



Training

Advanced Laboratory Training

Notifications

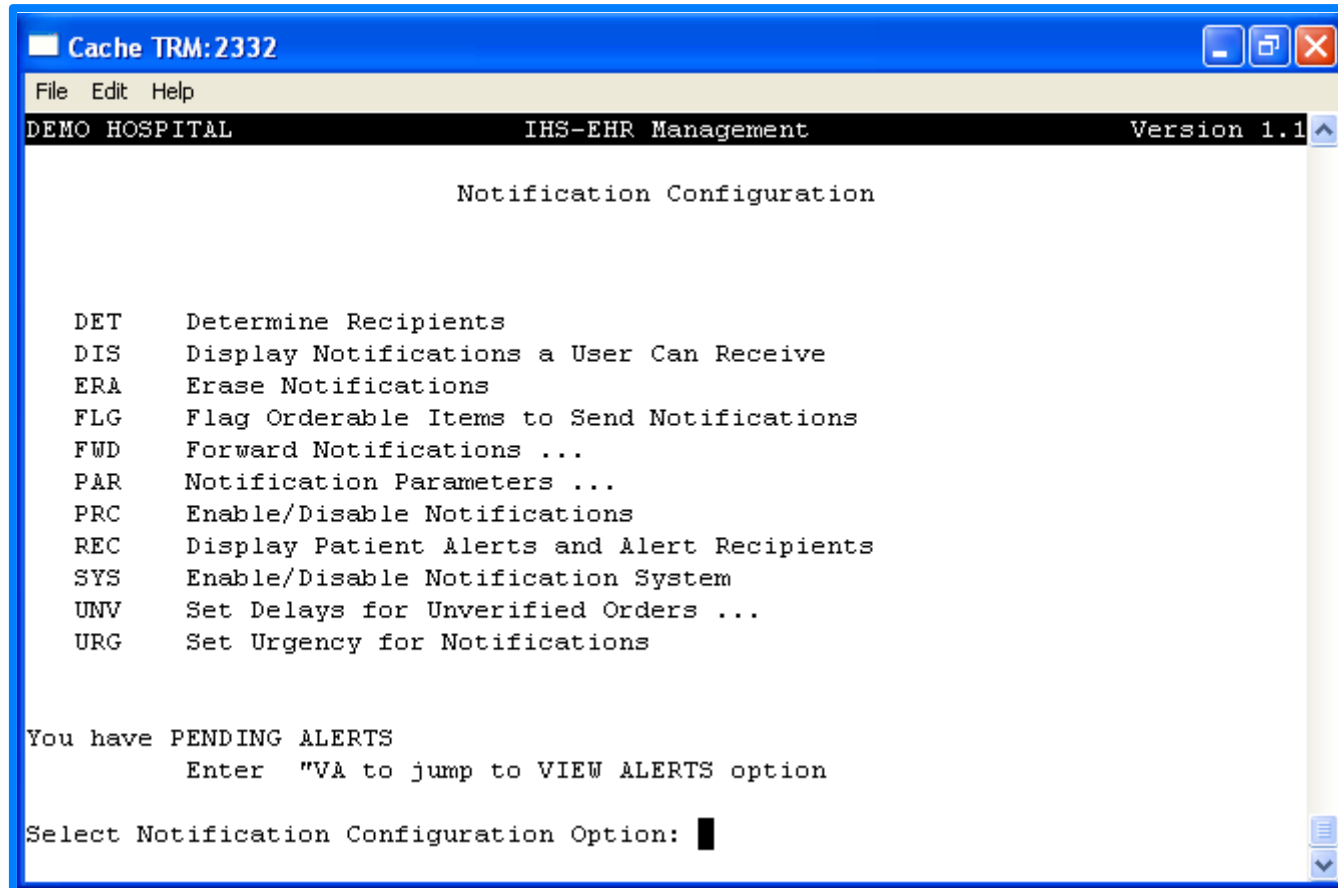
The Indian Health Service
Office of Information Technology



Learning Objectives

- Identify the purpose of the Notifications function in the EHR
- Examine various Notification activities that can be performed in the Notification Management Menu
- Become familiar with the Notifications that a user may receive and how to set the various values associated with Notification parameters
- Each EHR team will be able to customize their facility Notifications by performing the Notification Management Menu Script

Notification Menu



Notification Management Menu

- This menu handles all the notifications.
- SYS turns on the notification system for the facility.
 - Until then NO notifications can be sent.
- Once turned on, all clinicians will receive any mandatory or enabled notifications, even if they are not using the EHR.

Determine Recipients for a Notification

- Allows you to create a simulated notification recipient list, without sending the alert.
- You can see who should be getting the notification.
- Used for troubleshooting.

Recipient Determination (Continued)

- Each user on the potential recipient list is evaluated.
- The parameter's entity values are processed in a specific order to determine if that particular user should receive the notification/alert or not.
- If a user on the recipient list has the notification "ON", they will receive the alert.

Display the Notifications a User Can Receive

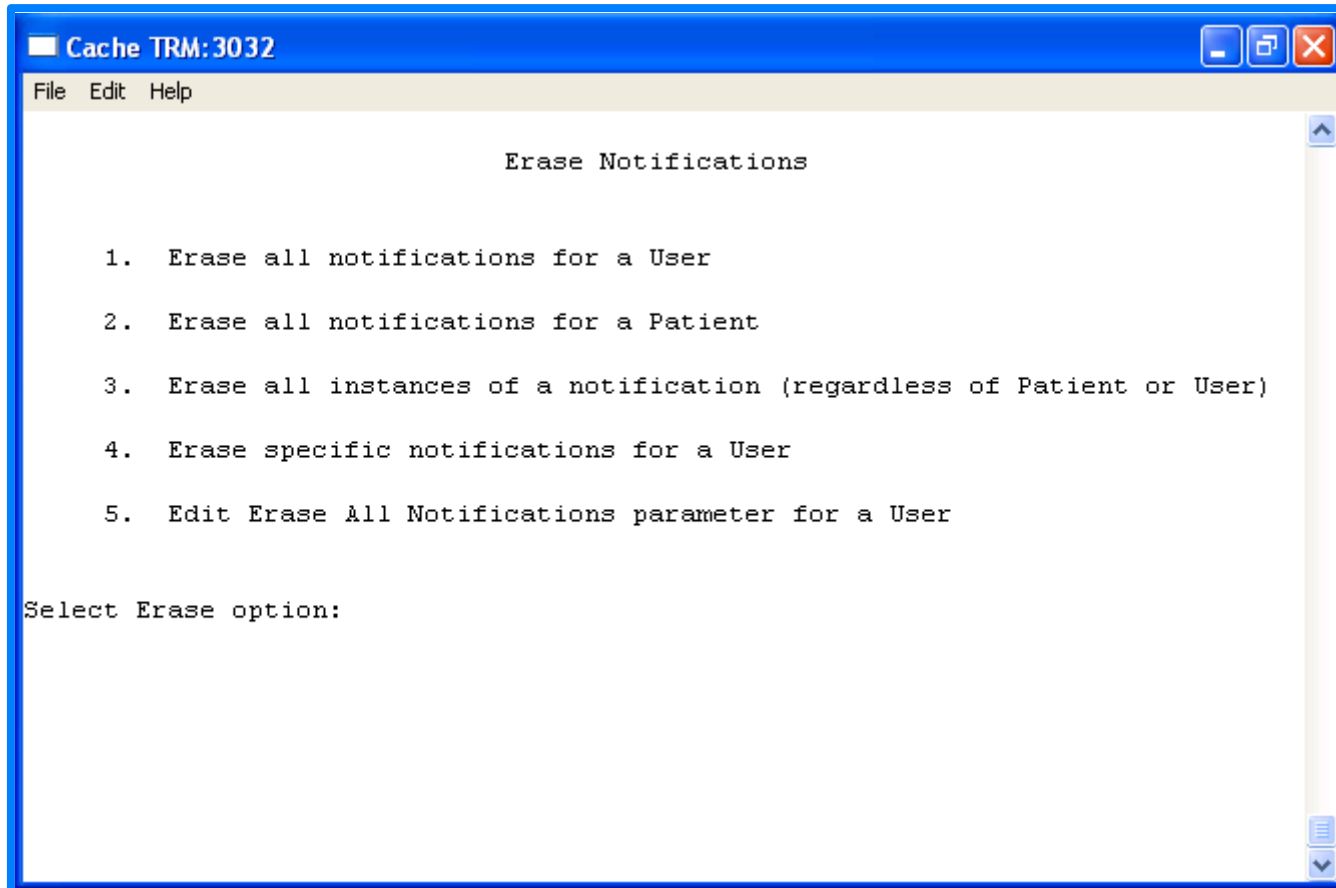
- Debugging tool to help determine why (or why not) notifications are being received by a particular individual.

Display the Notifications a User Can Receive

```
Cache TRM:3032
File Edit Help
Notification List for USER,POWER Page: 1

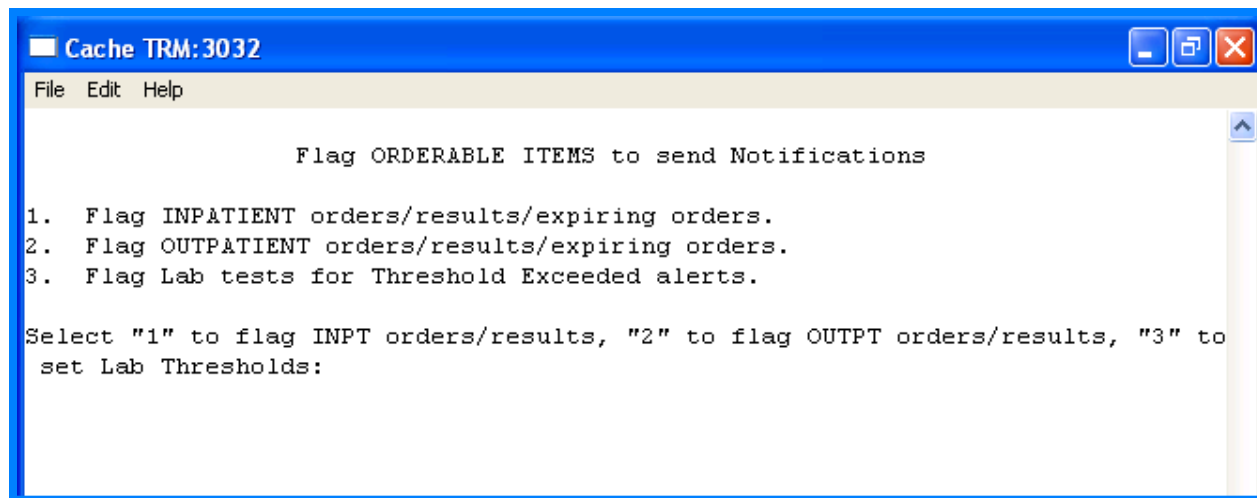
Notification ON/OFF For This User and Why
-----
ABNORMAL IMAGING RESULTS ON System value is Mandatory
ABNORMAL LAB RESULT (INFO) OFF OERR value is Disabled
ABNORMAL LAB RESULTS (ACTION) ON System value is Enabled
ADMISSION ON System value is Enabled
CONSULT/PROC INTERPRETATION OFF OERR value is Disabled
CONSULT/REQUEST CANCEL/HOLD ON OERR value is Enabled
CONSULT/REQUEST RESOLUTION ON System value is Enabled
CONSULT/REQUEST UPDATED OFF OERR value is Disabled
CRITICAL LAB RESULT (INFO) ON System value is Mandatory
CRITICAL LAB RESULTS (ACTION) OFF OERR value is Disabled
DC ORDER OFF OERR value is Disabled
DECEASED PATIENT ON System value is Enabled
DISCHARGE OFF OERR value is Disabled
DNR EXPIRING OFF OERR value is Disabled
ERROR MESSAGE OFF OERR value is Disabled
FLAG ORDER FOR CLARIFICATION ON System value is Enabled
Press RETURN to continue or '^' to exit: █
```

Erase Notifications



Flag Orderable Item(s) to Send Notifications

This option has two sub-options to flag specific orderable items to send notifications when they are ordered, resulted, or expiring.



Forward Notifications

- This option lets you set the number of days to hold a notification before forwarding it to the recipient's supervisor, surrogate, or a backup reviewer.
- Maximum 30 days.
- If not set, the notification will not be forwarded.

Notification Parameters

ALL	Set Show All Notifications
BUL	Send Flagged Orders Bulletin
DEL	Set Deletion Parameters
EMC	Providers that Require an E&M Code
PRG	Set Purging Interval
PRI	Priority Threshold for Popup Alerts
PRV	Set Provider Recipients
RCD	Set Default Recipient Devices
RCP	Set Default Recipients
SRT	Notification Sort Column

Show All Notifications

```
Cache TRM:2332
File Edit Help
DEMO HOSPITAL IHS-EHR Management Version 1.1
Set Show All Notifications

Show All Notifications may be set for the following:

10 User USR [choose from NEW PERSON]
90 Division DIV [DEMO HOSPITAL]
100 System SYS [DEMO.CIAINFORMATICS.COM]

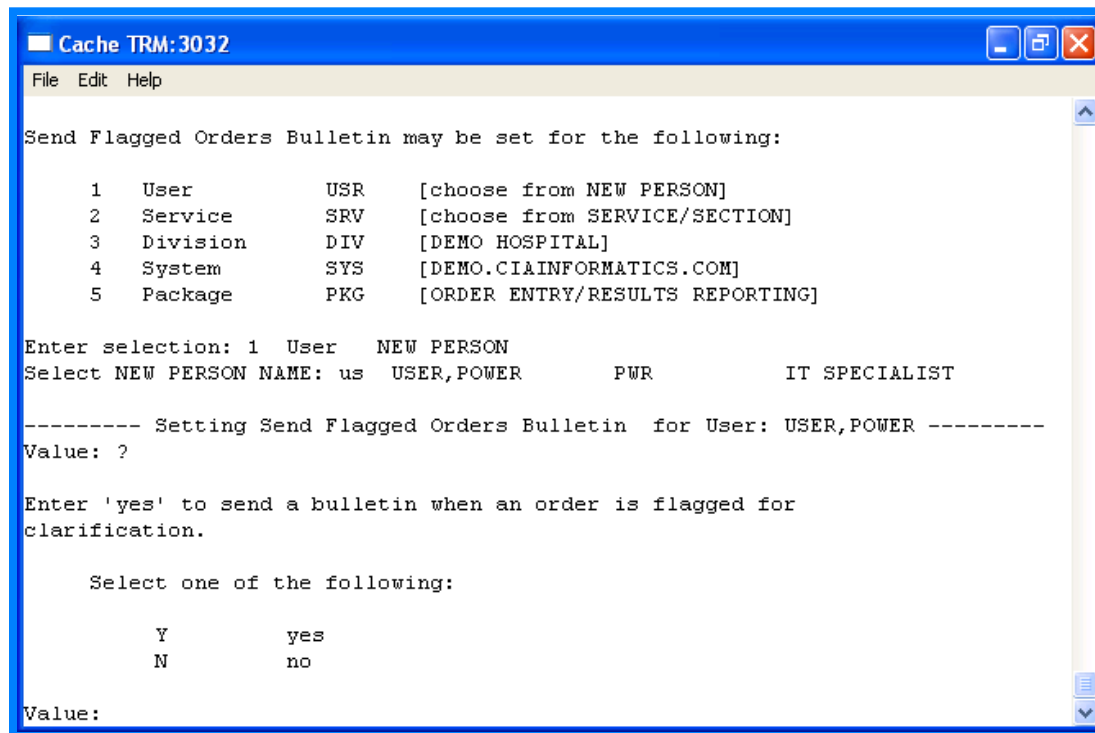
Enter selection: 100 System DEMO.CIAINFORMATICS.COM

---- Setting Show All Notifications for System: DEMO.CIAINFORMATICS.COM ----
Value: YES// █
```

- Do the providers want to see alerts across patients or just for the patient on their screen? The default is to see all alerts.

Send Flagged Orders Bulletin

Indicates whether to send a bulletin when an order is flagged for clarification.



```
Cache TRM:3032
File Edit Help

Send Flagged Orders Bulletin may be set for the following:

1  User          USR    [choose from NEW PERSON]
2  Service       SRV    [choose from SERVICE/SECTION]
3  Division      DIV    [DEMO HOSPITAL]
4  System        SYS    [DEMO.CIAINFORMATICS.COM]
5  Package       PKG    [ORDER ENTRY/RESULTS REPORTING]

Enter selection: 1 User  NEW PERSON
Select NEW PERSON NAME: us  USER,POWER          PWR          IT SPECIALIST

----- Setting Send Flagged Orders Bulletin for User: USER,POWER -----
Value: ?

Enter 'yes' to send a bulletin when an order is flagged for
clarification.

Select one of the following:

      Y          yes
      N          no

Value:
```

Set Deletion Parameters for Notifications

- Allows you to set parameters to determine deletion conditions. It uses a set of codes to determine how a notification will be deleted at a site. The codes include:
 - Individual Recipient
 - All Recipients

Deletion Parameters, cont.

- Individual-deletes the notification for an individual recipient when:
 - That individual completes the follow-up action
 - That individual reviews notifications that do not have follow-up action
- All recipients-deletes the notification for all recipients when:
 - Any recipient completes the follow-up action on notifications
 - Any recipient reviews notifications that do not have follow-up action

Deletion Parameters

```
Cache TRM:3032
File Edit Help
----- Setting Delete Mechanism for Division: DEMO HOSPITAL -----
Select Notification: c
  1  CONSULT/PROC INTERPRETATION
  2  CONSULT/REQUEST CANCEL/HOLD
  3  CONSULT/REQUEST RESOLUTION
  4  CONSULT/REQUEST UPDATED
  5  CRITICAL LAB RESULT (INFO)
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1  CONSULT/PROC INTERPRETATION
Are you adding CONSULT/PROC INTERPRETATION as a new Notification? Yes//  YES

Notification: CONSULT/PROC INTERPRETATION//  CONSULT/PROC INTERPRETATION  CONS
ULT/PROC INTERPRETATION
Value: ?

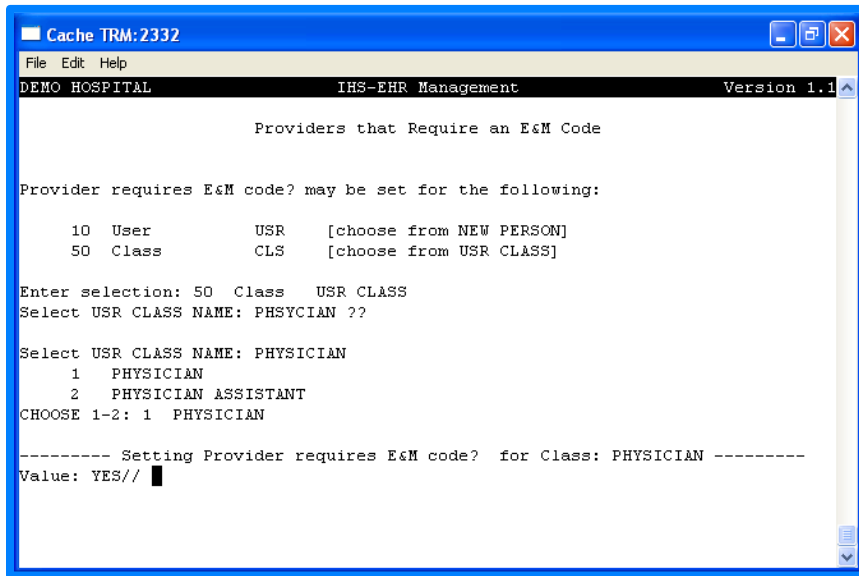
Enter 'I' if deleted on individual review/action; 'A' for all recipients.

  Select one of the following:

      I          Individual Recipient
      A          All Recipients

Value:
```

E&M Code Required



```
Cache TRM:2332
File Edit Help
DEMO HOSPITAL IHS-EHR Management Version 1.1

Providers that Require an E&M Code

Provider requires E&M code? may be set for the following:

10 User      USR  [choose from NEW PERSON]
50 Class     CLS  [choose from USR CLASS]

Enter selection: 50 Class  USR CLASS
Select USR CLASS NAME: PHSYCIAN ??

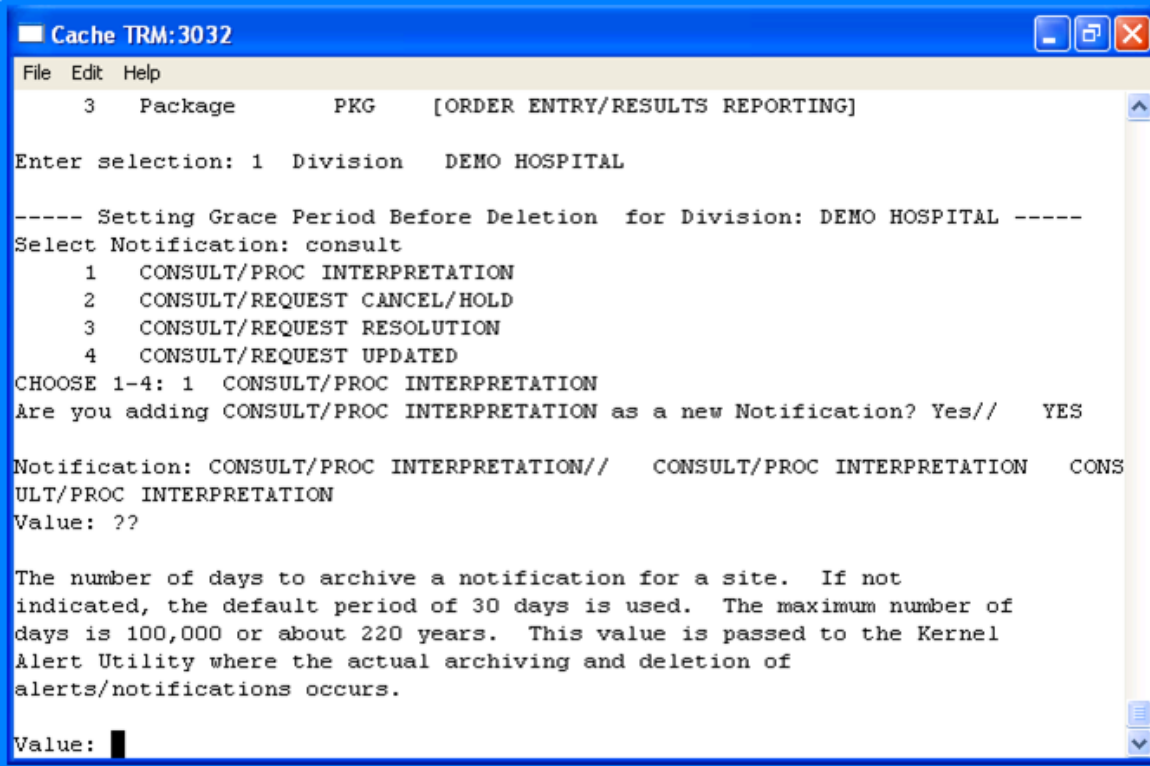
Select USR CLASS NAME: PHYSICIAN
1  PHYSICIAN
2  PHYSICIAN ASSISTANT
CHOOSE 1-2: 1  PHYSICIAN

----- Setting Provider requires E&M code? for Class: PHYSICIAN -----
Value: YES// █
```

- Which user classes need to do E&M coding?

Purging Interval

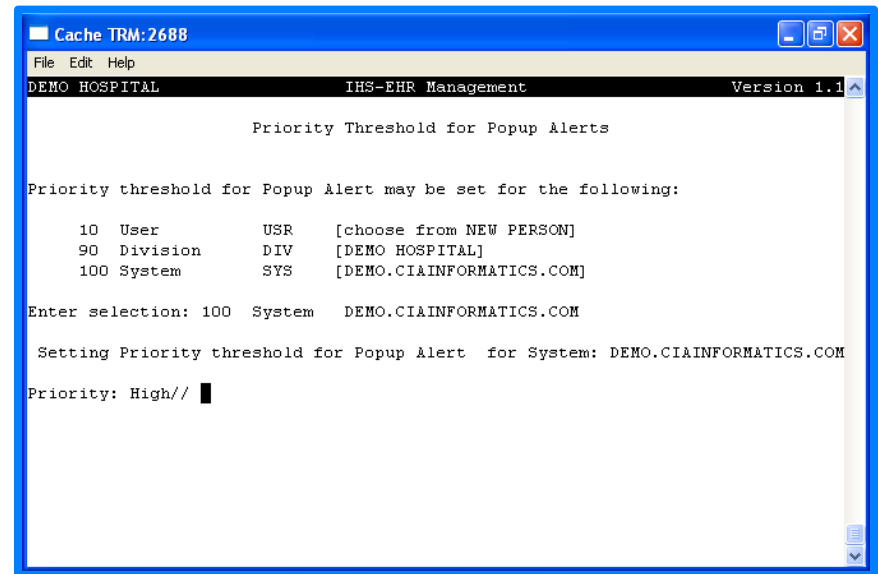
Enter the number of days to archive a notification before deletion in the Alert Tracking file.



```
Cache TRM:3032
File Edit Help
3 Package PKG [ORDER ENTRY/RESULTS REPORTING]
Enter selection: 1 Division DEMO HOSPITAL
----- Setting Grace Period Before Deletion for Division: DEMO HOSPITAL -----
Select Notification: consult
1 CONSULT/PROC INTERPRETATION
2 CONSULT/REQUEST CANCEL/HOLD
3 CONSULT/REQUEST RESOLUTION
4 CONSULT/REQUEST UPDATED
CHOOSE 1-4: 1 CONSULT/PROC INTERPRETATION
Are you adding CONSULT/PROC INTERPRETATION as a new Notification? Yes// YES
Notification: CONSULT/PROC INTERPRETATION// CONSULT/PROC INTERPRETATION CONS
ULT/PROC INTERPRETATION
Value: ??
The number of days to archive a notification for a site. If not
indicated, the default period of 30 days is used. The maximum number of
days is 100,000 or about 220 years. This value is passed to the Kernel
Alert Utility where the actual archiving and deletion of
alerts/notifications occurs.
Value: █
```

Notifications Pop-Up Window

- An instant message pop-up will appear by setting this parameter
- Priority is low, moderate, or high
- If the notification meets the priority set, the pop-up will be generated
- Package value is High



Set Provider Recipients for Notifications

- Determine who is going to get the notification

Set Provider Recipients for Notifications

P=Primary Provider-Inpatient

A=Attending Physician-Inpatient

T=Patient Care Team

O=Ordering Provider

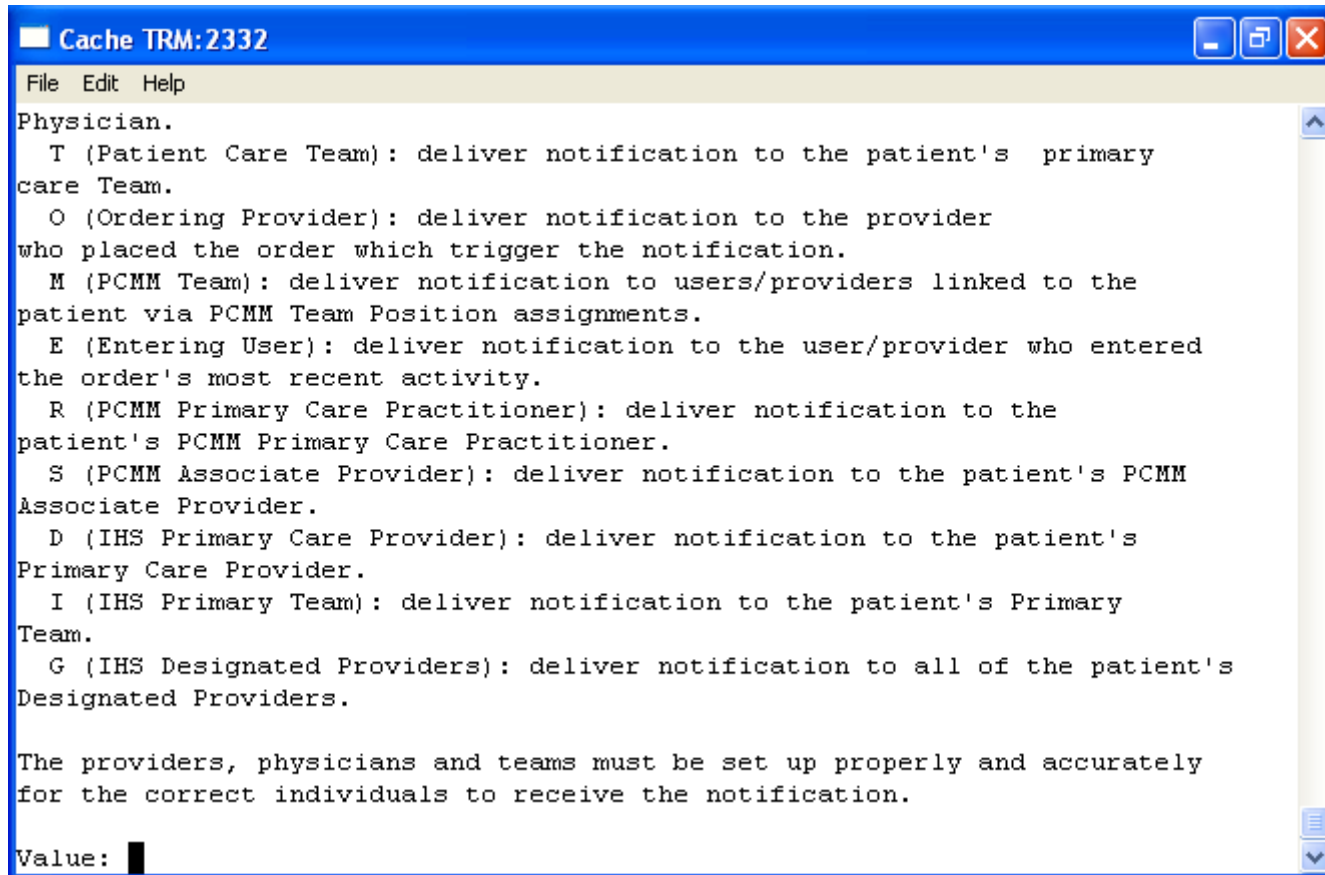
E=Entering User

D=IHS Primary Care provider

I= IHS Primary Care Team

G=IHS Designated Providers

Set Provider Recipients for Notifications



Cache TRM:2332

File Edit Help

Physician.

- T (Patient Care Team): deliver notification to the patient's primary care Team.
- O (Ordering Provider): deliver notification to the provider who placed the order which trigger the notification.
- M (PCMM Team): deliver notification to users/providers linked to the patient via PCMM Team Position assignments.
- E (Entering User): deliver notification to the user/provider who entered the order's most recent activity.
- R (PCMM Primary Care Practitioner): deliver notification to the patient's PCMM Primary Care Practitioner.
- S (PCMM Associate Provider): deliver notification to the patient's PCMM Associate Provider.
- D (IHS Primary Care Provider): deliver notification to the patient's Primary Care Provider.
- I (IHS Primary Team): deliver notification to the patient's Primary Team.
- G (IHS Designated Providers): deliver notification to all of the patient's Designated Providers.

The providers, physicians and teams must be set up properly and accurately for the correct individuals to receive the notification.

Value: █

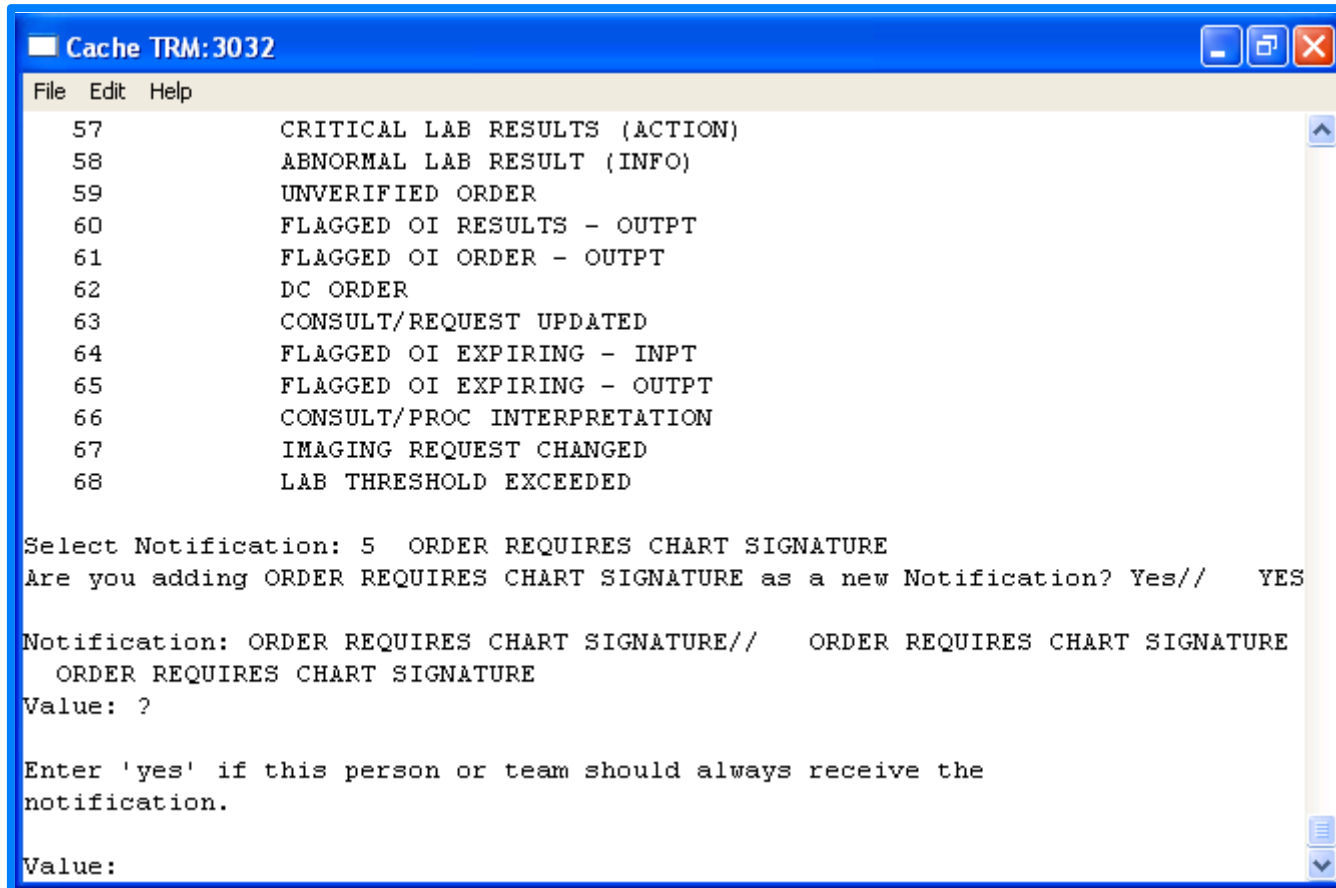
Set Default Recipient Device(s) for Notifications

Can set a printer to receive notifications. The printer will receive the notifications whether the notification is enabled or disabled.

Set Default Recipient(s) for Notifications

- Enter “Yes” if the recipient should always receive this notification. Recipients (users, teams) will receive the notification on a regular basis, despite settings in the option Enable/Disable Notifications.
- Example: Chaplain gets notification for all admissions even if he has turned off the notification.

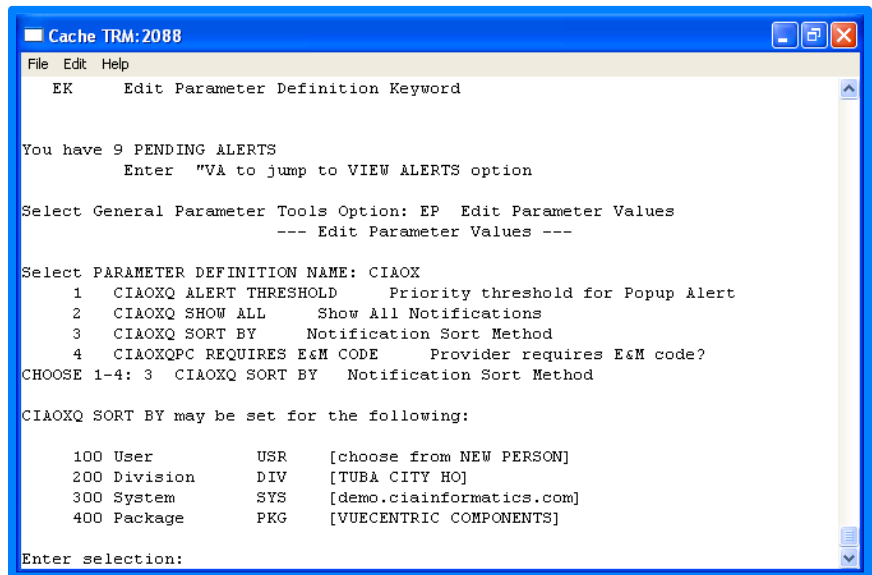
Set Default Recipient(s) for Notifications



Notification Sort Column

Sorting is by:

- Patient
- Type
- Urgency



```
Cache TRM:2088
File Edit Help
EK      Edit Parameter Definition Keyword

You have 9 PENDING ALERTS
Enter  "VA to jump to VIEW ALERTS option

Select General Parameter Tools Option: EP  Edit Parameter Values
--- Edit Parameter Values ---

Select PARAMETER DEFINITION NAME: CIAOX
1  CIAOXQ ALERT THRESHOLD      Priority threshold for Popup Alert
2  CIAOXQ SHOW ALL            Show All Notifications
3  CIAOXQ SORT BY              Notification Sort Method
4  CIAOXQPC REQUIRES E&M CODE  Provider requires E&M code?
CHOOSE 1-4: 3  CIAOXQ SORT BY  Notification Sort Method

CIAOXQ SORT BY may be set for the following:

100 User      USR  [choose from NEW PERSON]
200 Division  DIV  [TUBA CITY HO]
300 System    SYS  [demo.ciainformatics.com]
400 Package   PKG  [VUECENTRIC COMPONENTS]

Enter selection:
```

Enable/disable Notifications

- Turns specific notifications on or off
 - E (Enabled): Notification enabled for entity unless entity of higher precedence has notification disabled (ex. Enabled at System level and Disabled at User level=user will not receive notification)
 - D (Disabled): Notification disabled for entity unless entity of higher precedence has notification enabled
 - M (Mandatory): Notification is mandatory and cannot be disabled

Display Patient Alerts and Alert Recipients

Select Notification Mgmt Menu Option:

PATIENT (req'd): 9-12-44 243236572 YES SC VETERAN
Enrollment Priority: GROUP 1 Category: IN PROCESS End Date:
Start Date/Time (req'd): (JUL 22, 2000)
End Date/Time (req'd): (AUG 21, 2000@14:27)

Processing.....

ALERTS FOR PATIENT: DOE, WILLIAM C

- 1 [2B M] WARFARIN TAB ordered - adjust diet according 8/18/00@15:51
- 2 [2B M] New order(s) placed. [7094486] 8/18/00@10:00
- 3 [2B M] New order(s) placed. [7095466] 8/18/00@09:45
- 4 Lab order canceled: POTASSIUM BLOOD SERUM LC LB # [70954648/18/00@09:42
- 5 Lab order canceled: POTASSIUM BLOOD SERUM LC LB # [70954628/18/00@09:42
- 6 Lab order canceled: POTASSIUM BLOOD SERUM WC LB # [70954588/18/00@09:41
- 7 Lab order canceled: POTASSIUM BLOOD SERUM WC LB # [70954598/18/00@09:41
- 8 [2B MED] New DC order(s) placed. [7095457] 8/18/00@09:41

999 MORE...

Enter alerts to display in detail:

Display Patient Alerts and Alert Recipients, cont.

BUECHLER, MELANIE

1st displayed to recipient:

1st selected by recipient:

Processed by recipient:

Deleted via follow-up:

Auto deleted:

Forwarded by:

Press RETURN to continue or '^' to exit:

RECIPIENTS OF ALERTS FOR PATIENT: DOE, WILLIAM C. Page: 2

Forwarded to recipient:

RUSSELL, JOEL

1st displayed to recipient: Nov 18, 1997@11:47:53

1st selected by recipient:

Processed by recipient:

Deleted via follow-up:

Auto deleted:

Forwarded by:

Forwarded to recipient:

- End of Report -

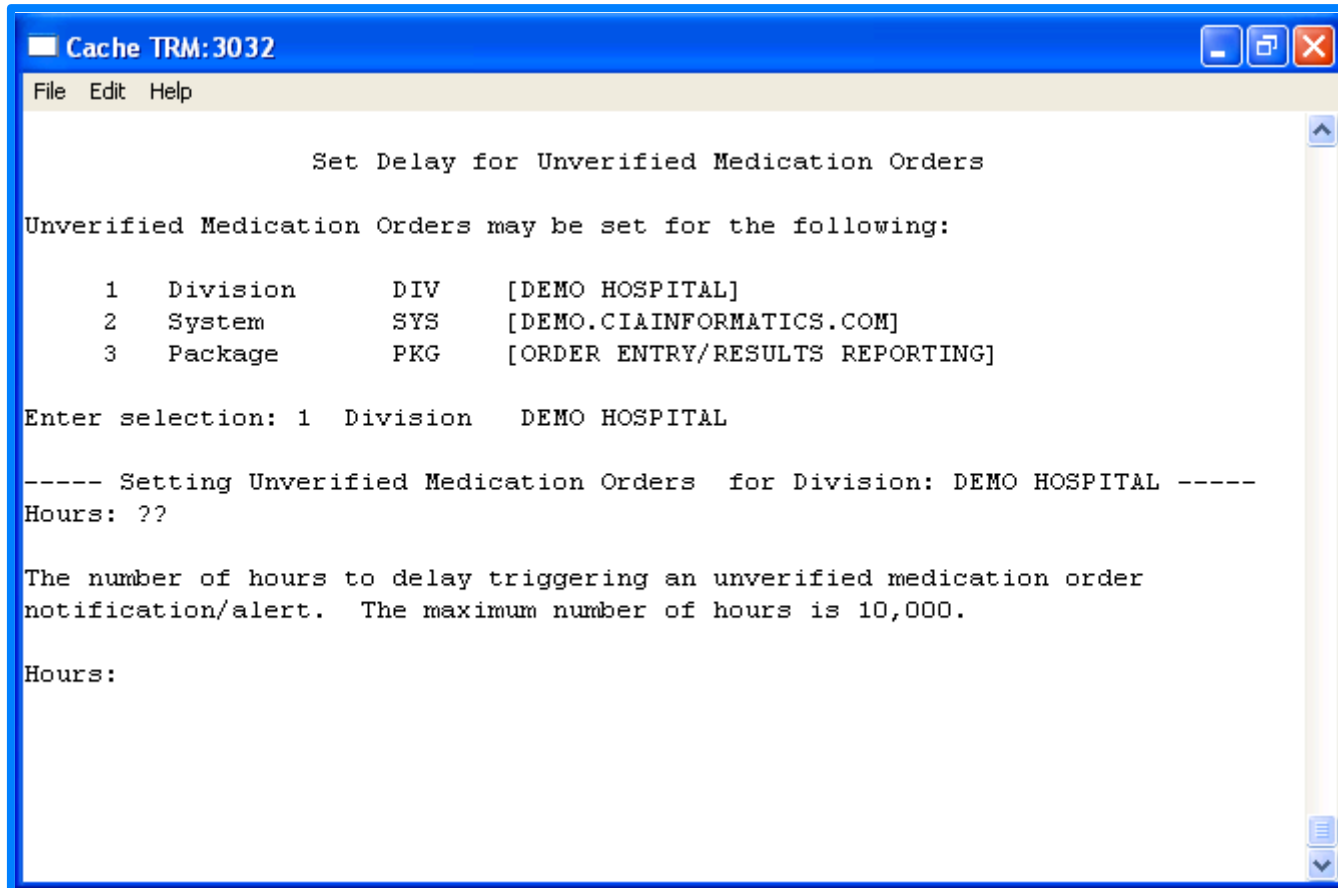
Press RETURN to continue:

Select Notification Mgmt Menu Option

Set Delays for Unverified Orders

- Provides access to options that set up parameters for delaying unverified orders alert triggers
 - Set Delay for All Unverified Orders
 - Set Delay for Unverified Medication Orders

Set Delays for Unverified Orders



Set Urgency for Notifications (GUI)

- Allows you to set the Urgency for a notification. Used mainly for sorting in GUI displays.
- The Urgencies include:
 - Low
 - Medium
 - High
 - Info only
- All notifications come with a package value already set.

Set Urgency for Notifications

```
Cache TRM:3032
File Edit Help
Select NEW PERSON NAME: us  USER,POWER      PWR      IT SPECIALIST

----- Setting Notification Urgency  for User: USER,POWER -----
Select Notification: cons
    1  CONSULT/PROC INTERPRETATION
    2  CONSULT/REQUEST CANCEL/HOLD
    3  CONSULT/REQUEST RESOLUTION
    4  CONSULT/REQUEST UPDATED
CHOOSE 1-4: 1  CONSULT/PROC INTERPRETATION
Are you adding CONSULT/PROC INTERPRETATION as a new Notification? Yes//  YES

Notification: CONSULT/PROC INTERPRETATION//  CONSULT/PROC INTERPRETATION  CONS
ULT/PROC INTERPRETATION
Value: ?

Urgency for the notification as 1:High, 2:Moderate, or 3:Low.

    Select one of the following:

        1          High
        2          Moderate
        3          Low

Value:
```

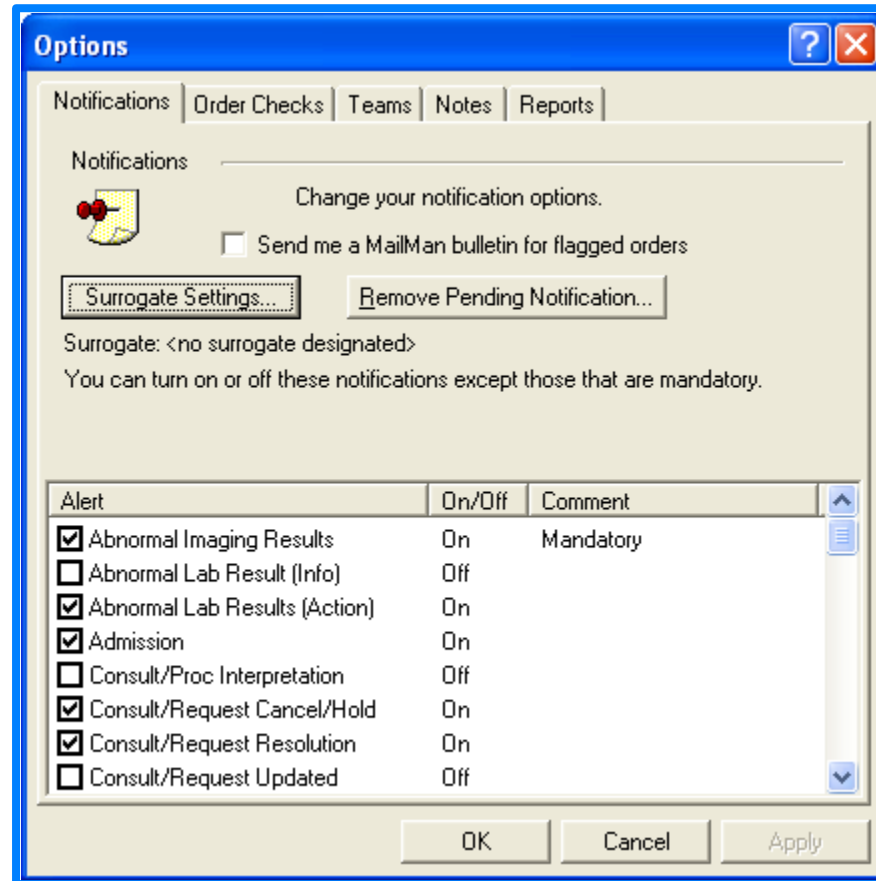
GUI Personal Preferences

- From the Tools menu and “Options”, a user may:
 - Enable/disable notifications
 - Set a surrogate
 - Set the GUI display sorting: urgency, type, patient
 - Request Mailman bulletin be sent for flagged orders

Display Patient Alerts and Alert Recipients

- Produces a list of all OE/RR alerts for a specified patient for the dates you enter
- Produces detailed listing on specific alerts attached to the patient record
- Used mainly for troubleshooting purposes

GUI Personal Preferences



Display on Notifications Tab

- By selecting the “Show All” box, notifications may be viewed across patients
- Notifications may be sorted by clicking on the column headings
- Notifications may be processed, either by processing all or by highlighting and selecting “process selected”, or “info only”

IHS - EHR

User Patient Tools Help

Patient Chart Communication

Demo, Female A 21334 10-Aug-1976 (29) F TEST CLINIC 04-Jan-2006 12:00 Primary Care Team Unassigned No Postings

Notifications for All Patients

Priority	Info Only	Patient	Notification
Medium		DEMO,FEMALE A (21334)	UNSIGNED PC ACUTE CARE VISIT available for SIGNATURE.
Medium		DEMO,TEEN (32434)	UNSIGNED PC ACUTE CARE VISIT available for SIGNATURE.
Medium		DEMO,FATHER (5465)	Abnormal labs - [HCT]
Medium		DEMO,MOTHER R (3423)	Imaging Results: CHEST 2 VIEWS PA&LAT
Medium		DEMO,MOTHER R (3423)	Abnormal labs - [HEMOGLOBIN A1C]
Medium		DEMO,MOTHER R (3423)	Imaging Results: CHEST 2 VIEWS PA&LAT
High		DEMO,MOTHER R (3423)	Critical labs - [CALCIUM]
Medium		TEST,PATIENT A (36445)	Imaging Results: CHEST 2 VIEWS PA&LAT

Legend

- Priority
 - Low
 - Medium
 - High
- Info Only

Process

- All
- Selected
- Info Only
- Forward
- Delete
- Show All

Notifications Cover Sheet Triage Wellness Notes Services Prob/POV Orders Medications Labs D/C Summ Reports Consults

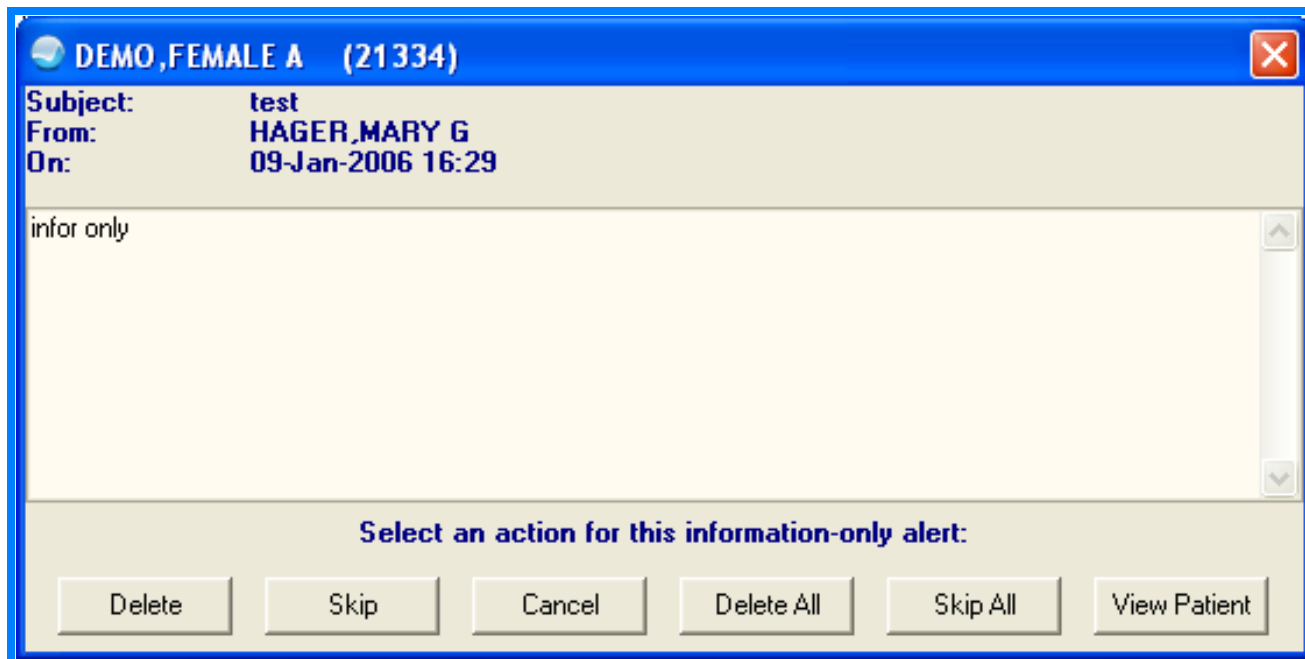
start Basic Class 2 Cache Term ... ftp://ftp.va.gov... 2 Visual Interfa... Microsoft Power... 3:49 PM

Processing Notifications

- Process All-use Next and Stop buttons in lower right corner of EHR to move to next notification.
- Process Selected-select notifications to address.
- Process Information only notifications.
- Use the forward button to send the notification to another user.

Processing Notifications

Process Info Only Alerts





Questions and Discussion