many of the conditions need to be further defined by building groups that will limit the condition to a specified range, such as a group of movement types, a group of wards, a group of similar medications, a group of diagnoses. Any condition that requires a defined group will refer to group in its description. The exercises in this manual will walk you through using the Conditions File Inquire option and defining a group.

Purge Menu

The Purge Menu should be used by the IRM support person or the QM ADPAC to purge the following three files. Set standard time frames for purging the data to keep the database running smoothly.

Auto Enroll Run Dates File Purge

The AUTO ENROLL RUN DATE file (#743.6) contains each date that the auto enroll ran and the monitors that ran on that date. This is the information you will be purging. In other words, if you want to see what dates auto enroll ran and which monitors were in each run, this file can tell you. Saving these dates for any length of time is not necessary if auto enroll runs every day. You may decide to run this purge more frequently than the other purge options. One method may be to purge by the quarter. The run date(s) to be purged must fall within the selected date range for purging.

Fall Out File Purge

The FALL OUT file (#743.1) stores the patient name, monitor, event date, date the record was created, and any data elements associated with the record. Purging this information can be more critical. You may want to store this data for two or three years before purging it. If a monitor has turned out to be useless, in other words the data is useless, you can purge just the data for a single monitor. The fall out event date(s) to be purged must fall within the selected date range for purging.

History File Purge

The MONITOR HISTORY file (#743.2) stores the monitor, start date, end date, number of fall outs, sample size, threshold met, date met, and bulletins sent. You may want to keep this data for awhile to compare data across time frames for many monitors. The time frame start date(s) to be purged must fall within the selected date range for purging.

Inquire Options

Condition File Inquire Option

You will want to use this option to print a list of all the conditions available. It describes each condition, states whether or not it requires a group, and lists the data elements associated with it.

Data Element File Inquire Option

This option may be of more interest to the IRM staff. It shows the path (file and field) to the data element. However, as a user, you may wish to be aware of where the data comes from.

Fall Out File Inquire Option

This option lets you look at any patient and the fall outs for that patient. This is one method of checking patients with multiple fall outs. It shows all the data associated with each fall out. The Patients With Multiple Fall Outs option only lists the dates and monitor for each fall out.

Group File Inquire Option

Before defining a new group, you may want to check this option for a similar group that can be used. This option lists the group members and the parent file.

Audit File Inquire Option

This option allows you to pick a fall out record and view its audit file entry. The audit file data includes information on who modified the record, when it was modified, and what modification was performed.

Reports

Ad Hoc Fall Out Report
Refer to the Exercises section of this manual for an example of using the ad hoc.

Ad Hoc Monitor Report
Refer to the Ad Hoc Report Generator documentation in the QM Integration User Manual for instructions on how to use the ad hoc.

Monitor Description Report
The Monitor Description Report provides a detailed description of the monitor. This is a nice summary of the rationale, standard of care, clinical indicator, how often data is compiled, threshold, etc. It does not show what conditions are used to build the monitor or what data elements are captured.

Monitor History Report
This file is updated nightly and will show the latest number of fall outs and sample size, percent of fall outs per sample, and whether the threshold has been met.

Patients with Multiple Fall Outs
This is a report for checking to see if a particular patient has been involved in more than one fall out record.

Exercises

This section is intended to lead you through the options to build a monitor, enter data into manual monitors, do some trouble shooting, and track the findings from the monitors.

Exercise 1 - Condition File Inquire Option

The Condition File Inquire option within the Monitoring System Manager's Outputs Menu lists all the accessible conditions in the software, gives a description of each, and lists all the other information (data elements) that can be captured if the condition is chosen. You will want to put together a manual of the conditions and add to it whenever any new conditions are added to the software. You can download to a PC to capture the data or you can send the output to a printer. The option will print one condition per page, or if downloaded to a PC and edited, you can print more than one to a page.

The following example would provide a print out of all conditions.

```
Select Outputs Menu Option: CONDITION File Inquire

Select CONDITION: ALL

     By 'ALL' do you mean ALL NAMES? YES// <RET>

Another one: <RET>

DEVICE: QA Printer

==============================================================================

CONDITION: AGE                              AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of patients who fall between an upper and a
lower age limit entered by the user.

This condition will request the following information:

      LOWER AGE LIMIT
      The lower limit (inclusive) on patient age

      UPPER AGE LIMIT
      The upper limit (inclusive) on patient age.
```

Exercise 1 - Condition File Inquire Option

```
DATA ELEMENTS:
      AGE
      COVERED BY HEALTH INSURANCE?
      DATE OF BIRTH
      DATE OF DEATH
      MARITAL STATUS
      OCCUPATION
      RACE
      RELIGIOUS PREFERENCE
      SERVICE CONNECTED PERCENTAGE
      SERVICE CONNECTED?
      SEX
      SOCIAL SECURITY NUMBER
      SPINAL CORD INJURY
```

Any of these data elements can be requested for retrieval if the *Age* condition is selected when building a monitor.

```
==============================================================================

==============================================================================
CONDITION: APPOINTMENT                      AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all appointments on the day that auto enroll
is scanning.  The user may screen the appointments by entering a clinic group,
the appointment status, the purpose of the visit, and/or an appointment type
group.

This condition will request the following information:

      CLINIC GROUP
      A group of entries from the HOSPITAL LOCATION file (#44).

      STATUS
      The status of the appointment, i.e., No-show, Cancelled, etc.

      PURPOSE OF VISIT
      The purpose of the patient visit, i.e., C&P, 10/10, Unscheduled, etc.

      APPOINTMENT TYPE GROUP
      A group of entries from the APPOINTMENT TYPE file (#409.1).

      LOOK BACK TIME
      The number of days (in addition to yesterday) to look into the past
      for an appointment.
```

Exercise 1 - Condition File Inquire Option

```
DATA ELEMENTS:
      AGE
      APPOINTMENT DATE/TIME
      APPOINTMENT STATUS
      APPOINTMENT TYPE
      APPT. CANCELLATION REASON
      CLINIC
      COVERED BY HEALTH INSURANCE?
      DATE OF BIRTH
      DATE OF DEATH
      MARITAL STATUS
      OCCUPATION
      PURPOSE OF VISIT
      RACE
      RELIGIOUS PREFERENCE
      SERVICE CONNECTED PERCENTAGE
      SERVICE CONNECTED?
      SEX
      SOCIAL SECURITY NUMBER
      SPINAL CORD INJURY
```

Although not on this list, patient name is always one of the data elements retrieved.

Conditions are used to define your fall out records and sample size.

Data elements are the bits of information you will want to capture for each record that falls out. Note that the list of data elements differs with each condition. Due to limitations in this version of Monitoring System, occasionally some of the data elements you request may not be retrieved.

Exercise 2 - Building an Auto Enrolled Monitor

Now that you have determined what information is available to you, let's develop a monitor. Define your monitor before beginning. Use the Build a Monitor Worksheet to show you what information is required by the Enter/Edit a Monitor option.

Determining the conditions to use
You want to see the records of all females admitted to the hospital so the records can be reviewed for gynecological exams. For each record, you want the patient's name, social security number, admission date, last admission and discharge dates, and the admission ward. Can this monitor be auto enrolled? Can all the data you want be captured?

First let's review the CONDITION file (#743.3) to determine whether there are conditions that will meet our needs. The most obvious conditions that appear to meet our needs are Sex and MAS Movement Type. Let's review the descriptions and data elements for these two conditions.

```
==============================================================================
 CONDITION: SEX                                AUTO ENROLL: YES

DESCRIPTION:
     This condition produces a list of Male or Female patients.

      This condition will request the following information:
      SEX
      The sex of the patients who should be captured.

DATA ELEMENTS:
     AGE
     COVERED BY HEALTH INSURANCE?
     DATE OF BIRTH
     DATE OF DEATH
     MARITAL STATUS
     OCCUPATION
     RACE
     RELIGIOUS PREFERENCE
     SERVICE CONNECTED PERCENTAGE
     SERVICE CONNECTED?
     SEX
     SOCIAL SECURITY NUMBER
     SPINAL CORD INJURY
```

Exercise 2 - Building an Auto Enrolled Monitor

```
==============================================================================

CONDITION: MAS MOVEMENT TYPE                AUTO ENROLL: YES

DESCRIPTION:
     This condition allows the user to track selected MAS movement types.
     First the user must select the transaction type of movement he wishes
     to track, Admission, Transfer, Discharge, Check-in Lodger, Check-out
     Lodger, or Treating Specialty.  The user is then prompted for a group
     that consists of specific movement types that fall under the
     transaction type selected above.


     This condition will request the following information:

     MAS MOVEMENT TRANSACTION TYPE
     The desired patient movement transaction type, i.e., admission,
     transfer, discharge, etc.

     MOVEMENT TYPE GROUP
     A specific subset of patient movements that fall within the
     transaction type chosen above. If admission was chosen as the
     transaction type, the movement type group might include direct,
     transfer in, etc. A group of entries from the MAS MOVEMENT TYPE file
     (#405.2).

DATA ELEMENTS:
     ADMITTED FOR SC CONDITION?
     ADMITTING REGULATION
     ATTENDING PHYSICIAN
     DIAGNOSIS [SHORT]
     FACILITY TREATING SPECIALTY
     MAS MOVEMENT TYPE
     MOVEMENT DATE/TIME
     PRIMARY CARE PHYSICIAN
     ROOM-BED
     TRANSACTION TYPE
     TYPE OF MOVEMENT
     WARD LOCATION
```

These are the conditions that will be used. After seeing the data elements that are available for capture, we can also capture age for the fall out records. We will not be able to capture previous admission and discharge dates, but everything else seems okay. Now that we have determined that the Monitoring System can access the required information to find all women who are admitted to the hospital, we should now plan for all the other information that will be required to build this particular monitor.

Exercise 2 - Building an Auto Enrolled Monitor

One of the first things to be decided can be determined by referring back to the descriptions of the conditions. Always look to see if you will need to provide a group for a particular condition. In this case, the MAS Movement Type will need a group because we only want to look at direct admissions. What does this mean?

Defining a Group
A group is a list of members that will define the group you need. In this example, we will need to define one for Admission for the MAS Movement Type. The Group Edit option will help us limit our choices so we won't have to guess at what is required. Now is the time to do this before we begin building the monitor.

We will need to name this group. Give it a name that defines exactly what you are after within MAS Movement Type. You may want to use this same group for another monitor.

```
Select Monitoring System Manager Menu Option: Group Edit

Select GROUP: Direct Admissions

ARE YOU ADDING.....     Y

GROUP PARENT FILE: ??
     This field determines which file the group entries are to be found in.
CHOOSE FROM:
   2           PATIENT
   3           USER
   6           PROVIDER
   16          PERSON
   37          DISPOSITION
   42          WARD LOCATION
   44          HOSPITAL LOCATION
   45.7        FACILITY TREATING SPECIALTY
   49          SERVICE/SECTION
   200         NEW PERSON
   405         PATIENT MOVEMENT
   405.2       MAS MOVEMENT TYPE
   405.3       MAS MOVEMENT TRANSACTION TYPE
   409.1       APPOINTMENT TYPE
   743         QA MONITOR
   743.1       FALL OUT
```

Exercise 2 - Building an Auto Enrolled Monitor

Your list might look different than this one as each is defined by the site. If you need a file that is not in your list, speak with your IRM support person to see if it can be added (through the Application Group Edit option in the QM Programmer Menu).

```
   GROUP PARENT FILE: 405.2  MAS MOVEMENT TYPE
NAME: Direct Admissions// <RET>
PARENT FILE: MAS MOVEMENT TYPE// <RET>   (No Editing)
```

Now you must decide what you need within the MAS Movement Type. For this example, we need only direct admissions.

```
Select GROUP MEMBER: ??

     You may enter '[GROUP MEMBER' to select all entries that CONTAIN
     the text 'GROUP MEMBER'.  Enter '[*' to select ALL entries.
     You may use a prefix of minus (-) to delete a range of group
     members, for example '-[GROUP MEMBER' or '-[*'.
     WARNING: Use of the contains operator ([) is very computer intensive!
     If you are having trouble adding another group member at the 'Select
     GROUP MEMBER:' prompt try enclosing the new entry in quotes, e.g.,
     "GROUP MEMBER".
```

Note: Use of the '[' may be disabled through the site parameters.

```
ANSWER WITH MAS MOVEMENT TYPE ENTRY NUMBER, OR NAME
 DO YOU WANT THE ENTIRE 46-ENTRY MAS MOVEMENT TYPE LIST? Y  (YES)
CHOOSE FROM:
   1           AUTH ABSENCE 96 HOURS OR LESS
   2           AUTHORIZED ABSENCE
   3           UNAUTHORIZED ABSENCE
   4           INTERWARD TRANSFER
   5           CHECK-IN LODGER
   6           CHECK-IN LODGER (OTHER FACILITY)
   7           CHECK-OUT LODGER
   8           AMBULATORY CARE (OPT-AC)
   9           TRANSFER IN
   10          TRANSFER OUT
   11          NON-SERVICE CONNECTED (OPT-NSC)
   12          DEATH
   13          TO ASIH (VAH)
           ............


Select GROUP MEMBER: 15  DIRECT
GROUP MEMBER: DIRECT// <RET>

Select GROUP MEMBER: <RET>

Select GROUP: <RET>
```

Exercise 2 - Building an Auto Enrolled Monitor

Do we need to prepare any other information before we build the monitor? Carefully look over the questions you will be asked and use the glossary for definitions of the terms. You might want to make out a list of your answers using the Build a Monitor Worksheet before accessing the option. You may also want to consider determining a method of naming/coding monitors, such as the code always beginning with the Service initials to which it belongs, etc. Refer to the Enter/Edit a Monitor option in the Clinical Monitoring System User Manual, if necessary.

```
Select Build Monitor Menu Option: Enter/Edit a Monitor

Select MONITOR: QA-1

CODE: QA-1// <RET>

TITLE: Female Admissions

SERVICE: QUALITY ASSURANCE

STANDARD OF CARE:
      1>All female patients should have...
      2><RET>
EDIT Option: <RET>

CLINICAL INDICATOR:
      1> Yearly exams....
      2> <RET>
EDIT Option: <RET>

Select RATIONALE: Problem Prone

Select RATIONALE: <RET>

AUTO ENROLL MONITOR: YES// <RET>

Select CONDITION: SEX
CONDITION: SEX// <RET>
SEX: (M/F): F
CONTRIBUTES TO SAMPLE: YES

Select CONDITION: MAS MOVEMENT TYPE
CONDITION: MAS MOVEMENT TYPE// <RET>
MAS MOVEMENT TRANSACTION TYPE: ADMISSION
ADMISSION TYPE GROUP: DIRECT ADMISSIONS

CONTRIBUTES TO SAMPLE: NO
```

This is the group that we built earlier.

Exercise 2 - Building an Auto Enrolled Monitor

```
Select CONDITION: <RET>

==============================================================================

      CODE        CONDITION
     ------       -----------
      C1                SEX
      C2                MAS MOVEMENT TYPE
FALL OUT RELATIONSHIP:  C1&C2
```

Before moving past this, make sure you understand why C1&C2 is entered. Speak with your IRM support staff if this is confusing.

```
==============================================================================

      CODE        CONDITION
     ------       -----------
      C1                SEX
SAMPLE RELATIONSHIP: C1
```

The software helps us with our choice.

```
==============================================================================

      NUMBER            CONDITION
     --------          ----------
      1                 SEX
      2                 MAS MOVEMENT TYPE
CONDITION FOR DATE OF EVENT: 2
```

For the Date of Event, we will be asked to choose between Sex and MAS Movement Type. The Date of Admission is when we need to pick up the fall outs which are found under MAS Movement Type.

```
==============================================================================
```

Exercise 2 - Building an Auto Enrolled Monitor

TIME FRAME: **Annually**

What will we get if we enter a time frame here? We will get the number of patients that were females and were direct admissions to the hospital during the time frame chosen. This could be useful in checking numbers for sample size. Let's choose annually. You must always enter a time frame even if a time frame does not seem essential to the output you are after. At the end of a year, totals and statistics that have been accumulating in the MONITOR HISTORY file (#743.2) record for this monitor will stop and a new record will be created for the next year.

THRESHOLD: **<RET>**

We are not concerned with threshold for this monitor.

PRE-THRESHOLD ALERT LEVEL: **<RET>**

Not needed with this monitor.

ALLOW 'DUPLICATE' FALL OUTS: **YES**

If the same female patient is admitted twice within the yearly time frame, we want to see both admissions.

Select OTHER DATA TO CAPTURE: **AGE**

Select OTHER DATA TO CAPTURE: **SOCIAL SECURITY NUMBER**

Select OTHER DATA TO CAPTURE: **WARD LOCATION**

Select OTHER DATA TO CAPTURE: **MOVEMENT DATE/TIME**

Select OTHER DATA TO CAPTURE: **<RET>**

Exercise 2 - Building an Auto Enrolled Monitor

PRINT DAILY FALL OUT LIST: NO// **YES**	We need this printout to know which records to review.
PRINT DAILY WORKSHEETS: NO// **<RET>**	This software offers the site the opportunity to develop worksheets and use this software to automate their daily print out with the patient data already on it.

BULLETIN WHEN THRESHOLD MET: NO// **<RET>**

BULLETIN AT END OF TIME FRAME: NO// **<RET>**

BULLETIN WHEN ALERT LEVEL MET: NO// **<RET>**

The following fields with the exception of END DATE **must** be completed for the monitor to be activated.

START DATE: **T**ODAY	Even though our time frame is annually, the monitor will begin capturing data immediately because we entered Today as the start date. You must remember to take this into account when you review the MONITOR HISTORY file (#743.2) for your monitor. The first set of figures will be based on a time frame that is defined by the start date.
END DATE: **<RET>**	It is not necessary to fill this in unless there is a definite end date for the gathering of data for this monitor.
ON/OFF SWITCH: **ON**	It must be turned on.

Exercise 2 - Building an Auto Enrolled Monitor

MONITOR STATUS: **FINISHED**

Once you are familiar with the Enter/Edit a Monitor option, you won't have to be so particular about how you go about the process, you can always go back to it for editing if you have not labeled it as "Finished". However, when you are first learning, it pays to be prepared. Fill in the Build a Monitor Worksheet and you will be fully prepared to use the Enter/Edit a Monitor option.

Now, admit several female patients for "today" into the test data base and tomorrow use the Run Auto Enroll Manually option to see if these patients fall out. The Event Date **must be** in the past for this option to work.

Exercise 3 - Building a Manual Enroll Monitor

Now that we have a monitor that provides us with a daily list of patient names and admission wards for all female patients, we also want a monitor that can tell us how well we are doing in meeting the requirements for gynecological exams of all female patients. Since our criteria to determine whether or not a patient has had the exams or been offered them cannot be auto enrolled, we will have to review the records and manually enroll the fall out records in the Monitoring System software. We will also have to manually tell the software how many records were reviewed so that it can determine percentages and report to us if we surpass thresholds. So a Manual Enroll Monitor is built when the conditions needed cannot be automatically enrolled by the software.

Since we have a good deal of information already in the original monitor that will remain the same for this monitor, let's use the Copy/Edit a Monitor option.

```
Select Build Monitor Menu Option: Copy/Edit a Monitor

Select MONITOR TO COPY: QA-1   FEMALE ADMISSIONS   FINISHED

Are you sure you want to copy this monitor? NO// y   (YES)

Copying monitor, please wait...

You may now edit the copy of the monitor, please change the CODE and TITLE.

CODE: Copy of QA-1// QA-2
TITLE: Copy of FEMALE ADMISSIONS  Replace ... With Gyne exam compliance
  Replace <RET>
   Gyne exam compliance
SERVICE: QA// <RET>
STANDARD OF CARE:
  1>All female patients should have...
EDIT Option: <RET>
CLINICAL INDICATOR:
  1>Yearly exams.....
EDIT Option: <RET>

Select RATIONALE: Problem Prone// <RET>
  RATIONALE: Problem Prone// <RET>

Select RATIONALE: <RET>

AUTO ENROLL MONITOR: YES// N

Select CONDITION: MANUAL ENROLL CONDITION
```

This is the <u>only</u> condition needed when building a manual enroll monitor.

```
CONDITION: MANUAL ENROLL CONDITION// <RET>
```

Exercise 3 - Building a Manual Enroll Monitor

```
CONTRIBUTES TO SAMPLE: NO
```

The records we will be manually enrolling are records that don't meet the standards for gynecological exams. Our sample (the total records reviewed) will be manually entered by us, so this prompt should be bypassed or you can enter NO here.

```
Select CONDITION: <RET>

==============================================================================

   CODE        CONDITION
  ------      -----------
    C1         MANUAL ENROLL CONDITION

FALL OUT RELATIONSHIP: C1
```

The *Manual Enroll* condition is always the fall out relationship for a manual enroll monitor.

```
==============================================================================

  NUMBER        CONDITION
 --------      -----------
    1           MANUAL ENROLL CONDITION

CONDITION FOR DATE OF EVENT: 1
```

This field must be completed or you will receive an *ERROR* message. Enter 1 for *Manual Enroll* condition.

```
==============================================================================

TIME FRAME: Annually// <RET>
```

Let's keep our time frames the same as the original auto enrolled monitor. We can compare our total number of records reviewed with the total provided us through the auto enrolled monitor QA-1.

Exercise 3 - Building a Manual Enroll Monitor

```
THRESHOLD: 3
```

We can enter a threshold because we will be entering sample size information routinely so thresholds can be calculated.

```
PRE-THRESHOLD ALERT LEVEL: 2
```

For this first time frame, we are just interested in obtaining a base line. But for the next one, we might want to know in advance so we can prevent the threshold from being crossed by taking some action. In that case, we would want to be warned in advance. We can edit the Pre-Threshold field at the time the next time frame begins or you can enter it at this time so it will be ready for the next go round.

```
ALLOW 'DUPLICATE' FALL OUTS: YES// <RET>

Select OTHER DATA TO CAPTURE: WARD LOCATION// ?

CHOOSE FROM:
   AGE
   SOCIAL SECURITY NUMBER
   MOVEMENT DATE/TIME
   WARD LOCATION
   .....

Select OTHER DATA TO CAPTURE: WARD LOCATION// FACILITY TREATING SPECIALTY
   PATIENT MOVEMENT

Select OTHER DATA TO CAPTURE: ATTENDING PHYSICIAN     PATIENT MOVEMENT

Select OTHER DATA TO CAPTURE: PRIMARY CARE PHYSICIAN   PATIENT MOVEMENT

Select OTHER DATA TO CAPTURE: <RET>

PRINT DAILY FALL OUT LIST: YES// NO

PRINT DAILY WORKSHEETS: NO// <RET>

BULLETIN WHEN THRESHOLD MET: NO// YES
```

Exercise 3 - Building a Manual Enroll Monitor

```
BULLETIN AT END OF TIME FRAME: YES// <RET>

BULLETIN WHEN ALERT LEVEL MET: NO// YES

BULLETIN MAIL GROUP: QA GROUP// <RET>

START DATE: NOV 6,1991// T

END DATE: <RET>

ON/OFF SWITCH: OFF// ON

MONITOR STATUS: UNDER CONSTRUCTION// FINISHED
```

With little effort, we have copied a monitor and changed only those fields that needed changing.

Exercise 4 - Entering Data on Manually Enrolled Monitors

Now that we have two related monitors, one that provides us with the records for review and the other that lets us enter for tracking purposes the records that fail that review, let's enter some records into the manual monitor using the Fall Out Edit option from the Monitoring System User Menu.

```
Select User Menu Option: Fall Out Edit

Select MONITOR: QA-2   Gyne exam compliance   FINISHED

Select PATIENT: ONE,TEST
```

If a patient has had other fall outs, they will be listed as in this example. If you use a patient that fell out for QA-1, then that fall out will appear with the name.

```
06-07-39   123456789   NSC VETERAN
       *** FALL OUTS ***
        XX-1   05-10-91
        CAT-1   07-18-91
        QA-1    10-20-91


EVENT DATE: TODAY

Searching FALL OUT file for this patient/monitor...

No fall outs found for this patient/monitor.

Are you adding:
   ONE,TEST         123-45-6789              OCT 29,1991
                      Gyne exam compliance     QA-2 (m)
   as a new Fall Out record? YES
```

For every manually enrolled record, there is an automatic creation date given to the record. The first three fields, Patient, Monitor, and Event Date are automatically filled. The defaults for these fields are based on the event date you entered above. The defaults will come from the admission date closest to the event date.

Exercise 4 - Entering Data on Manually Enrolled Monitors

```
PATIENT: ONE,TEST// <RET>
MONITOR: QA-2// <RET>
EVENT DATE: OCT 29,1991// <RET>
SOCIAL SECURITY NUMBER: 123456789// <RET>
AGE:  (1-130): 52// <RET>
MOVEMENT DATE/TIME: OCT  20, 1991@14:20// <RET>
WARD LOCATION: 3W// <RET>
FACILITY TREATING SPECIALTY:<RET> MEDICINE// <RET>
ATTENDING PHYSICIAN: JONES,HARRY// <RET>
PRIMARY CARE PHYSICIAN: MARTIN,MICHAEL// <RET>

Select PATIENT: <RET>
```

After entering a patient (or more if you wish), we should also update the sample size for this monitor. This only needs to be done for manual monitors. The auto enroll monitors can automatically track the sample size.

The sample size can be updated on a routine basis or it can be entered at the end of the time frame. If you want to be warned when the threshold is met, you should update it frequently.

Set a routine time (daily, every Friday, the last day of every month, etc.) to update the sample size for all your manually enrolled monitors where you want to track the percent fall out.

```
Select User Menu Option: SAmple Size Edit

Select MONITOR: QA-2       Gyne exam compliance      FINISHED

Date for SAMPLE SIZE data: TODAY// <RET>

     SAMPLE SIZE data was last edited: *** NEVER ***
     Current FALL OUTS:         0
     Current SAMPLE SIZE:       0
```

Note that the number of fall outs is 0. Our entry today for Test One will not appear until tomorrow when auto enroll picks up the number of entries for the MONITOR HISTORY file (#743.2).

```
Add/Subtract SAMPLE SIZE  (-1000000 -> 1000000): 10

     New SAMPLE SIZE:          10

Date for SAMPLE SIZE data: T
```

Exercise 4 - Entering Data on Manually Enrolled Monitors

```
     SAMPLE SIZE data was last edited: OCT 29,1991
     Current FALL OUTS:         0
     Current SAMPLE SIZE:      10

Add/Subtract SAMPLE SIZE  (-1000000 -> 1000000): <RET>

Date for SAMPLE SIZE data: <RET>
```

While you are updating your sample sizes, check to make sure the number of fall outs is accurate. There should be an automatic nightly run that picks up all new manually entered fall outs from the previous day. If this fails, your numbers could be inaccurate. Remember, if you are looking at data for today, those records you entered today will not appear until tomorrow.

If the numbers appear to be or are inaccurate, you will want to check the Auto/Manual Enroll Monitors Run to make sure the enrollment was done. We will learn how to fix this problem, but you should also have IRM check to see why the enrollment did not run.

Let's say you returned the next day and found the number of fall outs had not increased.

```
Select Outputs Menu Option: AUto/Manual Enroll Monitors Run

Monthly,  Quarterly,  Semi-Annually,  Yearly,  Fiscal Yearly,  User Selectable
Select date range: User Selectable

Beginning Date: 10/29/91

Ending Date: OCT 29,1991// <RET>

DEVICE: HOME// <RET>
```

```
                        AUTO/MANUAL ENROLL MONITORS RUN            OCT 30,1991
                               OCT 29 1991                         PAGE: 1
AUTO ENROLL RUN DATE
  MONITOR CODE (a/m=AUTO/MANUAL)   MONITOR TITLE                   DATE RUN
-------------------------------------------------------------------------------

OCT 29,1991    *** AUTO ENROLL DID NOT RUN FOR THIS DATE ***
```

To correct this problem, we can run a manual enroll found within the Manager Menu.

```
Select Monitoring System Manager Menu Option: MAnually Run Auto Enroll

Want to run auto enroll for specific monitors? NO// <RET>
```

Exercise 4 - Entering Data on Manually Enrolled Monitors

Want to run auto enroll for specific services? NO// **<RET>**

Enter the date range you want auto enroll to scan

Monthly, Quarterly, Semi-Annually, Yearly, Fiscal Yearly, User Selectable
Select date range: **US**ER SELECTABLE

Enter beginning and ending dates for the desired time period:
Beginning Date: **10/29/91** (OCT 28, 1991)
Ending Date: OCT 29,1991// **<RET>**

Range selected: OCT 29,1991

Queue auto enroll to run at: **NOW**

The date/time you pick may be limited by the site parameters.

Queueing auto enroll, please wait.

Want a report of the dates when auto enroll will run? YES// **<RET>**

DEVICE: HOME// **<RET>**

```
                    MANUALLY QUEUED AUTO ENROLL RUN DATES          OCT 30,1991
                    OCT 29,1991         PAGE: 1

START DATE          END DATE            QUEUED TO RUN        TASK NUMBER
-------------------------------------------------------------------------------

OCT 29,1991         OCT 29,1991         OCT 30,1991@07:25:28        2226
```

You can now go back into the Sample Size Edit and check the fall out number. You can see that the number of fall outs is now 1.

Select User Menu Option: **SA**mple Size Edit

Select MONITOR: **QA-2** Gyne exam compliance FINISHED

Date for SAMPLE SIZE data: TODAY// **<RET>**

```
     SAMPLE SIZE data was last edited: OCT 29,1991
     Current FALL OUTS:         1
     Current SAMPLE SIZE:      10
```

Add/Subtract SAMPLE SIZE (-1000000 -> 1000000):

Date for SAMPLE SIZE data: **<RET>**

Select MONITOR: **<RET>**

Glossary

Alert Level	The level at which a bulletin is sent announcing that this level (pre-threshold) has been met. This is only meaningful for non-percentile thresholds. See Bulletin when Min Sample/Alert Level Met.
Allow Duplicate Fall Outs	Answering YES to this question allows an event to fall out multiple times for the same patient within a given time frame. Answering NO will allow the event to fall out only once per patient per time frame.
Auto Enroll Monitor	This field determines whether or not this is an auto enroll monitor. You should answer YES to this field only if this monitor can be auto enrolled. Your answer will determine which conditions you will be allowed to select.
Auto Run Auto Enroll	This refers to the nightly automatic runs that scan **V***IST***A** for patients who meet the criteria of the monitors which are set up in the QA MONITOR file (#743).
Bulletin at End of Time Frame	Enter YES if a bulletin should be sent at the end of each time frame.
Bulletin Mail Group	This field contains the name of the mail group that the threshold, minimum sample, and end of time frame bulletins will be sent to.
Bulletin when Min Sample/Alert Level Met	Enter YES if a bulletin should be sent when the minimum sample is met or when the alert level is met for non-percentile thresholds.
Bulletin when Threshold Met	Enter YES if a bulletin should be sent when the threshold is met the first time within the time frame.
Clinical Indicator	This word processing field defines the criteria necessary to meet the standard of care.

Code	This can either be free text or a predetermined list (of initial identifying letters or numbers) as defined by the site so that monitors can be grouped and easily retrieved by the service, section, etc.
Condition	A condition applies a True/False test on selected data elements in a patient's record. If the result of the test is true, that patient's record is captured for further processing.
Condition for Date of Event	Enter the condition number that should be used to capture the event date.
Contributes to Sample	This field determines whether or not this condition contributes to the sample size (denominator). This affects how information is collected to determine the size of the sample (denominator).
End Date	This field determines when the monitor should stop capturing data or when manual entry of data for this monitor is no longer allowed.
Fall Out	A fall out is a patient who has been found to meet the criteria of a monitor. When a patient falls out a record is created in the FALL OUT file (#743.1) for that patient.
Fall Out Relationship	This field specifically states the relationship between the conditions entered by the user. The user may use & (and), ! (or), ' (not), and parentheses () to specify the relationship.
Group	A group is a list of similar items. An example would be a group of wards that are all psychiatry wards. Groups may have as many or as few group members as desired.
Hi/Lo Percent	If the user chooses "Hi", the threshold will be met when the percentage is calculated to be >= to the threshold. If the user chooses "Lo", the threshold will be met when the percentage is calculated to be <= the threshold. Hi/Lo is only meaningful for percent thresholds.

Manually Run Auto Enroll	Used to manually queue the auto enroll batch job. This option is used to run the auto enroll if one or more days in the past was missed due to down time.
Minimum Sample	This field defines the minimum sample size (denominator) that must be reached before threshold checking occurs. Minimum sample is meaningful only for percent thresholds.
Monitor	A monitor is made up of a set of conditions (criteria) and the relationships among those conditions. Monitors scan **V***IST***A** on a nightly basis for patients who meet the monitors criteria.
Monitor Status	Answer FINISHED to this field only when you are sure you are completely finished entering/editing/building this monitor. Once you answer FINISHED, you will no longer be able to edit selected monitor fields.
On/Off Switch	This field controls whether or not a monitor is active. For an auto enroll monitor to capture data, this switch must be turned on. For a manual entry monitor to be selectable, the switch must be turned on. When you wish to stop using a monitor, this switch should be turned off.
Other Data to Capture	When a patient meets the conditions of the monitor and falls out, the other data to capture entries define which data elements in the patient's record should be collected.
Parameter	Parameters further narrow down the definition of a condition. The format of a parameter is determined by the condition.
Print Daily Fall Out List	This field determines whether or not a generic list of all fall outs, sorted by monitor, is printed daily.

Print Daily Worksheets	This field determines whether worksheets are printed daily for all fall outs for this monitor. For this to work, the worksheet must first be created by a programmer and linked to the monitor.
QM	Quality Management
QM Coordinator	An individual tasked with the oversight of QM activities in the medical center.
Rationale	This field defines the rationale for the use of this monitor. You may select all that apply. (high volume, high risk, problem prone, other)
Sample Relationship	Enter the relationships among the conditions. This field specifically states the relationship between the conditions that contribute to the sample size. The user may use & (and), ! (or), ' (not), and parentheses () to specify the relationship.
Sample Size	The total number of patient records scanned by a monitor.
Service	This field will allow the manager to track what monitors are currently being used by each service. The service entered has nothing to do with the conditions chosen or what data is auto enrolled.
Standard of Care	This word processing field defines the standard of care to be monitored.
Start Date	This field determines when the monitor should start to capture data or when manual entry of data for this monitor may begin.
Threshold	Threshold defines the number or percentage of fall outs after which some specific action will occur.

Time Frame	Time frame is the period of time over which the program begins capturing data and then sums up the data to start all over again with the beginning of the next similar time frame.
Title	This is a short free text name determined by the user for this monitor.
V*IST***A**	Veterans Health Information Systems and Technology Architecture

Appendix A - Additional Monitor Examples

The examples in this section are designed to give you more ideas for setting up monitors at your site. They illustrate a few more complex monitors than shown in previous examples.

Lithium Blood Level Lab Test Monitor

Suppose there is a need to identify patients (inpatient and outpatient) who have abnormal lithium blood levels. We want to see all the fall outs, but we also want to track total fall outs to total tests done on a monthly basis. The sample size will be all lithium tests. To limit the scope to inpatients, use the *On Ward* condition. To change that monitor to outpatients, use the not (') modifier in front of the *On Ward* condition when defining the Fall Out Relationship. You will see the not (') modifier used in the following Lithium monitor.

This example shows how to set up a monitor using the same condition twice - once with parameters to define fall out, and again with parameters to define Sample Size. When the same condition is selected twice for one monitor, you must remember in what order they were entered so that it will be possible to answer the Fall Out Relationship and Sample Size Relationship questions.

Certain types of lab tests (Chem, Hem, Tox, Ria, Ser) are accessible by the Clinical Monitoring System the day after the results are recorded in the **V***IST***A** Lab Package. Accessibility of this data is dependent upon the fields being "numeric" and not "free text" or a "set of codes". (See the *Lab* condition in Appendix B for greater detail.)

A monitor can be built to capture all patients whose lithium test results are not within a normal therapeutic range. We'll use 0.5 - 2 as a normal therapeutic range. As with most monitors, it will be run nightly and will find patients whose test results went into **V***IST***A** the day before.

```
Select Build Monitor Menu Option: ENTER/Edit a Monitor

Select MONITOR: LITH-1
   ARE YOU ADDING 'LITH-1' AS A NEW QA MONITOR (THE 16TH)? Y   (YES)
   QA MONITOR TITLE: Abnormal Lithium Blood Level
CODE: LITH-1// <RET>
TITLE: Abnormal Lithium Blood Level  Replace <RET>
SERVICE: PSY
     1   PSYCHIATRY
     2   PSYCHOLOGY          116B
CHOOSE 1-2: 1
```

Lithium Blood Level Lab Test Monitor

```
STANDARD OF CARE:
  1>Patients will be maintained at a therapeutic level of lithium.
  2><RET>
EDIT Option:<RET>

CLINICAL INDICATOR:
  1>Patients with lithium blood level <.05 or > 2...
  2><RET>
EDIT Option: <RET>

Select RATIONALE: <RET>

AUTO ENROLL MONITOR: YES
Select CONDITION: LAB-CHEM,HEM,TOX,RIA,SER,ETC
CONDITION: LAB-CHEM,HEM,TOX,RIA,SER,ETC// <RET>
LAB TEST: ?
     Enter the name of an individual lab test whose result you want to
monitor.
 ANSWER WITH LABORATORY TEST NUMBER, OR NAME, OR LOCATION (DATA NAME)
 DO YOU WANT THE ENTIRE LABORATORY TEST LIST? Y   (YES)
CHOOSE FROM:
   1           WBC
   2           RBC
   3           HGB
   4           HCT
   5           MCV
   6           MCH
   7           MCHC
   11          NEUTROPHIL SEGS
   12          BANDS
   13          LYMPHS
   14          MONOCYTES
   15          EOSINOPHILS
   16          BASOPHIL
   17          METAMYELOCYTES
   18          MYELOCYTES
   19          PROMYELOCYTES
   22          PLT SUFFICIENCY
   25          ANISOCYTOSIS
   26          POIKILOCYTOSIS
   27          MICROCYTOSIS
   28          MACROCYTOSIS
'^' TO STOP: ^

LAB TEST: LITHIUM

STARTING VALUE LITHIUM: 0.5                    Enter the normal values.

ENDING VALUE LITHIUM: 2.0

CONTRIBUTES TO SAMPLE: NO
```

Lithium Blood Level Lab Test Monitor

```
Select CONDITION: "LAB"-CHEM,HEM,TOX,RIA,SER,ETC
```

We need to enter the *Lab* condition again and specify sample size parameters that include ALL lithium tests. To enter the same condition twice, type in a sufficient number of characters to make it recognizable from other conditions and enclose it by double quotes as shown.

```
CONDITION: LAB-CHEM,HEM,TOX,RIA,SER,ETC// <RET>
LAB TEST: LITHIUM

STARTING VALUE LITHIUM: 0
ENDING VALUE LITHIUM: 999
```

To catch all the tests done, we need to enter extreme low and high values.

```
CONTRIBUTES TO SAMPLE: YES
Select CONDITION: <RET>
```

This is where it becomes necessary to remember the order in which you entered the two identical conditions.

```
==============================================================================

   CODE        CONDITION
  ------      -----------
    C1         LAB-CHEM,HEM,TOX,RIA,SER,ETC
    C2         LAB-CHEM,HEM,TOX,RIA,SER,ETC
```

Lithium Blood Level Lab Test Monitor

FALL OUT RELATIONSHIP: **'C1&C2**

The first *Lab* condition (C1) contains the normal therapeutic range. We are interested in obtaining a list of patients outside this range. So we need the C2 condition that grabs all patients with a Lithium test and we eliminate those within the normal range by putting a (') modifier in front of it. This will produce a list of patients whose lab values **do not** fall within that range.

```
==============================================================================

   CODE        CONDITION
  ------      -----------
    C2         LAB-CHEM,HEM,TOX,RIA,SER,ETC
```

SAMPLE RELATIONSHIP: **C2**

```
==============================================================================

   NUMBER      CONDITION
  --------    -----------
      1        LAB-CHEM,HEM,TOX,RIA,SER,ETC
      2        LAB-CHEM,HEM,TOX,RIA,SER,ETC
```

CONDITION FOR DATE OF EVENT: **2**

```
==============================================================================
```

TIME FRAME: **Monthly**
THRESHOLD: **<RET>**

PRE-THRESHOLD ALERT LEVEL: **<RET>**

Lithium Blood Level Lab Test Monitor

```
ALLOW 'DUPLICATE' FALL OUTS: Y
```

In this case each patient will be counted as often as the test is done during the time frame. You may choose to enter NO and have them only counted once during the time frame. It all depends on how you want to monitor Lithium use.

```
Select OTHER DATA TO CAPTURE: ??

     When a patient meets the conditions of the monitor and falls out the
     other data to capture entries define which data elements in the patient's
     record should be collected.

   CHOOSE FROM:
```

At this time, the *Lab* condition does not allow additional data capture.

```
Select OTHER DATA TO CAPTURE: <RET>
PRINT DAILY FALL OUT LIST: NO// YES
PRINT DAILY WORKSHEETS: NO// <RET>
BULLETIN WHEN THRESHOLD MET: NO// YES
BULLETIN AT END OF TIME FRAME: NO// YES
BULLETIN WHEN ALERT LEVEL MET: NO// YES
BULLETIN MAIL GROUP: CHQAM
START DATE: T   (JUL 22, 1992)
END DATE: T+365   (JUL 22, 1993)
ON/OFF SWITCH: OFF// ON

Checking monitor...
  Warning:  THRESHOLD not specified
No errors found.

MONITOR STATUS: UNDER CONSTRUCTION// FINISHED
```

Transfers to ICU Within 24 Hours of Admission

This example shows how to build a monitor which will use fall out from another monitor. Capturing patients who are admitted and then transferred to ICU within 24 hours is a two-step process. First, a monitor must run each night to capture patients who were admitted. Then, a second monitor must run to find which of the Admission fall out patients were transferred to ICU within 24 hours. Both monitors will run every night. The Transfer Monitor cannot have fall outs until one night after fall outs are captured by the Admissions Monitor.

The Admissions Monitor will use the *MAS Movement Type* condition. It is not necessary to define an MAS Movement Type group for the Admissions Monitor because the *MAS Movement Type* condition asks for a transaction type. If the Admission transaction type is selected, there is no need to further restrict the type of admission. The ICU Transfer Monitor will require one group - ICU wards and two conditions - *Ward Transfer* and *Fall Out*. Fall Out will provide the Sample Size in the ICU Transfer Monitor.

The Admissions Monitor can be set up first.

```
Select Build Monitor Menu Option: ENTER/Edit a Monitor

Select MONITOR: ADM-ALL
   ARE YOU ADDING 'ADM-ALL' AS A NEW QA MONITOR (THE 17TH)? Y   (YES)
   QA MONITOR TITLE: ALL ADMISSIONS
CODE: ADM-ALL// <RET>
TITLE: ALL ADMISSIONS// <RET>
SERVICE: DIRECTOR'S OFFICE          00
STANDARD OF CARE:
  1><RET>
CLINICAL INDICATOR:
  1><RET>
Select RATIONALE: <RET>
AUTO ENROLL MONITOR: YES
Select CONDITION: MAS MOVEMENT TYPE
CONDITION: MAS MOVEMENT TYPE// <RET>
MAS MOVEMENT TRANSACTION TYPE: ?
 ANSWER WITH MAS MOVEMENT TRANSACTION TYPE NUMBER, OR NAME
CHOOSE FROM:
   1           ADMISSION
   2           TRANSFER
   3           DISCHARGE
   4           CHECK-IN LODGER
   5           CHECK-OUT LODGER
   6           SPECIALTY TRANSFER


     Enter the MAS transaction type of interest.
```

Transfers to ICU Within 24 Hours of Admission

```
MAS MOVEMENT TRANSACTION TYPE: 1  ADMISSION
ADMISSION TYPE GROUP: <RET>
CONTRIBUTES TO SAMPLE: NO
Select CONDITION: <RET>

==============================================================================

   CODE        CONDITION
  ------      -----------
    C1         MAS MOVEMENT TYPE

FALL OUT RELATIONSHIP: C1

==============================================================================

   NUMBER      CONDITION
  --------    -----------
      1        MAS MOVEMENT TYPE

CONDITION FOR DATE OF EVENT: 1

==============================================================================

TIME FRAME: Monthly
THRESHOLD: <RET>
PRE-THRESHOLD ALERT LEVEL: <RET>
ALLOW 'DUPLICATE' FALL OUTS: YES
Select OTHER DATA TO CAPTURE: <RET>
PRINT DAILY FALL OUT LIST: NO// <RET>
PRINT DAILY WORKSHEETS: NO// <RET>
BULLETIN WHEN THRESHOLD MET: NO// <RET>
BULLETIN AT END OF TIME FRAME: NO// YES
BULLETIN WHEN ALERT LEVEL MET: NO// <RET>
BULLETIN MAIL GROUP: CHQAM
START DATE: T   (JUL 22, 1992)
END DATE: <RET>
ON/OFF SWITCH: OFF// ON

Checking monitor...
  Warning:  SAMPLE RELATIONSHIP not specified
  Warning:  THRESHOLD not specified
No errors found.
MONITOR STATUS: UNDER CONSTRUCTION// FINISHED

Select MONITOR:
```

Transfers to ICU Within 24 Hours of Admission

Next, the group of ICU wards must be defined for the ICU transfer monitor.

```
Select Monitoring System Manager Menu Option: GROUP Edit

Select GROUP: ICU WARDS          WARD LOCATION
NAME: ICU WARDS// <RET>
PARENT FILE: WARD LOCATION//   (No Editing)
Select GROUP MEMBER: 9EI// ?

     You may enter `[GROUP MEMBER' to select all entries that CONTAIN
     the text `GROUP MEMBER'.  Enter `[*' to select ALL entries.
     You may use a prefix of minus (-) to delete a range of group
     members, for example `-[GROUP MEMBER' or `-[*'.
     WARNING: Use of the contains operator ([) is very computer intensive!
 ANSWER WITH GROUP MEMBER
 CHOOSE FROM:
   10WC
   13EI
   15WR
   9EI
```

These wards have been defined as ICU wards in a group edit done previously.

```
     YOU MAY ENTER A NEW GROUP MEMBER, IF YOU WISH
     Answer must be 1-245 characters in length.
 ANSWER WITH WARD LOCATION NUMBER, OR SYNONYM, OR SERVICE, OR NSERV
 DO YOU WANT THE ENTIRE 64-ENTRY WARD LOCATION LIST? N  (NO)
 Select GROUP MEMBER: <RET>


Select Build Monitor Menu Option: ENTER/Edit a Monitor

Select MONITOR: ICU-XFER
   ARE YOU ADDING 'ICU-XFER' AS A NEW QA MONITOR (THE 18TH)? Y   (YES)
   QA MONITOR TITLE: ICU XFER 24 HRS AFTER ADM
CODE: ICU-XFER// <RET>
TITLE: ICU XFER 24 HRS AFTER ADM  Replace <RET>
SERVICE: DIRECTOR'S OFFICE          00

STANDARD OF CARE:
  1>Insure that patients who are admitted and have conditions...
  2><RET>
EDIT Option: <RET>
CLINICAL INDICATOR:
  1>Using fall outs from the Admission monitor, identify patients
  2>who were transferred to ICU within 24 hours of admission.
  3><RET>
EDIT Option: <RET>
Select RATIONALE: ?
```

Transfers to ICU Within 24 Hours of Admission

```
 ANSWER WITH RATIONALE
     YOU MAY ENTER A NEW RATIONALE, IF YOU WISH
     Enter the rationale for this monitor from the list displayed.
 ANSWER WITH RATIONALE NAME
CHOOSE FROM:
   High Risk
   High Volume
   Other
   Problem Prone

Select RATIONALE: H
     1   High Risk
     2   High Volume
CHOOSE 1-2: 1
Select RATIONALE: <RET>
AUTO ENROLL MONITOR: YES
Select CONDITION: WARD TRANSFER
CONDITION: WARD TRANSFER// <RET>
WARD GROUP: ICU WARDS          WARD LOCATION
```

Here we use the group that defines ICU Wards.

```
CONTRIBUTES TO SAMPLE: ?
     Enter Y(es) if this condition contributes to the sample size
     (denominator).
     CHOOSE FROM:
       1        YES
       0        NO
CONTRIBUTES TO SAMPLE: 0  NO
Select CONDITION: FALL OUT
```

The *Fall Out* condition lets you select another monitor's fall outs for this monitor to look at.

```
CONDITION: FALL OUT// <RET>
FALL OUT MONITOR: ADM-ALL          ALL ADMISSIONS      FINISHED

  LOOK BACK TIME: :  (1-365): 1
```

Since we want to capture all transfers to ICU within 24 hours of admission, look back time is one day.

```
ENTER THE TYPE OF DATE:  (0/1): ?

        0     AUTO ENROLL DATE
        1     FALL OUT DATE
     Enter the date you wish to be
     associated with this condition.
     Enter a 'RETURN' for the AUTO ENROLL DATE.

ENTER THE TYPE OF DATE:  (0/1): <RET> AUTO ENROLL DATE
CONTRIBUTES TO SAMPLE: YES
Select CONDITION: <RET>
```

Transfers to ICU Within 24 Hours of Admission

```
==============================================================================

   CODE        CONDITION
  ------      -----------
    C1         WARD TRANSFER
    C2         FALL OUT

FALL OUT RELATIONSHIP: C1&C2
==============================================================================

   CODE        CONDITION
  ------      -----------
    C2         FALL OUT

SAMPLE RELATIONSHIP: C2

==============================================================================

   NUMBER      CONDITION
  --------    -----------
      1        WARD TRANSFER
      2        FALL OUT

CONDITION FOR DATE OF EVENT: 1

==============================================================================

TIME FRAME: Monthly
THRESHOLD: 10
PRE-THRESHOLD ALERT LEVEL: 5
ALLOW 'DUPLICATE' FALL OUTS: YES
Select OTHER DATA TO CAPTURE: DIAGNOSIS [SHORT]          PATIENT MOVEMENT
Select OTHER DATA TO CAPTURE: FACILITY TREATING SPECIALTY     PATIENT MOVEMENT
Select OTHER DATA TO CAPTURE: PRIMARY CARE PHYSICIAN      PATIENT MOVEMENT
Select OTHER DATA TO CAPTURE: ATTENDING PHYSICIAN          PATIENT MOVEMENT
Select OTHER DATA TO CAPTURE: <RET>
PRINT DAILY FALL OUT LIST: NO// YES
PRINT DAILY WORKSHEETS: NO// <RET>
BULLETIN WHEN THRESHOLD MET: NO// YES
BULLETIN AT END OF TIME FRAME: NO// YES
BULLETIN WHEN ALERT LEVEL MET: NO// YES
BULLETIN MAIL GROUP: CHQAM
START DATE: T  (JUL 22, 1992)
END DATE: <RET>
ON/OFF SWITCH: OFF// ON

Checking monitor...
No errors found.
MONITOR STATUS: UNDER CONSTRUCTION// FINISHED

Select MONITOR:
```

JCAHO Indicators of Care

The following suggested monitors are based on the JCAHO anesthesia, trauma, and cardiovascular indicators.

First, set up the following two monitors because some of the indicators use their fall out.

DEATH

Condition 1	DEATH
Fall Out Relationship	C1
Condition for Date of Event	1 (date of death)

DEATH WITH AUTOPSY DISCHARGE

Condition 1	MAS MOVEMENT TYPE MAS Movement Transaction Type: Discharge Discharge Type Group: Use appropriate discharge type group
Fall Out Relationship	C1
Condition for Date of Event	1 (date of death)

Previously built ICD groups for these monitors were exported with the software. Look for them labeled as AN-1, AN-2, etc. listed within the Group Edit option. If they are not there, ask IRM to run the routine that will lay them in. (See the Installation Guide.)

Any indicators not listed here either cannot be obtained because the data is not available through **V***IST***A** or this version of the software does not access the package that has the data. Look for more indicators to be added in future versions.

Anesthesia Indicators were taken from Anesthesia and Obstetrical Indicators Beta Phase Training Manual, Joint Commission on Accreditation of Healthcare Organizations, 1990.

Trauma and Cardiovascular Indicators were taken from Trauma, Oncology and Cardiovascular Indicators, Beta Phase Training Manual and Software User's Guide, Joint Commission on Accreditation of Healthcare Organizations.

JCAHO Anesthesia Indicators

AN-1 => 5	AN-1 Perioperative CNS Complication AN-2 Perioperative Peripheral Neurologic Deficit AN-3 Perioperative Acute Myocardial Infarction AN-4 Perioperative Unplanned Cardiac Arrest AN-5 Perioperative Unplanned Respiratory Arrest
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: Select AN-1 => 5 DIAG GROUP depending on the monitor you are building. ICD Procedure group: ANESTHESIA INDICATOR PROC LIST
Fall Out Relationship	C1
Condition for Date of Event	1 (Procedure date)

AN-6	AN-6 Perioperative Death
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: Leave blank ICD Procedure group: ANESTHESIA INDICATOR PROC LIST
Condition 2	FALL OUT Fall Out Monitor: DEATH Look Back Time: Number of days between discharge and PTF data entry at your site Type of Date: Fall Out Date (Date of death)
Fall Out Relationship	C1&C2
Condition for Date of Event	2 (Date of death)

JCAHO Trauma Indicators

TR-8a,b	TR-8a,b Trauma patients undergoing laparotomy for wounds penetrating the abdominal wall, subcategorized by gunshot and/or stab wounds.
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: TR-8A/B DIAG GROUP (GUNSHOT)/(KNIFE) ICD Procedure group: Leave blank
Condition 2	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: Leave blank ICD Procedure group: TR-8 PROC GROUP
Fall Out Relationship	C1&C2
Sample Size Relationship	C1
Condition for Date of Event	2 (Date of procedure)

TR-10	TR-10 Adult trauma patients with femoral diaphyseal fractures treated by a non-fixation technique.
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: TR-10 DIAG GROUP ICD Procedure group: Leave blank
Condition 2	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: Leave blank ICD Procedure group: TR-10 PROC GROUP
Fall Out Relationship	C1&'C2
Sample Size Relationship	C1
Condition for Date of Event	1 (Admission date)

JCAHO Trauma Indicators

TR-11	TR-11 Intrahospital mortality of trauma patients with one or more of the following conditions who did not undergo a procedure for the condition: tension pneumothorax, hemoperitoneum, hemothoraces, ruptured aorta, pericardial tamponade, and epidural or subdural hemorrhage.
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: TR-11 DIAG GROUP ICD Procedure group: Leave blank
Condition 2	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: Leave blank ICD Procedure group: TR-11 PROC GROUP
Condition 3	FALL OUT Fall Out Monitor: DEATH (See AN-6 for death monitor set-up.) Look Back Time: Average number of days between discharge and PTF data entry at your site Type of Date: Fall Out Date (Date of death)
Fall Out Relationship	C3&C1&'C2
Sample Size Relationship	C3&C1
Condition for Date of Event	3 (Date of death)

JCAHO Trauma Indicators

TR-12	TR-12 Trauma patients who expired within 48 hours of emergency department (ED) arrival for whom an autopsy was performed.
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: TR-12 DIAG GROUP-BASIC TRAUMA ICD Procedure group: Leave blank
Condition 2	FALL OUT Fall Out Monitor: DEATH WITH AUTOPSY DISCHARGE Look Back Time: Number of days between discharge and PTF data entry at your site Type of Date: Fall Out Date (Date of death)
Fall Out Relationship	C1&C2
Condition for Date of Event	2 (Discharge/Death date)

JCAHO Cardiovascular Indicator

CV-4	CV-4 Patients undergoing non-emergent percutaneous transluminal coronary angioplasty with subsequent occurrence of either an acute myocardial infarction or coronary artery bypass graft procedure within the same hospitalization.
Condition 1	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: Leave blank ICD Procedure group: CV-4 PROC GROUP
Condition 2	PTF DIAGNOSIS/OPERATION CODES ICD Diagnosis group: CV-4 DIAG GROUP ICD Procedure group: Leave blank
Fall Out Relationship	C1&C2
Sample Size Relationship	C1
Condition for Date of Event	1 (Date of procedure)

Appendix B - Condition Descriptions

The condition listing on the following pages can be reproduced at your site through the Condition File Inquire option by entering ALL at the "CONDITION:" prompt. Familiarity with these conditions is necessary before attempting to build monitors.

Keep in mind the following general rules.

- Any question on the condition list that relates to a condition can be bypassed by entering <RET> at the prompt. The result of bypassing a question is that **all** possible criteria that it asks for will be considered valid. For example, if you select the *Appointment* condition and press <RET> at the "STATUS:" question, the appointments retrieved may have any status. The exception to this is that pressing <RET> at a "LOOK BACK DAYS:" prompt will cause the monitor to revert to its default behavior of looking only at what happened yesterday.

- Unless otherwise specified by entering a LOOK BACK DAYS, conditions are applied to transactions that occurred yesterday (T-1). If you enter a LOOK BACK DAYS, the monitor will apply the condition to T-1 as well as the additional number of days you enter. For example, if you enter 2 at the "LOOK BACK DAYS:" prompt, the monitor will look at T-1, T-2, and T-3.

- The "TYPE OF DATE:" question determines which date will be written to the EVENT DATE field of the fall out record.

As a reminder that defined groups may be needed for some conditions, we highlighted any notation to a group in the following listing of conditions. We also included file contents for those files that are exported with data and do not differ from site to site.

==========

CONDITION: AGE AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of patients who fall between an upper and a lower age limit entered by the user.

This condition will request the following information:

LOWER AGE LIMIT
The lower limit (inclusive) on patient age

UPPER AGE LIMIT
The upper limit (inclusive) on patient age.

DATA ELEMENTS:

AGE
COVERED BY HEALTH INSURANCE?
DATE OF BIRTH
DATE OF DEATH
MARITAL STATUS
OCCUPATION
RACE
RELIGIOUS PREFERENCE
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY

==========

==========

CONDITION: APPOINTMENT AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all appointments on the day that auto enroll is scanning. The user may screen the appointments by entering a **clinic group**, the appointment status, the purpose of the visit, and/or an **appointment type group**.

This condition will request the following information:

CLINIC GROUP
A group of entries from the HOSPITAL LOCATION file (#44).

STATUS
The status of the appointment, i.e., No-show, Cancelled, etc.

PURPOSE OF VISIT
The purpose of the patient visit, i.e., C&P, 10/10, Unscheduled, etc.

APPOINTMENT TYPE GROUP
A group of entries from the APPOINTMENT TYPE file (#409.1).

LOOK BACK DAYS
The number of days (in addition to yesterday) to look into the past for an appointment.

DATA ELEMENTS:

AGE
APPOINTMENT DATE/TIME
APPOINTMENT STATUS
APPOINTMENT TYPE
APPT. CANCELLATION REASON
CLINIC
COVERED BY HEALTH INSURANCE?
DATE OF BIRTH
DATE OF DEATH
MARITAL STATUS
OCCUPATION
PURPOSE OF VISIT
RACE
RELIGIOUS PREFERENCE
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY

==========

Look back days
If you enter three (3) for the number of look back days, the program actually scans four (4) days. Example: If today = 5/28, the program scans 5/24, 25, 26, and 27.

HOSPITAL LOCATION file contents differ from site to site.

Status

- NO-SHOW
- CANCELLED BY CLINIC
- NO-SHOW & AUTO RE-BOOK
- CANCELLED BY CLINIC & AUTO RE-BOOK
- INPATIENT APPOINTMENT
- CANCELLED BY PATIENT
- CANCELLED BY PATIENT & AUTO RE-BOOK

Purpose of Visit

- C&P
- 10-10
- SCHEDULED VISIT
- UNSCHEDULED VISIT

Appointment Type file

- COMPENSATION & PENSION
- CLASS II DENTAL
- ORGAN DONORS
- EMPLOYEE
- PRIMA FACIA
- RESEARCH
- COLLATERAL OF VET.
- SHARING AGREEMENT
- REGULAR
- COMPUTER GENERATED

==========

CONDITION: DEATH AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all deaths.

This condition will not request any further information.

DATA ELEMENTS:

AGE
COVERED BY HEALTH INSURANCE?
DATE OF BIRTH
DATE OF DEATH
MARITAL STATUS
OCCUPATION
RACE
RELIGIOUS PREFERENCE
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY

==========

```
==============================================================================

CONDITION:  FALL OUT                                          AUTO ENROLL: YES

DESCRIPTION:
     This condition produces a list of patients who previously fell out
     for a specific monitor within a user selected number of days.

     This condition will request the following information:

     FALL OUT MONITOR
     The monitor whose fall outs you wish to further monitor.

     LOOK BACK DAYS
     The number of days (in addition to yesterday) to look into the past
     for a fall out captured by a previous monitor.

     TYPE OF DATE
     The date that should be used as the event date for the fallout,
     either the event date of the previous fall out or the auto enroll
     date for the current fall out.

DATA ELEMENTS:
     EVENT DATE (FALL OUT)
     REC CREATION DATE (FALL OUT)

==============================================================================
```

Look back days

If you enter three (3) for the number of look back days, the program actually scans four (4) days. Example: If today = 5/28, the program scans 5/24, 525, 5/26, and 5/27.

When to use the *Fall Out* condition

CMS scans the data base once each day to pick up patients that meet specified conditions. Events (conditions) do not always happen on the same day for a patient. Perhaps a patient is seen in a clinic on one day (the first event) but we want to make sure his lab test (second event) is done within 5 days of being seen in clinic. We would build two monitors to obtain a list of fall out patients. The first monitor would scan for patients seen in a specific clinic. We will call the monitor Coumadin Clinic. This then becomes our *Fall Out* condition for our second monitor which will also scan for a selected lab test. The relationship between the conditions would be Fall Out (Coumadin Clinic) and not (&') Lab. This monitor would also use Look Back Days which would be entered as 4.

```
==============================================================================

CONDITION: LAB-CHEM,HEM,TOX,RIA,SER,ETC                    AUTO ENROLL: YES

DESCRIPTION:
      This condition produces a list of patients who fall within a user
      specified range of values for a user specified lab test.

      This condition will request the following information:

      LAB TEST
      Any single Chem, Hem, Tox, Ria, or Ser type lab test.

      STARTING VALUE
      ENDING VALUE
      The starting and ending (hi/lo) value range that you want to capture
      for the selected lab test.

DATA ELEMENTS:

==============================================================================
```

Note: This software will not ask Starting and Ending Values for 'free text' or 'set of codes' fields. If the *Lab* condition responds in the following manner

```
CONDITION: LAB-CHEM,HEM,TOX,RIA,SER,ETC// <RET>
LAB TEST: LITHIUM
STARTING VALUE LITHIUM:
ENDING VALUE LITHIUM:
```

then the field is numeric and you will be able to enter the values you want.

If the *Lab* condition responds in this manner

```
CONDITION: LAB-CHEM,HEM,TOX,RIA,SER,ETC// <RET>
LAB TEST: LITHIUM
"LAB TEST NAME":
```

then the field was set up at your site as either free text or a set of codes. If this monitor is an important part of your risk management activities, try negotiating with your Lab ADPAC to see if the field can be designated as numeric.

==========

CONDITION: LENGTH OF STAY IN SPECIALTY AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all patients who have been in the same **specialty group** for a user selected number of days.

This condition will request the following information:

LENGTH OF STAY
The number of days a patient has stayed in a given treating specialty. Enter 10 if you want to capture all patients with a treating specialty LOS of ten days.

TREATING SPECIALTY GROUP
A group of entries from the FACILITY TREATING SPECIALTY file (#45.7).

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the FACILITY TREATING SPECIALTY file differ from site to site.

The number in LOS conditions
The patient will fall out when his stay equals the LOS entered in the condition. When or if the patient's LOS is greater than the LOS in the condition, the patient will not fall out.

```
==============================================================================

CONDITION: LENGTH OF STAY ON A WARD                        AUTO ENROLL: YES

DESCRIPTION:
     This condition produces a list of all patients who have been on a
     given ward group for a user selected number of days.

     This condition will request the following information:

     LENGTH OF STAY
     The number of days a patient has stayed on a given ward.  Enter 10
     if you want to capture all patients with a ward LOS of ten days.

     WARD GROUP
     A group of entries from the WARD LOCATION file (#42).

DATA ELEMENTS:
     ADMITTED FOR SC CONDITION?
     ADMITTING REGULATION
     ATTENDING PHYSICIAN
     DIAGNOSIS [SHORT]
     FACILITY TREATING SPECIALTY
     MAS MOVEMENT TYPE
     MOVEMENT DATE/TIME
     PRIMARY CARE PHYSICIAN
     ROOM-BED
     TRANSACTION TYPE
     TYPE OF MOVEMENT
     WARD LOCATION

==============================================================================
```

The contents of the WARD LOCATION file differ from site to site.

The number in LOS conditions
The patient will fall out when his stay equals the LOS entered in the condition. When or if the patient's LOS is greater than the LOS in the condition, the patient will not fall out.

```
==============================================================================

CONDITION: LENGTH OF STAY SINCE ADMISSION                  AUTO ENROLL: YES

DESCRIPTION:
     This condition produces a list of all patients who have length of
     stay since admission of X number of days.

     This condition will request the following information:

     LENGTH OF STAY
     The number of days a patient has been an inpatient.  Enter 10 if you
     want to capture all patients with a LOS of ten days.

DATA ELEMENTS:
     ADMITTED FOR SC CONDITION?
     ADMITTING REGULATION
     ATTENDING PHYSICIAN
     DIAGNOSIS [SHORT]
     FACILITY TREATING SPECIALTY
     MAS MOVEMENT TYPE
     MOVEMENT DATE/TIME
     PRIMARY CARE PHYSICIAN
     ROOM-BED
     TRANSACTION TYPE
     TYPE OF MOVEMENT
     WARD LOCATION

==============================================================================
```

The number in LOS conditions
The patient will fall out when his stay equals the LOS entered in the condition. When or if the patient's LOS is greater than the LOS in the condition, the patient will not fall out.

==========

CONDITION: MANUAL ENROLL CONDITION AUTO ENROLL: NO

DESCRIPTION:
This is a generic manual enroll condition. It MUST be selected as the condition for all monitors for which you plan to do manual data entry.

DATA ELEMENTS:
ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
AGE
APPOINTMENT DATE/TIME
APPOINTMENT STATUS
APPOINTMENT TYPE
APPT. CANCELLATION REASON
ATTENDING PHYSICIAN
CLINIC
COVERED BY HEALTH INSURANCE?
DATE OF DEATH
DIAGNOSIS [SHORT]
DISPOSITION
EVENT DATE (FALL OUT)
FACILITY TREATING SPECIALTY
LOG IN DATE/TIME
LOG IN STATUS
LOG OUT DATE/TIME
MARITAL STATUS
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
OCCUPATION
PRIMARY CARE PHYSICIAN
PURPOSE OF VISIT
RACE
REASON FOR LATE DISPOSITION
REC CREATION DATE (FALL OUT)
RELIGIOUS PREFERENCE
ROOM-BED
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY
TRANSACTION TYPE
TYPE OF BENEFIT APPLIED FOR
TYPE OF CARE APPLIED FOR
TYPE OF MOVEMENT
WARD LOCATION

==========

==========

CONDITION: MAS MOVEMENT TYPE AUTO ENROLL: YES

DESCRIPTION:

This condition allows the user to track selected MAS movement types. First the user must select the transaction type of movement he wishes to track, Admission, Transfer, Discharge, Check-in Lodger, Check-out Lodger, or Treating Specialty. The user is then prompted for a **group** that consists **of specific movement types** that fall under the transaction type selected above.

This condition will request the following information:

MAS MOVEMENT TRANSACTION TYPE
The desired patient movement transaction type, i.e., admission, transfer, discharge, etc.

MOVEMENT TYPE GROUP
A specific subset of patient movements that fall within the transaction type chosen above. If admission was chosen as the transaction type, the movement type group might include direct, transfer in, etc. A group of entries from the MAS MOVEMENT TYPE file (#405.2).

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

MAS Movement Transaction Type

ADMISSION
TRANSFER
DISCHARGE
CHECK-IN LODGER
CHECK-OUT LODGER
SPECIALTY TRANSFER
NON-MOVEMENT

MAS Movement Type File

AUTH ABSENCE 96 HOURS OR LESS
AUTHORIZED ABSENCE
UNAUTHORIZED ABSENCE
INTERWARD TRANSFER
CHECK-IN LODGER
CHECK-IN LODGER (OTHER FACILITY)
CHECK-OUT LODGER
AMBULATORY CARE (OPT-AC)
TRANSFER IN
TRANSFER OUT
NON-SERVICE CONNECTED (OPT-NSC)
DEATH
TO ASIH (VAH)
FROM ASIH (VAH)
DIRECT
REGULAR
IRREGULAR
READMISSION TO NHCU/DOMICILIARY
PROVIDER/SPECIALTY CHANGE
OPT-SC
FROM UNAUTHORIZED ABSENCE
FROM AUTH. ABSENCE OF 96 HOURS OR LESS
FROM AUTHORIZED ABSENCE
FROM AUTHORIZED TO UNAUTHORIZED ABSENCE
FROM UNAUTHORIZED TO AUTHORIZED ABSENCE
NON-BED CARE
NON-SERVICE CONNECTED (OPT-NSC)
PRE-BED CARE (OPT-PBC)
NON-VETERAN (OPT-NVE)
TO NHCU FROM HOSP
TO DOM FROM HOSP
TO NHCU FROM DOM
DISCHARGE TO CNH
VA NHCU TO CNH
WAITING LIST
NON-VETERAN
DEATH WITH AUTOPSY
OPT-SC
TO ASIH
FROM ASIH
WHILE ASIH
TO ASIH (OTHER FACILITY)
RESUME ASIH IN PARENT FACILITY
CHANGE ASIH LOCATION (OTHER FACILITY)
CONTINUED ASIH (OTHER FACILITY)
DISCHARGE FROM NHCU/DOM WHILE ASIH

==========

CONDITION: MH SECLUSION/RESTRAINT AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all patients on a selected ward group, with selected types and/or reasons for restraint. The maximum number of hours allowed in restraint is also a parameter.

This condition will request the following information:

HOSPITAL LOCATION GROUP
A group of entries from the HOSPITAL LOCATION file (#44).

SECLUSION/RESTRAINT TYPE GROUP
A group of entries from the S/R CATEGORY file (#615.6).

REASON FOR S/R GROUP
A group of entries from the S/R REASONS file (#615.5).

MAXIMUM TIME IN S/R (HOURS)
The maximum number of hours a patient may be held in seclusion/restraint before the patient will fall out for this condition.

DATA ELEMENTS:

DATE TIME OF S/R ORDER
DATE/TIME S/R APPLIED
NAME OF NURSE PRESENT S/R
S/R ORDER TYPE
S/R ORDERED BY
S/R WARD

==========

The contents of the HOSPITAL LOCATION file differ from site to site.

S/R Category file

LEATHER RESTRAINTS
LOCKED SECLUSION
SOFT RESTRAINTS
UNLOCKED SECLUSION

S/R Reasons file

HARM TO SELF
HARM TO OTHERS
DISRUPTING THERAPEUTIC MILIEU

==========

CONDITION: ON SERVICE AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all patients on a user specified **service/section group**. The service/section is determined from the patient's current treating specialty.

This condition will request the following information:

SERVICE/SECTION GROUP
A group of entries from the SERVICE/SECTION file (#49).

COUNT SAMPLE SIZE BY
This field allows you to choose how the sample size will be calculated. It can be counted by transfers, discharges, and the number of patients in house at the end of the time frame.

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the SERVICE/SECTION file differ from site to site.

```
==============================================================================

CONDITION: ON TREATING SPECIALTY                          AUTO ENROLL: YES

DESCRIPTION:
     This condition produces a list of all patients on a user specified
     treating specialty group.

     This condition will request the following information:

     TREATING SPECIALTY GROUP
     A group of entries from the FACILITY TREATING SPECIALTY file
     (#45.7).

     COUNT SAMPLE SIZE BY
     This field allows you to choose how the sample size will be
     calculated.  It can be counted by transfers, discharges, and the
     number of patients in house at the ending of the time frame.

DATA ELEMENTS:
     ADMITTED FOR SC CONDITION?
     ADMITTING REGULATION
     ATTENDING PHYSICIAN
     DIAGNOSIS [SHORT]
     FACILITY TREATING SPECIALTY
     MAS MOVEMENT TYPE
     MOVEMENT DATE/TIME
     PRIMARY CARE PHYSICIAN
     ROOM-BED
     TRANSACTION TYPE
     TYPE OF MOVEMENT
     WARD LOCATION

==============================================================================
```

The contents of the FACILITY TREATING SPECIALTY file differ from site to site.

==========

CONDITION: ON WARD AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all patients on a user specified **ward group**.

This condition will request the following information:

WARD GROUP
A group of entries from the WARD LOCATION file (#42).

COUNT SAMPLE SIZE BY
This field allows you to choose how the sample size will be calculated. It can be counted by admissions, transfers, discharges, and the number of patients in house at the beginning or end of the time frame.

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the WARD LOCATION file differ from site to site.

Conditions: OS 101.1-199

```
==============================================================================
CONDITION: OS-101.1                          AUTO ENROLL: YES

DESCRIPTION:
     This condition performs the auto enroll of Occurrence Screen 101.1,
     'Readmission within 10 days.'

DATA ELEMENTS:

==============================================================================
CONDITION: OS-102                            AUTO ENROLL: YES

DESCRIPTION:
     This condition performs the auto enroll of Occurrence Screen 102,
     'Admission within 3 days of an unscheduled ambulatory care visit.'

DATA ELEMENTS:

==============================================================================
CONDITION: OS-106.1                          AUTO ENROLL: YES

DESCRIPTION:
     This condition performs the auto enroll of Occurrence Screen 106.1,
     'Unexpected transfer to a special care unit within 72 hours of
     transfer from a special care unit.'

DATA ELEMENTS:

==============================================================================
CONDITION: OS-107                            AUTO ENROLL: YES

DESCRIPTION:
     This condition performs the auto enroll of Occurrence Screen 107,
     'Return to the O.R. in the same admission.'

DATA ELEMENTS:

==============================================================================
CONDITION: OS-109                            AUTO ENROLL: YES

DESCRIPTION:
     This condition performs the auto enroll of Occurrence Screen 109,
     'Death.'

DATA ELEMENTS:

==============================================================================
CONDITION: OS-199                            AUTO ENROLL: YES

DESCRIPTION:
      This condition performs the auto enroll of Occurrence Screen 199,
     'Readmission within 48 hours of D/C from extended care.'

DATA ELEMENTS:

==============================================================================
```

==========

CONDITION: PATIENT GROUP AUTO ENROLL: YES

DESCRIPTION:

This condition is used to monitor a select **group of patients**.

This condition will request the following information:

PATIENT GROUP
A group of entries from the PATIENT file (#2).

DATA ELEMENTS:

==========

The contents of the PATIENT file differ from site to site.

==========

CONDITION: PREVIOUS DISCHARGE FROM WARD AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of patient discharges within a user selected 'look back time.' The discharges may be screened by **ward group**. The condition date is user selectable.

This condition will request the following information:

LOOK BACK DAYS
The number of days (in addition to yesterday) to look into the past for a discharge

WARD GROUP
A group of entries from the WARD LOCATION file (#42).

TYPE OF DATE
The date that should be used as the event date for the fallout, either the date the fall out was auto enrolled or the discharge date.

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the WARD LOCATION file differ from site to site.

Look back days
If you enter three (3) for the number of look back days, the program actually scans four (4) days. Example: If today = 5/28, the program scans 5/24, 525, 5/26, and 5/27.

==========

CONDITION: PREVIOUS DISCHARGE MVMENT TYPE AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of patient discharged within a user selected 'look back time.' The discharges may be screened by MAS **movement type group**. The condition date is user selectable.

This condition will request the following information:

LOOK BACK DAYS
The number of days (in addition to yesterday) to look into the past for a discharge.

MOVEMENT TYPE GROUP
A group of entries (discharge movements) from the MAS MOVEMENT TYPE file (#405.2).

TYPE OF DATE
The date that should be used as the event date for the fall out, either the date the fall out was auto enrolled or the discharge date.

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

Look back days

If you enter three (3) for the number of look back days, the program actually scans four (4) days. Example: If today = 5/28, the program scans 5/24, 525, 5/26, and 5/27.

MAS Movement Type File

AUTH ABSENCE 96 HOURS OR LESS
AUTHORIZED ABSENCE
UNAUTHORIZED ABSENCE
INTERWARD TRANSFER
CHECK-IN LODGER
CHECK-IN LODGER (OTHER FACILITY)
CHECK-OUT LODGER
AMBULATORY CARE (OPT-AC)
TRANSFER IN
TRANSFER OUT
NON-SERVICE CONNECTED (OPT-NSC)
DEATH
TO ASIH (VAH)
FROM ASIH (VAH)
DIRECT
REGULAR
IRREGULAR
READMISSION TO NHCU/DOMICILIARY
PROVIDER/SPECIALTY CHANGE
OPT-SC
FROM UNAUTHORIZED ABSENCE
FROM AUTH. ABSENCE OF 96 HOURS OR LESS
FROM AUTHORIZED ABSENCE
FROM AUTHORIZED TO UNAUTHORIZED ABSENCE
FROM UNAUTHORIZED TO AUTHORIZED ABSENCE
NON-BED CARE
NON-SERVICE CONNECTED (OPT-NSC)
PRE-BED CARE (OPT-PBC)
NON-VETERAN (OPT-NVE)
TO NHCU FROM HOSP
TO DOM FROM HOSP
TO NHCU FROM DOM
DISCHARGE TO CNH
VA NHCU TO CNH
WAITING LIST
NON-VETERAN
DEATH WITH AUTOPSY
OPT-SC
TO ASIH
FROM ASIH
WHILE ASIH
TO ASIH (OTHER FACILITY)
RESUME ASIH IN PARENT FACILITY
CHANGE ASIH LOCATION (OTHER FACILITY)
CONTINUED ASIH (OTHER FACILITY)
DISCHARGE FROM NHCU/DOM WHILE ASIH

==========

CONDITION: PREVIOUS DISCHARGE TREAT SPEC AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of patient discharges within a user selected 'look back time.' The discharges may be screened by treating specialty. The condition date is user selectable.

This condition will request the following information:

LOOK BACK DAYS
The number of days (in addition to yesterday) to look into the past for a discharge.

TREATING SPECIALTY GROUP
A group of entries from the FACILITY TREATING SPECIALTY file (#45.7).

TYPE OF DATE
The date that should be used as the event date for the fall out, either the date the fall out was auto enrolled or the discharge date.

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the FACILITY TREATING SPECIALTY file differ from site to site.

Look back days
If you enter three (3) for the number of look back days, the program actually scans four (4) days. Example: If today = 5/28, the program scans 5/24, 525, 5/26, and 5/27.

==========

CONDITION: PTF DIAGNOSES/OPERATION CODES AUTO ENROLL: YES

DESCRIPTION:

This condition will produce a list of closed out PTF records. An **ICD diagnosis group** may be specified to screen out particular patients. An I**CD operation/procedure group** may also be specified to screen out particular patients. If both groups are entered the patient must have both a diagnosis and an operation/procedure found in the groups in order to fall out. If no groups are specified all closed out PTF records with at least one diagnosis and one operation code will be captured.

This condition will request the following information:

ICD DIAGNOSIS GROUP
A group of entries from the ICD DIAGNOSIS file (#80).

ICD PROCEDURE GROUP
A group of entries from the ICD OPERATION/PROCEDURE file (#80.1).

DATA ELEMENTS:

PTF ADMISSION DATE
PTF DISCHARGE DATE
PTF DISCHARGE SPECIALTY
PTF DRG
PTF DXLS
PTF ICD 10
PTF ICD 2
PTF ICD 3
PTF ICD 4
PTF ICD 5
PTF ICD 6
PTF ICD 7
PTF ICD 8
PTF ICD 9
PTF PROCEDURE 1
PTF PROCEDURE 2
PTF PROCEDURE 3
PTF PROCEDURE 4
PTF PROCEDURE 5
PTF TYPE OF DISPOSITION
PTF WARD AT DISCHARGE

==========

Contents of the ICD files are too large to list here.

==========

CONDITION: READMISSION AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all patients readmitted to the hospital within a user selected number of days.

This condition will request the following information:

DAYS BETWEEN DISCHARGE AND ADMISSION
This is the maximum number of days between a discharge and a readmission. A fall out will occur if this number is greater than or equal to the number of days between the discharge and the admission.

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

==========

CONDITION: REGISTRATION AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all registrations for the day that auto enroll is running for. The user may screen the registrations by entering the registration status, the type of benefit applied for, the type of care applied for, and/or a **disposition group**.

This condition will request the following information:

STATUS
The status of a patient visit, i.e., 10/10, Unscheduled, etc.

TYPE OF BENEFIT APPLIED FOR
The type of benefit the patient is applying for, i.e., Hospital, Outpatient, NHCU, etc.

TYPE OF CARE APPLIED FOR
The type of care the patient is applying for.

DISPOSITION GROUP
A group of entries from the DISPOSITION file (#37).

DATA ELEMENTS:

AGE
COVERED BY HEALTH INSURANCE?
DATE OF BIRTH
DATE OF DEATH
DISPOSITION
LOG IN DATE/TIME
LOG IN STATUS
LOG OUT DATE/TIME
MARITAL STATUS
OCCUPATION
RACE
REASON FOR LATE DISPOSITION
RELIGIOUS PREFERENCE
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY
TYPE OF BENEFIT APPLIED FOR
TYPE OF CARE APPLIED FOR

==========

Status

10-10 VISIT
UNSCHEDULED
APPLICATION WITHOUT EXAM

Type of Benefit Applied for

- HOSPITAL
- DOMICILIARY
- OUTPATIENT MEDICAL
- OUTPATIENT DENTAL
- NURSING HOME CARE

Type of Care Applied for

- DENTAL
- PLASTIC SURGERY
- STERILIZATION
- PREGNANCY
- ALL OTHER

Disposition File

- ADMIT
- CANCEL APPLICATION
- CANCEL WITH EXAM
- CANCEL WITHOUT EXAM
- COMMUNITY RESOURCES
- DEAD ON ARRIVAL
- DOMICILIARY ADMISSION
- DOMICILIARY WAITING LIST
- FAILED TO COOPERATE/COMPLETED
- FEE BASIS REFERAL, OTHER
- HOSPITAL ADMISSION
- HOSPITAL WAITING LIST
- IN NEED OF DOMICILIARY
- IN NEED OF NURSING HOME CARE
- INELIGIBLE
- INELIGIBLE-DISP COMMUNITY
- INELIGIBLE-DISP OTHER
- KEEP PREVIOUSLY SCHEDULED APPT
- LOW PRIORITY-DISP COMMUNITY
- LOW PRIORITY-DISP FEE BASIS
- LOW PRIORITY-DISP OTHER
- LOW PRIORITY-DISP OTHER VA
- NO CARE OR TREATMENT REQUIRED
- NURSING HOME ADMISSION
- NURSING HOME WAITING LIST
- PENDING DETERMINATION
- PRE-BED CARE
- REFERRED TO OTHER VA FACILITY
- REFUSED TO PAY DEDUCTIBLE
- RESOURCES NOT AVAILABLE
- SCHEDULE FUTURE APPOINTMENT
- SCHEDULED ADMISSION
- TREATMENT MODALITY NOT AVAILABLE
- TREATMENT PROVIDED NO RETURN
- TRT MOD UNAVAIL-DISP COMMUNITY
- TRT MOD UNAVAIL-DISP FEE BASIS
- TRT MOD UNAVAIL-DISP OTHER
- TRT MOD UNAVAIL-DISP OTHER VA
- WAITING LIST

==========

CONDITION: RXS 2+ DRUGS IN THE SAME CLASS AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of patients who have two or more active prescriptions for drugs in the same class. All new prescriptions are scanned and the drug class is user selectable.

This condition will request the following information:

DRUG CLASS GROUP
A group of entries from the VA DRUG CLASS file (#50.605).

DATA ELEMENTS:

The VA DRUG CLASS file is too large to list here.

==========

CONDITION: SEX AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of Male or Female patients.

This condition will request the following information:

SEX
The sex of the patients who should be captured.

DATA ELEMENTS:

AGE
COVERED BY HEALTH INSURANCE?
DATE OF BIRTH
DATE OF DEATH
MARITAL STATUS
OCCUPATION
RACE
RELIGIOUS PREFERENCE
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY

==========

==========

CONDITION: SPECIALTY TRANSFER AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all specialty transfers on the day that auto enroll is scanning. The user may choose a specific **group of specialties** to monitor.

This condition will request the following information:

TREATING SPECIALTY GROUP
A group of entries from the FACILITY TREATING SPECIALTY file (#45.7).

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the FACILITY TREATING SPECIALTY file differ from site to site.

==========

CONDITION: SSN SAMPLE AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all patients whose SSN terminating digit is in a range selected by the user.

This condition will request the following information:

LAST DIGITS OF SSN
This field allows the user to choose which patients should fall out based on the last digit of their SSN. An entry of 1,3,5,7,9 will only capture those patients whose SSN ends in an odd number.

DATA ELEMENTS:

AGE
COVERED BY HEALTH INSURANCE?
DATE OF BIRTH
DATE OF DEATH
MARITAL STATUS
OCCUPATION
RACE
RELIGIOUS PREFERENCE
SERVICE CONNECTED PERCENTAGE
SERVICE CONNECTED?
SEX
SOCIAL SECURITY NUMBER
SPINAL CORD INJURY

==========

==========

CONDITION: WARD TRANSFER AUTO ENROLL: YES

DESCRIPTION:

This condition produces a list of all ward transfers on the day that auto enroll is scanning. The user may choose a specific **group of wards** to monitor. This condition looks for patients who were transferred TO the ward(s) selected.

This condition will request the following information:

WARD GROUP
A group of entries from the WARD LOCATION file (#42).

DATA ELEMENTS:

ADMITTED FOR SC CONDITION?
ADMITTING REGULATION
ATTENDING PHYSICIAN
DIAGNOSIS [SHORT]
FACILITY TREATING SPECIALTY
MAS MOVEMENT TYPE
MOVEMENT DATE/TIME
PRIMARY CARE PHYSICIAN
ROOM-BED
TRANSACTION TYPE
TYPE OF MOVEMENT
WARD LOCATION

==========

The contents of the WARD LOCATION file differ from site to site.

Appendix C - Build a Monitor Worksheet

1. Shortened code name or number: _____

2. Title: _____

3. Service: _____

4. Standard of Care: _____

_____

_____

_____

_____

_____

_____

5. Clinical Indicator: _____

_____

_____

_____

_____

_____

_____

6. Rationale(s):

___ High Risk
___ High Volume
___ Other
___ Problem Prone

Rationale Explanation: _____

_____

_____

_____

_____

_____

7. Auto Enroll Monitor: Yes / No

8. Conditions that apply: (Number each to aid you in answering questions related to conditions.)

___	AGE	___	OS-106.1
___	APPOINTMENT	___	OS-107
___	DEATH	___	OS-109
___	FALL OUT	___	OS-199
___	LAB-CHEM,HEM,TOX,RIA,SER,ETC	___	PATIENT GROUP
___	LENGTH OF STAY IN SPECIALTY	___	PREVIOUS DISCHARGE FROM WARD
___	LENGTH OF STAY ON A WARD	___	PREVIOUS DISCHARGE MVMENT TYPE
___	LENGTH OF STAY SINCE ADMISSION	___	PREVIOUS DISCHARGE TREAT SPEC
___	MANUAL ENROLL CONDITION	___	PTF DIAGNOSES/OPERATION CODES
___	MAS MOVEMENT TYPE	___	READMISSION
___	MH SECLUSION/RESTRAINT	___	REGISTRATION
___	ON SERVICE	___	RXS 2+ DRUGS IN THE SAME CLASS
___	ON TREATING SPECIALTY	___	SEX
___	ON WARD	___	SPECIALTY TRANSFER
___	OS-101.1	___	SSN SAMPLE
___	OS-102	___	WARD TRANSFER

Do any of the conditions require the development of a group? If so, use the Group Edit option to build the needed group(s). See the condition description for what groups are needed and their parent files.

Group Name: _____ Parent File: _____

Group Members: _____

Group Name: _____ Parent File: _____

Group Members: _____

Group Name: _____ Parent File: _____

Group Members: _____

What other information is required by each condition?_____

_____

_____

_____

_____

Which conditions define the denominator (sample)?

_____ _____ _____

_____ _____ _____

9. Choose which conditions define the fall outs and what is their relationship to each other? Use & (and), ! (or), ' (not), and parentheses () to specify the relationship between two or more conditions. Example: (C1&C2)!(C3&C4)

10. What is the relationship between the conditions that define the denominator (sample)? Use & (and), ! (or), ' (not), and parentheses () to specify the relationship between two or more conditions. Example: (C1&C2)!(C3!C4)

_____

11. What condition defines the date of the event: _____

12. Time Frame: (Choose only one.)

___ Annually
___ Daily
___ Fiscal Semi-Annually
___ Fiscal Yearly
___ Monthly
___ Quarterly
___ Semi-Annually
___ Weekly

13. Threshold: _____
If this is a percent threshold, should the threshold be met when the calculated percentage is (high) >= or (low) <= the threshold.

14. For percent thresholds, the Minimum Sample Size: _____

For numeric thresholds, the Pre-Threshold Alert Level: _____

15. Do you want to allow 'duplicate' fall outs during the time frame: Yes / No

16. Other Data to Capture: Review the list of data elements for each condition you are using to select a list for capture with each fall out.

_____ _____

_____ _____

_____ _____

_____ _____

17. Do you want to print:
1) Daily fall out list: Yes / No
2) Daily worksheets: Yes / No

18. Do you want a bulletin:
1) When threshold met: Yes / No
2) At end of time frame: Yes / No
3) When alert level met: Yes / No

19. What mail group will receive the bulletins: _____

20. Start Date: _____

    End Date: _____

21. Remember to turn it ON and mark it as FINISHED.

Appendix D - Frequently Asked Questions

Question: What is the Clinical Monitoring System?

Answer: The Clinical Monitoring System is a software program that nightly scans the **V***IST***A** data base for selected conditions and provides a list of fall outs (patient names) that meet the conditions.

Question: All I want from the auto enroll monitor I'm developing is a list of patients. I'm not interested in numerator/denominator information, thresholds, time frames, etc. Can I ignore these fields?

Answer: You **must answer** the fields:

1. Auto Enroll Monitor as YES,
2. Fall Out Relationship,
3. Condition for Date of Event, and
4. Start Date.

And you **must** mark the monitor as **Finished** and turn it **On**.

You may bypass the fields:

1. Contributes to Sample,
2. Sample Relationship,
3. Time Frame,
4. Threshold,
5. Other Data to Capture, and
6. Bulletin Mail Group.

You also do not need to enter a:

1. Service,
2. Standard of Care,
3. Clinical Indicator, or
4. Rationale.

Question: I have built some monitors that I don't want to keep. How do I get rid of them?

Answer: IRM was given a programming option, Monitor File Edit, that can be used to delete monitors.

Question: What is a group?

Answer: A group is made up of one or more or all of the entries from a file. The file might contain wards, patient names, services, treating specialties, etc.

Question: When should I build a group?

Answer: First, review the description of each of the conditions you are going to use. If any of the descriptions mention a group, then you must decide if you want every entry in that file or only a subset of the file entries. If you want a subset, you must use the Group Edit option to build the group. If you want all the entries, respond by striking the <RET> key in the monitor edit (not group edit) to any of the group prompts.

Question: What if I don't know what members are in the group?

Answer: If you know what members you want but do not know if a group has already been built, use the Group File Inquire option.
If you do not know the contents of the file you need, check Appendix B of this Guide to see if a list of members is provided along with the condition. If not, then the list is most likely specific to the site. Either ask IRM for a print out of the members or query the file (enter ??) in the Group Edit option.

Question: I sometimes need to leave in the middle of building a monitor and when I return don't remember where I left off.

Answer: At the "Select CONDITION:" prompt, enter one question mark. If you have already entered conditions, your list should appear numbered after the statement "ANSWER WITH CONDITION NUMBER:". You may choose each condition and view the responses already entered by moving down through the prompts by striking the <RET> key.

Question: How can I use the same condition twice in a monitor?

Answer: Enter the condition in quotes (e.g., "LAB"). The entire name of the condition does not have to be entered, just enough to single it out.

Question: I am designing the monitor and forget which of the conditions I planned on using and I don't want to exit the option to view the contents of the condition.

Answer: At the "Select CONDITION:" prompt enter ?? to get a list of all the conditions. To get a description of a single condition, enter ?CONDITION NAME or enter ?* to get a description for every condition. Refer to Appendix B in this Guide. We strongly suggest using the worksheet provided in the Build a Monitor Worksheet option to design your monitor before entering it into the software.

Question: How do I choose a Condition for Date of Event?

Answer: Event generally means something has happened. Choose the condition with the most unique date associated with it. The conditions for Age, Patient Group, SSN Sample, and Sex would not be appropriate selections for Condition for Date of Event.

Question: How do I determine what makes up the denominator?

Answer: Before building a monitor for which you want to have denominator and numerator data, you should always define what members of the patient data base make up the denominator (sample) and numerator. That should help you in determining which conditions are needed for each. They depend entirely upon the type of information you intend to make comparisons by. For those conditions that do make up the denominator (sample size) answer YES to "Contributes to Sample".

Question: Suppose I start a monitor in the middle of a quarterly time frame for a monitor. Does the quarter begin when the monitor starts? Or does the monitor start running at the beginning of the next full quarter?

Answer: The monitor begins searching the data base the night following the Start Date (if it is turned on). Data is compiled for the MONITOR HISTORY file (#743.2) beginning the same day. This is important to remember when you compare one time frame to another. The results from the first time frame reflect the number of days the monitor was running.

Question: What does "Allow 'Duplicate' Fall Outs" mean?

Answer: There are two types of duplicates:
1. The patient, monitor, and event date/time are identical. This type of duplicate will not be picked up by the Clinical Monitoring System.
2. The patient and monitor are identical and are within the same time frame. It may be the same date but different times. It may be different dates but within the same time frame. This type of duplicate will fall out when you answer YES to the prompt "Allow 'Duplicate' Fall Outs".

Question: How do I stop a monitor from running?

Answer: Use the Quick Monitor Edit option and turn the monitor's ON/OFF switch Off.

Question: How do I know if CMS ran over a given date range?

Answer: Use the Auto/Manual Enroll Monitors Run option.

Question: If I choose a monthly time frame, does this mean auto enroll will scan for the entire time frame all at one time?

Answer: No. It runs every night but the statistics will be aggregated by the time frame.