



EHR Clinical Informatics Webinar Series Clinical Reminders Updating IHS-Colon Screen

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Clinical Reminders

Updating IHS-Colon Screen to Reflect Local Guidelines



Presented By...

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Learning Objectives

- Review current IHS-Colon Cancer 2015 Reminder Definition
- Evaluate American Cancer Society (ACS) recommendations for Colon Cancer Screening
- Discuss Best Practice for updating a Reminder



IHS-Colon Cancer 2015 (1)

```
161.223.196.96 - SecureCRT
File Edit View Options Transfer Script Tools Window Help
Enter host <Alt+R>
161.223.196.96 x
IHS-COLON CANCER 2015 No. 317
-----
Print Name:          Colon Cancer
Class:              NATIONAL
Sponsor:
Review Date:
Rescission Date:
Usage:              CPRS, DATA EXTRACT, REPORTS
Related VA-* Reminder:
Reminder Dialog:    IHS-COLON CANCER 2015
Priority:
Description:
  This reminder is built around the most common screening tool, fecal
  testing. More invasive screening tools (sigmoidoscopy, and colonoscopy)
  remove the patient from the requirement for yearly fecal testing then
  restore them to the requirement 9 years 9 months after colonoscopy, 4 years
  9 months after sigmoidoscopy. This differs from previously released
  reminder due to a software defect in the handling of rank frequency used in
  resolution logic.
Ready Telnet: 161.223.196.96 31, 29 31 Rows, 121 Cols Xterm CAP NUM
```



IHS-Colon Cancer 2015 (2)

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
(SEX)&(AGE)&'FI(1)&'FI(2)&'FI(3)

Expanded Patient Cohort Logic:
(SEX)&(AGE)&'FI(IHS-SIGMOIDOSCOPY 2015)&'FI(IHS-COLONOSCOPY 2015)&'FI(IHS-COLORECTAL CANCER 2015)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:
FI(4)!FI(5)

Expanded Resolution Logic:
FI(IHS-FECAL OCCULT BLOOD)!FI(IHS-FECAL OCCULT LAB TEST)



Best Practice for Updating a Reminder

- Base updates on national guidelines
- Elicit Clinical Staff input
- Documentation changes
- Test, Test, Test, and Test the Reminder some more



American Cancer Society (ACS) Guidelines Colorectal Cancer Screening

- The **ACS** recommends that people at average risk of colorectal cancer **begin regular screening at age 45**. This can be done either with a sensitive test that looks for signs of cancer in a person's stool (stool-based test) **Or** with an exam that looks at the colon and rectum (visual exam).
- People who are in good health and with a life expectancy of more than **10 years** should continue regular colorectal cancer screening through the **age of 75**.
- For people **ages 76 through 85**, the decision to be screened should be based on a person's preferences, life expectancy, overall health, and prior screening history.
- People **over 85** should no longer get colorectal cancer screening.



Colorectal Cancer Screening

- **Stool-based tests**

- Highly sensitive **Fecal Immunochemical Test (FIT)** every year
- Highly sensitive **Guaiac-Based Fecal Occult Blood Test (gFOBT)** every year
- **Multi-targeted stool DNA test (mt-sDNA)** every 3 years

- **Visual (structural) exams of the colon and rectum**

- Colonoscopy every 10 years
- CT colonography (virtual colonoscopy) every 5 years
- Flexible sigmoidoscopy (FSIG) every 5 years

- <https://www.cancer.org/cancer/colon-rectal-cancer/detection-diagnosis-staging/acs-recommendations.html>



Editing a Reminder

- National Reminders **are not** locally editable
- To edit a national reminder, copy reminder into a new local reminder
- Copy and edit terms as needed



Updating a Reminder

Step 1 Review Reminder

Step 2 Identify what is needed

Step 3 Edit or Copy Reminder (national reminders are none editable)

Step 4 Review New Changes

Step 5 Test Reminder



STEP 1: Review Colon Cancer 2015

PATH: Reminder Definition Management > Inquire about Reminder Definition

Select REMINDER DEFINITION: IHS-COLON CANCER 2015 NATIONAL

DEVICE: ;;99999999 Right Margin: 80//

IHS-COLON CANCER 2015

No. 317

Print Name: Colon Cancer

Class: NATIONAL



Review IHS-Colon Cancer 2015 Initial View

Sponsor:

Review Date:

Rescission Date:

Usage: CPRS, DATA EXTRACT, REPORTS

Related VA -* Reminder:

Reminder Dialog: IHS-COLON CANCER 2015

Priority:



Review IHS-Colon Cancer 2015 Description

Description:

This reminder is built around the most common screening tool, fecal testing. More invasive screening tools (sigmoidoscopy, and colonoscopy) remove the patient from the requirement for yearly fecal testing then restore them to the requirement 9 years 9 months after colonoscopy, 4 years 9 months after sigmoidoscopy. This differs from previously released reminder due to a software defect in the handling of rank frequency used in resolution logic.

REMINDER APPLICABLE if age 50-75
and no history of neoplasm of the colon
and no evidence of colonoscopy in past 9yrs 9mos
and no evidence of sigmoidoscopy past 4yrs 9mos

REMINDER DUE if no Fecal test done in past year

REMINDER ON if due within 3 months

REMINDER RESOLVED if Fecal test resulted
Colonoscopy done (status N/A for 9yrs 3mos)
Sigmoidoscopy (status N/A for 4yrs 9mos)

=====
Bibliographic citation: US Preventive Services Taskforce 2008,
Healthy People 2020, Cancer
Developer: IHS Office of Information Technology
Funding Source: Indian Health Service
Release: 2015
=====



Review IHS-Colon Cancer 2015 Cohort and Resolution Findings

Baseline Frequency:

Do In Advance Time Frame: Do if DUE within 3 months
Sex Specific:
Ignore on N/A:
Frequency for Age Range: 1 year for ages 50Y to 75Y
Match Text:
No Match Text:

Findings:

---- Begin: IHS-SIGMOIDOSCOPY 2015 (FI(1)=RT(36)) -----
Finding Type: REMINDER TERM
Use in Patient Cohort Logic: AND NOT
Beginning Date/Time: T-57M
Include Visit Data: YES

Mapped Findings: TX.IHS-SIGMOIDOSCOPY 2015

---- End: IHS-SIGMOIDOSCOPY 2015 -----

---- Begin: IHS-COLONOSCOPY 2015 (FI(2)=RT(55)) -----
Finding Type: REMINDER TERM
Use in Patient Cohort Logic: AND NOT
Beginning Date/Time: T-117M
Include Visit Data: YES

Mapped Findings: TX.IHS-COLONOSCOPY 2015

---- End: IHS-COLONOSCOPY 2015 -----



Review IHS-Colon Cancer 2015 Findings

```
----- Begin: IHS-COLORECTAL CANCER 2015 (FI(3)=RT(40)) -----  
                Finding Type: REMINDER TERM  
Use in Patient Cohort Logic: AND NOT  
                Include Visit Data: YES  
  
                Mapped Findings: TX.IHS-COLORECTAL CANCER 2015  
  
                Mapped Findings: CF.IHS-SNOMED  
Computed Finding Parameter: PXR COLORECTAL CANCER  
  
----- End: IHS-COLORECTAL CANCER 2015 -----  
  
----- Begin: IHS-FECAL OCCULT BLOOD (FI(4)=RT(45)) -----  
                Finding Type: REMINDER TERM  
                Match Frequency/Age: 1 year for ages 50Y to 75Y  
Use in Resolution Logic: OR  
  
                Mapped Findings: LT.OCCULT BLOOD  
  
----- End: IHS-FECAL OCCULT BLOOD -----  
  
----- Begin: IHS-FECAL OCCULT LAB TEST (FI(5)=TX(65)) -----  
                Finding Type: REMINDER TAXONOMY  
Use in Resolution Logic: OR  
----- End: IHS-FECAL OCCULT LAB TEST -----
```



Review IHS-Colon Cancer 2015 Cohort Info

General Patient Cohort Found Text:

REMINDER APPLICABLE if age 50-75 and no history of neoplasm of the colon and no evidence of colonoscopy in past 9yrs 9mos and no evidence of sigmoidoscopy past 4yrs 9mos REMINDER DUE if no Fecal test done in past year

REMINDER ON if due within 3 months REMINDER RESOLVED if Fecal test resulted Colonoscopy done (status N/A for 9yrs 3mos) Sigmoidoscopy (status N/A for 4yrs 9mos)

=====

Reference: US Preventive Services Taskforce 2008, Healthy People 2020, Cancer

=====

General Patient Cohort Not Found Text:

REMINDER APPLICABLE if age 50-75 and no history of neoplasm of the colon and no evidence of colonoscopy in past 9yrs 9mos and no evidence of sigmoidoscopy past 4yrs 9mos

REMINDER DUE if no Fecal test done in past year

REMINDER ON if due within 3 months

REMINDER RESOLVED if Fecal test resulted Colonoscopy done (status N/A for 9yrs 3mos) Sigmoidoscopy (status N/A for 4yrs 9mos)

=====

Reference: US Preventive Services Taskforce 2008, Healthy People 2020, Cancer

=====



Review IHS-Colon Cancer 2015 Detail Logic

Default PATIENT COHORT LOGIC to see if the Reminder applies to a patient:
(SEX)&(AGE)&'FI(1)&'FI(2)&'FI(3)

Expanded Patient Cohort Logic:
(SEX)&(AGE)&'FI(IHS-SIGMOIDOSCOPY 2015)&'FI(IHS-COLONOSCOPY 2015)&'FI(IHS-COLORECTAL CANCER 2015)

Default RESOLUTION LOGIC defines findings that resolve the Reminder:
FI(4)!FI(5)

Expanded Resolution Logic:
FI(IHS-FECAL OCCULT BLOOD)!FI(IHS-FECAL OCCULT LAB TEST)

Web sites:



Step 2: Identify Changes

- The ACS recommends that people at average risk of colorectal cancer **begin regular screening at age 45**.
- People who are in good health and with a life expectancy of more than **10** years should continue regular colorectal cancer screening through the **age of 75**.
- For people **ages 76 through 85**, the decision to be screened should be based on a person's preferences, life expectancy, overall health, and prior screening history.
- People **over 85** should no longer get colorectal cancer screening.



Step 2 : Identify Changes Age and Frequency

- Age change from 50 y/o – 75 y/o to 45 y/o to 75 y/o
- IHS-Colon Cancer cohort logic same as the ACS measure
- IHS-Colon Cancer Resolution logic same as the ACS Measure



STEP 3: Copy or Edit Reminder

PATH: Reminder Definition Management > Copy Reminder Definition

Select Reminder Definition Management Option: Copy Reminder Definition

Select the reminder definition to copy: IHS-COLON CANCER 2015 NATIONAL
PLEASE ENTER A UNIQUE NAME: PHX-COLON CANCER 2015 ACS

The original reminder IHS-COLON CANCER 2015 has been copied into PHX-COLON CANCER 2015 ACS.

Do you want to edit it now? Y



Select Y to edit the reminder



STEP 3: Editing Age

select one of the following:

A	All reminder details
G	General
B	Baseline Frequency
F	Findings
FF	Function Findings
L	Logic
C	Custom date due
D	Reminder Dialog
W	Web Addresses



Select A for All reminder Details

Select a section to edit; press ENTER when you are done editing.
To quit and exit type '^': All reminder details

NAME: PHX-COLON CANCER 2015 ACS Replace

PRINT NAME: Colon Cancer//

CLASS: LOCAL// ■



STEP 3: Navigate to Age Prompt

SPONSOR:
REVIEW DATE:
USAGE: *//

RELATED REMINDER GUIDELINE:

INACTIVE FLAG:
IGNORE ON N/A:
RESCISSION DATE:

DESCRIPTION: . . .
. . .

```

=====
Bibliographic citation: US Preventive Services Taskforce 2008,
Healthy People 2020, Cancer
Developer: IHS Office of Information Technology
Funding Source: Indian Health Service
Release: 2015
=====

```

Edit? NO// ■



STEP 3: Minimal Age Update

Edit? NO//

TECHNICAL DESCRIPTION:

No existing text
Edit? NO//

PRIORITY:

Baseline Frequency

DO IN ADVANCE TIME FRAME: 3M//

SEX SPECIFIC:

Baseline frequency age range set

Select REMINDER FREQUENCY: 1Y//

REMINDER FREQUENCY: 1Y//

MINIMUM AGE: 50Y// 45Y

MAXIMUM AGE: 75Y//

AGE MATCH TEXT:

No existing text

Edit? NO//



Change age from 50 y/o to 45 y/o



STEP 3: Edit Reminder Description

```
==[ WRAP ]==[ INSERT ]===== < DESCRIPTION >===== [ <PF1>H=Help ]====  
This reminder is built around the most common screening tool,  
fecal testing. More invasive screening tools (sigmoidoscopy,  
and colonoscopy) remove the patient from the requirement for  
yearly fecal testing then restore them to the requirement  
9 years 9 months after colonoscopy, 4 years 9 months after  
sigmoidoscopy. This differs from previously released reminder  
due to a software defect in the handling of rank frequency used  
in resolution logic.
```

```
REMINDER APPLICABLE if age 45-75  
and no history of neoplasm of the colon  
and no evidence of colonoscopy in past 9yrs 9mos  
and no evidence of sigmoidoscopy past 4yrs 9mos
```

Edit Description to reflect updated information

```
REMINDER DUE if no Fecal test done in past year
```

```
REMINDER ON if due within 3 months
```

```
<=====T=====T=====T=====T=====T=====T=====T=====T=====T>=====
```



Clinical Maintenance View Reminder Description

Reminder Detail

Frequency: Due every 1 year for ages 45Y to 75Y.

REMINDER APPLICABLE if age 45-75
 and no history of neoplasm of the colon
 and no evidence of colonoscopy in past 9yrs 9mos
 and no evidence of sigmoidoscopy past 4yrs 9mos

REMINDER DUE if no Fecal test done in past year

REMINDER ON if due within 3 months

REMINDER RESOLVED if Fecal test resulted
 Colonoscopy done (status N/A for 9yrs 3mos)
 Sigmoidoscopy (status N/A for 4yrs 9mos)

 Reference: US Preventive Services Taskforce 2008, Healthy
 People 2020, Cancer

Font Size: Close

No Alerts Found

Reminders	
Reminder ▲	Date ▲
Alcohol Screen	DUE NOW
Blood Pressure	17-Apr-2008 12:44
Colon Cancer	DUE NOW
Colon Cancer	DUE NOW
Depression Sc...	DUE NOW
EJK ACTIVITY...	DUE NOW
Height	17-Apr-2009 12:43
HEALTHY	DUE NOW



STEP 3: Edit General Cohort Found Logic Description

```
==[ WRAP ]==[ INSERT ]===< GENERAL PATIENT COHORT FOUND T >==[ <PF1>H=He]p ]===
```

```
\\REMINDER APPLICABLE if age 45-75  
and no history of neoplasm of the colon  
and no evidence of colonoscopy in past 9yrs 9mos  
and no evidence of sigmoidoscopy past 4yrs 9mos
```

Edit description to reflect new changes

```
\\REMINDER DUE if no Fecal test done in past year
```

```
\\REMINDER ON if due within 3 months
```

```
\\REMINDER RESOLVED if Fecal test resulted  
Colonoscopy done (status N/A for 9yrs 3mos)  
Sigmoidoscopy (status N/A for 4yrs 9mos)
```

```
=====  
Reference: US Preventive Services Taskforce 2008, Healthy  
People 2020, Cancer  
=====
```

```
<=====T=====T=====T=====T=====T=====T=====T=====T=====T>=====
```



Clinical Maintenance View

General Cohort Found Logic Description

Available Reminders

View	Action	Due ...	Last Occ...	Pri...
Clinical Maintenance		CNBD		
Education Topic Definition		DUE NOW		
Reminder Inquiry		04/17/2000	04/17/2007	
Reference Information		CNBD		
<input checked="" type="checkbox"/> Due		CNBD		
<input checked="" type="checkbox"/> Applicable		DUE NOW		
<input checked="" type="checkbox"/> Not Applicable		DUE NOW		
<input checked="" type="checkbox"/> All Evaluated		DUE NOW		
<input checked="" type="checkbox"/> Other Categories		04/17/2000	04/17/2007	
Reminder Icon Legend		DUE NOW		
EJK ACTIVITY SCREEN		DUE NOW		
Colon Cancer		DUE NOW		
Applicable				
Not Applicable				

Clinical Maintenance: Colon Cancer

```

--STATUS-- --DUE DATE-- --LAST DONE--
N/A
Frequency: Due every 1 year for ages 45Y to 75Y.

REMINDER APPLICABLE if age 50-75
and no history of neoplasm of the colon
and no evidence of colonoscopy in past 9yrs 9mos
and no evidence of sigmoidoscopy past 4yrs 9mos

REMINDER DUE if no Fecal test done in past year

REMINDER ON if due within 3 months

REMINDER RESOLVED if Fecal test resulted
Colonoscopy done (status N/A for 9yrs 3mos)
Sigmoidoscopy (status N/A for 4yrs 9mos)

=====
Reference: US Preventive Services Taskforce 2008, Healthy
People 2020, Cancer
=====

Cohort:
Reminder Term: IHS-COLONOSCOPY 2015
Encounter Procedure:
01/07/2022@12:00 45378 (CPT-4) Colonoscopy, Flexible; Diagnostic, including
Collection of Specimen(s) by Brushing or Washing, when Performed (Separate
Procedure)
Principle Procedure: YES
Prov. Narr. - Colonoscopy
  
```

Font Size: 9

Print... Close



STEP 3: Edit General Cohort Not Found Logic Description

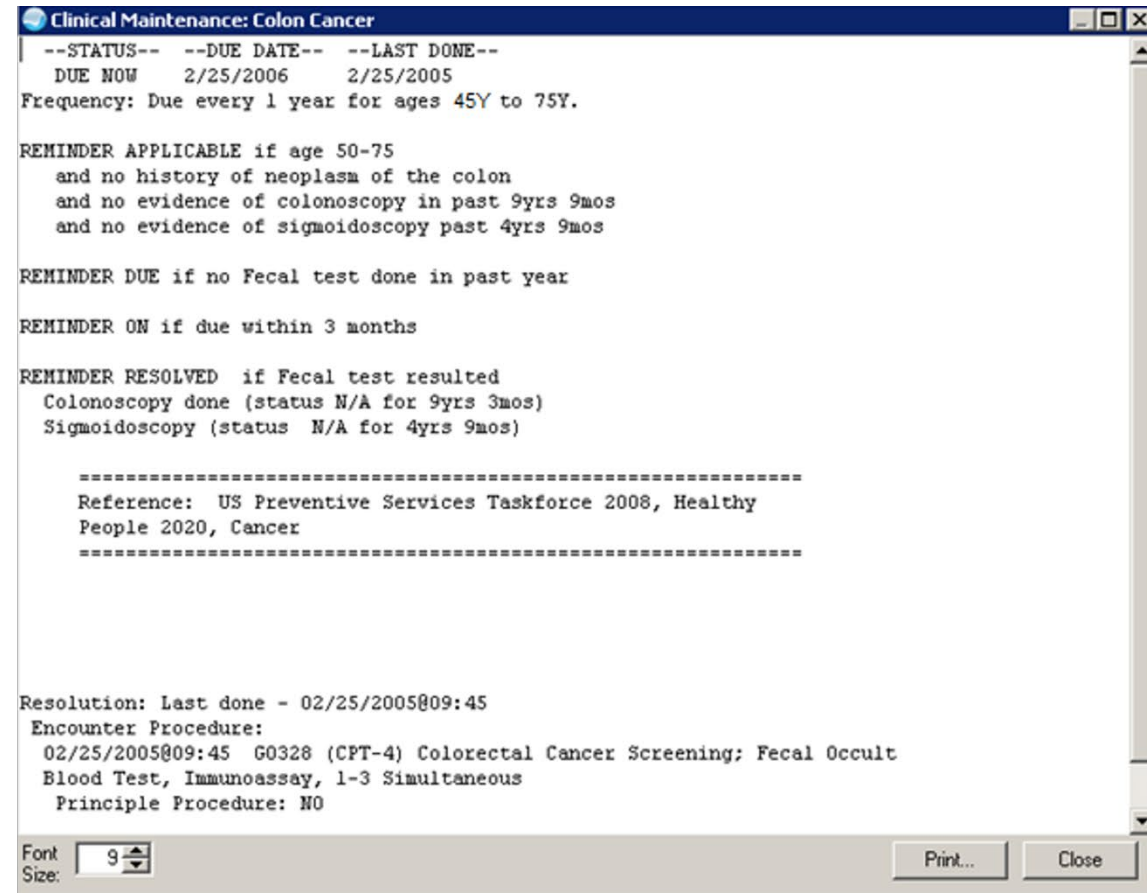
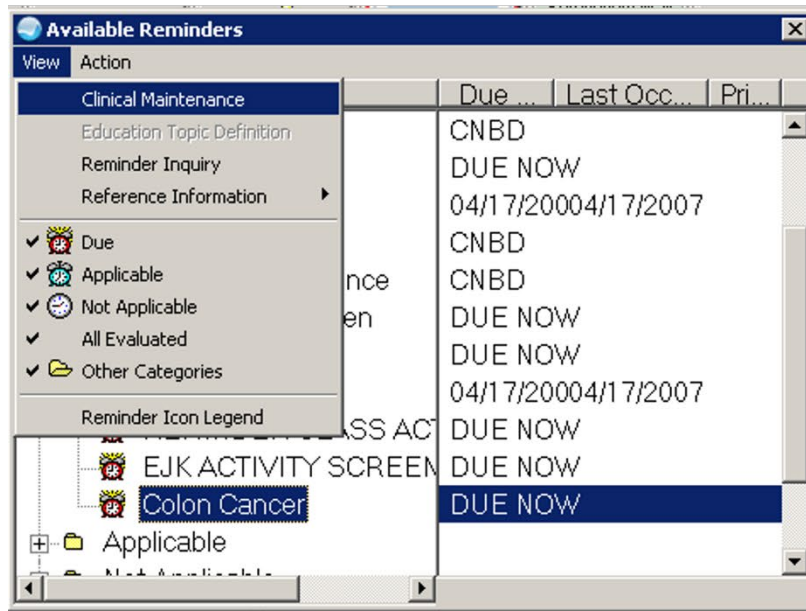
```

====[ WRAP ]====[ INSERT ]====< GENERAL PATIENT COHORT NOT FOU >====[ <PF1>H=He]p ]====
//REMINDER APPLICABLE if age 45-75 ← Edit description to reflect new changes
//  and no history of neoplasm of the colon
//  and no evidence of colonoscopy in past 9yrs 9mos
//  and no evidence of sigmoidoscopy past 4yrs 9mos
//
//REMINDER DUE if no Fecal test done in past year
//
//REMINDER ON if due within 3 months
//
//REMINDER RESOLVED if Fecal test resulted
//  Colonoscopy done (status N/A for 9yrs 3mos)
//  Sigmoidoscopy (status N/A for 4yrs 9mos)
//
//=====
//Reference: US Preventive Services Taskforce 2008, Healthy
//People 2020, Cancer
//=====
//
//<=====T=====T=====T=====T=====T=====T=====T=====T=====T>=====

```

Clinical Maintenance

General Cohort Not Found Logic Description





STEP 4: Review Changes

PATH: Reminder Definition Management > Inquire about Reminder Definition

Technical Description:

Baseline Frequency:

Do In Advance Time Frame: Do if DUE within 3 months
Sex Specific:
Ignore on N/A:
Frequency for Age Range: 1 year for ages 45Y to 75Y
Match Text:
No Match Text:

Findings:

```
----- Begin: IHS-SIGMOIDOSCOPY 2015 (FI(1)=RT(36)) -----  
          Finding Type: REMINDER TERM  
Use in Patient Cohort Logic: AND NOT  
          Beginning Date/Time: T-57M  
          Include Visit Data: YES  
  
          Mapped Findings: TX.IHS-SIGMOIDOSCOPY 2015  
  
----- End: IHS-SIGMOIDOSCOPY 2015 -----
```



STEP 5: Test Reminder

Testing of this updated Reminder will be discussed in-depth during the next presentation



Knowledge Questions

- What are the steps involved with updating a reminder?
- How do you update a national reminder?



Hands-on & Critical Thinking Exercise

- Analyze existing IHS-Colon Cancer 2015
- Examine necessary changes for US Preventive Task Force (USPTF) Colon CA Screening reminder
<https://uspreventiveservicestaskforce.org/uspstf/recommendation/colorectal-cancer-screening>
- Copy national reminder into local reminder
- Edit copied reminder to reflect guidelines



Questions & Discussion



Bibliographic Sketch

CAPT Elvira Mosely, MSHS, BSN, RN

Clinical Informatics

Phoenix Area Office

CAPT Elvira Mosely is the Clinical Program Consultant for the Electronic Health Records (EHR) for the Phoenix Area Indian Health Service. Elvira received her BSN degree in 1988 from Jacksonville University in Jacksonville Florida and received her MSHS degree in 2006 from Touro University California. CAPT Mosely worked as the Clinical Application Coordinator for the Hopi Health Care Center for one year before she applied and was accepted to be the Clinical Program Consultant for the Phoenix Area Indian Health Services in June 2006. Prior to the Indian Health Service CAPT Mosely served 11 years in the US Air Force on active duty status in a wide range of nursing positions. In 2004 Elvira transferred to the US Public Health Service and is presently on Active Duty status assigned to Phoenix Area Office. Elvira has been the lead project manager for the implementation and coordination of the RPMS EHR for all Phoenix Area Indian Health Services since June 2006.