Occurrence Screen V. 3.0 Technical Manual

September 1993

Introduction

The Occurrence Screen package is a fully integrated system which is compatible with V. 7.0 of Kernel and V. 19 of VA FileMan.

The objectives of the package are to increase efficiency in the documenting of occurrences, permit better trend analysis, and provide a consistent format for stored data to be used for QM review at the regional and national levels.

There are two major components of this package: the automated capture of occurrences for screening and the automation of the review process. The software contains programs that do the following.

Auto Enrollment
Daily running of the auto enrollment routines populates the Occurrence Screen data base. Auto enrollment is performed by the Clinical Monitoring System. For further information, please see the Clinical Monitoring System Technical Manual.

Manual Enrollment
Provides for manual enrollment into the data base of occurrences not captured by the auto enrollment due to data not being available in the system at this time.

Worksheets
Produces copies of Clinical, Peer, Management, Committee, and worksheets to use in the review process.

Standard reports
Produces reports for trend analysis, including the mandated Semi-Annual report of occurrences.

Ad Hoc reports
Permits the creation of Ad Hoc reports by building sort and print templates on the fly.

Implementation and Maintenance

At implementation, the Package Setup Menu in the Occurrence Screen Manager Menu should be used to set up site-specific data. The Clinical Monitoring System Site Parameters Edit option should also be utilized and the fields populated. The easiest method of entering all the site parameters is to use the Combined Site Parameters Edit [QAQ SITE PARAMETERS] option in the QM Manager menu [QAQ MANAGER]. Instructions concerning the entry of this data is contained in the Occurrence Screen User Manual.

It is also necessary to queue the daily running of the auto enrollment routine.

Package Wide Variables

No variables are used package wide.

Routines

Routines to Map

There are no routines to map in the Occurrence Screen package.

Callable Routines

The Interim Management Support package has been given formal entry points into the Occurrence Screen package. The supported entry points are as follows.

PAD0^QAOSXTRN
Prints the Adverse Findings Report without practitioner names or codes.

PSM0^QAOSXTRN
Prints the Summary of Occurrence Screening (Semi-Annual) Report.

Routine List

The following are the steps you may take to obtain a listing of the routines contained in the Occurrence Screen package.

1. Programmer Options Menu
2. Routine Tools Menu
3. First Line Routine Print Option
4. Routine Selector: QAOS*

Files

File List

File Number/Name	Global	Description
741 QA OCCURRENCE SCREEN	QA(741,	Contains Occurrence Screen data for each occurrence screened at the .01 level.
*741.1 QA OCCURRENCE SCREEN CRITERIA	QA(741.1,	Contains the list of screens required by the Occurrence Screen Circular, with description.
*741.2 QA OCCURRENCE REVIEW LEVEL	QA(741.2,	Contains the list of review levels.
741.3++ QA OCCURRENCE CLINICAL REVIEWER	QA(741.3,	Contains the names of persons authorized to be clinical reviewers.
*741.4 QA OCCURRENCE CLINICAL REFERRAL	QA(741.4,	Contains the list of reasons for clinical referral for further review as defined by the OS Circular.
*741.5 QA OCCURRENCE EXCEPTION	QA(741.5,	Contains the list of exceptions for each screen as defined by the OS Circular.

*File comes with data
++ This file is not longer used. The functionality has been replaced by the QAOSCLIN security key.

File Number/Name	Global	Description
*741.6 QA OCCURRENCE FINDINGS incident	QA(741.6,	Contains non-specific locations in a hospital where an may take place.
*741.7 QA OCCURRENCE ACTION	QA(741.7,	Contains the list of standard-ized actions to be taken as a result of the review findings.
*7421.8 QA OCCURRENCE SEVERITY OF OUTCOME	QA(741.8,	Contains the list of severity of outcome levels as defined by QM.
741.9 QA OCCURRENCE TREATING SPECIALTY	QA(741.9,	Contains an entry for each treating specialty at the site.
741.93 QA OCCURRENCE MEDICAL TEAM	QA(741.93,	Contains the list of medical teams at the site.
741.95 QA OCCURRENCE NUMBER CASES SCREENED	QA(741.95,	Contains the number of cases screened.
741.97 QA OCCURRENCE COMMITTEE	QA(741.97,	Contains the list of standing committees at the site.
741.99 QA OCCURRENCE AUTO dates RUN DATES	QA(741.99,	Contains historical list of that auto enrollment was run.

The following are the steps you may take to obtain information concerning the files and templates contained in the Occurrence Screen package.

File Flow (Relationships between files)
1. VA FileMan Menu
2. Data Dictionary Utilities Menu
3. List File Attributes Option
4. Enter File # or range of File #s
5. Select Listing Format: Standard
6. You will see what files point to the selected file. To see what files the selected file points to, look for fields that say "POINTER TO".

Templates
1. VA FileMan Menu
2. Print File Entries Option
3. Output from what File: Print Template
                            Sort Template
                            Input Template
                            List Template
4. Sort by: Name
5. Start with name: QAOS to QAOSZ
6. Within name, sort by: <RET>
7. First print field: Name

Exported Options

The following are the steps you may take to obtain information about menus and exported options concerning the Occurrence Screen package.

Menu Diagrams
1. Programmers Options
2. Menu Management Menu
3. Display Menus and Options Menu
4. Diagram Menus
5. Select User or Option Name: QAOS Main Menu

Exported Options
1. VA FileMan Menu
2. Print File Entries Option
3. Output from what File: OPTION
4. Sort by: Name
5. Start with name: QAOS to QAOSZ
6. Within name, sort by: <RET>
7. First print field: Name

Cross References

QA OCCURRENCE SCREEN file (#741)

File, Field #	Field Name	X-Ref	Description
741,.01	QA PATIENT	B	Required.
		AA1	Screen, Date of Occurrence, Patient, and D0.
		AOCID	Trigger the OCCURRENCE IDENTIFIER field.
741,1	DATE	C	Regular x-ref used for look-up.
		AA2	Screen, Date of Occurrence, Patient, and D0.
		AOCID2	Trigger the OCCURRENCE IDENTIFIER field.
		ATED	Trigger the TOTAL ELAPSED DAYS field.
		AED	Trigger the reviewer ELAPSED DAYS field.
741,2	OCCURRENCE IDENTIFIER	E	Regular x-ref used for look-up.
741,3	SCREEN	D	Regular x-ref used for look-up.
		AA3	Screen, Date of Occurrence, Patient, and D0.
741.01,.01	REVIEW LEVEL	B	Required.
741.01,1	DATE REVIEW COMPLETED	ALAPSE	Trigger the reviewer ELAPSED DAYS field.
		ADUES	Trigger the PEER & MANAGEMENT DUE DATE fields.
741.12,.01	REASON FOR EXCEPTION	B	Required.
741.15,.01	ACTION	B	Required

741.01,9	FINAL PEER REVIEW PER SERVICE	AONLY1	Regular x-ref. Used to track only one YES per Peer per service.
741,11	STATUS	AD	Regular x-ref used for sorting by status.
741,14	FINAL DISPOSITION DATE	AC	Trigger the TOTAL ELAPSED DAYS field.
741.017	COMMITTEE	B	Required.
741,18	*DATE VALIDATED / CONFIRMED	AVAL	Regular x-ref, no longer used (field marked for deletion).
741.024,.01	PEER ATTRIBUTION (INDIVIDUAL)	B	Required.
741.025,.01	PEER ATTRIBUTION (MED TEAM)	B	Required.
741.026,.01	PEER ATTRIBUTION (HOSP LOC)	B	Required.
741,27	AUDIT	AUDIT	Trigger to delete an audit trail record when an Occurrence Screen record is deleted.
741,28	RECORD CREATION DATE	ARCD	Regular x-ref used by auto enroll for counting manually entered occurrences.

QA OCCURRENCE SCREEN CRITERIA file (#741.1)

File, Field #	Field Name	X-Ref	Description
741.1,.01	CODE	B BA	Required. MUMPS x-ref on only the integer portion of the code.
741.1,2	EXPANDED SCREEN	C	Regular x-ref used for look-up.
741.1,200	ASSOCIATED MONITOR	AM	Regular x-ref used by auto enroll to determine which screens are auto enroll screens.

QA OCCURRENCE REVIEW LEVEL file (#741.2)

File, Field #	Field Name	X-Ref	Description
741.2,.01	LEVEL	B	Required.
741.2,1	REVIEW LEVEL NUMBER	C	Regular x-ref used for look-up.

*QA OCCURRENCE CLINICAL REVIEWER file (#741.3)

File, Field #	Field Name	X-Ref	Description
741.3,.01	*NAME	B	Required.

QA OCCURRENCE CLINICAL REFERRAL file (#741.4)

File, Field #	Field Name	X-Ref	Description
741.4,.01	REASON (SCREEN CODE)	B AC1	Required. Screen, hashed Reason (Screen Code) and D0.
741.4,2	SCREEN	AC	Screen, hashed Reason (Screen Code) and D0.
741.4,3	REASON - SHORT	C	Regular x-ref used for look-up.

QA OCCURRENCE EXCEPTIONS file (#741.5)

File, Field #	Field Name	X-Ref	Description
741.5,.01	REASON	B	Required.
741.5,.02	CODE	D	Regular x-ref used for look-up.
741.5,1	SCREEN	C	Regular x-ref used for look-up.

QA OCCURRENCE FINDINGS file (#741.6)

File, Field #	Field Name	X-Ref	Description
741.6,.01	CODE	B	Required.
741.6,1	FINDINGS	C	Regular x-ref used for look-up.

QA OCCURRENCE ACTION file (#741.7)

File, Field #	Field Name	X-Ref	Description
741.7,.01	CODE	B	Required.
741.7,2	ACTION	C	Regular x-ref used for look-up.

QA OCCURRENCE SEVERITY OF OUTCOME file (#741.8)

File, Field #	Field Name	X-Ref	Description
741.8,.01	SEVERITY LEVEL	B	Required.
741.8,1	SEVERITY	C	Regular x-ref used for look-up.

QA OCCURRENCE TREATING SPECIALTY file (#741.9)

File, Field #	Field Name	X-Ref	Description
741.9,.01	TREATING SPECIALTY	B	Required.

QA OCCURRENCE MEDICAL TEAM file (#741.93)

File, Field #	Field Name	X-Ref	Description
741.93,.01	DESIGNATION	B	Required.

QA OCCURRENCE NUMBER CASES SCREENED file (#741.95)

File, Field #	Field Name	X-Ref	Description
741.95,.01	*BEGINNING DATE	B AA1	Required. *Beginning Date, *Ending Date and D0.
741.95,.02	*ENDING DATE	AA2	*Beginning Date, *Ending Date and D0.

QA OCCURRENCE COMMITTEE file (#741.97)

File, Field #	Field Name	X-Ref	Description
741.97,.01	COMMITTEE	B	Required.
741.97,1	ABBREVIATION	C	Regular x-ref used for look-up.

QA OCCURRENCE AUTO RUN DATES file (#741.99)

File, Field #	Field Name	X-Ref	Description
741.99,.01	AUTO ENROLL RUN DATE	B	Required.

Archiving and Purging

Archiving

At the present time, there is no provision for archiving records, as no determination has yet been made by the Office of Quality Management on how long records are to be retained.

Purging

If the user wishes to delete a record in the QA OCCURRENCE SCREEN file (#741), the option is available to them to mark the record as deleted, but still retain it in the file. The Purge Deleted Occurrence Screen Records option found in the Purge/Delete Menu of the Occurrence Screen Manager Menu may be used to remove these records from the file.

External/Internal Relations

External Relations

FILE NUMBER	FILE NAME	USAGE
2	Patient	Used to extract patient data, such as name, SSN, admission date.
4.2	Domain	Used by the Early Warning System options.
40.7	Clinic Stop	Used by the auto enroll routines.
41.1	Scheduled Admission	Used by the auto enroll routines.
42	Ward Location	Used in the auto enroll routines and various reports.
44	Hospital Location	Used to extract attribution location for inclusion in File 741.
45.7	Facility Treating Specialty	Used to extract Treating Specialties to populate File 741.
49	Service/Section	Used to extract Service for inclusion in File 741.
130	Surgery	Used by the auto enroll routines.
200	New Person	Used to extract user for inclusion in File 741.
405	Patient Movement	Used by the auto enroll routines, the reviewer worksheets, and the 101 to 101.1 conversion.
405.2	MAS Movement Type	Used by the auto enroll routines.
409.5	Scheduling Visits	Used by the auto enroll routines.
740	Quality Assurance Site Parameters	Used to store site parameters.
740.1	Ad Hoc Macro	Used by the Ad Hoc Reports option.
740.5	QA Audit	Used to store name of user, date of action and type of action for each and every entry made by users via VA FileMan.
743	QA Monitor	Used to perform the Occurrence Screen auto enroll.

Internal Relations

The package is designed to allow for tailoring of menus for particular users. This is to be determined by the QM Coordinator at each site, based on how the components of the QM task are assigned. The Occurrence Screen Manager Menu options are intended for use by the QM Coordinator. The Report menu can also stand alone if desired.

How to Generate On-line Documentation

This section describes some of the various methods by which users may secure Occurrence Screen (OS) technical documentation. On-line technical documentation pertaining to the OS software, in addition to that which is located in the help prompts and on the help screens which are found throughout the OS package, may be generated through utilization of several KERNEL options. These include but are not limited to: XINDEX, Menu Management Inquire Option File, Print Option File, and FileMan List File Attributes.

Entering question marks at the "Select ... Option:" prompt may also provide users with valuable technical information. For example, a single question mark (?) lists all options which can be accessed from the current option. Entering two question marks (??) lists all options accessible from the current one, showing the formal name and lock for each. Three question marks (???) displays a brief description for each option in a menu while an option name preceded by a question mark (?OPTION) shows extended help, if available, for that option.

For a more exhaustive option listing and further information about other utilities which supply on-line technical information, please consult the **V***IST***A** Kernel Reference Manual.

XIndex
This option analyzes the structure of a routine(s) to determine in part if the routine(s) adheres to **V***IST***A** Programming Standards. The XINDEX output may include the following components: compiled list of errors and warnings, routine listing, local variables, global variables, naked globals, label references, and external references. By running XINDEX for a specified set of routines, the user is afforded the opportunity to discover any deviations from **V***IST***A** Programming Standards which exist in the selected routine(s) and to see how routines interact with one another, that is, which routines call or are called by other routines.

To run XINDEX for the OS package, specify the following namespace at the "routine(s) ?>" prompt: QAOS*.

OS initialization routines which reside in the UCI in which XINDEX is being run, compiled template routines, and local routines found within the OS namespace should be omitted at the "routine(s) ?>" prompt. To omit routines from selection, preface the namespace with a minus sign (-).

Inquire to Options File

This Menu Manager option provides the following information about a specified option(s): option name, menu text, option description, type of option, and lock (if any). In addition, all items on the menu are listed for each menu option.

To secure information about OS options, the user must specify the name or namespace of the option(s) desired. QAOS is the namespace associated with the OS package.

Print Options File

This utility generates a listing of options from the OPTION file. The user may choose to print all of the entries in this file or may elect to specify a single option or range of options. To obtain a list of OS options, the following option namespace should be specified: QAOS.

List File Attributes

This FileMan option allows the user to generate documentation pertaining to files and file structure. Utilization of this option via the "Standard" format will yield the following data dictionary information for a specified file(s): file name and description, identifiers, cross-references, files pointed to by the file specified, files which point to the file specified, input templates, print templates, and sort templates. In addition, the following applicable data is supplied for each field in the file: field name, number, title, global location, description, help prompt, cross-reference(s), input transform, date last edited, and notes.

Using the "Global Map" format of this option generates an output which lists all cross-references for the file selected, global location of each field in the file, input templates, print templates, and sort templates.

Security

General Security

Security is maintained through menu distribution and assignment. The QM Coordinator will decide who is authorized to have the QM Manager Menu, which is used to maintain the files. Standard VA FileMan access has been applied to the files. VA FileMan access should be limited to those persons with NEED TO KNOW status. Data within the Occurrence Screen system is protected by the Privacy Act, and Title 38 U.S.C. 5705, as amended by Public Law 99-166 and the implementing HSRO (Health Services Review Organization) regulations in Title 38 Part 17. Exempt from this protection are aggregate statistical and trend reports that do not identify individual VA patients or employees.

Security Keys

The package uses a new security key, QAOSCLIN. The QAOSCLIN key is used to screen the reviewer NAME (#741.01,.02) field for Clinical reviewers. This key replaces the functionality of the QA OCCURRENCE CLINICAL REVIEWER file (#741.3).

FileMan Access Codes

Below is a list of recommended VA FileMan access codes associated with each file contained in the OS package. This list may be used to assist in assigning users appropriate VA FileMan access codes.

FILE NUMBER	FILE NAME	DD ACCESS	RD ACCESS	WR ACCESS	DEL ACCESS	LAYGO ACCESS	AUDIT ACCESS
741	QA OCCURRENCE SCREEN	@			@		
741.1	QA OCCURRENCE SCREEN CRITERIA	@			@		
741.2	QA OCCURRENCE REVIEW LEVEL	@			@	@	
741.3	*QA OCCURRENCE CLINICAL REVIEWER	@			@		
741.4	QA OCCURRENCE CLINICAL REFERRAL	@			@	@	
741.5	QA OCCURRENCE EXCEPTION	@			@		

FileMan Access Codes

FILE NUMBER	FILE NAME	DD ACCESS	RD ACCESS	WR ACCESS	DEL ACCESS	LAYGO ACCESS	AUDIT ACCESS
741.6	QA OCCURRENCE FINDINGS	@			@	@	
741.7	QA OCCURRENCE ACTION	@			@	@	
741.8	QA OCCURRENCE SEVERITY OF OUTCOME	@			@	@	
741.9	QA OCCURRENCE TREATING SPECIALTY	@			@		
741.93	QA OCCURRENCE MEDICAL TEAM	@			@		
741.95	*QA OCCURRENCE NUMBER CASES SCREENED	@					
741.97	QA OCCURRENCE COMMITTEE	@			@		
741.99	QA OCCURRENCE AUTO RUN DATES	@			@	@	

Glossary

AC   Acute Care Unit

Action   Corrective or referral response taken as a result of an
                            adverse finding on a review of an occurrence.

Adverse findings   Any findings above Level 1 care or any system and/or
                            equipment problem.

AMA   Against Medical Advice

ASIH   Absent Sick In Hospital (nursing home patient).

Attending physician   The staff physician responsible for the care of the
                            patient involved in the occurrence.

Attribution   Individuals, medical teams, or hospital locations
                            involved in an occurrence. This is used for
                            documentation and trend analysis, and is not
                            necessarily used to assign blame.

Auto enrollment   The computer process that automatically extracts
                            Occurrence Screens from daily admissions, transfers,
                            and discharges.

Auto-print   The computer process that produces printed
                            documentation or reports without a specific request
                            from the user. This is a part of auto enrollment.

Closed occurrence   An occurrence for which final disposition was made.

Committee   Any committee, such as Safety, that may be asked to
                            review an occurrence involving a system and/or
                            equipment problem.

Database   (See File)

Data dictionary   A description of the file containing the categories of
                            data that the user requires to produce the desired
                            reports and printed documentation.

Deleted occurrence	An occurrence record that is considered not to be a valid item, such as an error in data entry, and is eliminated from the statistics. It is not actually deleted from the file, but marked to be ignored (this is a security precaution) in the gathering of data.
DNR	Do Not Resuscitate
Equipment problem	Having to do with the quality of the performance or design of equipment used, such as a respirator malfunction or broken wheelchair.
Exception	A valid reason to eliminate an occurrence from being considered for further review, such as planned readmission within 10 days of discharge.
Field	One typed entry of data contained within a computer file. (Several fields make up a file.) Often called a prompt.
File	The computer's method of storing data required by the user. (See Field.) Sometimes also called a database.
Final disposition	The review of an occurrence was completed, corrective action (if any) was taken, and it is considered closed.
Findings	The categorized results of a review, such as optimal or Peer review needed.
Level 1 care	A finding that "Most practitioners would handle case similarly."
Level 2 care	A finding that "Most practitioners might handle case differently."
Level 3 care	A finding that "Most practitioners would handle case differently."
Manager reviewer	A Manager, such as a Service Chief or Chief of Staff, who is asked to review an occurrence for the purpose of taking action.

Medical team	A group of practitioners responsible for the care of the patient as a team.
Menu	A computer display from which the User selects a process for the computer to perform, such as print a report, enter or change data, etc.
NHCU	Nursing Home Care Unit
Occurrence Screen	A process whereby cases are identified which meet specified criteria.
Open occurrence	A record of an occurrence still undergoing the review process.
Option	A menu or one of the items in a menu.
OR	Operating Room
Parameter	A computer term referring to information supplied to the computer by the user in order to set up the programs to perform particular functions required.
Peer reviewer	A Peer or committee of Peers that is asked by the Clinical reviewer to review an occurrence for a practitioner related issue.
Practitioner	A licensed performer of medical services, such as a doctor.
Primary Reason for Clinical Referral	The main purpose that a record is sent for further review, such as Peer, Manager or Committee.
Provider	Any practitioner who is responsible for some portion of the care of the patient.
QM	Quality Management
Queue	The process by which computer programs are scheduled to run at specific times.
Reopen	In the event that an occurrence is closed or deleted prematurely or in error, this function will reopen it for review.

Resident/provider	Any practitioner considered in "resident" status by the facility and is responsible for the care of the patient involved in an occurrence.
Review level	A level in the review process. The levels used in Occurrence Screening are Clinical, Peer, Manager and Committee.
RM	Risk Management
Run dates	The dates on which Auto Enrollment ran.
Second level review	As used in this documentation, second level review refers to any Peer review for a practitioner related issue or any committee review for an equipment or system issue.
Severity of outcome	The actual or anticipated injury to the patient, ranging from no injury or disability to death.
Treating specialty	The area of hospital treatment under which the occurrence happened.
Worksheet	A computer-produced sheet containing an organized listing of data that a reviewer needs to enter into the computer. The reviewer can check off findings, actions, etc. It is intended both as a labor-saving device and a method of organizing data in the sequence in which the computer will request input.