

INTER-FACILITY CONSULTS IMPLEMENTATION GUIDE



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Technical Services
Computerized Patient Record System Product

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Introduction

Purpose of Inter-Facility Consults

The Inter-Facility Consults was originally released as patch GMRC*3*22 of the Consult/Request Tracking Package. Its intention is to allow consults and requests to be transmitted between Veterans Health Administration facilities while:

- Minimizing the impact on end users of the Consults system.
- Allowing cooperating facilities to specify the amount of human intervention required by their administrative needs in communicating consults and requests.
- Utilizing the HL7 protocol to implement communications.

Scope of the Manual

System setup, cooperation between facilities, and management of error conditions is required for the system to work effectively. This manual provides information deemed necessary to carry out these functions.

From time to time improvements are made to the Consults package, including improvements to Inter-Facility Consults. The latest information about Consults, as well as the latest version of this manual, is posted on the Consults Web Page at:

In addition, a FAQ (Frequently Asked Questions) is maintained by the development team and posted at:

Audience

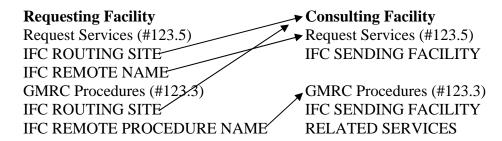
Information in this manual is technical in nature and is intended to be used by Veterans Affairs Medical Center (VAMC) Information Resource Management Service (IRMS) staff members and Clinical Application Coordinators (CAC's).

Coordination with Consulting Partners

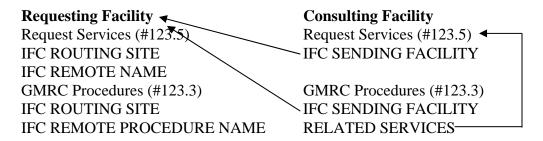
Before any technical implementation of the Inter-Facility Consults (IFC) software, decisions and coordination must take place with those VA facilities that will receive consults from your facility, or send consults to your facility. The entire Inter-Facility Consults process is based on proper file set up at both the requesting and consulting sites.

Inter-Facility Field Relations:

The fields involved in Inter-Facility Consults act as pointers in that they contain the name of an object at another facility or in another file. The following table shows what the fields at the requesting facility point to:



The following table shows what the fields at the consulting facility point to:



Both consult and procedure requests may be configured for inter-facility processing. Consult request are set up using the Set up Consult Services [GMRC SETUP REQUEST SERVICES] option. Procedure requests are set up using the Setup procedures [GMRC PROCEDURE SETUP] option.

Restrictions

Because of technical incompatibilities, the following **cannot** be set up for inter-facility processing:

- 1. Consult services that are part of the Prosthetics package interface.
- 2. Procedures that are configured to be part of the Clinical Procedures interface.

Planners can work around these restrictions by setting up inter-facility prosthetics consults using regular consults and by setting up inter-facility clinical procedures to be resulted via traditional methods.

Service Configuration at Requesting Facility

The requesting facility must specify two pieces of information:

- 1. The identification of the consulting facility.
- 2. The service name at the consulting facility.

In the following partial terminal capture, a site such as Boise sets up to send inter-facility plastic surgery consults to the Salt Lake HCS. Notice that SERVICE NAME is unique and indicates that the service is not performed at Boise:

```
Select Consult Management Option: SS Set up Consult Services
Select Service/Specialty:
                            PLASTIC SURGERY - SALT LAKE HCS
SERVICE NAME: PLASTIC SURGERY - SALT LAKE HCS Replace
ABBREVIATED PRINT NAME (Optional): PSURG SL//
INTERNAL NAME: ??
       This field holds a name that can be used for internal name-spacing.
        This name will not be viewable to users when selecting a service.
        This name may be used to look up entries in the file via VA Fileman
       and the Setup Consult Services option.
INTERNAL NAME: IFCR SL PLASTIC SURGERY
Select SYNONYM: PSURGSL// <Enter>
RESTRICT DEFAULT REASON EDIT: <Enter>
Inter-facility information:
IFC ROUTING SITE: ?
    Enter the VA site that will perform consults directed to this service
    Only national institution file entries may be selected
IFC ROUTING SITE: ??
       This field contains the VA facility that will perform consults requested
        for this service. When a consult for this service is ordered, it will
        automatically be routed to the VA facility in this field.
IFC ROUTING SITE: SALT LAKE CITY HCS
IFC REMOTE NAME: ??
        This field contains the name of the service that will be requested at
        the VAMC defined in the IFC ROUTING SITE field.
        Enter the name of the service exactly as it is named at the remote
        facility. If this name does not match the name of the service at the
        routing site, the request will fail to be filed at the remote site. This
        will delay or prohibit the performance and processing of this request.
IFC REMOTE NAME: PLASTIC SURGERY
SERVICE INDIVIDUAL TO NOTIFY: <Enter>
```

The IFC REMOTE NAME must match, letter-for-letter, the service name as set up at the consulting facility. Furthermore, the consulting facility must fill in the corresponding IFC SENDING FACILITY multiple with Boise. Boise is the site name from which they will

accept inter-facility consults. Note that in this case a consulting facility may have more than one entry if they consult for more than one requesting facilities.

Services that have the IFC ROUTING FACILITY and IFC REMOTE NAME fields completed, will be performed and completed by a remote facility. Although no update activities on the consult are expected at the requesting facility, you may configure update users to receive notification of activities taking place at the consulting facility.

Service Configuration at the Consulting Facility:

At the consulting facility the Set up Consult Services action is used to set up the fact that Plastic Surgery consults will be coming from Boise HCS and Las Vegas HCS:

```
Select Consult Management Option: SS Set up Consult Services
Select Service/Specialty: PLASTIC SURGERY
SERVICE NAME: PLASTIC SURGERY// <Enter>
ABBREVIATED PRINT NAME (Optional): PSURG //
INTERNAL NAME: ??
        This field holds a name that can be used for internal name-spacing.
        This name will not be viewable to users when selecting a service.
        This name may be used to look up entries in the file via VA Fileman
        and the Setup Consult Services option.
INTERNAL NAME: IFCL PLASTIC SURGERY
Select SYNONYM: PSURG// <Enter>
RESTRICT DEFAULT REASON EDIT: <Enter>
Inter-facility information:
Select IFC SENDING FACILITY: LAS VEGAS HCS// ??
  LAS VEGAS HCS
        You may enter a new IFC SENDING FACILITY, if you wish
        This field contains the VA facilities that may send inter-facility
        consults to this service. Only active, primary VA facilities should
       be entered in this field.
Select IFC SENDING FACILITY: BOISE HCS
SERVICE INDIVIDUAL TO NOTIFY: KENT, CLARK//<Enter>
```

Notice that the Set up Consult Services action did not even prompt for the IFC ROUTING SITE or IFC REMOTE NAME. For each individual service, the condition of being a requesting facility and being a consulting facility are mutually exclusive. Facilities may fulfill both rolls, but each individual service must be set up uniquely.



Note:

Inter-Facility consults will not allow a service that is configured as part of the Prosthetics package interface to be set up as a consulting service. Your facilities should work around this technical restriction by using non-prosthetics consults.

The INTERNAL NAME is provided so that CACs and IRM personnel can more readily organize consults services. This provides an alternate way of accessing consult services though the Setup Service (SS) action. In other words, you can type this name at the "Select Service/Specialty:" prompt when going in to change service setup fields.

Procedure Configuration at the Requesting Facility:

Setting up inter-facility procedures is identical to setting up inter-facility consults, except that you use the Setup Procedures action.

In this example, Boise sets up Colonoscopy as in inter-facility procedure to be done at Salt Lake HCS:

```
Select Consult Management Option: PR Setup procedures
Select Procedure: COLONOSCOPY - SALT LAKE HCS
         ...OK? Yes// <Enter> (Yes)
NAME: COLONOSCOPY// <Enter>
INACTIVE: <Enter>
Select SYNONYM: COL// <Enter>
INTERNAL NAME: ??
        This field holds a name that can be used for internal name-spacing.
        This name will not be viewable to users when selecting a procedure.
        This name may be used to look up entries in the file via VA
       Fileman and the Setup Procedures option.
INTERNAL NAME: IFCR SL COLONOSCOPY
Select RELATED SERVICES: GASTROENTEROLOGY// <Enter>
TYPE OF PROCEDURE: <Enter>
PREREQUISITE:
 No existing text
 Edit? NO// <Enter>
PROVISIONAL DX PROMPT: <Enter>
PROVISIONAL DX INPUT: <Enter>
DEFAULT REASON FOR REQUEST:
 No existing text
 Edit? NO// <Enter>
RESTRICT DEFAULT REASON EDIT: <Enter>
Inter-facility information:
IFC ROUTING SITE: SALT LAKE CITY HCS UT VAMC 660
IFC REMOTE PROC NAME: COLONOSCOPY
Orderable Item Updated
```

The IFC REMOTE PROC NAME must match, letter-for-letter, the procedure name as set up at the consulting facility. Furthermore, the consulting facility must fill in the corresponding IFC SENDING FACILITY multiple with Boise.

The PROCEDURE, on the other hand, is a local designation. We advise that you adopt some naming convention for procedures that are performed as inter-facility procedures.

The INTERNAL NAME is provided so that CACs and IRM personnel can more readily organize consult procedures. This provides an alternate way of accessing consult procedures though the Setup Procedures (PR) action. In other words, you can type this name at the SELECT PROCEDURE prompt when going in to change service setup fields.

Procedure Configuration at the Consulting Facility:

At the consulting facility the Setup Procedures action is used to set up the fact that Colonoscopy consults will be coming from Boise:

```
Select Consult Management Option: Setup procedures
Select Procedure: COLONOSCOPY
        ...OK? Yes// <Enter> (Yes)
NAME: COLONOSCOPY // <Enter>
INACTIVE:
Select SYNONYM: COLN// <Enter>
INTERNAL NAME: ??
       This field holds a name that can be used for internal name-spacing.
       This name will not be viewable to users when selecting a procedure.
       This name may be used to look up entries in the file via VA
       Fileman and the Setup Procedures option.
INTERNAL NAME: IFCL COLONOSCOPY
Select RELATED SERVICES: GASTROENTEROLOGY
        // <Enter>
TYPE OF PROCEDURE: <Enter>
PREREQUISITE:
 No existing text
 Edit? NO// <Enter>
PROVISIONAL DX PROMPT: <Enter>
PROVISIONAL DX INPUT: <Enter>
DEFAULT REASON FOR REQUEST:
 No existing text
 Edit? NO//<Enter>
RESTRICT DEFAULT REASON EDIT: <Enter>
Inter-facility information:
IFC ROUTING SITE: <Enter>
IFC REMOTE PROC NAME: <Enter>
Select IFC SENDING FACILITY: BOISE
    1 BOISE
                              ID VAMC
                                            531
    2
        BOISE
                              ID RO
                                            347
       BOISE
                              ID M&ROC
                                            447
    3
       BOISE
                             ID CHEP
                                            932
                             ID VANB
       BOISE
                                            5319AA
Press <RETURN> to see more, '^' to exit this list,
CHOOSE 1-5: 1 BOISE
                                   ID VAMC
                                                  531
 Are you adding 'BOISE' as a new IFC SENDING FACILITY (the 1ST for this GMRC
PROCEDURE)? No// Y (Yes)
Select IFC SENDING FACILITY: BOISE//<Enter>
Orderable Item Updated
```



Note:

A procedure configured as a Clinical Procedure may not be configured as an inter-facility procedure. (This is because Remote Data View does not yet handle Imaging-type data and thus would not be able to return the full results to the requesting facility.) As a work-around, clinical procedures should be resulted with traditional methods.



Even though the RELATED SERVICE is a multiple, the consulting facility can only have *one* RELATED SERVICE entry for an interfacility procedure.

Mail Group Setup

The Inter-facility Consults enhancement brings in three new VistA mail groups. These mail groups are created upon installation of patch GMRC*3*22 on your system. The mail groups are used to deliver alerts or mail messages to the members as a results of various occurrences in Inter-facility Consults.



Note:

All three mail groups should be populated with members having the responsibilities listed below.

IFC PATIENT ERROR MESSAGES

The members of this mail group receive mail messages related to patient registration issues affecting Inter-facility Consults. The members of this mail group should primarily consist of MAS personnel that have the authority to register patients and resolve MPI-PD inconsistencies.

If an inter-facility consult is requested for a patient and the MPI-PD information in the patient file is either a locally assigned identifier or the patient does not have any MPI-PD information on file, the members of this mail group will receive a mail message with the patient demographics listed and indicating that an outgoing inter-facility consult request could not be sent for the reasons listed. At this point the MPI-PD information should be resolved to match the national MPI information for the patient in question.

If an inter-facility consult has been requested at another facility and is waiting to be filed on the local system, the members of this mail group will receive a VistA e-mail message listing the patient demographics at the remote facility. At this point the patient should be registered so that the incoming request may be filed and processed. When IFC cannot uniquely identify a patient at the Receiving Facility, it sends a message to the IFC PATIENT ERROR MESSAGES group. This message is resent at approximately 3 hour intervals.

IFC CLIN ERRORS

The members of this mail group will receive Kernel alerts regarding issues with incomplete inter-facility consult activities that encountered an error when updating the remote consult. The members of this mail group should primarily consist of the personnel responsible for set up and implementation of the Inter-facility Consults software.

The alerts received fall into the following categories:

- Incompletely or incorrectly defined procedures or services for use in Inter-facility Consults.
- Pending inter-facility consult requests if registration issues exist.

When a message is sent to IFC CLIN ERRORS is determined by the GMRC IFC ALERT IMMED ON PT ERR parameter. If set to YES, IFC CLIN ERRORS at the sending facility is notified immediately. Otherwise, IFC CLIN ERRORS at the sending facility is notified when the registration issue is still not resolved approximately every 24 hours (or every 8 attempts to re-transmit and notify the IFC PATIENT ERROR MESSAGES group).

If a registration issue is still unresolved at the receiving facility after eight transmissions of the request, the IFC CLIN ERRORS group at the receiving facility is sent a mail message approximately every 24 hours indicating the problem and the demographics of the patient at issue.

IFC TECH ERRORS

The members of this mail group will receive Kernel alerts regarding issues with incomplete inter-facility consult activities that did not receive an appropriate response from the facility to which an activity was transmitted. The members of this mail group should consist of those IRM staff responsible for investigating errors in the Consult/Request Tracking package and may include those responsible for monitoring VistA HL7 operation.

The alerts received by this group could be caused by either a breakdown in network communications with the remote facility or an error occurring on the remote system. This group will be responsible for resolving error conditions with inter-facility consult transmissions.

Inter-Facility Consults Reports

The Inter-Facility Consults reports are available on the Consult Tracking Reports menu [GMRC REPORTS] and the IFC Management Menu [GMRC IFC MGMT]. Currently four Inter-Facility Consults reports show up on this menu. They are:

Report Synonym	Report Name	Option Name
IFC	IFC Requests	[GMRC IFC RPT CONSULTS]
IP	IFC Requests by Patient	[GMRC IFC RPT CONSULTS
		BY PT]
PI	Print IFC Requests	[GMRC IFC PRINT RPT
		NUMBERED]
IR	IFC Requests by Remote	[GMRC IFC RPT CONSULTS
	Ordering Provider	BY REMPR]

IFC Requests (IFC) provides detailed information regarding inter-facility consults. Inter-facility Consult Requests (PI) is the same report formatted for a printer.

IFC Request by Patient (IP) is similar to option Consult Service Tracking, except only displays inter-facility consults as a requesting or consulting facility.

IFC Requests by Remote Ordering Provider (IR) provides detailed information regarding inter-facility consults by remote ordering provider for consulting sites to utilize. The display is similar to the IFC/PI options.

IFC Requests

This report provides such information as:

- Total Requests to Service
- Total Requests Scheduled to Service
- Total Requests Completed to Service
- Mean Days Completed to Service

This report provides information for both requesting and consulting facilities.

In the following example, we examine all Dental consults originating by us as a requesting facility:

```
Select IFC Management Menu Option: IFC Inter-Facility Consult Requests
Are you the Requesting site or the Consulting site: (R/C): R REQUESTING
Only Display Consults With Status of: All Status's// ?
Enter a code from the list.
    Select one of the following:
         al
                   All Status's
                   All Pending
         ap
                   Discont.
         dc
                   Completed
                   Pending
         р
         a
                   Active
                   Scheduled
         s
         pr
                   Incomplete
                   Cancelled
Only Display Consults With Status of: All Status's// <Enter> All Status's
Select Service/Specialty: DENTAL
List From Starting Date: ALL DATES// <Enter>
...SORRY, LET ME THINK ABOUT THAT A MOMENT...
```

```
Inter-facility Consults
                              Feb 07, 2002@11:06:22
                                                                      1 of
                                                             Page:
IFC Requests: Requesting Site
Service: DENTAL
From: ALL To: JAN 31,2002
          Last Action
Status
                              Request Date Patient Name
                                                              Pt Location
                  IF Consult/Request By Status - Requesting Site
                         FROM: ALL TO: JAN 31,2002
SERVICE: DENTAL
Discont. DISCONTINUED DISCONTINUED
          DISCONTINUED
                               10/18/01 CRPatient, F. (3333)
                                                                2B MED
                               10/18/01 CRPatient, F. (1990)
                                                                1A(1&2)
Completed ADDENDUM ADDED TO 10/23/01 CRPatient, F. (3333)
                                                                2B MED
Pending CPRS RELEASED ORDER 12/20/01 CRPatient, S. (1990)
                                                                1A(1&2)
Pending CPRS RELEASED ORDER 12/03/01 CRPatient, S. (1990)
                                                                1A(1&2)
Pending
          CPRS RELEASED ORDER 11/30/01 CRPatient, T. (3323)
                                                                OUTHOUSE
Pending
          CPRS RELEASED ORDER 11/13/01 CRPatient, T. (3241)
                                                                2B MED
         CPRS RELEASED ORDER 10/18/01 CRPatient, F. (3333)
Pending
                                                                2B MED
Pending
          CPRS RELEASED ORDER 10/03/01 CRPatient, S. (1990)
                                                                1A(1&2)
Pending
          CPRS RELEASED ORDER 10/02/01 CRPatient, S. (1990)
                                                                2B MED
                               10/01/01 CRPatient, S. (1990)
Pending
           ADDED COMMENT
                                                                2B MED
          Enter ?? for more actions
                               Number on/off
                                                         Description of Data
     Service
     Status
                               Print List
Select Item(s): Next Screen//
```

There are additional fields that are not visible on an 80 column screen such as the screen in the example. They can be viewed by using the Shift to View Right action (>). Using the Shift to View Left (<) action restores the screen. If the report is for a consulting site, then the additional fields are: Routing Facility, Days Diff, and Red Date. If the report is for a requesting site, then the additional fields are: Routing Facility and Days Diff.

There are five actions you can do besides the default actions (like Next Screen, Previous Screen, Quit, >, <, ...). These are change Service, Number on/off, Description of Data, Status, and Print List.

The change Service action allows you to re-display the report for a different service.

The Number on/off action changes the format of the report to include the consult number. To do this, it preserves the other columns but makes them narrower.

The Description of Data action gives a detailed description for applicable data columns.

The Status action allows you to change which statuses are displayed in the report. In the following example the statuses displayed are changed from All Statuses to just the Pending, Active, and Scheduled consults:

```
Select Item(s): Next Screen// ST
                                  Status
Only Display Consults With Status of: All Status's// P Pending
Another Status to display: A Active
Another Status to display: S Scheduled
Another Status to display: <Enter>
...SORRY, THIS MAY TAKE A FEW MOMENTS...
Inter-facility Consults Feb 07, 2002@11:06:22
                                                            Page:
                                                                     1 of
IFC Requests: Requesting Site
Service: DENTAL
From: ALL To: FEB 7,2002
            Last Action
Status
                             Request Date Patient Name
                                                             Pt Location
```

```
IF Consult/Request By Status - Requesting Site
                                        TO: FEB 7,2002
                            FROM: ALL
SERVICE: DENTAL
          CPRS RELEASED ORDER 12/20/01 CRPatient, F. (1990)
                                                                       1A(1&2)
Pending
           CPRS RELEASED ORDER 12/03/01 CRPatient, F. (1990)
                                                                       1A(1&2)
Pending
Pending
           CPRS RELEASED ORDER 11/30/01 CRPatient, T. (3323)
                                                                       OUTHOUSE
Pending
           CPRS RELEASED ORDER 11/13/01 CRPatient, T. (3241)
                                                                       2B MED
Pending
           CPRS RELEASED ORDER 10/18/01 CRPatient, F. (3333)
                                                                       2B MED
Pending
           CPRS RELEASED ORDER 10/03/01 CRPatient, F. (1990)
                                                                       1A(1&2)
           CPRS RELEASED ORDER 10/02/01 CRPatient, F. (1990)
                                                                       2B MED
Pending
Pending
           ADDED COMMENT
                                10/01/01 CRPatient, F. (1990)
                                                                       2B MED
Pending
           CPRS RELEASED ORDER 09/27/01 CRPatient, F. (1990)
                                                                       2B MED
           EDIT/RESUBMITTED
Pending
                                09/13/01 CRPatient, F. (1990)
                                                                       2B MED
           DISASSOCIATE RESULT 11/05/01 CRPatient, E. (0870)
                                                                       2B MED
Active
                ?? for more actions
     Service
                                Number on/off
                                                           Description of Data
     Status
                                Print List
Select Item(s): Next Screen//
```

Print IFC Requests

The Print IFC Requests (PI) is the same report as the IFC Requests (IFC) except that it formats the report so you can send it to a printer device.

In the following example, all active requests for the Dental service are listed:

```
Select Consult Tracking Reports Option: PI Print IFC Requests
Are you the Requesting site or the Consulting site: (R/C): R REQUESTING
Only Display Consults With Status of: All Status's// A Active
Another Status to display: <Enter>
Select Service/Specialty: DENTAL
List From Starting Date: ALL DATES//
Want to view a description of the data for this report now? NO// <Enter>
This print out is 132 columns wide.
DEVICE: HOME// <Enter> ANYWHERE Right Margin: 80// <Enter>
                 IF Consult/Request By Status - Requesting Site
                         FROM: ALL TO: FEB 7,2002
  Number St Last Action
                                Req Dt Patient Name
                                                                  Patient Loca
                 Routing Facility Days Diff
tion
SERVICE: DENTAL
    2085 a DISASSOCIATE RESULT 11/05/01 WAX,F. (0870)
                                                                  2B MED
                 BOISE 2
CEIVED 10/17/01 REDDIX,H. (3333)
ROISE N/A
    2045 a RECEIVED
                                                                  2B MED
                                                          2
Total Requests Active:
Total Requests Pending Resolution:
                                                          2
                                                          2
Total Requests To Service @ BOISE:
Mean Days Completed To Service @ BOISE:
Mean Days Completed To Service:
                                                          2
Total Requests To Service:
Press <ENTER> To Continue:
```

Notice that only two consults were displayed.

IFC Requests by Patient

The IFC Requests by Patient (IP) report is the same as the Consult Service Tracking (CS) option, except that it only displays inter-facility consults. As such, once it has been invoked, all actions normally available to you in the Consult Service Tracking option are potentially usable. Some actions are only available to the Consulting (Receiving) site, as they relate to the processing of the Consult. The Edit/Resubmit action is only available at the Requesting (Sending) site, as that is the location responsible for submitting the Consult in the first place.

```
Select Consult Tracking Reports Option: IP IFC Requests By Patient
Are you the Requesting site or the Consulting site: (R/C): R REQUESTING
Select Patient: CRPATIENT, EIGHT 2-2-35 666333333 YES
SC VETERAN

Select Service/Specialty: ALL SERVICES// <Enter> GROUPER ONLY
List From Starting Date: ALL DATES// <Enter>
```

IFC	Requests:	Requ	esting S:	ite Feb 07, :	2002@11:23:3	36	Pa	age:	1 of	1
CRP	ATIENT, EIGH	HT	666-33-33	333			FEB 2	,1935	(67)	<ca></ca>
								7	Wt.(lb)	: 180
	Requested	St	No.	Consult/Pro	ocedure Requ	ıest				
1	01/10/02	р	9927	DERMATOLOGY	- Boise Cor	ns				
2	01/09/02	р	9923	DERMATOLOGY	Cons					
3	10/25/01	a	2061	EKG - BOISE	CARDIOLOGY	(SOUTH)	Proc			
4	10/23/01	C	2058	DENTAL Cons						
5	10/18/01	dc	2051	DENTAL Cons						
6	10/18/01	р	2050	DENTAL Cons						
7	10/17/01	a	2045	DENTAL Cons						
				e actions						
	Select Pati				CT Complet	_				
	Change Viev			cel (Deny)	MA Make Ac					
RC I	Receive		DC Disc	continue	SF Sig Fir	_				
SC :	Schedule		CM Add	Comment	DD Detaile	ed Displ	ay ER	Edit,	/Resubm	it
Sel	ect: Quit//	/								

IFC Requests by Remote Ordering Provider

If you need to determine the status of consults at your facility ordered from a certain provider at another facility, then you can use the IFC Requests by Remote Ordering Provider option.

When using this option, you must specify the name of the provider exactly at the prompt. If you enter a question mark, a screened list of ordering providers is displayed.

In this example we look at the Medicine consults from a provider at Boise:

```
Select IFC Management Menu Option: IR IFC Requests by Remote Ordering Provider
Select Requesting site: BOISE
        BOISE
                               ID VAMC
                                              531
     2
       BOISE
                               ID RO
                                              347
     3
        BOISE
                               ID M&ROC
                                              447
     4
         BOISE
                               ID CHEP
                                              932
CHOOSE 1-4: 1 BOISE
                               ID VAMC
                                              531
   Enter the ENTIRE name in proper CASE, exactly as it
   appears in the list (including any credentials).
   Use copy/paste to avoid typing errors.
  NO partial matches are done.
  Enter ? to display a list of possible entries.
Select Remote Ordering Provider: ?
CRPROVIDER, EIGHT
CRPROVIDER, FIVE
CRPROVIDER, FOUR
CRPROVIDER, NINE
CRPROVIDER, SEVEN
CRPROVIDER, SIX
CRPROVIDER, THREE
CRPROVIDER, TWO
CRPROVIDER, TEN
CRPROVIDER, ONE
Enter RETURN or '^' to exit: <Enter>
   Enter the ENTIRE name in proper CASE, exactly as it
  appears in the list (including any credentials).
  Use copy/paste to avoid typing errors.
  NO partial matches are done.
  Enter ? to display a list of possible entries.
Select Remote Ordering Provider: CRPROVIDER, TWO
Only Display Consults With Status of: All Status's// <Enter>
Select Service/Specialty: MEDICINE
List From Starting Date: ALL DATES// <Enter>
...SORRY, LET ME PUT YOU ON 'HOLD' FOR A SECOND...
```

```
Inter-facility Consults
                             Feb 21, 2002@09:16:26
                                                            Page:
                                                                     1 of
                                                                             2
IFC Requests: Consulting Site
Service: MEDICINE
From: ALL To: FEB 21,2002
Status
            Last Action
                             Request Date Patient Name
                                                             Pt Location
                 IF Consult/Request By Status - Consulting Site
                          FROM: ALL TO: FEB 21,2002
Routing Facility - BOISE
Remote Ordering Provider - CRPROVIDER, TWO
                              GROUPER: MEDICINE
                   GROUPER: CARDIOLOGY in Group: MEDICINE
         GROUPER: CARDIOLOGY Totals:
Total Requests To Grouper CARDIOLOGY:
SERVICE: EYE CLINIC in Group: MEDICINE
        FWD TO REMOTE SERVI 01/07/02 CRPATIENT,S. (1990)
Pending
                                                                    BOISE
          REMOTE REQUEST RECE 12/21/01 CRPATIENT, F.
                                                                  2B MED
Pending
        Enter ?? for more actions
    Service
                              Number on/off
                                                        Description of Data
    Status
                              Print List
Select Item(s): Next Screen// Select Item(s): Quit//
```

There are three other fields that are not visible on an 80 column screen such as the screen in the example. They are: Routing Facility, Days Diff, and Rec Date. They can be viewed by using the Shift to View Right action (>). Using the Shift to View Left (<) action restores the screen.

There are five actions you can do besides the default actions (like Next Screen, Previous Screen, Quit, >, <, ...). These are change Service, Number on/off, Description of Data, Status, and Print List.

The change Service action allows you to re-display the report for a different service.

The Number on/off action changes the format of the report to include the consult number. To do this, it preserves the other columns but makes them narrower.

The Description of Data action gives a detailed description for applicable data columns.

The Status action allows you to change which statuses are displayed in the report.

Inter-Facility Consults Management Options

The Inter-Facility Consults Options [GMRC IFC MGMT] menu is part of the Consults Management [GMRC MGR] menu. This menu has the following options in it:

Synonym	Name	Command
TI	Test IFC implementation	[GMRC IFC TEST SETUP]
LI	List incomplete IFC transactions	[GMRC IFC INC TRANS]
IFC	Inter-Facility Consult Requests	[GMRC IFC RPT CONSULTS]
TR	IFC Transaction Report	[GMRC IFC TRANS]
LK	Locate IFC by Remote Cslt #	[GMRC IFC REMOTE
		NUMBER]
BK	Monitor IFC background job	[GMRC IFC BKG PARAM
	parameters	MON]
AI	Print All Incomplete IFC	[GMRC IFC INC RPT]
	Transactions	
EP	Edit IFC Processing Parameters	[GMRC IFC PARAMETER
		EDIT]
IP	Inter-facility Consult Requests	[GMRC IFC RPT CONSULTS
	By Patient	BY PT]
IR	IFC Requests by Remote	[GMRC IFC RPT CONSULTS
	Ordering Provider	BY REMPR]
MP	Configure test account patients	[GMRC IFC TEST PT MPI]
	for IFC	
PI	Print Inter-facility Consult	[GMRC IFC PRINT RPT
	Requests	NUMBERED]

Inter-Facility Consult Requests (IFC), Inter-Facility Consult Requests by Patient (IP), Print Inter-Facility Consult Requests (PI), and IFC Requests by Remote Ordering Provider (IR) are covered under the Inter-Facility Consults Reports section above.

Test IFC Implementation

The following example shows how to use the Test IFC Implementation option to check the setup of a procedure or consult service:

```
Select IFC Management Menu Option: TI Test IFC implementation

Select one of the following:

P procedure
C consult service

Would you like to test a procedure or consult service: procedure

Select the GMRC Procedure that you'd like to test: EKG
1 EKG - BOISE
2 EKG ELECTROCARDIOGRAM

CHOOSE 1-2: 1 EKG - BOISE

attempting to connect to remote system...

There is an implementation problem. The remote site indicated:
Multiple services matched to procedure

Would you like to test another implementation?
```

The following are the 7 most common errors that may be indicated with this option:

- 301 Service not matched to receiving facility. You need to coordinate with the consulting facility. The consulting facility needs to use the Setup Service (SS) option to make sure your facility is correctly listed in the IFC SENDING FACILITY field.
- 401 Procedure not matched to receiving facility. You need to coordinate with the
 consulting facility. The consulting facility needs to use the Setup Procedure (PR)
 option to make sure your facility is correctly listed in the IFC SENDING FACILITY
 field.
- 501 Error in procedure name. Could not find a matching procedure at the consulting facility. You probably need to verify the spelling and use the Setup Procedure (PR) option to make sure the IFC REMOTE PROCEDURE NAME is correct in your Procedure file (#123.3).
- 601 Multiple services matched to procedure. At the consulting facility, the RELATED SERVICES multiple must only contain a single value.
- 701 Error in Service name. Could not find a matching service at the consulting facility. You probably need to verify the spelling and use the Setup Service (SS) option to make sure the IFC REMOTE NAME is correct in your Request Services (#123.5).
- 702 Service is Disabled. The Service has been disabled at the Consulting site.
- 703 Procedure is Inactive. The Procedure has been inactivated at the Consulting Site.



Note: Any error occurring within the VistA HL7 messaging system is also indicated in this option.

Configure Test Account Patients

The Configure Test Account Patients for IFC option sets up a patient with a test account Integration Control Number (ICN) so that the patient may be used to test Inter-Facility Consults. An identical patient (with identical social security number) must be set up at both cooperating test sites. This option takes the social security number and appends a 9 to the beginning of it to produce a unique ICN. It then files this pseudo-ICN in the patient file for this patient. If the SSN for the patient is the same as another patient in the test account, the option will not proceed until this conflict is resolved.

This option must be exercised at both cooperating facilities before the patient may be used for Inter-facility Consults testing.

In this example, George F Babbitt is set up as a test patient:

```
Select IFC Management Menu Option: MP Configure test account patients for IFC

Select shared patient: CRPATIENT, THIRTEEN 4-9-46 666668829 YES SC

VETERAN
Enrollment Priority: GROUP 3 Category: IN PROCESS End Date:

Trying to set test patient ICN...

Done.

Select shared patient:
```



Note: This option will only function in test accounts.

List incomplete IFC transactions

GMRC IFC INC TRANS is a tool for reviewing incomplete Inter-Facility Consult (IFC) Transactions. With this option you can retransmit an action that is not yet resolved.

This option can accept the following inputs when selecting a consult request:

- A Consult number.
- A Patient Name.
- A Service Name.
- A question mark to see a screened list of consults with incomplete activities.

The following screen capture error is inspected and a retransmit if performed:

Select action: Quit// RT Retransmit an IFC activity

```
Select IFC Management Menu Option: LI List incomplete IFC transactions
Select a consult request: ?
Answer with REQUEST/CONSULTATION NUMBER, or FILE ENTRY DATE, or
PATIENT NAME, or TO SERVICE, or FROM, or DATE OF REQUEST, or
CPRS STATUS, or SENDING PROVIDER, or ASSOCIATED RESULTS
Do you want the entire REQUEST/CONSULTATION List? n (No)

Type in the number, date of request or patient name.

Select a consult request: CRPATIENT, SEVEN 12-31-51 666781990 SC
VETERAN
```

```
Incomplete IFC Transactions
                              Feb 07, 2002@12:10:05
Incomplete transaction(s) for consult#: 9907
An error occurred transmitting the following inter-facility consult
activity to BOISE:
Consult #: 9907
Remote Consult #:
Patient Name: CRPATIENT, SEVEN
To Service: DENTAL
Activity #: 1
Activity
                         Date/Time/Zone
                                             Responsible Person Entered By
                         12/20/01 10:41
                                             CRPROVIDER, THREE
                                                                  CRPROVIDER, THREE
CPRS RELEASED ORDER
The error was: Error in Service name
          Enter ?? for more actions
SC Select new Consult
                                        CM Mark transaction complete
RT Retransmit an IFC activity
```

Select an activity number: You have selected the following activity: CPRS RELEASED ORDER entered Dec 20, 2001@10:41:08 Are you sure you want to retransmit this activity?Y YES

```
Incomplete IFC Transactions Feb 07, 2002@12:10:05
                                                            Page:
                                                                     1 of
Incomplete transaction(s) for consult#: 9907
An error occurred transmitting the following inter-facility consult
activity to BOISE:
Consult #: 9907
Remote Consult #:
Patient Name: CRPATIENT, SEVEN
To Service: DENTAL
Activity #: 1
Activity
                        Date/Time/Zone
                                            Responsible Person Entered By
CPRS RELEASED ORDER
                       12/20/01 10:41
                                            CRPROVIDER, THREE CRPROVIDER, THREE
The error was: Error in Service name
         Enter ?? for more actions
SC Select new Consult
```

RT Retransmit an IFC activity Select action: Quit//

CM Mark transaction complete

The **Re-transmit an IFC Activity** action may be used when the listed error has been corrected and the activity should be transmitted to the remote facility again. This action is optional as the IFC Background job will resend any activities with corrected errors.

The Mark Transaction Complete action must be used with caution. This action is *only* used when each site can verify that the activity was transmitted and the consult record was appropriately updated. This action will remove the activity from the listing in this option and suppress any future alerts about the error.

Print All Incomplete IFC Transactions

Incomplete IFC transactions may be compiled as a printed report. This gives similar information as the List Incomplete IFC Transactions option discussed above, but does not require the selection of a specific consult number. This report also does not afford the opportunity to correct or re-transmit the consult(s). The main advantage of this option is that is gives you a hard-copy of the incomplete IFC transactions.

In this example this incomplete IFC Transactions Report is displayed on the computer screen:

IFC Transaction Report

This option lists the current contents of the IFC Message Log (#123.6) file for one or all consults. This log is used by the Inter-Facility Consults software to insure transmission of Inter-Facility Consult requests. The IFC background job checks this log and takes appropriate action on requests that have not yet successfully completed.

Completed transactions are deleted by the software after a period of time. You can control this function by using the Edit IFC Processing Parameters [GMRC IFC PARAMETER EDIT] option, set the GMRC RETAIN IFC ACTIVITY DAYS (Days to retain IFC transactions) parameter to a number between 7 and 180. If this parameter is not set, completed transactions will be retained for 7 days. The higher the number set in this parameter the more disk space will be used by the IFC MESSAGE LOG file.

See the section on Error Handling below for more complete details.

At the "Select Consult/Request Number:" prompt, you may enter any one of the following:

- ALL to list all entries.
- The consult number to list that single consult.
- The patient name to select a consult from the consults on file for that patient.
- The to or from service to select a consult from the consults to or from that service.
- The date of request to select a consult originated on that date.
- The CPRS status, such as PENDING or PARTIAL RESULTS, to select a consult with that status.
- The sending provider to select a consult originated by that provider.

In the following example, we list all entries in the IFC Transaction Log:

```
Select IFC Management Menu Option: ?
         Test IFC implementation
  LI
         List incomplete IFC transactions
   IFC
         IFC Requests
         IFC Transaction Report
         Locate IFC by Remote Cslt #
        Monitor IFC background job parameters
   ΑI
         Print All Incomplete IFC Transactions
   EР
         Edit IFC Processing Parameters
   ΙP
         IFC Requests By Patient
         IFC Requests by Remote Ordering Provider
   IR
  MP
         Configure test account patients for IFC
  PΤ
         Print IFC Requests
Select IFC Management Menu Option: TR IFC Transaction Report
NOTE: Successful transactions are deleted after one week.
Select Consult/Request Number: ALL// ?
Answer with REQUEST/CONSULTATION NUMBER, or FILE ENTRY DATE, or
    PATIENT NAME, or TO SERVICE, or FROM, or DATE OF REQUEST, or
```

CPRS STATUS, or SENDING PROVIDER, or ASSOCIATED RESULTS Do you want the entire 2033-Entry REQUEST/CONSULTATION List?

Select Consult/Request Number: ALL// <Enter>
List From Starting Date: ALL DATES// <Enter>

View by (C)onsult, (D)ate, (A)ctivity, or (M)essage Status: Consult// <Enter>

TD0 D .		T 21 00000000.F6.F0	D . 1 . 2
IFC Transact		Jan 31, 2002@07:56:59	Page: 1 of 3
•	s) for consult#:		
Consult	Entry Date/Time	Activity	Error .
2206	11/21/01 15:47	CPRS RELEASED ORDER	Local or unknown MPI ide
2219	11/26/01 16:06	CPRS RELEASED ORDER	Service not matched to r
2229	11/29/01 09:35	CPRS RELEASED ORDER	Service not matched to r
9907	12/20/01 10:41	CPRS RELEASED ORDER	Service not matched to r
9919	01/29/02 12:12	SIG FINDING UPDATE	Error in Service name
9919	01/29/02 12:15	SIG FINDING UPDATE	Unknown Patient
9921	01/09/02 09:53	FORWARDED FROM	Local or unknown MPI ide
9937	01/17/02 12:34	CANCELLED	Unknown Patient
9937	01/17/02 14:30	CANCELLED	Local or unknown MPI ide
9937	01/17/02 14:54	CANCELLED	Local or unknown MPI ide
9937	01/17/02 15:09	CANCELLED	Local or unknown MPI ide
9937	01/17/02 15:45	CANCELLED	Local or unknown MPI ide
9937	01/17/02 16:05	CANCELLED	Local or unknown MPI ide
9940	01/23/02 16:01	COMPLETE/UPDATE	No Error
9940	01/23/02 16:07	INCOMPLETE RPT	Service not matched to r
9940	01/23/02 16:24	DISASSOCIATE RESULT	Unknown Patient
9940	01/23/02 16:25	DISASSOCIATE RESULT	Local or unknown MPI ide
+ En	iter ?? for more a	ctions	>>>

SC Select new Consult DD Detailed Display
PL Print List CV Change View
Select action:Next Screen// DD

Select a Consult number from the display: (1-9999999): 2206

IFC Transactions Mar 14, 2002@16:38:17 Page: 1 of 1.

Detailed Display Consult#: 2206

ENTRY DATE/TIME: NOV 21, 2001@15:47:53

FACILITY: BOISE
MESSAGE #: 66036920
ACTIVITY #: 1
INCOMPLETE: YES
TRANS. ATTEMPTS: 1

ERROR: Service not matched to receiving facility

Enter ?? for more actions

DD Detailed Display

PL Print List CV Change View

Select action:Quit//

SC Select new Consult

Locate IFC by Remote Consult Number

This option is designed to assist consulting facilities with consult inquiries from requesting facilities. E.g., "Do you have the consult with Boise number 845?" All other reports are based on the local consult number. When a call is made from a requesting facility for information on the status of a consult, they are not likely to have the consulting facility's number—only their own number for that consult. This option gets around that problem by keying on the original consult number.

In this example, a CAC at Salt Lake assists a Physician at Boise in looking up Boise consult number 845:

```
Select IFC Management Menu Option: ?
         Test IFC implementation
  LI
         List incomplete IFC transactions
   IFC
         IFC Requests
         IFC Transaction Report
  Τ̈́R
         Locate IFC by Remote Cslt #
         Monitor IFC background job parameters
  ΑI
         Print All Incomplete IFC Transactions
         Edit IFC Processing Parameters
  EΡ
  ΙP
         IFC Requests By Patient
        IFC Requests by Remote Ordering Provider
  TR
  MP
         Configure test account patients for IFC
  ΡI
         Print IFC Requests
Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.
Select IFC Management Menu Option: LK Locate IFC by Remote Cslt #
Choose the facility to which the remote entry belongs: ?
Answer with INSTITUTION NAME, or STATUS, or STATION NUMBER, or
    OFFICIAL VA NAME, or CURRENT LOCATION, or NAME (CHANGED FROM)
Do you want the entire INSTITUTION List? N (No)
Choose the facility to which the remote entry belongs: BOISE
       BOISE
                            ID VAMC
    2.
       BOISE
                             ID RO
                                            347
                             ID M&ROC
        BOISE
                                            447
    3
        BOISE
                              ID CHEP
                                            932
CHOOSE 1-4: 1 BOISE
                            ID VAMC
                                           531
Select the Remote Consult Entry #: (1-9999999): 845
    Select one of the following:
                   brief
                   detailed
Display type: B// <Enter> detailed
```

Jan 31, 2002@08:20:11 Consult Detailed Display 1 of Page: TEST, BOB 333-44-7111 DEC 9,1950 (51) Consult No.: 9943 Wt.(lb): No Entry

Current Pat. Status: Outpatient

Order Information

PLASTIC SURGERY To Service:

From Service:

Requesting Provider:

Service is to be rendered on an OUTPATIENT basis

Place: Consultant's choice

Urgency: Routine

Orderable Item:

Consult: Consult Request

Reason For Request:

Can surgery correct this patients aging process??

Inter-facility Information

Enter ?? for more actions

Select Action:Next Screen//

Edit IFC Processing Parameters

This option allows you to edit the three IFC parameters. These are:

- Days to retain complete IFC transactions (GMRC RETAIN IFC ACTIVITY DAYS)
- Alert CLIN group immediately on patient error (GMRC IFC ALERT IMMED ON PT ERR)
- Skip IFC re-transmissions on weekends (GMRC IFC SKIP WEEKEND RE-TRANS)

These are different from the IFC background job parameters which are discussed in the Monitor IFC Background Job Parameters section.

In the following example we use this option to check the settings of these parameters:

```
Select IFC Management Menu Option: EP Edit IFC Processing Parameters

Configure IFC parameters for System: DEVCUR.FO-SLC.MED.VA.GOV

Days to retain complete IFC transactions 14
Alert CLIN group immed. on pt. err YES
Skip IFC re-transmissions on weekends YES

Retention days: 14// <Enter>
Alert CLIN group: YES// <Enter>
Skip weekends: YES// <Enter>
Select IFC Management Menu Option:
```

Monitor IFC Background Job Parameters

This option lists the current state of parameters concerning the IFC background jobs. It also gives an alternate method of changing these parameters. E.G., If the running of the IFC Background job should be delayed for any reason (e.g. to install a GMRC patch or system maintenance), it may be delayed by using the Edit background job start parameter action and setting the start time parameter to a date/time in the future.

In this example, we view the IFC background job parameters:

Select IFC Management Menu Option: BK Monitor IFC background job parameters

RL Refresh background parameter list Mar 14, 2002@16:27:11 1 of IFC Background Parameters Page: 1 Inter-facility Consults background job parameter display The IFC background job last started: Mar 14, 2002@15:48:57
Mar 14, 2002@15:48:57
Mar 14, 2002@15:40:57 The IFC background job is on schedule or is running. It may be delayed by editing the start time to a future date/time using the Edit start time action. Enter ?? for more actions ES Edit background job start parameter RL Refresh background parameter list Select action:Quit//



The Edit Parameter Values [XPAR EDIT PARAMETER] option should not be used to edit the start or finish parameters for the IFC Background job.

Background Task

The IFC background job is an important factor for successful implementation of Interfacility Consults. It is automatically activated by any outgoing IFC activity, and performs the following:

- Monitors entries in the IFC MESSAGE LOG file (#123.6).
- Deletes completed entries from the IFC MESSAGE LOG file (#123.6).
- Re-transmits some entries from the IFC MESSAGE LOG file (#123.6) with errors.
- Sends notifications/mail messages to members of IFC mail groups.
- Schedules itself to run one hour after it finished last.

In addition, the IFC Background Startup option [GMRC IFC BACKGROUND STARTUP] should be scheduled as follows:

- Upon system startup
- Whenever TaskMan unexpectedly stops
- Every 8 hours



Note:

Following installation, you should use the Schedule/Unschedule Options [XUTM SCHEDULE] option to schedule GMRC IFC BACKGROUND STARTUP to run every eight hours. Proper interfacility consult messaging is dependent on this.

This task also starts the background job; the only difference is that this task schedules it at regular intervals.

Note the following system schedule:

```
Edit Option Schedule
Option Name: GMRC IFC BACKGROUND STARTUP
Menu Text: IFC Background Startup

QUEUED TO RUN AT WHAT TIME: JAN 24,2002@12:50

DEVICE FOR QUEUED JOB OUTPUT:

QUEUED TO RUN ON VOLUME SET: CUR

RESCHEDULING FREQUENCY: 8H

TASK PARAMETERS:

SPECIAL QUEUEING: Startup Persistent
```

Notes on the management of the Background Job:

- No Data integrity issues occur if the task or background job stops unexpectedly.
- In rare cases, it is possible to get duplicate IFC mail messages as a result of the background job. The duplicates should be ignored.
- Be sure that **8H** is included in the rescheduling frequency when scheduling the task..
- There are checks built into the background job which prevent it from being run more than once an hour even though multiple events may attempt to trigger it.
- If TaskMan stops running, the task should automatically re-queue for a future date/time.
- The next outgoing IFC activity will also activate the background job.
- Placing TaskMan in a wait state should have no effect on the task.

The Background Job can be prevented from re-transmitting requests with Unknown Patient errors (201) or Local or Unknown MPI Identifiers errors (202) to the consulting facility on Saturday or Sunday. This is done using the Edit IFC Processing Parameters [GMRC IFC PARAMETER EDIT] option and setting the Skip IFC re-transmissions on weekends (GMRC IFC SKIP WEEKEND RE-TRANS) parameter to YES.

Error Handling

In general, Inter-Facility Consults uses the Kernel alert system to notify key people of errors occurring in the system. Errors typically take the form of HL7 messages that cannot be properly delivered or processed.

In the case of inability to deliver a message, the system will retry automatically about one hour after the last attempt. In many of these cases, the error will resolve itself.

If the cause is missing file information, personnel assumed to have responsibility for that information are notified. The error may be in consult or procedure files, but it also may be in the patient file (i.e., the patient not identifiable at both sites). Once the file entries have been corrected, the system automatic retry will detect the new information and resolve the error.

Inter-Facility Consult Errors

Key:

Requesting site: Facility at which the original consult request was made.

Consulting site: Facility tasked with fulfilling the consult request. Originating site: Facility at which the current action occurred.



Note:

Some of the Follow-up actions listed below require the use of FileMan. Others can be accomplished with the Consults actions such as Setup Services (SS) and Setup Procedures (PR). Once corrections are made, the activity can be retransmitted using the RETRANSMIT AN IFC ACTIVITY action of the List Incomplete IFC Transactions [GMRC IFC INC TRANS] option.

Error 101—Unknown Consult/Procedure request

Cause	Actions Taken	Follow-up
Unknown Consult or	Originating Site:	Originating Site:
Procedure request	Notification sent to mail	Correct the REMOTE
number.	groups: IFC TECH	CONSULT FILE
	ERRORS.	ENTRY in the Request/
		Consultation file (#123)
		& retransmit the activity
		in the IFC Message Log
		(#123.6)

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>

Patient Name: <patient name>
SSN: <social security number>
To Service: <to service>
(Procedure:

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Unknown Consult/Procedure request

Error 201—Unknown Patient

Cause	Actions Taken	Follow-up
Unknown Patient.	Consulting site: E-mail	Consulting site: Register
Patient has either never	message sent to mail	patient. If the patient
been registered at the	group: IFC PATIENT	being registered is a new
Consulting facility or the	ERROR MESSAGES at	patient at your site, a
Master Patient Index	the consulting facility.	query is sent to the
(MPI) Integration	This message is renewed	Master Patient Index. If
Control Number (ICN)	every 3 hours and is	the MPI finds an exact
does not match that from	continued until the error	match, that MPI ICN will
the requesting site.	is corrected. IFC CLIN	be assigned. If the MPI
	ERRORS receives mail	finds potential matches, a
	message every 24 hours	local ICN is assigned and
	until the error is resolved.	an exception is logged
	Requesting site: IFC	for human resolution
	CLIN ERRORS is	using the MPI/PD
	notified. This occurs	Exception Handling [RG
	either immediately (if	Exception Handling]
	GMRC IFC ALERT	option.*
	IMMED ON PT ERR	
	parameter is set to YES)	
	or every 24 hours until	
	the error is resolved.	

^{*} If patient has a locally assigned ICN, use the Single Patient Initialization to MPI [MPIF IND MPI LOAD] to match record with the Requesting site's national ICN. If patient has a national MPI ICN which does not match, use the Inactivate Patient from MPI [MPIF PAT INACT] and then the Single Patient Initialization to MPI [MPIF IND MPI LOAD] to match record with the Requesting site's national ICN. If unable to inactivate patient from the MPI or if further information is required, refer to the Master Patient Index/Patient Demographics (MPI/PD) User and Master Patient Index/Patient Demographics Exception Handling Manuals for detailed instructions.

Example of Notification/Mail Message

Consulting site:

```
Subj: Incoming IFC patient error, <patient name> [#47056] 31 Oct 01 13:08
From: CONSULT/REQUEST TRACKING PACKAGE In 'IN' basket. Page 1 *New*
An Inter-facility Consult for the following patient has been requested.
The patient has either never been registered at your facility or the national
MPI ICN for this patient at your site does not match that from the requesting
site. Please refer to the Master Patient Index/Patient Demographics (MPI/PD)
User Manual and Master Patient Index/Patient Demographics Exception
Handling Manuals to resolve this error so request may be processed.
Patient demographics from <site name>
   Patient name: <patient name>
           SSN: <patient ssn>
  Date of birth: <patient dob>
           Sex: <patient sex>
     Remote ICN: <remote integration control number>
Ordered Service: FOOT CLINIC
   The error is: Unknown Patient (201)
```

Requesting site:

```
Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>
Patient Name: <patient name>
SSN: <social security number>
To Service: <to service>
(Procedure: <procedure>)

Activity Date/Time/Zone Responsible Person Entered By <data>

The error was: Unknown patient (201)
```

Error 202—Local or Unknown MPI Identifiers

Cause	Actions Taken	Follow-up
Patient is missing an	Requesting site: A mail	
Integration Control	message is sent to the IFC	Requesting site: If
number (MPI number) or	PATIENT ERROR	patient exists on the
the ICN is a locally	MESSAGES mail group.	requesting site's VistA
assigned number.	Message is renewed	system but does not have
	every 3 hours. Also, an	a national ICN (is
	entry is inserted in the	missing an ICN or has a
	message log with this	locally assigned ICN),
	error attached. As long as	use the Single Patient
	the error is still	Initialization to MPI
	unresolved, the IFC	[MPIF IND MPI LOAD]
	CLIN ERRORS group is	which will send a query
	alerted to the problem	to the MPI. If the MPI
	approximately every 24	finds an exact match, that
	hours.	MPI ICN will be
		assigned. If the MPI
		finds potential matches, a
		local ICN is assigned and
		an exception is logged
		for human resolution
		using the MPI/PD
		Exception Handling [RG
		Exception Handling]
		option. Refer to the
		Master Patient
		Index/Patient
		Demographics (MPI/PD)
		User and Master Patient
		Index/Patient
		Demographics Exception
		Handling Manuals for
		detailed instructions.

Example of Notification/Mail Message

Error 301—Service not Matched to Receiving Facility

Cause	Actions Taken	Follow-up
Sending facility not	Requesting site:	Consulting site: Correct
registered at consulting	Notification sent to mail	the IFC SENDING
facility for the requested	group: IFC CLIN	FACILITY in the
Service.	ERRORS.	Request Services file
		(#123.5) using the Setup
		Consult Services [GMRC
		SETUP REQUEST
		SERVICES] option on
		the Consults
		Management Menu
		[GMRC MGR].

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>

Patient Name: <patient name>
SSN: <social security number>
To Service: <to service>
(Procedure:

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Service not matched to receiving facility

Error 401—Procedure not Matched to Receiving Facility

Cause	Actions Taken	Follow-up
Sending facility not	Requesting site:	Consulting site: Correct
registered at consulting	Notification sent to mail	the IFC SENDING
facility for the requested	group: IFC CLIN	FACILITY in the GMRC
Procedure.	ERRORS.	Procedure file (#123.3)
		using the Setup Procedure
		[GMRC PROCEDURE
		SETUP] option on the
		Consults Management
		Menu [GMRC MGR].

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>
Patient Name: <patient name>
SSN: <social security number>
To Service: <to service>
(Procedure: (procedure:

Activity Date/Time/Zone Responsible

Person Entered By <data>

The error was: Procedure not matched to receiving facility

Error 501—Error in Procedure Name

Cause	Actions Taken	Follow-up
Error in the Procedure	Requesting site:	Requesting site: Correct
name (Procedure name	Notification sent to mail	the IFC REMOTE PROC
not found at consulting	group: IFC CLIN	NAME in the GMRC
facility).	ERRORS.	PROCEDURE file.

Example of Notification/Mail Message Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>

Patient Name: <patient name> SSN: <social security number> To Service: <to service> (Procedure: cedure>)

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Error in procedure name

Error 601—Multiple Services Matched to Procedure

Cause	Actions Taken	Follow-up
Multiple services	Requesting site:	Consulting site: Correct
attached to a Procedure.	Notification sent to mail	the RELATED
	group: IFC CLIN	SERVICES multiple in
	ERRORS.	the GMRC Procedure file
		(123.3) using the Setup
		Procedure [GMRC
		PROCEDURE SETUP]
		option of the Consults
		Management Menu
		[GMRC MGR]. For Inter-
		Facility Consults to work
		correctly, there must be
		only one related service at
		the Consulting Facility.

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>
Patient Name: <patient name>

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Multiple services matched to procedure

Error 701—Error in Service Name

Cause	Actions Taken	Follow-up
Error in service name	Requesting site:	Requesting site: Correct
(Service name not found	Notification sent to mail	the IFC REMOTE
at consulting facility).	group: IFC CLIN	NAME in the REQUEST
	ERRORS.	SERVICES file.

Example of Notification/Mail Message Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>

Patient Name: <patient name> SSN: <social security number> To Service: <to service> (Procedure: cedure>)

Activity Date/Time/Zone Responsible Person Entered By <data>

The error was: Error in service name

Error 702— Service is Disabled Error! Bookmark not defined.

Cause	Actions Taken	Follow-up
Service has been disabled	Requesting site:	Requesting site: Verify
at Consulting Site.	Notification sent to mail	the correct consult was
	group: IFC CLIN	ordered, or work with the
	ERRORS.	Consulting site to enable
		the consult service. The
		consult will remain
		"pending" at the
		requesting site until the
		order is discontinued.

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>

Remote Consult #: <remote consult #>

Patient Name: <patient name> SSN: <social security number> To Service: <to service>

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Service is Disabled

Error 703— Procedure is Inactive

Cause	Actions Taken	Follow-up
Procedure has been	Requesting site:	Requesting site: Verify
inactivated at Consulting	Notification sent to mail	the correct procedure was
Site.	group: IFC CLIN	ordered, or work with the
	ERRORS.	Consulting site to
		activate the procedure.
		The consult procedure
		will remain "pending" at
		the requesting site until
		the order is discontinued.

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>

Remote Consult #: <remote consult #>

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Procedure is Inactive

Error 801—Inappropriate Action for Specified Request

Cause	Actions Taken	Follow-up
Consult records at the	Requesting site: Alerts	Requesting Site:
two facilities may be out	sent to tech mail group.	Contact IRM support at
of synch with regards to		consulting site and
status.		compare records to
		insure they are in synch.

Example of Notification/Mail Message

Error 802 - Duplicate, activity not filed

Cause	Actions Taken	Follow-up
The activity or the	None	None.
consult request in		
question has been		
transmitted to the remote		
site multiple times and is		
already on file.		

Example of Notification/Mail Message

None.

Error 901—Unable to Update Record Successfully

Cause	Actions Taken	Follow-up
Unable to update the	Requesting site: HL7	None.
record at the consulting	message automatically	
facility. The record at the	resent every hour until	
consulting facility is in	satisfied.	
use and locked.		

Example of Notification/Mail Message

None.

Error 902—Earlier Pending Transactions

Cause	Actions Taken	Follow-up
Occurs when an earlier	Requesting Site: Verify	Requesting site: Correct
IFC activity wasn't	pending earlier actions.	previous error actions for
transmitted successfully	Actions will	consult.
to the remote facility.	automatically retransmit	
This assures that a later	every hour.	
activity doesn't get		
transmitted before the		
earlier one is complete		
and will keep the		
requesting and consulting		
facilities in synch. This		
will not send alerts nor		
mail messages.		

Example of Notification/Mail Message

None.

Error 903—HL Logical Link not Found

Cause	Actions Taken	Follow-up
Unable to find HL Link	Originating Site: Verify	Originating site:
to the remote facility. A	the consult service has	Contact IRM to see if
notification will be sent	the correct IFC	there is an HL
to the mail group "IFC	ROUTING FACILITY.	LOGICAL LINK for the
TECH ERRORS."		IFC ROUTING
		FACILITY.

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>
Patient Name: <patient name>
SSN: <social security number>
To Service: <to service>
(Procedure: (Procedure:

Activity Date/Time/Zone Responsible Person Entered By <data>

The error was: HL Logical Link not found

Error 904—VistA HL7 Unable to Send Transaction

Cause	Actions Taken	Follow-up
Unable to transmit HL7	Originating Site:	Originating site: Assure
message	Contact IRM.	that Vista HL7 is
		functioning properly and
		is not in an error state.

Error None

Cause	Actions Taken	Follow-up
Incomplete transmission	Originating site:	Originating site: Review
and no errors.	Notification sent to mail	the local error log and if
	group IFC TECH	necessary, contact the
	ERRORS.	remote facility to
		determine if an error
		occurred and determine
		whether activity needs to
		be re-transmitted.

Example of Notification/Mail Message

Notification: Failed IFC transaction

Upon notification processing:

An error occurred transmitting the following inter-facility consult activity to <site name>:

Consult #: <consult #>
Patient Name: <patient name>
To Service: <to service>
(Procedure:

Activity Date/Time/Zone Responsible Person Entered By

<data>

The error was: Technical error

Summary of Errors

101 U	Cause Juknown Consult or Procedure request number.		
101 U	Jnknown Consult or Procedure request number.		
	*		
201 U	Unknown Patient. (Patient from MPI not registered at the consulting		
f	facility.)		
	Patient is missing an Integration Control number (MPI number) or the		
	ICN is a locally assigned number.		
301 S	Sending facility not registered at consulting facility for the requested		
S	Service.		
401 S	Sending facility not registered at consulting facility for the requested		
P	Procedure.		
501 E	Error in the Procedure name (Procedure name not found at consulting		
f	acility).		
601 N	Multiple services attached to a Procedure.		
701 E	Error in service name (Service name not found at consulting facility).		
702 S	Service is disabled at Consulting Site.		
703 F	Procedure is Inactivated at Consulting Site.		
801	Consult records at the two facilities may be out of synch with regards		
to	o status.		
802 T	The activity or the consult request in question has been transmitted to		
tl	he remote site multiple times and is already on file.		
901 U	Unable to update the record at the consulting facility. The record at the		
С	consulting facility is in use and locked.		
902	Occurs when an earlier IFC activity wasn't transmitted successfully to		
t1	he remote facility. This assures that a later activity doesn't get		
tı	ransmitted before the earlier one is complete and will keep the		
r	requesting and consulting facilities in synch. This will not send alerts		
n	nor mail messages.		
903 U	Jnable to find HL Link to consulting facility.		
904 U	Jnable to transmit HL message.		
None I	ncomplete transmission and no errors.		

Test Account Setup

HL7 Setup (Test Accounts Only)

Information to Gather

The information for the partnering facility can be most efficiently gathered by talking to the VistA systems support staff at the facility from which consults will be requested or received. Use the following table to record the required information from the test accounts at each facility:

HL7 Information Table

Ite	Item	Local facility	Partnering facility
m #		(column A)	(column B)
1	Default Institution ^a		
2	Current domain b		
3	IP address and port# where HL7 is listening		
4	HL LOGICAL LINK associated with DEFAULT INSTITUTION d		

Notes:

- a. DEFAULT INSTITUTION field from the one and only entry in file #8989.3.
- b. DOMAIN NAME field from the one and only entry in file #4.3.
- c. The IP address is the one used to telnet to the system, port number is typically 5025 for test systems.
- d. Usually a nationally exported HL LOGICAL LINK can be found by using VA FileMan to inquire to file 870 and typing in the name or station number of the DEFAULT INSTITUTION. Enter the node name in this block.

Implementation Steps Using the HL7 Information Table

This step is to configure the HL7 system to properly send and receive messages. The process must be done at the local as well as the partnering facility.

To correctly configure the HL7 message header to provide return address information for correct message administration:

- 1. Using the Site Parameter Edit [HL EDIT COMM SERVER PARAMETERS] option, edit the one entry and assure:
 - a. The CURRENT DOMAIN field matches Item #2, column A.
 - b. The CURRENT INSTITUTION field matches Item #1, column A.
 - c. The IS THIS A PRODUCTION OR TEST ACCOUNT? field is set to "training".
 - d. The MAIL GROUP FOR ALERTS field is set to a mail group containing those IRM staff monitoring the HL7 network communications. If there is not such mail group, one should be created and entered here.
- 2. Using FileMan, add a new DOMAIN entry to file 4.2 named exactly the same as Item #2, column B.
 - a. In the *Flags* field, enter "S" for sending.
 - b. Edit the Synonym field following this example:

If the name of the DOMAIN is TEST.ROSEBURG.VA.GOV, you would add TEST.ROSEBURG.VA.GOV and TEST.ROSEBURG.MED.VA.GOV to the synonym field.

If the name of the DOMAIN is TEST.ROSEBURG.MED.VA.GOV, you would add TEST.ROSEBURG.MED.VA.GOV and TEST.ROSEBURG.VA.GOV to the synonym field.

- c. All other fields may be left blank.
- 3. Using the Institution Edit [XU-INSTITUTION-E] option, edit the entry corresponding to Item #1, column A and assure that the DOMAIN field is set equal to Item #2, Column A.
- 4. Using the Institution Edit [XU-INSTITUTION-E] option, edit the entry corresponding to Item #1, column B and assure that the DOMAIN field is set equal to Item #2, Column B.
- 5. Using the Link Edit [HL EDIT LOGICAL LINKS] option, edit the entry from Item #4, column A and assure:
 - a. The INSTITUTION field matches that in Item #1, column A.
 - b. The DOMAIN field matches that in Item #2, column A.
 - c. The LLP TYPE is set to TCP.

- d. On the second page of the form (accessed by pressing return in the LLP TYPE field), assure:
 - i. The TCP/IP SERVICE TYPE field is set to Single Listener (likely a change).
 - ii. The TCP/IP ADDRESS field matches the ip address in Item #3, column A.
 - iii. The TCP/IP PORT field matches the port number in Item #3, column A.

To correctly configure the HL7 message sending information for correct message administration:

- 6. Using the Link Edit [HL EDIT LOGICAL LINKS] option, edit the entry from Item #4, column B and assure:
 - a. The INSTITUTION field matches that in Item #1, column B.
 - b. The DOMAIN field matches that in Item #2, column B.
 - c. The LLP TYPE is set to TCP.
 - d. On the second page of the form (accessed by pressing return in the LLP TYPE field), assure.
 - i. The TCP/IP SERVICE TYPE field is set to CLIENT (SENDER).
 - ii. The TCP/IP ADDRESS field matches the IP address in Item #3, column B.
 - iii. The TCP/IP PORT field matches the port number in Item #3, column B.

To test that the HL7 setup is correct, do the following:

- 7. Using the Start/Stop Links [HL START] option, verify that the logical link in Item #4 Column A is running. (You must assure that the partnering facility has done this also.)
- 8. Test your configuration using the Ping (TCP Only) [HL PING] option, and when prompted for HL LOGICAL LINK NODE, enter the entry in Item #4, column B. If the option states "PING worked," communication between the local facility and the partnering facility is possible. If the option returns any information other than "PING worked," verify the information in the table and repeat steps 1-6.



Note: For proper Inter-Facility Consults implementation, the preceding steps must be carried out at the partnering site as well.

Managing VistA HL7

Much of the management of VistA HL7 for the purposes of Inter-facility Consults will already be done in a production environment, but verifying that it is done will insure the reliability of HL7 messaging for Inter-facility Consults.

Steps involved in starting VistA HL7 filers and links for Inter-Facility Consults.

- 1. Using the Monitor, Start, Stop Filers [HL FILER MONITOR] option:
 - a. Verify that at least one incoming filer and at least 1 outgoing filer are running and are not severely overdue
 - b. If the filers are not running or are overdue, consult the VistA HL7 Site Manager & Developer Manual for the proper mechanism to start the filers.
- 2. Using the Start/Stop Links [HL START] option, select the HL LOGICAL LINK from the table Item #4, column B. If the option indicates when the LLP was last started and asks, "Okay to shut down this job?" answer NO. Otherwise it will start the link up and allow outgoing HL7 messages to be routed through that link.
- 3. Using the Start/Stop Links [HL START] option, select the HL LOGICAL LINK from the table Item #4, column A. If the option indicates when the LLP was last started and asks, "Okay to shut down this job?" answer NO. Otherwise it will ask the method in which to run the receiver. BACKGROUND is the default and recommended setting. If you are not sure, select OUIT.
- 4. Using the TCP Link Manager Start/Stop [HL START/STOP LINK MANAGER] option, you can determine if the HL7 Link Manager is running. If the option states: Link Manager already running!, it will ask if you want to stop the Link Manager. Answer NO. Otherwise this option will start the Link Manager.
- 5. Each of the preceding steps will need to be completed at the partnering facility as well. Once these steps are complete at both facilities, Inter-facility Consults may be ordered and/or processed by your VAMC.

Patient Configuration in Test Systems



Note: The following instructions apply to test systems only.

Patients that will be used for Inter-facility Consults testing must have matching MPI identifiers (Integration Control Number - ICN) in the patient file at both partnering facilities. Since real-time connections with the CIRN-MPI are not readily available from test systems, a utility option is provided to configure patient file entries for use in interfacility consult testing.

The Configure Test Account Patients for IFC [GMRC IFC TEST PT MPI] option can be used to set the ICN for patients in a test account only. This option is to be used after the partnering facilities have agreed upon a patient that will be used for testing. After identifying the patient, each site must assure that the name and social security number are identical on each system. Once this option is executed on each system for the agreed upon patient, inter-facility consult testing may begin using that patient. This process must be repeated for each patient used in testing.

In the following example, we set up a fictional patient to be used in testing at one facility:

```
Select IFC Management Menu Option: MP Configure test account patients for IFC

Select shared patient: CRPATIENT, EIGHT 5-19-46 66666883 2 YES SC
VETERAN

Enrollment Priority: Category: IN PROCESS End Date:

Trying to set test patient ICN...

Done.

Select shared patient:
```

The same option must be executed on a fictional patient with an identical name and social security number at the partnering facility before Inter-Facility consults may be exchanged on that patient.



Note:

- This option will NOT execute in a production VistA system nor is it intended for use there.
- Test system patients with a pseudo-SSN may not be configured using this option.
- Test system patients with 5 leading zeros in their SSN may not be configured using this option.
- The option will warn the user about any test system patient with a possible national MPI identifier (ICN) but will allow overwriting of that ICN.

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