



### RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **Emergency Room System**

(AMER)

# **Technical Manual**

Version 3.0 April 2009

Office of Information Technology (OIT)
Division of Information Resource Management
Albuquerque, New Mexico

## **PREFACE**

The purpose of this manual is to provide technical information about the Emergency Room System (AMER) package. The AMER package is designed to provide facilities with a comprehensive software package for admitting, discharging, and managing emergency room patients.

### Security

The Emergency Room System (ERS) uses security keys to limit a user's ability to change system set-up parameters and patient information. That is, not all ERS options are available to all users. Contact your site administrator to determine or change your security keys.

### **Rules of Behavior**

All RPMS users are required to observe HHS and IHS Rules of Behavior regarding patient privacy and the security of both patient information and IHS computers and networks. This document provides both RPMS and AMER Rules of Behavior.

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## 1.0 Introduction

This manual provides IHS site managers with a technical description of the Emergency Room System routines, files, menus, cross references, globals, and other necessary information required to effectively manage the system.

All routines, files, options, and keys are namespaced, starting with the letters "AMER."

The file number range for this package is 9009080 - 9009084.

# 2.0 Implementation and Maintenance

## 2.1 General Information

The Emergency Room System (ERS) Module occupies the AMER namespace. Options, security locks/keys, template, routines and globals are namespaced AMER. The ERS package can be configured to interface with PIMS 5.1 to allow scheduling information to be accessed for a patient checking into an emergency room facility or to schedule a return visit. It also interfaces with PCC to create an entry in the VISIT file for emergency room visits. ERS can also be configured to allow a 'mini registration' of patients through the ERS package for facilities where patient registration users are not always available.

Location information	USES PIMS 5.1	USES PCC but not PIMS	USES PCC+ FORMS	ALLOWS MINI PATIENT REG
EMERGENCY ROOM clinic name	See the document PIMS SCH SET UP EMERGENCY RM CLINIC and ERS v3 for a sample configuration.	If PCC is configured at the location where ERS is installed, the ERS IHS PCC LINK option will be used to identify the package that creates ERS visits.	If the location is configured to use PCC+ forms, they can be printed through ERS.	This can be configured through PIMS and allows the option to be used by ERS for users who hold required keys.

- Identify Ambulance company names: Use Table and Parameter Set Up Menu, ER
  Options Transportation-Disposition-Procedure option to enter names into ERS
  system
- Identify names of facilities where patients can be transferred to or from: Use
  Table and Parameter Set up Menu, Add Local ER Facilities option to enter these
  names into the ERS system

# 2.2 System Requirements

Package	Minimum Version
Kernel (XU)	v8.0
Cache	v5.0 21
FileMan (DI)	v22 or later
MailMan (XM)	v7.1 patch 1006 (VA patch 50)
Patient Registration (AG)	v7.1 Patch 2
PCC Data Entry (APCD)	v2.0
PIMS	v5.3
IHS ICD/CPT Lookup & Grouper(AICD)	v3.51 patch 7

# 2.3 Package-wide Variables

There are no package-wide variables associated with the ERS system. All namespaced variables are deleted upon exiting a menu.

# 2.4 Security Keys

Name	Description
AMERZ9999	Programmatically enforced key that enables users to edit all ER VISIT fields. Users without this key see only fields that are not passed to PCC. For the fields that are locked for editing by this key, see the ER Visit file description in Section 5.4.1 of this document.
AMERZBATCH	Locks the AMER BATCH menu option, which provides an interface for Batch Mode Data Entry through ERS. Users with this key have access to the BAT - Batch Mode ER Admission/Discharge option on the ERS menu.
AMERZMENU	Locks the AMERMENU and the AMER ADMISSION menu options. Users with this key have access to the ERS application interface.
AMERZPARA	Locks the AMER SETUP menu option. Users with this key have access to the PAR - Table and Parameter Setup menu, where ERS configuration and maintenance functions are located.
AMERZREPORT	Locks the AMER REPORT and the AMER CANNED options in the AMER REPORTS MENU option. Users with this key have access to the LIST - ER System Report Generator and the CAN - ER System Pre-Defined Reports menu options.

# 3.0 Menu (mnemonic)

```
Emergency Room System (AMERMENU)
  IN Admit to Emergency Room [AMER ADMISSION] (LOCKED by AMERZMENU)
  TRI Triage Nurse Update Admission Record [AMER TRIAGE NURSE EDIT]
I_BAT Batch Mode ER Admission/Discharge [AMER BATCH] (LOCKED by AMERZBATCH)
  OUT Discharge from Emergency Room [AMER DISCHARGE]
| DNA Cancel Visit (did not answer or left AMA) [AMER DNA]
|__DOA DOA Admission to ER [AMER DOA] **Out-of-Order** Re-design
|__REG Mini-Registration of New Patients [AMER REGISTER]
  SCAN Scan Patient Names or Chart Numbers [AMER SCAN]
| HERE List Patients Currently Admitted to ER [AMER ACTIVE PATIENTS]
|_INST Patient Instruction Menu [AMER PATIENT INSTRUCTION MENU]
         _ADD Add Patient Education Material[AMER PATIENT INSTRUCTIONS ADD]
       | PRT Print Patient Education Materials [AMER PATIENT INSTRUCTIONS PRT]
  _RPTS Reports Menu [AMER REPORT MENUS]
      |__CAN ER System Pre-Defined Reports [AMER CANNED] (LOCKED by AMERZREPORT)
             |__1 PATIENTS BY TRIAGE CATEGORY
             |__2 PATIENTS BY TRIAGE NURSE
             |__3 PATIENTS BY CONSULTANT TYPE
               4 TRANSFERS FROM OUTSIDE FACILITIES
             | 5 ARRIVE TO ER BY AMBULANCE
             |__6 ARRIVE TO ER BY FLIGHT SERVICES
       | AUD ER VISIT AUDITING LOG REPORTS [AMER AUDIT REPORT]
             |__1 DAILY ER AUDIT LOG
             |__2 SINGLE ER VISIT ER AUDIT LOG
             |__3 DATA ENTERER ER AUDIT LOG
             | 4 VISIT FIELD ER AUDIT LOG
             __ 5 EDIT REASON ER AUDIT LOG
             I_6 ER AUDIT LOG BY VISIT DATE
               7 TRANSFERRED TO OTHER FACILITIES
      |__LIST ER System Report Generator [AMER REPORT] (LOCKED by AMERZREPORT)
             |__1 STANDARD ER LOG REPORT
                  _1 VISITS IN INVERSE ORDER OF DATES
                  2 PATIENTS IN ALPHABETICAL ORDER
                |__3 VISITS IN CHRONOLOGICAL ORDER
             | 2 BRIEF ER LOG REPORT
                  1 VISITS IN INVERSE ORDER OF DATES
                  2 PATIENTS IN ALPHABETICAL ORDER
                |__3 VISITS IN CHRONOLOGICAL ORDER
               3 STATISTICAL REPORTS
             | 4 HOURLY WORKLOAD REPORT
       | LOG Print ER Log
         VIS Display ER Log entry for a single ER visit
       |__VV Display Data for a Specific Patient Visit [AMERVIEWVISIT]
  UP EDIT ER VISITS [AMER EDIT VISIT]
       __1 ADMISSION SUMMARY (PCC fields programatically locked by AMERZ9999)
              TRIAGE INFO (PCC fields programatically locked by AMERZ9999)
        _4 PROCEDURES
              DIAGNOSES (PCC fields programmatically locked by AMERZ9999)
            EXIT ASSESSMENT
            DISCHARGE INFO (PCC fields programmatically locked by AMERZ9999)
              FOLLOW UP INSTRUCTIONS
             ER CONSULTANTS (PCC fields programmatically locked by AMERZ9999)
       I_10 ALL (PCC fields programmatically locked by AMERZ9999)
  PAR Table and Parameter Setup [AMER SETUP]
       |__CNS Add/Edit ER CONSULTANT SERVICE list [AMER ER CONSULT EDIT]
       | LOC Add Local ER Facilities [AMER LOCAL ER FACILITIES]
       | MGRP ER Alerts Mail Group Edit [AMER ER ALERTS MAIL GROUP EDIT]
       |__OPT ER Options Transportation-Disposition-Procedures [AMER OPTIONS
           FILE 1
       |__SET Facility Parameter setup [AMER PARAMETER SETUP]
```

# 4.0 Routines

# 4.1 Routines with Description

Routine	Descriptions
AMER	IHS/ANMC/GIS - primary routine for ER admission
AMER0	IHS/ANMC/GIS - AMER SUBROUTINE
AMER1	IHS/ANMC/GIS - ER admission questions
AMER1A	IHS/ANMC/GIS -ISC - Overflow from AMER1
AMER1B	IHS/ANMC/GIS -ISC - Overflow from AMER1
AMER2	IHS/ANMC/GIS - ER discharge data collection
AMER2A	IHS/ANMC/GIS -ISC - Overflow from AMER2
AMER2B	IHS/ANMC/GIS - Cost recovery data related to injuries
AMER2C	IHS/ANMC/GIS - More questions regarding injuries (entirely commented out)
AMER3	IHS/ANMC/GIS - More discharge questions
AMER31	IHS/ANMC/GIS -ISC - enter diagnoses
AMER4	IHS/ANMC/GIS - ER Visit Summary
AMER5	IHS/ANMC/GIS - Print patient ed materials
AMERAGED	IHS/OIT/SCR 06/22/06 - Patient Reg routines
AMERBAN	IHS/SET/FCJ - Banner for ER menu
AMERBIN	IHS/ANMC/GIS - Makes age BIN reports
AMERBSDU	IHS/OIT/SCR - primary routine for interface with PIMS outside of AMER namespace
AMERBSET	IHS/ANMC/GIS - Makes age BIN string
AMERCLP	IHS/ANMC/GIS - Select patients & print chart labels
AMERD	IHS/ANMC/GIS - Primary routine for ER discharge
AMEREDAU	IHS/OIT/SCR - 03/25/06 -Primary routine for audit trail of edited ER VISIT fields
AMEREDDX	IHS/OIT/SCR - sub-routine for ER Visit Edit of DX information
AMEREDIT	IHS/OIT/SCR - primary routine for ER Visit Edit interface
AMEREDPC	IHS/OIT/SCR - sub routine for PCC Visit Creation
AMEREDTA	IHS/OIT/SCR - sub-routine for ER Visit Edit of Admit
AMEREDTD	IHS/OIT/SCR - Sub-routine for ER Visit Edit of discharge data
AMEREDTE	IHS/OIT/SCR - sub-routine for ER Visit Edit of ER Consultants
AMEREDTI	IHS/OIT/SCR - sub-routine for ER Visit Edit of Injury information
AMEREDTT	IHS/OIT/SCR - sub-routine for ER Visit Edit of Triage information
AMEREDTU	IHS/OIT/SCR - sub-routine for ER Visit Edit of Admit information

Routine	Descriptions
AMERERS	IHS/OIT/SCR - Routines to support merge of PCC DATA to ERS VISIT data
AMERFIX	IHS/ANMC/GIS - Restores missing data to ER Visit file
AMEROUT	IHS/ANMC/GIS - Report generator
AMEROUT1	IHS/ANMC/GIS - Sort control for output
AMEROUT2	IHS/ANMC/GIS - Gets sort by criteria
AMEROUT3	IHS/ANMC/GIS - Gets overflow from AMEROUT2
AMEROUT4	IHS/ANMC/GIS - Hourly workload reports
AMEROUT5	IHS/ANMC/GIS - Hourly workload display driver
AMERP	generated from 'AMER BRIEF' Print template (#784)
AMERPCC	IHS/OIT/SCR - primary routine for PCC Visit creation and editing
AMERPCC1	IHS/OIT/SCR - supporting routines for PCC Visit creation and V PROVIDER editing
AMERPCC2	IHS/OIT/SCR - supporting routines for V POV editing
AMERREP1	IHS/OIT/SCR - sub-routine for predefined report interface
AMERREP2	IHS/OIT/SCR - sub-routine for predefined report interface
AMERREP3	IHS/OIT/SCR - canned report sub-routine for ER audit reports
AMERREPT	IHS/OIT/SCR - primary routine for predefined report interface
AMERSAV	IHS/ANMC/GIS -ISC - file info in ER Visit file
AMERSAV1	IHS/ANMC/GIS - Put entry in ER Visit file
AMERSAV2	IHS/ANMC/GIS - Update V files given info in ER Visit file (entirely commented out)
AMERTIME	IHS/OIT/SCR - checks times for proper relationship
AMERVSIT	IHS/OIT/SCR - interfacing routines outside of AMER namespace required for PCC Visit creation
AMERXMB	IHS/OIT/SCR - primary routine to support generating and sending bulletins

# 5.0 Files and Tables

# 5.1 File List

File Number	File Name
9009080	ER VISIT
9009080.1	ER AUDIT FILE
9009081	ER ADMISSION
9009082	ER CATEGORIES
9009082.1	ER LOCAL FACILITY
9009082.2	ER METADICTIONARY
9009082.3	ER INPUT MAP
9009082.5	ER PREFERENCES
9009082.9	ER CONSULTANT TYPE
9009083	ER OPTIONS
9009084	ER INSTRUCTIONS

# 5.2 File Access

File (#)	File Name	GL	DD	RD	WR	DEL	LYG
9009080	ER Visit	^AMERVSIT(	@	М	М	@	М
9009080.1	ER Audit File	^AMERAUDT(	@	М	М	M	М
9009081	ER Admission	^AMERADM(	@	М	М	@	М
9009082	ER Categories	^AMER(2,	@	М	М	@	М
9009082.1	ER Local Facility	^AMER(2.1,	@	M	М	М	М
9009082.2	ER Metadictionary	^AMER(2.2,	@	M	М	М	М
9009082.3	ER Input Map	^AMER(2.3,	@	M	М	M	М
9009082.5	ER Preferences	^AMER(2.5,	@	M	М	M	М
9009082.9	ER Consultant Type	^AMER(2.9,	@	M	М	M	М
9009083	ER Options	^AMER(3,	@	М	М	@	М
9009084	ER Instructions	^AMER(4,	@	М	М	@	М

## 5.3 Cross References

### ER VISIT (9009080)

.01 ADMISSION TIMESTAMP

B Regular type cross reference

X: ^TRIGGER^9009080^.16

CREATE VALUE 9999999.9999-ADMISSION TIMESTAMP

**DELETE VALUE NO EFFECT** 

FIELD INVER

#### .02 PATIENT

AC Regular type cross reference

AE MUMPS type cross reference

AF MUMPS type cross reference

AG MUMPS type cross reference

AH MUMPS type cross reference

#### .03 VISIT

AD Regular type cross reference

#### .06 ADMITTING PROVIDER

AP Regular type cross reference

#### .12 DOB

X: ^TRIGGER^9009080^.17

CREATE VALUE TODAY-DOB\365.25

DELETE VALUE NO EFFECT

FIELD AGE

#### .16 INVERSE TIMESTAMP

AP Regular type cross reference

#### 2 ALCOHOL OR DRUGS (9009080.02)

.01 ALCOHOL OR DRUGS

B Regular type cross reference

#### 4 PROCEDURES (9009080.04)

.01 PROCEDURES

B Regular type cross reference

#### 5 DIAGNOSIS (9009080.05)

.01 DIAGNOSIS

B Regular type cross reference

AICD Regular type cross reference

#### 9 PATIENT EDUCATION MATERIALS (9009080.09)

.01 DISCHARGE INSTRUCTIONS

B Regular type cross reference

#### **10.1 DATA EXPORT STATUS**

AHER Regular type cross reference

#### 18 HER TRANSFER FACILITY (9009080.018)

.01 CODE

B Regular type cross reference

30 PROCEDURES (9009080.01)
.01 PROCEDURES
B Regular type cross reference

### 9009080.1 (ER AUDIT FILE)

.01 TIMESTAMP

B Regular type cross reference

### 9009081 (ER ADMISSION)

.01 PATIENT
B Regular type cross reference
.04 NARRATIVE NAME
C Regular type cross reference

### **9009082 (ER CATEGORIES)**

.01 NAME

B Regular type cross reference

### **9009082.1 (ER LOCAL FACILITY)**

.01 NAME

B Regular type cross reference

### 9009082.2 (ER METADICTIONARY)

.01 ATTRIBUTE

B Regular type cross reference

### 9009082.3 (ER INPUT MAP)

.01 QUERY TAG

B Regular type cross reference

X: ^TRIGGÉR^9009082.3^.02

CREATE VALUE \$E(QUERY TAG,2)

DELETE VALUE NO EFFECT

FIELD QUERY TYPE

X: ^TRIGGER^9009082.3^.03

CREATE VALUE \$E(QUERY TAG,3,99)

DELETE VALUE NO EFFECT

FIELD QUERY ID

X: ^TRIGGER^9009082.3^.06

CREATE VALUE \$E(QUERY TAG)

**DELETE VALUE NO EFFECT** 

FIELD QUERY MET

.02 QUERY TYPE

AC Regular type cross reference

.08 REPORT CATEGORY

AD Regular type cross reference

### **9009082.5 (ER PREFERENCES)**

.01 LOCATION

B Regular type cross reference

### 9009082.7 (ER HER FILE)

.01 NAME

B Regular type cross reference

### **9009082.9 (ER CONSULTANT TYPE)**

.01 NAME

B Regular type cross reference

### 9009083 (ER OPTIONS)

.01 NAME

B Regular type cross reference

1 TYPE

AC Regular type cross reference

**5 MNEMONIC** 

X: B^MNEMONIC

### 9009084 (ER INSTRUCTIONS)

.01 TOPIC

B Regular type cross reference

## 5.4 Table File

### 5.4.1 File: 9009080 ER VISIT

Global: ^AMERVSIT(

Field Number	Field Name *Indicates no longer in use	Subscript	Piece	Туре	X to PCC
.01	ADMISSION TIMESTAMP	D0,0	1	D	yes
.02	PATIENT	"	2	Р	yes
.03	VISIT	"	3	Р	
.04	CLINIC TYPE	"	4	Р	yes
.05	VISIT TYPE	"	5	Р	
.06	ADMITTING PROVIDER	"	6	Р	yes
.07	TRIAGE NURSE	"	7	Р	yes
.08	*INITIAL TRIAGE CATEGORY (old)	"	8	Р	
.09	*ARRIVE BY AMBULANCE (old)	"	9	S	
.11	*TRANSFERRED FROM (old)	"	11	Р	
.12	DOB	II .	12	D	

Field Number	Field Name *Indicates no longer in use	Subscript	Piece	Туре	X to PCC
.13	LOCAL CHART NUMBER	"	13	F	
.14	AMBULANCE NUMBER	D0,0	14	F	
.15	AMBULANCE INVOICE NUMBER	II .	15	F	
.16	INVERSE TIMESTAMP	II .	16	N	
.17	AGE ON DAY OF VISIT	II .	17	N	
.18	SEX	II .	18	S	
.19	DATA ENTERER	II .	19	Р	yes
.21	AMBULANCE COMPANY	"	21	Р	
.22	ER CONSULTANT NOTIFIED	"	22	S	
.24	INITIAL ACUITY	"	24	N	
.25	MODE OF TRANSPORT	"	25	Р	
1	PRESENTING COMPLAINT	D0,1	E1,245	F	yes
2	*ALCOHOL OR DRUGS (9009080.02)				
.01	*ALCOHOL OR DRUGS	D0,2,D1,0	1	Р	
2.1	OCCUPATION RELATED	D0,2.1	1	S	
2.2	*SUBSTANCE SCREEN	"	2	S	
2.3	*OCCUPATION	"	3	F	
2.4	*INDUSTRY	II .	4	F	
3.1	INJURED	D0,3	1	S	
3.2	CAUSE OF INJURY	II .	2	Р	
3.3	SCENE OF INJURY	II .	3	Р	
3.4	TIME OF INJURY	"	4	D	
3.5	SAFETY EQUIPMENT	"	5	Р	
3.6	TOWN OF INJURY	II .	6	F	
4	PROCEDURES (9009080.04)				
.01	PROCEDURES	D0,4,D1,0	1	Р	
5	DIAGNOSIS (9009080.05) (x to PCC)				
.01	DIAGNOSIS	D0,5,D1,0	1	Р	yes
1	PROVIDER NARRATIVE	D0,5,D1,1	E1,245	F	yes
5.1	FINAL TRIAGE CATEGORY (old)	D0,5.1	1	Р	
5.2	PRIMARY DIAGNOSIS	"	2	Р	yes
5.3	PRIMARY DX NARRATIVE	II .	3	F	yes
5.4	FINAL ACUITY	II .	4	N	
6.1	DISPOSITION	D0,6	1	Р	
6.2	DEPARTURE TIME	"	2	D	

Field Number	Field Name *Indicates no longer in use	Subscript	Piece	Туре	X to PCC
6.3	DISCHARGE PROVIDER	D0,6	3	Р	
6.4	DISCHARGE NURSE	"	4	Р	
6.5	*TRANSFER TO (OLD)	"	5	Р	
6.6	TRANSFER TO (NEW)	II .	6	Р	
7	DISCHARGE INSTRUCTIONS	D0,7	E1,245	Р	
8.1	INJURY TRANSPORT LAG (min)	D0,8	1	N	
8.2	REVOLVING DOOR	II .	2	N	
9	PATIENT EDUCATION MATERIALS (9009080.09)				
.01	DISCHARGE INSTRUCTIONS	D0,9,D1,0	1	Р	
10.1	*DATA EXPORT STATUS	D0,"HER"	1	S	
10.2	*REASON FOR DATA EXPORT FAILURE	"	2	F	
11.1	*ALCOHOL RELATED VISIT	D0,11	1	S	
11.2	*DRUG RELATED VISIT	"	2	S	
11.3	*SUBSTANCE RELATED VISIT	"	3	S	
11.4	DOA	"	4	S	
11.5	*BLOOD ALCOHOL LEVEL (MG/DCL)	"	5	N	
12.1	ADMITTING PROV TIME	D0,12	1	D	
12.2	TRIAGE NURSE TIME	II .	2	D	
12.3	WAITING TIME FOR PROV	II .	3	N	
12.4	WAITING TIME FOR TRIAGE	П	4	N	
12.5	TOTAL VISIT DURATION	II .	5	N	
12.6	DATE LAST MODIFIED		6	D	
12.7	*WAITING TIME FOR SURGEON	II .	7	N	
13.1	EXACT MVC LOCATION	D0,13	1	F	
13.2	*DRIVER INSURANCE COMPANY	п	2	F	
13.3	*DRIVER POLICY NUMBER	"	3	F	
13.4	*OWNER NAME	"	4	F	
13.5	*OWNER INSURANCE CO	"	5	F	
13.6	*OWNER POLICY NUMBER	"	6	F	
14.1	*SECOND VEHICLE INVOLVED	D0,14	1	S	
14.2	*SV DRIVER NAME	II .	2	F	
14.3	*SV DRIVER INSURANCE CO	"	3	F	
14.4	*SV DRIVER POLICY NUMBER	II .	4	F	
14.5	*SV OWNER NAME	"	5	F	

Field Number	Field Name *Indicates no longer in use	Subscript	Piece	Туре	X to PCC
14.6	*SV OWNER INSURANCE CO	D0,14	6	F	
14.7	*SV OWNER POLICY NUMBER	"	7	F	
15.1	*ANOTHER PARTY RESPONSIBLE	D0,15	1	S	
15.2	*RP NAME	"	2	F	
15.3	*RP ADDRESS	"	3	F	
15.4	*RP PHONE	"	4	F	
16	*DESCRIPTION OF WHAT HAPPENED	D0,16	E1,245	F	
17.1	TRANSFERRED	D0,17	1	S	
17.2	TRANSFERRED FROM (NEW)	"	2	Р	
17.3	ARRIVED BY	II .	3	Р	
17.4	TRANSFER ATTENDANT	II .	4	S	
18	HER TRANSFER FACILITY (9009080.018)				
.01	CODE	D0,18,D1,0	1	F	
.02	ROLE	II .	2	S	
19	ER CONSULTANTS				
.01	ER CONSULTANTS (MP9009082.9)	D0,19,D1,0	1	Р	yes
.02	ER CONSULTANT TIME	II .	2	D	yes
.03	ER CONSULTANT NAME	II .	3	Р	yes

## 5.4.2 File: 9009081 ER ADMISSION

Global: ^AMERADM(

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	PATIENT	D0,0	1	Р
.02	DOB	"	8	D
.03	LOCAL CHART NUMBER	"	9	N
.04	NARRATIVE NAME	"	11	F
.05	SEX	"	5	S
1	ER ADMISSION TIMESTAMP	"	2	D
1.1	VISIT	и	3	Р
2.1	TRANSFERRED	D0,2	1	S
2.2	TRANSFERRED FROM	"	2	Р
2.3	MODE OF TRANSPORT	II .	3	Р
2.4	TRANSPORT ATTENDANT	П	4	S

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
3	VISIT TYPE	D0,0	4	Р
4	SAVE SEQUENCE	D0,"SAVESEQ"	E1,245	F
5	ADMITTING PHYSICIAN	D0,0	6	Р
6	MODE OF TRANSPORT	11	6	Р
7	ELECTRONIC SIGNATURE	11	5	Р
8	PRESENTING COMPLAINT	D0,0	10	F
10	DATA ENTRER	11	11	Р
12	AMBULANCE NUMBER	II .	14	F
13	AMBULANCE BILLING NUMBER	11	15	F
14	TRANSFERED FROM	II .	16	Р
15	AMBULANCE COMPANY	II .	17	Р
18	ADMITTING PROVIDER	II .	18	Р
19	TRIAGE NURSE	II .	19	Р
20	INITIAL ACUITY	11	20	N
21	TRIAGE NURSE TIME	11	21	D
22	ADMITTING PROV TIME	II	22	D

# 5.4.3 File: 9009080.1 (ER AUDIT)

Global: ^AMERAUDT(

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	TIMESTAMP	D0,0	1	F
.02	ERVSIT IEN	"	2	S
.03	DATA ENTERER	"	3	S
2	EDITED FIELD MP9009080.12			
.01	EDITED FIELD	D0,2,0	1	F
.02	EDIT TIME	II .	2	D
.03	OLD VALUE	II .	3	F
.04	NEW VALUE	"	4	F
.05	EDIT REASON	"	5	S

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
1	COMMENT	D0,2,1	1	F
1.2	EDITED FIELD NAME	II .	2	F

File: 9009082 (ER CATEGORIES)

Global: ^AMER(2,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	NAME	D0,0	1	F

# 5.4.4 File: 9009082.1 (ER LOCAL FACILITY)

Global: ^AMER(2.1,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	NAME	D0,0	1	F
.02	UID	"	2	F
1	COST CORRECTION FACTOR	u	2	N
2	ADMINISTRATIVE COSTS	"	3	N

## **5.4.5** File: 9009082.2 (ER METADICTIONARY)

Global: ^AMER(2.2,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	ATTRIBUTE	D0,0	1	F
1	TYPE	II .	2	S
2	QUERY TYPE	II .	3	S
3	POINTER GLOBAL REFERENCE	II .	4	F
4	CONTEXT	II .	5	S
5	SCREEN	D0,2	E1,245	F
7	BY	D0,1	E1,245	F

# 5.4.6 File: 9009082.3 (ER INPUT MAP)

Global: ^AMER(2.3,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	QUERY TAG	D0,0	1	F
.02	QUERY TYPE	"	2	S
.03	ID NUMBER	"	3	N
.04	A FIELD	"	4	N
.05	V FIELD	"	5	N
.06	QUERY METHOD	"	6	S
.07	V SUBFIELD	"	7	N
.08	REPORT CATEGORY	"	8	Р
.09	OUTPUT TRANSFORM	"	9	S
.11	NO LINE	"	11	S
.12	OPTIONAL	"	12	S
1	ATTRIBUTE	COMPUTED		
2	PRINT HEADER	D0,2	E1,245	F

## 5.4.7 File: 9009082.5 (ER PREFERENCES)

Global: ^AMER(2.5,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	LOCATION	D0,0	1	Р
1.1	*HFS NUMBER	D0,"HFS"	1	N
1.2	*OPEN HFS STRING	"	2	F
1.3	*HFS STATUS	"	3	F
1.4	*EXPORT FILE NAME	"	4	F
1.5	*HFS CLOSE	"	5	F
1.6	*HFS USE	"	6	F
2.1	WALK-IN CLINIC	D0,"SD"	1	Р
3	LABEL PRINTER NAME	D0,0	2	F
4	QUEUE LABELS	"	3	S
5	CHART PRINTER NAME	"	4	F
6	*PATH TO EXPORT DIRECTORY	D0,6	E1,245	F
7	SEND .9999 CODES TO PCC	D0,7	5	S

## 5.4.8 File: 9009082.9(ER CONSULTANT TYPE)

Global: ^AMER(2.9,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	NAME	D0,0	1	F
.02	Delete Date	"	2	D

# 5.4.9 File: 9009083 (ER OPTIONS)

Global: ^AMER(3,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	NAME	D0,0	1	F
1	TYPE	II .	2	Р
2	BRIEF FORM	"	3	F
3	HER VALUE	D0,"HER"	E1,245	F
4	ANCILLARY SERVICES	D0,"ANC"	E1,245	S
5	MNEMONIC	D0,0	4	F
6	MAP TO PLACE OF ACCIDENT	D0,"MPA"	E1,245	F
7	ICD9 CODE	D0,"ICD"	1	Р

## 5.4.10 File: 9009084 (ER INSTRUCTIONS)

Global: ^AMER(4,

Field Number	Field Name * Indicates no longer in use	Subscript	Piece	Туре
.01	TOPIC	D0,0	1	F
.02	CATEGORY	II .	3	S
1	OUTPUT TEXT (9009084.01)			
.01	OUTPUT TEXT	D0,2,D1,0	1	W
2	TEXT (9009084.02)			
.01	TEXT	D0,1,D1,0	1	W

## 6.0 External Relations

## 6.1 Callable Routines

The following table lists the external calls made by the system to other RPMS packages.

Routine Called	Invoked By
WISD^BSDROUT	AMERBSDU
CI^BSDU2	AMERBSDU
SCIEN^BSDU2	AMERBSDU
^BSDREG	^AMER1
^AGVAR	^AMER
DOG^AG0	^AMER
NAME^AGMANERS	^AMERAGED
GETVISIT^APCDAPI4	^AMERPCC
EN^APCDALVR	^AMERPCC1, ^AMERPCC2
START^APCDCVDT	^AMERVSIT

# 6.2 Published Entry Points

There are no Published Entry Points (PEPs) in this package.

# **6.3** Exported Options

Option Name	Description
AMER ACTIVE PATIENTS	List Patients Currently Admitted to ER
AMER ADMISSION	Admit to Emergency Room
AMER AUDIT REPORT	Edit audit reports
AMER BATCH	Batch Mode ER Admission/Discharge
AMER CANNED	Pre-defined ER Visit Reports
AMER COST	Referral Cost Estimator
AMER DISCHARGE	Discharge from Emergency Room
AMER DNA	Cancel Visit (did not answer or left AMA)
AMER DOA	DOA Admission to ER

Option Name	Description
AMER EDIT VISIT	Enables coders to edit all fields in the ER VISIT file and update .9999 codes to a more definitive code
AMER ER ALERTS MAIL GROUP EDIT	Utility for maintaining mail group that gets notified when Patient pointers in a PCC VISIT have been changed by the ERS editing interface
AMER ER CONSULT EDIT	Utility for maintaining ER CONSULTANT TYPE file through ERS interface
AMER IHS PCC LINK	Added for use by PCC interface
AMER LOCAL ER FACILITIES	Add Local ER Facilities
AMER LOG	Print ER Log
AMER OPTIONS FILE	ER Options Transportation-Disposition- Procedures
AMER PARAMETER SETUP	Facility Parameter setup
AMER PATIENT INSTRUCTION MENU	Patient Instruction Menu
AMER PATIENT INSTRUCTIONS ADD	Add Patient Education Material
AMER PATIENT INSTRUCTIONS PRT	Print Patient Education Materials
AMER REGISTER	Mini-Registration of New Patients
AMER REPORT	ER System Report Generator
AMER REPORT MENUS	Reports Menu
AMER SCAN	Scan Patient Names or Chart Numbers
AMER SETUP	Table and Parameter Setup
AMER TRIAGE NURSE EDIT	Triage Nurse Update Admission Record
AMER UPDATE CODES	Update ".9999" ICD9 codes
AMER VISIT	Display ER Log entry for a single ER visit
AMERMENU	Emergency Room System
AMERVIEWVISIT	Complete PCC VISIT view from ERS

# 7.0 Internal Relations

Menu Option	Calls
REG - Mini-Registration of New Patients [AMER REGISTER]	Calls the patient reg. Mini
IN - Admit to Emergency Room [AMER ADMISSION]	For sites configured to use PIMS: Calls Scheduling package to check for scheduled visits for display and allow check-in of a scheduled visit for the ER clinic for that day, if one exists. Also allows full edit of Patient Registration data, if clinic is configured to allow it.
[ AMER IHS PCC LINK ]	For sites not configured to use PIMS: Calls to PCC to create a walk-in PCC VISIT with the OPTION USED TO CREATE field populated with the [AMER HIS PCC LINK] option.
TRI - Triage Nurse Update Admission Record [AMER TRIAGE NURSE EDIT]	Calls to update PCC when fields that cross to PCC are modified.
BAT - Batch Mode ER Admission/Discharge [AMER BATCH]	Calls Scheduling package to check visits and allow edit of Patient Registration, and calls PCC routines to add visit to Visit, V POV, and V PROVIDER file.
OUT - Discharge from Emergency Room [AMER DISCHARGE]	Calls PCC routines to add V POV and V PROVIDER information, as well as any modified data in the Visit file.

Menu Option	Calls
UP - Edit ER VISITs [AMER EDIT VISIT]	Allows user to choose to update all PCC fields on exit, to reflect what is currently in the ER VISIT, or to keep PCC values in the ERS Visit.
	<b>Note:</b> EHR and PCC applications can be used to edit an ERS Visit. ERS users are always advised before they overwrite information that is in the PCC Visit.
	Also provides ability to update Patient Registration information for a patient record that was created on the same day as the ER VISIT (i.e., a John Doe patient whose identity is discovered but was not a patient in the database).
RPTS - Reports Menu [AMER REPORT MENUS]  VV - Display Data for a Specific Patient Visit MENU[AMERVIEWVISIT]	Provides a complete view of a PCC VISIT, given a visit date and a patient name, date of birth, or chart number.

# 8.0 Archiving and Purging

There is no archiving and purging in this package.

## 9.0 Documentation Resources

This section describes a few methods to generate online technical documentation.

# 9.1 System Documentation

Online VPS system documentation can be generated through the use of several Kernel options, including, but not limited to:

- %INDEX
- Menu Management
- Inquire Option
- Print Option File
- VA FileMan
- Data Dictionary Utilities
- List File Attributes

For more option listings and further information about other utilities that supply online technical information, see the Decentralized Hospital Computer Program (DHCP) Kernel Reference manual.

### 9.1.1 %INDEX

The %INDEX option analyzes the structure of a routine to determine in part, if the routine adheres to RPMS programming standards. The output can include the following components:

- Compiled list of errors and warnings
- Routine listing
- Local variables
- Global variables
- Naked globals

- Label references
- External references

Running %INDEX for a specified set of routines allows users to discover any deviations from RPMS programming standards that exist, and to see how routines interact with one another (i.e., which routines call or are called by other routines).

To run %INDEX for the VPS system:

At the "Routine(s)?" prompt, type the <<CC>>> namespace.

## 9.1.2 Inquire Option

The Inquire menu management option provides the following information about a specified option:

- Option name
- Menu text
- Option description
- Type of option
- Lock (if any)

In addition, all items on the menu are listed for each menu option. To secure information about << RPMSpackage>> options, specify the << >> namespace.

## 9.1.3 Print Option File

The Print Option File utility generates a listing of options from the Option file (#19). Users can print all of the entries or a single option or range of options.

#### 9.1.4 List File Attributes

This VA FileMan option allows users to generate documentation pertaining to files and file structure. The standard format of this option provides the following data dictionary information for a specified file:

- File name and description
- Identifiers
- Cross-references
- Files pointed to by the file specified
- Files that point to the file specified

• Input, print, and sort templates

In addition, the following applicable data is supplied for each field in the file:

- Field name, number, title, and description
- Global location
- Help prompt
- Cross-references
- Input transform
- Date last edited
- Notes

Using the Global Map format of this option generates an output that lists the following information:

- All cross-references for the file selected
- Global location of each field in the file
- Input, print, and sort templates

For a comprehensive listing of Emergency Room System files, see Section 5.0, "Files and Tables."

# 9.2 Online Help

In addition to system documentation, RPMS includes special help displays for most menu options and data entry prompts. Typing ? at the "Select . . . Option" prompt displays information related to the current option, where

Typing	Displays
one question mark (?)	a list of all options accessible from the current option.
two question marks (??)	a list of all accessible options and their formal names
three question marks (???)	a brief description for each option in a menu.
one question mark (?) followed by an option name (?OPTION)	extended help, if available, for that option

# 10.0 SAC Requirements/Exemptions

This version of ERS meets all SAC Requirements. There are no exemptions to the SAC standards for this version.

## 11.0 Glossary

### **Archiving**

Storing historical or little-used data off-line (often on tape).

### **ASUFAC** number

Area Service Unit Facility. A unique identifier for each facility within IHS. A six-digit number comprised of 2 digits for Area, 2 digits for Service Unit, and 2 digits for Facility.

#### **Banner**

A line of text with a user's name and domain.

### **Callable Entry Points**

Places in a routine that can be called from an application program.

#### **Cross-reference**

An indexing method whereby files can include pre-sorted lists of entries as part of the stored database. Cross-references (x-refs) facilitate look-up and reporting.

### **Default Facility**

A user selects a facility identification to work with patients registered to that facility.

### DIRM

IHS Division of Information Resource Management, whose personnel are responsible for information systems management and security.

### **Entry Point**

Entry point within a routine that is referenced by a "DO" or "GOTO" command from a routine internal to a package.

### **File**

A set of related records or entries treated as a single unit.

#### FileMan

The database management system for RPMS.

### Global

In MUMPS, global refers to a variable stored on disk (global variable) or the array to which the global variable may belong (global array).

### **Health Record Number (HRN)**

Each facility assigns a unique number within that facility to each patient. Each HRN with its facility identification 'ASUFAC' make a unique identifier within all of IHS.

### **INDEX (%INDEX)**

A Kernel utility used to verify routines and other MUMPS code associated with a package. Checking is done according to current ANSI MUMPS standards and RPMS programming standards. This tool can be invoked through an option or from direct mode (>D ^%INDEX).

### Init

Init is a shortened form of initialization, meaning to start an application. The initialization step in the installation process builds files from a set of routines (the init routines).

## **Internal Entry Number (IEN)**

The number used to identify an entry within a file. Every record has a unique internal entry number.

#### Kernel

The set of MUMPS software utilities that functions as an intermediary between the host operating system and application packages, such as Laboratory and Pharmacy. The Kernel provides a standard and consistent user and programmer interface between application packages and the underlying MUMPS implementation. These utilities provide the foundation for RPMS.

#### Menu

A list of choices for computing activity. A menu is lists a series of items (other options) for user selection. When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).

### **Namespace**

Unique 2-to-4 alpha character set assigned by the database administrator to a software application.

### Official Registering Facility

A facility so designated that when HRNs are added/modified, those changes are sent to the central database. A Service Unit may have several satellites for which it is registering patients.

### Option

An entry in the Option file. An item on a menu, which users select to invoke the associated command. Options may be scheduled to run in the background, non-interactively, by TaskMan.

### **Patient Care Component (PCC)**

The central repository for data in the Resource and Patient Management System (RPMS).

### Queuing

Request for processing a job at a later time rather than within the current session.

### Routine

A program or sequence of instructions called by a program that may have some general or frequent use. MUMPS routines are groups of program lines that are saved, loaded, and called as a single unit via a specific name.

### UCI

User Class Identification: a computing area.

### Up-Hat (^)

Used as a piece delimiter in a global; also know as a "hat" or "caret," The uphat is denoted as "^" and is typed by pressing Shift+6 on the keyboard.

## Utility

A callable routine line tag or function. A universal routine usable by anyone.

#### **Variable**

A character or group of characters that refers to a value. MUMPS recognizes three types of variables: local variables, global variables, and special variables. Local variables exist in a partition of the main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays.

## 12.0 Appendix A: ERS - PCC Synchronization

## 12.1 PCC Visit Fields Associated with ER Visit Fields

Fields in the PCC VISIT file associated with the ER VISIT are affected in the following ways

1) The following fields are kept in synch by asking the user when changes are noted before saving PCC changes or by saving PCC information to the ER Visit file before editing or reporting on an ERS record if the PCC last updated date is more current than the ER VISIT last synched date.

For example, after saving data through the OUT option, the screen displays the following:

- PCC VISIT Chief Complaint remains the same as ER VISIT Presenting Complaint
- PCC VISIT Checkout Date remains the same day as ER VISIT discharge day/time.
- 2) The following fields are kept in synch by overwriting the PCC VISIT file with what is in the ER VISIT:
  - PCC VISIT Patient Name remains the same as the ER VISIT Patient
  - PCC VISIT Visit/Admit Date & time remains the same the ER VISIT Admission time stamp
  - PCC VISIT Clinic type remains the same as it is in ER VISIT Clinic

- 3) The following fields will are not updated by ERS after initial creation of the PCC VISIT:
  - PCC VISIT Type
  - PCC VISIT Service Category
  - PCC VISIT Hospital Location
  - PCC VISIT Created by User

### 12.2 PCC V Provider Files Associated with ER Visit

PCC V PROVIDER files associated with the ER VISIT are affected in the following ways.

- 1) A PCC V PROVIDER entry exists for all providers in the ER VISIT file.
  - Discharge provider (Primary)
  - Discharge Nurse (Secondary)
  - Admitting Provider (Secondary) added only if not the Discharge provider
  - Triage Nurse (Secondary) added only if not the same as Admitting Nurse
  - Each ER CONSULTANT (Secondary) (Consultant) in the multiple field
- 2) A PCC V PROVIDER entry might exist for Secondary providers who are not part of the ER VISIT file,
  - if another application creates this entry.
  - if an ERS User changes or removes one of the providers through the ERS interface and then selects to keep that provider as part of the PCC V PROVIDER entries.
- 3) MPROV^APCLV(AMERPCC,"I")) remains the same as the ER VISIT Discharge Provider by
  - Updating the ER VISIT Discharge Provider with the entry returned for the 'PRIMARY' PCC V PROVIDER entry, if the PCC 'last updated' time is more current than the ER VISIT last synched timestamp, before allowing editing or reporting on this record.
  - asking the ERS application user which entry to keep as Discharge/Primary provider, when differences are noted.

4) A V PROVIDER entry that does not exist in the ER VISIT can be deleted, if an ERS USER chooses this option when saving ER VISIT data.

After changing an ERS VISIT provider to a new provider, the PCC VISIT will contain the original provider that was changed in the ERS interface. In this case, the user should delete this PCC V PROVIDER entry.

However, if the PCC V PROVIDER was entered by another application, the ERS user can choose to leave it there without affecting ERS changes.

### 12.3 PCC V POV Files Associated with ER VISIT

PCC V POV files associated with the ER VISIT are affected in the following ways.

The following fields are kept in synch by asking the user when changes are noted before saving PCC changes or by saving PCC information to the ER Visit file before editing; or reporting on an ERS record if the PCC last updated date is more current than the ER VISIT last synched date.

For example,

- The V POV record associated to a PCC VISIT is considered to contain the primary diagnosis information in PCC. The Diagnosis code in this record is the same as the ER VISIT primary diagnosis.
- The provider narrative associated to the PCC VISIT Primary Diagnosis is the same as the ER VISIT Primary Narrative.
- All Diagnosis represented in the PCC Visit are represented in the ERS Visit.
- All Diagnosis represented in the ERS visit are represented in the PCC VISIT.

# 12.4 Patient Registration Fields and ERS

The following Patient registration fields are the same in ERS as they are in the Patient Registration application:

- Patient DOB
- Patient Chart #

## 13.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

**Phone:** (505) 248-4371 or (888) 830-7280 (toll free)

**Fax:** (505) 248-4363

Web: <a href="http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm">http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm</a>

Email: support@ihs.gov