RESOURCE AND PATIENT MANAGEMENT SYSTEM

Diabetes Management System

(BDM)

Addendum to User Manual

Version 2.0 Patch 8
January 2015

Office of Information Technology
Division of Information Technology

Table of Contents

Preface

The purpose of this guide is to provide Diabetes Program staff with an overview of changes to the Diabetes Management System (DMS) introduced in Patch 8. In addition, instructions are provided to run the electronic version of the 2015 Diabetes Audit, which is included in this patch.

Note: Resource and Patient Management System software, including the DMS, is subject to periodic updates based on the Indian Health Service Standards of Care and Clinical Practice Recommendations for Type 2 Diabetes.

1.0 Introduction

1.1 DMS Changes

DMS v2.0 p8 contains the 2015 Diabetes Audit. A summary of the changes follows:

Audit Changes:

a. Added an option to run the SDPI Key Measures report to the audit output choice menu:

```
1       Print Individual Reports
2       Create AUDIT EXPORT file
3       Cumulative Audit Only
4       Both Individual and Cumulative Audits
5       SDPI Key Measures Report
```

Figure 1-1: Options on Report menu

b. Added an option to run an audit or key measures report on Only Indian/Alaskan Native patients, Not Indian Alaskan/Native patients, or both.

```
1       Indian/Alaskan Native (Classification 01)
2       Not Indian Alaskan/Native (Not Classification 01)
3       All (both Indian/Alaskan Natives and Non 01)
```

Figure 1-2: Added option to run an audit or key measures report

Logic Changes: (Note Audit Logic is included in Appendix A for reference.)

a. Added a new item to determine if a patient was screened for Tobacco Use during the Audit year.

b. Added logic to check for all new health factors related to tobacco use including Heavy Smoker and Light Smoker.

c. Removed all Lipid Lowering Drug items except that for Statin Drugs. (Removed Ezetemide, Fibrate, Niacin, Bile Acid Sequestrant, Fish Oil, and Lovaza from the Audit).

d. Added documented allergy/intolerance as an option for documentation under Statin therapy.

e. Added documented Immune status as an option for documentation under Hepatitis B vaccine.

f. Added a new item to determine if Tdap was ever completed or refused.

g. Removed the item for Non-HDL in the DM AUDIT NON-HDL taxonomy because of discrepancies between calculated Non-HDL values and lab values as determined by taxonomy members.

h. Updated logic for Pneumovax to include CPT codes and new CVX codes.

i. Added the CPT code of 2028F to count as "Yes" for a Diabetic Foot Exam.

Diabetes Patient Care Summary (Supplement Changes):

a. Added Beneficiary/Class.

b. Removed EKG, Mammogram, and Pap Smear.

c. Reformatted and reordered some items.

Other changes:

a. Added the ability to review all reports in Browse mode for DMS.

b. Replaced the option to Update the Problem List with Display Problem List in the Patient Management Menu.

c. Removed option for selection of taxonomies that are no longer used by the Diabetes Audit.

d. Changed the look up for providers as a primary provider, register provider, or case manager to use the beginning string and ending string to be consistent with other look up options.

1.2 Visual DMS Changes

Visual DMS has been updated as follows:

- Added the Master List report option to Visual DMS.
- Added the option to run the SDPI Report to the Diabetes Audit Menu.
- Removed the requirement to enter an associated diagnosis code when creating a new complication in Visual DMS.
- Updated the help text for Visual DMS to be consistent with current functionality.

2.0 Preparing for the Audit

There are two important prerequisites when preparing for an electronic Diabetes Audit in RPMS:

- Ensure that patients to be audited are actively receiving care at the healthcare facility.
- Review and update taxonomies of medications, health factors, patient education topics, and laboratory tests.

2.1 Guidelines for Selecting Patients

The IHS Division of Diabetes Treatment and Prevention (Division of Diabetes) has provided the following guidelines for selecting patients for the 2015 Diabetes Audit.

- ***Include Patients who***:
  - Have a diagnosis of diabetes – Type 1 or Type 2.
  - Have at least one visit to a primary care clinic during the Audit period. Primary care clinics include:
    - General (01)
    - Diabetic (06)
    - Internal Medicine (13)
    - Pediatric (20)
    - Family Practice (28)
    - Chronic Disease (50)
    - Endocrinology (69)
- ***Exclude Patients who:***
  - Received the majority of their primary care outside your facility during the Audit period.
  - Are currently on dialysis ***and*** received the majority of their primary care at the dialysis unit during the Audit period.
  - Have died before the end of the Audit period.
  - Have gestational diabetes.
  - Have pre-diabetes (impaired fasting glucose or impaired glucose tolerance [IGT]) only.
  - Have moved – permanently or temporarily (should be documented).

Keep in mind that unless the diabetes register is updated frequently, some of the patients listed as being in an ***Active*** status might not qualify to be included in the Audit. Identify those patients and exclude them from the Audit.

2.2 Using the Diabetes Register for the 2015 Diabetes Audit

Use the Diabetes Register for the 2015 Audit to exclude patients who do not meet the Audit criteria, or create a subset of the Diabetes register including only those patients who meet the Audit criteria.

To use patients in the Diabetes Register for the Audit, there are several reports available to identify patients currently classified as active but who do not meet the Audit criteria.

- Section 2.2.1 shows an option to identify patients in the Register who have a Register Diagnosis of IGT or Gestational Diabetes Mellitus (GDM).
- Section 2.2.2 shows a Q-Man search that can identify patients who have not had a primary care visit during the Audit year and therefore do not meet Audit criteria of being an active patient.
- When patients who do not meet the definition of active with a diagnosis of Type 1 or Type 2 Diabetes have been identified, their status can be changed by using the option to Edit Register Data under Patient Management in the DMS. Either the traditional RPMS Patient Management option or the **Patient Management** in Visual DMS can be used. Section 2.2.3 provides information for changing the status of a Registered Patient.

> **Note**: When running reports, note that the IHS Division of Diabetes requires that the 2015 Annual Audit include care provided during the calendar year ending December 31, 2014. Reports identifying patients with an active status should be run for the time period between 1/1/2014 and 12/31/2014.

2.2.1 Identifying IHS Diabetes Register Patients with GDM or IGT

The IHS Diabetes Register allows entry of GDM and IGT as Register diagnoses. It has been recommended for a number of years that the IHS Diabetes Register include only patients with a diagnosis of Type 1 or Type 2 Diabetes. Patients with GDM and IGT should be followed via inclusion in another register.

The Q-Man search in Figure 2-1 will retrieve a list of patients in the register who have been given a Register Diagnosis. In this dialogue, a search is made for patients on the register with a Register Diagnosis of GDM. The same process can be used to find patients on the Register who have a Register Diagnosis of IGT.

```
Q-MAN OPTIONS -> SEARCH PCC Database (dialogue interface)
What is the subject of your search? LIVING PATIENTS // REGISTER <Enter>
REGISTER

Which CMS REGISTER: IHS DIABETES <Enter>
```

```
Register being checked to update status of deceased patients

Select the Patient Status for this report
     1   Active
     2   Inactive
     3   Transient
     4   Unreviewed
     5   Deceased
     6   Non-IHS
     7   Lost to Follow-up
     8   All Register Patients

Which Status(es): (1-8): 1//<Enter>

Select the Diabetes Register Diagnosis for this report

  Select one of the following:
1      Type 1
2      Type 2
3      Type 1 & Type 2
4      Gestational DM
5      Impaired Glucose Tolerance
6      All Diagnoses

   Which Diagnosis: All Diagnoses// 4 <Enter> Gestational DM
```

Figure 2-1: Q-Man search to identify patients with Register Diagnosis of GDM

Figure 2-2 shows the Q-Man output options and list of patients.

```
                ***** Q-MAN OUTPUT OPTIONS *****
       Select one of the following:
       1   DISPLAY results on the screen
       2   PRINT results on paper
       3   COUNT 'hits'
       4   STORE results of a search in a FM search template
       5   SAVE search logic for future use
       6   R-MAN special report generator
       9   HELP
       0   EXIT
  Your choice: DISPLAY// 1 <Enter> DISPLAY results on the screen
   ...EXCUSE ME, LET ME PUT YOU ON 'HOLD' FOR A SECOND...

PATIENTS     CMI*DEV
         NUMBER
-----------------------------------------------------------------------

PATIENT,DEMO I* 29693
Total: 1
```

Figure 2-2: Q-Man search results

> **Note**: A patient whose name is marked with an asterisk (*) might have an alias.

When both searches have been run and lists of patients who are on the Diabetes Register with a diagnosis of GDM or IGT have been produced, use the Edit Register Data under Patient Management in the DMS to change the status of these patients to Unreviewed prior to running the Audit.

2.2.2 Identifying Possible Inactive Patients in the IHS Diabetes Register

A simple Q-Man search (Figure 2-3) can identify patients who have not had at least one primary care visit during the 12 months of the Audit period. This process can be especially useful at sites that have large numbers of patients whose Register status might not be accurate.

```
Q-MAN OPTIONS -> SEARCH PCC Database (dialogue interface)

What is the subject of your search? LIVING PATIENTS // REGISTER <Enter>
Which CMS REGISTER: IHS DIABETES <Enter>

Register being checked to update status of deceased patients.

Select the Patient Status for this report

     1   Active
     2   Inactive
     3   Transient
     4   Unreviewed
     5   Deceased
     6   Non-IHS
     7   Lost to Follow-up
     8   All Register Patients
Which Status (es): (1-8): 1// <Enter>

Select the Diabetes Register Diagnosis for this report. Select one of the
following:
     1     Type 1
     2     Type 2
     3     Type 1 & Type 2
     4     Gestational Diabetes
     5     Impaired Glucose Tolerance
     6     All Diagnoses
Which Register Diagnosis: All Diagnoses// <Enter>
There are 831 register patients for the combination selected.
Attribute of IHS DIABETES REGISTER: VISIT

SUBQUERY: Analysis of multiple VISITS

First condition of "VISIT": CLINIC <Enter>

Enter CLINIC: [BGP PRIMARY CARE CLINICS <Enter> BGP PRIMARY CARE CLINICS]

Members of BGP PRIMARY CARE CLINICS Taxonomy =>

  GENERAL
  DIABETIC
  INTERNAL MEDICINE
  PEDIATRIC
  FAMILY PRACTICE
  CHRONIC DISEASE
```

```
  ENDOCRINOLOGY

Enter ANOTHER CLINIC: <-- You might wish to include Walk In or other
clinics you consider to be primary care clinics. The taxonomy BGP Primary
Care Clinics are used for GPRA reports and do not include these.

The following have been selected =>

     GENERAL
     DIABETIC
     INTERNAL MEDICINE
     PEDIATRIC
     FAMILY PRACTICE
     CHRONIC DISEASE
     ENDOCRINOLOGY

Want to save this CLINIC group for future use? No// <Enter>
Next condition of "VISIT": DURING THE PERIOD <Enter>
Exact starting date: 1/1/14 <Enter> (JAN 01, 2014)
Exact ending date: 12/31/14 <Enter> (DEC 31, 2014)

    Subject of subquery: VISIT
    CLINIC (GENERAL/DIABETIC...)
    BETWEEN JAN 1,2014nd DEC 31,2014@23:59:59

Next condition of "VISIT": NULL <Enter>

Computing Search Efficiency Rating

 Subject of search: PATIENTS
   MEMBER OF 'IHS DIABETES REGISTER-3500' COHORT
    Subject of subquery: VISIT
    CLINIC (GENERAL/DIABETIC...)
    BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59
    'NULL' (None meet criteria)

Attribute of IHS DIABETES REGISTER: <Enter>

             ***** Q-MAN OUTPUT OPTIONS *****

  Select one of the following:

     1     DISPLAY results on the screen
     2     PRINT results on paper
     3     COUNT 'hits'
     4     STORE results of a search in a FM search template
     5     SAVE search logic for future use
     6     R-MAN special report generator
     7     DELIMITED file via screen capture
     9     HELP
     0     EXIT

Your choice: DISPLAY//<Enter> results on the screen
  ...EXCUSE ME, LET ME PUT YOU ON 'HOLD' FOR A SECOND...

PATIENTS     CIM-IH VISIT NUMBER
------------------------------------------------------------------------

PATIENT,DEMO A   100005 -
PATIENT,DEMO B*  100011 -
PATIENT,DEMO C*  100013 -
```

```
PATIENT,DEMO D   100017 -
PATIENT,DEMO E*  100026 -
PATIENT,DEMO F   100028 -
PATIENT,DEMO G   100030 -
PATIENT,DEMO H   100032 -
PATIENT,DEMO I   100034 -
PATIENT,DEMO J   100064 -
PATIENT,DEMO K   100075 -
PATIENT,DEMO L   100081 -
PATIENT,DEMO M*  100091 -
```

Figure 2-3: Q-Man search for Active Register patients with no visit during Audit year

2.2.3 Update Patient Register Status

Update the patient's Register Status in DMS or Visual DMS.

To edit Register Data in DMS:

1. Open the Patient Management menu of DMS (Figure 2-4).

```
Register Data                Feb 18, 2014 09:06:49        Page:   of 1
       PATIENT: DEMO,PATIENT Q                              AGE: 73
       ADDRESS: 50 OAK STREET,ADAIR,OK,74330                DOB: 02/03/1940
         PHONE: 555-555-0093                                HRN: 100052
PRIM CARE PROV: STUDENT,FOURTEEN                            RES: ADAIR
        STATUS: ACTIVE
WHERE FOLLOWED:
 REGISTER PROV:                          CASE MGR:
       CONTACT: Woman's shelter 567-5309
    ENTRY DATE: JUL 12,2011                          LAST EDITED: FEB 18,2014
     DIAGNOSIS: TYPE 2                                ONSET DATE: MAR 1,1999
COMPLICATIONS: CARDIOVASCULAR DISEASE                ONSET DATE: DEC 14,2002

          - Previous Screen   Q Quit   ?? for More Actions
1  Edit Register Data     8  DIABETES Medications   15 DIABETES Lab Profile
2  Complications          9  Review Appointments    17 Pat. Face Sheet
3  Comments               10 Audit Status           19 Local Option Entry
4  Health Summary         11 Flow Sheet             20 Diagnosis
5  Last Visit             12 Case Summary           21 Print Letter
6  Other PCC Visit        13 Edit Problem List
7  Medications            14 Lab Profile
Select Action: Quit// 1
```

Figure 2-4: Selecting 1 Edit Register Data to change Register Status

2. At the "Select Action" prompt, type **1** and press Enter.

```
Register Data               Feb 18, 2014 09:06:49        Page:    1 of    1

       PATIENT: THOMS,DAISY                                 AGE: 55
       ADDRESS: 50 OAK STREET,ADAIR,OK,74330                DOB: 11/11/1957
       PHOME..: 555-555-009                                 HRN: 100052
        STATUS: UNREVIEWED                                  RES: 3681
       CASE MANAGER:
 REGISTER PROV:
WHERE FOLLOWED:
       CONTACT: Woman's shelter 567-5309
```

```
    ENTRY DATE: JUL 12,2011                  LAST EDITED: FEB 18,2014
   LAST REVIEW: JUL 12,2011                  NEXT REVIEW: OCT 12,2011

DM AUDIT LOCAL OPTION CODE:
DM AUDIT LOCAL OPTION TEXT:



_____________________________________________________________________________
Exit     Save     Refresh

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

COMMAND: S to save followed by E to exit     Press <PF1>H for help   Insert
```

Figure 2-5: Changing Register Status from Active to Unreviewed

3. Move the cursor to the Status field and type the new status value over the old one (Figure 2-5).
4. Press the down arrow to move the cursor to the "Command" prompt.
5. Type **Save** and press Enter.
6. To record the status update, type **Exit** at the "Command" prompt and press Enter. The window will close.

> **Note**: There are no official definitions of Register Status although recommendations for classifying Register patients can be provided by Area Diabetes Consultants or their staff. The definitions that follow can be used as a guideline.

- **A**. Active patients who receive their primary healthcare at a facility and who have had care at a facility within the last year.
- **I**. Inactive patients who have not been seen within the last two years.
- **T**. Transient patients seen at the clinic within the past year but who do not receive their primary diabetic care at a facility, but only visit the clinic periodically for medications or other services.
- **U**. Unreviewed patients on the Register who have not had a chart audit and medical review.
- **D**. Deceased patients.

> **Note**: This status will be automatically documented if a date of death is recorded in the patient registration file. If a patient's status is changed to deceased in the Register, the patient registration file is not automatically updated.

- **N**. Non-IHS patients who receive their diabetes care at a facility.

- **L**. Lost to follow-up patients seen at a facility within the past two years but who have not had a visit in the last year.
- **N**. Noncompliant patients with repeated documented refusals of recommended services.

2.3 Creating a Template of Patients for the 2015 Diabetes Audit

If the IHS Diabetes Register is not current or has not been routinely used for management of patients with diabetes, it might be advantageous to use a Q-Man search to identify patients with diabetes who have had a visit to a primary care clinic during the Audit period. The template (Figure 2-6) created from this query can be used to run the 2015 Diabetes Audit. One can run the Q-Man search using either the general patient population (Section 2.3.1) or the Diabetes Register (Section 2.3.2).

2.3.1 Creating a Template using the General Population

The Q-Man search in Figure 2-6 shows the creation of a template looking for patients with at least one diagnosis of diabetes during the Audit period and who have had at least one visit to a primary care clinic during the Audit period.

```
What is the subject of your search? LIVING PATIENTS // <Enter> LIVING
PATIENTS <-- If you have a Diabetes Register, you can choose to begin with
that register.

Subject of search: PATIENTS ALIVE TODAY

Attribute of LIVING PATIENTS: VISIT <Enter>

SUBQUERY: Analysis of multiple VISITS

First condition of "VISIT": CLINIC <Enter>

Enter CLINIC: [BGP PRIMARY CARE CLINICS BGP PRIMARY CARE CLINICS]

Members of BGP PRIMARY CARE CLINICS Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
CHRONIC DISEASE
FAMILY PRACTICE
ENDOCRINOLOGY

Enter ANOTHER CLINIC: <--You can add additional clinics like WALK IN,
WOMENS HEALTH

The following have been selected =>

     GENERAL
     DIABETIC
     INTERNAL MEDICINE
```

```
     PEDIATRIC
     CHRONIC DISEASE
     FAMILY PRACTICE
     ENDOCRINOLOGY

Want to save this CLINIC group for future use? No// <Enter> (No)
Next condition of "VISIT": DURING THE PERIOD
Exact starting date: 1/1/2014 (JAN 01, 2014)
Exact ending date: 12/31/2014 (DEC 31, 2014)

     Subject of subquery: VISIT
     CLINIC (GENERAL/DIABETIC...)
     BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59

Next condition of "VISIT": DX <Enter>
   1  DX
   2  DX PROCEDURE
CHOOSE 1-2: 1 <Enter>

Enter DX: 250.00-250.93
  250.00   DIABETES II/UNSPEC NOT UNCONTR
     ...OK? Yes// <Enter> (Yes)
 250.93   DIAB W/COMP I/JUV UNCONT   COMPLICATION/COMORBIDITY
     ...OK? Yes// <Enter> (Yes)

Codes in this range =>

250.00  DIABETES II/UNSPEC NOT UNCONTR
250.01  DIABETES I/JUV NOT UNCONTRL
250.02  DIABETES TYPE II/UNSPEC UNCON
250.03  DIABETES I/JUV UNCONTRL
250.10  DIAB W/KET TYPEII/UNSP CONT
250.11  DIAB W/KET TYPI JUV/NOT UNCONT
250.12  DIAB W/KET TYPII/UNSPC UNCONT
250.13  DIAB W/KET TYPEI JUV UNCONT
250.20  DIAB W/HYPER TYPII/UNSP CONT
250.21  DIAB W/HYPR TYPI/JUV CONT
250.22  DIAB W/HYPR TYPII/UNSP UNCONT
250.23  DIAB W/HYPR TYPI/JUV UNCONT
250.30  DIAB W/OTH COMA II/UNSPE CONT
250.31  DIAB W/OTH COMA TYPI/JUV CONT
250.32  DIAB W/OTH COMA TYII/UNSP UNCT
250.33  DIAB W/OTH COMA TYI/JUV UNCONT
250.40  DIAB W/RENAL TYII/UNSPEC CONT
250.41  DIAB W/RENAL TYI/JUV CONT
250.42  DIAB W/RENAL II/UNSPEC UNCONT
250.43  DIAB W/RENAL I/JUV UNCONT
250.50  DIAB W/OPHTH II/UNSPEC CONT
250.51  DIAB W/OPHTH I/JUV CONT
250.52  DIAB W/OPHTH II/UNSPEC UNCONT
250.53  DIAB W/OPHTH I/JUV UNCONT
250.60  DIAB W/NEUR II/UNSPEC CONT
250.61  DIAB W/NEUR I/JUV CONT
250.62  DIAB W/NEUR II/UNSPEC UNCONT
250.63  DIAB W/NEUR I/JUV UNCONT
250.70  DIAB W/CIRC DISOR II/UNSP CONT
250.71  DIAB W/CIRC DISOR I/JUV CONT
250.72  DIAB W/CIRC DISOR II/UNSP UNCN
250.73  DIAB W/CIRC DISOR I/JUV CONT
250.80  DIAB W/OTHER II/UNSPEC CONT
250.81  DIAB W/OTHER I/JUV CONT
```

```
250.82  DIAB W/OTHER II/UNSPEC UNCONT
250.83  DIAB W/OTHER I/JUV UNCONT
250.90  DIAB W/COMP II/UNSPEC CONT
250.91  DIAB W/COMP I/JUV CONT
250.92  DIAB W/COMP II/UNSPEC UNCONT
250.93  DIAB W/COMP I/JUV UNCONT

Code Range(s) Selected So Far =>

1) 250.00 - 250.93

Enter ANOTHER DX:

Want to save this DX group for future use? No// <Enter> (No)
     Subject of subquery: VISIT
     CLINIC (GENERAL/DIABETIC...)
     BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59
     POV (250.01/250.11...)

Next condition of "VISIT": LOCATION OF ENCOUNTER <Enter> <- This condition
only needs to be used if you are part of a multidivisional database.

Enter ENCOUNTER LOCATION: CMI*DEV <Enter>   OKLAHOMA    TEST FACILITY
 01              OK      102345
Enter ANOTHER ENCOUNTER LOCATION:

The following have been selected =>

   CMI*DEV

     Subject of subquery: VISIT
     CLINIC (GENERAL/DIABETIC...)
     BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59
     POV (250.01/250.11...)
     LOCATION OF ENCOUNTER (CMI*DEV)

Next condition of "VISIT": <Enter>

Computing Search Efficiency Rating

  Subject of search: PATIENTS
   ALIVE TODAY
     Subject of subquery: VISIT
     CLINIC (GENERAL/DIABETIC...)
     BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59
     POV (250.01/250.11...)
     LOCATION OF ENCOUNTER (CMI*DEV)

              ***** Q-MAN OUTPUT OPTIONS *****

   Select one of the following:

     1     DISPLAY results on the screen
     2     PRINT results on paper
     3     COUNT 'hits'
     4     STORE results of a search in a FM search template
     5     SAVE search logic for future use
     6     R-MAN special report generator
     9     HELP
     0     EXIT
```

```
Your choice: DISPLAY// 4 <Enter> STORE results of a search in a FM search
template

Enter the name of the SEARCH TEMPLATE: PTS FOR DM AUDIT 15 <Enter>
Are you adding 'PTS FOR DM AUDIT 15' as
a new SORT TEMPLATE? No// Y <Enter> (Yes)
DESCRIPTION:
No existing text
Edit? NO//<Enter>

Want to run this task in background? No// <Enter> (No)

PATIENTS     CMI*DEV
(Alive)     NUMBER
---------------------------------------------------------------------

ABCDEFG,ABCD*   66666 +
ABDCDEL,ACDE*   77777 +
ABCDEM,ABCDM    88888 +
ABCDES,ABDCS 33333 +
```

Figure 2-6: Q-Man search for patients with diabetes and at least one primary care visit during the Audit period

> **Note**: FileMan users: This template will be attached to IHS's Patient file.

2.3.2 Creating a Template of Register Patients for the Audit

If a Diabetes Register exists but Register diagnoses and patient status have not been maintained, it might be easier to create a template of active patients on the register who have had at least one visit to a primary clinic during the Audit year with a diagnosis of diabetes. The Q-Man search demonstrating how to create that template is shown in Figure 2-7.

```
What is the subject of your search?  LIVING PATIENTS // REGISTER  REGISTER
     REGISTER

Which CMS REGISTER:    IHS DIABETES

Register being checked to update status of deceased patients.

Select the Patient Status for this report

          1     Active
          2     Inactive
          3     Transient
          4     Unreviewed
          5     Deceased
          6     Non-IHS
          7     Lost to Follow-up
          8     All Register Patients

Which Status(es):  (1-8): 1// 8

Select the Diabetes Register Diagnosis for this report
```

```
     Select one of the following:

          1         Type 1
          2         Type 2
          3         Type 1 & Type 2
          4         Gestational DM
          5         Impaired Glucose Tolerance
          6         All Diagnoses

Which Register Diagnosis: All Diagnoses// 6  All
Diagnoses.....................
.................................................

There are 74 register patients for the combination selected.

Attribute of IHS DIABETES REGISTER: ALIVE
Alive at least until exactly what date: TODAY//12/31/14  (DEC 31, 2014)
Computing Search Efficiency
Rating.........................................

   Subject of search: PATIENTS
      MEMBER OF 'IHS DIABETES REGISTER-4104' COHORT
      ALIVE AS OF DEC 31,2014

Attribute of IHS DIABETES REGISTER: VISIT

SUBQUERY: Analysis of multiple VISITS

First condition of "VISIT": CLINIC              VISIT ATTRIBUTES

Enter CLINIC: [   BGP PRIMARY CARE CLINICS     BGP PRIMARY CARE CLINICS]

Members of   Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
CHRONIC DISEASE
FAMILY PRACTICE
ENDOCRINOLOGY

Enter ANOTHER CLINIC:

The following have been selected =>

     GENERAL
     DIABETIC
     INTERNAL MEDICINE
     PEDIATRIC
     CHRONIC DISEASE
     FAMILY PRACTICE
     ENDOCRINOLOGY

Want to save this CLINIC group for future use? No//   (No)

Next condition of "VISIT": DURING THE PERIOD              VISIT ATTRIBUTES

Exact starting date: 1/1/2014  (JAN 01, 2014)
Exact ending date: 12/31/2014  (DEC 31, 2014)
```

```
         Subject of subquery: VISIT
         CLINIC (GENERAL/DIABETIC...)
         BETWEEN BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59

Next condition of "VISIT": DX
     1   DX            VISIT ATTRIBUTES
     2   DX PROCEDURE            VISIT ATTRIBUTES
CHOOSE 1-2: 1              VISIT ATTRIBUTES

Enter DX: 250.00-250.93
       DIABETES II/UNSPEC NOT UNCONTR
         ...OK? Yes//   (Yes)

  250.93     DIAB W/COMP I/JUV UNCONT     COMPLICATION/COMORBIDITY
         ...OK? Yes//   (Yes)

Codes in this range =>

250.00   DIABETES II/UNSPEC NOT UNCONTR
250.01   DIABETES I/JUV NOT UNCONTRL
250.02   DIABETES TYPE II/UNSPEC UNCON
250.03   DIABETES I/JUV UNCONTRL
250.10   DIAB W/KET TYPEII/UNSP CONT
250.11   DIAB W/KET TYPI JUV/NOT UNCONT
250.12   DIAB W/KET TYPII/UNSPC UNCONT
250.13   DIAB W/KET TYPEI JUV UNCONT
250.20   DIAB W/HYPER TYPII/UNSP CONT
250.21   DIAB W/HYPR TYPI/JUV CONT
250.22   DIAB W/HYPR TYPII/UNSP UNCONT
250.23   DIAB W/HYPR TYPI/JUV UNCONT
250.30   DIAB W/OTH COMA II/UNSPE CONT
250.31   DIAB W/OTH COMA TYPI/JUV CONT
250.32   DIAB W/OTH COMA TYII/UNSP UNCT
250.33   DIAB W/OTH COMA TYI/JUV UNCONT
250.40   DIAB W/RENAL TYII/UNSPEC CONT
250.41   DIAB W/RENAL TYI/JUV CONT
250.42   DIAB W/RENAL II/UNSPEC UNCONT
250.43   DIAB W/RENAL I/JUV UNCONT
250.50   DIAB W/OPHTH II/UNSPEC CONT
250.51   DIAB W/OPHTH I/JUV CONT
250.52   DIAB W/OPHTH II/UNSPEC UNCONT
250.53   DIAB W/OPHTH I/JUV UNCONT
250.60   DIAB W/NEUR II/UNSPEC CONT
250.61   DIAB W/NEUR I/JUV CONT
250.62   DIAB W/NEUR II/UNSPEC UNCONT
250.63   DIAB W/NEUR I/JUV UNCONT
250.70   DIAB W/CIRC DISOR II/UNSP CONT
250.71   DIAB W/CIRC DISOR I/JUV CONT
250.72   DIAB W/CIRC DISOR II/UNSP UNCN
250.73   DIAB W/CIRC DISOR I/JUV CONT
250.80   DIAB W/OTHER II/UNSPEC CONT
250.81   DIAB W/OTHER I/JUV CONT
250.82   DIAB W/OTHER II/UNSPEC UNCONT
250.83   DIAB W/OTHER I/JUV UNCONT
250.90   DIAB W/COMP II/UNSPEC CONT
250.91   DIAB W/COMP I/JUV CONT
250.92   DIAB W/COMP II/UNSPEC UNCONT
<>
250.93   DIAB W/COMP I/JUV UNCONT
```

```
Press return to continue

Code Range(s) Selected So Far =>

1)  250.00 - 250.93

Enter ANOTHER DX:

Want to save this DX group for future use? No//   (No)

         Subject of subquery: VISIT
         CLINIC (GENERAL/DIABETIC...)
         BETWEEN BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59
         POV (250.01/250.11...)

Next condition of "VISIT":

Computing Search Efficiency Rating....

   Subject of search: PATIENTS
      MEMBER OF 'IHS DIABETES REGISTER-4104' COHORT
      ALIVE AS OF DEC 31,2014
         Subject of subquery: VISIT
         CLINIC (GENERAL/DIABETIC...)
         BETWEEN BETWEEN JAN 1,2014 and DEC 31,2014@23:59:59
         POV (250.01/250.11...)

                     *****  Q-MAN OUTPUT OPTIONS  *****

     Select one of the following:

          1         DISPLAY results on the screen
          2         PRINT results on paper
          3         COUNT 'hits'
          4         STORE results of a search in a FM search template
          5         SAVE search logic for future use
          6         R-MAN special report generator
          7         DELIMITED file via screen capture
          9         HELP
          0         EXIT

     Your choice: DISPLAY// 4  STORE results of a search in a FM search
template

Fileman users please note =>
This template will be attached to IHS' PATIENT file (#9000001)

Enter the name of the SEARCH TEMPLATE: DM REGISTER AUDIT 2015
  Are you adding 'DM REGISTER AUDIT 2015' as
    a new SORT TEMPLATE? No// Y  (Yes)
DESCRIPTION:
  No existing text
  Edit? NO//

Next, you will be asked about creating your template in background...

Answer 'YES' to run in background.

To run in background means to pass the template creation job off to
Taskman.
```

```
Your terminal will be released so additional RPMS work may be performed
while
the template is being created.  When finished, Taskman will send you a
Mailman
message indicating that the job is ready.  Then, you may use the template
in
future Qman searches, PGEN, VGEN and other reports that can utilize
templates.

Answer 'NO', to create the search template in foreground.

While the template is being created, data will be displayed to your screen.
When the job has finished, you will have the opportunity to go to PGEN or
VGEN.
Remember ... some templates may take a very long time to finish.

Press ENTER to continue or '^' to quit:

Want to run this task in background? No//   (No)

...HMMM, I'M WORKING AS FAST AS I CAN...

Search template completed...
```

Figure 2-7: Q-Man search for creating a template of patients for the Audit using the Diabetes Register

2.4 Updating Taxonomies

The taxonomies in Figure 2-8 are referenced in the 2015 RPMS Diabetes Audit. There are no new taxonomies for the 2015 Audit. Note that all Lipid Lowering Drug Taxonomies have been removed except DM AUDIT STATIN DRUGS. Taxonomies removed include:

DM AUDIT EZETIMIBE DRUGS	DRUG
DM AUDIT FIBRATE DRUGS	DRUG
DM AUDIT FISH OIL DRUGS	DRUG
DM AUDIT LOVAZA DRUGS	DRUG
DM AUDIT NIACIN DRUGS	DRUG
DM AUDIT NON-HDL TESTS	LABORATORY TEST

Even though taxonomies might have been updated for the 2014 Audit, they must be reviewed and updated again before running the 2015 Audit. This is due to new medications being added to the pharmacy formulary, new lab tests offered, and new education topics provided.

```
TAXONOMIES TO SUPPORT 2015 DIABETES AUDIT REPORTING
+---------------------------------------------------------------------------
1)  BGP CMS SMOKING CESSATION MEDS   DRUG
2)  BGP CREATINE KINASE TAX          LABORATORY TEST
3)  BGP GPRA ESTIMATED GFR TAX       LABORATORY TEST
4)  DM AUDIT ACARBOSE DRUGS          DRUG
5)  DM AUDIT ACE INHIBITORS          DRUG
```

```
6)  DM AUDIT ALT TAX                 LABORATORY TEST
7)  DM AUDIT AMYLIN ANALOGUES        DRUG
8)  DM AUDIT ANTI-PLATELET DRUGS     DRUG
9)  DM AUDIT ASPIRIN DRUGS           DRUG
10)  DM AUDIT AST TAX                LABORATORY TEST
11)  DM AUDIT BROMOCRIPTINE DRUGS    DRUG
12)  DM AUDIT CESSATION HLTH FACTOR  HEALTH FACTORS
13)  DM AUDIT CHOLESTEROL TAX        LABORATORY TEST
14)  DM AUDIT COLESEVELAM DRUGS      DRUG
15)  DM AUDIT CREATININE TAX         LABORATORY TEST
16)  DM AUDIT DIET EDUC TOPICS       EDUCATION TOPICS
17)  DM AUDIT DPP4 INHIBITOR DRUGS   DRUG
18)  DM AUDIT EXERCISE EDUC TOPICS   EDUCATION TOPICS
19)  DM AUDIT GLITAZONE DRUGS        DRUG
20)  DM AUDIT GLP-1 ANALOG DRUGS     DRUG
21)  DM AUDIT HDL TAX                LABORATORY TEST
22)  DM AUDIT HGB A1C TAX            LABORATORY TEST
23)  DM AUDIT INCRETIN MIMETIC       DRUG
24)  DM AUDIT INSULIN DRUGS          DRUG
25)  DM AUDIT LDL CHOLESTEROL TAX    LABORATORY TEST
26)  DM AUDIT METFORMIN DRUGS        DRUG
27)  DM AUDIT MICROALBUMINURIA TAX   LABORATORY TEST
28)  DM AUDIT OTHER EDUC TOPICS      EDUCATION TOPICS
29)  DM AUDIT QUANT UACR             LABORATORY TEST
30)  DM AUDIT SGLT-2 INHIBITOR DRUG  DRUG
31)  DM AUDIT SMOKING CESS EDUC      EDUCATION TOPICS
32)  DM AUDIT STATIN DRUGS           DRUG
33)  DM AUDIT SULFONYLUREA DRUGS     DRUG
34)  DM AUDIT SULFONYLUREA-LIKE      DRUG
35)  DM AUDIT TB LAB TESTS           LABORATORY TEST
36)  DM AUDIT TRIGLYCERIDE TAX       LABORATORY TEST
```

Figure 2-8: Audit 2015 user-populated taxonomies

The taxonomies can be reviewed and updated with the TU15 option under the DM15 menu of the Diabetes Audit or the corresponding Visual DMS Update Taxonomy option.

When updating lab test taxonomies, attempting to add a test panel to a laboratory test taxonomy that should only include individual tests displays a warning. This warning is displayed because the audit logic cannot correctly display hemoglobin A1C, lipid breakdown, or estimated GFR according to value categories if panels are included in the taxonomy. Panel tests have no values associated with them; only the tests within the panels have values.

Some taxonomies might not have any members. For example, if providers at a facility never prescribe INVOKANA, the DM AUDIT SGLP-2 DRUG taxonomy will not have any members.

Taxonomies that follow must be reviewed carefully in light of software changes or changes introduced in the 2015 Diabetes Audit. Possible members of the taxonomies are listed, but are by no means to be considered comprehensive.

2.4.1 Drug Taxonomies

The guidelines of Table 2-1 are provided for populating drug taxonomies. New drugs can be available each year, so an updated list is provided for each of the drug taxonomies. Review the lists of drugs with the pharmacist to be sure of those that are available at a facility.

Note: Medications entered as Outside Medications via the RPMS EHR can be orderable items but they might not be in the site's drug file. If the medication is not in the site's drug file, the outside medication will not be stored in the V Medication file in PCC. If that is the case, those medications might not be found as drugs available to add to medication taxonomies nor will they be included in the Diabetes Audit or Diabetes Patient Care Summary.

Table 2-1: DM Audit Drug Taxonomies

Taxonomy	Drugs
DM AUDIT ACE INHIBITORS	Benazepril (Lotensin) Benazepril and hydrochlorothiazide (Lotensin HCT) Benazepril and amlodipine (Lotrel) Captopril (Capoten) Captopril and hydrochlorothiazide (Capozide) Enalapril (Vasotec) Enalapril and hydrochlorothiazide (Vaseretic) Enalapril and diltiazem (Teczem) Enalapril and felodipine (Lexxel) Fosinopril (Monopril) Lisinopril (Prinivil, Zestril) Lisinopril and hydrochlorothiazide (Prinzide, Zestoretic) Moexipril (Univasc) Perindopril (Aceon) Quinapril (Accupril) Ramipril (Altace) Trandolapril (Mavik) Trandolapril and verapamil (Tarka) Also include Angiotensin II Receptor Blockers (ARB) in this Taxonomy Azilsartan (Edarbi) Candesartan (Atacand) Eprosartan (Teveten) Irbsesartan (Avapro) Irbesartan and hydrochlorothizide (Avalide) Losartan (Cozaar) Losartan and hydrochlorothiazide (Cozaar) Olmesartan (Benicar) Telmisartan (Micardis) Valsartan (Diovan) Valsartan and hydrochlorothizide (Diovan/HCT)
DM AUDIT ACARBOSE DRUGS	Acarbose (Precose) Miglitol (Glyset)
DM AUDIT AMYLIN ANALOGUES	Pramlinitide (Symlin)

Taxonomy	Drugs
DM AUDIT ANTIPLATELET THERAPY	Any non-aspirin anti-platelet product including Heparin and Warfarin (Coumadin) Cilistazol (Pletal) Clopidogrel (Plavix) Dipyridamole (Persantine) Ticlopidine (Ticlid) Aspirin and Dipyridamole (Aggrenox) Prasugrel (Effient) Ticagrelor (Brilinta) Dabigatran Etexilate (Pradaxa) Rivaroxaban (Xarelto) Apixaban (Eliquis)
DM AUDIT ASPIRIN DRUGS	Any Aspirin (ASA) or Aspirin containing product. (Verasa, Rubrasa)
DM AUDIT BROMOCRIPTINE DRUGS	Bromocriptine 0.8 mg (Cycloset)
DM AUDIT COLESEVELAM DRUGS	Colesevelam (Welchol)
DM AUDIT DPP4 INHIBITOR DRUGS	Alogliptin (Nesina) Alogliptin and Metformin (Kazano) Alogliptin and Pioglitazone (Oseni) Linagliptin (Trajenta) Linagliptin and Metformin (Jentadueto) Nesina Sitagliptin (Januvia,) Sitagliptin and metformin (Janumet) Sitagliptin and Simvastatin (Juvisync) Saxagliptin (Onglyza) Saxagliptin and Metformin (Kombiglyze XR)
DM AUDIT GLITAZONE DRUGS (aka:Thiazolidinediones)	Troglitazone (Rezulin) - RECALLED Pioglitazone (Actos) Pioglitazone and Alogliptin (Oseni) Pioglitazone and Metformin (Actoplus met) Pioglitazone and Glimeperide (Duetact) Rosiglitazone and Glimeperide (Avandaryl) Rosiglitazone (Avandia) Rosiglitazone and Metformin (Avandamet)
DM AUDIT GLP-1 ANALOG DRUGS	Victoza
DM AUDIT INCRETIN MIMETICS	Exenatide (Byetta), Bydureon

Taxonomy	Drugs
DM AUDIT INSULIN DRUGS	Any Insulin product in Drug File – Insulin, REG, NPH, Lente, Ultralente, Insulin Lispro (Humalog), Insulin Glargine (Lantus), Insulin Detemir (Levimir) Insulin Aspart (Novolog), Insulin Glulisine (Apidra), Inhalable Insulin (Exubera),Pre-Mixed Insulins (70/30, 75/25)
DM AUDIT METFORMIN DRUGS	Metformin (Glucophage, Fortamet, Glumetza, Riomet) Metformin extended release (Glucophage XR, Glumetza) Metformin and Alogliptin (Kazano) Metformin and Glipizide (Metaglip) Metformin and Glyburide (Glucovance) Metformin and Linagliptin (Jentadueto) Metformin and Rosiglitazone(Avandamet) Metformin and Pioglitazone (Actoplus met) Metformin and Sitagliptin (Janumet) Metformin and Repaglinide (PrandiMet) Metformin and Saxagliptin (Kombiglyze XR)
DM AUDIT SGLT-2 DRUGS	Canagliflozin (Invokana) Farxiga
DM AUDIT STATIN DRUGS	Atorvastatin (Lipitor) Atorvastatin and Ezetimibe (Liptruzet) Fluvastatin (Lescol) Lovastatin (Mevacor, Altocor,) Lovastatin and Niacin (Advicor) Pravastatin (Pravachol) Rosuvastatin (Crestor) Simvastatin (Zocor) Simvastatin and Niacin (Simcor) Simvastatin and Ezetimibe (Vytorin) Simvastatin and Sitagliptin (Juvisync) Atorvastatin and Amlodipine (Caduet) Pitivistatin (Livalo)
DM AUDIT SULFONYLUREA DRUGS	Acetohexamide (Dymelor) Chlorpropamide (Diabinese) Glimepiride (Amaryl) Glimepiride and rosiglitazone (Avandaryl) Glimepiride and pioglitazone (Duetact) Glipizide (Glucotrol) Glipizide and metformin (Metaglip) Glyburide(Diabeta,Micronase,Glynase, Glycron) Glyburide and metformin (GlucoVance) Tolazamide (Tolinase) Tolbutamide (Orinase)

Taxonomy	Drugs
DM AUDIT SULFONYLUREA-LIKE DRUGS	Nateglinide (Starlix) Repaglinide (Prandin) Repaglinide and Metformin (PrandiMet)

2.4.2 Education Topic Taxonomies

All three DM Audit Education topic taxonomies; DM AUDIT DIET EDUC TOPICS, DM AUDIT EXERCISE EDUC TOPICS, and DM AUDIT OTHER EDUC TOPICS, should be reviewed and updated to ensure that any new education topics are included.

Table 2-2 provides examples of education topics that can have been used during the Audit period and that should be included in the three DM Education Topic taxonomies. These lists are not inclusive of all potential topics.

Note: If custom pick lists have been created for providers in EHR, ensure that these are standard education topics and that the DM AUDIT taxonomy files are updated accordingly. If your facility upgraded to EHR patch 13 during 2014 and education topics are documented in EHR, those topics can be stored with SNOMED codes. Directions are provided in Appendix D: for conducting a Fileman search to identify Diabetes-related education topics that have been stored with a SNOMED prefix, e.g. 44054006-EXERCISE instead of DM-EXERCISE.

Table 2-2: DM Audit Education Topic Taxonomies

Taxonomy	Topics
DM AUDIT DIET EDUC TOPICS	DM-DIET 2005 DM-MEDICAL NUTRITION THERAPY DM-MEDICAL NUTRITION THERAPY 2006 DM-NUTRITION DM-NUTRITION 2006 DMC-HEALTHY EATING DMC-NUTRITION 2006 DMCN-CARBOHYDRATE COUNTING DMCN-EATING AWAY FROM HOME DMCN-EVALUATING DIETS DMCN-EXCHANGE LISTS DMCN-FOOD SHOPPING DMCN-HEALTHY COOKING DMCN-INTRODUCTION TO FOOD LABELS DMC-N-AL NUTRITION (SESSION 7: GUIDELINES FOR THE USE OF ALCOHOL) 2006 DMC-N-CC NUTRITION (SESSION 2: INTRODUCTION TO CARBOHYDRATE COUNTING) 2006 DMC-N-D NUTRITION (SESSION 8: GUIDELINES FOR CHOOSING A HEALTHY DIET) 2006 DMC-N-EA NUTRITION (SESSION 6: GUIDELINES FOR EATING AWAY FROM HOME) 2006 DMC-N-EL NUTRITION (SESSION 3: INTRODUCTION TO EXCHANGE LISTS) 2006 DMC-N-FL NUTRITION (SESSION 1: INTRODUCTION TO FOOD LABELS) 2006 DMC-N-FS NUTRITION (SESSION 4: INTRODUCTION TO FOOD SHOPPING) 2006 DMC-N-HC NUTRITION (SESSION 5: INTRODUCTION TO HEALTHY COOKING) 2006 DMC-PG-N SESSION 2: HEALTHY EATING DURING PREGNANCY 2006 May also consider including: OBS-NUTRITION OBS-NUTRITION 2006 HTN-DIET 2006 HTN-MEDICAL NUTRITION THERAPY HTN-MEDICAL NUTRITION THERAPY 2006 HTN-NUTRITION HTN-NUTRITION 2006

Taxonomy	Topics
DM AUDIT EXERCISE EDUC TOPICS	DM-EXERCISE DM-EXERCISE 2006 DMC-EXERCISE DMC-EXERCISE 2006 DMCPG-MOVING TO STAY HEALTHY DMC-PG-PA SESSION 3: MOVING TO STAY HEALTHY DURING PREGNANCY 2006 May also consider including: OBS-EXERCISE OBS-EXERCISE 2006 HTN-EXERCISE HTN-EXERCISE 2006 44054006-EXERCISE

Taxonomy	Topics
DM AUDIT OTHER EDUC TOPICS	DM-ACANTHOSIS NIGRICANS 2005 DM-ANATOMY AND PHYSIOLOGY DM-CASE MANAGEMENT DM-COMPLICATIONS DM-COMPLICATIONS 2006 DM-CULTURAL/SPIRITUAL ASPECTS OF HEALTH DM-CULTURAL/SPIRITUAL ASPECTS OF HEALTH 2006 DM-DISEASE PROCESS DM-DISEASE PROCESS 2006 DM-EQUIPMENT DM-EQUIPMENT 2006 DM-FOLLOW UP 2006 DM-FOLLOWUP DM-FOOT CARE 2006 DM-FOOT CARE AND EXAMINATIONS DM-FOOT CARE AND EXAMINATIONS 2006 DM-HOME MANAGEMENT DM-HOME MANAGEMENT 2006 DM-INFORMATION 2006 DM-KIDNEY DISEASE DM-KIDNEY DISEASE 2006 DM-LIFESTYLE ADAPTATIONS DM-LIFESTYLE ADAPTATIONS 2006 DM-LITERATURE DM-MEDICATIONS DM-MEDICATIONS DM-MEDICATIONS 2006 DM-PAIN MANAGEMENT DM-PAIN MANAGEMENT 2006 DM-PATIENT LITERATURE 2006 DM-PERIODONTAL DISEASE DM-PREVENTION DM-PREVENTION 2006 DM-SAFETY DM-SCREENING DM-SCREENING 2006 DM-STRESS MANAGEMENT DM-STRESS MANAGEMENT 2006 DM-TESTS DM-TREATMENT DM-WOUND CARE DM-WOUND CARE 2006 DMC-ACUTE COMPLICATIONS

Taxonomy	Topics
DM AUDIT OTHER EDUC TOPICS (continued)	DMC-ACUTE COMPLICATIONS 2006 DMC-BEHAVIORAL GOALS DMC-BEHAVIORAL GOALS (MAKING HEALTHY CHANGES) 2006 DMC-BLOOD SUGAR MONITORING, HOME 2006 DMC-CHRONIC COMPLICATIONS DMC-CHRONIC COMPLICATIONS (PREVENTION and TREATMENT) DMC-CHRONIC COMPLICATIONS (PREVENTION and TREATMENT) 2006 DMC-DIABETES MEDICINE DMC-DIABETES MEDICINE - INSULIN 2006 DMC-DISEASE PROCESS DMC-DISEASE PROCESS 2006 DMC-FOOT CARE DMC-FOOT CARE 2006 DMC-HOME BLOOD SUGAR MONITORING DMC-KNOW YOUR NUMBERS DMC-KNOWING YOUR NUMBERS (ABC) 2006 DMC-MEDICATIONS 2006 DMC-MIND, SPIRIT AND EMOTION DMC-MIND, SPIRIT AND EMOTION 2006 DMC-PRE-PREGNANCY COUNSELING 2006 DMC-PREPREGNANCY COUNSELING DMCN-USE OF ALCOHOL DMCPG-BLOOD SUGAR MONITORING DMCPG-MEDICATIONS DMCPG-PREGNANCY, DIABETES AND YOU DMCPG-STAYING HEALTHY AFTER DELIVERY DMCPG-STAYING HEALTHY DURING PREGNANCY DM-SM STRESS MANAGEMENT 2005 DMC-PG-BGM SESSION 5: HOME BLOOD SUGAR MONITORING DURING PREGNANCY 2006 DMC-PG-C SESSION 6: STAYING HEALTHY DURING PREGNANCY 2006 DMC-PG-DM SESSION 1: PREGNANCY, DIABETES AND YOU: FIRST STEPS TO A HEALTHY 2006 DMC-PG-M SESSION 4: MEDICINE DURING PREGNANCY 2006 DMC-PG-PP SESSION 7: STAYING HEALTHY AFTER DELIVERY 2006 44054006-LITERATURE 44054006-MEDICATIONS 111552007-DISEASE PROCESS 237599002-DISEASE PROCESS 237599002-MEDICATION

2.4.3 Laboratory Test Taxonomies

For Audit 2015, all Urine Protein test taxonomies have been removed except for DM AUDIT QUANT UACR. The DM AUDIT NON HDL TESTS taxonomy has also been removed because of discrepancies reported between the RPMS Diabetes Audit and the WebAudit. Non-HDL cholesterol will be calculated from the last Total Cholesterol and HDL Cholesterol reported during the Audit period. Table 2-3 lists the taxonomies that must be reviewed for potential changes in laboratory testing at a facility.

Table 2-3: DM Audit Laboratory Test Taxonomies

Taxonomy	Topics
BGP GPRA ESTIMATED GFR TAX	Estimated GFR, Calculated GFR, _GFR, Estimated, _GFR Non-African American, EST GFR, eGFR
DM AUDIT CHOLESTEROL TAX	Cholesterol, Total Cholesterol, _Cholesterol, POC Cholesterol
DM AUDIT CREATININE TAX	Creatinine, POC Creatinine, Serum Creatinine, _Creatinine
DM AUDIT HDL TAX	HDL, HDL Cholesterol, POC HDL Cholesterol, _HDL Cholesterol
DM AUDIT HGB A1C TAX	Hemoglobin A1C, A1C, HGB A1C, HBA1C, HA1C, POC HEMOGLOBIN A1C, _A1C
DM AUDIT LDL CHOLESTEROL TAX	LDL, Direct LDL, LDL Cholesterol, LDL Cholesterol (calc), POC LDL Cholesterol, _LDL Cholesterol
DM AUDIT QUANT UACR TAX	Microalbumin/Creatinine Ratio measured in actual numeric values (mg/g Creatinine). Look for tests A/C, A:C, Albumin/Creatinine, _A/C, -A/C, asterisk (*)A/C, Microalbumin/Creatinine, M-Alb/Creatinine.
DM AUDIT TB LAB TESTS	QFT-G, T SPOT-TB, Quantiferon GOLD
DM AUDIT TRIGLYCERIDE TAX	Triglyceride, POC Triglyceride, _Triglyceride

With the advent of reference laboratory interfaces and Point of Care result entry, there is considerable variation in test nomenclature. Diabetes Program staff are encouraged to solicit assistance from both laboratory and pharmacy staff in updating taxonomies.

When deciding which tests should be included in a taxonomy, it is often useful to review test results on a health summary for a known compliant patient with diabetes. Once test names are determined, the appropriate tests can be added or deleted from taxonomies.

Figure 2-9 is a Health Summary sample with recommended taxonomy placement noted after the lab test on the health summary.

```
HGB A1C-GLYCO (R)              01/16/09 5.7    %    4.3-6.1
   DM AUDIT HGB A1C
```

```
LIPID PROFILE (R)               01/16/09
HDL CHOLESTEROL (R)             01/16/09 44       MG/DL  40-125
   DM AUDIT HDL CHOLESTEROL
TRIGLYCERIDE (R)                01/16/09 109      MG/DL  30-150
   DM AUDIT TRIGLYCERIDE
LDL CHOLESTEROL (R)             01/16/09 97       MG/DL  0-130
   DM AUDIT LDL CHOLESTEROL
CHOLESTEROL (R)                 01/16/09 163      MG/DL  100-200
  DM AUDIT CHOLESTEROL
CHOL/HDL RATIO (R)              01/16/09 3.70     RATIO  0.00-4.44
CALCULATED GFR (R)              01/16/09
_GFR AFRICN AMER                01/16/09 >60      ML/MIN  >60-
  BGP GPRA ESTIMATED GFR
_GFR NON AFR AMR                01/16/09 >60      ML/MIN  >60-
  BGP GPRA ESTIMATED GFR
COMPREHENSIVE-14 METABOLIC (R)  01/16/09
AST (SGOT) (R)                  01/16/09 18       U/L   0-40
ALT (SGPT) (R)                  01/16/09 15       U/L   0-40
BUN (R)                         01/16/09 11       MG/DL  5-19
ALBUMIN (R)                     01/16/09 4.2      GM/DL  3.9-5.0
CHLORIDE (R)                    01/16/09 104      MMOL/L  96-108
BILIRUBIN, TOTAL (R)            01/16/09 0.9      MG/DL  0.1-1.0
ALKALINE PHOS (R)               01/16/09 76       U/L   28-110
SODIUM (R)                      01/16/09 139      MMOL/L  135-145
CREATININE (R)                  01/16/09 0.86     MG/DL  0.50-1.00
  DM AUDIT CREATININE
CALCIUM (R)                     01/16/09 8.9      MG/DL  8.5-10.5
POTASSIUM (R)                   01/16/09 5.6 (H)  MMOL/L  3.5-5.5
PROTEIN, TOTAL (R)              01/16/09 7.7      GM/DL  6.7-8.3
GLUCOSE RANDOM (R)              01/16/09 68 (L)   MG/DL  70-100
CO2 (R)                         01/16/09 23       MMOL/L  18-30
ANION GAP (R)                   01/16/09 12       MM/L   5-16
URINE DIPSTICK (R)              03/10/08
  DM AUDIT URINALYSIS
URINE COLOR                     03/10/08 O
URINE APPEARANCE                03/10/08 C
SPECIFIC GRAVITY                03/10/08 1.001       1.001-1.035
URINE UROBILINOGEN              03/10/08 NORMAL   EU/dL  .2-1
URINE BLOOD                     03/10/08 N        mg/dL  NEG-
URINE BILIRUBIN                 03/10/08 N        mg/dL  NEG-
URINE KETONES                   03/10/08 L        mg/dL  NEG-
URINE GLUCOSE                   03/10/08 500      mg/dL  NEG-
URINE PROTEIN                   03/10/08 L        mg/dL  NEG-
  DM AUDIT URINE PROTEIN
URINE PH                        03/10/08 5        5-9
URINE NITRITE                   03/10/08 N        NEG-
URINE LEUKOCYTE ESTERASE        03/10/08 N        NEG-
M-ALB/CREAT RATIO (R)           01/22/09
_MICROALB, RANDOM               01/22/09 <5.0     MG/L   0.0-20.0
  DM AUDIT MICROALBUMINURIA
_ALB/CREAT RATIO                01/22/09 FOOTNOTE MG/GCR  0.0-16.9
  DM AUDIT QUANT UACR
_CREAT UR, MG/DL                01/22/09 138      MG/DL
_CREAT/100 Calc Malb            01/22/09 1.38     G/L
```

Figure 2-9: Sample Health Summary

2.4.4 LMR–List Labs or Medications Used at this Facility

A report provided in DMS v2.0 p8 displays the laboratory tests reported or the drugs prescribed during the Audit period. In addition to displaying the laboratory tests or drugs, it identifies those that are already included in a taxonomy used by the audit. To run the laboratory tests version of this report:

1. At the Diabetes Management Systems menu, type **RP** and press Enter.
2. At the Reports menu, type **LMR** (List Labs/Medications Used at this Facility) and press Enter.
3. At the "Do you wish to list" prompt, type **L** (**LAB TESTS**) and press Enter.
4. Type the beginning and ending dates for the report, pressing Enter after each.
5. At the "Do you wish to" prompt, do one of the following:
   - To print the output, accept the default (**P**) by pressing Enter. A prompt asking for the device name displays; type the device's name and press Enter.
   - To browse the output on the screen, type **B** and press Enter.

   A sample report is shown in Figure 2-10.

```
Feb 27, 2013                                                  Page 1
                    LAB TESTS Used at CIMARRON HOSPITAL
                  Date Range:  Jan 01, 2014 - Dec 31, 2014
LAB TEST NAME                    IEN      # DONE    UNITS     RESULT
     TAXONOMIES
-------------------------------------------------------------------------
 HDL                             244             1               40
     DM AUDIT HDL TAX
 LDL                             901             1               120
     DM AUDIT LDL CHOLESTEROL TAX
ALBUMIN/CREATININE RATIO         9034            1               3
     DM AUDIT QUANT UACR
ANION GAP                        1160            2
BASIC METABOLIC PANEL            9999068         2
C DIFF A+B E/A (R)               9999195         3
CALCIUM                          180             2
CHLORIDE                         178             2
CHOLESTEROL                      183             1               240
     DM AUDIT CHOLESTEROL TAX
CO2                              179             2
CREATININE                       173             3               0.6
     DM AUDIT CREATININE TAX
CRYSTALS, FLUID                  9999199         1
CULTURE, HSV RAPID (R)           9999198         1
CYCLIC CITRULLINATED PEPTIDE A   9999172         1
DIAGNOSIS:                       9999089         3      WITHIN NORMAL LIMITS
DILANTIN                         210             1
ESTIMATED GFR                    9999103         3               >60
     BGP GPRA ESTIMATED GFR TAX
FERRITIN (SQ)                    9999175         2
FREE T3                          9999176         1
GLUCOSE                          175             5  mg/dL        145
```

```
H PYLORI AG EIA                 9999183         2
H. PYLORI AG EIA                9999177         1
HEMOGLOBIN                      3               1  g/dL        5.0
LEAD                            262             1  mcg/dL      6.7
LIPASE (R)                      200             1  U/L         456
```

Figure 2-10: Sample Report of Labs Reported during the Audit Period

To run the medications that have been prescribed version of this report:

1. At the Diabetes Management Systems menu, type **RP** and press Enter.
2. At the Reports menu, type **LMR** (List Labs/Medications Used at this Facility) and press Enter.
3. At the "Do you wish to list" prompt, type **M** (**MEDICATIONS**) and press Enter.
4. Type the beginning and ending dates for the report, pressing Enter after each.
5. At the "Do you wish to" prompt, do one of the following:
   - To print the output, accept the default (**P**) by pressing Enter. A prompt asking for the device name displays; type the device's name and press Enter.
   - To browse the output on the screen, type **B** and press Enter.

   A sample report is shown in Figure 2-11.

```
Feb 27, 2012                                                    Page 1
                 MEDICATIONS (DRUGS) Used at CIMARRON HOSPITAL
                    Date Range:  Jul01, 2014 – Dec 31, 2014
MEDICATION/DRUG NAME            IEN      # DONE
     TAXONOMIES
-------------------------------------------------------------------
ACARBOSE 25MG TAB               84472          4
     DM AUDIT ACARBOSE DRUGS
ACETAMINOPHEN 325MG TAB         263            3
ACETAMINOPHEN WITH CODEINE 30M  342          301
ACETAMINOPHEN/CODEINE  12MG/5M  3958           5
ACETAZOLAMIDE 250MG TABS        638            2
ACETIC ACID 2% HC 1% OTIC       2810          13
ACETIC ACID 2% OTIC SOL         3868           1
ACYCLOVIR 200MG CAP             83978          7
ACYCLOVIR 800MG TAB             84481          2
ALBUTEROL 2MG TAB               84348          2
ALBUTEROL 4MG TAB               84333          5
ALBUTEROL INHALER 17GM          3769         247
ALBUTEROL REFILL                84459          1
ALBUTEROL SOL 0.5%              84042         66
ALBUTEROL SULFATE SYRUP 2MG/5M  84061         20
ALENDRONATE SODIUM 10MG TAB     84444          1
ALLEGRA                         84422          8
ALLOPURINOL 100MG TABS          1391          10
ALLOPURINOL 300MG TAB           3740          27
ALUMINUM ACETATE SOLN TAB       83607          1
AMANTADINE 100MG CAP            1606           3
AMIODARONE 200MG TAB            84092         17
```

```
AMITRIPTYLINE 25MG TAB          1639          100
AMLODIPINE BESYLATE 10MG TAB    84337          34
AMLODIPINE BESYLATE 2.5MG TAB   84335           2
AMLODIPINE BESYLATE 5MG TAB     84336          22
AMOXICILLIN 250MG CAP           4601            7
AMOXICILLIN 250MG/5ML           83611          78
AMOXICILLIN 500MG CAP           84024         135
AMOXICILLIN/CLAVULENATE 400MG/  84434          20
ANTIPYRINE/BENZOCAINE OTIC SOL  83614          19
ASCORBIC ACID 500MG TAB         1642          421
ASPIRIN 325MG E.C. TAB UD       84291           1
     DM AUDIT ASPIRIN DRUGS
ASPIRIN 325MG TAB               276           310
     DM AUDIT ASPIRIN DRUGS
ASPIRIN 650MG E.C. TAB          83618         113
     DM AUDIT ASPIRIN DRUGS
ASPIRIN 81MG TAB                83620           8
     DM AUDIT ASPIRIN DRUGS
ATENOLOL 25MG TAB               84328          42
ATENOLOL 50MG TAB               84329         301
ATORVASTATIN 40MG TABLETS       84416           7
     DM AUDIT STATIN DRUGS
ATORVASTATIN 80MG TABLETS       84503           8
     DM AUDIT STATIN DRUGS
ATROPINE SULFATE 0.4MG/1ML      2545            1
```

Figure 2-11: Sample Report of Drugs Prescribed during the Audit period

3.0 Running the 2015 Audit

The directions for creating and submitting an electronic Diabetes Audit data file are outlined in the Audit 2015 Instructions which follow or at:

http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=resourcesAuditResources

In RPMS, Diabetes Audits can be run for individual patients, a template of patients, patients in a Register, or a random sample of patients in a Register. Additional options exist for running the Audit by Primary Care Provider, by Community, for only Indian/Alaska Native Patients, non-Indian/Alaska Native Patients, or both.

Output options include an individual Audit, a cumulative Audit, individual and cumulative Audits, the SDPI Key Measures Report, or an Audit Export file. Even those doing manual audits might find it useful to print individual Audits which most likely have some information on them such as measurements.

3.1 Running an Individual Audit

Individual Audits can be run at any time either via the Diabetes QA Audit Menu or via the Patient Management option to display the Audit status. To run an individual Audit using the Patient Management option:

1. At the Diabetes Management Systems menu, type **PM** and press Enter.
2. At the Patient Management menu, type **10** (Audit Status) and press Enter.
3. At the "Enter the Audit Date" prompt, type the ending date of the Audit period desired and press Enter.
4. At the "Do you wish to print the Patient's Name…?" prompt, do one of the following:
   - To not print the patient's name on the audit sheet, accept the default (**N**) by pressing Enter.
   - To print the patient's name, type **Y** and press Enter.
5. At the "Do you wish to" prompt, do one of the following:
   - To print the output, accept the default (**P**) by pressing Enter. A prompt asking for the device name displays; type the device's name and press Enter.
   - To browse the output on the screen, type **B** and press Enter.

   A sample report is shown in Figure 3-1.

```
ASSESSMENT OF DIABETES CARE, 2015       DATE AUDIT RUN: Dec 30, 2014  Page: 4

Audit Period Ending Date: Dec 30, 2014  Facility Name: DEMO INDIAN HOSPITAL
REVIEWER initials: DKR                  Community: TAHLEQUAH
STATE of Residence: OK
CHART #: 211284    DOB: Nov 02, 1933    SEX: MALE
PRIMARY CARE PROVIDER:  THOMAS,GREG K

DATE of Diabetes Diagnosis:
  DM Reg: Oct 17, 2014  Problem List: Jul 15, 2004  1st PCC DX: Jul 15, 2004
DM TYPE: 2  Type 2
  DM Register: TYPE 2  Problem List: 250.00  PCC POV's: Type 2

Screened for tobacco use during Audit period: 1  Yes

Tobacco Use Status: 1  Current User CURRENT SMOKER, EVERY DAY  Oct 14, 2014
  Cessation Counseling received?  1  Yes Oct 14, 2014 D1320-DP

HEIGHT (last ever): 60 inches Oct 14, 2014
Last WEIGHT in audit period: 118 lbs Oct 14, 2014     BMI: 23.0
HTN (documented diagnosis): 2  No
Last 3 BLOOD PRESSURES during audit period:  145/90 mm Hg Oct 14, 2014



Examinations during audit period
  FOOT EXAM-complete:             1  Yes  10/14/2014 CPT: 2028F
  EYE EXAM (dilated or retinal camera):
     1  Yes  10/14/2014 CPT: 2026F
  DENTAL EXAM:                    2  No

Education during audit period
  NUTRITION INSTRUCTION:            2  Yes (Non RD) NRD: DM-N Oct 14, 2014
  PHYSICAL ACTIVITY INSTRUCTION:    1  Yes  DM-EXERCISE  10/14/2014
  DM Education (Other):             1  Yes DM-C  Oct 14, 2014

Mental Health
  Depression an active problem?  2  No
  If 'No', Screened for depression during audit period:
       1  Yes - Exam: DEPRESSION SCR 10/14/2014

DM THERAPY     Select all prescribed, as of the end of the audit period:
      1 Diet & Exercise Alone
   X  2 Insulin
   X  3 Sulfonylurea (glyburide, glipizide, others)
      4 Glinide (Prandin, Starlix)
      5 Metformin (Glucophage, others)
      6 Acarbose (Precose) or miglitol (Glyset)
      7 Pioglitazone (Actos) or rosiglitazone (Avandia)
      8 GLP-1 med (Byetta, Bydureon, Victoza)
      9 DPP4 inhibitors (Januvia, Onglyza, Tradjenta, Nesina)
      10 Amylin Analog (Symlin)
      11 Bromocriptine (Cycloset)
      12 Colesevelam (Welchol)
      13 SGLT-2 inhibitor (Invokana, Farxiga)

ACE Inhibitor/ARB  Prescribed, as of the end of the audit period:
          1  Yes   CAPTOPRIL 25MG TABS  Oct 14, 2014
Aspirin/Antiplatelet Therapy  Prescribed, as of the end of the audit period:
          1  Yes - Aspirin/Antiplatelet Rx
```

```
Statin Therapy  Prescribed, as of the end of the Audit period:
          1  Yes  10/14/2014 PRAVASTATIN 20MG TAB

TB Testing
TB test done: 1 Skin test (PPD)
TB test result: 2  Negative 7/15/13 Reading: 0 Result:
    If PPD Pos, INH Tx Complete:
    If PPD Neg, Last PPD:        Jul 15, 2013

CVD: Cardiovascular disease diagnosed:  1  Yes - Problem List 429.2

Immunizations
  FLU VACCINE during audit period: 1  Yes  Oct 14, 2014
  PNEUMOVAX - ever:                1  Yes  May 04, 2006
  Td or Tdap in past 10 yrs:       1  Yes  Oct 14, 2014
  Tdap ever:                       2  No
  HEP B 3 dose series complete - ever: 4  Immune by DX

LABORATORY DATA - most recent result during audit period
  A1C:                      7.6            Oct 14, 2014     HGB A1C
  Serum Creatinine:         0.6 mg/dl      Oct 14, 2014     CREATININE
  eGFR value:               >60            Oct 14, 2014     ESTIMATED GFR
  Total Cholesterol:        210 mg/dl      Oct 14, 2014     CHOLESTEROL
  HDL Cholesterol:          56 mg/dl       Oct 14, 2014     HDL
  LDL Cholesterol:
  Non-HDL Cholesterol:      154
  Triglycerides:            >400 mg/dl     Oct 14, 2014     TRIGLYCERIDE

Urine Protein Testing during audit period

Quantitative Urine Albumin:Creatinine Ratio (UACR) performed? Yes
       UACR value:          23             Oct 14, 2014     MICROALBUMIN/CREATI

COMBINED:  Meets ALL: A1C <8.0, LDL <100, mean BP <140/<90
     2  No  A1C: 7.6; LDL: <Not Documented>; Mean BP:

Has e-GFR and UACR:  Yes

Local Option question:  9

Extended Local Option question:  Self-Management Goal Set
```

Figure 3-1: Individual Audit sample

3.2 Running a Cumulative Audit/Audit Report

Figure 3-2 shows a script to run a Cumulative Audit, also known as an Audit Report. The Audit can be either queued using the DM15 option in Visual DMS or run from the traditional RPMS menu. It is highly recommended that the 2015 Cumulative Audit be run and reviewed twice before creating a data file. The first time, run a cumulative Audit on all active members of the register with Type 1 and Type 2 Diabetes or on the template created of active patients with Type 1 or Type 2 Diabetes.

Review the initial cumulative Audit carefully to be sure there are no Audit elements that have no data or that have far larger or smaller numbers than would be expected. This will ensure that there is no missing data due to improperly populated taxonomies. If required, review taxonomy set up, edit taxonomies as needed, and run and review the cumulative Audit again to make sure that problems are corrected before creating the Audit Export file.

Note that a list of taxonomies that have no members can display. It is perfectly acceptable to have taxonomies with no members if the drugs or laboratory tests referenced are not used at a facility.

```
Diabetes Management System ...
DA   Diabetes QA Audit Menu ...
DM15  2015 Diabetes Program Audit ...
DM15  Run 2015 Diabetes Program Audit

                ASSESSMENT OF DIABETES CARE, 2015

                    PCC DIABETES AUDIT

Enter the Official Diabetes Register: IHS DIABETES

Select 2015 Diabetes Program Audit Option: DM15  Run 2015 Diabetes Program Audit

In order for the 2015 DM AUDIT Report to find all necessary data, several
taxonomies must be established.  The following taxonomies are missing or have no
entries:
DRUG taxonomy  [DM AUDIT AMYLIN ANALOGUES] has no entries
DRUG taxonomy  [DM AUDIT BROMOCRIPTINE DRUGS] has no entries
DRUG taxonomy  [DM AUDIT GLP-1 ANALOG DRUGS] has no entries
DRUG taxonomy  [DM AUDIT INCRETIN MIMETIC] has no entries
LABORATORY TEST taxonomy  [DM AUDIT MICROALBUMINURIA TAX] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries
LABORATORY TEST taxonomy  [DM AUDIT TB LAB TESTS] has no entries

                       ASSESSMENT OF DIABETES CARE, 2015

                              PCC DIABETES AUDIT

Enter the Official Diabetes Register: IHS DIABETES

Enter the date of the audit.  This date will be considered the ending
date of the audit period.  For most data items all data for the period one
year prior to this date will be reviewed.

Enter the Audit Date:  12/31/14  (DEC 31, 2014

     Select one of the following:

          P         Individual Patients
          S         Search Template of Patients
          C         Members of a CMS Register

Run the audit for: P// C  Members of a CMS Register or S if you have created a
template of patients for the 2015 Audit
Enter the Name of the Register: IHS DIABETES
Do you want to select register patients with a particular status? Y// YES
Which status: A// ACTIVE
```

```
There are 1164 patients in the IHS DIABETES register with a status of A.

You have selected a register or template/cohort of patients.
You can run the audit just for the subset of patients in the cohort or register who
live in a particular community or have a particular primary care provider.

Limit the audit to a particular primary care provider ? N//<ENTER> NO

Limit the patients who live in a particular community ? N//<ENTER> NO

     Select one of the following:

          1         Indian/Alaskan Native (Classification 01)
          2         Not Indian Alaskan/Native (Not Classification 01)
          3         All (both Indian/Alaskan Natives and Non 01)

Select Beneficiary Population to include in the audit: 1//   Indian/Alaskan Nati
ve (Classification 01)

There are 1164 patients selected so far to be used in the audit.


     Select one of the following:

          A         ALL Patients selected so far
          R         RANDOM Sample of the patients selected so far

Do you want to select: A//ALL Patients selected so far



     Select one of the following:

          1         Print Individual Reports
          2         Create AUDIT EXPORT file
          3         Cumulative Audit Only
          4         Both Individual and Cumulative Audits
          5         SDPI Key Measures Report

Enter Print option: 1// 3 Cumulative Audit Only

     Select one of the following:

          I         Include ALL Patients
          E         Exclude DEMO Patients
          O         Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// <ENTER> Exclude DEMO Patients

     Select one of the following:

          P         PRINT Output
          B         BROWSE Output on Screen

Do you wish to: P// <ENTER>
```

Figure 3-2: Running a Cumulative Audit (Audit Report)

At the "DEVICE" prompt, type the printer name. This report can be queued to run later as shown in Figure 3-3.

```
Device: HOME// Q <Enter> QUEUE TO PRINT ON

Device: P171 <Enter>
Start Date/Time: T@2000 <Enter>
Device: P180
```

Figure 3-3: Queuing the report to run later

> **Note**: A queued report cannot be printed to a locally connected printer usually referred to as a Slave printer.

The 2015 cumulative Audit is displayed in Figure 3-4.

```
     DKR                              Dec 30, 2014                          Page 1

            IHS DIABETES CARE AND OUTCOMES AUDIT REPORT - RPMS AUDIT
          AUDIT REPORT FOR 2015 (Audit Period 12/02/2013 to 12/01/2014)
                                for DEMO HOSPITAL
                           920 patients were audited
--------------------------------------------------------------------------------
                                            # of        #             Percent
                                            Patients    Considered
                                            (Numerator) (Denominator)

Gender
     Male                                        428         920         47%
     Female                                      492         920         53%

Age
     <15 years                                     1         920          0%
     15-44 years                                 192         920         21%
     45-64 years                                 508         920         55%
     65 years and older                          219         920         24%

Diabetes Type
     Type 1                                       15         920          2%
     Type 2                                      905         920         98%

Duration of Diabetes
     Less than 1 year                             52         920          6%
     Less than 10 years                          488         920         53%
     10 years or more                            422         920         46%
     Diagnosis date not recorded                  10         920          1%

BMI Category
     Normal (BMI<25.0)                            55         920          6%
     Overweight (BMI 25.0-29.9)                  163         920         18%
     Obese (BMI 30.0 or above)                   645         920         70%
     Height or Weight missing                     57         920          6%

Blood Sugar Control
     A1C <7.0                                    269         920         29%
     A1C 7.0-7.9                                 157         920         17%
     A1C 8.0-8.9                                 148         920         16%
     A1C 9.0-9.9                                  90         920         10%
```

A1C 10.0-10.9	69	920	8%
A1C 11.0 or higher	96	920	10%
Not tested or no valid result	91	920	10%
Mean Blood Pressure (of last 2, or 3 if available)			
<140/<90	592	920	64%
140/90 - <160/<95	150	920	16%
160/95 or higher	54	920	6%
BP category Undetermined	124	920	13%
Tobacco Use			
Tobacco Use Screening			
Screened	832	920	90%
Not screened	88	920	10%
Tobacco Use Status			
Current User	219	920	24%
In current users, counseled?			
Yes	88	219	40%
No	131	219	60%
Not a current tobacco user	698	920	76%
Tobacco use not documented	3	920	0%
Diabetes Treatment			
Diet and exercise alone	184	920	20%
Diabetes meds currently prescribed, alone or in combination			
Insulin	307	920	33%
Sulfonylurea (glyburide, glipizide, others)	240	920	26%
Glinide (Prandin, Starlix)	2	920	0%
Metformin (Glucophage, others)	580	920	63%
Acarbose (Precose)/Miglitol (Glyset)	4	920	0%
Pioglitizone (Actos) or rosiglitazone (Avandia)	29	920	3%
GLP-1 med (Byetta, Bydureon, Victoza)	36	920	4%
DPP4 inhibitor (Januvia, Onglyza, Tradjenta, Nesina)	276	920	30%
Amylin analog (Symlin)	3	920	0%
Bromocriptine (Cycloset)	0	920	0%
Colesevelam (Welchol)	0	920	0%
SGLT-2 Inhibitor (Invokana, Farxiga)	0	920	0%
Number of diabetes meds currently prescribed			
One med	267	920	29%
Two meds	237	920	26%
Three meds	198	920	22%
Four or more meds	34	920	4%
ACE Inhibitor or ARB Prescribed			

In patients with known hypertension*	549	723	76%
In patients with increased urine albumin excretion**	166	228	73%
Aspirin or Other Antiplatelet Therapy Prescribed			
In patients with diagnosed CVD	143	200	72%
Statin Prescribed			
Yes	516	896	58%
Allergy or intolerant	24	920	3%
In patients with known CVD:			
Yes	140	194	72%
Allergy or intolerant	6	200	3%
In patients aged 40-75:			
Yes	449	722	62%
Allergy or intolerant	18	740	2%
Exams			
Foot Exam - Complete	484	920	53%
Eye Exam - Dilated or Retinal Camera	539	920	59%
Dental Exam	450	920	49%
Diabetes-Related Education			
Nutritional - by any provider	478	920	52%
Nutritional - by RD	187	920	20%
Physical Activity	444	920	48%
Other	758	920	82%
Any of above topics	789	920	86%
Immunizations			
Flu Vaccine during audit period	378	920	41%
Refused - Flu Vaccine	129	920	14%
Pneumovax - ever	770	920	84%
Refused - Pneumovax	71	920	8%
Tetanus/Diphtheria - past 10 years	835	920	91%
Refused - Tetanus/Diphtheria	42	920	5%
Tdap - ever	825	920	90%
Refused - Tdap	45	920	5%
Hepatitis B 3-dose series complete - ever	266	918	29%
Refused - Hepatitis B	29	918	3%
Immune - Hepatitis B	2	920	0%
Depression An Active Problem			
Yes	207	920	23%
No	713	920	78%
In patients without active depression, screened for depression during the audit period:			
Screened	673	713	94%
Not Screened	40	713	6%
Laboratory Exams			
Non-HDL cholesterol	759	920	83%
Non-HDL <130 mg/dl	452	920	49%
Non-HDL 130-159 mg/dl	182	920	20%
Non-HDL 160-190 mg/dl	75	920	8%
Non-HDL >190 mg/dl	50	920	5%
Not tested or no valid result	161	920	18%

LDL cholesterol	758	920	82%
LDL <100 mg/dl	357	920	39%
LDL 100-129 mg/dl	240	920	26%
LDL 130-160 mg/dl	108	920	12%
LDL >160	53	920	6%
Not tested or no valid result	162	920	18%
HDL cholesterol	759	920	83%
In females			
HDL =<50 mg/dl	240	492	49%
HDL >50 mg/dl	160	492	33%
Not tested or no valid result	92	492	19%
In males			
HDL =<40 mg/dl	172	428	40%
HDL >40 mg/dl	187	428	44%
Not tested or no valid result	69	428	16%
Triglycerides	771	920	84%
TG =<400 mg/dl	722	920	78%
TG >400 mg/dl	49	920	5%
Not tested or no valid result	149	920	16%
eGFR to assess kidney function (In age 18 and above)	820	919	89%
eGFR >= 60 ml/min	732	919	80%
eGFR 30-59 ml/min	68	919	7%
eGFR 15-29 ml/min	12	919	1%
eGFR < 15 ml/min	7	919	1%
eGFR Not tested or no valid result	100	919	11%
Urine Albumin:Creatinine Ratio (UACR)			
Yes	677	920	74%
No	243	920	26%
In patients with UACR:			
Urine albumin excretion - Normal <30 mg/g	448	677	66%
Urine albumin excretion - Increased			
30-300 mg/g	155	677	23%
>300 mg/g	73	677	11%
In patients age 18 and above with eGFR =>30, UACR done	664	800	83%
Cardiovascular Disease			
Diagnosed CVD	200	920	22%
Tuberculosis Status			
TB Test done (skin or blood)	377	920	41%
If test done, skin test	377	377	100%
If test done, blood test	0	377	0%
If TB test done, positive result	31	377	8%
If positive TB test, treatment completed	4	31	13%
If negative TB test, after DM diagnosis	293	346	85%
Combined Outcome Measures			
Patients meeting ALL of the following	159	920	17%

```
     criteria:  A1C <8.0, LDL <100,
     and mean BP <140/<90

     In age 18 and above, patients with            674         919        73%
     both an eGFR and a UACR


* Known hypertension: Has hypertension listed as an active problem, or
three visits with a diagnosis of hypertension ever (prior to the end
of the Audit period).
** Increased urine albumin excretion: UACR =>30 mg/g.
```

Figure 3-4: 2015 Cumulative Audit (Audit Report) sample

3.3 Creating an Audit Export (Data) File

A script for running the 2015 Diabetes Audit and creating an Audit Export (Data) file for submission via the WebAudit is shown in Figure 3-5.

IHS recommends that the Audit be run for the entire register unless a template must be created to eliminate patients on the register who are not active, do not have Type 1 or Type 2 diabetes, or otherwise do not meet the inclusion and exclusion criteria outlined in the Audit 2015 Instructions.

1. At the Diabetes Management Systems menu, type **DA** and press Enter.
2. At the Diabetes QA Audit menu, type **DM15** (2015 Diabetes Program Audit) and press Enter.
3. Select DM15, the option to Run the 2015 Diabetes Program Audit.
4. The following sequence displays:

```
  Select 2015 Diabetes Program Audit Option: DM15  Run 2015 Diabetes Program Audit

In order for the 2015 DM AUDIT Report to find all necessary data, several
taxonomies must be established.  The following taxonomies are missing or have
no entries:
DRUG taxonomy  [DM AUDIT COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUG] has no entries
LABORATORY TEST taxonomy  [DM AUDIT TB LAB TESTS] has no entries



                      ASSESSMENT OF DIABETES CARE, 2015

                              PCC DIABETES AUDIT


Enter the Official Diabetes Register:    IHS DIABETES

Enter the date of the audit.  This date will be considered the ending
date of the audit period.  For most data items all data for the period one
year prior to this date will be reviewed.
```

```
Enter the Audit Date:  12/31/14  (DEC 31, 2014)

     Select one of the following:

          P         Individual Patients
          S         Search Template of Patients
          C         Members of a CMS Register

Run the audit for: P// C  Members of a CMS Register
Enter the Name of the Register:    IHS DIABETES
Do you want to select register patients with a particular status? Y// ES
Which status: A// ACTIVE

There are 927 patients in the IHS DIABETES register with a status of A.


You have selected a register or template/cohort of patients.
You can run the audit just for the subset of patients in the cohort or register
who live in a particular community or have a particular primary care provider.

Limit the audit to a particular primary care provider ? N// O

Limit the patients who live in a particular community ? N// O

     Select one of the following:

          1         Indian/Alaskan Native (Classification 01)
          2         Not Indian Alaskan/Native (Not Classification 01)
          3         All (both Indian/Alaskan Natives and Non 01)

Select Beneficiary Population to include in the audit: 1//   Indian/Alaskan Nati
ve (Classification 01)

There are 920 patients selected so far to be used in the audit.


     Select one of the following:

          A         ALL Patients selected so far
          R         RANDOM Sample of the patients selected so far

Do you want to select: A// LL Patients selected so far

     Select one of the following:
          1         Print Individual Reports
          2         Create AUDIT EXPORT file
          3         Cumulative Audit Only
          4         Both Individual and Cumulative Audits
          5         SDPI Key Measures Report

Enter Print option: 1// 2 Create Audit Export file

The file generated will be in a "^" delimited format.  You can use this file to
review your data in EXCEL if you so choose.

Enter the name of the FILE to be Created (3-20 characters): DKR AUDIT 15

I am going to create a file called dkr audit 15.txt which will reside in
the C:\EXPORT\ directory on your RPMS server.
It is the same directory that the data export globals are placed.
See your site manager for assistance in finding the file
```

```
after it is created. Jot down and remember the following file name:
               **********    dkr audit 15.txt    **********
It may be several hours (or overnight) before your report and flat file are
finished.

The records that are generated and placed in file dkr audit 15.txt are in a format
readable by Excel. For a definition of the format please see your user manual.

Is everything ok? Do you want to continue? Y// YES

   Select one of the following:

          I         Include ALL Patients
          E         Exclude DEMO Patients
          O         Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// Exclude DEMO Patients

Won't you queue this ? Y// YES

Requested Start Time: NOW// T@2000
```

Figure 3-5: Creating an Audit Export file

5. Make a note of the file name and notify the RPMS site manager that a Diabetes Audit has been run. Provide the name of the file and the directory where the file is stored. The site manager will place the file in a shared folder on the server where it can be accessed and uploaded to the WebAudit.

3.4 Running a SDPI Report

The new option to create an SDPI Key Measures Report resides under the Diabetes Audit Menu.

1. At the Diabetes Management Systems menu, type **DA** and press Enter.
2. Type **DM15** (2015 Diabetes Program Audit) and press Enter.
3. Select **DM15** (Run 2015 Diabetes Program Audit) and follow the prompts as shown in the script in Figure 3-5 to generate the SDPI Key Measures Report.

```
Select 2015 Diabetes Program Audit Option: DM15  Run 2015 Diabetes Program Audit

In order for the 2015 DM AUDIT Report to find all necessary data, several
taxonomies must be established.  The following taxonomies are missing or have
no entries:
DRUG taxonomy  [DM AUDIT COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUG] has no entries
LABORATORY TEST taxonomy  [DM AUDIT TB LAB TESTS] has no entries



                        ASSESSMENT OF DIABETES CARE, 2015

                                PCC DIABETES AUDIT
```

```
Enter the Official Diabetes Register:    IHS DIABETES

Enter the date of the audit.  This date will be considered the ending
date of the audit period.  For most data items all data for the period one
year prior to this date will be reviewed.

Enter the Audit Date:  12/31/14  (DEC 31, 2014)

     Select one of the following:

          P         Individual Patients
          S         Search Template of Patients
          C         Members of a CMS Register

Run the audit for: P// C  Members of a CMS Register
Enter the Name of the Register:    IHS DIABETES
Do you want to select register patients with a particular status? Y// ES
Which status: A// ACTIVE

There are 927 patients in the IHS DIABETES register with a status of A.


You have selected a register or template/cohort of patients.
You can run the audit just for the subset of patients in the cohort or register
who live in a particular community or have a particular primary care provider.

Limit the audit to a particular primary care provider ? N// O

Limit the patients who live in a particular community ? N// O

     Select one of the following:

          1         Indian/Alaskan Native (Classification 01)
          2         Not Indian Alaskan/Native (Not Classification 01)
          3         All (both Indian/Alaskan Natives and Non 01)

Select Beneficiary Population to include in the audit: 1//   Indian/Alaskan Nati
ve (Classification 01)

There are 920 patients selected so far to be used in the audit.


     Select one of the following:

          A         ALL Patients selected so far
          R         RANDOM Sample of the patients selected so far

Do you want to select: A// LL Patients selected so far

     Select one of the following:
          1         Print Individual Reports
          2         Create AUDIT EXPORT file
          3         Cumulative Audit Only
          4         Both Individual and Cumulative Audits
          5         SDPI Key Measures Report

Enter Print option: 1// 5  SDPI Key Measures Report

     Select one of the following:
```

```
          I         Include ALL Patients
          E         Exclude DEMO Patients
          O         Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// xclude DEMO Patients


     Select one of the following:

          P         PRINT Output
          B         BROWSE Output on Screen
```

Figure 3.5 Running the SDPI Key Measures Report from RPMS

The SDPI Key Measures Report is displayed in Figure 3-6 below.

```
DKR                              Dec 30, 2014                        Page 1

            IHS DIABETES CARE AND OUTCOMES AUDIT REPORT - RPMS AUDIT
     SDPI Required Key Measures Report for 2015 (01/01/2014 to 12/31/2014)
                              Facility: RSBCIHI

                           920 patients were audited*
--------------------------------------------------------------------------------
                                          # of        #            Percent
                                          Patients    Considered
                                          (Numerator) (Denominator)


Adult Weight and Cardiometabolic Risk Management and Diabetes Guidelines
     Documented assessment for
     overweight or obesity (height
     and weight reported)                    858         920         93%
     Documented nutrition and physical
     activity education                      352         920         38%

Cardiovascular Health and Diabetes
     Documented smoking status               917         920        100%
     In current tobacco users, counseled      86         219         39%
     Mean blood pressure (BP) <140/<90       576         920         63%

Depression Care
     In patients without active depression,
     screened for depression**               666         714         93%

Eye Care
     Eye exam - dilated or retinal camera    528         920         57%

Foot Care
     Foot exam - Complete                    479         920         52%

Nutrition for Diabetes Prevention and Care
     Documented nutrition education          468         920         51%
     Documented nutrition education by an RD 189         920         21%

Oral Health Care
     Dental exam                             435         920         47%

Screening for Chronic Kidney Disease
```

```
     In patients age 18 and above,
     eGFR and UACR                                673         919         73%
     Mean blood pressure (BP) <140/<90            576         920         63%
     In patients with known hypertension, ACE
     inhibitor or ARB prescribed                  540         724         75%

Systems of Care
     A1C <8.0                                     414         920         45%
     A1C >=9.0                                    251         920         27%
     Mean blood pressure (BP) <140/<90            576         920         63%
     LDL <100                                     350         920         38%
     Combined Audit Outcomes Measure: A1C<8.0,
     LDL <100, and mean BP <140/<90               150         920         16%

* Selected patients could be people with or without diabetes, the target group r
SDPI activities, or whatever group of people is relevant for reporting purposes.
**This item is only reported for patients without an active diagnosis of depres,
not all selected patients.
```

Figure 3-6: SDPI Key Measures Report sample

4.0 Uploading the Export (Data) File to WebAudit

Upload the completed data file to the WebAudit for data cleaning, report generation, and submission of data to the IHS Division of Diabetes. For further information and WebAudit frequently asked questions, visit the IHS Division of Diabetes Audit web site at: http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=resourcesAudit.

To upload the file:

1. Request and activate a WebAudit account if you do not already have one.
2. Log in to the WebAudit.
3. Select **Enter Facility Info** from the left hand menu or from the Main Menu select **Facility Administration** then **Enter Facility Information**.
4. Enter the number of patients in your diabetes registry that meet the inclusion and exclusion criteria in Section 3.0.
5. Click **Save**.
6. Select **Upload Data** from the left hand menu or from the Main Menu select **Data Processing** then **Upload Data**.
7. Individuals with access to multiple facilities will need to select a Facility.
8. Select an **Audit Type**. For the Annual Audit submitted to the IHS Division of Diabetes, you will select **Annual Audit**. For all other Audits, select **Interim Audit**.
9. Click **Browse** and navigate to the data file, then click **Open**.
10. When the data file has been selected, click **Upload File**.
    a. If the upload of the data file is successful, you will receive a message on the screen telling you that the file was successfully uploaded.
    b. If the upload is unsuccessful, you will receive an on-screen message telling you that the file upload attempt was unsuccessful, with a brief description of the problem.
11. Once the file has been successfully uploaded, proceed with checking the data quality and generating reports as described in the Audit 2015 Instructions (Section 3.0 provides this information).

5.0 Importing the Audit Export (Data) File to Excel

The 2015 Diabetes Audit export file is a delimited text file. This means that the file has all of the Audit data elements for each patient in a single row in fields separated by a caret (^). Not only can the file be uploaded to the WebAudit, but it can also be imported into Excel for local use. The data fields are identified by headers in the first row of the file.

Appendix B: provides information about the Audit Export file field definitions.

Figure 5-1 shows an Audit Export file opened in Notepad.

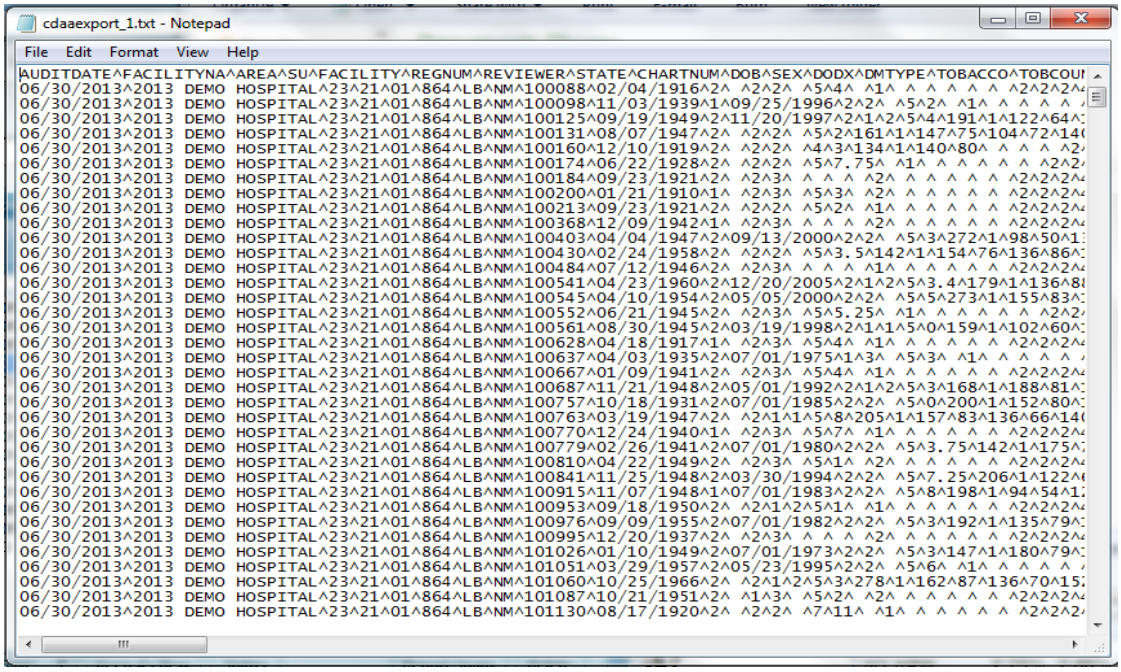

Figure 5-1: Audit Export file displayed in notepad

To import a file into Excel:

1. Open a blank Excel worksheet.
2. Click **Open** and browse to the folder containing the Audit Export file.

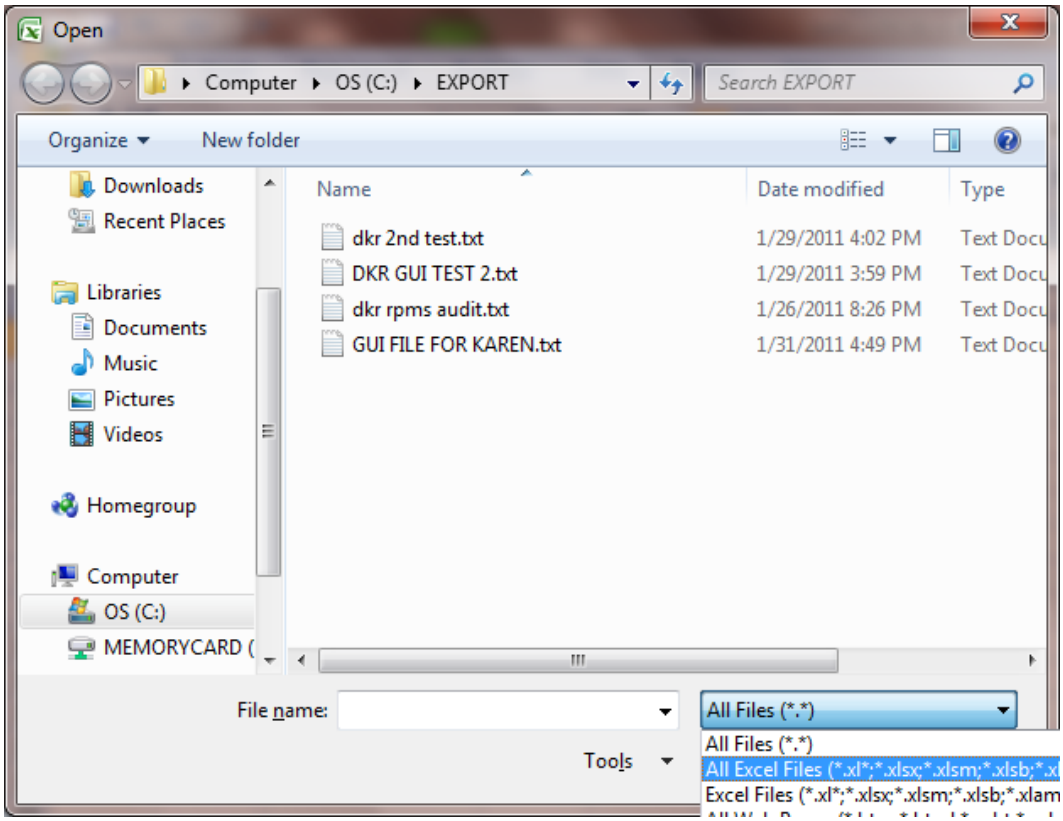

Figure 5-2: Excel **Open** dialog

3. Change the file type from **All Excel Files** to **All Files** in the list (Figure 5-2). This is necessary in order to see the Audit Export file name, which is not in an Excel format at this time.

4. Select the Audit Export file to be imported.

5. Click **Open**. The **Text Import Wizard** dialog, Step 1 of 3 (Figure 5-3) displays.

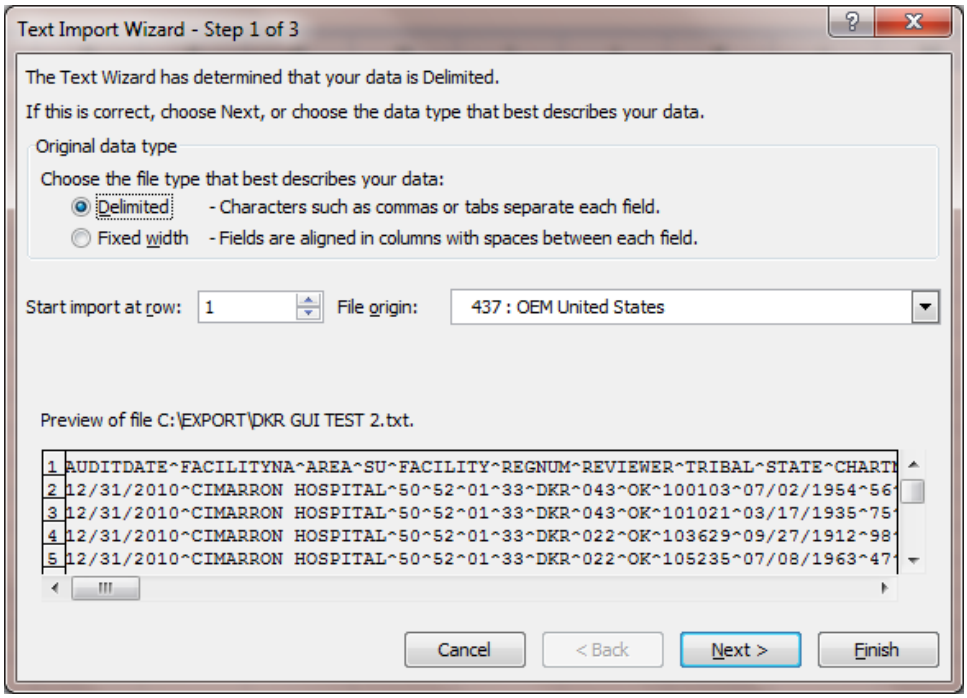

Figure 5-3: Text Import Wizard dialog, Step 1 of 3

6. If the **Text Import Wizard** does not correctly identify that this is a delimited file, select **Delimited**.

7. Click **Next**. The **Text Import Wizard** dialog, Step 2 of 3 (Figure 5-4) displays.

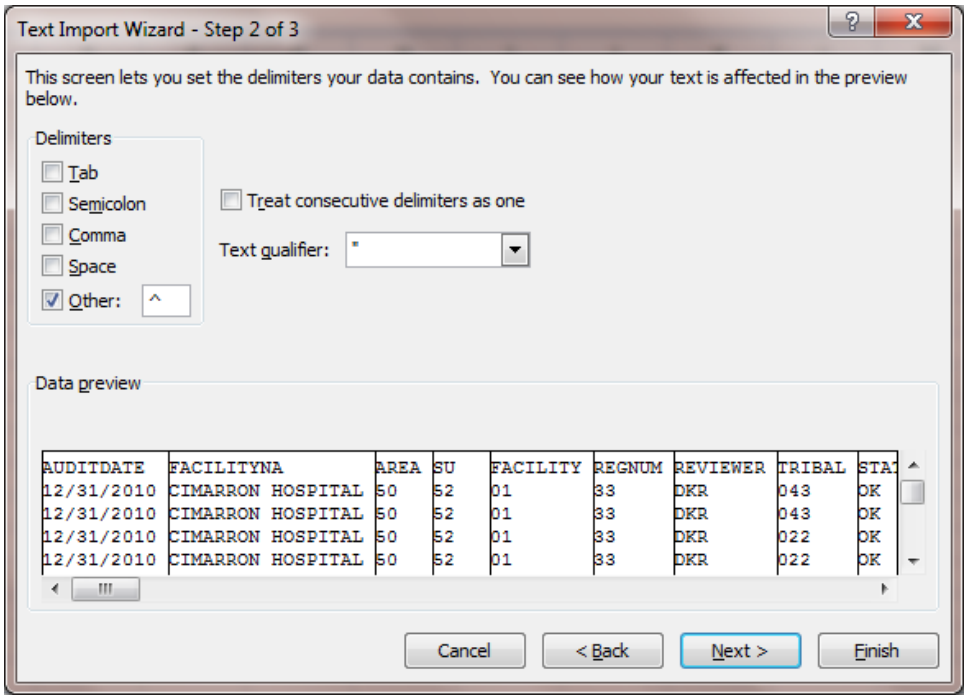

Figure 5-4: Text Import Wizard dialog, Step 2 of 3

8. Under **Delimiters**, select **Other** and type a caret (^) in the field to the right of the **Other** choice.
9. Deselect **Tab**.
10. Click **Next**. Vertical lines will display between the columns of data.
11. Click **Finish** to complete the import to Excel.

Columns can be expanded and data sorted as desired.

To save the file in Excel format:

1. Select **Save As**.
2. Save as type Excel. Save the Excel file in a secure folder as identified by the information technology staff.

Note:	The Excel file cannot be uploaded to the Web Audit; the delimited text file must be uploaded.

6.0 Displaying 2015 Diabetes Audit Logic

The revised logic for the 2015 Diabetes Audit is provided under the menu option DAL in the DA Diabetes QA Audit menu as shown in Figure 6-1.

1. At the Diabetes Management Systems menu, type **DA** and press Enter.
2. At the Diabetes QA Audit menu, type **DAL** (Display Audit Logic) and press Enter.
3. At the "Select DMS AUDIT ITEM DESCRIPTIONS AUDIT YEAR" prompt, type **2015** for the audit year and press Enter to display the item list (Figure 6-1).

```
DM AUDIT ITEM DESCRIPTION     Jan 01, 2015 13:23:05          Page:    1 of    1
DM Logic Display

1)  AUDIT DATE              19)  FOOT EXAM (COMPLETE)  37)  PNEUMOVAX EVER
2)  FACILITY NAME           20)  EYE EXAM (dilated or  38)  HEPATITIS B
3)  REVIEWER INITIALS       21)  DENTAL EXAM           39)  TD OR TDAP IN PAST 1
4)  STATE OF RESIDENCE      22)  NUTRITION INSTRUCTIO  40)  TDAP EVER
5)  CHART NUMBER            23)  PHYSICAL ACTIVITY IN  41)  HBA1C (most recent)
6)  DATE OF BIRTH           24)  DM EDUCATION (OTHER)  42)  SERUM CREATININE
7)  SEX                     25)  DEPRESSION AN ACTIVE  43)  ESTIMATED GFR
8)  PRIMARY CARE PROVIDE    26)  DEPRESSION SCREENING  44)  TOTAL CHOLESTEROL
9)  DATE OF DIABETES DIA    27)  DM THERAPY            45)  HDL CHOLESTEROL
10)  DM TYPE                28)  ACE INHIBITOR/ARB     46)  LDL CHOLESTEROL
11)  TOBACCO - SCREENED I   29)  STATIN                47)  TRIGLYCERIDES
12)  TOBACCO USE            30)  ASPIRIN/ANTIPLATELET  48)  NON-HDL
13)  TOBACCO REFERRED FOR   31)  TB TESTING            49)  UACR
14)  HEIGHT                 32)  TB Test result        50)  COMBINED OUTCOMES ME
15)  WEIGHT                 33)  TB RESULT POSITIVE,   51)  e-GFR and a UACR
16)  BMI                    34)  TB RESULT NEGATIVE,
17)  HYPERTENSION DOCUMEN   35)  CVD
18)  BLOOD PRESSURES (LAS   36)  FLU VACCINE
          Enter ?? for more actions
S    Select Item          A    Display All Items    Q    Quit
Select Action: +//
```

Figure 6-1: Displaying 2015 Audit Logic

4. At the "Select Action" prompt, type **S** and press Enter to enable selection of an Audit logic item for review.
5. At the next "Select Action" prompt, type the number of the logic item to be displayed and press Enter.

Appendix A: provides a complete listing of logic for all Audit items.

7.0 Audit Resources

DMS v2.0 User Manual, (bdm_020u.pdf).

Complete 2015 Diabetes Audit information is at the IHS Division of Diabetes website (Figure 7-1):
http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=resourcesAudit:

Figure 7-1: **IHS Diabetes Care and Outcome Audit** website

IHS Standards of Care and Clinical Practice Recommendations: Type 2 Diabetes are at: http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=soc.

8.0 Diabetes Care Summary

The Diabetes Care Summary or Supplement displays as the last page of a Health Summary or can be displayed or printed as a standalone document. The Diabetes Care Summary uses the same taxonomies and most of the logic used for the Diabetes Audit. Results display based on the last data available rather than the Audit period. Missing or inaccurate data might be a warning that taxonomies should be reviewed and updated. To display the Diabetes Care Summary:

1. At the Diabetes Management Systems menu, type **DA** and press Enter.

2. At the Diabetes QA Audit menu, type **DPCS** (Display a Patient's DIABETES CARE SUMMARY) and press Enter. The Diabetes Care Summary (Figure 8-1) displays.

```
********** CONFIDENTIAL PATIENT INFORMATION [DKR]  Jan 01, 2015 **********
DIABETES PATIENT CARE SUMMARY          Report Date:  01/01/2015

Patient: SMITH,BRONSON EUGENE          HRN: 158408
Age:  32 (DOB 03/10/1982)              Sex: MALE
CLASS/BEN: INDIAN/ALASKA NATIVE        Designated PCP:

Date of DM Onset: 10/27/2014 (Diabetes Register) DM Problem #: *NONE
RECORDED*

BMI: 27.5  Last Height:  65 inches     09/01/2013
           Last Weight:  165 lbs       10/15/2014

Tobacco Use:  Current User CURRENT SMOKELESS  Oct 02, 2014
              Counseled in the past year?  No

HTN Diagnosed:  No
CVD Diagnosed:  No
Last 3 BP:      115/75   09/01/2013
(non ER)        112/70   08/01/2013
                146/79   06/30/2004

ACE Inhibitor/ARB prescribed (in past 6 months): No
Aspirin/Anti-platelet prescribed (in past yr):   No
Statin prescribed (in past 6 months):            No

Exams (in past 12 months):
   Foot:    No
   Eye:     Yes  01/05/2014 Diabetic Eye Exam
   Dental:  No

Depression: Active Problem: Yes  Problem List (311.)
            If no, screened in past year:

Immunizations:
   Flu vaccine (since August 1st):      Yes  10/06/2014
   Pneumovax (ever):                    No
   Hepatitis B series complete (ever):  No
   Td/Tdap (in past 10 yrs):            Yes  10/01/2013


TB - Last Documented Test:   10/05/2014   PPD
```

```
     TB Test Result:         0
     TB Treatment Completed:

Laboratory Results (most recent):                    RPMS LAB TEST NAME
 A1C:                      8.2            09/01/2013 HGB A1C
 Next most recent A1C:     6.4 %          06/30/2004 HGB A1C

 Creatinine:               1.3            09/01/2013 CREATININE
 Estimated GFR:             35            09/01/2013 ESTIMATED GFR
 UACR (Quant A/C Ratio):    50            09/01/2013
MICROALBUMIN/CREATININE R

 Total Cholesterol:        190            09/01/2013 CHOLESTEROL
  Non-HDL Cholesterol:     145            09/01/2013 [Calculated Value]
  LDL Cholesterol:         115            09/01/2013 LDL (CALCULATED)
  HDL Cholesterol:          45            09/01/2013 HDL
  Triglycerides:           210            09/01/2013 TRIGLYCERIDE

DM Education Provided (in past yr):
  Last Dietitian Visit:
  DM-NUTRITION              10/27/2014


SMITH,BRONSON EUGENE              DOB: 3/10/1982      Chart #WW 158408
```

Figure 8-1: Diabetes Patient Care Summary sample

9.0 Master List

The Master List under Register Reports was redesigned for the 2015 Audit to better meet users' needs. The new Master List has a different approach to user selection of sorting criteria and provides a total for the number of patients on the report as well as a subtotal for each sub-category. In addition a column has been added to show each patient's last visit date.

The menu path for accessing the Master List has not been changed and is shown in Figure 9-1.

```
RP     Reports ...
RR     Register Reports ...
ML     Master List
```

Figure 9-1: Menu for Master List

The Master List can be run as follows in Figure 9-2. In this example, the user wishes a subtotal of patients sorted by Register Status.

```
Select Register Reports Option: ML
                              DEMO INDIAN HOSPITAL
                                DEMO,PROVIDER

                          DIABETES REGISTER MASTER LIST

This report will list all patients on the Diabetes Register.
You will be able to select which patients will be included on the list
based on any of the following:
     - Register Status
     - Age
     - Community of Residence
     - Gender
     - Case Manager
     - Where Followed

Enter the Name of the Register: IHS DIABETES

Do you want to select register patients with a particular status? Y// NO

Would you like to restrict the master list by Patient age range?
NO//<ENTER>

     Select one of the following:

          O         One particular Community
          A         All Communities
          S         Selected Set of Communities (Taxonomy)

Include Patients: A//<ENTER> All Communities

     Select one of the following:

          M         MALES
          F         FEMALES
          U         UNKNOWN
```

```
          A         ALL Genders

Include which Gender(s): A// <ENTER> ALL Genders
Do you want to select register patients with a particular CASE MANAGER?
N//<ENTER> NO
Do you want to select patients with a particular facility WHERE FOLLOWED?
N// <ENTER> NO

This list can be sorted by a primary and optionally a secondary sort value.

     Select one of the following:

          P         Patient Name
          S         Register Status
          A         Age
          C         Community
          G         Gender
          M         Case Manager
          W         Where Followed

Select Primary Sort Value: Register Status
You can optionally sort by a second sort value.  If you do not pick a
secondary sort value it will default to patient name.

     Select one of the following:

          P         Patient Name
          A         Age
          C         Community
          G         Gender
          M         Case Manager
          W         Where Followed


     Select one of the following:

          P         Print the List
          B         Browse the List on the Screen
          S         Save as a Search Template

Output Type: P// B

OUTPUT BROWSER              Oct 23, 2013 16:17:20       Page:    1 of    2

             ********** CONFIDENTIAL PATIENT INFORMATION **********
DKR                                                              Page 1
                              DEMO INDIAN HOSPITAL
                         DIABETES REGISTER MASTER LIST
              Total number of patient selected for this report: 9

HRN     PATIENT                 CASE MANAGER         LAST VISIT NEXT REVIEW
--------------------------------------------------------------------------------

     Register Status: ACTIVE   (Subtotal: 8)
211424  DEMO,PATIENT A                                  10/21/2013
201686  DEMO,PATIENT B                                  09/01/2013
127912  DEMO,PATIENT C                                  09/26/2013
876     DEMO,PATIENT D                                  09/26/2013
```

Figure 9-2: Creating Master List sorted by Patient Status

10.0 Visual DMS – 2015

In order to use Visual DMS for Diabetes Management System Version 2.0 patch 8, you must have the correct client installed. The client is indicated by the icon on the desktop that is used to access Visual DMS. After double clicking the Visual DMS icon, selecting the facility and Register, the user will see a Toolbar option, About. Clicking on the About toolbar option will display the client version currently installed on the user's computer. In order to successfully use patch 8 which includes the 2015 Diabetes Audit, the version should be 2.0.8.10. Note the screen in Figure 10-1 below.

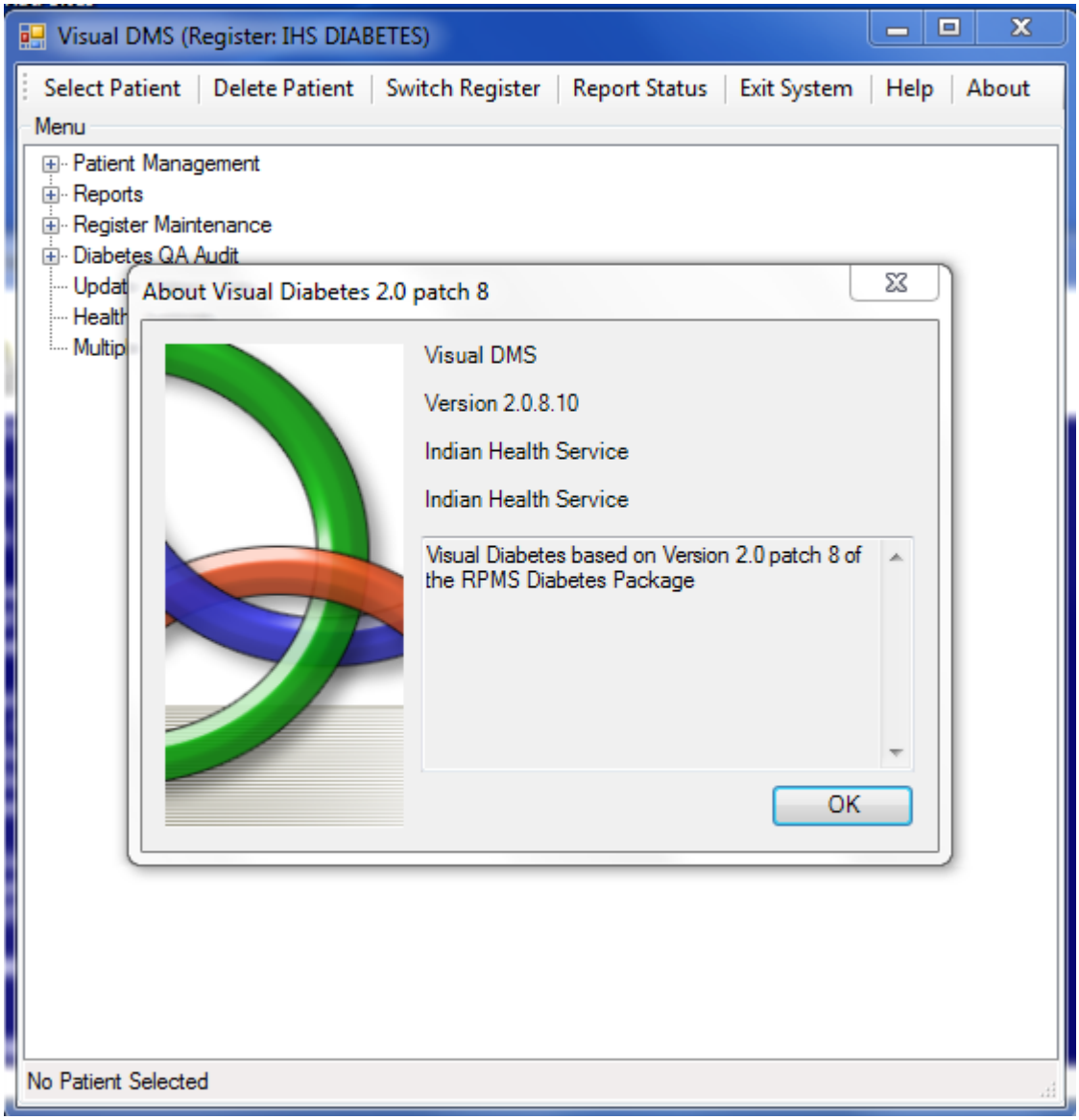

Figure 10-1: Version 2.0.8.10 of Visual DMS

The following changes have been implemented with Visual DMS in DMS patch 8. Only those changes will be reviewed in this manual. The user is referred to the Visual DMS User Manual for full documentation on how to use this application.

- The Help text has been revised throughout the application.
- Under Register Maintenance, the Complication option has been revised so that complications can be entered either or without associated diagnoses codes.
- Under Patient Management, options for Primary Care Provider, Register Provider, and Case Manager under Patient Management have all been modified to use an alphabetical lookup based on beginning and ending string instead of an alphabetical listing of all users in the new person file.
- Under Register Reports, the Master List Report has been added.
- Under the Diabetes 2015 QA Audit, the SDPI Key Measures Report has been added as an output option.

10.1 Visual DMS Help Text

Help can be accessed via the main toolbar in Visual DMS as well as using the "**?**" box that appears on each new screen.(Figure 10-2) A pop up Help box related to that option is then displayed as in Figure 10-3.

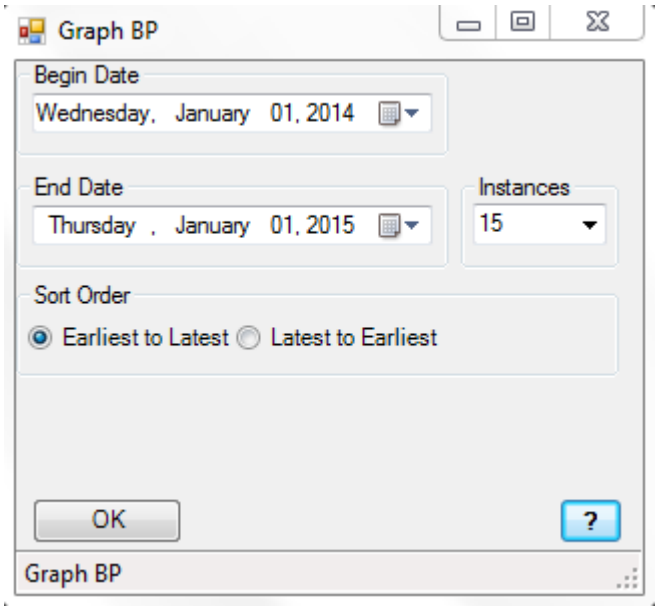

Figure 10-2: Help button

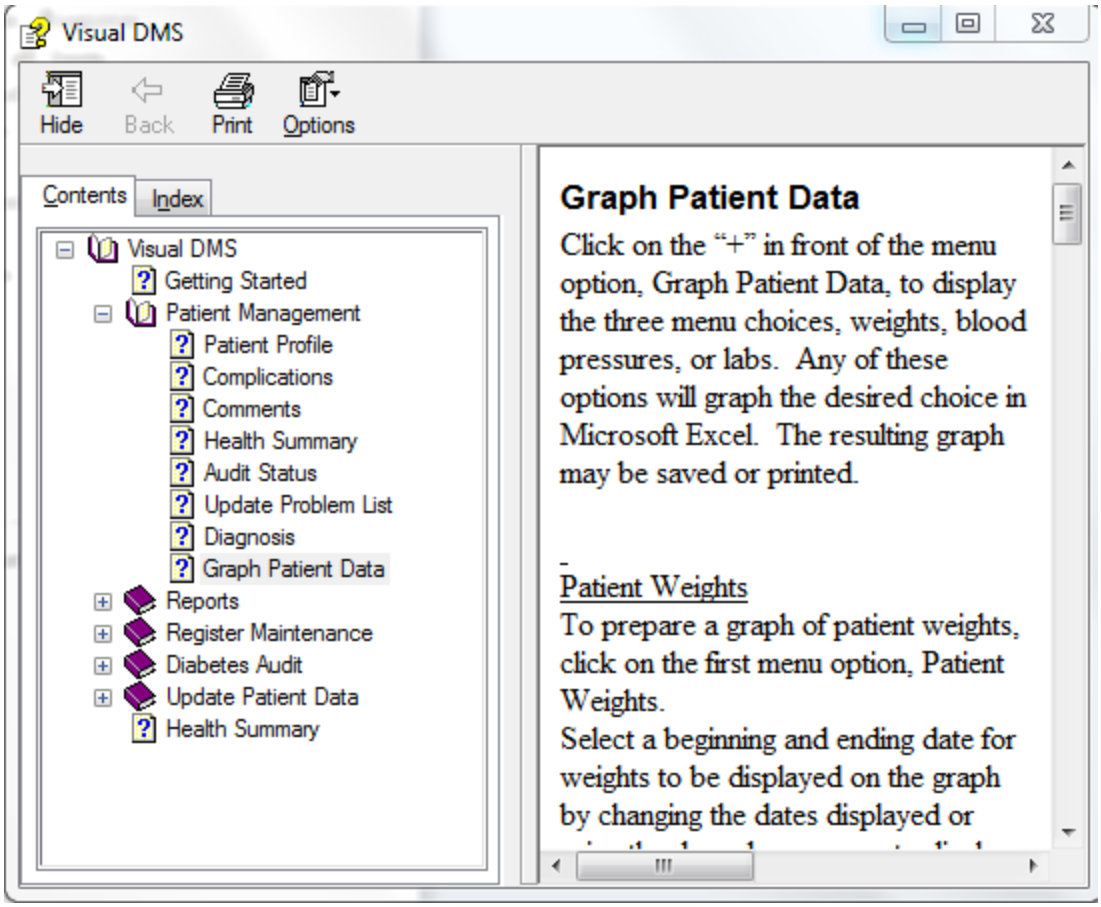

Figure 10-3: Pop up Help text

10.2 Complication Entry

Complications can be accessed via the Register Maintenance Menu option. Using this tool, complications that you might wish to track for patients on your register can be added to the list or diagnoses can be associated with existing or new complications. By adding diagnoses to complications, those complications will associate automatically with patients on your Register if they are entered as purposes of visit via EHR or PCC data entry.

Begin by Clicking the expand button to open the Register Maintenance options

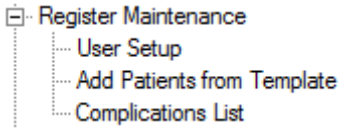

Figure 10-4: Register Maintenance tree structure

1. Click **Complications List** to access the Complication Setup window (Figure 10-5).

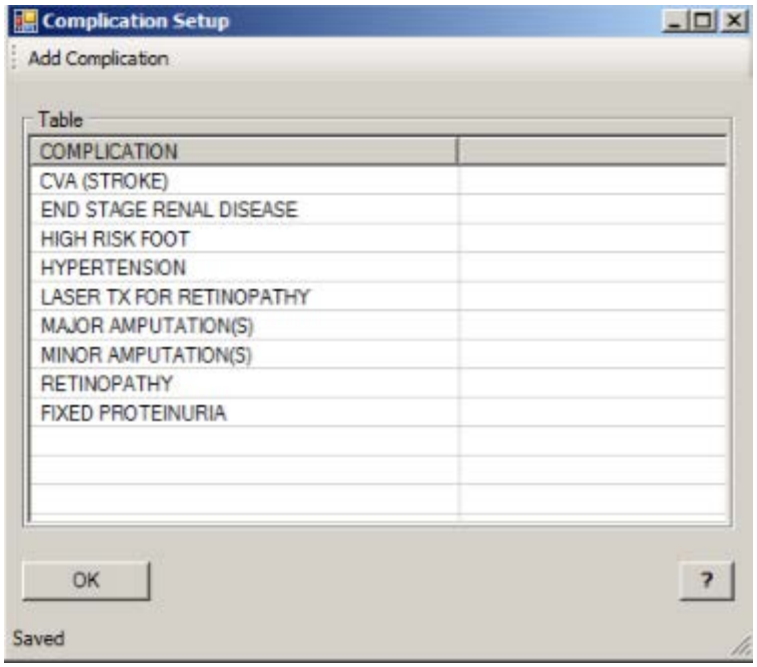

Figure 10-5: Complication Setup window sample

2. Use the Add Complication button to add a new complication or click on an existing complication to associate one or more diagnoses codes with that complication.

3. If **Add Complication** is selected a Free Text complication can be entered in the Complication box (Figure 10-6).

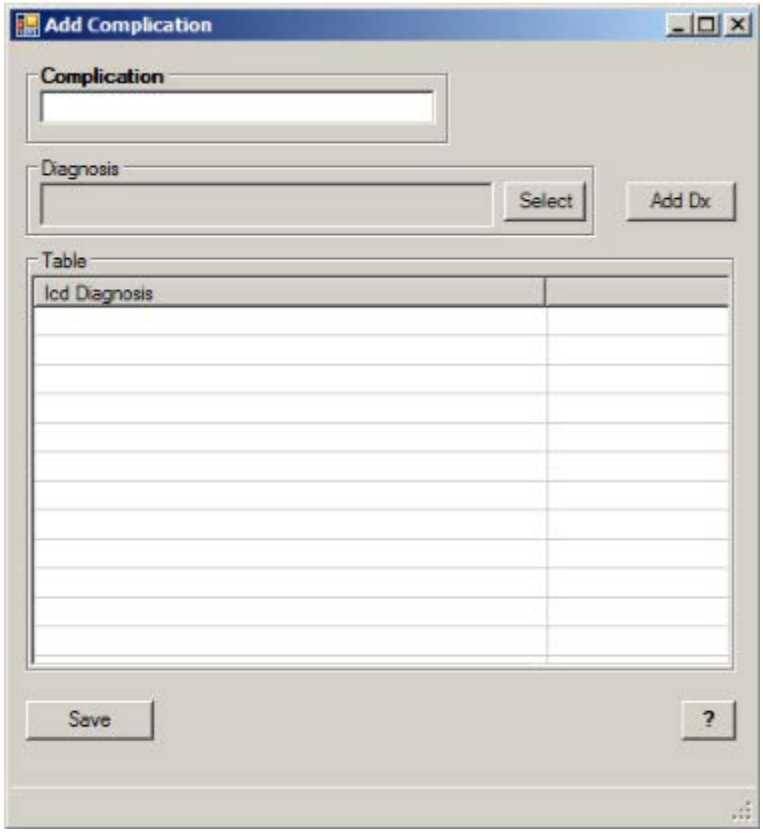

Figure 10-6: Add Complication window

a. Click **Select** to add a Dx (diagnosis) for the new complication. The Dx search/select window (Figure 10-7) displays.

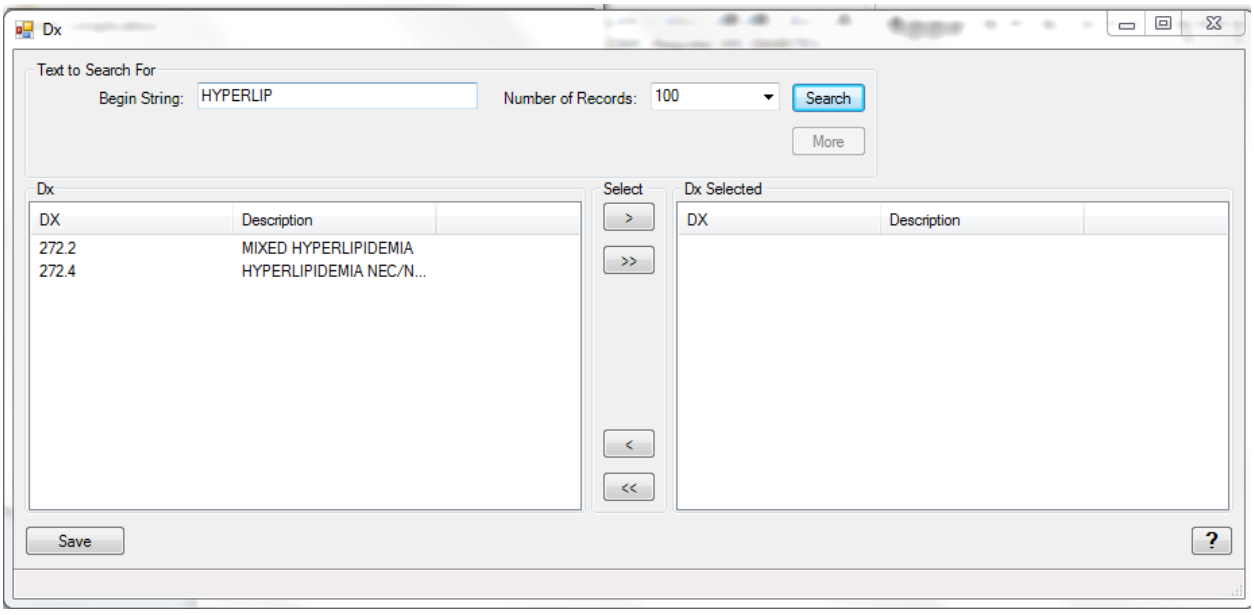

Figure 10-7: Dx search/select window sample

b. At the "Begin String" field, type the beginning string of the diagnosis code or the narrative of a DX code (at least 3 characters).

c. At the "Number of Records" field, select the number of records to retrieve from the drop-down list (100 is the default).

d. Click **Search** to initiate the search for the Dx.

e. Click **More** to view the next screen-full of retrieved records. The More button becomes active when all of the retrieved records cannot fit in the Dx list box.

f. The Dx list box contains the retrieved records, showing the ICD Code and Description.

g. Select one or more retrieved records, click the right-pointing arrow and they populate Dx Selected list box.

Note:	Click the double right-pointing arrow to select all of the retrieved records in the Dx list box and move them to the Dx Selected list box.

h. Likewise, select one or more names in the Dx Selected list box and then click the left pointing arrow to remove them.

Note:	Click the double left-pointing arrow to remove all of the records in the Dx Selected list box.

i. The Dx Selected list box shows the diagnoses and their descriptions to be added.

j. When the Dx search/select window is complete, click **Save** to save the changes. The diagnoses are added to the Table list box on the Add Complication window.

10.3 Visual DMS Master List

The Master List report is used by a site to create a report or a template of a subset of patients based on a variety of fields. An example might be in a multidivisional environment where one Register is used but healthcare is actually provided at several different healthcare facilities within that service unit. They use the Master List for Active Patients, sorted by Where Followed, and save those patients in a search template. Then they can run the Audit on that template of patients for each facility.

1. Click **Master List** to access the Master List window (Figure 10-8) where you specify the data to be used in the Master List report.

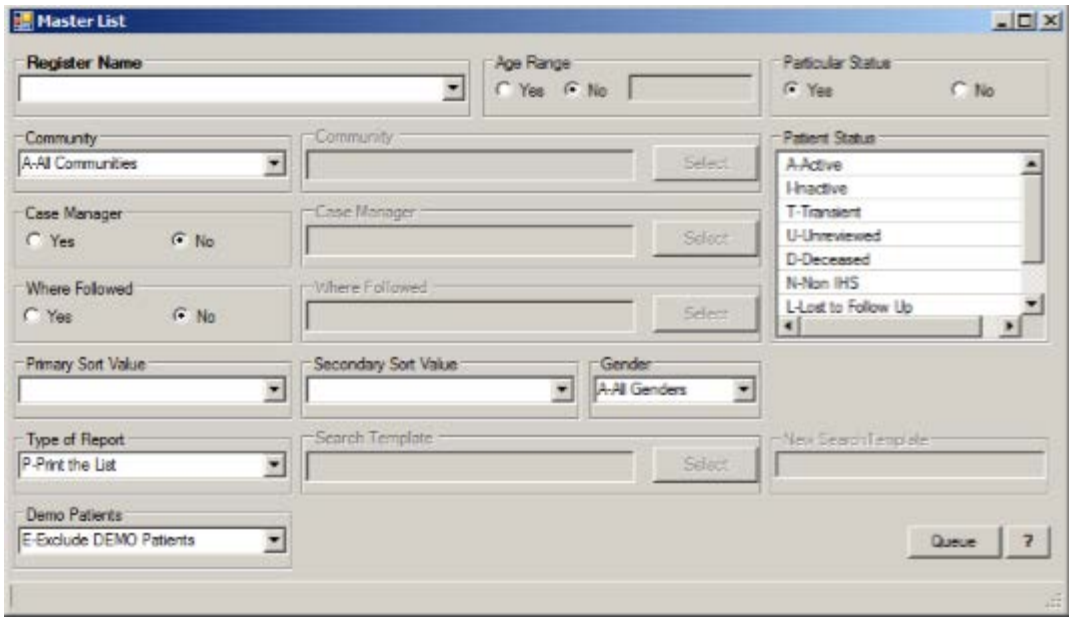

Figure 10-8: Master List window

2. At the "Register Name" field, select the name of the register from the drop-down list (required).

3. If patients within a particular age range are desired, select **Yes** under the "Age Range" field. Then type the age range to be used in the report.

4. If a particular status of the patients should be used, select **Yes** under the Patient Status field. If only Active patients are desired for the report, click **Active**. If more than one status is desired, hold down the control key while clicking on each status to be included in the report (Figure 10-9).

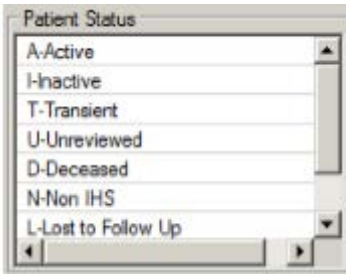

Figure 10-9: Patient Status list box

5. At the "Community" field, select one of the options on the drop-down list: A-All Communities, O-One Community, or S-Select Communities.

   If O or S is used, the Community field becomes active. Click **Select** to access the Communities search/select window.

a. At the "Begin String" field, type the beginning string of the name of the community (at least 3 characters).

b. At the "End String" field, type the ending string of the name of the community (optional).

c. Click **Search** to initiate the search for the community name.

d. The retrieved records display in the Communities list box, showing the names of the communities and their associated states. Select one or more retrieved records, click the right-pointing arrow and they populate Communities Selected list box.

e. Click **Save** to use the selected community/communities on the report.

6. If patients are to be selected by Case Manager, select **Yes** to activate the Case Manager field.

   a. Click **Select** to access the Case Manager search/select window (Figure 10-10).

Figure 10-10: Case Manager search/select window

   b. At the "Begin String" field, type the beginning string of the last name of the case manager (at least 3 characters).

   c. At the "End String" field, type the ending string of the last name of the case manager (optional).

   d. Click **Search** to initiate the search for the case manager name.

   e. The retrieved records display in the Case Manager list box. Select one or more retrieved records, click the right-pointing arrow and they populate Case Manager Selected list box.

   f. Click **Save** to use the case managers listed in the Case Manager Selected list box on the report.

> **Note**: Limit selection of case managers or communities to no more than ten.

7. If the field Where Followed under Patient Management is used to identify where patients receive their healthcare, at the "Where Followed" field, select **Yes** to indicate that a "where followed" location should be used on the report.

    a. Click **Select** to access the Where Followed search/select window (Figure 10-11).

Figure 10-11: Where Followed search/select window

    b. At the "Begin String" field, type the beginning string of the name of the where followed location (at least 3 characters).

    c. At the "End String" field, type the ending string of the where followed location (optional)

    d. Click **Search** to initiate the search for the where followed location.

    e. The retrieved records display in the Where Followed list box, showing the name of the location and the ASUFAC number. Select one or more retrieved records, click the right-pointing arrow and they populate Where Followed Selected list box.

    f. Once the Where Followed Selected list box contains the names of the where followed locations to be used on report, click **Save** to use the desired Where Followed location on the report.

8. At the "Primary Sort Value" field, select an option from the drop-down list that specifies the primary sort value for the report. The options are: P-Patient Name, S-Register Status, A-Age, C-Community, G-Gender, M-Case Manager, or W-Where Followed.

9. At the "Secondary Sort Value" field, select an option from the drop-down list that specifies the secondary sort value for the report. The options are P-Patient Name, S-Register Status, A-Age, G-Gender, M-Case Manager, or W-Where Followed.

> **Note:** Both primary and secondary Sort Values must be selected.

10. At the "Gender" field, select an option from the drop-down list that specifies the gender to be used on the report. The options are: M-Males, F-Females, U-Unknown, or A-All Genders (default).

11. At the "Type of Report" field, select an option from the drop-down list that determines the type of report. The options are: P-Print the list or S-Save as a Search Template.

    If S is used, the Search Template and New Search Template fields become active.

    a. If a new search template is to be created, type the name of the new search template in the New Search Template box.

    b. If an existing search template is to be overwritten by the newly created data set, use the "Search Template" field to search for an existing template. Click **Select** to access the Search Template search/select window (Figure 10-12).

Figure 10-12: Search Template search/select window

    c. At the "Begin String" field, type the beginning string of the name of the search template (at least 3 characters).

> **Note:** If you have adhered to the recommended convention of always using your initials to name search templates, the search can be simplified.

    d. At the "End String" field, type the ending string of the search template (optional).

e. Click **Search** to initiate the search for the Search template.

f. The retrieved records display in the Search Template list box. Select the desired Search Template and move it into the Selected Search Template box using the right pointing arrow.

g. Click **Save** to use the selected search template.

12. At the "Demo Patients" field, select an option from the drop-down list that determines if demo patients should be used on the report: I-Include all Patients, E-Exclude DEMO Patients, O-include ONLY DEMO Patients.

13. Click **Queue** to initiate the queue process.

14. Once the report has been queued to run, click the Report Status option on the toolbar of the main window to review the progress of the report.

15. Select a COMPLETED report name and it will display in a Microsoft Word document (it can be saved or printed). When review of the report is complete, click the X to close the Word document.

Below is an example of a Diabetes Register Master List report.

```
            ********** CONFIDENTIAL PATIENT INFORMATION **********
ST                                                                    Page 1
                              2013 DEMO HOSPITAL
                         DIABETES REGISTER MASTER LIST
              Total number of patient selected for this report: 11

HRN     PATIENT                      CASE MANAGER          LAST VISIT NEXT REVIEW
-------------------------------------------------------------------------------


     : FEMALE   (Subtotal: 6)
137433  ABNER,LISA CHARLENE                                12/11/2015
771177  JJJDB,PATIENT                                      01/08/2016
888555  KMF,SITETEST                                       01/13/2016
22299   TEST, BDMKMF                                       02/01/2016

     : MALE   (Subtotal: 5)
139464  ABNER,KIAMANA                                      10/27/2006
124625  DEMO,ALISTER LANE                                  02/17/2016
772211  JJJNODB,PATIENT
33399   TEST,BDM                                           01/16/2016
992299  TEST,DK                                            01/17/2016
```

Figure 10-13: Sample text of Master List Report

10.4 Visual DMS – SDPI Key Measures Report

The SDPI Key Measures Report has been added to the Diabetes Management System as an Output option under the 2015 Diabetes Program Audit. To run this report, begin by accessing DA – the Diabetes QA Audit Menu.

Below is the tree structure for Diabetes QA Audit.

Figure 10-14: Tree Structure for Diabetes QA Audit

Click the expand button in front of the 2015 Diabetes Program Audit menu option (for example) to access the menu options for the 2015 Audit (Figure 10-15). When working with these menus has been completed, click the collapse button to close the menu options.

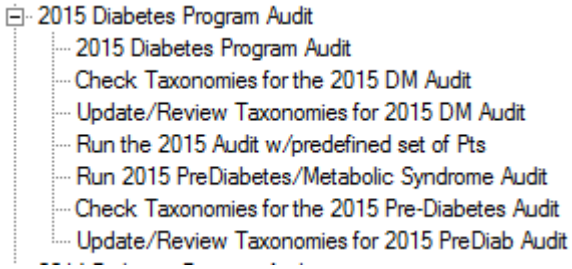

Figure 10-15: Tree Structure for 2015 Diabetes Program Audit

1. Begin by clicking on the 2015 Diabetes Program Audit. The application displays a window which identifies taxonomies that are missing members or laboratory test taxonomies that are improperly populated with panel tests. Figure 10-15 displays the missing taxonomy window. In many cases, this is an informational window only as some drugs might not be available or prescribed at a given facility.

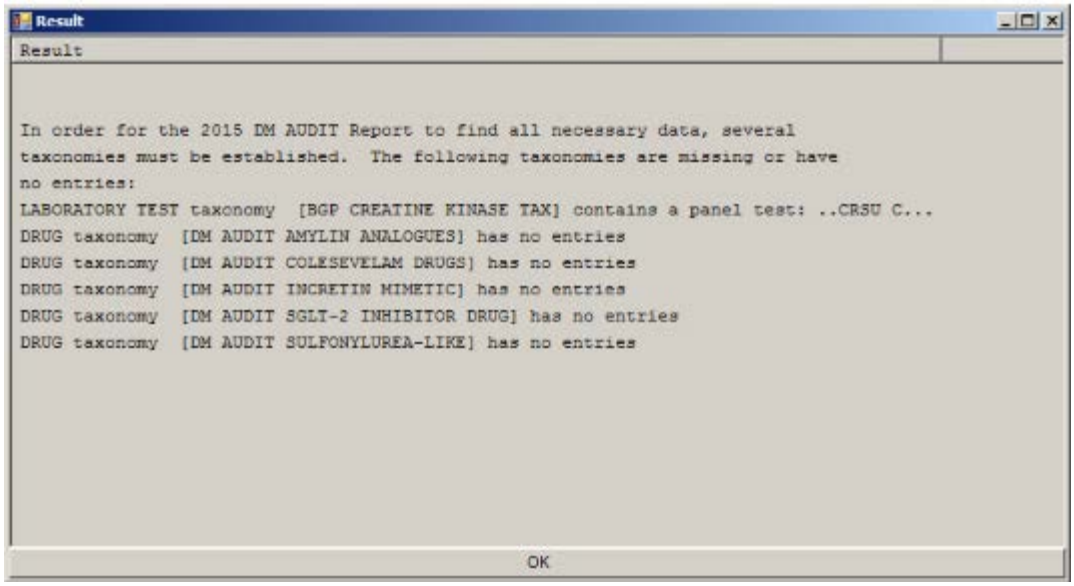

Figure 10-16: Taxonomy Result window sample

2. Click OK to access the DM Audit window (Figure 10-17).

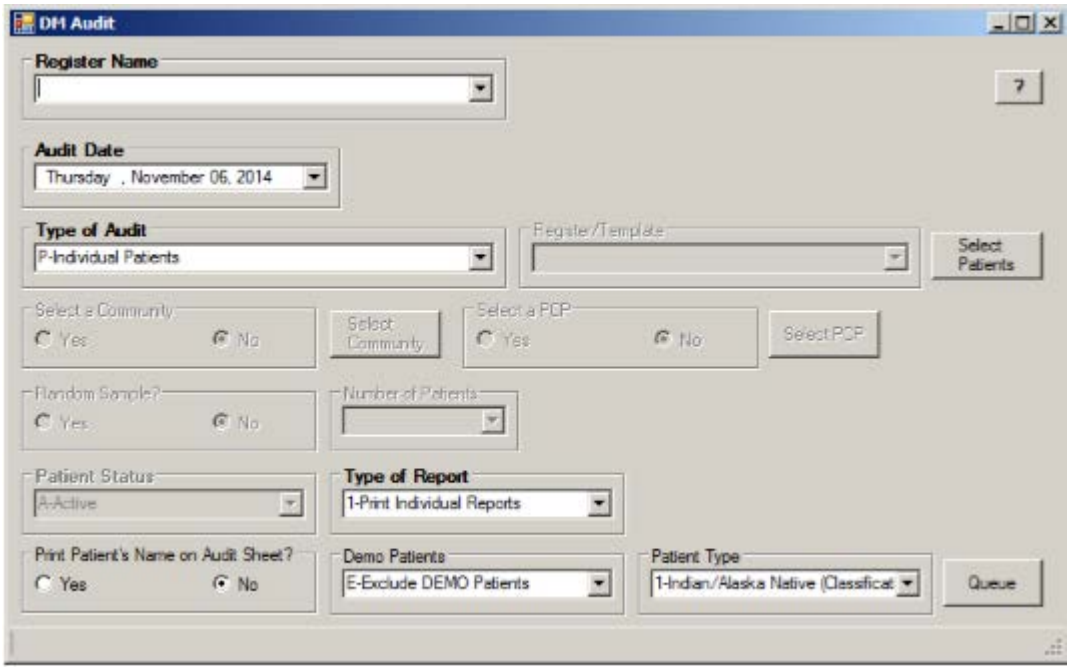

Figure 10-17: DM Audit window sample

3. At the "Register Name" field, select the Register to Audit from the drop-down list.

4. At the "Audit Date" field, select a date from the calendar associated with the field. For the 2015 Annual Audit, the Audit Date will be December 31, 2014. The default is the current date. All data in the year preceding this date will be

reviewed. A date in the future can be used as the Audit date to identify patients who might have specific care needs before the official Annual Audit date.

5. At the "Type of Audit" field, select the type of Audit from the drop-down list: P-Individual Patients, S-Search Template of Patients, or C-Members of a CMS Register.

   a. If Search Template of Patients is used, the next active field becomes Search Template. Here you select for a search template from the drop-down list.

Figure 10-18: Type of Audit with Search Template

   b. If the Members of a CMS Register is used, the next active field becomes Register. Here you select for a register from the drop-down list.

Figure 10-19: Type of Audit with Register

6. The SDPI Key Measures Report can be further narrowed down by selecting a community or a Primary Care Provider. If additional sorting criteria are desired, at the "Select a Community" field, select the Yes or No option button. This determines if you want to limit the Audit to patients who live in a particular community.

   If Yes is used, the Select Community button becomes active. Click **Select Community** to access the Community search/select window (Figure 10-20). Use this window to search for and select a community (only one community can be used).

Note:	The SDPI Key Measures Report is typically run for the entire Register or a Search Template of patients.

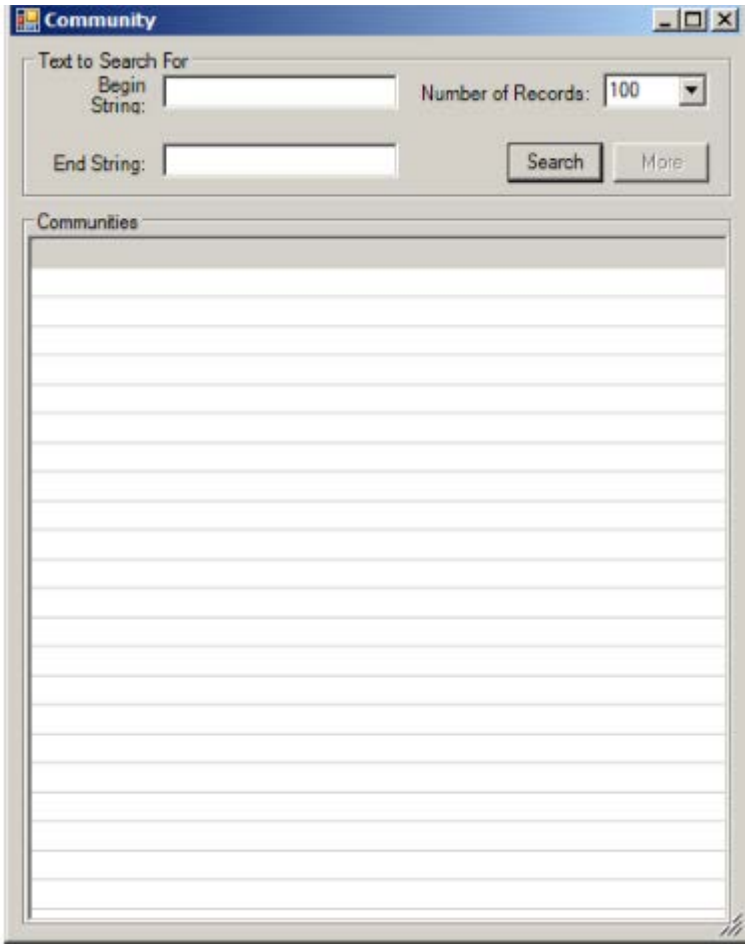

Figure 10-20: Community search/select window sample

a. At the "Begin String" field, type the beginning string of the name of the community (at least 3 characters).

b. At the "End String" field, type the ending string of the name of the community (optional)

c. Click **Search** to initiate the search for the community name.

d. The retrieved records display in the Communities list box, showing the names of the communities and their associated states. Select one to be used for the report.

7. If you wish to run the SDPI Key Measures Report by Primary Care Provider, at the "Select a PCP" field, select the Yes option button.

8. If Yes is used, the Provider search/select window (Figure 10-21) displays.

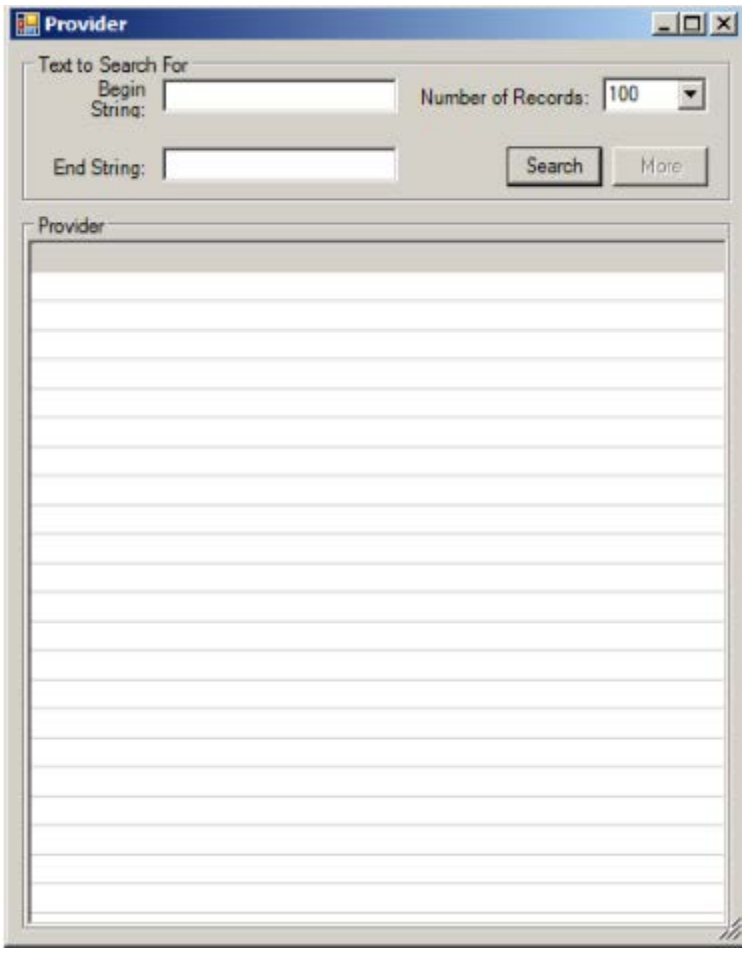

Figure 10-21: Provider search/select window sample

a. At the "Begin String" field, type the beginning string of the last name of the provider (at least 3 characters).

b. At the "End String" field, type the ending string of the last name of the provider (optional).

c. Click **Search** to initial the search for the provider.

d. The Provider list box contains the retrieved records, showing the names of the providers.

e. Select a provider name to be used as the Primary Provider. This name will appear in the lower, left corner of the DM Audit window.

9. If you wish to run the SDPI Key Measures Report for a random sample of patients, select **YES** at the "Random Sample?" field. You will then be prompted to enter the number of patients to use as a Random Sample.

10. At the "Patient Status" field, select the patient status to be used on the SDPI Key Measures Report. Typically only patients with an Active status would be used for this report.

11. At the "Type of Report" field, select the type of report for the Audit. Note from the drop down list that the choices include: 1-Print Individual Reports, 2-Create Audit Export File, 3-Cumulative Audit Only, 4-Both Individual and Cumulative Audit, 5-SDPI Key Measures Report

12. At the "Demo Patients" field, select the option to E-Exclude DEMO Patients.

13. At the "Patient Type" field, select 1-Indian/Alaska Native.

Figure 10-22 shows the typical selections made on the Diabetes Audit screen when a user wishes to run the SDPI Key Measures Report.

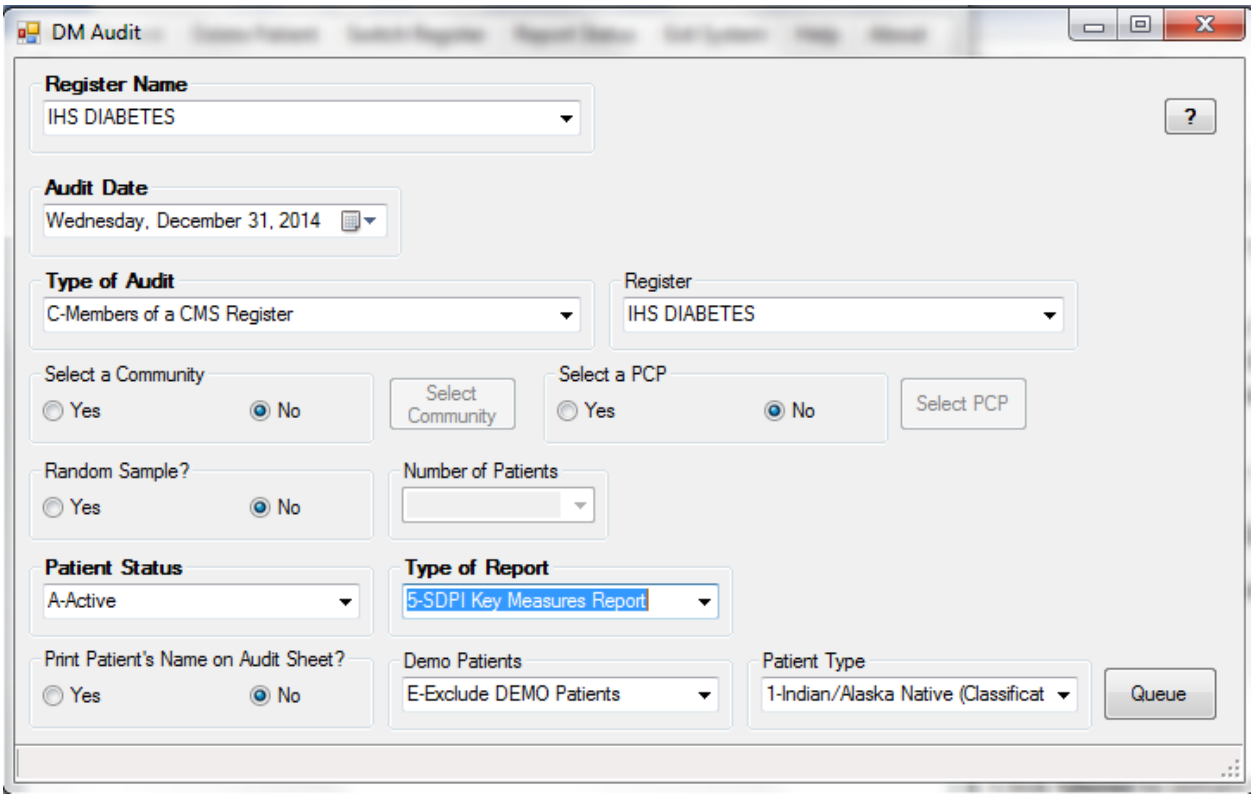

Figure 10-22: DM Audit Selection Screen for SDPI Key Measures Report

14. Click **Queue** to initiate the report extraction.

15. Once the report has been queued to run, click the Report Status option on the toolbar of the main window to review the progress of the report.

16. To view the report, select the COMPLETED report name and it will display in a Microsoft Word document (it can be saved or printed). When review of the report is complete, click the X to close the Word document.

Figure 10-23 below shows a sample SDPI Key Measures Report.

DKR Dec 30, 2014 Page 1

IHS DIABETES CARE AND OUTCOMES AUDIT REPORT - RPMS AUDIT
SDPI Required Key Measures Report for 2015 (01/01/2014 to 12/31/2014)
Facility: RSBCIHI

920 patients were audited*

	# of Patients (Numerator)	# Considered (Denominator)	Percent
Adult Weight and Cardiometabolic Risk Management and Diabetes Guidelines			
Documented assessment for overweight or obesity (height and weight reported)	858	920	93%
Documented nutrition and physical activity education	352	920	38%
Cardiovascular Health and Diabetes			
Documented smoking status	917	920	100%
In current tobacco users, counseled	86	219	39%
Mean blood pressure (BP) <140/<90	576	920	63%
Depression Care			
In patients without active depression, screened for depression**	666	714	93%
Eye Care			
Eye exam - dilated or retinal camera	528	920	57%
Foot Care			
Foot exam - Complete	479	920	52%
Nutrition for Diabetes Prevention and Care			
Documented nutrition education	468	920	51%
Documented nutrition education by an RD	189	920	21%
Oral Health Care			
Dental exam	435	920	47%
Screening for Chronic Kidney Disease			
In patients age 18 and above, eGFR and UACR	673	919	73%
Mean blood pressure (BP) <140/<90	576	920	63%
In patients with known hypertension, ACE inhibitor or ARB prescribed	540	724	75%
Systems of Care			
A1C <8.0	414	920	45%
A1C >=9.0	251	920	27%
Mean blood pressure (BP) <140/<90	576	920	63%
LDL <100	350	920	38%
Combined Audit Outcomes Measure: A1C<8.0, LDL <100, and mean BP <140/<90	150	920	16%

* Selected patients could be people with or without diabetes, the target group r
SDPI activities, or whatever group of people is relevant for reporting purposes.
**This item is only reported for patients without an active diagnosis of depres,
not all selected patients.

Figure 10-23: SDPI Key Measures Report sample

Appendix A: 2015 Diabetes Audit Logic

```
                                    AUDIT DATE
This is the ending date of the audit period.  The user supplies this
date.  It is used as the ending date to calculate the time range when
looking for values. For example, if the audit date is December 31, 2012
then data is examined during the year prior to this audit date (January 1,
2012 through December 31, 2012).


                                  FACILITY NAME
This is the name of the facility at which the audit is being run.  It is
the division or facility to which the user logged in.  (The DUZ(2)
variable is used).


                                REVIEWER INITIALS
Initials of the person running the audit.  A maximum of 3 initials may be
used. This information is taken from the File 200 (New Person) entry for
the user.


                                STATE OF RESIDENCE
This is the state in which the patient resides at the time the audit was
done.  This is captured from the mailing address.


                                  CHART NUMBER
Health record number of the patient at the facility at which the audit is
run.


                                DATE OF BIRTH
The patient's Date of Birth.  Obtained from data entered through patient
registration.


                                     SEX
The gender of the patient. Obtained from data entered through patient
registration.


                             PRIMARY CARE PROVIDER
The name of the primary care (designated) provider documented in RPMS.
Taken from field .14 of the patient file.


                          DATE OF DIABETES DIAGNOSIS
The diabetes onset date.  This date is used in the calculation of the
duration of diabetes. 3 different dates are displayed to the user:
       The date of onset from the Diabetes Register.
       The earliest date of onset from all diabetes related problems on
the problem list. The problem list is scanned for all problems in the
ICD diagnosis code ranges ranges defined in the SURVEILLANCE DIABETES
taxonomy.
       The 1st recorded diagnosis (POV) of diabetes in PCC.  ICD codes:
Taxonomy SURVEILLANCE DIABETES.

Cumulative Audit:  When calculating the duration of diabetes, the
```

earliest of the date of onset from the diabetes register or the problem list date of onset is used. Duration of diabetes is calculated from that date to the date of the audit. If neither the date of onset in the register nor the date of onset in the problem list is recorded, the duration of diabetes is not calculated. The first diagnosis date from POV is not used.

AUDIT Export file: The earliest date found from the Diabetes register or the problem is exported. Format: MM/DD/YYYY

DM TYPE

The computer audit uses the following logic in determining the type of diabetes: (once a 'hit' is made, no further processing done)

1. If the diagnosis documented in the Diabetes Register is NIDDM the type is assumed to be Type 2.
2. If the diagnosis documented in the Diabetes Register is "TYPE II" the type is assumed to be Type 2.
3. If the diagnosis documented in the Diabetes Register contains a '2' the type is assumed to be Type 2.
4. If the diagnosis documented in the Diabetes Register contains IDDM the type is assumed to be type 1.
5. If the diagnosis documented in the Diabetes Register contains a '1' the type is assumed to be Type 1.
6. If no diagnosis is documented in the Diabetes Register, or it does not contain any of the above strings the problem list is then scanned. If any diabetes diagnosis on the problem list [SURVEILLANCE DIABETES] taxonomy is also in the DM AUDIT TYPE II DXS taxonomy then the type is assumed to be 2.
7. If any diabetes diagnosis on the problem list is also in the DM AUDIT TYPE I DXS taxonomy then the type is assumed to be type 1.
8. If no diagnosis exists on the problem list or in the diabetes register, then the last PCC purpose of visit related to diabetes is reviewed. If the diagnosis is contained in the DM AUDIT TYPE II DXS taxonomy the type is assumed to be Type II, if it is contained in the DM AUDIT TYPE I DXS taxonomy it is assumed to be Type I.

TOBACCO - SCREENED IN AUDIT PERIOD

If any of the following items is documented during the audit period then a Yes is displayed.

- Health Factor in the TOBACCO (SMOKING) Category.
- Health Factor in the TOBACCO (SMOKELESS - CHEWING/DIP) Category.
- The PCC Problem list and purpose of visits are scanned for any of the following diagnoses Diagnoses contained in the BGP TOBACCO DXS taxonomy.
- Any visit with Dental ADA code 1320 documented.
- Any visit with the following CPT codes documented:
  BGP SMOKING CPTS taxonomy: 99406-99407,1034F-1036F, G0375-G3076

TOBACCO USE

The last documented of the following items is found:

1. Health Factors in the categories TOBACCO (SMOKING) and TOBACCO (SMOKELESS - CHEWING/DIP) that relate to the patient's tobacco use status. As of the DM Audit 2015 these are the health factors available: (the ones with an astersk indicate a current user, those with ** are non tobacco users, the others are put in the "not documented" category)

*CURRENT SMOKELESS TOBACCO (SMOKELESS - CHEWING/D
**PREVIOUS (FORMER) SMOKELESS TOBACCO (SMOKELESS - CHEWING/D

```
*CESSATION-SMOKELESS                        TOBACCO (SMOKELESS - CHEWING/D
SMOKELESS TOBACCO, STATUS UNKNOWN          TOBACCO (SMOKELESS - CHEWING/D
**NEVER USED SMOKELESS TOBACCO               TOBACCO (SMOKELESS - CHEWING/D
**NON-TOBACCO USER                           TOBACCO (SMOKING)
*CURRENT SMOKER, STATUS UNKNOWN             TOBACCO (SMOKING)
**PREVIOUS (FORMER) SMOKER                   TOBACCO (SMOKING)
*CESSATION-SMOKER                           TOBACCO (SMOKING)
*CURRENT SMOKER, EVERY DAY                  TOBACCO (SMOKING)
*CURRENT SMOKER, SOME DAY                   TOBACCO (SMOKING)
**NEVER SMOKED                              TOBACCO (SMOKING)
SMOKING STATUS UNKNOWN                     TOBACCO (SMOKING)
*HEAVY TOBACCO SMOKER                       TOBACCO (SMOKING)
*LIGHT TOBACCO SMOKER                       TOBACCO (SMOKING)
If a factor is found in each of these categories, the one that indicates
a tobacco user is used.  If one is found in just one category it is used.
For example, patient has LIGHT TOBACCO SMOKER and NEVER USED SMOKELESS
TOBACCO documented the LIGHT TOBACCO USER is used.  If the patient has
NEVER SMOKED and CURRENT SMOKELESS documented, CURRENT SMOKELESS is used.

2.       Diagnoses contained in the BGP TOBACCO DXS taxonomy.  Both the V
POVs and Problem List are checked.  The latest documented diagnosis that
is contained in the taxonomy is used.  Diagnoses that indicate a tobacco
user:  diagnoses codes in the BGP TOBACCO USER DXS taxonomy, all others
are considered non-tobacco user.
3.      Dental ADA code 1320 - TOBACCO USE INTERVENTION TO PREVENT
DISEASE.  If this code is documented the patient is considered a tobacco
user.
4.      A CPT code documented that is in the BGP TOBACCO SCREEN CPTS
taxonomy.  Only code 1036F is considered a non-tobacco user, all others
are considered a tobacco user.

If the patient is a user then a 1  Current User displays.
If the patient is not tobacco user then a 2  Not a current user displays
Otherwise a 3  Not Documented displays


                  TOBACCO REFERRED FOR CESSATION COUNSELING
If the tobacco use status is Current User then counseling documented in
the past year is searched for.
Counseling is defined as any of the following:
1.      A health factor containing the word CESSATION documented in the
past year. (CESSATION-SMOKELESS, CESSATION-SMOKER)
2.      A visit to clinic 94 - TOBACCO CESSATION CLINIC
3.      A patient education topic that meets the following criteria:
a.      Begins with TO- (e.g. TO-Q)
b.      Ends in -TO (e.g. CAD-TO)
c.      Begins with any Tobacco User diagnosis (taxonomy is BGP TOBACCO
USER DXS) (e.g. 305.1-L)
d.      Begins with any Tobacco User CPT code (e.g. 99407-L)
4.      Any of the following CPT codes documented.  These indicate
tobacco use counseling: CPT code D1320, 99406, 99407, G0375 (old code),
G0376 (old code), 4000F, 4001F, G8402 or G8453.
5.      Dental ADA code 1320.
The latest documented of the above 5 data elements is displayed along
with the date.
If no counseling is found then the system will look for a smoking aid
prescribed:
Any prescription for a medication in the site-populated BGP CMS SMOKING
CESSATION MEDS taxonomy that does not have a comment of RETURNED TO
STOCK.   A prescription for any medication with name containing "NICOTINE
PATCH", "NICOTINE POLACRILEX", "NICOTINE INHALER", or "NICOTINE NASAL
```

SPRAY" that does not have a comment of RETURNED TO STOCK.

HEIGHT

The last recorded Height value taken on or before the ending date of the audit.
AUDIT Export file: The last recorded height prior to the audit date is passed to the export record. The height is rounded to 2 decimal digits. For example, 60.25 inches. The height in feet and inches is also passed on the export record.

WEIGHT

The last recorded Weight value taken during the audit period.

AUDIT Export: The last recorded weight during the audit period is passed to the web audit. The weight is rounded to the nearest whole pound.

BMI

BMI is calculated in the following way: The last weight in the 2 years prior to the audit date and the last height recorded anytime before the audit date are used to calculate the BMI. Where W is weight in lbs and H is height in inches: W=W*.45359,H=(H*.0254),H=(H*H),%=(W/H),%=$J(%,4,1)

Cumulative Audit: BMI is used and percentages of overweight and obese patients are calculated. If the patient did not have a height or weight recorded as described above they fall into the "BMI could not be calculated" category.

HYPERTENSION DOCUMENTED

If Hypertension is on the problem list or the patient has had at least 3 visits with a diagnosis of hypertension ever then it is assumed that they have hypertension. Taxonomy used: SURVEILLANCE HYPERTENSION.

BLOOD PRESSURES (LAST 2/3)

The last 3 recorded Blood Pressure values (on different days) on non-ER clinic visits in the year prior to the audit date are obtained. If 3 blood pressures are not available then the last 2 are obtained.

AUDIT Export file: The last 3 (if available) or else last 2 systolic and diastolic values as well as the mean of the systolic values and diastolic values are passed on to the export record. If there are not at least 2 values the mean is not calculated.

Note: If more than 1 Blood Pressures is recorded on any 1 day the latest one is used.

FOOT EXAM (COMPLETE)

The logic used in determining if a complete foot exam has been done is as follows:
1. A documented DIABETIC FOOT EXAM, COMPLETE (CODE 28) is searched for in the year prior to the audit date. This is recorded in V Exam. If found, no other processing is done, an exam is assumed to have been done.
2. CPT codes 2028F and G9226 in V CPT
3. A visit on which a podiatrist (provider class codes 33 - PODIATRIST, 84 - (PEDORTHIST) or 25 - CONTRACT PODIATRIST) that is not a DNKA visit is searched for in the year prior to the audit date. If

found, it is assumed the exam was done and no further processing is done.
4. A visit to clinic 65 - PODIATRY or B7 -Diabetic Foot clinic that is not a DNKA is searched for in the year prior to the audit date. If found, no other processing is done.
5. If none of the above are found, the last documented refusal is searched for, if that refusal is "Not Medically Indicated" the value is "No". All other refusal types are ignored.

If none of the above are found the value is "No".

EYE EXAM (dilated or retinal camera)

The logic used in determining if a diabetic eye exam has been done is as follows:
1. The system looks for the last documented Diabetic Eye Exam in the computer record in the year prior to the audit date.
Diabetic Eye Exam is defined as:
  a EXAM 03 - Diabetic Eye Exam
  b. CPT in the DM AUDIT EYE EXAM CPTS:
  2019F
  2020F - 2021F
  2022F
  2024F
  2026F
  67028
  67039
  67040
  92002 - 92014
  92250
  S0620
  S0621
  c. ICD Procedure in [DM AUDIT EYE EXAM PROCS] taxonomy.
2. If one is found, no further processing is done.
3. If no documented exam or CPT is found, then all PCC Visits in the year prior to the end of the audit are scanned for a non-DNKA, non-Refraction visit to an Optometrist or Ophthalmologist (24, 79, 08) or an Optometry or Ophthalmology Clinic (17, 18, 64 or A2). If found, then a yes and an indication of what was found is displayed. Refraction is defined as a POV on the visit of: [DM AUDIT REFRACTION DXS]. DNKA is defined as any visit with a primary purpose of visit with a provider narrative containing the following phrases: DNKA, DID NOT KEEP APPOINTMENT, DID NOT KEEP APPT.
5. If none of the above is found, then the last documented refusal is found, if the last documented refusal is NMI - Not Medically Indicated then the value assigned is 2 - No. All other refusals are ignored.
6. If none of the above items are found the value is 2 No.

DENTAL EXAM

The logic used in determining if a dental exam has been done is as follows:
1. A documented DENTAL EXAM (CODE 30) is searched for in the year prior to the audit date. If found, no other processing is done.
2. A visit to clinic 56 - DENTAL clinic that is not a DNKA is searched for in the year prior to the audit date. If found, no other processing is done.
3. A visit on which a dentist (provider class code 52 -DENTIST) that is not a DNKA visit is searched for in the year prior to the audit date. If found, and there is any ADA code other than 9991, then it is assumed the exam was done and no further processing is done.

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4.      If none of the above is found, then the last documented refusal
is found, if the last documented refusal is a NMI - Not Medically
Indicated then the value assigned is 2 - No.  All other refusals are
ignored.
5.      If none of the above are found, the value is 2 - No.


                            NUTRITION INSTRUCTION
The values in the audit are:
       1      RD
       2      Other
       3      Both RD & Other
       4      None
All visits in the year prior to the audit date are examined. Chart review
visits are skipped (Chart review is defined as service category of C or
clinic code of 52).
 - If the primary provider on any visit is a DIETITIAN or NUTRITIONIST
   (codes 29, 07 or 34) then RD is assigned.
 - If the visit does not have one of the above providers but has a
   Diagnosis of [BGP DIETARY SURVEILLANCE DXS] then Other is assigned.
 - If the visit has a CPT documented of 97802, 97803, or 97804 then RD
   is assigned.
 - If the visit contains any of the following education topics
   Topic in the DM AUDIT DIET EDUC TOPICS taxonomy
   Topic ending in -N
   Topic ending in -DT
   Topic ending in -MNT
   Topic beginning with MNT-
   The V PAT ED entry is examined and if the provider documented in
   that entry is a Dietitian or Nutritionist the RD is assigned if
   the provider is blank or not an dietician/nutritionist then Other
   is assigned.

At this point:
- if RD is assigned and Other is not then the value assigned is 1 - RD.
- if RD and Other is assigned then the value assigned is 3 - RD & Other.
- if Other is assigned and RD is not then the value assigned is 2 - Other.

Processing stops if a value is assigned.

If none of the above is documented, the value is 4 - None


                         PHYSICAL ACTIVITY INSRUCTION
All visits in the year prior to the audit date are examined.
If there is a visit on which a patient education topic in the DM AUDIT
EXERCISE EDUC TOPICS taxonomy, or any topic ending in "-EX" is documented
then a 1 - Yes.  No further processing is done.

All visits in the year prior to the audit date are examined for a POV of
V65.41 (there are no ICD10 codes) and if one is found a 1 - Yes is
displayed.

If neither of the above is documented, the value is 2 - None


                            DM EDUCATION (OTHER)
All education topics documented in the year prior to the audit date
are examined.  If the topic meets the following criteria then the
value assigned is 1 - Yes:
  -    topic does not end in -EX, -N, -DT or -MNT
```

- topic does not begin with MNT-
- topic is in the DM AUDIT OTHER EDUC topics taxonomy or the name of the topic begins with any code in the SURVEILLANCE DIABETES Taxonomy, DM or DMC

If neither of the above is documented, the value is 2 - None

DEPRESSION AN ACTIVE PROBLEM?

The patient's problem lists in both PCC and the Behavioral Health module are reviewed for any problem with a code that is contained in the DM AUDIT DEPRESSIVE DISORDERS taxonomy;
or for the following Behavioral Health problem codes: 14, 15. If no problem found on the problem list then the PCC and BH systems are reviewed for at least 2 diagnoses (POV's) of the codes listed above in the year prior to the audit date. If either a problem is found on the problem list or 2 POV's are found then the value on the audit is 1 - Yes. If not, then value of 2 - No is assigned.

DEPRESSION SCREENING

The PCC and Behavioral health databases are reviewed for any of the Following documented in the past year:

- V Exam 36 or Behavioral Health Module Depression Screening
- Diagnosis - V POV V79.0 (NOTE: there are no ICD10 codes used)
- Education Topics - V EDUCATION or Behavioral Health Module DEP-SCR
- V Measurement PHQ2, PHQ9, PHQT
- Behavioral Health Module Diagnosis (POV) of 14.1
- Diagnosis in DM AUDIT DEPRESSIVE DISORDERS taxonomy in V POV
- Diagnosis in DM AUDIT DEPRESSIVE DISORDERS taxonomy in BH
- Problem Code of 14 or 15 in BH

If any of the above is found then a value of 1 - Yes is assigned.

(No) if no documentation of depression screening found.

DM THERAPY

All Visits in the 6 months prior to the audit date are reviewed. If any medication in the taxonomy specified is found, then an 'X' is placed by the therapy name. If no medications are found then the Diet & Exercise Alone item is marked with an 'X'.

Therapy	Taxonomy Name
Insulin	DM AUDIT INSULIN DRUGS
Sulfonylurea	DM AUDIT SULFONYLUREA DRUGS
Glinide	DM AUDIT SULFONYLUREA LIKE
Metformin	DM AUDIT METFORMIN DRUGS
Acarbose	DM AUDIT ACARBOSE DRUGS
Proglitazone	DM AUDIT GLITAZONE DRUGS
GLP-1 med	DM AUDIT INCRETIN MIMETIC
	DM AUDIT GLP-1 ANALOG DRUGS
DPP4 inhibitors	DM AUDIT DPP4 INHIBITOR DRUGS
Amylin analogues	DM AUDIT AMYLIN ANALOGUES
Bromocriptine	DM AUDIT BROMOCRIPTINE DRUGS
Colesevelam	DM AUDIT COLESEVELAM DRUGS
Invokana	DM AUDIT SGLT-2 INHIBITOR DRUG

ACE INHIBITOR/ARB

1. If any drug in the DM AUDIT ACE INHIBITORS taxonomy or any drug

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with a VA Drug Class of CV800 or CV805 has been prescribed in the 6
months prior to the audit date a Yes is displayed.
2.      If no drugs are found, a No is displayed.


                                    STATIN
Definition:
Any V Medication for any drug in the DM AUDIT STATIN DRUGS or BGP PQA
STATIN MEDS taxonomy.

Medications are looked for in the past 6 months.  Allergies documented
are looked for any time before the end of the audit period.

Statin Allergy defined as:
Adverse drug reaction/documented statin allergy defined as any of the
following: 1) ALT and/or AST > 3x the Upper Limit of Normal (ULN) (i.e.
Reference High) on 2 or more consecutive visits during the Audit Period;
2) Creatine Kinase (CK) levels > 10x ULN or CK > 10,000 IU/L during the
Report Period; 3) Myopathy/Myalgia, defined as any of the following
during the Report Period:  POV ICD-9: 359.0-359.9, 729.1, 710.5, 074.1;
ICD-10: G71.14, G71.19, G72.0, G72.2, G72.89, G72.9, M35.8, M60.80-M60.9,
M79.1; 4) any of the following occurring anytime through the end of the
Report Period: A) POV ICD-9: 995.0-995.3 AND E942.9; B) "Statin" or
"Statins" entry in ART (Patient Allergies File); or C) "Statin" or
"Statins" contained within Problem List or in Provider Narrative field
for any POV ICD-9: 995.0-995.3, V14.8; ICD-10: Z88.8.

Test Definitions:

ALT:  Site-populated taxonomy DM AUDIT ALT TAX or LOINC taxonomy.

AST:  Site-populated taxonomy DM AUDIT AST TAX or LOINC taxonomy.

Creatine Kinase:  Site-populated taxonomy BGP CREATINE KINASE TAX or
LOINC taxonomy.

Statin Intolerance/Contraindication defined as:
Contraindications to Statins defined as any of the following:  1)
Pregnancy (see definition below); 2) Breastfeeding, defined as POV ICD-9:
V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC,
BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the
Report Period; 3) Acute Alcoholic Hepatitis, defined as POV ICD-9: 571.1;
ICD-10: K70.10, K70.11 during the Report Period; or 4) NMI (not medically
indicated) refusal for any statin at least once during the Report Period.

Pregnancy definition:  At least two visits during the Audit Period with
POV or Problem diagnosis ICD-9: 640.*3, 641.*3, 642.*3, 643.*3, 644.*3,
645.*3, 646.*3, 647.*3, 648.*3, 649.*3, 651.*3, 652.*3, 653.*3, 654.*3,
655.*3, 656.*3, 657.*3, 658.*3, 659.*3, 660.*3, 661.*3, 662.*3, 663.*3,
665.*3, 668.*3, 669.*3, 671.*3, 673.*3, 674.*3, 675.*3, 676.*3, 678.*3,
679.*3, V22.0-V23.9, V28.81, V28.82, V28.89, V72.42, V89.01-V89.09;
ICD-10: (see logic manual for codes), where the primary provider is not a
CHR (Provider code 53).  Pharmacy-only visits (clinic code 39) will not
count toward these two visits.  If the patient has more than two
pregnancy-related visits during the Report Period, CRS will use the first
two visits in the Report Period.  The patient must not have a documented
miscarriage or abortion occurring after the second pregnancy-related
visit.  Miscarriage definition:  1) POV ICD-9: 630, 631, 632, 633*, 634*;
ICD-10: O03.9; 2) CPT 59812, 59820, 59821, 59830. Abortion definition:
1) POV ICD-9: 635*, 636* 637*; ICD-10: O00.*-O03.89, O04.*, Z33.2; 2) CPT
59100, 59120, 59130, 59136, 59150, 59151, 59840, 59841, 59850, 59851,
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59852, 59855, 59856, 59857, S2260-S2267; 3) Procedure ICD-9: 69.01, 69.51, 74.91, 96.49; ICD-10: 0WHR73Z, 0WHR7YZ, 10A0***, 3E1K78Z, 3E1K88Z.

ASPIRIN/ANTIPLATELET THERAPY

All medications in the past year are reviewed. If any of them are in the DM AUDIT ASPIRIN DRUGS or DM AUDIT ANTI-PLATELET DRUGS taxonomies then a value of 1 - Yes is assigned, no further processing is done.

The Non-VA meds component in the pharmacy patient file is reviewed for any drug in the above mentioned taxonomies or an orderable item whose first 7 characters is "ASPIRIN" and whose 8th character is not a "/". If one is found then a value of 1 - Yes is assigned and no further processing is done.

If no Aspirin drugs are found then a 2 - None is assigned.

TB TESTING

The type of TB Test done is determined in the following way:

1. If the patient has a TB health factor recorded, TB on the problem list or any diagnoses of TB documented in the PCC then the test type is documented as 1 - Skin Test (PPD), no further processing is done.
2. All recorded PPD entries and TB lab tests using the DM AUDIT TB TESTS TAX prior to the audit date are gathered. If at least one is found the latest one is used, if it is a Skin test then 1 - Skin test (PPD) is documented, if it is a lab test then 2 - Blood Test is documented.
3. If there are none found then the value is 3 - UNKNOWN/NOT OFFERED.

TB Test result

The TB test result is determined in the following way:

1. If the patient has a TB health factor recorded, TB on the problem list or any diagnoses of TB documented in the PCC then the test result is documented as 1 - Positive, no further processing is done. Taxonomy Used is SURVEILLANCE TUBERCULOSIS.
2. All recorded PPD entries and TB lab tests using the DM AUDIT TB TESTS TAX prior to the audit date are gathered. If at least one is found the latest one is used, if it is a Skin test and the reading or result is Positive (reading >9) then it is documented as 1 - Positive, if reading or result of last PPD is negative, then the values is 2 - Negative, if the test type is a blood test then the value of the test is examined, if it is Positive then 1 - Positive is recorded, if it is negative then 2 - Negative is documented. If the results are null the a value of 3 - Unknown is documented.
3. If there are none found then the value is 3 - UNKNOWN/NOT OFFERED.

TB RESULT POSITIVE, IHN TX COMPLETE

If the value of the TB Test result is POSITIVE then the last TB health factor is looked at for determining TB Treatment status. The last recorded TB Health factor is displayed. The TB Health factors are: TB - TX COMPLETE TB - TX INCOMPLETE TB - TX UNKNOWN TB - TX UNTREATED

TB RESULT NEGATIVE, TEST DATE

If the value of TB test result is NEGATIVE then the date of the last TB test is displayed.

CVD

1. CVD diagnosis (using DM AUDIT CVD DIAGNOSES taxonomy) is searched for on the patient's problem list. If one is found a Yes is displayed.

If no problem is found on the problem list then the V POV file is searched for the following, if found, a Yes is displayed along with the visit date on which the item was found:

- One diagnosIs ever of any diagnosis in the BGP CABG DXS taxonomy. The codes are:
  Z95.1 (ICD-10) Presence of aortocoronary bypass graft
  V45.81 (ICD-9) AORTOCORONARY BYPASS

- One diagnosis ever of any code in the BGP PCI DXS taxonomy. Codes are:
  V45.82 (ICD-9) STATUS-POST PTCA
  Z95.5 (ICD-10) Presence of coronary angioplasty implant and graft
  Z98.61 (ICD-10) Coronary angioplasty status

- Two diagnoses ever of any code in the DM AUDIT CVD DIAGNOSES taxonomy.

- One procedure ever documented of any code in the BGP PCI CM PROCS taxonomy.

- One procedure ever documented of any code in the BGP CABG PROCS taxonomy.

- One CPT procedure ever documented of any code in the BGP PCI CM CPTS taxonomy.

- One CPT procedure ever documented of any code in the BGP CABG CPTS taxonomy.

FLU VACCINE

The patient's data is scanned for an Influenza vaccine in the 12 months prior to the audit date. Influenza vaccine defined as:
- Immunization CVX codes: See BGP FLU IZ CVX CODES taxonomy
- CPT codes: BGP CPT FLU
- Diagnosis codes: BGP FLU IZ DXS (there are no ICD10 codes)

If no documented immunization is found, a documented refusal in the past 12 months is searched for. If neither are found a No is assumed.
Values: Yes, No, Refused.

PNEUMOVAX EVER

Data is scanned for Pneumococcal vaccine any time prior to the audit date. A Pneumovax is defined as:
- Immunization CVX codes: 33, 100, 109, 133, 152
- Diagnoses: V03.82 (there are no ICD10 codes)
- CPT codes: BGP PNEUMO IZ CPTS taxonomy (90669, 90670, 90732, G0009, G8115, G9279)

If none is found, the refusal file is checked for a documented refusal of this vaccination. Refusals documented in both the PCC and the Immunization register are reviewed. If neither are found a No is assumed.
Values: Yes, No, Refused.

HEPATITIS B

HEP B definition:
" CVX codes 8, 42, 43, 44, 45, 51, 102, 104, 110, 132, 146
" CPT codes contained in the BGP HEPATITIS CPTS taxonomy: 90636, 90723, 90731, 90740, 90743, G0010, Q3021, Q3023
Vaccinations must be given at least 20 days apart. If 3 are found a "Yes" displays.

If less than 3 vaccines found the system will look for an Immune Contraindication in the Immunization contraindications file. If it is found "Immune" will display.

The system then looks for evidence of disease: Problem List or V POV of [BGP HEP EVIDENCE] Taxonomy. If found "Immune" will display.

If 3 vaccines are not found and immune or evidence of disease is not found the system searches for a refusal documented in the past year.
Refusal definitions: Immunization Package refusal or PCC refusal of the above listed CVX or CPT codes.

TD OR TDAP IN PAST 10 YEARS

Immunizations are scanned for any tetanus vaccine in the 10 years prior to the audit date. If none is found, a documented refusal is searched for.
If neither is found a No is assumed.
Values: Yes, No, Refused.
Logic used to find a TD vaccine:
  Immunization CVX codes : 1, 9, 20, 22, 28, 35, 50, 106, 107, 110, 112, 113, 115, 120, 130, 132, 138, 139
  CPT Codes: APCH TD CPT

LOW VALUE: 90698	HIGH VALUE: 90698
LOW VALUE: 90700	HIGH VALUE: 90701
LOW VALUE: 90702	HIGH VALUE: 90702
LOW VALUE: 90703	HIGH VALUE: 90703
LOW VALUE: 90714	HIGH VALUE: 90714
LOW VALUE: 90715	HIGH VALUE: 90715
LOW VALUE: 90718	HIGH VALUE: 90718
LOW VALUE: 90720	HIGH VALUE: 90723

TDAP EVER

Tdap definition:
CVX code 115
CPT code 90715

Refusal of any of the above in the Immunization package or PCC Refusal file.

HBA1C (most recent)

All lab tests in the V LAB file in the year prior to the audit date are found using the DM AUDIT HGBA1C TAX taxonomy and the BGP HGBA1C LOINC CODES taxonomies. Only tests that have a result are used, if the result of the V LAB is blank, contains "CANC" or contains "COMMENT" the V Lab is skipped.
  Individual Audit:
The date and result of test is displayed.

  Cumulative Audit:

```
If the result contains a ">" it goes into the 11.0 or higher category.
If the result contains a "<" it goes into the <7.0 category.
At this point everything is stripped from the result value except for
numbers and ".".  If after stripping what is left is something other than
a number then it is put in the undocumented category.  If what is left
is a numerical value it is put in the appropriate category below:
       HbA1c <7.0
       HbA1c 7.0-7.9
       HbA1c 8.0-8.9
       HbA1c 9.0-9.9
       HbA1c 10.0-10.9
       HbA1c 11.0 or higher
       Undocumented

Audit export:
When exported all characters that are not a number or a "." are stripped
from the result value, so if the value is <7.0 what is exported is 7.0.


                                SERUM CREATININE
The last lab test with a result in the year prior to the audit date that
is a member of the DM AUDIT CREATININE TAX taxonomy or the BGP
CREATININE LOINC CODES taxonomy is found in V LAB.  All tests with a
result containing "CANC" are skipped.

Specimen types are not examined so if the same creatinine test is used
for serum creatinine as for urine creatinine, the audit is unable to
distinguish between these values.

Result reporting:
For the individual audit sheet the actual value that is in V LAB is
displayed.
For the cumulative audit:  If no test with a result was found it falls
into the not tested/unknown category.  If there was a result, all
characters that are not numbers or "."'s are stripped from the result
value.  If the first character of the stripped result is not a number or
a "." the value is placed in the not tested/unknown category.  The
stripped result is evaluated and put in the >=2.0 or <2.0 categories.

Serum Creatinine obtained during audit period            0         0%
       Creatinine >= 2.0 mg/dl                           0         0%
       Creatinine < 2.0 mg/dl                            0         0%
       Creatinine not tested/unknown                     1       100%

For the Audit export:
All characters other than numbers and "." s are stripped from the result
value and that value is truncated to a total of 4 characters with 1
decimal digit.


                                ESTIMATED GFR
For patients that are 18 or older, the last lab test in the year prior to
the audit date that is a member of the BGP GPRA ESTIMATED GFR TAX or the
BGP ESTIMATED GFR LOINC taxonomy is found.

For the individual audit sheet the actual value that is in V LAB is
displayed. If there is no Estimated GFR found in V LAB but there is a
Creatinine value found the Estimated
For the cumulative audit:
If the first character of the value is ">" it goes into >=60 ml/min
All characters other than numbers and "."'s are stripped from the result
```

```
value
The resulting value is placed in the following categories:
If blank - no category assigned
30-59
15-29
<15
Audit export:
All characters other than numbers or "."'s are stripped from the result
value and that value is truncated to a total of 4 characters with 1
decimal digit.


                              TOTAL CHOLESTEROL
The last lab test with a result in the year prior to the audit date that
is a member of the DM AUDIT TOTAL CHOLESTEROL TAX taxonomy or the BGP
TOTAL CHOLESTEROL LOINC taxonomy is found in V LAB.


Cumulative Audit:
The result is used in the calculation of the NON-HDL section.

Audit Export:
All characters other than numbers and "."'s are stripped from the result
value and that value is then rounded to the closest whole number and
truncated to a total of 3 characters with 0 decimal digits.


                               HDL CHOLESTEROL
The last lab test with a result in the year prior to the audit date that
is a member of the DM AUDIT HDL CHOLESTEROL TAX taxonomy or the BGP HDL
LOINC CODES taxonomy is found in V LAB.


Cumulative Audit:
The result of the test is examined and is put into the following
categories by gender. If the result is blank OR the 1st digit of the
result is not a number then it is put in the Unable to determine result
category since we cannot interpret the result.  For example, if the value
is "cancelled", it will fall into unable to determine.

   In females
      HDL =<50 mg/dl
      HDL >50 mg/dl
      Not tested or no valid result

   In males
      HDL =<40 mg/dl
      HDL >40 mg/dl
      Not tested or no valid result

Audit Export:
All characters that are not numbers or "."'s are stripped from the result
value and that value is then rounded to the closest whole number and
truncated to a total of 3 characters with 0 decimal digits.


                               LDL CHOLESTEROL
The last lab test with a result in the year prior to the audit date that
is a member of the DM AUDIT LDL CHOLESTEROL TAX taxonomy or the BGP LDL
LOINC CODES taxonomy is found in V LAB. Tests with a result containing
"CANC" are ignored.
```

Cumulative Audit:
The result of the test is examined and is put into the following categories. If the 1st digit of the result is not a number then it is put in the Unable to determine result category since we cannot interpret the result. For example, if the value is "UNK",
it will fall into unable to determine.

LDL <100 mg/dl
LDL 100-129 mg/dl
LDL 130-160 mg/dl
LDL >160
Not tested

Audit Export:
All characters that are not numbers or "."'s are stripped from the result value and that value is then rounded to the closest whole number and truncated to a total of 3 characters with 0 decimal digits.

TRIGLYCERIDES

The last lab test with a result in the year prior to the audit date that is a member of the DM AUDIT TRIGLYCERIDES TAX taxonomy or the BGP TRIGLYCERIDE LOINC CODES taxonomy is found in V LAB. Only tests with a result are used, tests with a result containing "CANC" or "COMMENT" are also skipped.

Cumulative Audit:
The result of the test is examined and is put into the following categories. If the result is blank OR the 1st digit of the result is not a number then it is put in the Unable to determine result category since we cannot interpret the result. For example, if the value is "cancelled", it will fall into unable to determine.

TG <150 mg/dl
TG 150-199 mg/dl
TG 200-400 mg/dl
TG >400 mg/dl
Not tested

Audit Export:
All characters other than numbers and "."'s are stripped from the result value and that value is then rounded to the closest whole number and truncated to a total of 3 characters with 0 decimal digits

NON-HDL

This value is calculated by taking the total cholesterol value minus the HDL value. If either Total Cholesterol or HDL is not present the value is not calculated.

Both the Total Cholesterol and HDL tests have to have been done during the audit period. The tests do not have to have been done on the same day.

UACR

The system looks for a test contained in the DM AUDIT QUANT UACR lab taxonomy or DM AUDIT A/C RATIO LOINC taxonomy, if found and the test has a valid numeric result then the patient is assigned a value of 1 - Yes in the line for UACR Done. The result of the test is also displayed.

If the test found does not have a valid numeric result then the system

```
will look for a microalbumin test on the same visit date. If found, the
result of that test is evaluated.  If the result contains a < symbol or
the words "less than" the patient is assigned a Yes that a UACR was done
and a value of 5 is passed to the Web Audit.  If the result contains a
'>' symbol or contains the words "greater than" the patient is assigned a
Yes that a test was done and a value of 999 is passed to the Web Audit.


                          COMBINED OUTCOMES MEASURE
The combined outcome measure displays a 1 - Yes on the audit if the
patient had all of the following during the audit period:  A1c < 8.0, LDL
< 100, and mean BP <140/<90.


                                 e-GFR and a UACR
For patients 18 years of age and older those who had both an e-GFR and a
UACR test during the audit period.
```

Appendix B: Audit Export (Data) File Definition

The 2015 Audit Export (Data) file is a text file, using (^) as the delimiter. If a data point is missing, a space should appear between the delimiters (e.g., ^ ^).

Line 1 is the variable name line, and contains the audit variables in the order that they appear in Table B-1.

Lines 2-x will contain the data, with each line representing a single record (see Figure 5-1).

Table B-1 lists the current variable names and a brief description of each. Table B-2 lists those variables that have been removed for the 2015 Audit.

Table B-1: Audit Export File Definition

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
1	AUDITDATE	Ending date of the audit period - 12/31/2014	N/A	mm/dd/yyyy	
2	FACILITYNA	Name or abbreviation for the facility	N/A	Character (max length=20)	Changed the field length from 9 to 20 for 2015 Audit.
3	AREA	2 digit IHS code for Area	N/A	Character (max length=2)	First 2 characters of ASUFAC code
4	SU	2 digit IHS code for Service Unit	N/A	Character (max length=2)	Middle 2 characters of ASUFAC code
5	FACILITY	2 digit IHS code for Facility	N/A	Character (max length=2)	Last 2 characters of ASUFAC code
6	REGNUM	Number of active diabetes patients at facility that meet inclusion/ exclusion criteria	N/A	Numeric	

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
7	REVIEWER	Reviewer's initials	N/A	Character (max length=3)	
8	STATE	Postal abbreviation for state of residence	N/A	Character (max length=2)	
9	CHARTNUM	Patient's chart number	N/A	Numeric or character (max length=9)	
10	DOB	Date of Birth	N/A	mm/dd/yyyy	
11	SEX	Gender	N/A	Numeric field where: 1=Male 2=Female 3=Unknown	
12	DODX	Date of diabetes diagnosis	N/A	mm/dd/yyyy	
13	DMTYPE	Diabetes type	N/A	Numeric field where: 1=Type 1 2=Type 2 (or uncertain)	
14	TOBSCREEN	Screened for tobacco use	Audit period	Numeric field where: 1=Yes 2=No	Added as a new data field for 2015 Audit.
15	TOBACCO	Tobacco use	Most recent	Numeric field where: 1=Current tobacco user 2=Not a current user 3=Not documented	
16	TOBCOUNSEL	[Only if TOBACCO=1] Tobacco cessation counseling received	Audit period	Numeric field where: 1=Yes 2=No	
17	FEET	Last recorded height feet part	Last ever	Numeric	combine with INCHES
18	INCHES	Last recorded height inches part	Last ever	Numeric	total or in combination with FEET

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
19	WEIGHT	Weight in lbs	Audit period, most recent	Numeric	
20	HTNDX	Hypertension diagnosed	Ever	Numeric field where: 1=Yes 2=No	
21	SYST1	Most recent systolic BP (mmHg)	Audit period	Numeric	
22	DIAST1	Most recent diastolic BP (mmHg)	Audit period	Numeric	
23	SYST2	Next most recent systolic BP (mmHg)	Audit period	Numeric	
24	DIAST2	Next most recent diastolic BP (mmHg)	Audit period	Numeric	
25	SYST3	Third most recent systolic BP (mmHg)	Audit period	Numeric	
26	DIAST3	Third most recent diastolic BP (mmHg)	Audit period	Numeric	
27	FOOTEXAM	Complete diabetic foot exam	Audit period	Numeric field where: 1=Yes 2=No	
28	EYEEXAM	Dilated retinal exam or retinal camera exam	Audit period	Numeric field where: 1=Yes 2=No	
29	DENTALEXAM	Examination of teeth and gingiva	Audit period	Numeric field where: 1=Yes 2=No	

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
30	DIETINSTR	Nutrition instruction	Audit period	Numeric field where: 1=Yes by RD 2=Yes by non-RD 3=Yes by RD and non-RD 4=None	
31	EXERCISE	Physical activity instruction	Audit period	Numeric field where: 1=Yes 2=No	
32	DMEDUC	Diabetes education other than nutrition and physical activity	Audit period	Numeric field where: 1=Yes 2=No	
33	DEPDX	Active diagnosis of depression	Audit period	Numeric field where: 1=Yes 2=No	
34	DEPSCREEN	[Only if DEPDX=2] Screened for depression	Audit period	Numeric field where: 1=Yes 2=No	
35	TXDIET	Only therapy for diabetes is diet and exercise (no meds)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	If this item=1:Yes, then all other TX fields should=2:No. If all other TX fields=2:No, then this item should=1:Yes.
36	TXINSUL	Prescribed any insulin	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
37	TXSUREA	Prescribed a sulfonylurea (such as glyburide or glipizide)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
38	TXSUREALK	Prescribed a glitinide (sulfonylurea-like med) such as Prandin or Starlix	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
39	TXMETFORM	Prescribed metformin	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
40	TXACARB	Prescribed acarbose (Precose) or miglitol (Glyset)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
41	TXGLIT	Prescribed a TZD ("glitazone") drug like pioglitazone (Actos) or rosiglitazone (Avandia)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
42	TXGLP1MED	Prescribed injectable GLP-1 med (Byetta, Bydureon, Victoza)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
43	TXDPP4	Prescribed DPP4 inhibitor (Januvia, Onglyza, Tradjenta, Nesina)	Last 6 months of audit period?	Numeric field where: 1=Yes 2=No	Added Nesina as TXDPP4 drug for the 2015 Audit.
44	TXAMYLIN	Prescribed injectable amylin analog (Symlin)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
45	TXBROMO	Prescribed bromocriptine (Cycloset)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
46	TXCOLESEV	Prescribed colesevelam (Welchol)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
47	TXSGLT2	Prescribed SGLT2 inhibitor (Invokana, Farxiga)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	Added Farxiga as a SGLT2 drug for 2015 Audit.

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
48	ACE	Prescribed an ACE inhibitor or ARB	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
49	ASPIRIN	Ordered daily aspirin or anticoagulant	Last 6 months of audit period	Numeric field where: 1=Yes 2=No	
50	LLSTATIN2	Prescribed a statin drug (simvastatin, lovastatin, others)	Last 6 months of audit period	Numeric field where: 1=Yes 2=No 3=Documented allergy/intolerance	Added 3=Documented allergy/intolerance for 2015 Audit.
51	TBTESTDONE2	Skin (PPD) or blood test for TB done	Ever	Numeric field where: 1=Skin test (PPD) 2=Blood test (QFT-G, T SPOT-TB) 3=Unknown/not offered	
52	TBTESTRSLT2	[Only if TBTESTDONE2= 1 or 2] TB test result	Ever	Numeric field where: 1=Positive 2=Negative 3=Unknown	
53	TBINHTX2	[Only if TBTESTRSLT2=1] INH treatment complete	Ever	Numeric field where: 1=Yes 2=No 3=Unknown	
54	TBTESTDATE	[Only if TBTESTRSLT2=2] Date of last TB test	Ever	mm/dd/yyyy	
55	CVDDX	Diagnosed cardiovascular disease (CVD)	Ever	Numeric field where: 1=Yes 2=No	

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
56	FLUVAX	Flu vaccine	Audit period	Numeric field where: 1=Yes 2=No 3=Refused	
57	PNEUMOVAX	Pneumococcal vaccine	Ever	Numeric field where: 1=Yes 2=No 3=Refused	
58	TD	Tetanus (Td or Tdap) vaccine	Past 10 years	Numeric field where: 1=Yes 2=No 3=Refused	
59	Tdap	Tdap vaccine	Ever	Numeric field where: 1=Yes 2=No 3=Refused	New field for 2015.
60	HEPBVAX	Hepatitis B 3 dose vaccine series	Ever	Numeric field where: 1=Yes 2=No 3=Refused 4-Immune	Added a response of 4=Immune for 2015 Audit.
61	HBA1C	HbA1c test result (%)	Most recent in audit period	Numeric, one decimal	
62	HBA1CDATE	Date of most recent HbA1c	Most recent in audit period	mm/dd/yyyy	
63	CREATVALUE	Serum creatinine value (mg/dl)	Most recent in audit period	Numeric, two decimals	
64	EGFRVALUE	Estimated GFR value	Most recent in audit period	Numeric, one decimal	DMS: Estimated GFR value is used if present. If an Estimated GFR value is not present but a serum creatinine value is present during the audit period, an Estimated GFR value is calculated.
65	CHOLVALUE	Total cholesterol value	Most recent in audit period	Numeric, no decimals	

Order	Variable Name	Description	Timeframe	Format/Values/Units	Comments
66	HDLVALUE	HDL cholesterol value (mg/dl)	Most recent in audit period	Numeric, no decimals	
67	LDLVALUE	LDL cholesterol value (mg/dl)	Most recent in audit period	Numeric, no decimals	
68	TRIGVALUE	Triglyceride value (mg/dl)	Most recent in audit period	Numeric, no decimals	
69	UPACRDONE	Urine albumin:creatinine ratio test performed	Audit period	Numeric field where: 1=Yes 2=No	
70	UPACRVAL	Urine albumin:creatinine ratio value (mg/g)	Most recent in audit period	Numeric	
71	LOCAL	Local option question		Numeric, single digit, 0-9	
72	LOCALEXT	Extended local option question		Character (max length=50)	
73	SOURCESYS	Data source: "RPMS", "NEXTGEN", "EPI INFO", etc.		Character (max length=10)	

Table B-2: Variables removed from the 2015 Audit Export (Data) file

Variable Name	Description
LLFIBRATE	Prescribed a fibrate (gemofibrozil/Lopid)
LLNIACIN	Prescribed niacin (Niaspan. OTC niacin)
LLBAS	Prescribed a bile acid sequestrant (cholestyramine/Questran, others)
LLEZETIM	Prescribed ezetimibe (Zetia)
LLFISHOIL	Ordered fish oil.

Variable Name	Description
LLOVAZA	Prescribed Lovaza.
LLNONE	Taking no lipid lowering drugs.

Appendix C: Cardiovascular Disease Diagnoses

The following shows the Cardiovascular Disease diagnoses and the associated ICD-9 codes for the Diabetes Audit.

```
1)  393 – 398      Chronic Rheumatic Heart Disease
          393 Chronic rheumatic pericarditis
          394.x  Diseases of mitral valve
          395.x  Diseases of aortic valve
          396.x  Diseases of mitral and aortic valves
          397.x  Diseases of other endocardial structures
          398.xx Other rheumatic heart disease

2)  402      Hypertensive Heart Disease
          402.0x Malignant
          402.1x Benign
          403.9x Unspecified

3)  410.0 -414.9   Ischemic heart disease

4)  415.1    Pulmonary embolism and infarction
          415.11 Iatrogenic pulmonary embolism and infarction
          415.12 Septic pulmonary embolism
          415.13 Saddle embolus of pulmonary artery
          415.19 Other

5)  424.0 -424.99  Other diseases of endocardium:
          424.0 Mitral valve disorders
          424.1 Aortic valve disorders
          424.2 Tricuspid valve disorders
          424.3 Pulmonary valve disorders
          424.9x Endocarditis, valve unspecified

6)  425      Cardiomyopathy
          425.0  Endomyocardial fibrosis
          425.1x Hypertrophic cardiomyopathy
          425.2  Obscure cardiomyopathy of Africa
          425.3  Endocardial fibroelastosis
          425.4  Other primary cardiomyopathies
          425.5  Alcoholic cardiomyopathy
          425.7  Nutritional and metabolic cardiomyopathy
          425.8  Cardiomyopathy in other diseases classified elsewhere
          425.9  Secondary cardiomyopathy, unspecified

7)  426      Conduction disorders
          426.0  Atrioventricular block, complete
          426.1x Atrioventricular block, other and unspecified
          426.2  Left bundle branch hemiblock
          426.3  Other left bundle branch block
          426.4  Right bundle branch block
          426.5x Bundle branch block, other and unspecified
          426.6  Other heart block
          426.7  Anomalous Atrioventricular excitation
          426.8x Other specified conduction disorders
          426.9  Conduction disorder, unspecified

8)  427.0 -427.9   Cardiac dysrhythmias
          427.0 Paroxysmal supraventricular tachycardia
          427.1 Paroxysmal ventricular tachycardia
```

```
         427.2 Paroxysmal tachycardia, unspecified
         427.3 Atrial fibrillation and flutter
         427.4 Ventricular fibrillation and flutter
         427.5 Cardiac arrest
         427.6 Premature beats
         427.8 Other specified cardiac dysrhythmias
         427.9 Cardiac dysrhythmia, unspecified

9)  428.0 -428.9   Heart failure
         428.0 Congestive heart failure, unspecified
         428.1 Left heart failure
         428.2 Systolic heart failure
         428.3 Diastolic heart failure
         428.4 Combined systolic and diastolic heart failure
         428.9 Heart failure, unspecified

10) 429.2 -429.2   Cardiovascular disease, unspecified
         (includes "arteriosclerotic cardiovascular disease (ASCVD),
         cardiovascular arteriosclerosis, cardiovascular degeneration,
         disease or sclerosis with mention of arteriosclerosis)

11) 433.0 -434.91  Occlusion and stenosis of precerebral arteries (433.xx)
                   (includes embolism, narrowing, obstruction or thrombosis
                   of basilar, carotid, and vertebral arteries)

                   Occlusion of cerebral arteries (434.xx)
                   (includes thrombosis, embolism, or occlusion,
unspecified)

12) 440.1 -440.29  Atherosclerosis
                   440.1 Of renal artery
            440.2 Of native arteries of the extremities

13) 440.4 -440.4   Chronic total occlusion of artery of the extremities

14) 443.21 -443.29 Other arterial dissection

15) 443.81 -443.89 Other specified peripheral vascular diseases

16) 443.9 -445.89  Peripheral vascular disease
         443.9 Peripheral vascular disease, unspecified
         445 Atheroembolism (445.0 Of extremities, 445.8 Of other sites)

17) 451.1x   Phlebitis and thrombophlebitis of deep vessels of lower
extremities


18) V45.01      Cardiac pacemaker


19) V45.81      Aortocoronary bypass status (postprocedural state)
    V45.82      Percutaneous transluminal coronary angioplasty status

If no diagnosis is found then the patient's record is searched for any of
the following documented ever.  If found, patient is assumed to have CVD.

A) CABG Procedure: V POV V45.81; V CPT: 33510-33514, 33516-33519,
33521-33523, 33533-33536, HCPCS: S2205-S2209; V Procedure: 36.1* or 36.2*.

B) PCI Procedure: V POV: V45.82; V CPT: 92980, 92982, 92995; HCPCS:
G0290; V Procedure: 00.66, 36.01 (old code), 36.02 (old code), 36.05,
```

```
(old code), 36.06-36.07.
```

Appendix D: Education Topics by SNOMED Code

Facilities that have upgraded to RPMS EHR patch 13 during 2014 might find that education topics documented via EHR are stored with a SNOMED prefix. Education topics stored in the V PATIENT ED file in this format must be identified and added to the appropriate DM AUDIT education taxonomies.

Directions are provided in the information below on using VA FILEMAN to identify the new topics that must be added to the taxonomies.

```
Select OPTION: SEARCH FILE ENTRIES

OUTPUT FROM WHAT FILE: EDUCATION TOPICS//

  -A- SEARCH FOR EDUCATION TOPICS FIELD: .12  SNOMED
  -A- CONDITION: 'NULL  <- this limits it to only SNOMED coded topics

  -B- SEARCH FOR EDUCATION TOPICS FIELD: AUPNPT(#.12)
  -B- CONDITION: CONTAINS
  -B- CONTAINS: DIAB

  -C- SEARCH FOR EDUCATION TOPICS FIELD:

IF: A&B    SNOMED NOT NULL
                and AUPNPT(#.12) CONTAINS (case-insensitive) "DIAB"
OR:

STORE RESULTS OF SEARCH IN TEMPLATE:

SORT BY: NUMBER// .01  NAME
START WITH NAME: FIRST//
  WITHIN NAME, SORT BY:
FIRST PRINT FIELD: .01  NAME
THEN PRINT FIELD: AUPNPT(#.12) <- this is a fileman function that takes a snomed and
returns the snomed descriptive text
THEN PRINT FIELD:
Heading (S/C): EDUCATION TOPICS SEARCH  Replace
STORE PRINT LOGIC IN TEMPLATE:
DEVICE: 0;P-OTHER80  Virtual
EDUCATION TOPICS SEARCH                        DEC  2,2014  15:11    PAGE 1
NAME                                                AUPNPT(#.12)
------------------------------------------------------------------------------

44054006-EXERCISE                                   Diabetes mellitus type 2
44054006-LITERATURE                                 Diabetes mellitus type 2
44054006-MEDICATIONS                                Diabetes mellitus type 2
73211009-LITERATURE                                 Diabetes mellitus
```

Acronym List

Acronym	Term Meaning
CVD	Cardiovascular Disease
CVX	Center for Disease Control National Center of Immunization and Respiratory Diseases Code Set
DM	Diabetes Mellitus
DMS	Diabetes Management System
EHR	Electronic Health Record
GDM	Gestational Diabetes Mellitus
HTN	Hypertension
IGT	Impaired Glucose Tolerance
IHS	Indian Health Service
LMR	List Labs or Medications Used at this Facility
POC	Point of Care
RPMS	Resource and Patient Management System
SDPI	Special Diabetes Program for Indians
SNOMED	Systematized Nomenclature of Medicine--Clinical Terms
UACR	Urine Albumin/Creatinine Ratio

Contact Information

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

Phone: (888) 830-7280 (toll free)

Web: http://www.ihs.gov/helpdesk/

Email: support@ihs.gov