

**Anticoagulation Management Tool
Installation/Implementation Guide
(Patch OR*3.0*391)**



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Introduction

This tool was developed at the Portland VA Medical Center to help simplify the complex, time consuming processes required to manage outpatients on anticoagulation medication.

The tool enables the user to enter, review, and continuously update all information connected with patient anticoagulation management. With the Anticoagulation Management Tool (AMT), one can order lab tests, enter outside lab results and graphically review lab data, enter notes, complete encounter data, complete the consults if consults are used to initiate entry into the Anticoagulation clinic, and print a variety of patient letters. Upon exiting the program all activities within the program are viewable on an Anticoagulation flow sheet located on the Computerized Patient Record System (CPRS) Reports tab. AMT provides clinic staff a mechanism of ensuring continuous patient monitoring *with a built-in mechanism that alerts staff when patients haven't been monitored in a timely period*. A Lost to Follow-up list is maintained to insure that staff knows of patients who need attention.

AMT is being updated to be ready for the International Classification of Diseases, Tenth Revision (ICD-10) coding system when it is implemented. Patch OR*3.0*391 is the patch that will accomplish that update. VA will change over to the ICD-10 coding system at some future date (currently scheduled for October 1, 2015). OR*3.0*391 is accompanied by a new Windows executable file (AntiCoagulate.exe).

Scope

The scope of this manual covers the installation steps performed by a Pharmacy Service Automated Data Processing Application Coordinator (ADPAC) or Clinical Application Coordinator (CAC). Other steps, such as performing the Kernel Installation and Distribution System (KIDS) install and downloading the ZIP file from the anonymous server used for software distribution are performed by members of the Information Technology (IT) or Information Resources Management (IRM) staff, depending on the size and organization of your medical center. These steps are covered in the Patch Description that accompanies the server side (M) code of this application.

OR*3.0*391 introduces two new parameters and modifies two existing parameters. These parameters may need to be configured by CACs at your site.

The remainder of the manual is from the initial installation of AMT or patch OR*3.0*307. The information should help the users configure AMT.

Screen Capture Conventions

In this manual, user responses are shown in bold type. In most cases, you need only enter the first few letters to increase speed and accuracy. Pressing the Return or Enter key, which is indicated by the symbol <Enter>, must follow every response you enter. This symbol is not shown, but is implied, following bold type entries.

Enter a caret, indicated by the symbol (^), at almost any prompt to terminate the line of questioning and return to the previous level in the routine. Continue entering up-arrows to exit the system.

Online Help

In the VistA roll and scroll interface, online help is available at almost any prompt in the software by entering a single question mark (?). This will provide information to help you answer the prompt. In some instances, entering double (??) or triple (???) question marks will provide more detailed information.

The Anti-Coagulation Management (AMT) tool executable also has online help that can be accessed by using the Help | Contents menu item. Users can then use the Contents, Index, or Search features to locate information about the various features of the AMT tool.

Installation of Patch OR*3.0*391

The authoritative source for instructions pertaining to the installation for OR*3.0*391 Anticoagulation Management Tool (AMT) is the patch description available on FORUM.

Pre-Conditions

Before the AMT can be installed, the following packages and patches must be installed and *fully* patched in your accounts.

Application Name	Version
Authorization/Subscription Utility (ASU)	V 1.0
Consult/Request Tracking	V 2.5
Kernel	V. 8.0
Laboratory	V. 5.2
Order Entry/Results Reporting (OE/RR)	V. 3.0
Patient Care Encounter (PCE)	V. 1.0
RPC Broker	V 1.1
Text Integration Utilities (TIU)	V 1.0
ToolKit	V. 7.3
VA FileMan	V. 22.0

Software Retrieval

To obtain the current client- and server-side software, use FTP to retrieve OR_30_391.ZIP and OR_30_391.KID from one of the following OI Field Offices' ANONYMOUS.SOFTWARE directories:

<u>OI Field Office</u>	<u>FTP Address</u>	<u>Directory</u>
Albany	ftp.fo-albany.med.va.gov	anonymous.software
Hines	ftp.fo-hines.med.va.gov	anonymous.software
Salt Lake City	ftp.fo-slc.med.va.gov	anonymous.software

The software distribution includes these files:

<u>File Name</u>	<u>Retrieval Format</u>	<u>Size</u>
OR_30_391.KID	ASCII	
OR_30_391.ZIP	BINARY	

The ZIP file will contain the following files so that sites can install as they would like:

- AMT_1_0_391_7.msi
- AntiCoagulate.exe
- Anticoag_help_file.chm
- The manual set:
 - ORAMIG.DOC
 - ORAMIG.PDF
 - ORAMTM.DOC
 - ORAMTM.PDF
 - ORAMUM.DOC
 - ORAMUM.PDF

Server-Side Installation

The M routines for this patch are included in the OR_3_391.KID. After downloading the files, perform the server install of the OR*3.0*391 released patch by following these steps:

1. **Verify that patch OR*3.0*361 is installed on system before attempting to install OR*3.0*391.**
2. **From the Kernel Installation & Distribution System menu, select the Installation menu:**

```

KIDS Main Menu (XPD MAIN):

      Edits and Distribution ...
      Utilities ...
      Installation ...
      Patch Monitor Main Menu ...
Select Kernel Installation & Distribution System <TEST ACCOUNT> Option:
INstallation
  
```

3. From this menu, choose to Load a Distribution and enter the location of the Host File OR_3_391.KID.

```
1      Load a Distribution
2      Verify Checksums in Transport Global
3      Print Transport Global
4      Compare Transport Global to Current System
5      Backup a Transport Global
6      Install Package(s)
       Restart Install of Package(s)
       Unload a Distribution

Select Installation <TEST ACCOUNT> Option: LOad a Distribution
Enter a Host File: <Path to KID File>OR_30_391.KID

KIDS Distribution saved on Jan 28, 2015@09:55:11
Comment: OR*3*391 TEST v7

This Distribution contains Transport Globals for the following Package(s):
  OR*3.0*391
Distribution OK!

Want to Continue with Load? YES// <Enter>
Loading Distribution...

  OR*3.0*391
Use INSTALL NAME: OR*3.0*391 to install this Distribution.
```

4. From the same menu, you may select to use the following options: (when prompted for INSTALL NAME, enter OR*3.0*391).

```
Use INSTALL NAME: OR*3.0*391 to install this Distribution.

1      Load a Distribution
2      Verify Checksums in Transport Global
3      Print Transport Global
4      Compare Transport Global to Current System
5      Backup a Transport Global
6      Install Package(s)
       Restart Install of Package(s)
       Unload a Distribution

Select Installation <TEST ACCOUNT> Option: 2  Verify Checksums in Transport
Global
Select INSTALL NAME: OR,391  OR*3.0*391    4/17/15@11:52:51
=> OR*3*391 TEST v7  ;Created on Jan 28, 2015@09:55:11

This Distribution was loaded on Apr 17, 2015@11:52:51 with header of
  OR*3*391 TEST v7  ;Created on Jan 28, 2015@09:55:11
It consisted of the following Install(s):
  OR*3.0*391

Want each Routine Listed with Checksums: Yes// <Enter>  YES
DEVICE: HOME// <Enter>  TELNET PORT
```



```

ORAM      Calculated   83839096
ORAM1     Calculated   175474289
ORAM2     Calculated   58023259
ORAMSET   Calculated   59301848
ORAMX     Calculated   169673089
ORAMX1    Calculated   81414252
ORY391    Calculated   58110854

```

7 Routines checked, 0 failed.

Sites can also do the following:

- a. The option PRINT TRANSPORT GLOBAL is an optional function for the installation of this patch. It can provide printed documentation of the components contained in the KIDS build, but again it is optional.
- b. The option COMPARE TRANSPORT GLOBAL TO CURRENT SYSTEM can be run because there is a routine included in this patch that is already on your system. All other routines in the patch are new routines.
- c. The option to BACKUP A TRANSPORT GLOBAL should be run also because there is one routine already on your system, but all the other routines installed are new to the system.

5. To install the patch Select option #6 INSTALL PACKAG(S)

```

1      Load a Distribution
2      Verify Checksums in Transport Global
3      Print Transport Global
4      Compare Transport Global to Current System
5      Backup a Transport Global
6      Install Package(s)
      Restart Install of Package(s)
      Unload a Distribution

Select Installation <TEST ACCOUNT> Option: 6  Install Package(s)
Select INSTALL NAME: OR,391  OR*3.0*391    4/17/15@12:07:28
=> OR*3*391 TEST v7  ;Created on Jan 28, 2015@09:55:11

This Distribution was loaded on Apr 17, 2015@12:07:28 with header of
OR*3*391 TEST v7  ;Created on Jan 28, 2015@09:55:11
It consisted of the following Install(s):
OR*3.0*391
Checking Install for Package OR*3.0*391

```

6. When Prompted "Want KIDS to INHIBIT LOGONs during the install? O//" respond NO.

7. When Prompted "Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//" respond NO.

```

Want KIDS to INHIBIT LOGONs during the install? NO// <Enter>
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO// <Enter>

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME// <Enter>  HOME

```

```

OR*3.0*391
-----
Installing Recurrent PE = 416.2
Installing TIA = 435.9
Installing Valve-Mech = V43.3
Installing Valve-Tissue = V42.2
Updating Routine file...
Updating KIDS files...
OR*3.0*391 Installed.
      Apr 17, 2015@12:09:32

Not a production UCI

NO Install Message sent
-----
100% Complete
  25      50      75

Install Completed

```

Configuring Clinics with Default Codes and Additional Indications

After successful installation of the OR*3.0*391, IT staff should confer with local CACs and AMT users to:

1. Set the appropriate values for the Automatic Primary and Secondary Indications for Care to be used in each Anticoagulation Clinic. To receive proper workload credit, these should be set as follows:

Auto Primary Indic for Care (ICD-9-CM)	V58.83
Auto Secondary Indic for Care (ICD-9-CM)	V58.61
Auto Primary Indic for Care (ICD-10-CM)	Z51.81
Auto Secondary Ind for Care (ICD-10-CM)	Z79.01

This can be done using the ORAM ANTICOAGULATION CLINIC PARAMETERS VistA option, under the ORAM ANTICOAGULATION SETUP menu.

Set up the Anticoagulation Parameters per Clinic

Next, you'll need to set parameters for one or more clinic locations, using the same Anticoagulation Clinic Parameters option:

Note:



All that's required to use the Anticoagulation Management Tool (AMT) for more than one clinic is to repeat the following parameter setup for each clinic.

Before starting the clinic parameter setup, gather the information you need. The following page contains a worksheet is for gathering clinic-specific information. Any parameters left blank on this level inherit the Division parameter.

One major addition to the clinic parameters are the CPT codes AMT uses for different kinds of contacts. These codes may be sensitive to variables such as Inpatient or Outpatient as well as the qualifications of the provider. On close examination you may find that a clinic that is offered daily is staffed by a PharmD on Monday, Tuesday, and Friday and an MD on Wednesday and Thursday. On close examination you actually have two clinics here with a need for different CPT codes. Consult with the coding experts in your facility for guidance. (Both clinics should share the same team lists and the team lists will be processed as if there were only one clinic.)

Make a copy of it for each clinic you are setting up:

Anticoagulation Management Clinic Parameter Worksheet:

Parameter	Value (Clinic)
Clinic Name	
Anticoagulation Team (All)	
Anticoagulation Team (Complex)	
Address Line 1	
Address Line 2	
Address Line 3	
Clinic Phone Number	
Clinic FAX Number	
Toll Free Phone Number	
Point of Contact Name	
Signature Block Name or Clinic	
Signature Block Title	
Consult Link Enabled (Y or N)	
Consult Request Service Name	
PCE Link Enabled (Y or N)	
Auto Primary Indic for Care (ICD-9-CM)	
Auto Secondary Indic for Care (ICD-9-CM)	
Auto Primary Indic for Care (ICD-10-CM)	
Auto Secondary Ind for Care (ICD-10-CM)	
Simple Phone Visit (CPT)	
Complex Phone Visit (CPT)	
Letter To Patient (CPT)	
Orientation Class (CPT)	
Initial Office Visit (CPT)	
Subsequent Visit (CPT)	
Anticoagulation VISIT Clinic Location	
Anticoagulation PHONE Clinic Location	
Anticoagulation NON-COUNT Clinic	
Default Pill Strength	
Include Time with Next INR Date (Y or 0)	
Look-back Days for Appointment Matching	
Look-ahead Days for Appointment Matching	

This is a screen capture of the clinic parameter setup:

```
Select GUI Parameters Option: COAG GUI Anticoagulation Parameters

  D      Division-wide Anticoagulation Parameters
  C      Anticoagulation Clinic Parameters

Select GUI Anticoagulation Parameters Option: C Anticoagulation Clinic Parameters
Select CLINIC: SLC - ANTICOAGULATION          CPRSPROVIDER,SEVEN

Anticoagulation Clinic Params for Location: SLC - ANTICOAGULATION
-----
Clinic Name
Anticoagulation Team (All)
Anticoagulation Team (Complex)
Address Line 1
Address Line 2
Address Line 3
Clinic Phone Number
Clinic FAX Number
Toll Free Phone Number
Point of Contact Name
Signature Block Name or Clinic
Signature Block Title
Consult Link Enabled
Consult Request Service Name
PCE Link Enabled
Automatic Indication for Care
Simple Phone Visit (CPT)
Complex Phone Visit (CPT)
Letter To Patient (CPT)
Orientation Class (CPT)
Initial Office Visit (CPT)
Subsequent Visit (CPT)
Anticoagulation VISIT Clinic Location
Anticoagulation PHONE Clinic Location
Anticoagulation NON-COUNT Clinic
Default Pill Strength
Include Time with Next INR Date
Look-back Days for Appointment Matching
Look-ahead Days for Appointment Matching
-----
Clinic Name: Anticoagulation Main
Anticoagulation Team (All): Anticoagulation M3 Replace <Enter>
Anticoagulation Team (Complex): AMT6A
Address Line 1: VA Medical Center
Address Line 2: 0001 Nonexistent Drive
Address Line 3: Salt Lake City, UT 84148
Clinic Phone Number: (801)000-0092x2222
Clinic FAX Number: (801)000-1096
Toll Free Phone Number: 1-(800)000-4012
Point of Contact Name: Anticoagulation Clinic
Signature Block Name or Clinic: Clinical Pharmacist
Signature Block Title: Anticoagulation Clinic
Consult Link Enabled: YES
Consult Request Service Name: ANTICOAGULATION MANAGEMENT          ANTICOAGULATION
MANAGEMENT
PCE Link Enabled: YES
Auto Primary Indic for Care (ICD-9-CM): v85.83
Auto Secondary Indic for Care (ICD-9-CM): V58.61
Auto Primary Indic for Care (ICD-10-CM): Z51.81
Auto Secondary Ind for Care (ICD-10-CM): Z79.01
Simple Phone Visit (CPT) : <Enter>
Complex Phone Visit (CPT) : <Enter>
Letter To Patient (CPT) : <Enter>
```

CPT codes entered for the clinic override the codes entered for the division. Leave these blank if the division level codes work.

```

Orientation Class (CPT) : <Enter>
Initial Office Visit (CPT) : <Enter>
Subsequent Visit (CPT) : <Enter>
Anticoagulation VISIT Clinic Location: Anticoagulation Main
Anticoagulation PHONE Clinic Location: Anticoagulation Main
Anticoagulation NON-COUNT Clinic: Anticoagulation Main (NON-COUNT)
Default Pill Strength: 5
Include Time with Next INR: YES
Look-back Days for Appointment Matching: <Enter>
Look-ahead Days for Appointment Matching: <Enter>

Anticoagulation Clinic Params for Location: SLC - ANTICOAGULATION is now:
-----
Clinic Name: Anticoagulation Main
Anticoagulation Team (All): Anticoagulation M3 Replace <Enter>
Anticoagulation Team (Complex): AMT6A
Address Line 1: VA Medical Center
Address Line 2: 0001 Nonexistent Drive
Address Line 3: Salt Lake City, UT 84148
Clinic Phone Number: (801)000-0092x2222
Clinic FAX Number: (801)000-1096
Toll Free Phone Number: 1-(800)000-4012
Point of Contact Name: Anticoagulation Clinic
Signature Block Name or Clinic: Clinical Pharmacist
Signature Block Title: Anticoagulation Clinic
Consult Link Enabled: YES
Consult Request Service Name: ANTICOAGULATION MANAGEMENT
PCE Link Enabled: YES
Auto Primary Indic for Care (ICD-9-CM): V85.83
Auto Secondary Indic for Care (ICD-9-CM): V58.61
Auto Primary Indic for Care (ICD-10-CM): Z51.81
Auto Secondary Ind for Care (ICD-10-CM): Z79.01
Simple Phone Visit (CPT) :
Complex Phone Visit (CPT) :
Letter To Patient (CPT) :
Orientation Class (CPT) :
Initial Office Visit (CPT) :
Subsequent Visit (CPT) :
Anticoagulation VISIT Clinic Location: Anticoagulation Main
Anticoagulation PHONE Clinic Location: Anticoagulation Main
Anticoagulation NON-COUNT Clinic: Anticoagulation Main (NON-COUNT)
Default Pill Strength: 5
Include Time with Next INR: YES
Look-back Days for Appointment Matching:
Look-ahead Days for Appointment Matching:
-----
Enter RETURN to continue or '^' to exit:

D Division-wide Anticoagulation Parameters
C Anticoagulation Clinic Parameters

Select GUI Anticoagulation Parameters Option:

```

2. (Optional) Sites can review the items used in the two parameters for additional indications for care: ORAM INDICATIONS FOR CARE and ORAM I10 INDICATIONS FOR CARE.

Client Installation Instructions

The software distribution also includes following files:

- ANTICOAG_HELP_FILE.chm – the Windows help file
- ANTICOAGULATE.EXE – the Windows executable file

Placement of Client Software: Local vs. Network

ANTICOAGULATE.EXE and the help file ANTICOAG_HELP_FILE.CHM need to be copied to a common directory on each workstation used by AMT Clinicians (e.g., C:\Program Files (x86)\Vista\Anticoagulate), or placed on a shared network directory (e.g., \\vhaislXYZ\Anticoagulate), at the site's discretion. Network latency may result in longer launch times, if a network directory is chosen. However, this cost may be offset by increased ease of applying software updates.

You may wish to consider the following rule of thumb:

If the number of workstations on which the client software would need to be installed and updated exceeds ten, then you may wish to place the client software on a shared network directory. Otherwise, place the software locally, to optimize for performance.

Regardless of your decision, the ANTICOAGULATE.EXE and ANTICOAG_HELP_FILE.CHM files must always be installed together in the same directory, if the online help feature is to function properly.

IMPORTANT: Also, please note that the Tools Menu execution of the program does not work unless the .exe is in the same directory on each workstation.

Network Installation

If you have run the software from a server, you can still do that.

To install the ANTICOAGULATE.EXE and ANTICOAG_HELP_FILE.CHM on a server, use the following steps:

1. Replace the old versions of the files on the server.
2. From the .zip file, move the manuals to the appropriate location where users can access them.
3. Verify that the new version of AMT is working.
4. If the new version is working correctly, you can delete the old help files with the .hlp and the .cnt extensions.

Manual Client Installation

To install the application manually on each workstation, the site can run the AMT_1_0_391_7.msi file on the machine. The .msi file will then install the ANTICOAGULATE.EXE and ANTICOAG_HELP_FILE.CHM files. The default location is c:\program files (x86)\vista\AMT. The person installing the software can choose to change the location.

Note: Remember that the ANTICOAGULATE.EXE is usually run from the Tools menu in CPRS. You will need to ensure that it is installed in the same location for the Tools menu item to work correctly. Also, remember that the ANTICOAGULATE.EXE and ANTICOAG_HELP_FILE.CHM files must be in the same directory for the help file to work correctly.

Obtaining Available Documentation Instructions

The following document will be distributed to help sites use the Anti-Coagulation Management Tool. The will be available in the OR_30_391.ZIP and on the [VA Document Library \(VDL\)](#).

- ORAMIG.PDF – Acrobat version of this manual
- ORAMIG.DOC – Microsoft Word version of this manual
- ORAMTM.PDF – Acrobat version of the Technical Manual
- ORAMTM.DOC – Microsoft Word version of the Technical manual
- ORAMUM.PDF – Acrobat version of the User Manual
- ORAMUM.DOC – Microsoft Word version of the User Manual

As with all software releases, the .PDF versions of the documentation is the official version and the one you should rely on for further distribution of the entire manual. The .DOC files are a courtesy to medical centers who want to divide out parts of the manuals, optionally with local.

From OR_30_391.ZIP File

After downloading the OR_30_391.ZIP file. Unzip the file and copy files to the appropriate location so that users can access the documentation.

From VDL

Sites can also download the manuals from the VA Document Library and then copy then to the appropriate directories so that users can access them.

Part B: Configuration from Previous AMT Version

This part of the manual is retained for sites to have previous configuration information only.

Pre-Conditions

Before the AMT can be installed, the following packages and patches must be installed and *fully* patched in your accounts.

Application Name	Version
Authorization/Subscription Utility (ASU)	V 1.0
Consult/Request Tracking	V 2.5
Kernel	V. 8.0
Laboratory	V. 5.2
Order Entry/Results Reporting (OE/RR)	V. 3.0
Patient Care Encounter (PCE)	V. 1.0
RPC Broker	V 1.1
Text Integration Utilities (TIU)	V 1.0
ToolKit	V. 7.3
VA FileMan	V. 22.0
Visit Tracking	V 2.0

Client Installation Instructions:

This information was from the previous patch and is retained here for the site's reference. The installation for patch OR*3.0*307 contained the file OR_30_307.zip . This file was a bundled .ZIP archive and included the following files:

- ANTICOAG HELP FILE.cnt – the help table of contents file
- ANTICOAG_HELP_FILE.HLP – the Windows help file
- ANTICOAGULATE.EXE – the Windows executable file
- CVISIT.RAV – the template file for missed visits
- MAPPT.RAV – the template file for new dosages
- MAPPT NO FAX LABS.RAV – alternate template file for new dosages
- ORAMIG.PDF – Acrobat version of this manual
- ORAMIG.DOC – Microsoft Word version of this manual

- ORAMTM.PDF – Acrobat version of the Technical Manual
- ORAMTM.DOC – Microsoft Word version of the Technical manual
- ORAMUM.PDF – Acrobat version of the User Manual
- ORAMUM.DOC – Microsoft Word version of the User Manual

Sites were instructed to unZIP file OR_30_307.ZIP to a temporary location either on a server or on your workstation depending upon local policies for software installation.

As with all software releases, the .PDF versions of the documentation is the official version and the one you should rely on for further distribution of the entire manual. The .DOC files are a courtesy to medical centers who want to divide out parts of the manuals, optionally with local.

The help files previously consisted of the ANTICOAG HELP FILE.cnt and ANTICOAG_HELP_FILE.HLP. With the new help file Anticoag_help_file.chm, the previous help files can be removed.

Other File Placement



It is against VA security policy to use FAXed results from an outside laboratory

The CVISIT.RAV, MAPPT.RAV, and MAPPT NO FAX LABS.RAV files should be placed in a shared network directory on a file server. These are Rave Reports Template files, which define the format for Letters that your clinicians will send to patients enrolled in the Anticoagulation Management Clinic.

VA Security Policy does NOT allow FAXed results from outside laboratories. Therefore your letters must not reference faxed results from outside laboratories. To remove that reference in the letters you must rename the file MAPPT.RAV to some other name, for example:MAPPT0.RAV, then rename the file MAPPT NO FAX LABS.RAV to MAPPT.RAV. The path to this directory will be identified for the application when you set the Division-wide Parameters, as described in the Installation/ Implementation Guide.

The directory where the .RAV files are located is specified in the parameter setup. In the case of the ANTICOAGULATE.EXE file an example of the parameter setup is given in the [Set up Tools Menu Option for Anticoagulation Management](#) section. By default, the .CNT and .HLP files must be in the same directory. In the case of the two .RAV files an example of the parameter setup is given in the [Set up the Anticoagulation Parameters per Division](#) section.

Reports

The KIDS install places menu options for reports on the server but does not place them into your menu structure. These are:

- Anticoagulation Complication Report [ORAM COMPLICATIONS REPORT]
- All Anticoagulation Patients [ORAM PATIENT LIST ALL]
- Complex Anticoagulation Patients [ORAM PATIENT LIST COMPLEX]
- Next Lab Patient List [ORAM PATIENT LIST NEXT LAB]
- Single Patient TTR [ORAM ROSENDAAL SINGLE PT TTR]
- Calculate TTR (Rosendaal Method) [ORAM ROSENDAAL TTR REPORT]

TTR stands for Time in Therapeutic Range.

The installation also provides two umbrella menu options that provide access to these reports:

- Anticoagulation Management Reports [ORAM REPORTS MENU]

This option includes the commands:

- C Anticoagulation Complication Report
- R Calculate TTR (Rosendaal Method)
- S Single Patient TTR
- P Anticoagulation Patient Lists ...

- Anticoagulation Patient Lists ORAM PATIENT LIST MENU

This includes the commands:

- A All Anticoagulation Patients
- C Complex Anticoagulation Patients

These reports must be assigned to the clinic personnel who need them in the performance of their duties.

To have access to the reports on the menu, users must have them assigned to their menu tree.

Auto Sign-on

The Anticoagulation Management Tool (AMT) can work more effectively if a site allows users to have Auto Sign-on enabled. If a site desires to enable Auto Sign-on the following steps can be employed.

- IRM will decide to turn on Auto sign On for your site by editing the KERNEL SYSTEMS PARAMETERS file (#8989.3). Within 8989.3 set the fields DEFAULT AUTO SIGN-ON to Yes (or 1) and the field DEFAULT MULTIPLE SIGN-ON LIMIT to 2 or greater.
- In the NEW PERSON File (#200) each clinic worker using the Anticoagulator GUI needs to have the field MULTIPLE SIGN-ON set to ALLOWED. This field is accessed through the EVE editing program.
- The RPC client broker (ClAgent.exe) must be installed and running on each clinic workstation.

Auto Sign-on is different from Single Sign-on, which relies on Clinical Context Object Workgroup (CCOW) to work and is not supported by AMT.

Steps for Implementation

1. Assign Menus
2. Check for or Create:
 - A. Team Lists
 - B. TIU Document Definitions
 - C. Clinic Locations
 - D. Consult Service
 - E. DSS Unit
3. Option ORMGR - CPRS Manager Menu
 - Set up the Anticoagulation Parameters per Division
 - Set up the Anticoagulation Parameters per Clinic
1. Set up Tools Menu Option for Anticoagulation Management
5. Set Daily Tasks
 - Run ORAM SET TEAMS

1. Assign Menus

ORAM ANTICOAGULATION CONTEXT is the option used by this application to communicate with the Kernel Broker. You cannot run AntiCoagulate.exe on a workstation unless you have this menu option or you have programmer access mode. All users of this application must have this menu assigned to them as a secondary menu or as part of their primary menu tree.

Users with administrative duties should also have the one or more of the following menus assigned:

- Anticoagulation Management Reports [ORAM REPORTS MENU]
- Anticoagulation Patient Lists [ORAM PATIENT LIST MENU]

2. Check for or Create the following:

Before entering the parameter values that determine the behavior of the application, you'll want to check your system to see whether there are Team Lists, TIU Document Titles, Hospital Locations, Consult Service, and DSS ID entries that can be used for the Anticoagulation Management Tool (AMT) with little or no modifications.

Note:



1. *Be sure to make note of the results of this step for use in step 3, [Option ORMGR - CPRS Manager Menu](#).*

A. Team Lists

Use the Team List Mgmt Menu option [ORLP TEAM MENU] to check whether existing team lists may suffice. In most cases you must create two new team lists:

1. Anticoagulation Team (All)

The Anticoagulation Team (ALL) list, shows all patients scheduled for that team for that day AND any patients NOT completed on previous days. Patients drop off this list as they are completed in the Anticoagulation Management Tool (AMT).

2. Anticoagulation Team (Complex)

The Anticoagulation Team (COMPLEX) patient list pulls out the complex patients so that they are not lost on the larger list (they appear on both lists).

Patients drop off these lists as they are completed in AMT.

This is a FileMan listing for the two team lists that are used for AMT.

NAME: ANTICOAGULATION TEAM (ALL)	TYPE: TEAM PATIENT MANUAL
UPPER CASE: ANTICOAG ALL	CREATOR: CPRSPROVIDER,SEVEN
CREATION D/T: MAY 20, 2003	
USER: CPRSPROVIDER,SIX	
MEMBER: CP. . .	
. . .	
NAME: ANTICOAGULATION TEAM (COMPLEX)	TYPE: MANUAL REMOVAL/AUTOLINK ADDITION
UPPER CASE: ANTICOAG COMPLEX	CREATOR: CPRSPROVIDER,SEVEN
SUBSCRIBE: YES	CREATION D/T: SEP 05, 2003
USER: CPRSPROVIDER,SIX	
USER: CPRSPROVIDER,ONE	
USER: CPRSPROVIDER,SEVEN	
MEMBER: CP. . .	

Please note that it is not necessary to use exactly these same team names because the link between these teams and AMT is explicitly set in the GUI Anticoagulation Parameters.

B. TIU Document Definitions

The Anticoagulation Management Tool (AMT) uses three (3) parameters to store TIU note titles that document an initial visit, an interim or routine visit, and the discharge visit. Use the Edit Document Definitions [TIUF EDIT DDEFS MGR] option to check whether adequate titles are already defined to support these, or create a new Document Class for Anticoagulation, along with these Titles:

(1) Anticoagulation Initial Note

This is the TIU Document Title that identifies the Anticoagulation Initial Assessment Note, which is entered for the patient's first visit upon enrollment in the Clinic.

(2) Anticoagulation Interim Note

This is the TIU Document Title that identifies the Anticoagulation Interim Note, which is entered during the patient's ongoing treatment by the Anticoagulation clinic.

(3) Anticoagulation Discharge Note

This is the TIU Document Title that identifies the Anticoagulation Discharge Note, which is entered upon the patient's discharge from the Anticoagulation clinic.

Note:



If you do not use the VHA ENTERPRISE STANDARD TITLES as shown in the screen capture, then you must use the Title Mapping Utilities ... [TIU MAP TITLES MENU] to map the titles you use to VHA ENTERPRISE STANDARD TITLES.

Make a note of the titles for use in the parameter setup outlined [below](#). Here is a FileMan inquiry from the TIU Document Definition file (8925.1) covering documents needed for Anticoagulation Management:

```
NAME: ANTICOAG INITIAL NOTE ELECTRONIC
PRINT NAME: ANTICOAG INITIAL NOTE
TYPE: TITLE
STATUS: ACTIVE
VHA ENTERPRISE STANDARD TITLE: INITIAL EVALUATION NOTE
MAP ATTEMPTED: DEC 07, 2006@14:58:44
TIMESTAMP: 59372,53350
CLASS OWNER: CLINICAL COORDINATOR
SUPPRESS VISIT SELECTION: YES
MAP ATTEMPTED BY: BRENK,THOMAS M

NAME: ANTICOAG DISCHARGE
PRINT NAME: ANTICOAG DISCHARGE
TYPE: TITLE
STATUS: ACTIVE
VHA ENTERPRISE STANDARD TITLE: PHARMACY COUNSELING DISCHARGE NOTE
MAP ATTEMPTED: DEC 07, 2006@13:35:43
TIMESTAMP: 59457,48152
CLASS OWNER: CLINICAL COORDINATOR
SUPPRESS VISIT SELECTION: YES
MAP ATTEMPTED BY: BRENK,THOMAS M

NAME: ANTICOAGULATION
PRINT NAME: ANTICOAGULATION
TYPE: TITLE
STATUS: ACTIVE
VHA ENTERPRISE STANDARD TITLE: PHARMACY NOTE
MAP ATTEMPTED: DEC 07, 2006@13:37:03
TIMESTAMP: 58834,55125
CLASS OWNER: CLINICAL COORDINATOR
SUPPRESS VISIT SELECTION: YES
MAP ATTEMPTED BY: BRENK,THOMAS M
```

C. Clinic Locations

Use the Set up a Clinic [SDBUILD] option to check whether Clinics exist that you can use in place of these, or to create new Clinic Locations:

1. Anticoagulation VISIT Clinic Location

This should be a Clinic for FACE to FACE visits. The program does not care if **you use the same clinic for both the phone and face to face, but for PCE credit** they must be COUNT CLINICS.

2. Anticoagulation PHONE Clinic Location

This should be a Clinic for Telephone visits. The program does not care if you use the same clinic for both the phone and face to face, but for PCE credit they must be COUNT CLINICS.

3. Anticoagulation NON-COUNT Clinic

This is a NON-COUNT clinic location, which will be used for notes only, when no PCE data is recorded.

If you have only one physical anticoagulation clinic, we strongly urge that you use these names.

The following is a FileMan list showing an example of a typical set of hospital locations that can be used for Anticoagulation Management:

```
FILE 44: HOSPITAL LOCATION

INDEX: 8005                                NAME: EC ANTICOAGULATION
  ABBREVIATION: COAG                       TYPE: CLINIC
  INSTITUTION: PORTLAND (OR) VAMC
  STOP CODE NUMBER: ANTI-COAGULATION CLINIC
  SERVICE: MEDICINE                         PHYSICAL LOCATION: ANTICOAG
  DIVISION: PORTLAND                       NON-COUNT CLINIC? (Y OR N): NO
  CREDIT STOP CODE: CLINICAL PHARMACY     CLINIC MEETS AT THIS FACILITY?: YES
  TYPE EXTENSION: CLINIC                  WORKLOAD VALIDATION AT CHK OUT: YES
SYNONYM: EANTI
  PRINT ACTION PROFILE: YES                DEFAULT APPOINTMENT TYPE: REGULAR
PROVIDER: ORPROVIDER,EIGHT
PROVIDER: m
PROVIDER: n
PROVIDER: h                                DEFAULT PROVIDER: YES
  REQUIRE ACTION PROFILES?: YES            ALLOWABLE CONSECUTIVE NO-SHOWS: 2
  MAX # DAYS FOR FUTURE BOOKING: 390      MAX # DAYS FOR AUTO-REBOOK: 1
PRIVILEGED USER: MA
PRIVILEGED USER: SC
  PROHIBIT ACCESS TO CLINIC?: YES         LENGTH OF APP'T: 15
  DISPLAY INCREMENTS PER HOUR: 15-MIN    OVERBOOKS/DAY MAXIMUM: 25

INDEX: 9727                                NAME: EC ANTICOAG PHONE
  ABBREVIATION: COAG                       TYPE: CLINIC
  INSTITUTION: PORTLAND (OR) VAMC         STOP CODE NUMBER: TELEPHONE/ANCILLARY
  SERVICE: MEDICINE                       DIVISION: PORTLAND
  COLLATERAL VISITS? (Y OR N): NO        NON-COUNT CLINIC? (Y OR N): NO
  CREDIT STOP CODE: ANTI-COAGULATION CLINIC
  CLINIC MEETS AT THIS FACILITY?: YES    TREATING SPECIALTY: GENERAL MEDICINE
  TYPE EXTENSION: CLINIC
```


EXTENDED SPECIAL INSTRUCTIONS: Clinic used for the capture of anti-coag telephone visits - Event Capture creates appointments in this clinic automatically.

Created to separate telephone from provider contact calls, so that patients will not be billed as if they saw a provider when in fact they received a telephone call only.

DATE/TIME CLINIC BUILT: NOV 21, 2003@12:14:10
DEFAULT APPOINTMENT TYPE: REGULAR
PROVIDER: ORPROVIDER,EIGHT
REQUIRE ACTION PROFILES?: NO ALLOWABLE CONSECUTIVE NO-SHOWS: 0
MAX # DAYS FOR FUTURE BOOKING: 11 MAX # DAYS FOR AUTO-REBOOK: 1
LENGTH OF APP'T: 15 DISPLAY INCREMENTS PER HOUR: 15-MIN
OVERBOOKS/DAY MAXIMUM: 0
PATTERN DATE: JAN 19, 2004
...(MANY PATTERN DATES)

NonCount example:

INDEX: 7007 NAME: ANTICOAGULATION LAB +
ABBREVIATION: COAG TYPE: CLINIC
INSTITUTION: PORTLAND (OR) VAMC STOP CODE NUMBER: LABORATORY
SERVICE: MEDICINE PHYSICAL LOCATION: COAG
DIVISION: PORTLAND NON-COUNT CLINIC? (Y OR N): YES
CLINIC MEETS AT THIS FACILITY?: YES INCLUDE ON FILE ROOM LISTS?: YES
TYPE EXTENSION: CLINIC WORKLOAD VALIDATION AT CHK OUT: YES
SYNONYM: COAGLAB
TELEPHONE: 5460 OMNICELL INTERFACE: OMNICELL
PRINT ACTION PROFILE: YES CONFIRMATION LETTER: ANTICOAG
EXCLUDE ON INELIGIBLE SCREEN?: Y
EXTENDED SPECIAL INSTRUCTIONS: DO NOT schedule, reschedule or cancel in this clinic, contact Anticoag at ext 52496.

*** PLEASE NOTE ****

If patient requests sooner or delayed appt than ordered, please send priority email to "G.Anticoag".

Always verify current home telephone!!!

PROGRAM: AREA A COAG
DATE/TIME CLINIC BUILT: MAR 03, 1995@11:14:01
DEFAULT APPOINTMENT TYPE: REGULAR
MAF CONFIRM VET APPT: YES, ON MAF 'CONFIRM LIST'

D. Consult Service

It is highly recommended that you use a consult request to move new patients into this program. If you opt to not use consults, you can skip this step and mark Consult Enabled to No in the parameter setup. However, the only other feature of VistA that might be useful to is the Additional Signers feature of Progress Notes. If you describe a patient's condition, then specify a key member of the Anticoagulation Team, that member will get an alert and be able to read the progress not. All-in-all, using a consult is a much more straight-forward procedure.

Use the Set up Consult Services option [GMRC SETUP REQUEST SERVICES] to determine whether there's already an Anticoagulation Consult Request Service. If you have only one clinic, then it should be called:

Anticoagulation Management

This is the name to the Consult Request Service with which Consult data will be associated for the Anticoagulation clinic. It is used only if the linkage with the Consult Package is enabled.

If there is more than one anticoagulation clinic, then you need a consult service for each of them—appropriately named.

If you are using consults to start anticoagulation management of patients now, you may already have a consult service set up. The pharmacists who use the system (that is, close the consult) need to be users in the Request Service file. To easily allow for coverage and changes to personnel, the whole user class can be assigned. Here is an example of using the Set up Consult Services option [CMRC SETUP REQUEST SERVICES] for Anticoagulation Management:

```
Select OPTION NAME: gmrc mgr          Consult Management

RPT   Consult Tracking Reports ...
SS    Set up Consult Services
SU    Service User Management
CS    Consult Service Tracking
RX    Pharmacy TPN Consults
GU    Group update of consult/procedure requests
UA    Determine users' update authority
UN    Determine if user is notification recipient
NR    Determine notification recipients for a service
TD    Test Default Reason for Request
LH    List Consult Service Hierarchy
PR    Setup procedures
CP    Copy Prosthetics services
DS    Duplicate Sub-Service
IFC   IFC Management Menu ...
TP    Print Test Page

Select Consult Management Option: SS Set up Consult Services
Select Service/Specialty: ANTICOAGULATION MANAGEMENT
SERVICE NAME: ANTICOAGULATION MANAGEMENT Replace
ABBREVIATED PRINT NAME (Optional): Anticoa      Anticoa
INTERNAL NAME: ANTICOAGULATION      ANTICOAGULATION
Select SYNONYM: Coumadin      Coumadin
SERVICE USAGE:
SERVICE PRINTER: Pharm01
```

```

NOTIFY SERVICE ON DC: ALWAYS    ALWAYS
REPRINT 513 ON DC: NEVER    NEVER
PREREQUISITE:
  1>Please be aware that this consult service has required
  2>questions which must be answered in order for your consult to be properly
  3>addressed.
  4>
  5>Anticoagulation Program (ACP) will assume management once patient is
  6>enrolled into program by attending first orientation class, or *if* other
  7>arrangements *are* made directly with clinic. PCP or designee *must* assume
  8>management until pt is enrolled into ACP.
  9> <Enter>
EDIT Option:
PROVISIONAL DX PROMPT: OPTIONAL    OPTIONAL
PROVISIONAL DX INPUT: FREE TEXT    FREE TEXT
DEFAULT REASON FOR REQUEST:
  1> (Template Not Complete)
  2> <Enter>
RESTRICT DEFAULT REASON EDIT: NO EDITING    NO EDITING

Inter-facility information
IFC ROUTING SITE: <Enter>
IFC REMOTE NAME: <Enter>
Select IFC SENDING FACILITY: <Enter>

SERVICE INDIVIDUAL TO NOTIFY: CPRS PROVIDER, SEVEN    CPRSPROVIDER, SEVEN
Select SERVICE TEAM TO NOTIFY: ANTICOAGULATION - ALL    ANTICOAGULATION - ALL
Select NOTIFICATION BY PT LOCATION: <Enter>
PROCESS PARENTS FOR NOTIFS: <Enter>
Select UPDATE USERS W/O NOTIFICATIONS: <Enter>
Select UPDATE TEAMS W/O NOTIFICATIONS: <Enter>
Select UPDATE USER CLASS W/O NOTIFS: PHARMACIST
  Are you adding 'PHARMACIST' as a new UPDATE USER CLASSES W/O NOTIFS (the 1ST
  for this REQUEST SERVICES)? No// (No) ??
Select UPDATE USER CLASS W/O NOTIFS: CLINICAL PHARMACIST
  Are you adding 'CLINICAL PHARMACIST' as a new UPDATE USER CLASSES W/O NOTIFS
  (the 1ST for this REQUEST SERVICES)? No// Y (Yes)
Select UPDATE USER CLASS W/O NOTIFS: PHARMACIST
  Are you adding 'PHARMACIST' as a new UPDATE USER CLASSES W/O NOTIFS (the 2ND
  for this REQUEST SERVICES)? No// Y (Yes)
Select UPDATE USER CLASS W/O NOTIFS: PHARMACY STUDENT
  Are you adding 'PHARMACY STUDENT' as a new UPDATE USER CLASSES W/O NOTIFS
  (the 3RD for this REQUEST SERVICES)? No// Y (Yes)
Select UPDATE USER CLASS W/O NOTIFS: <Enter>
Select ADMINISTRATIVE UPDATE USER: CPRS PROVIDER, SEVEN    CPRSPROVIDER, SEVEN
SRC          Pharmacy          Staff Pharmacist
  Are you adding 'CPRS PROVIDER, SEVEN' as a new ADMINISTRATIVE UPDATE USERS (the
  2ND for this REQUEST SERVICES)? No// Y (Yes)
  NOTIFICATION RECIPIENT: Y YES
Select ADMINISTRATIVE UPDATE USER:
Select ADMINISTRATIVE UPDATE TEAM:
PROCESS PARENTS FOR UPDATES:

SPECIAL UPDATES INDIVIDUAL: CPRS PROVIDER, SEVEN
RESULT MGMT USER CLASS: <Enter>
UNRESTRICTED ACCESS: <Enter>
Select SUB-SERVICE/SPECIALTY: <Enter>
ADMINISTRATIVE: <Enter>

Add/Edit Another Service? NO//

```

Decision Support System Unit

Decision Support System Extracts (DSS) V. 3.0 provides a means of exporting data from selected Veterans Health Information Systems and Technology Architecture (VistA) modules to a Decision Support System (DSS) resident in the VA Austin Information Technology Center (AITC). This system is the VA's only means of complying with the Congressional mandate for the use of a management system that can assign costs to the product level. DSS unit codes were installed with the DSS application and can be checked both here and in the parameter setup to insure the values are correct.

DSS Unit: This is the name to the DSS Unit to which the anticoagulation data will be associated. Use VA FileMan to inquire to the DSS UNIT File to determine whether a DSS Unit for Anticoagulation already exists, and to create a new DSS Unit if an adequate substitute doesn't exist.

Note:



This file must not be directly modified using FileMan! Please contact your local DSS coordinator if a DSS unit needs to be added.

Here is a FileMan printout from the DSS UNIT file (#754):

NAME: ANTICOAG	SERVICE: MEDICINE
MEDICAL SPECIALTY: AMBULATORY CARE	COST CENTER: 820100 Medical
UNIT NUMBER: MMG1	INACTIVE (Y/N): NO
USE FOR EVENT CAPTURE: YES	CATEGORY (Y/N): NO
DATA ENTRY DATE/TIME DEFAULT: NOW	SEND TO PCE: Send All Records
DSS ID from the clinic stop file (40.7)	
NAME: ANTI-COAGULATION CLINIC	AMIS REPORTING STOP CODE: 317
COST DISTRIBUTION CENTER: 2110.00	RESTRICTION TYPE: Either

3. Set Parameters

Parameters are set on the division and clinic level. Any parameter that is on both levels can be inherited; if not set for clinic the division value is used. The division corresponds to the medical center. One or more clinics can be established in each division—at least one clinic must be defined. (Look in Appendix A: Alternate Workflow at [Clinic Setup](#) for a discussion of division/clinic structure.)

Before starting the parameter setup, gather the information you need. Review the screen captures below and make sure you have the correct information for your medical clinic and medical center. Included on the next page is a worksheet that could be used to assist you in this process. Make a copy of it for each Division you are responsible for.

Anticoagulation Management Division Parameter Worksheet:

Parameter	Value (Division)
Your Medical Center Name	
Complete path to network folder where .RAV files are accessible	
The local names for International Normalization Ratio (INR) quick order	
The local names for Complete Blood Count (CBC) quick order	
Track Hematocrit (HCT) or Hemoglobin (Hgb) HGB	
The note titles used for anticoagulation at your site: Anticoagulation Initial Note Title: Anticoagulation Interim Note Title: Anticoagulation Discharge Note Title:	
The Current Procedural Terminology (CPT) codes for Simple telephone Visit: Complex Telephone Visit: Letter to the Patient: Orientation Class: Initial Office Visit: Subsequent Office Visit:	
The Decision Support System (DSS) unit	
DSS ID	

Set up the Anticoagulation Parameters per Division

Starting from the ORMGR option, follow the CPRS Configuration | GUI Parameters | GUI Anticoagulation Parameters menu path, to set up the parameters for each division defined on your VistA system.

```
DEV5A3:CPRS27>D ^XUP

Setting up programmer environment
This is a TEST account.

Terminal Type set to: C-VT320

Select OPTION NAME: ORMGR          CPRS Manager Menu

  CL      Clinician Menu ...
  NM      Nurse Menu ...
  WC      Ward Clerk Menu ...
  PE      CPRS Configuration (Clin Coord) ...
  IR      CPRS Configuration (IRM) ...

Select CPRS Manager Menu Option: PE  CPRS Configuration (Clin Coord)

  AL      Allocate OE/RR Security Keys
  KK      Check for Multiple Keys
  DC      Edit DC Reasons
  GP      GUI Parameters ...
  GA      GUI Access - Tabs, RPL
  MI      Miscellaneous Parameters
  NO      Notification Mgmt Menu ...
  OC      Order Checking Mgmt Menu ...
  MM      Order Menu Management ...
  LI      Patient List Mgmt Menu ...
  FP      Print Formats
  PR      Print/Report Parameters ...
  RE      Release/Cancel Delayed Orders
  US      Unsigned orders search
  EX      Set Unsigned Orders View on Exit
  NA      Search orders by Nature or Status
  DO      Event Delayed Orders Menu ...
  LO      Lapsed Orders search
  PM      Performance Monitor Report

Select CPRS Configuration (Clin Coord) Option: GP  GUI Parameters

  CS      GUI Cover Sheet Display Parameters ...
  HS      GUI Health Summary Types
  TM      GUI Tool Menu Items
  MP      GUI Parameters - Miscellaneous
  UC      GUI Clear Size & Position Settings for User
  RE      GUI Report Parameters ...
  NV      GUI Non-VA Med Statements/Reasons
  EX      GUI Expired Orders Search Hours
  RM      GUI Remove Button Enabled
  NON     GUI Remove Button Enabled for Non-OR Alerts
  CLOZ   GUI Edit Inpatient Clozapine Message
  COAG   GUI Anticoagulation Parameters ...
  EIE    GUI Mark Allergy Entered in Error

Select GUI Parameters Option: COAG  GUI Anticoagulation Parameters

  D      Division-wide Anticoagulation Parameters
  C      Anticoagulation Clinic Parameters
```

```

Select GUI Anticoagulation Parameters Option: d Division-wide
Anticoagulation Parameters

Enter Anticoagulation Management Parameters by Division:

Select INSTITUTION NAME: salt lake city hcs   UT   VAMC   660

Anticoagulation Site Params for Division: SALT LAKE CITY HCS
-----
Medical Center Name                               Salt Lake City VAHCS
Complete path to network folder \\VHAISLMull\OfficeCommon\Anticoagulation Flow
Sheet\
INR Quick Order                                  LRTZ PT WITH INR OP
CBC Quick Order                                  LRTZ CBC SP ONCE
Hematocrit (HCT) or Hemoglobin (Hgb)           HGB
Anticoagulation Initial Note                    ANTI-COAGULATION INITIAL ASSESS
MENT NOTE
Anticoagulation Interim Note                    ANTI-COAGULATION E&M NOTE
Anticoagulation Discharge Note                 ANTI-COAGULATION DISCHARGE NOTE
Simple Phone Visit (CPT)                        99364
Complex Phone Visit (CPT)                      99363
Letter To Patient (CPT)                        99364
Orientation Class (CPT)                       99078
Initial Office Visit (CPT)                    99363
Subsequent Visit (CPT)                        99364
DSS Unit                                         ANTI-COAG CLINIC (317/160
DSS ID                                         ANTI-COAGULATION CLINIC
-----
Medical Center Name: Salt Lake City VAHCS Replace <Enter>
Complete path to network folder: \\VHAISLMull\OfficeCommon\Anticoagulation
Sheet\ Replace <Enter>
INR Quick Order: INR// <Enter> LRTZ PT WITH INR OP LRTZ PT WITH INR OP
CBC Quick Order: CBC// <Enter> LRTZ CBC SP ONCE LRTZ CBC SP ONCE

```

This is the network share directory where RAV template files were placed.

These two orderable items are quick orders set up for the Anticoagulation Clinic. They must have all values populated.

These are the note titles that the tool uses. Your site may have existing note titles or you may need to set some up for this use.

```

Hematocrit (HCT) or Hemoglobin (Hgb): HCT// <Enter> HCT HCT
Initial Note Title: ANTI-COAGULATION INITIAL ASSESSMENT NOTE// <Enter>
ANTI-COAGULATION INITIAL ASSESSMENT NOTE TITLE
Std Title: PHARMACY E & M OF ANTI-COAGULATION NOTE ANTI-COAGULATION INITIAL
ASSESSMENT NOTE TITLE
Std Title: PHARMACY E & M OF ANTI-COAGULATION NOTE
Interim Note Title: ANTI-COAGULATION E&M NOTE// <Enter> ANTI-COAGULATION E&M NOTE
TITLE
Std Title: PHARMACY OUTPATIENT E & M OF ANTI-COAGULATION NOTE ANTI-COAGULAT
ION E&M NOTE TITLE
Std Title: PHARMACY OUTPATIENT E & M OF ANTI-COAGULATION NOTE
Discharge Note Title: ANTI-COAGULATION DISCHARGE NOTE// <Enter> ANTI-COAGULATION
DISCHARGE NOTE TITLE
Std Title: E & M OF ANTI-COAGULATION REPORT ANTI-COAGULATION DISCHARGE NOTE
TITLE
Std Title: E & M OF ANTI-COAGULATION REPORT

```

These are Current Procedural Terminology (CPT) codes. You should look them up in the current American Medical Association's Coding guidelines.

```

Simple Telephone Visit (CPT): 99364// <Enter> 99364 ANTICOAG MGMT, SUBSEQ
99364 ANTICOAG MGMT, SUBSEQ
Complex Phone Visit (CPT): 99363// <Enter> 99363 ANTICOAG MGMT, INIT
99363 ANTICOAG MGMT, INIT
Letter to Patient (CPT): 99364// <Enter> 99364 ANTICOAG MGMT, SUBSEQ
99364 ANTICOAG MGMT, SUBSEQ
Orientation Class (CPT): 99078// <Enter> 99078 GROUP HEALTH EDUCATION
99078 GROUP HEALTH EDUCATION
Initial Office Visit (CPT): 99363// <Enter> 99363 ANTICOAG MGMT, INIT
99363 ANTICOAG MGMT, INIT
Subsequent Office Visit (CPT): 99364// <Enter> 99364 ANTICOAG MGMT, SUBSEQ
99364 ANTICOAG MGMT, SUBSEQ
DSS Unit: ANTICOAG CLINIC (317/160)// ?
Answer with DSS UNIT NAME, or UNIT NUMBER
Choose from:
ADMISSION 2
ANTICOAG CLINIC (147) MMG#
ANTICOAG CLINIC (317/160) MMG#
ANTICOAGULATION CLINIC (317) MMG#
RADIOLOGY ONCOLOGY 1

DSS Unit: ANTICOAG CLINIC (317/160)// <Enter> ANTICOAG CLINIC (317/160) MMG#
ANTICOAG CLINIC (317/160) MMG#
DSS ID: ANTI-COAGULATION CLINIC// <Enter> ANTI-COAGULATION CLINIC 317 ANTI-
COAGULATION CLINIC 317

```

Here parameters needs the Vista Decision Support System (DSS) unit.

And here it's looking for the corresponding DSS ID.

Anticoagulation Site Params for Division: SALT LAKE CITY HCS is now:

```

-----
Medical Center Name Salt Lake City VAHCS
Complete path to network folder \\VHAISLMull\OfficeCommon\Anticoagulation Flow
INR Orderable Item LRTZ PT WITH INR OP
CBC Orderable Item LRTZ CBC SP ONCE
Hematocrit (HCT) or Hemoglobin (Hgb) HGB
Anticoagulation Initial Note ANTICOAGULATION INITIAL ASSESS
MENT NOTE
Anticoagulation Interim Note ANTICOAGULATION E&M NOTE
Anticoagulation Discharge Note ANTICOAGULATION DISCHARGE NOTE
Simple Phone Visit (CPT) 99364
Complex Phone Visit (CPT) 99363
Letter To Patient (CPT) 99364
Orientation Class (CPT) 99078
Initial Office Visit (CPT) 99363
Subsequent Visit (CPT) 99364
DSS Unit ANTICOAG CLINIC (317/160)
DSS ID ANTI-COAGULATION CLINIC
-----

```

Enter RETURN to continue or '^' to exit: <Enter>

```

D Division-wide Anticoagulation Parameters
C Anticoagulation Clinic Parameters

```

Select GUI Anticoagulation Parameters Option:

Set up the Anticoagulation Parameters per Clinic

Next, you'll need to set parameters for one or more clinic locations, using the same Anticoagulation Clinic Parameters option:

Note:



All that's required to use the Anticoagulation Management Tool (AMT) for more than one clinic is to repeat the following parameter setup for each clinic.

Before starting the clinic parameter setup, gather the information you need. The following page contains a worksheet is for gathering clinic-specific information. Any parameters left blank on this level inherit the Division parameter.

One major addition to the clinic parameters are the CPT codes AMT uses for different kinds of contacts. These codes may be sensitive to variables such as Inpatient or Outpatient as well as the qualifications of the provider. On close examination you may find that a clinic that is offered daily is staffed by a PharmD on Monday, Tuesday, and Friday and an MD on Wednesday and Thursday. On close examination you actually have two clinics here with a need for different CPT codes. Consult with the coding experts in your facility for guidance. (Both clinics should share the same team lists and the team lists will be processed as if there were only one clinic.)

Make a copy of it for each clinic you are setting up:

Anticoagulation Management Clinic Parameter Worksheet:

Parameter	Value (Clinic)
Clinic Name	
Anticoagulation Team (All)	
Anticoagulation Team (Complex)	
Address Line 1	
Address Line 2	
Address Line 3	
Clinic Phone Number	
Clinic FAX Number	
Toll Free Phone Number	
Point of Contact Name	
Signature Block Name or Clinic	
Signature Block Title	
Consult Link Enabled (Y or N)	
Consult Request Service Name	
PCE Link Enabled (Y or N)	
Automatic Indication for Care (ICD9)	
Simple Phone Visit (CPT)	
Complex Phone Visit (CPT)	
Letter To Patient (CPT)	
Orientation Class (CPT)	
Initial Office Visit (CPT)	
Subsequent Visit (CPT)	
Anticoagulation VISIT Clinic Location	
Anticoagulation PHONE Clinic Location	
Anticoagulation NON-COUNT Clinic	
Default Pill Strength	
Include Time with Next INR Date (Y or 0)	
Look-back Days for Appointment Matching	
Look-ahead Days for Appointment Matching	

This is a screen capture of the clinic parameter setup:

```
Select GUI Parameters Option: COAG GUI Anticoagulation Parameters

  D      Division-wide Anticoagulation Parameters
  C      Anticoagulation Clinic Parameters

Select GUI Anticoagulation Parameters Option: C Anticoagulation Clinic Parameters
Select CLINIC: SLC - ANTICOAGULATION          CPRSPROVIDER,SEVEN

Anticoagulation Clinic Params for Location: SLC - ANTICOAGULATION
-----
Clinic Name
Anticoagulation Team (All)
Anticoagulation Team (Complex)
Address Line 1
Address Line 2
Address Line 3
Clinic Phone Number
Clinic FAX Number
Toll Free Phone Number
Point of Contact Name
Signature Block Name or Clinic
Signature Block Title
Consult Link Enabled
Consult Request Service Name
PCE Link Enabled
Automatic Indication for Care
Simple Phone Visit (CPT)
Complex Phone Visit (CPT)
Letter To Patient (CPT)
Orientation Class (CPT)
Initial Office Visit (CPT)
Subsequent Visit (CPT)
Anticoagulation VISIT Clinic Location
Anticoagulation PHONE Clinic Location
Anticoagulation NON-COUNT Clinic
Default Pill Strength
Include Time with Next INR Date
Look-back Days for Appointment Matching
Look-ahead Days for Appointment Matching
-----
Clinic Name: SLC - Anticoagulation
Anticoagulation Team (All): SLC - Anticoagulation Replace <Enter>
Anticoagulation Team (Complex): SLC
  1 SLC-ANTICOAGULATION (ALL)
  2 SLC-ANTICOAGULATION (COMPLEX)
CHOOSE 1-2: 2 SLC-ANTICOAGULATION (COMPLEX) SLC-ANTICOAGULATION (COMPLEX)
Address Line 1: George E. Wahlen VA Medical Center
Address Line 2: 500 Foothill Drive
Address Line 3: Salt Lake City, UT 84148
Clinic Phone Number: (801)582-1565x2222
Clinic FAX Number: (801)582-1566
Toll Free Phone Number: 1-(800)613-4012
Point of Contact Name: SLC Anticoagulation Clinic
Signature Block Name or Clinic: Clinical Pharmacist
Signature Block Title: SLC Anticoagulation Clinic
Consult Link Enabled: YES
Consult Request Service Name: ANTICOAGULATION MANAGEMENT          ANTICOAGULATION
MANAGEMENT
PCE Link Enabled: YES
Automatic Indication for Care : V85,83
Simple Phone Visit (CPT) : <Enter>
Complex Phone Visit (CPT) : <Enter>
Letter To Patient (CPT) : <Enter>
```

CPT codes entered for the clinic override the codes entered for the division. Leave these blank if the division level codes work.

Orientation Class (CPT) : <Enter>
 Initial Office Visit (CPT) : <Enter>
 Subsequent Visit (CPT) : <Enter>
 Anticoagulation VISIT Clinic Location: SLC
 1 SLC - ANTICOAG (NON-COUNT) CPRSPROVIDER,SEVEN
 2 SLC - ANTICOAGULATION CPRSPROVIDER,SEVEN
 CHOOSE 1-2: 2 SLC - ANTICOAGULATION CPRSPROVIDER,SEVEN SLC - ANTICOAGULATION
 CPRSPROVIDER,SEVEN
 Anticoagulation PHONE Clinic Location: SLC
 1 SLC - ANTICOAG (NON-COUNT) CPRSPROVIDER,SEVEN
 2 SLC - ANTICOAGULATION CPRSPROVIDER,SEVEN
 CHOOSE 1-2: 2 SLC - ANTICOAGULATION CPRSPROVIDER,SEVEN SLC - ANTICOAGULATION
 CPRSPROVIDER,SEVEN
 Anticoagulation NON-COUNT Clinic: SLC
 1 SLC - ANTICOAG (NON-COUNT) CPRSPROVIDER,SEVEN
 2 SLC - ANTICOAGULATION CPRSPROVIDER,SEVEN
 CHOOSE 1-2: 1 SLC - ANTICOAG (NON-COUNT) CPRSPROVIDER,SEVEN SLC - ANTICOAG (NO
 N-COUNT) CPRSPROVIDER,SEVEN
 Default Pill Strength: 5
 Include Time with Next INR: YES
 Look-back Days for Appointment Matching: <Enter>
 Look-ahead Days for Appointment Matching: <Enter>

Anticoagulation Clinic Params for Location: SLC - ANTICOAGULATION is now:

```

-----
Clinic Name                               SLC - Anticoagulation
Anticoagulation Team (All)                SLC-ANTICOAGULATION (ALL)
Anticoagulation Team (Complex)            SLC-ANTICOAGULATION (COMPLEX)
Address Line 1                             George E. Wahlen VA Medical Ce
nter
Address Line 2                             500 Foothill Drive
Address Line 3                             Salt Lake City, UT 84148
Clinic Phone Number                       (801)582-1565x2222
Clinic FAX Number                         (801)582-1565x2232
Toll Free Phone Number                    1-(800)613-4012
Point of Contact Name                     SLC Anticoagulation Clinic
Signature Block Name or Clinic             Clinical Pharmacist
Signature Block Title                     SLC Anticoagulation Clinic
Consult Link Enabled                       YES
Consult Request Service Name              ANTICOAGULATION MANAGEMENT
PCE Link Enabled                           YES
Automatic Indication for Care              V58.83
Simple Phone Visit (CPT)
Complex Phone Visit (CPT)
Letter To Patient (CPT)
Orientation Class (CPT)
Initial Office Visit (CPT)
Subsequent Visit (CPT)
Anticoagulation VISIT Clinic Location      SLC - ANTICOAGULATION
Anticoagulation PHONE Clinic Location      SLC - ANTICOAGULATION
Anticoagulation NON-COUNT Clinic           SLC - ANTICOAG (NON-COUNT)
Default Pill Strength                      5
Include Time with Next INR Date            Time of Day
Look-back Days for Appointment Matching
Look-ahead Days for Appointment Matching
-----

```

Enter RETURN to continue or '^' to exit:

- D Division-wide Anticoagulation Parameters
- C Anticoagulation Clinic Parameters

Select GUI Anticoagulation Parameters Option:

4. Set up Tools Menu Option for Anticoagulation Management

First, the Anticoagulate.exe file to a reasonable location in your Windows directory structure (e.g., C:\Program Files\Vista\CPRS\)

or a network location (e.g., \\vhaismul2\Anticoagulate). This is a local a decision and placement on a network location may increase response times due to network traffic.

Next, use the GUI Tool Menu Items [ORW TOOL MENU ITEMS] option to create a link to the Executable for specific users who need to access the Anticoagulation Management application:

```
Select GUI Parameters Option: TM GUI Tool Menu Items

CPRS GUI Tools Menu may be set for the following:

    1  User          USR      [choose from NEW PERSON]
    2  Location      LOC      [choose from HOSPITAL LOCATION]
    2.5 Service      SRV      [choose from SERVICE/SECTION]
    3  Division      DIV      [choose from INSTITUTION]
    4  System        SYS      [CPRS27.FO-SLC.MED.VA.GOV]

Enter selection: 1 User      NEW PERSON
Select NEW PERSON NAME: CPRSPROVIDER,SIX CPRSPROVIDER,SIX CHIEF, MEDICAL
SERVICE

----- Setting CPRS GUI Tools Menu for User: IRM
Select Sequence: 1
Are you adding 1 as a new Sequence? Yes//   YES

Sequence: 1// <Enter> 1
Name=Command: &Anticoagulation=c:\progra~1\vista\cprs\anticoagulate.exe s=%SRV
p=%PORT d=%DFN u=%DUZ
Select Sequence: <Enter>
```

The ampersand (&) allows disabled users to access the program with the keyboard shortcut Alt T then A.

Remember, access to this application for specific users is controlled by assigning the option ORAM ANTICOAGULATION CONTEXT to the secondary menu or menu tree of the assigned users.

Note:



It is important to not only install the M portion of this application, but provide for execution of the Windows component. The VA does not use a setup program to do this. Each local VA facility has their own procedures for handling GUI application distribution. It is important that you utilize this procedure to get the executable into appropriate hands.

5. Set Daily Tasks

Run ORAM SET TEAMS

Team lists are created daily by a task job (option: ORAM SET TEAMS) that needs to be set to run every morning prior to the start of the work day. Local site needs to set this. No team lists forms if this does not run.

To set this up use the option Schedule/Unschedule Options [XUTM SCHEDULE] in the Taskman Management [XUTM MGR] menu as in this example:

```
Select Taskman Management Option:  SCHEDULE/UNSCHEDULE OPTIONS

Select OPTION to schedule or reschedule:  ORAM SET TEAMS           Anticoagulation Background
Job

Are you adding 'ORAM SET TEAMS' as a new OPTION SCHEDULING (the 134TH)? No// Y (Yes)
```

```
                                Edit Option Schedule
Option Name:  ORAM SET TEAMS
Menu Text:  Anticoagulation Background Job           TASK ID:
-----

QUEUED TO RUN AT WHAT TIME:  FEB 13,2010@01:00

DEVICE FOR QUEUED JOB OUTPUT:

QUEUED TO RUN ON VOLUME SET:

RESCHEDULING FREQUENCY:  1d

TASK PARAMETERS:

SPECIAL QUEUEING:

-----
Exit      Save      Next Page      Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND:                                     Press <PF1>H for help      Insert
```

Troubleshooting

Team Lists

PROBLEM: Patients with INRs scheduled do not show up on the team list.

SOLUTION: There are several things that can interfere with patients showing up on the team list. They are:

1. The nightly job is not running. The nightly job finds each patient scheduled for an INR the next day and places them on either the ALL team list or the COMPLEX team list. Patients stay on the team list until explicitly removed by the tool.
2. You've set as your default Patient List the Clinic and not the Team. Often there are clinics with identical names as the teams. In the CPRS Patient Selection dialog, select the radio button next to Team/Personal, then select the correct team name. Click the Save Patient List Settings to make this selection permanent.

Lab Quick Orders

PROBLEM: Lab tests missing some parameters.

While using a quick order in the Anticoagulation Management Tool (AMT), not all the order parameters are being filled out correctly. For example, if a quick order does not have the URGENCY populated, an error occurs when VistA tries to process the order.

SOLUTION: Develop quick *orders as completely as possible* for use in conjunction with this AMT application. This may entail building a unique quick order that will only be used by the Anticoagulation application.

Ordering a lab test is triggered by checking a box. There is no prompt to change any order parameters after this, and there really doesn't need to be a prompt if the order is built as needed. Be sure to populate all fields with values appropriate for the clinic that will use them.

Appendix A: Alternate Workflow

Team Lists

Overview

The Anticoagulation Management Tool (AMT) was designed with certain assumptions about the best way to do things. Unfortunately, not every medical center is run the same way. Here are some of the main assumptions used in putting together this tool:

1. Most contacts through the Anticoagulation Clinic correspond to a lab order. The visits are brief and often conducted over the telephone. So appointments are set according to the timing of lab orders, not with the VistA Scheduling application.
2. It is essential that patients not be lost from the system, so AMT uses two mechanisms to keep this from happening:
 - a. All patients are put on a team list corresponding to their lab appointment. The patient persists on the team list until a visit has been achieved.
 - b. Missed visits are always followed up with a reminder letter to the patient.
3. Dosing schedules are easy to mess up. So the tool does several things to simplify dosing:
 - a. Patients are given only one strength of pill. The pill strength is kept track of in the tool.
 - b. Any change in dosing schedule is followed up with a letter to the patient, thus the patient always has written instructions.
4. Most pertinent patient information is kept in the tool for easy access and reference. Progress notes are only used for initial and final visits.

The requirement is that each VA medical facility that dispenses anticoagulation drugs (specifically Warfarin) have a method in place to track patients on these drugs. You do not have to use the VistA Anticoagulation Management Tool to accomplish this, but you must have something as comprehensive as this tool. This tool does not fit perfectly into every business model, but it can be adapted.

Here are some ways AMT can be adapted to local conditions:

Multiple Anticoagulation Clinics

Some medical centers with multiple anticoagulation clinics don't consider the team list approach to be comprehensive enough. They schedule all patients in to their clinics with the VistA Scheduling application. They can then use the reporting features of scheduling to print out Microsoft Excel® spreadsheets of the schedules. This gives a high degree of confidence that clinicians and patients are not being double booked, and provides a visual overview of each day's schedule.

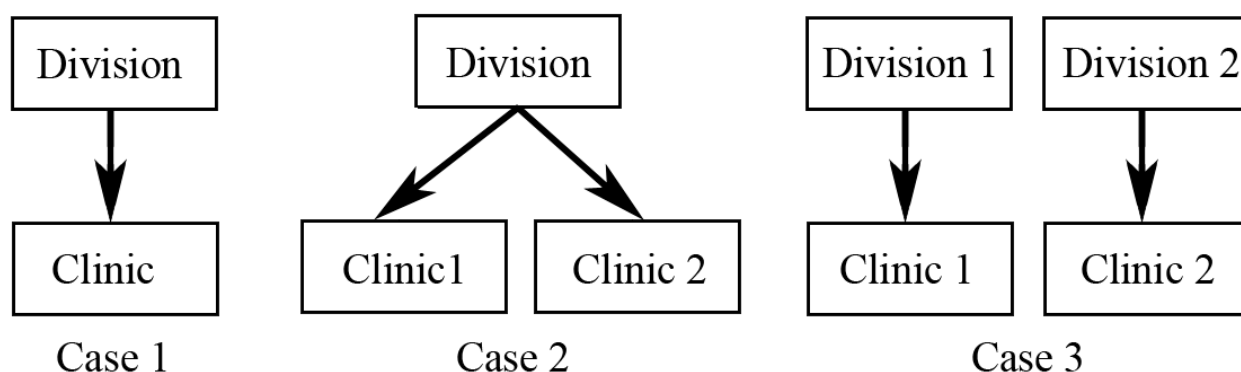
Scheduling

Some clinics use scheduling because they have more confidence in the scheduling application to help manage appointments, because they need better control over workflow reporting, or because medical center policy dictates that they do. To use scheduling with the Anticoagulation Management Tool (AMT) you must go back and forth between the tool and CPRS. Also you must take care to keep CPRS on the same patient as in AMT.

When the scheduling package is the main tool for tracking schedules, AMT is still useful to template interview questions, format progress notes, track INRs, and compare no-shows between the tool and the scheduling package. Most important, the tool tracks and displays all INRs throughout the time the patient is in the program, regardless of who ordered the INR or who the patient met with.

Clinic Setup

When you set up clinic parameters some of the values are inherited from the division. The relationship of division and clinic varies from institution to institution. Here is a representation of some of the possibilities:



Case 1 is the default where there is only one clinic assigned to one division. In this case setting parameters for the division and clinic are sufficient. See the [Set Parameters](#) section of this manual.

Case 2 is what one would expect in a medical center with several Community Based Outpatient Clinics (CBOCs). In this case you must set parameters for the division and for each of the clinics under it. Any parameters that are missing from the clinic setup are filled in from the corresponding parameter at the division level.

Case 3 is as common as case 2 for integrated medical centers. Before you set up a clinic you need to know what division it is assigned to. Information about clinic division assignments is available from your Medical Administration Systems (MAS) sometimes referred to as Patient Information Management System (PIMS) or Hospital Information Management System (HIMS).

However your medical center is organized you need to set up both the clinic and the division as in the Set Parameters section of this manual.

