RESOURCE AND PATIENT MANAGEMENT SYSTEM

Diabetes Management System

(BDM)

User Manual

Version 2.0 Patch 17
January 2024

Table of Contents

Version History

Version	Date	Author	Section	Page #	Summary of Change
1.1	12/20/2018	Lee Baliton, Lori Butcher, Chris Lamer, Karen Sheff, Skip Squires, and Mark Williams			p12 updates to the menus and workflow in addition to supporting the 2019 Audit
1.2	10/21/2019	Lori Butcher, Mark Williams, Skip Squires			p13 updates to menus and workflow in addition to supporting the 2020 audit
1.3	11/6/2019	Cece Butler, Karen Sheff, Skip Squires			Revising with input from the Diabetes stakeholders
1.4	11/17/2020	Lori Butcher, CeCe Butler, Karen Sheff			Revised for p14
1.5	11/1/2021	Lori Butcher, Skip Squires			Revised for p15
1.6	12/20/2022	Duane Rozsnyai, Lori Butcher, Skip Squires			Updated Appendix D to consolidate the User Manual and Addendum into one document. Revised for p16 and updated screen shots throughout. Revised manual to remove prediabetes, where applicable.
1.7	01/31/2024	Lori Butcher			Updated for p17

Preface

This manual has been developed for physicians, mid-level practitioners, nurses, case managers, and diabetes coordinators responsible for the care of American Indian and Alaska Native (AI/AN) people with diabetes. It provides instructions for:

- The setup and maintenance of the Resource and Patient Management System (RPMS) Diabetes Management System, including:

  - Taxonomies for Medications, Lab Tests, Health Factors, and Education Topics.
  - Identifying patients with a diagnosis of diabetes for local registers.
  - Identifying those health care providers who will be allowed to use the system for monitoring patients with diabetes.
  - Modifying flow sheets for the care of patients with diabetes.

- Setting up automatic notification for patients newly diagnosed with diabetes or diabetic complications.

- Conducting an electronic Diabetes Audit.

- Generating a variety of reports for patient and program management.

> **Note:** RPMS software, including the Diabetes Management System, is subject to periodic updates based on the IHS Diabetes Standards of Care and Resources for Clinicians and Educators.

1.0   Introduction

Within American Indian and Alaska Native populations, diabetes exacts a great toll in both morbidity and mortality. The Diabetes Management System (DMS) of the IHS Resource and Patient Management System (RPMS) provides a unique capability for improving the care and management of patients with this significant health problem.

The Diabetes Management System is continually reviewed and updated to reflect current standards of care for patients with diabetes. The Diabetes Management System is designed to provide the capability to monitor the overall effectiveness of diabetes care and education using an automated audit system and as a supplement to the Case Management System and Patient Care Component (PCC) Management Reports.

Long-standing features of the Diabetes Management System include:

- A Diabetes Register using the PCC Case Management System.

- A Diabetes Flow Sheet included on the PCC Health Summary.

- Standard nomenclature for recording diabetes exams and education on PCC forms.

- Tools for conducting Diabetes Audits, including reports for an individual patient, a template of patients, the entire IHS Diabetes Register at a facility, or a random sample of patients from the Register.

- Case Management System report options.

- E-mail bulletins identifying newly diagnosed diabetic patients or those with new complications.

In addition, the system provides for:

- Automatic installation of the IHS Diabetes Register if it has not already been installed at a site.

- Simplified population of taxonomies for medications, laboratory tests, education topics, and health factors required by the Diabetes Management System.

- A Diabetes Patient Care Summary.

- Entry of a Register as the Subject for QMan searches.

- A menu of follow-up reports for identifying patients with unmet standards of care.

- Management and tracking of patients with prediabetes:

  - Installation of the IHS Prediabetes Register is available.

  - Prediabetes Registry report tools that include reports for an individual patient, a template of patients, or the entire register of patients.

- Prediabetes Patient Care Summary

1.1   General Changes

This patch contains changes to support the Social Security Number Fraud Prevention Act of 2017 and the Social Security Number Reduction Act.

This application uses the AUPN DISPLAY PPN parameter functionality and is defaulted to OFF until Patient Preferred Name (PPN) is available across the enterprise.

> **Note:** While this parameter is turned off, the PPN will not display in this application. This allows the PPN display to be turned on at once without requiring a coordinated release of all applications. Once all applications support the display of the PPN, instructions will be sent out on how to enable this parameter system-wide.

1.2   Summary of Changes for Audit 2024

This section includes a summary of changes to the **DMS** software for the annual **Diabetes Audit**. The logic used for Audit 2024 is detailed in Appendix D.11.1.

1.2.1   Added Menu Options to Support Audit 2024

Updated menu options to reflect the current year and previous four years of audit reporting functionality.

1.2.2   Logic and Reporting Changes for Audit 2024

- **Changed Gender–**Changed label from **Gender** to **Birth Sex** and added report item for gender **Unknown**.

- **Tobacco and ENDS Use Status–**Modified to only look for documentation of use during the report period. In the Audit Report for **Tobacco and ENDS** Use items, only patients who were screened during the report period are included in the denominator. Aligned logic to closely match the **GPRA** logic.

- **Blood Pressure and Hypertension–**Added <130/<80 as a category in several sections of the Audit Report. Changed <140/<90 to <130/<80 in others.

- **Dental–**Added dental **ADA D** codes to all dental related items.

- **Other Diabetes Education–**

  - Added a check for a visit with a CPT documented of **95249**, **95250**, **95251**, **98960**, **98962**, **G0109**, **G0108**. If any of these CPT codes are documented, then **Other Diabetes Education** is assigned **1=Yes**.

  - Added a check for any visit to clinics **A1 (DIABETES EDUCATION-INDIVIDUAL)** or **98 (DIABETES EDUCATION-GROUP)**. If one is found then the value assigned is **1=Yes**.

- **TB**–Added item **TB Test Done Ever** or **TB Diagnosed Ever** to the Audit Report.

- **Hepatitis C (HCV) diagnoses**–Added item **HCV Test Done Ever** or **HCV Diagnosed Ever** to the Audit Report.

- **Influenza**–Modified the Influenza logic to use taxonomy **BGP FLU IZ CVX Codes**.

- **Td, Tdap, DTaP, or DT in Past 10 Years**–Added the following codes:

  - CVX Codes: **146 DTAP**, **IPV**, **HIB**, **HEPB**, **196 Td-LF**, **NOS**, **198 DTP-HbH5**.
  - CPT Codes: **90696**, **90697**, **90714**, **90715**, **90718 Taxonomy DM AUDIT TD CPTS**.

- **Hepatitis B**–Added new item to the **Audit Report**, **Hepatitis B Complete Series Ever** or **Immune to Hepatitis B**.

- **SSN**–Removed references to **SSN** from all diabetes outputs and input screens.

- **Patient's Preferred Name**–Added **Patient's Preferred Name (PPN)** to several outputs.

1.2.3   Added Prediabetes Menu and Reports

A **Prediabetes Menu** (Figure 1-1) was added with the following options. See Appendix E for a description and sample of each of these options.

```
    PDPM    Prediabetes Register Patient Management
    PPCS    Prediabetes Patient Care Summary
    PDAR    Prediabetes Assessment of Care/Health Status Rpt
    PDTC    Check Taxonomies for the Prediabetes Report
    PDTU    Update/Review Taxonomies for Prediabetes Report
    PDIR    Install Pre-Diabetes Register
```

Figure 1-1: Prediabetes Menu Options screen

2.0   Orientation

Throughout this manual, sample computer dialogues are included to illustrate the performance of various steps. Within these dialogues, computer-generated text appears in gray-shaded boxes. User responses in the dialog appear in bold type.

> **Note:** This manual does *not* contain any real patient data. All patient-related information in computer-generated text, tables, figures, and images throughout this manual contain demo data only.

You will be required to press the **Enter** key to accept the default values and enter data. Within the sample computer dialogues that appear in this manual, the **Enter** key will be indicated as **[ENT]** (Figure 2-1).

```
Select Taxonomy Maintenance Option: BUL  Enter Bulletin For A Taxonomy
Select TAXONOMY NAME: NEW DIABETICS            DIABETIC TAXONOMY
Select MAIL GROUP: DIABETES TEAM
  Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 15TH)? No// Y
(Yes) [ENT]
   MAIL GROUP COORDINATOR: DEMO,DAVID K          DKR
  Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 1ST for this
BULLETIN)
? No// Y  (Yes) [ENT]
Select MEMBER: DEMO,DAVID K          DKR
Are you adding 'DEMO,DAVID K' as a new MEMBER (the 1ST for this MAIL
GROUP)? No// Y  (Yes) [ENT]
Select MEMBER: DEMO,BETSY
```

Figure 2-1: Enter Key indicated as [ENT]

List Manager (ListMan)

This version of the Diabetes Management System uses a screen display called List Manager to display options for review and entry of data. Data displays in a window-type screen. Menu options for editing, displaying, or reviewing the data display in the bottom portion of the window. Even though you may be using a personal computer as an RPMS terminal, you cannot use the mouse for pointing and clicking to select a menu option. Additional menu options for displaying, printing, or reviewing data can be viewed by typing two question marks (**??**) at the **Select Option** prompt. Entering the symbol or letter mnemonic for an action at the **Select Action** prompt will result in the indicated action.

> **Note:** In the example Screen Display on the next page (Figure 2-2). Two question marks (**??**) have been typed at the **Select Action** prompt to display the list of secondary options available to the user.

```
Register Data                Nov 13, 2023 15:14:01       Page:  1 of 1
        PATIENT: DEMO,KARLA KAY                          AGE: 33
        ADDRESS: 1400 W 3RD STREET,ALB,NM,87119          DOB: 08/03/1989
          PHONE: 555-555-3538                            HRN: 135272
PRIM CARE PROV: DOCTOR,DONNA                             RES: ANYTOWN
         STATUS: ACTIVE
WHERE FOLLOWED:
        CASE MGR:
        CONTACT:
     ENTRY DATE: NOV 13,2022                    LAST EDITED:
      DIAGNOSIS: TYPE II
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen     QU Quit          ?? for More Actions
1  Register Status   7  Local Option Entry     13 Print Letter
2  Where Followed    8  Last Visit             14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments    15 PREDM Assessment of Care (PDMC)
4  Client Contact   10 DM Audit Status          Q  Quit
5  DX/Date of Onset 11 Health Summary
6  Comments         12 DM Care Summary (DPCS)
Select Action: Quit//

The following actions are also available:
+    Next Screen         <    Shift View to Left  PS   Print Screen
-    Previous Screen     FS   First Screen         PL   Print List
UP   Up a Line           LS   Last Screen          SL   Search List
DN   Down a Line         GO   Go to Page           ADPL Auto Display(On/Off)
>    Shift View to Right  RD   Re Display Screen     Q    Quit

Enter RETURN to continue or '^' to exit:
```

Figure 2-2: Sample ListMan screen

Table 2-1: Menu Options

Menu Option	Description
+	In a display that fills more than one page, typing a plus sign (**+**) at Select Action displays the next full screen
-	If you reviewed several screens in a display, return to the previous screen(s) by typing a hyphen (**-**) at Select Action.
↑	Press the **up-arrow** key at Select Action to move back one line at a time.
↓	Press the **down-arrow** key at Select Action to move forward one line at a time.
→	Press the **right-arrow** key at Select Action to move the screen display to the right.
←	Press the **left-arrow** key at Select Action to move to the left.
FS	In a multi-page display type **FS** at Select Action to return to the First Screen of the display.
LS	In a multi-page display, type **LS** at Select Action to go to the Last Screen in the display.

Menu Option	Description
GO	If you know which page of a multi-screen display you want to review, type **GO** at Select Action to go directly to that screen.
RD	Type **RD** at Select Action to redisplay the screen.
PS	Type **PS** to print what is currently displayed on the screen to a selected device.
PL	Type **PL** to print an entire single or multi-screen display (called a List) to a selected device.
SL	Typing **SL** prompts you to enter a word that you want to search for in the List. Type the word to search for and press **Enter** to display any entries containing that word. For example, if you were many pages into a patient's face sheet and wanted to know the patient's age, you can type **SL**, **AGE**, and press **Enter** to return to the age entry.
ADPL	Auto display (On/Off)–Selecting this option allows the user to either display or hide the list of menu options at the bottom of the screen.
QU	Entering **QU** at Select Action: closes the screen and returns you to the menu.

> **Note**:   All other RPMS conventions are applicable.

For certain types of data fields, primarily those that utilize lists of possible entries–such as facilities, diagnoses, communities, or patients–press the space bar, **Enter**, to insert the last entry used for that field.

Use the **caret**, also known as the up-hat **(^, Shift-6)**, a special control character, to exit from a particular activity or data entry sequence. Typing the caret at any prompt will usually return you to the proceeding prompt or menu level. Use the caret also to exit from long data displays such as vendor lists that usually involve many screens.

Any time a possible answer is followed by double forward slashes **(//)**, pressing the **Enter** key will default to the entry (Figure 2-3) displayed. If an alternative response is desired, it must be typed after the double slashes **(//)**.

Example:

```
    Enter new result? Y// [ENT]
          New Result:  153
           Enter new result? Y// N [ENT]
       Enter new patient?  Y//
```

Figure 2-3: Accepting a default entry

Help can be obtained at any data entry caption by typing one, two, or three question marks (**?**, **??**, or **???**).

Typing three question marks (**???**) at the prompt for selecting a menu option will display a brief summary of each of the options in that menu.

2.1   System Requirements

Consult the p17 installation notes file for RPMS system requirements and Visual DMS special requirements.

2.2   Security Keys

System users will require the following Security Keys:

Diabetes Management System

- **BDMZMENU**–This key allows access to the main Diabetes Management System Menu.

- **BDMZEDIT**–This key allows users to edit data under Patient Management.

- **BDMZ REGISTER MAINTENANCE**–This key allows access to the Register Maintenance menu option.

Case Management System

- **ACMZMENU**–This key allows access to the **Case Management System** main menu.

PCC Management Reports

- **APCLZMENU**–This key allows access to the **PCC Management Reports** main menu.

QMan

- **AMQQZMENU**–This key allows access to QMAN.

- **AMQQZCLIN**–This key allows access to clinical data in QMAN.

Health Summary (Generate Multiple Health Summaries)

- **APCHSMGR**–This key allows the user to create health summary types. This is only necessary if the user wants to create a summary type that differs from the DIABETES STANDARD type.

Automatic notification of the case manager or diabetes coordinator of all newly diagnosed cases of diabetes enhances effective use of the Diabetes Management System. VA FileMan can be used for setting up the Diabetes Mail group and identifying members of the mail group who should receive the bulletins. A brief overview of setting up notification bulletins for patients newly diagnosed with diabetes, or diabetes complications, is provided in Appendix A.

3.0   The IHS Diabetes Registers

The standard **IHS Diabetes Register** is a tool for maintaining a list of your patients with diabetes, their disease type, complications, family members, and case review dates. The register facilitates the addition, inactivation, and removal of patients from the list; entry of data to be monitored for patients on the list; printing of case summaries; generation of reports; and retrieval of virtually all clinical data entered into the PCC for patients on the list.

The Standard **IHS Diabetes Register** is installed automatically with installation of the Diabetes Management System (BDM Version 1.0) if not already present. Because this is v2.0 p17, all updates through p17 must be installed. It provides a core set of data items with predefined lists and standard definitions. It also permits you to establish your own lists and definitions in support of these data items. The IHS Diabetes Register helps simplify the process of creating a Case Management-based register, but you are in no way limited to this core set of data items and the lists that accompany them. Remember that you always have access to all existing PCC demographic and clinical data without keeping these items in the Diabetes Register.

You may want to create additional registers. Using the **Create Register** option in the Case Management System, you may create new registers or change the name of the existing register, perhaps to maintain multiple registers for communities or facilities within a single service unit. However, in order for the Diabetes Management System to work with a register, the word **Diabetes** must be in the name of the register (Figure 3-1). If you change the name of an existing register, you will be asked if you want to re-index files. You must answer **Yes**.

> **Note:** Additional security keys may be needed to create registers.

The following data items (Table 3-1) are automatically included in the **IHS Diabetes Register**:

Table 3-1: IHS Diabetes Register data items

IHS Diabetes Register Data Items
Register Status
Where Followed
Case Manager
Contact (patient contact)
Diagnosis
Comments
Local Option
Local Option Text

Upon installation of the Diabetes Management System, the Case Management System is no longer required for entry of the diabetes-related data items in the list above. However, if you elect to maintain data elements that are not contained in the list above, you must enter those data elements using the data entry option in the Case Management System (Figure 3-1).

```
The following diagnoses are available when the register is established.
The register manager can modify these to add other diagnoses, if desired.
This can be done using the Case Management System's options for creating
and/or modifying a register.
     NO.  DIAG
     ---  --------------------
     1    GESTATIONAL DM
     2    IMPAIRED GLUCOSE TOLERANCE
     3    TYPE 1
     4    TYPE 2

Which DIAGNOSIS(S):  (1-4):
```

Figure 3-1: IHS Diabetes Register Diagnosis Information

3.1   IHS Prediabetes Register

The **IHS Prediabetes Register** is a tool for maintaining a list of patients with prediabetes. This register is designed to be used in the **Diabetes Management System (DMS)** under **Register Maintenance (RM)**. A **Prediabetes Menu** has been added in the **DMS Version 2.0, Patch 17**.

See Appendix E for information on the Prediabetes Menu items including:

- Installation of the Prediabetes Register

- Prediabetes Patient Care Summary

- Assessment of Prediabetes Care (individual report)

- Prediabetes Health Care Status (cumulative report)

- Specific Prediabetes taxonomies for reports

4.0   Register Maintenance (RM)

The **Register Maintenance** option of the main menu is used for customizing the Diabetes Management System to meet the needs of your program. Before you begin using the Diabetes Register, you must define members of the Diabetes Team who will be using the Register, identify the patients who will be included in the Register, and set up lists of medications, exams, lab tests, complications, and other parameters you will be using to monitor diabetes patients. This must be done at the facility level because of variations in terminology and file entries.

Each of the options within the Register Maintenance menu will be described in this section and examples will be given on how to use the option.

- To Select the Register Maintenance menu, type **RM** at the **Select Diabetes Management System Option** prompt (Figure 4-1).

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
        BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
            *****************************************************
            **              DIABETES MANAGEMENT SYSTEM         **
            *****************************************************
                        VERSION 2.0 (Patch 17)
                          DEMO HOSPITAL (INST)
                              MAIN MENU


    RM      Register Maintenance ...
    AS      Audit Setup ...
    AR      Audit Reporting ...
    PDM     Prediabetes Menu ...

Select Diabetes Management System Option: RM
```

Figure 4-1: Selecting the RM option

4.1   User Setup (US)

User Setup allows you to identify those members of the Diabetes Team who will be allowed access to the Register. For security reasons, only users with Manager Authority (having the **BDMZ REGISTER MAINTENANCE** key) can add other authorized users or modify register components. A sample dialog for adding authorized users (Figure 4-2) is provided.

Adding a New User to DMS

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
              ******************************************************
              **              DIABETES MANAGEMENT SYSTEM        **
              ******************************************************
                            VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL (INST)
                              REGISTER MAINTENANCE


    RM      Register Management ...
    PM      Patient Management
    DMU     Update Diabetes Patient Data
    AP      Add Patients from Template
    DEL     Delete Patient from the Register
    LM      Letter Management ...
    RR      Register Reports ...
    DPCS    Display a Patient's DIABETES CARE SUMMARY

Select Register Maintenance Option: RM
```

Figure 4-2: Navigating to User Setup

1. Type **US** at the **Select Register Maintenance Option** prompt from the **Register Management** menu (Figure 4-3).

2. Type **1** (Add/Remove DMS Authorized Users) at the **Which one** prompt.

3. Type the user's name at the **Select NEW DMS User** prompt. The process of adding/deleting occurs in a single step. If the system detects that the person is not currently an authorized user, it adds them immediately.

4. Type **YES** or **NO** at the **Remove USER as a user of the Diabetes Management System?** prompt, where USER is the user's name you typed in Step 3.

5. Type **YES** or **NO** at the **Allow USER Register Manager Authority?** prompt, where USER is the user's name you typed in Step 3.

6. This process can be repeated until all authorized users of the Register have been added.

```
          **              DIABETES MANAGEMENT SYSTEM        **
          ****************************************************
                        VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL
                          REGISTER MANAGEMENT

    US      User Setup
    FS      Flow Sheet Setup

Select Register Management Option: US    User Setup

      Select one of the following:

          1          Add/Remove DMS Authorized User
```

```
          2           List Current DMS Authorized Users

Which one: 1   Add/Remove DMS User

Select NEW DMS User: DEMO,BENJAMIN P              BPC

DEMO,BENJAMIN P is an Authorized User
of the Diabetes Management System.

Remove DEMO,BENJAMIN P as a user
of the Diabetes Management System? NO// [ENT]

Allow DEMO,BENJAMIN P's REGISTER MANAGER AUTHORITY? NO// Y
```

Figure 4-3: Adding a new user to DMS

Listing Current DMS Users

1. Type **US** at the **Select Register Maintenance Option** prompt from the **Register Maintenance** menu.

2. Type **2** (List Current DMS Users) at the **Which one** prompt.

    The system will display a list of current **DMS Authorized** users (Figure 4-4).

```
   Current DMS Authorized Users  Manager Authority
   ---------------------------  -----------------
   DEMO,BENJAMIN P              YES
   DEMO,BETSY                   YES
```

Figure 4-4: Listing the current DMS users

4.2   Flow Sheet Setup (FS)

The **Flow Sheet Setup** option (Figure 4-5) allows selection of those diabetes-related measurements or values to be displayed in a table format either in a stand-alone report or as an attachment to a Health Summary.

A Flow Sheet table is designed to print on a single sheet of paper 80-columns wide. It will be divided into columns with a header over each column. You will need to determine the type of data to display in each column, the labels for each column, and which data items to display in each column.

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
        BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
           ****************************************************
           **              DIABETES MANAGEMENT SYSTEM        **
           ****************************************************
                       VERSION 2.0 (Patch 17)
                        DEMO HOSPITAL (INST)
                        REGISTER MANAGEMENT

   US    User Setup
```

```
    FS      Flow Sheet Setup

Select Register Management Option: FS  Flow Sheet Setup

     Select one of the following:

Flow Sheet List                Nov 13, 2023 12:16:29      Page:    1 of    1
     NO. Flow sheet
     --- ------------------------------
     1   DIABETES
     2   DIABETIC FLOWSHEET
     3   EXAMFLOW
     4   Health Factor
     5   MEDICATIONS
     6   SAMPLE001

         - Prev Screen   QU Quit  ?? More Actions
1    SELECT Flow Sheet    2    ADD Flow Sheet
Select ACTION: Quit// 1   SELECT Flow Sheet

Which Flow Sheet:  (1-6): 2
```

Figure 4-5: Adding a new user to DMS

Overview of Process

1. Print the **Flow Sheet** (or a health summary displaying a Flow Sheet) for an existing diabetes patient.

   Flow Sheets may be modified or added to the system using the RPMS Health Summary Maintenance Menu or the Diabetes Management System.

2. When using the **Diabetes Management System**, select **FS** from the **Register Maintenance** main menu.

   A list of the current Flow Sheets available in your system will display.

3. You will be given options to **Add** a new flow sheet or **Select** an existing Flow Sheet.

4. Select the existing **Diabetes Flow Sheet**.

5. Then select the menu option to **Review** the components of the **Diabetes Flow Sheet**.

Figure 4-6 shows an example of an original Diabetic Flow Sheet.

```
FLOW SHEET Components           Nov 13, 2023 12:20:21      Page:    1 of 2
     DIABETIC FLOWSHEET

     Flowsheet Components
     NO.  ORDER  TYPE                  LABEL                 WIDTH
     ---  -----  ------------------    --------------------  -----
     1    5      MEASUREMENT           Wt.                       3
                 WEIGHT
```

```
    2      10       LAB RESULT              DM Labs                    8
                    _GLUCOSE
                    _PS A1c
                    _GLUCOSE
                    URINE Protein (POCT)
                    _SQL Glucose,Body Fluid
    3      15       MEASUREMENT             BP                         7
                    BLOOD PRESSURE
    4      20       EXAMINATION             Foot Chk.                  9
                    FOOT INSPECTION
    5      25       MEDICATION              DM Meds                    20
+          - Prev Screen   QU Quit  ?? More Actions
1    EDIT Component                          3     REVIEW Component Members
2    DELETE Component

Select ACTION: Next Screen//
```

Figure 4-6: Example of an original Diabetic Flow Sheet screen

4.2.1   Reviewing Flow Sheet Components

The design for the original Diabetic Flow Sheet is demonstrated by using the option for **Reviewing Flow Sheet Components** (Figure 4-7) for the Diabetes Flow Sheet. In reviewing the Diabetes Flow Sheet on the next page, note that it consists of four columns, each of which is identified as a **NO**. (The number identifies the placement of that data element on the Flow Sheet, for example, **1** means that data element will be in column **1** on the Flow Sheet.)

- The first row contains weight and has a label of **Wt**. and is three spaces wide.

- The second-row column contains lab results, has a label of **DM Labs**, and is 815 spaces wide. The only labs chosen to display are _GLUCOSE, PS A1c; _GLUCOSE, URINE Protein (POCT), _SQL Glucose, Body Fluid cholesterol, LDL cholesterol, HDL, Hemoglobin A1C, glucose, glucose, other, triglyceride, and urine protein.

- The third row contains blood pressure, has a label of **BP**, and is seven spaces wide.

- The fourth row contains foot inspection, has a label of **Foot Chk.**, and is nine spaces wide.

- The fifth row contains medication, has a label of **DM Meds**, and is 20 spaces wide.

- The second column contains examinations, has a label of **Foot Chk.**, and is 10 spaces wide. It contains only one exam, the Diabetic Foot Check.

```
FLOW SHEET Components         Nov 05, 2023 13:56:39   Page: 1 of 2
DIABETIC FLOW SHEET

    Flowsheet Components
    NO.  ORDER  TYPE                LABEL                 WIDTH
    ---  -----  ------------------  --------------------  -----
    1    5      MEASUREMENT         Wt.                   3
```

```
                            WEIGHT
     2      10      LAB RESULT           DM Labs               8
                    _GLUCOSE
                    _PS A1c
                    _GLUCOSE
                    URINE Protein (POCT)
                    _SQL Glucose,Body Fluid
     3      15      MEASUREMENT          BP                    7
                    BLOOD PRESSURE
     4      20      EXAMINATION          Foot Chk.             9
                    FOOT INSPECTION
     5      25      MEDICATION           DM Meds               20

+          - Prev Screen  QU Quit  ?? More Actions
1    EDIT Component                    3     REVIEW Component Members
2    DELETE Component
Select ACTION: Next Screen// 3
```

Figure 4-7: Reviewing Flow Sheet components

4.2.2   Deleting a Component

1. To edit the existing **Diabetes Flow Sheet**, type **2** at the **Select Action** prompt.

2. Remove each of the four components (Figure 4-8) on the **Diabetes Flow Sheet**.

```
+          - Prev Screen  QU Quit  ?? More Actions
1    EDIT Component                    3     REVIEW Component Members
2    DELETE Component
Select ACTION: Next Screen// 2
```

Figure 4-8: Deleting a component

4.2.3   Designing a New Diabetes Flow Sheet

The original Diabetes Flow Sheet often became lengthy and hard to read. A new
Diabetes Flow Sheet (Figure 4-9) may be designed as follows by choosing the option
to ADD Flow Sheet from the previous menu once the original components have been
removed. In the example, the Diabetic Flow Sheet is redesigned to display Weight,
Blood Pressure, Hgb A1C, Glucose, Cholesterol, Creatinine, Urine Protein, and
Triglyceride.

```
FLOW SHEET Components        Nov 05, 2023 14:41:14   Page:  1 of  1
DIABETIC FLOW SHEET

    Flowsheet Components
    NO.  ORDER  TYPE                 LABEL               WIDTH
    ---  -----  ------------------   -----------------   -----


- Prev Screen  QU Quit  ?? More Actions

1    EDIT Component                    3     REVIEW Component Members
2    DELETE Component
```

```
Select ACTION: Quit//  1
```

Figure 4-9: Designing a new Diabetes Flow Sheet

On the subsequent screen to enter new components (Figure 4-10), you will be prompted to enter:

- The order the item should appear in the display (which column).

- The data type of the item. Type one question mark (**?**) to review the data types available to use on the Flow Sheet.

- The label or header to be used at the top of each column.

- The width of the column.

Figure 4-10: Designing a new Diabetes Flow Sheet (steps 1-4)

Example:

1. Type **1** for the order (of display) of the first component at the blinking cursor.

    a. Press the **Tab** key to move to the **Data Item Type** field.

    b. Type the first data type as **Measurement**.

    c. Press the **Tab** key to move to the **LABEL** field.

    d. Type **WT** to indicate this column will be **Weight**.

    e. Press the **Tab** key to move to the **WIDTH** field.

    f. Type a value of **10** for the width of this field.

2. Press the **Tab** key to return to the order of the next component and type **2**.

    a. Press the **Tab** key to move to the **Data Item Type** field.

    b. Type **Measurement** again to indicate the data type for **Blood Pressure**.

    c. Press the **Tab** key to move to the **LABEL** field.

       d.   Type **BP** as a header for this column.

       e.   Press the **Tab** key to move to the **WIDTH** field.

       f.   Type a value of **10** for the width of the field.

3. Press the **Tab** key to return to the order of the next component and type **3**.

       a.   Press the Tab key to move to the **Data Item Type** field.

       b.   Type **Lab** to indicate the data type for **Hgb A1C**.

       c.   Press the **Tab** key to move to the **LABEL** field.

       d.   Type **A1C** as a header for this column.

       e.   Press the **Tab** key to move to the **WIDTH** field.

       f.   Enter a value of **10** for the width of the field.

4. Continue this process until all eight components have been defined for the modified **Diabetic Flow Sheet** (Figure 4-11).

```
DIABETIC  FLOW  SHEET                 Components
   ORDER            TYPE                  LABEL              WIDTH

     1        MEASUREMENT           WT                        10
     2        MEASUREMENT           BP                        10
     3        LAB  RESULT           A1C                       10
     4        LAB  RESULT           GLUCOSE                   10
     5        LAB  RESULT           CHOL                      10
     6        LAB  RESULT           CREAT                     10
     7        LAB  RESULT           UR PROT                   10
     8        LAB  RESULT           TRIG                      10




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

Figure 4-11: Designing a new Diabetes Flow Sheet (example)

5. To exit this screen, press the **F1** and **E keys**.

4.2.4   Defining Items

The next step in the Flow Sheet development is to identify the data to be displayed under each Label (Figure 4-12). It is recommended that only a single data type or member be selected for each component of the Flow Sheet.

1. Begin by selecting option **3**, Review component members, by typing **3** at the **Select Action** prompt.

2. Begin with the first column or component by typing **1** at the **Which Flow Sheet Component(s)** prompt.

```
      DIABETIC FLOWSHEET


      Flowsheet Components
      NO.   ORDER  TYPE                     LABEL                 WIDTH
      ---   -----  ------------------       --------------------  -----
      1      5     MEASUREMENT              Wt.                    3
                   WEIGHT
      2     10     LAB RESULT               DM Labs                8
                   _GLUCOSE
                   _PS A1c
                   _GLUCOSE
                   URINE Protein (POCT)
                   _SQL Glucose,Body Fluid
      3     15     MEASUREMENT              BP                     7
                   BLOOD PRESSURE
      4     20     EXAMINATION              Foot Chk.              9
                   FOOT INSPECTION
      5     25     MEDICATION               DM Meds                20

- Prev Screen  QU Quit  ?? More Actions
1    EDIT Component                       3    REVIEW Component Members
2    DELETE Component
Select ACTION: Next Screen// 3   REVIEW Component Members

Which Flow Sheet Component(s):  (1-6): 1
```

Figure 4-12: Defining Flow Sheet items (steps 1-2)

3. Type **1** at the **Select Action** prompt to add members for each component of the Flow Sheet (Figure 4-13). This process is similar to how you added members to the taxonomies of drugs and medications in the taxonomy setup section.

```
Component Members       Nov 05, 2023 15:08:39        Page:  1 of  1


MEASUREMENT
--------------------------
1     WEIGHT

- Prev Screen  QU Quit  ?? More Actions

1    ADD Member          2    DELETE Member
Select ACTION: Quit// 1
```

Figure 4-13: Defining Flow Sheet items (step 3)

4. The first measurement in the example given will be **WT** (Figure 4-14). Type **WT** at the **Which Measurement** prompt. When WT is added it will display in the list of component members under the **MEASUREMENT** component. Only the one measurement of **WT** will display for this component.

```
      Select
      MEASUREMENT          to add to the
      MEASUREMENT          component of the
      DIABETIC FLOWSHEET   Flow Sheet

Which MEASUREMENT: WT
```

Figure 4-14: Defining Flow Sheet items (step 4)

5. To quit, press **Enter** at the **Select Action: Quit** prompt.

6. Choose to review **Flow Sheet component 2**. Add a single member of **BP**.

7. Continue with this process to add members for each of the eight **Flow Sheet** Components.

8. As the components and their members are defined, not all of the data can be displayed on one screen. Press **Enter** at the **Select Action: Next Screen** prompt to display the rest of the components and members. The plus (+) and minus (-) signs may be used to move between the first and second screens of the display, as well.

9. When the process is complete, display the **Diabetic Flow Sheet** (Figure 4-15) once more to ensure that all components, labels, and members have been defined correctly. Also, display a health summary for a patient known to have diabetes to ensure that the Flow Sheet is displayed correctly. If the column widths are too wide, the data on the Flow Sheet will wrap and it will be difficult to read. This may be corrected by changing one or more of the column widths to a smaller number.

```
FLOW SHEET Components       Nov 05, 2023 11:30:14     Page: 1 of  2

     DIABETIC FLOWSHEET

     Flowsheet Components
     NO.  ORDER  TYPE                  LABEL                WIDTH
     ---  -----  ------------------    --------------------  -----
     1     5     MEASUREMENT           Wt.                   3
                 WEIGHT
     2    10     LAB RESULT            DM Labs               8
                 _GLUCOSE
                 _PS A1c
                 _GLUCOSE
                 URINE Protein (POCT)
                 _SQL Glucose,Body Fluid
     3    15     MEASUREMENT           BP                    7
                 BLOOD PRESSURE
     4    20     EXAMINATION           Foot Chk.             9
                 FOOT INSPECTION
     5    25     MEDICATION            DM Meds               20

+          - Prev Screen  QU Quit  ?? More Actions

1    EDIT Component                    3    REVIEW Component Members
2    DELETE Component
```

```
Select ACTION: Next Screen//
```

Figure 4-15: Defining Flow Sheet items (step 9)

10. The resulting **Flow Sheet** will be similar to Figure 4-16.

```
** CONFIDENTIAL PATIENT INFORMATION -- JAN 25, 2023 11:40 AM  [DKR] **
** PATIENT,RAE #100003  (DMS DIABETIC FLOW SHEET SUMMARY)  pg 1 *******

PATIENT,RAE    DOB: NOV 10,1973
DEMO HOSPITAL HEALTH RECORD NUMBER: 100003
777 N. 33RD ST.,TOMBSTONE,AZ,88776

---------------------- FLOW SHEETS (max 1 year) ------------------------

DIABETIC FLOW SHEET
             WT     BP      A1C    GLUCOSE CHOL  CREA   UR PROT  TRIG
  ----------------------------------------------------------------------
  05/10/22  : 235  :145/80 : 9.2H :      :      : .3    : NEGAT :
            :      :       :      :      :      :       : IVE   :
  ----------------------------------------------------------------------
  11/03/22  : 240  :150/85 : 9.5H :  n/r :  250H:       :       : 310H
```

Figure 4-16: Resulting Flow Sheet

> **Note**: If a laboratory test has been ordered but no results are
> available for display, "n/r" will display under the
> appropriate header for that date. See the Glucose column in
> the above sample Flow Sheet.

4.3   Add Patients from Template (AP)

This option allows you to add patients with a diagnosis of diabetes to the **Diabetes Register** as a group. It may also be used to periodically add a template of patients newly diagnosed with diabetes. This process will not result in duplication of patients already in the Register.

Adding to the template

1. Type **AP** at the **Select Register Maintenance Option** prompt (Figure 4-17).

```
   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
   DPCS    Display a Patient's DIABETES CARE SUMMARY

Select Register Maintenance Option: AP
```

Figure 4-17: Adding to the template (step 1)

2. Type the name of the template of patients, which is to be added to the **Register** at the **Which Search Template** prompt.

3. Type **YES** or **NO** at the **Is that what you want?** Prompt (Figure 4-18). If you type **YES**, the patients will be added in an Active Status.

```
Which SEARCH TEMPLATE: DKR NEW DM DX

CHOOSE 1-2: 2  DKR A1C>9      (Feb 29, 2023)      User #2852 File #9000001
INQ
        There are 350 patients in this SEARCH TEMPLATE.
        The following transfer has been selected:

        From SEARCH TEMPLATE: DKR A1C>9
          To CMS register:  DEMO DIABETES REGISTER
        Transfer Status:    A - ACTIVE

        Is that what you want? No// Y  (Yes)
```

Figure 4-18: Adding to the template (steps 2–3)

4.4   Add/Edit DMS Letters (LM)

Use this option to develop custom letters. A personalized letter may be sent to an individual patient using the **ADD/EDIT DMS Letters** option in the Register Management (**RM**) Menu option. In addition, using the **Follow-Up Needed (FU)** option, in the Register Reports (**RR**) menu, you may generate letters to a group of patients with the same follow-up needs. This option will allow you to edit an existing letter, add a new letter, delete a letter type, or list letter inserts.

The *Education Text Follow-Up Inserts* will print the follow up item needed and then will automatically print the associated Education for that follow up item. Using the **Follow-Up** insert item will print only the follow up items due and not the associated education text.

You can insert each text follow-up individually, or for each follow up item needed you can use the item **TEXT FOLLOW UP**.

1. To access the **Add/Edit DMS** letter option, type **LM** at the **Select Register Maintenance Option** prompt (Figure 4-19).

```
    RM     Register Management ...
    PM     Patient Management
    DMU    Update Diabetes Patient Data
    AP     Add Patients from Template
    DEL    Delete Patient from the Register
    LM     Letter Management ...
    RR     Register Reports ...
    DPCS   Display a Patient's DIABETES CARE SUMMARY
```

```
Select Register Maintenance Option: LM
```

Figure 4-19: Selecting the LM option

2. Select **LAE** from the secondary menu (Figure 4-20):

```
                             VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL (INST)
                              LETTER MANAGEMENT


    LAE     ADD/EDIT DMS Letters
    CLS      Print Custom Letters for Selected Patients

Select Letter Management Option: LAE
```

Figure 4-20: Selecting LAE option

The system will display the available options at the bottom of the screen
(Figure 4-21).

```
DMS Letters                   Nov 05, 2023 11:30:14         Page: 1 of  1
NO.  LETTER
---  -----------------------------
1     DIABETES LETTER 1




- Previous Screen   QU Quit   ?? for More Actions
1  EDIT Letter            3  DELETE Letter
2  ADD Letter             4  List Letter Inserts
Select Action: Quit//   4
```

Figure 4-21: Available options for the LM option

Before attempting to review or develop any custom letters, it is highly recommended
that you determine what kind of word-processing editor was assigned to you when
you were set up as a user in RPMS. See Section 4.4.1 of this manual to set your text
editor to screen editor instead of line editor. After making this alteration, when you
encounter the word-processing field for developing letter text, a window should open,
and text may be entered in the open window. The list of word-processing commands
available for developing a letter is included in Appendix B.

Begin by selecting option **4**, List Letter Inserts. The Letter inserts (First Name, Last
Name, Address, Provider Name, Chart, Date, Follow up, and Education Follow up)
can be inserted automatically by the system when the letter is generated. Letter inserts
may be entered by text (upper case must be used) or number. This option provides
you with basic instructions on how to use these within the body of a letter. See
Figure 4-22.

```
NO.  INSERT
---  --------------------
1        FIRST NAME
2        LAST NAME
3        ADDRESS
4        PRIMARY CARE PROVIDER
5        REGISTER PROVIDER
6        FOLLOW UP
7        CHART
8        DATE
9        EDUCATE
10       FOOT EXAM EDUCATION
11       EYE EXAM EDUCATION
12       DENTAL EXAM EDUCATION
13       FLU SHOT EDUCATION
14       PNEUMO EDUCATION
15       TETANUS EDUCATION
16       TB TEST EDUCATION


+          Enter ?? for more actions
I  Individual Insert Information       -  Previous Screen
H  General Insert Information          Q  Quit
+  Next Screen
Select Action: +//
```

Figure 4-22: Basic instructions for editing a letter

The **EDIT letter** option allows you to review the structure of a letter (Figure 4-23). In the example on the next page, option **1 EDIT** was selected to show the structure of Diabetes Letter 1.

Note that the letter inserts 1, 2, and 3 were used to put the patient's name and address in the header as well as the patient's first name in the greeting. The body of the letter was typed and where follow-up needs are to be displayed, the letter insert 5 was used to indicate the system was to generate those entries into the letter. If letter insert 4, **Primary Care Provider**, is used in the salutation, the name of the provider identified as the patient's primary provider will be inserted.

If you plan to develop a number of letters and some of them will be lengthy, you may find it easier to use a personal computer on which a standard word processing program like MS Word can be run in one window while RPMS is running in another window. The letters can be developed in Word and the text copied and pasted into the open word processing field in the RPMS application. Technical assistance can be provided if you want to use this technique for letter development.

> **Note**: There are no security locks on letters. It is highly recommended that one user does not alter another user's letters.

```
==[ WRAP ]==[ INSERT ]=============<   >=============[ <PF1>H=Help ]====

|DATE|
```

```
|FIRST NAME| |LAST NAME|
|ADDRESS|

Dear |FIRST NAME|:

I have recently reviewed your records and note that you have missed your
last three appointments. The records indicate that you are overdue for
a number of healthcare items that are important in ensuring that you are
not developing any complications associated with your diabetes. Please call
Mary Smith, our Clinic Diabetes Coordinator, to schedule an appointment
during the month of October. Her telephone number is 743-7865.
The records show that you have the following healthcare needs:

|TEXT FOLLOW UP|

Sincerely,
|PROVIDER NAME|

Press F1 followed by E to exit this screen.
<======T=======T=======T=======T=======T=======T=======T======T======□
```

Figure 4-23: Sample letter setup

The above letter setup resulted in the following letter (Figure 4-24):

```
MAY 20, 2023


RAE PATIENT
777 N. 33RD ST.
TOMBSTONE, AZ  88776


Dear RAE:

I have recently reviewed your records and note that you have missed your
last three appointments. The records indicate that you are overdue for a
number of healthcare items that are important in ensuring that you are not
developing any complications associated with your diabetes. Please call
Mary Smith, our Clinic Diabetes Coordinator, to schedule an appointment
during the month of October. Her telephone number is 555-7865.

The records show that you have the following healthcare needs:

      CREATININE                *NO* CREATININE on record.

A CREATININE level is done at least yearly and is included as a part of a
group of tests run on one blood sample that helps indicate the health of
your kidneys, liver and other organs. This information helps guide your
medical provider to recommend the most effective treatment to help keep you
healthy and lower your risk of complications caused by diabetes.

      INFLUENZA                 *NO* INFLUENZA on record.

A FLU SHOT is recommended yearly for all people with diabetes and is
usually given starting in September. People do not become infected with flu
from flu shots - though they can have a mild fever or muscle aches for a
day or two as the body clears the vaccine.
```

```
     PNEUMO                     *NO* PNEUMO on record.

PNEUMONIA VACCINATION is recommended at least once for people with diabetes
to help prevent pneumonia - a Booster is often given at age 65 if it has
been more than 5 years since your last pneumonia vaccination.



Sincerely,

BENJAMIN USER
```

Figure 4-24: Sample letter

4.4.1 Choosing a Word Editing Editor

It is highly recommended that you review an existing letter before attempting to develop a new one. The example letters shown in this section use the VA Screen Editor. If you currently are using VA Line Editor, you will be unable to develop the custom letters as described in this section. If you see the following (Figure 4-25) when entering a word processing field, your default editor has been set to the RPMS line editor. Change to the full screen editor as follows.

```
1>
```

Figure 4-25: Line Editor screen

1. At any prompt for a menu option, type **TBOX**. ToolBox (Figure 4-26) is a secondary menu option that all users have but do not normally see on their screen.

2. Type **EDIT** at the **Select User's Toolbox Option** prompt. The system will open a window.

```
    DE     Behavioral Health Data Entry Menu ...
    RPTS   Reports Menu ...
    MUTL   Manager Utilities ...

Select Behavioral Health Information System Option: TBOX  User's Toolbox


        Display User Characteristics
        Edit User Characteristics
        Electronic Signature code Edit
        Menu Templates ...
        Spooler Menu ...
        Switch UCI
        TaskMan User
        User Help

Select User's Toolbox Option: Edit User Characteristics
```

Figure 4-26: Using TBOX

3. Press the **down-arrow** key to move to the **Preferred Editor** field.

4. Type **SC** at the **Preferred Editor:** field and then press **Enter** to see the editor change to **SCREEN EDITOR–VA FILEMAN**.

5. Continue to press the **down arrow** until the cursor reaches the **Command** prompt.

6. Type **S** at the **Command** prompt and press **Enter**.

7. Type **E** at the **Command** prompt and press **Enter** to save and exit the screen. The Edit User Characteristics screen and fields are shown in Figure 4-27.

```
                        EDIT USER CHARACTERISTICS
NAME: PATIENT,SAMANTHA A                                    PAGE 1 OF 1
_____

                     INITIAL: SAS                        PHONE:
                   NICK NAME:                      OFFICE PHONE:
                                                    VOICE PAGER:
                                                  DIGITAL PAGER:


   ASK DEVICE TYPE AT SIGN-ON: DON'T ASK
                   AUTO MENU: YES, MENUS GENERATED
                   TYPE-AHEAD: ALLOWED
             TEXT TERMINATOR:
             PREFERRED EDITOR: SCREEN EDITOR - VA FILEMAN

Want to edit VERIFY CODE (Y/N):
_____
     Exit      Save      Refresh

Command:  Press E and answer "YES" when asked whether you wish to save
changes.

COMMAND: S [ENT]       Press <PF1>H for help     Insert
     E [ENT]
```

Figure 4-27: Setting Screen Editor

4.5   Print Custom Letters for Selected Patients (CLS)

This option can be used to print a letter for one patient or a selected set of patients.

1. Select **CLS** from the **Letter Management** menu (Figure 4-28):

```
                          VERSION 2.0 (Patch 17)
                           DEMO HOSPITAL (INST)
                            LETTER MANAGEMENT


   LAE     ADD/EDIT DMS Letters
   CLS     Print Custom Letters for Selected Patients

Select Letter Management Option: CLS
```

Figure 4-28: Letter Management Menu Options

2. The system will display the available letters (Figure 4-29) at the top of the screen. Choose the letter you want to print.

```
      DMS letters currently on file:

NO.  LETTER                NO.  LETTER                NO.  LETTER
---  ------------------    ---  ------------------    ---  ----------------
 1   Diabetes Letter        2   Mary's F/U


Select LETTER NO.:  (1-2):

Select Action: Quit//  1
```

Figure 4-29: DMS letters currently on file

3. You will be prompted to choose from the following options (Figure 4-30):

```
      Select one of the following:

          1          Individual Patient(s)
          2          Search Template of Patients
          3          Members of a Case Management Register

Create list for letters by:
```

Figure 4-30: Menu options for the selected letter

4. Select the appropriate response.

- If #1 is chosen, you will be prompted to enter patient names or chart numbers.

- If #2 is chosen, you will be prompted to enter a search template name.

- If #3 is chosen you will be prompted to enter the name of a register.

5. You will then be prompted whether you want to print the letters to a printer or to browse the letters on your screen.

5.0   Entering/Deleting Patients on the Diabetes Register

There are two ways to add patients to the **Diabetes Register**:

- Enter patients manually, one at a time, using the **PATIENT MANAGEMENT** option.

- Transfer patients from a QMan-generated search template.

  - QMan is a menu option in **PCC Management Reports** and cannot be accessed from the **Diabetes Management System** menu. To access QMAN, you will need access to the **PCC Management Reports** menu and three additional security keys. See your Site Manager for assignment of the following security keys and access to the **PCC Management Reports** menu.

    - AMQQZMENU

    - AMQQZCLIN

    - AMQQZRPT

Each of the standard methods for entering patients into the Diabetes Register is described in Section 5.1 through Section 5.4.

5.1   Entering Patients Manually

Enter the chart number or name (Last Name,First Name) of the patient to be added to the Register. If the patient is not currently a member of the Register, you will be prompted to add the patient. See example in Figure 5-1.

```
            THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
             BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
                 ****************************************************
                 **              DIABETES MANAGEMENT SYSTEM        **
                 ****************************************************
                             VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL (INST)
                              REGISTER MAINTENANCE


      RM      Register Management ...
      PM      Patient Management
      DMU     Update Diabetes Patient Data
      AP      Add Patients from Template
      DEL     Delete Patient from the Register
      LM      Letter Management ...
      RR      Register Reports ...
      DPCS    Display a Patient's DIABETES CARE SUMMARY
   Select Register Maintenance Option: PM  Patient Management

   Select PATIENT NAME: DEMO,LAURA MARIAN
                                    F 07-12-1988 XXX-XX-3297   TST
   133250
```

```
     DEMO,LAURA MARIAN is not on
     the DEMO DIABETES REGISTER

Add this client to the Register? NO// Y
```

Figure 5-1: Entering patients manually

As soon as the **Enter** key has been pressed, the following screen will display
(Figure 5-2) and you may begin to display, edit, or print data on this patient.

```
Register Data              Nov 13, 2023 15:14:01      Page:  1 of 1
       PATIENT: DEMO,KARLA KAY                          AGE: 33
       ADDRESS: 1400 W 3RD STREET,ALB,NM,87119          DOB: 08/03/1989
         PHONE: 555-555-3538                            HRN: 135272
PRIM CARE PROV: DOCTOR,DONNA                            RES: ANYTOWN
        STATUS: ACTIVE
WHERE FOLLOWED:
       CASE MGR:
       CONTACT:
    ENTRY DATE: NOV 13,2022                     LAST EDITED:
     DIAGNOSIS: TYPE II
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen     QU Quit         ?? for More Actions
1  Register Status   7  Local Option Entry    13 Print Letter
2  Where Followed    8  Last Visit            14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments   15 PREDM Assessment of Care
(PDMC)
4  Client Contact   10 DM Audit Status         Q  Quit
5  DX/Date of Onset 11 Health Summary
6  Comments         12 DM Care Summary (DPCS)
Select Action: Quit//

The following actions are also available:
+    Next Screen         <    Shift View to Left   PS   Print Screen
-    Previous Screen     FS   First Screen          PL   Print List
UP   Up a Line           LS   Last Screen           SL   Search List
DN   Down a Line         GO   Go to Page            ADPL Auto
Display(On/Off)
>    Shift View to Right  RD   Re Display Screen     Q    Quit

Enter RETURN to continue or '^' to exit:
```

Figure 5-2: Entering patients manually, screen 2

5.2   Transferring Patients from a QMan-Generated Search Template

This two-step process allows you to 1) quickly identify all diabetes patients who are
active at your facility based on PCC data and 2) load them into your **IHS Diabetes
Register**. For active IHS User population statistics, patients are generally considered
to be active if they have had one or more visits for diabetes in the past three years.
For the purposes of diabetes care, more stringent criteria more closely resembling
GPRA criteria may be desired.

Each facility may have different criteria for identifying the patients who will be added to the template. In the following example, the search criteria used are that the patient had at least one diagnosis of diabetes codes as identified in the taxonomy **SURVEILLANCE DIABETES**, lived in the service unit area (GPRA taxonomy of communities), and had at least two visits to primary care clinics (**01 [GENERAL]**, **06 [DIABETIC]**, **13 [INTERNAL MEDICINE]**, **20 [PEDIATRIC]**, **24 [WELL CHILD]**, **28 [FAMILY PRACTICE]**) in the last three years. This may result in patients inadvertently being added to the Register because of miscoding, but they can be easily recognized by age or chart review and removed.

> **Note**: Your facility may already have a taxonomy of communities in the service area used in GPRA reports. The site manager would know the name of this taxonomy.

The specific QMan dialogue (Figure 5-3) to accomplish this search follows. User responses and instructions are in **bold** type.

```
*****   SEARCH CRITERIA   *****

Subject:  LIVING PATIENTS
Attribute of Living Patients:  DX
Enter DX:  [SURVEILLANCE DIABETES]

ICD codes in this range =>
   [QMan lists all codes  in the taxonomy]
Enter Another DX: [ENT]
Want to save this group for future use?  NO
First condition of Diagnosis:  SINCE
Exact Date:  (Enter the date 3 years ago)
Next condition of Diagnosis:  AT LEAST
Value:  1
Next condition of Diagnosis:  [ENT]
Attribute of Living Patients: COMMUNITY[ENT]
Community: GPRA COMMUNITIES [ENT]
   Members of GPRA Taxonomy =>

ADAIR
AFTON
BARTLESVILLE
BIXBY
BROKEN ARROW
CATOOSA
CHELSEA
CLAREMORE
JAY
LOCUST GROVE
MIAMI
PRYOR
SAPULPA

Enter ANOTHER COMMUNITY: [ENT]

The following have been selected =>

    ADAIR
```

```
        AFTON
        BARTLESVILLE
        BIXBY
        BROKEN ARROW
        CATOOSA
        CHELSEA
        CLAREMORE
        JAY
        LOCUST GROVE
        MIAMI
        PRYOR
        SAPULPA

Want to save this COMMUNITY group for future use? No//    (No)
Computing Search Efficiency
Rating...........................................
..........


   Subject of search: PATIENTS
        ALIVE TODAY
        CURRENT COMMUNITY (ADAIR/AFTON...)

Attribute of LIVING PATIENTS: VISIT

SUBQUERY: Analysis of multiple VISITS


First condition of "VISIT": CLINIC

Enter CLINIC: [BGP PRIMARY CARE CLINICS

Members of BGP PRIMARY CARE CLINICS Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE
Enter ANOTHER CLINIC: [ENT]

The following have been selected =>
GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE
Want to save this CLINIC group for future use? No// [ENT]  (No)

Next condition of "VISIT": DURING THE PERIOD
Exact starting date: 1/1/23  (JAN 01, 2023)
Exact ending date: 12/31/23  (DEC 31, 2023)


        Subject of subquery: VISIT
        CLINIC (DIABETIC/INTERNAL MED...)
        BETWEEN JAN 1, 2023 and DEC 31,2023@23:59:59

Next condition of "VISIT": AT LEAST
```

```
Enter the value that goes with AT LEAST _ EXIST; e.g., AT LEAST _ EXIST 3,
AT LEAST _ EXIST 10, etc.
Value: 2


        Subject of subquery: VISIT
        CLINIC (DIABETIC/INTERNAL MED...)
        BETWEEN JAN 1, 2023 and DEC 31, 2023@23:59:59
        AT LEAST 2 EXIST

Next condition of "VISIT": [ENT]

Computing Search Efficiency Rating....


  Subject of search: PATIENTS
     ALIVE TODAY
     CURRENT COMMUNITY (ADAIR/AFTON...)
     DIAGNOSIS (250.01/250.11...)
        Subject of subquery: VISIT
        CLINIC (DIABETIC/INTERNAL MED...)
        BETWEEN  JAN 1, 2023 and DEC 31,2023@23:59:59
        AT LEAST 2 EXIST


Attribute of LIVING PATIENTS: [ENT]

*** 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:  4 - Store Results of Search in FileMan Template

Enter the name of the search template:  PTS FOR IHS DM REGISTER

Are you adding 'PTS FOR IHS DM REGISTER' as a new sort template?  YES
Description:  [ENT]

Want to run this task in background?  NO
```

Figure 5-3: Transferring Patients from a QMan-Generated Search Template

QMan will then display each patient that matches the specified criteria as it stores the
patients in the template called **PTS FOR IHS DM REGISTER**. When finished, the
number of patients stored is displayed.

A site setting up the Register for the first time may choose to include or exclude different attributes in selecting patients to transfer. For example, by selecting the additional attribute of Community, you may limit the patients in the Register only to the communities in your service population. Another way of delimiting the group of patients to be included in the template is to select **DX of [SURVEILLANCE DIABETES]** as an attribute with no time limitations, and then selecting VISIT with limiting conditions of clinics and time frames. Other sites may choose to restrict the patients in the template even more by selecting a QMan attribute of Classification and limiting the Class to Indian/Alaska Native.

For the next step of loading the patients into your Register, exit **QMan** and return to the **Diabetes Management System** main menu.

1. Type **RM** the **Select Diabetes Management System Option** prompt in the Register Maintenance menu option.

2. Type **AP** at the **Select Register Maintenance Option** prompt (Figure 5-4).

```
REGISTER MAINTENANCE


   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
   DPCS    Display a Patient's DIABETES CARE SUMMARY

Select Register Maintenance Option: AP  Add Patients from Template
```

Figure 5-4: Transferring Patients from a QMan-Generated Search Template (steps 1–2)

3. Type **PTS FOR IHS DIABETES REGISTER** at the **Which Search Template** prompt (Figure 5-5). If the transfer is approved the system will then move all of the patients from the search template into the IHS Diabetes Register and assign them the status of **ACTIVE**.

```
              Select SEARCH TEMPLATE to transfer
              patients to the Diabetes Register


Which SEARCH TEMPLATE: DKR NEW DIABETES PATIENTS 2023

(Jun 23, 2022)        User #2881 File #2    INQ


         There are 10 patients in this SEARCH TEMPLATE.

    SEARCH SPECIFICATION NOT ENTERED
```

```
          The following transfer has been selected:

          From SEARCH TEMPLATE: DKR NEW DIABETES PATIENTS 2023
            To CMS register:  IHS DIABETES
          Transfer Status:    A - ACTIVE

          Is that what you want? No// Y




          Transfer of patients is complete.
          All patients should be reviewed and all
          patient data updated in the IHS DIABETES register
```

Figure 5-5: Transferring Patients from a QMan-Generated Search Template (step 3)

When this process is complete, you should review the patients transferred into the register to determine their appropriateness. You may delete patients or change their status to **Inactive**, **Transient**, **Unreviewed**, **Deceased**, **Lost to Followup**, **Non-IHS**, or **Noncompliant** using the **Edit Register Data** option under the **Patient Management** menu.

5.3   Deleting Patients from the Register

This option may be used to remove a patient from the Register if the patient is no longer active, is deceased, or has moved. The recommendation is to use this option only to remove patients from the Register if they do not have a diagnosis of diabetes. Other patients may be moved into a different Status category as opposed to deleting them. Deleting a patient from the Register results in the loss of any data that may have been stored in the Register for that patient including diagnosis, date of onset, complications, date of onset of complications, or date added to the register.

To delete a patient from the register (Figure 5-6), type **DEL** at the **Select Diabetes Management System Option** prompt. When prompted, type the chart number or name of the patient to be deleted from the register. You will be warned that all data on that patient will be removed from the IHS Diabetes Register. If you are certain, type **YES**. The dialogue will indicate that deletion of that patient from the IHS Diabetes Register is complete.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
         BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
             ****************************************************
             **              DIABETES MANAGEMENT SYSTEM       **
             ****************************************************
                          VERSION 2.0 (Patch 17)
                           DEMO HOSPITAL (INST)
                           REGISTER MAINTENANCE



     RM      Register Management ...
     PM      Patient Management
     DMU     Update Diabetes Patient Data
     AP      Add Patients from Template
```

```
    DEL     Delete Patient from the Register
    LM      Letter Management ...
    RR      Register Reports ...
    DPCS    Display a Patient's DIABETES CARE SUMMARY

Select Register Maintenance Option: DEL [ENT]
```

Figure 5-6: Deleting patients from the register

5.4   Periodic Addition of New Cases to Your Register

After your register is installed and your initial group of patients has been entered, enter newly diagnosed cases using the manual entry process described. It is critical that the local **Diabetes Coordinator** is notified as new patients are diagnosed or move into the service area. There are several mechanisms to identify patients newly diagnosed with diabetes, but no mechanism exists for adding patients automatically to the **Register**. The three methods of identification are described below.

Notation on Health Summary or Case Summary

Some facilities use the **PCC Health Summary** and/or the **Case Management System Case Summary** as turn-around documents. Following review of the **Health Summary** or **Case Summary**, the provider may make notations on the summary regarding new diabetes cases or new diabetes complications and forward the summary to the **Diabetes Coordinator** for updating the register.

QMan Search

Using **QMan**, you can print a list of newly diagnosed cases or new complications since your last update of the register. The list should be reviewed by the **Diabetes Coordinator** and appropriate entries made in the register. The following **QMan** dialogue (Figure 5-7) is used to find new cases or complications. User responses and instructions are in bold type.

```
                 *****  SEARCH CRITERIA  *****


    Subject: LIVING PATIENTS
    Attribute of Living Patients:   DX
    ENTER DX: [SURVEILLANCE DIABETES]
Enter Another DX:   [ENT]
Want to save this group for future use?  YES
Enter name for this taxonomy:  DM & COMPLICATIONS CODES
First condition of Diagnosis:  FIRST
How many?  1
Next condition of Diagnosis:  SINCE
Exact Date:  (Enter date you last updated register with new cases and/or
complications.)
Next condition of Diagnosis:  [ENT]
Attribute of Living Patients: [ENT]

*** 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:  2 - Print Results
Device:  (Enter printer device number.)
```

Figure 5-7: QMan search

After you have printed the results of your **QMan** search, you can review charts and manually add the patients on your list to the **Diabetes Register** using the **PM Patient Management** menu option.

Mailman Bulletin

Each time a diagnosis of diabetes or one of the standard complications is entered into the PCC, a program will determine if this is a new case or new complication for the patient at your facility. If it is new, a **Bulletin** will be generated in the **RPMS Mailman System** announcing the new case. See the example in Figure 5-8.

```
Subj: DM NEW CASE  [#6732] 19 November 22 13:10  20 Lines
From: POSTMASTER  in 'IN' basket.  Page 1  **NEW**
-----------------------------------------------------------------------
     Patient Name: TEST,PATIENT
     Chart No.: HC 27689   DOB: 10/12/1953

     This patient was seen on NOV 18, 2022 @14:04 at IHS FACILITY
     with the following diagnosis:

     ICD10 Code: E10.9  ICD Description: DM UNCOMPL/T-II/NIDDM,UNCONTR
     Provider Stated: DM TYPE 2 - UNCONTROLLED
     Patient's Community: IHS COMMUNITY
     Patient's Service Unit: IHS SERVICE UNIT
     Patient's Tribe: NON-INDIAN BENEFICIARY
     Tribal Blood Quantum: NONE


     Patient's Health Records:
This is the first time that this patient has been seen for the diabetes
diagnosis listed above. Please take appropriate follow up action.


Select MESSAGE Action: IGNORE (in IN basket)/ /
```

Figure 5-8: MailMan bulletin

The **Bulletin**, or **Mail Message**, will be automatically routed to the local **Diabetes Coordinator**. Each time the coordinator signs on to RPMS, the coordinator will be notified that new mail messages are waiting to be read. If you are not already using Mailman within your facility, you will need to discuss this capability with your Site Manager.

> **Note**: See for Appendix A for directions on setting up this automatic notification system.

6.0   Patient Management

The **IHS Diabetes Register** has been designed to minimize the data entry required for maintenance. One key to achieving this goal is to optimize the use of data entered through the PCC process (Figure 6-1). Another key is to limit the non-PCC data maintained in the register to as few items as possible and to items that require infrequent updating after initial entry into the register.

```
All data items are entered or modified on the Patient Screen that is
displayed when the main menu option, PM Patient Management is selected. To
initiate an interactive session, enter the patient name or chart number.

   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
   DPCS    Display a Patient's DIABETES CARE SUMMARY


Select Register Maintenance Option: PM


Select PATIENT NAME: PATIENT,BARRY
```

Figure 6-1: Selecting the PM option

6.1   Edit Register Data

If the patient is a new addition to the Register, only demographic data from Registration will display as shown in Figure 6-2.

```
Register Data              Nov 13, 2023 15:14:01      Page:  1 of 1
      PATIENT: DEMO,KARLA KAY                          AGE: 33
      ADDRESS: 1400 W 3RD STREET,ALB,NM,87119          DOB: 08/03/1989
        PHONE: 555-555-3538                            HRN: 135272
PRIM CARE PROV: DOCTOR,DONNA                           RES: ANYTOWN
       STATUS: ACTIVE
WHERE FOLLOWED:
      CASE MGR:
      CONTACT:
   ENTRY DATE: NOV 13,2022                     LAST EDITED:
    DIAGNOSIS: TYPE II
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen      QU Quit         ?? for More Actions
1  Register Status   7  Local Option Entry    13 Print Letter
2  Where Followed    8  Last Visit            14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments   15 PREDM Assessment of Care
(PDMC)
4  Client Contact   10 DM Audit Status         Q  Quit
5  DX/Date of Onset 11 Health Summary
6  Comments         12 DM Care Summary (DPCS)
```

```
Select Action: Quit// 1

The following actions are also available:
+    Next Screen          <    Shift View to Left   PS   Print Screen
-    Previous Screen      FS   First Screen          PL   Print List
UP   Up a Line            LS   Last Screen           SL   Search List
DN   Down a Line          GO   Go to Page            ADPL Auto
Display(On/Off)
>    Shift View to Right  RD   Re Display Screen      Q   Quit

Enter RETURN to continue or '^' to exit:
```

Figure 6-2: Editing register data

Very few data items are included in the register itself. These items should be entered when you add patients to the register and modified as needed.

You may enter data into each field beginning with the **Status** field. Press **Enter** after recording data or press **Tab** to move through the fields to be edited.

Typing one question mark (**?**) at each field will display the choices or the type of data to be entered:

- **STATUS**: Use **1** to select **Register Status**.

  - **A**   Active–Patients who receive their primary health care at your facility and who have had care at your facility within the last year.
  - **I**   Inactive–Patients not seen within the last two years.
  - **T**   Transient–Patients seen at your clinic within the past year who do *not* receive their primary diabetic care at your facility, but only visit your 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 who are deceased. Note that this status will be automatically updated if a date of death is recorded in Registration. However, if a patient's status is changed to deceased in the Register, the patient registration file is not automatically updated.
  - **N**   Non-IHS–Non-AI/AN patients who receive their diabetic care at your facility.
  - **L**   Lost to Follow-up–patients seen at your 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.

  Note: Most of the register reports include only active patients.

- **WHERE FOLLOWED**: (Optional)–**2 Where Followed**–If the service unit has one or more field clinics, health clinics, or health stations, it may be of value identifying the facility where the patient routinely goes for health care.

- **CASE MGR**: (Optional)–**3 Case Manager**–This is the nurse or health care provider that has been assigned or has assumed responsibility for managing a patient's health care.

- **CONTACT**: (Optional)–**4 Client Contact**–Type the **Name of Contact**. This is a free text entry of 1–30 characters to identify an alternative contact if a patient does not have a telephone.

- **ENTRY DATE**: This date is entered automatically when the patient is added to the Register. You may override this date with a date from your records.

- **LAST EDITED**: This field is filled automatically by the system with the date you or another authorized system user last entered or modified any data.

- **DIAGNOSIS**: Enter the **Diabetes** diagnosis from the list. Make sure that the same **Diabetes** diagnosis is on the patient's **Integrated Problem List (IPL)**, so that other clinicians can see it.

- **ONSET DATE**: Enter the **Date of Onset** for the **Diabetes** diagnosis. Make sure that the Date of Onset is also documented on the patient's **Integrated Problem List (IPL)**, so that other clinicians can see it.

If you want to return to a field to modify the data, you may type a caret (^) followed by the name of that field or caption to return. When all data is entered, at the **Command** prompt, type **S** and press **Enter** to save your entries. Then, type **E** and press **Enter** to exit the **Edit Register Data** option.

6.2   Adding Diagnosis

To add or modify Diagnosis (Figure 6-3) for a patient, choose **5 Diagnosis** from the menu screen. You will have the option to edit an existing Diagnosis, add a new Diagnosis, or delete a Diagnosis.

```
Register Data              Nov 16, 2023 14:20:36        Page: 1 of 1
      PATIENT: TEST,PATIENT TEN                        AGE: 18
      ADDRESS:                                         DOB: 01/01/2000
        PHONE:                                         HRN: 123456
PRIM CARE PROV:                                        RES: TOPPENISH
CY
       STATUS: ACTIVE
WHERE FOLLOWED:
      CASE MGR:
      CONTACT:
   ENTRY DATE: NOV 14,2023                     LAST EDITED: NOV 16,2023
    DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:

- Previous Screen        QU Quit          ?? for More Actions
1  Register Status   7  Local Option Entry    13 Print Letter
2  Where Followed    8  Last Visit            14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments   15 PREDM Assessment of Care
4  Client Contact   10 DM Audit Status         Q  Quit
```

```
5   DX/Date of Onset 11 Health Summary
6   Comments          12 DM Care Summary (DPCS)


Select Action: Quit// 5
```

Figure 6-3: Adding Diagnosis, screen 1

In the patient example given, **Prediabetes** is currently listed. So, another Diagnosis will be added, **Type 2** (Figure 6-4).

```
Register Diagnoses            Nov 16, 2023 08:10:58     Page:   1 of   1
Make sure that the date of onset is also documented on the
patient's problem list so other clinicians can see it.
Problem list entries can be modified using EHR.

DIABETES RELATED PROBLEMS ON THE PROBLEM LIST
PROB #  DX       PROVIDER NARRATIVE                    DATE OF ONSET
STATUS
------------------------------------------------------------------------------
None on file


    Register Diagnosis
    NO.  Diagnosis                     ONSET DATE
    ---  -----------------------------  ----------
    1    Prediabetes         NOV 15,2023



- Previous Screen         QU Quit          ?? for More Actions
1 Add Diagnosis    2   Edit Diagnosis    3   Delete Diagnosis
Select Action: Quit// 1
```

Figure 6-4: Adding Diagnosis, screen 2

You will be given the choice of entering one or more of the following Diagnoses (Figure 6-5).

> **Note**: This display is the Diagnosis List created under Register
> Maintenance. This list will differ for each register type as
> this list is site customizable.

```
NO.  DIAG
    ---  --------------------
    1    GESTATIONAL DM
    2    IMPAIRED GLUCOSE TOLERANCE
    3    TYPE 1
    4    TYPE 2
Which DIAGNOSIS(S):  (1-4):
```

Figure 6-5: Adding Diagnosis screen 3

When prompted for **Which DIAGNOSIS (1-4):**, enter the number.

To add **Onset Date** and other details for each **Diagnosis**, choose option, **2 Edit**.

You will be prompted to choose the number of the **Diagnosis** you want to edit (Figure 6-6). A window displays with prompts for **DATE OF ONSET**, **SEVERITY**. Use the **Tab** key to move between fields. To display the list of **Diagnosis Severity**, at the caption, **SEVERITY:** type one question mark (**?**). A list of four choices will display for you to select from. **Diagnosis Severity** is not a required entry.

```
N       NORMAL
M       MILD
MO      MODERATE
S       SEVERE
Diagnosis
   NO.  Diagnosis                        ONSET DATE
   ---  ------------------------------   ----------
    1   Type 2                           NOV 2020


- Previous Screen          QU Quit         ?? for More Actions
1  Register Status   7  Local Option Entry    13 Print Letter
2  Where Followed    8  Last Visit            14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments   15 PREDM Assessment of Care
4  Client Contact   10 DM Audit Status         Q  Quit
5  DX/Date of Onset 11 Health Summary
6  Comments         12 DM Care Summary (DPCS)
Select Action: Quit// [ENT]
```

Figure 6-6: Diagnosis selection

6.3   Add Case Comments

Free-text case comments may be added (Figure 6-7) to the Register indicating either nursing care plans, patient history or other information relevant to a patient's care. Select option **6 Comments.**

```
Register Data              Nov 13, 2023 15:14:01     Page:  1 of 1
     PATIENT: DEMO,KARLA KAY                          AGE: 33
     ADDRESS: 1400 W 3RD STREET,ALB,NM,87119          DOB: 08/03/1989
       PHONE: 555-555-3538                            HRN: 135272
PRIM CARE PROV: DOCTOR,DONNA                          RES: ANYTOWN
      STATUS: ACTIVE
WHERE FOLLOWED:
     CASE MGR:
     CONTACT:
   ENTRY DATE: NOV 13,2022                     LAST EDITED:
    DIAGNOSIS: TYPE II
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen       QU Quit          ?? for More Actions
1  Register Status   7  Local Option Entry    13 Print Letter
2  Where Followed    8  Last Visit            14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments   15 PREDM Assessment of Care
(PDMC)
4  Client Contact   10 DM Audit Status         Q  Quit
5  DX/Date of Onset 11 Health Summary
6  Comments         12 DM Care Summary (DPCS)
```

```
Select Action: Quit// 6

The following actions are also available:
+    Next Screen         <    Shift View to Left   PS   Print Screen
-    Previous Screen     FS   First Screen          PL   Print List
UP   Up a Line           LS   Last Screen           SL   Search List
DN   Down a Line         GO   Go to Page            ADPL Auto
Display(On/Off)
>    Shift View to Right  RD   Re Display Screen     Q    Quit

Enter RETURN to continue or '^' to
```

Figure 6-7: Adding Case Comments, screen 1

To add Comments, select option **1 Edit Comments**. A window will open, displaying
the patient's name (Figure 6-8). To enter free-text comments, press **Enter** at the
Comments prompt to open a word-processing field.

```
PATIENT: DEMO,BARRY

 (Press the Enter key to edit COMMENTS or <TAB> to skip.)
 COMMENTS:  [ENT]


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

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

Figure 6-8: Adding Case Comments, screen 2

Enter free-text comments (Figure 6-9) just as you would using any word processor.
The lines will wrap automatically. Press **F1** followed by the **H** key to display all the
options for editing text.

```
==[ WRAP ]==[ INSERT ]======< CASE COMMENTS >======[ <PF1>H=Help ]====
This 36 year old patient was brought in by his wife because of recent
excessive weight loss, lack of energy, and loss of appetite. By his own
account, he is a heavy drinker and smoker. He is employed as a long
distance driver for a trucking firm. DKR 05/2/03
```

Figure 6-9: Adding Case Comments, screen 3

Neither the date of the comment entry nor the identity of the person entering the text
is stored with a comment. Therefore, it is recommended that any comment entry be
accompanied by date and initials. When all comments have been entered, press the **F1**
key (**PF1**) followed by **E** to close the word processing window. You may save and
exit from the comment option by typing **S** and pressing **Enter**, followed by typing **E**
and pressing **Enter**. Exit the **Comment** window by typing **Q** to **Quit** or pressing
Enter.

> **Note**: The **Case Summary** is the only option that allows display
> of case comments entered via this menu option.

6.4   Local Option Entry

The local option entry may be edited by selecting **7 Local Option Entry**. Enter **0–9** at the prompt then enter the appropriate text.

6.5   Last Visit

The last visit the patient has made to your healthcare facility may be displayed by selecting **8 Last Visit**. All visit-related data for that date displays, including purpose of visit, providers, measurements, exams, and labs.

6.6   Review Appointments

To review future appointments for a patient, select **9 Review Appointments**. This option will display future appointments only if the RPMS Scheduling Package is used at your facility.

6.7   DM Audit Status

The status of compliance with the **IHS Diabetes Standards of Care** can be monitored at any time for a single patient by selecting **10 Audit Status**. You will be prompted to enter a **date**. 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. This allows the provider to determine which standards of diabetes care have not been met prior to the date of this visit. Future dates may be used.

6.8   Health Summary

The **Health Summary** for the patient may be displayed by selecting **11 Health Summary**. You will be prompted for **Health Summary Type** and may select any of the standard **IHS distributed Health Summaries** or a custom site-developed **Health Summary**. All of the secondary menu options discussed in Table 2-1 of this manual may be used for searching, displaying, or printing data from this health summary.

6.9   DM Care Summary (DPSC)

The **Diabetes Patient Care Summary (DPSC)** (Figure 6-10) for the patient may be displayed by selecting option **12 DM Care Summary (DPCS)**. The display of the DPSC may require several screens, therefore the display and print options described in Table 2-1 may be used. Typing two question marks (**??**) will display the choices.

```
OUTPUT BROWSER              Oct 26, 2022 14:22:37          Page:    1 of    5



********** CONFIDENTIAL PATIENT INFORMATION [LB]  Oct 26, 2022 **********
DIABETES PATIENT CARE SUMMARY              Report Date:  10/26/2022
```

```
Patient: JOE,BRENDA ANN                    HRN: 101439
Age:  49 (DOB 01/16/1973)                  Sex: FEMALE
CLASS/BEN: INDIAN/ALASKA NATIVE            Designated PCP:

Date of DM Diagnosis: 03/01/2019 (Problem List)
Diabetes type: (1 or 2): 2

BMI: 25.0  Last Height:         65.00 inches   10/06/2022
           Last Weight (ever):  150 lbs        10/06/2022

Tobacco Use:
   Last Screened: 10/06/2022
   Current Status: Current user CURRENT SMOKER, SOME DAY  10/06/2022
      Tobacco cessation counseling/education received in the past year:
```

Figure 6-10: Adding Case Comments, screen 3

6.10   Print Letter

A custom letter to the patient can be generated by choosing menu option **13 Print Letter**. Developing letters suitable for different situations can be performed by using **Add/Edit DMS Letters** under the **Register Maintenance Menu Option** described in Section 4.1.

When the **Print Letter** option is selected, you will be prompted with a list of custom **Diabetes Management Letters**. Select the number of the letter you want to print and enter the **Device number** of the printer you want to use.

6.11   PREDM Care Summary (PPCS)

Use this option (#14) if you are working with a **Prediabetes Register** and would like to review the patient's **Prediabetes Care Summary**. Refer to Appendix E for additional information.

6.12   PREDM Assessment of Care

Use this option (**#15**) if you are working with a **Prediabetes Register** and would like to review the patient's **Prediabetes Assessment of Care** document. Refer to Appendix E for additional information.

7.0   Register Reports (RR)

Numerous reports can be generated from the **IHS Diabetes Register** through the
Diabetes Management System's Register Reports option (Figure 7-1). These
reports contain a combination of demographic data, clinical data from the PCC, and
register data that you have entered.

To generate reports of your register data, use the **RR Register Reports** option
(Figure 7-1) on the **Diabetes Management System** main menu.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
              ****************************************************
              **              DIABETES MANAGEMENT SYSTEM         **
              ****************************************************
                            VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL (INST)
                              REGISTER MAINTENANCE


   RM      Register Management ...
   PM      Patient Management
   DMU     Update Diabetes Patient Data
   AP      Add Patients from Template
   DEL     Delete Patient from the Register
   LM      Letter Management ...
   RR      Register Reports ...
   DPCS    Display a Patient's DIABETES CARE SUMMARY

 Select Register Maintenance Option: RR  Register Reports
```

Figure 7-1: Selecting the RR option

By selecting **RR Register Reports** you can choose to display or print register data in
a number of different ways. The reports listed in Figure 7-2 are available.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
              ****************************************************
              **              DIABETES MANAGEMENT SYSTEM         **
              ****************************************************
                            VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL (CMBA)
                              REGISTER REPORTS MENU


   CS      Individual Register Patient Case Summary
   MS      Multiple Register Patient Case Summaries
   ML      Master List
   GEN     Register Patient General Retrieval (Lister)
   PR      Patient and Statistical Reports
   LPRA    List Patients on a Register w/an Appointment
   NDOO    DM Register Pts w/no recorded DM Date of Onset
   FU      Follow-up Needed
   MRDA    Multiple Registries Community DM Audit
```

```
Select Register Reports Option:
```

Figure 7-2: Register Reports Menu

7.1   Individual Register Patient Case Summary (CS)

The **Case Summary** displays or prints all data contained in the **Diabetes Management System** for a single patient. For the **IHS Diabetes Register** (Figure 7-3), this includes demographic information, register status data, diabetes diagnosis, complications, review dates, and any case comments that have been entered. The Case Summary also includes the patient's PCC Problem List. To produce an individual Case Summary, select the **Individual Case Summary** menu option and enter the patient's name or chart number. The Case Summary is generated instantaneously. You have the option of including a PCC Health Summary at the end of the Case Summary. For this report, you may retrieve data for all patients on the Diabetes Register regardless of status.

```
      Select DIABETES Register


      ---  -------------------------------
      1    DEMO DIABETES REGISTER
      2    IHS DIABETES
      3    IHS PREDIABETES
      4    DEMO DIABETES REGISTER
      5    MOHAVE DIABETES REGISTER
      6    PARKER DIABETES REGISTER

Which REGISTER:  (1-6):
```

Figure 7-3: Select Register

7.2   Multiple Register Patient Case Summaries (MS)

This option allows you to produce **Case Summaries** for all patients or a subset of patients in your **IHS Diabetes Register**. After selecting the option, you will be asked to specify a sorting order for the Case Summaries. You may sort by Patient (alphabetical order), Community of Residence, Facility where Followed, Case Manager, or Next Review Date (Figure 7-4 and Figure 7-5).

After selecting the sort order, you will specify whether to retrieve data for everyone in the register or for a subset of patients. For example, if you select **Community** for the sort order, you can print all patients in the register grouped by community, or you can choose a specific community in order to print only those patients within that particular community. Likewise, if you select **Next Review Date** as your sort order, you can specify a time period and list only those patients whose next review date falls in that range or list all patients in the register in the order of their next review date. This option retrieves only active patients. All other patients are excluded. You may save your report results in a search template for later data retrievals.

```
                            DEMO HOSPITAL (CMBA)
                                DEMO,SKIP

                  DIABETES REGISTER MULTIPLE PATIENTS SUMMARIES

This report will print patient summaries for a selected set of patients.
You may select individual patients by name/HRN or you may select a group
of patients by any combination of the following attributes:- Register
Status
     - Community of Residence
     - Case Manager
     - Where Followed
     - Next Review Date


Enter the Name of the Register: DEMO DIABETES REGISTER

     Select one of the following:

          I          Individual Patient Names/HRNs
          A          Group of Patients by Attribute

Select Patients By: I// individual Patient Names/HRNs
Select PATIENT NAME: demo
   1    DEMO,ALISTER LANE          <A>   M 05-20-1980 XXX-XX-4693   TST
124625
   2    DEMO,ASHLEY               <A>   F 02-25-1930 XXX-XX-5631   TST
114649
   3    DEMO,BENJAMIN SR                M 08-06-2012 XXX-XX-9932   TST
893856
   4    DEMO,DEJON                      M 11-27-2002 XXX-XX-0095   TST
115569
   5    DEMO,FERN                 <A>   M 01-01-1960 XXX-XX-1230   TST
142601
ENTER '^' TO STOP, OR
CHOOSE 1-5: 2
  DEMO,ASHLEY                     <A>   F 02-25-1930 XXX-XX-5631   TST
114649
Select PATIENT NAME:

Include PCC HEALTH SUMMARY? NO//
DEVICE: HOME//   Virtual
```

Figure 7-4: Multiple Register Patient Case Summaries Prompts

```
       ********** CONFIDENTIAL PATIENT INFORMATION  **********
***************   DEMO DIABETES REGISTER     ********************
     CLIENT:  DEMO,ASHLEY                        CHART:  114649
                                 PRIMARY CARE PROVIDER: DEMO,DONNA
       DOB: FEB 25,1930                          AGE: 88 YRS
   CONTACT: NOT STATED                     COMMUNITY: PARKER
                                          HOME PHONE: 555-555-9833
*************************  INSURANCE INFORMATION
**************************
INSURANCE                   NUMBER     SUFF COV  EL DATE  SIG DATE END
DATE

    *********************  PATIENT INFORMATION
************************
    STATUS: ACTIVE                       CASE PRIORIT: NOT STATED
```

```
        REGISTER PRV: NONE ASSIGNED              INIT ENTRY: FEB 8,2022
        CASE MANAGER: NONE ASSIGNED              WHERE FLWD: NOT STATED
        PUB HLTH NRS:NONE ASSIGNED


End of report for ASHLEY DEMO
Press <ENTER> to continue.....
```

Figure 7-5: Patient Summary

7.3   Master List (ML)

The **Diabetes Management Master List** (Figure 7-6 and Figure 7-7) produces a list
of patients the user selects. Selections include Register Status, Age, Community of
Residence, Gender, Case Manager, and Where Followed.

The report displays the patient's Chart Number, Name, Case Manager, Last visit date,
last review date, and Next Review Date.

You can sort the list by Patient Name (alphabetical order), Age, Community of
Residence, Case Manager, Public Health Nurse, Sex, Status (see Note below), or
Facility where Followed. You may also sort by a combination of these register items,
for example, alphabetical order by Patient Name by Community. The report output
may be stored in a search template to be used for additional data retrievals.

> **Note**: Inactive, Transient, Unreviewed, Deceased, Lost to
> Follow-up, Non-IHS, and Noncompliant patients are
> included when the Master List is sorted by Status. If you
> choose to sort patients by Status, you may list patients for
> one or more of the status categories. This is the only report
> in Diabetes Management, other than Individual Case
> Summary and General Retrieval that displays patients who
> are not classified as Active.

```
                        DEMO HOSPITAL (CMBA)
                            DEMO,SKIP

                        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: DEMO DIABETES REGISTER
Do you want to select register patients with a particular status? Y// ES
Select status: A// ACTIVE
```

```
Select another status:

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

     Select one of the following:

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

Include Patients: A// ll Communities

     Select one of the following:

          M          MALES
          F          FEMALES
          U          UNKNOWN
          A          ALL Genders

Include which Gender(s): A// LL Genders
Do you want to select register patients with a particular CASE MANAGER? N//
O
Do you want to select patients with a particular facility WHERE FOLLOWED?
N// O

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: Patient Name
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:


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

Select Secondary Sort Value: Age

Should patients meeting the above criteria that have a Date of Death
documented in patient registration be included in the list? N//

     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// Browse the List on the Screen

     Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// Include ALL Patients
```

Figure 7-6: Diabetes Register Master List Prompts

```
OUTPUT BROWSER                Nov 12, 2022 14:33:47      Page:   1 of  3

           ********** CONFIDENTIAL PATIENT INFORMATION **********
SHS                                                                Page
1
                        DEMO HOSPITAL (CMBA)
                     DIABETES REGISTER MASTER LIST
           Total number of patient selected for this report: 34


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

894038  DEMO,CARRIE                        12/01/20
101465  DEMO,MARIE                         11/04/20  01/23/19
04/24/21
106581  DEMORADO,PHYLLIS N                 02/07/21
890625  DEMOSO,MONICA                      12/15/21
115425  DEMOA,GARRETT WILLIA               11/19/20
+        Enter ?? for more actions
>>>
+    NEXT SCREEN         -    PREVIOUS SCREEN     Q    QUIT
Select Action: +//
```

Figure 7-7: Diabetes Register Master List Output

7.4 Register Patient General Retrieval (Lister) (GEN)

This report produces a list of patients on the **Diabetes Register** by the criteria that you choose. The report format is extremely flexible; you can specify the selection criteria, the data items to be printed, and the sorting order. You can print a detailed patient list or just counts of those patients that match the criteria you select. The first page of the report output is a summary page that displays the selection criteria, print items, and sort variable that you have requested.

> **Note**: Only the items selected as a Component Item of your
> Register will appear as a choice of selection.

After selecting the report option, enter the name of a previously defined report or press **Enter** to bypass the first prompt. Then, in three separate steps, you will be prompted to identify your selection criteria, data items to print for each patient, and the sorting order. All of the selections are listed in Figure 7-8. You may save the selected variables for future use by entering **YES** when prompted to save them and then naming the report template.

If you design a report that is 80 characters or fewer in width, it can be displayed on the screen or printed. If your report is 81 to 132 characters wide, it must be printed on a printer capable of producing 132-character lines or a printer set up for condensed print.

Selection Criteria

```
REGISTER:  IHS DIABETES     USER:  USER,DEMO

The Patients displayed can be SEARCHED based on any of the following criteria:

1)  Patient Name            14)  Class/Beneficiary    27)  Next Review Date
2)  Patient Sex             15)  Cause of Death        28)  Where PT Followed
3)  Patient DOB             16)  Medicare Eligibility  29)  Date Last Edited
4)  Birth Month             17)  Medicaid Eligibility  30)  Register Provider
5)  Patient Age             18)  Prvt Ins Eligibility  31)  Care-Plan Comment
6)  Patient DOD             19)  Primary Care Provide  32)  Complications
7)  Mlg Address-State       20)  Register Status       33)  Complication Comment
8)  Mlg Address-Zip Code    21)  Initial Entry Date    34)  Diagnoses
9)  Living Patients         22)  Inactivation Date     35)  Date of Onset
10)  Chart Facility         23)  Case Priority         36)  Recall Date
11)  Patient Community      24)  Case Manager
12)  Patient Tribe          25)  PHN
13)  Eligibility Status     26)  Last Review Date

        <Enter a list or a range.  E.g. 1-4,5,20 or 10,12,20,30>
        <<HIT RETURN to conclude selections or bypass screens>>

     Select Patients based on which of the above:  (1-36):
```

Figure 7-8: Register Patient General Retrieval (Lister), screen 1

After pressing **Enter** to use all the patients in the Register or entering specific selection criteria, you can choose to select (Figure 7-9 and Figure 7-10) one of the following:

T   Total Count Only

S   Sub-counts and Total Count

D   Detailed Patient Listing

F   Delimited Export File

If the delimited export file option is chosen, a file name will be assigned by the system. This file will be written and reside on the main RPMS server. Make a note of the file name as you will have to request that your site manager retrieve this file for you. If you choose to continue, you can select from the list of fields to be included in the file. The resulting file can be imported into Excel, ACCESS, SAS, or other programs used for data analysis.

```
     Choose Type of Report: D// F  Delimited Export File


I am going to create a file called ACM612.5 which will reside in
the C:\EXPORT directory.
Actually, the file will be placed in the same directory that the data
export files are placed. See your site manager for assistance in finding
the file after it is created. PLEASE jot down and remember the following
file name:
              **********   ACM612.5    **********

The records that are generated will be '^' delimited. The fields
will be the fields you select in the next screen and will be in the order
that you select them.

Do you want to continue?? Y// [ENT]

REGISTER:  IHS DIABETES      USER:  BUTCHER,LORI
                        PRINT Data Items Menu

1)  Patient Name          15)  Patient Tribe       29)  PHN
2)  Patient Chart #       16)  Eligibility Status   30)  Last Review Date
3)  Patient Sex          17)  Class/Beneficiary    31)  Next Review Date
4)  Patient DOB          18)  Cause of Death       32)  Where PT Followed
5)  Birth Month          19)  Medicare Eligibility 33)  Date Last Edited
6)  Patient Age          20)  Medicaid Eligibility 34)  Client Contact
7)  Patient DOD          21)  Prvt Ins Eligibility 35)  Register Provider
8)  Mlg Address-Street   22)  Patient's Last Visit 36)  Care-Plan Comment
9)  Mlg Address-State    23)  Primary Care Provide 37)  Complication
10)  Mlg Address-City    24)  Register Status      38)  Diagnoses
11)  Mlg Address-Zip Code 25)  Initial Entry Date  39)  Date of Onset
12)  Home Phone          26)  Inactivation Date    40)  Recall Date
13)  Mother's Name       27)  Case Priority
14)  Patient Community   28)  Case Manager
       <Enter a list or a range.  E.g. 1-4,5,18 or 10,12,18,30>
       <<HIT RETURN to conclude selections or '^' to exit>>
Select print item(s):  (1-40):
Select print item(s):  (1-40):
     Items selected for flat file output:
           Patient Name
           Patient Chart #
           Patient Sex
           Patient DOB
           Classification/Beneficiary

 Would you like to select additional PRINT criteria? NO//
```

Figure 7-9: Register Patient General Retrieval (Lister), screen 2

```
REGISTER:  IHS DIABETES      USER:  USER,LORI
                        PRINT Data Items Menu
```

```
The following data items can be selected to be output to a '^' delimited
file.
Choose the data items in the order you want them to be output.

1)  Patient Name          12)  Home Phone           23)  Inactivation Date
2)  Patient Chart #       13)  Mother's Name        24)  Case Priority
3)  Patient Sex           14)  Patient Community     25)  Case Manager
4)  Patient DOB           15)  Patient Tribe        26)  PHN
5)  Birth Month           16)  Eligibility Status   27)  Last Review Date
6)  Patient Age           17)  Class/Beneficiary    28)  Next Review Date
7)  Patient DOD           18)  Cause of Death       29)  Where PT Followed
8)  Mlg Address-Street    19)  Patient's Last Visit 30)  Date Last Edited
9)  Mlg Address-State     20)  Primary Care Provide 31)  Client Contact
10)  Mlg Address-City     21)  Register Status      32)  Register Provider
11)  Mlg Address-Zip Code 22)  Initial Entry Date
       <Enter a list or a range.  E.g. 1-4,5,18 or 10,12,18,30>
       <<HIT RETURN to conclude selections or '^' to exit>>
Select print item(s):  (1-32):
```

Figure 7-10: Register Patient General Retrieval (Lister), screen 3

If you do not select a sort criterion, the file will be sorted alphabetically by **Patient Name**.

If the option to print a **Total Count** is chosen, the total number of patients meeting the search criteria is displayed. If the option for **Sub-counts** and **Total Counts** is chosen, you will be prompted to indicate how you would like to have the counts sorted. For example, if you would like to do a count of your diabetic register patients sorted by community, you can press **Enter** on the search screen, then select **Community** on the sort screen. The resulting report would display total and sub-counts as shown in Figure 7-11.

```
                          REPORT SUMMARY


     CMS REGISTER PATIENT Selection Criteria:

     Items selected for flat file output:
          Patient Name
          Patient Chart #
          Patient Sex
          Patient DOB
          Classification/Beneficiary

     CMS REGISTER PATIENT SORTING Criteria:
          CMS REGISTER PATIENTS will be sorted by:  Patient Name

DEVICE: HOME//   Virtual



CMS File being generated....

DOS File Being Created'
Please Standby - Copying Data to DOS File X:\EXPORT\ACM2963.4
```

Figure 7-11: Register Patient General Retrieval (Lister), screen 4

If the option for a detailed patient listing is chosen, you will be prompted to identify which data items to print and how you would like them sorted. Print items are shown in Figure 7-12.

```
                        PRINT Data Items Menu

1)   Patient Name          15)  Patient Tribe        29)  PHN
2)   Patient Chart #        16)  Eligibility Status   30)  Last Review Date
3)   Patient Sex            17)  Class/Beneficiary    31)  Next Review Date
4)   Patient DOB            18)  Cause of Death       32)  Where PT Followed
5)   Birth Month            19)  Medicare Eligibility 33)  Date Last Edited
6)   Patient Age            20)  Medicaid Eligibility 34)  Client Contact
7)   Patient DOD            21)  Prvt Ins Eligibility 35)  Register Provider
8)   Mlg Address-Street     22)  Patient's Last Visit 36)  Care-Plan Comment
9)   Mlg Address-State      23)  Primary Care Provide 37)  Complications
10)  Mlg Address-City       24)  Register Status      38)  Complication Com
11)  Mlg Address-Zip Code   25)  Initial Entry Date   39)  Diagnoses
12)  Home Phone             26)  Inactivation Date    40)  Date of Onset
13)  Mother's Name          27)  Case Priority        41)  Recall Date
14)  Patient Community      28)  Case Manager
     <Enter a list or a range.  E.g. 1-4,5,18 or 10,12,18,30>
     <<HIT RETURN to conclude selections or '^' to exit>>
Select print item(s):  (1-41):
```

Figure 7-12: Print items

> **Note**: Only one sort criterion may be used.

Sort Criteria are shown in Figure 7-13.

```
     1)   Patient Name                 15)  Next Review Date
     2)   Patient Age                  16)  Date Last Edited
     3)   Patient Community            17)  Case Priority
     4)   Patient Sex                  18)  Case Manager
     5)   Patient Tribe                19)  PHN
     6)   Patient Chart #              20)  Where PT Followed
     7)   Primary Care Provider (PCC)  21)  Register Provider
     8)   Classification/Beneficiary   22)  Inactivation Date
     9)   Eligibility Status           23)  Initial Entry Date
     10)  Cause of Death               24)  Mlg Address-Zip Code
     11)  Patient DOB                  25)  Mlg Address-State
     12)  Patient DOD                  26)  Birth Month
     13)  Register Status
     14)  Last Review Date

<<If you don't select a sort criteria the report will be sorted by Patient
Name.>>
```

Figure 7-13: Sort Criteria

> **Note**:   The numbers of the **Select**, **Sort**, and **Print** items will
> correspond to the actual data item structure of the diabetes
> register that you have created. The data items will be
> limited to those you have included in your register and
> those available from the PCC database.

For more information about using this report option, refer to the ***Case Management (Version 2.0) User's Manual***.

7.5   Patient and Statistical Reports (PR)

This report option (Figure 7-14) produces patient lists or counts. It includes reports for the following seven categories:

> **Note**:   Only Active patients are included in this report.

- Register Data
- Complications
- Diagnoses
- Family Members
- PCC Problem List
- Case Review Date
- Case Comments

```
             ************************************
                    DEMO DIABETES REGISTER
             ************************************

                    STATISTICAL REPORTS

     1)  REGISTER DATA                5)  PCC PROBLEM LIST
     2)  COMPLICATIONS                6)  CASE REVIEW DATE
     3)  DIAGNOSES                    7)  CASE COMMENTS
     4)  FAMILY MEMBERS



     Report Option ==>
```

Figure 7-14: Statistical Reports

Most reports can be sorted by Patient Name, Community, Facility where Followed, Age, Sex, or a combination of these factors (Figure 7-15). Additionally, you can be selective in specifying which patients to retrieve. For example, you can select to retrieve only patients with a specific diagnosis or complication, then sort the list by any of the above factors. By indicating the patients you want to retrieve and the sorting variables, you can generate a specific report, for example, all patients with major amputations who live in Santa Fe and are between the ages of 40 and 50.

```
                    ************************************
                          DEMO DIABETES REGISTER
                    ************************************

                          REPORT SORTING UTILITY

          The DIAGNOSES report can be sorted by one or more
          of the following attributes.  '<==' indicates a mandatory
selection.

             1) AGE                              5) SEVERITY
             2) CURRENT COMMUNITY                6) SEX
             3) DIAGNOSIS                        7) WHERE FOLLOWED
             4) PATIENT

             Your choice:
```

Figure 7-15: Report Sorting Utility

When you request these reports, you will be asked whether you want a Patient or
Statistical report. By responding with **P**, for patient, the system will generate a patient
listing. A response of **S**, for statistical, will result in a display of counts without a
patient listing.

You will also be asked whether you want to store the output from the report in a
search template. If you respond **YES**, you will be asked to enter a name for the
template. The name may be up to 30 characters long. After naming the template, the
report will be generated and the patients will be stored in a template for use in QMan
retrievals, as specified in the Retrieval of Clinical Data section of this manual. In
Figure 7-16, a report is generated for all patients with Type 2 diabetes and stored as a
search template for further queries.

> **Note**:   All patients in the Register must have an assigned diagnosis
>   to generate an accurate report.

```
          Your choice: 3   DIAGNOSIS

Do you want to sort by a particular DIAGNOSIS? No// Y  (Yes)

Which DIAGNOSIS: TYPE 2

Within DIAGNOSIS, want to sort by another attribute? No//   (No)

      'P'atient or 'S'tatistical report? ==> Patient

Store Report Result as Search Template? NO// YES

Search Template: TYPE 2 DM PTS
   Are you adding 'TYPE 2 DM PTS' as a new SORT TEMPLATE? No// Y  (Yes)

      An unduplicated patient list resulting from this report
      will be stored in the.........>

                 **  TYPE 2 DM PTS  ** Search Template.
```

```
A brief report will be printed after the search template is complete.
You must enter a device for this report OR you may queue at this time.


DEVICE: HOME//   Virtual


...HMMM, JUST A MOMENT PLEASE...
CMS DIAGNOSIS FOR THE CLIENT STATISTICS         NOV 12,2023  17:01    PAGE 1
        DIAGNOSIS
-------------------------------------------------------------------------

COUNT     1


End of report.  Strike <CR> to continue.
```

Figure 7-16: Patient and statistical report

7.6   List Patients on a Register w/an Appointment (LPRA)

This option (Figure 7-17) permits the diabetes coordinator to review appointments for
`has occurred. This option only works if the facility is using the **RPMS Scheduling
Package**. Select the **LPRA List Patients on a Register w/an Appointment** option.
Enter the beginning date for appointment review and the ending date.

```
This option will print a list of all patients on a register
e.g. Diabetes Register) who have an appointment in a date range
in any clinic or in a selected set of clinics.



You will be asked to enter the name of the register, the date range of the
appointments and the clinic names if selecting a set of clinics.


Enter the Name of the Register: DEMO DIABETES REGISTER

Enter Beginning Appointment Date:  10/1/2023  (OCT 01, 2023)
Enter Ending Appointment Date: 12/31/2023  (DEC 31, 2023)

     Select one of the following:

        A          ANY Clinic
        S          One or more selected Clinics

Include patients with Appointments to: A// [ENT] NY Clinic

     Select one of the following:

        P          PRINT the List
        B          BROWSE the List on the Screen

Output Type: P// [ENT] RINT the List

     Select one of the following:

        I          Include ALL Patients
```

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

Demo Patient Inclusion/Exclusion: E// Include ALL Patients
DEVICE: HOME//   Virtual
```

Figure 7-17: Listing patient appointments

The report displays as shown in Figure 7-18.

```
   SHS                             Nov 12, 2023                         Page
1

       PATIENTS ON THE DEMO DIABETES REGISTER WITH AN APPOINTMENT
                 Appointment Dates: Oct 01, 2023 to Dec 31, 2023
                                 CLINICS: ANY

HRN     PATIENT NAME                     CLINIC NAME          DATE
TIME
-------------------------------------------------------------------------
999999 PATIENT,BARRY                     DIABETIC CLINIC      OCT 12,1999
10:00
888888 PATIENT,RAE                       INTERNAL MEDICINE (P  FEB 4,2000
08:15

End of report.  PRESS ENTER:
```

Figure 7-18: Listing patient appointments, screen 2

7.7   DM Register Pts w/no recorded DM Date of Onset (NDOO)

When calculating the duration of diabetes for Audit reports, 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. A report to identify those patients on the Register who do not have a date of onset recorded may be run by selecting the **NDOO DM Register Pts w/no recorded DM Date of Onset** option (Figure 7-19).

```
                        DEMO HOSPITAL (CMBA)
                            User, Demo

This report will list patients who are on the Diabetes Register who do not
have a date of diagnosis recorded in either the Register or on the problem
list.


Enter the Name of the Register: DEMO DIABETES REGISTER
Do you want to select register patients with a particular status? Y// ES
Which status: A// [ENT] ACTIVE

     Select one of the following:
```

```
             P          PRINT the List
             B          BROWSE the List on the Screen

Output Type: P// [ENT] RINT the List

     Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// [ENT] xclude DEMO Patients
DEVICE: HOME// PRINTER NAME OR NUMBER
```

Figure 7-19: DM Register Pts w/no recorded DM Date of Onset

The resulting report (Figure 7-20) not only lists those patients with no date of onset recorded but also identifies whether the patients have a diagnosis of diabetes on the active problem list.

```
             ********** CONFIDENTIAL PATIENT INFORMATION **********
SHS                                                                    Page
1
                        DEMO HOSPITAL (CMBA)
    DIABETES REGISTER PATIENTS WITH NO RECORDED DATE OF ONSET OF DIABETES
             Patients on the DEMO DIABETES REGISTER

PATIENT NAME          HRN    DOB                LAST DM DX    #DM DXS DM ON
PL
----------------------------------------------------------------------------
DEMO,MONICA           890625 Jan 19, 1957  F   Mar 03, 2017    67       YES
DEMO,AARON V          144227 May 07, 1993  M                    0       NO
DEMO,BRAZ             103193 Sep 07, 2010  M                    0       NO
DEMO,JESSICA          101578 Jul 10, 1957  F   Nov 12, 2023    14       NO
DEMO,CHRISTIAN JA     135554 Nov 19, 1989  M                    0       NO
DEMO,DANIEL MICHA     135205 Feb 10, 1986  M                    0       NO
DEMO,RHIANNON RAIN    144277 Jan 20, 1995  F   Oct 28, 2017     4       NO
TEST,AMY              679458 Dec 23, 1934  F   Jan 06, 2023     3       YES
TEST,DONNA            13976  Feb 17, 1954  F   Dec 29, 2018     1       NO
End of report.  HIT RETURN:
```

Figure 7-20: DM Register Pts w/no recorded DM Date of Onset, report sample

Once these patients are identified, the charts may be reviewed or the patients queried to determine the date or estimated date of onset. An actual date, a month and a year, or just a year can be used as a date of onset when updating Register data.

7.8   Follow-up Needed (FU)

The **Follow-up Needed** report option allows you to identify members of the Register who are delinquent in receiving or have never had exams, procedures, patient education, immunizations, vaccines, or lab tests. A report of those patients identified as requiring follow-up may be generated, custom letters may be generated, or both a report and letters may be generated.

You can choose to generate the report for all members of the Register, only Active patients, Inactive patients, Transient patients, Unreviewed patients, Non-IHS patients, Noncompliant, or Deceased patients. The report can be generated for all members of the Register, a template of patients, or patients with specific diagnoses. In addition, the report may be sorted by community, where the patients are followed, or by their register provider. In the following examples (Figure 7-21 and Figure 7-22), a report on active patients in the Register who do not have a foot exam on record in the past year will be generated by selecting the **FU Follow-up Needed** option.

```
          DIABETES REGISTER - FOLLOW-UP NEEDED REPORTS
          (Patients due now or within the next 30 days.)

          1      ALL Exams/Procedures-----------------------------
            11   Foot Exam                12    Eye Exam
            14   Depression Screening     18    Dental Exam
          2      ALL Patient Education----------------------------
            21   Nutrition                22    Physical Activity
            23   General Info
          3      ALL Immunizations/Vaccines----------------------
            31   Seasonal Flu Shot        32    Pneumococcal
            33   Td/Tdap                  34    TB Test
            35   Hepatitis B
          4      ALL Lab Tests------------------------------------
            41   LDL Cholesterol          42    HDL Cholesterol
            43   Cholesterol              44    Triglyceride
            45   Creatinine               46    Hemoglobin A1c
            47   Estimated GFR            48    A/C Ratio
            49   Hepatitis C Screening

       Type 'ALL' to include ALL Follow-up Needed
       Which Report:

       Which Report: 3

     Select one of the following:

          1          Use Register Members
          2          Use A Search Template

Which Group: Use Register Members// [ENT]

Select the Patient Status for this report

     Select one of the following:

          A          Active
          I          Inactive
          T          Transient
          U          Unreviewed
          D          Deceased
          N          Non-IHS
          NON        Noncompliant
          Z          All Register Patients

Which patients: Active// [ENT]

Select the Diabetes 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// 2  Type 2 <<Note: If a Register Diagnosis
has not been assigned to all patients, you must choose 6 All Diagnoses for
an accurate report. >>

Include list of patient's
upcoming appointments? NO// [ENT]

Print the Follow-up Report/Letters by


      Select one of the following:

           1           Community
           2           Primary Provider
           3           Where Followed

Which one: Community// [ENT]  <<Press Enter to select ALL Communities >>

(Press <ENTER> to select ALL Communities

Which Community:

Communities Selected:

           ALL

      Select one of the following:

           1           Follow-up Report
           2           Follow-up Letter
           3           Both

Which one: Follow-up Report// [ENT]

      Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// [ENT] xclude DEMO Patients

DEVICE: HOME// << Enter name or number of printer >>
```

Figure 7-21: Using the FU option, screen 1

The resulting report displays the community, patient names, chart numbers, and the last foot exam. Only those patients who have not had a foot exam in the past year or are due for a foot exam within the next 30 days are displayed. The report is sorted alphabetically by patient name within each community. Each of the follow-up reports can be limited to patients within a specific community or followed by a specific primary provider. To better coordinate the patients' care, an option to display future appointments is also included in the report.

```
FOLLOW-UP REPORT              Nov 12, 2023 18:29:53        Page:  1 of
1

     DEMO DIABETES REGISTER Register - Active Patients
     Follow-up Report: FOOT EXAM                              Page: 1
     (For ** TYPE 2 ** Diabetics Only.)
     (For Patients due now or within the next 30 days)
     REPORT DATE: NOV 12,2023


COMMUNITY        PATIENT                    HRN    STATUS
--------------- ---------------------- ------ --------------------
AJO        PATIENT,AMANDA           101422  *NO* FOOT EXAM on record.
AJO        PATIENT,JILL             101476  *NO* FOOT EXAM on record.
AKCHIN     PATIENT,ALLISON          101387  *NO* FOOT EXAM on record.
ANEGAM     PATIENT,DARLENE          101240  last FOOT EXAM JUL 13, 2020
ANEGAM     PATIENT,JENNIFER         101321  last FOOT EXAM OCT 10. 2019
ARTESA     PATIENT,LAURA            100089  *NO* FOOT EXAM on record.
ARTESA     PATIENT,MAUDE            100047  *NO* FOOT EXAM on record.
BIG FIELDS PATIENT,LRAINE           100266  last FOOT EXAM AUG 13,2017




          - Previous Screen   Q Quit   ?? for More Actions

Select Action:Quit//
```

Figure 7-22: Using the FU option, screen 2

This option can be used again to generate a letter to each of these patients indicating that they are overdue for a foot exam. When you choose the option to print a letter, you are prompted to select one of the letters set up in Register Maintenance. A custom letter can be designed for each of the follow-up Diabetic Care needs identified by this report.

7.9   Multiple Registries Community DM Audit (MRDA)

This report will search two or more Diabetes Registers (Figure 7-23) to combine a list of patients from a particular community. Choose **MRDA** from the **Register Reports** menu.

```
                          DEMO HOSPITAL (INST)
                             DEMO,LORI


                 MULTIPLE REGISTER COMMUNITY DIABETES AUDIT

This report will search two or more Diabetes Registers to combine
a list of patients from a particular community. You can run the audit just
for the subset of patients who live in a particular community.


Do you wish to continue? Y// ES   =>> Answer Y to continue



In order for the 2024 DM AUDIT Report to find all necessary data, several
taxonomies must be established. The following taxonomies are missing or
have no entries:
LABORATORY TEST taxonomy  [BGP HEP C TESTS TAX] contains a panel test:
HEPATITIS C PROFILE and should not.
DRUG taxonomy  [DM AUDIT AMYLIN ANALOGUES] has no entries
DRUG taxonomy  [DM AUDIT COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT GLP-1 ANALOG DRUGS] has no entries
LABORATORY TEST taxonomy  [DM AUDIT HGB A1C TAX] contains a panel test: HGB
A1c (R) and should not.
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries
End of taxonomy check. HIT RETURN:

  Select DIABETES Register
  No. Register Name                    # Active # members  Last patient update
                                        members
  --- ----------------------------- -------- --------- -------------------
  1   DEMO DIABETES REGISTER            535       539    11/09/2023
  2   2020 KDS DIABETES REGISTER         13        13    10/26/2023
  3   IHS DIABETES                      553       556    09/11/2023
  4   DEMO DIABETES REGISTER             29        29    10/05/2023
  5   PARKER DIABETES REGISTER        1,002     1,012    10/03/2023
  6   SDPI NON DIABETES                 158       158    10/04/2023

This response must be a list or range, e.g., 1,3,5 or 2-4,8

Select Diabetes Register(s):  (1-6): 3,6 =>>  Choose the registers by
number per the instructions above.




You have selected the following register(s):
     IHS DIABETES
     SDPI NON DIABETES


Is this correct? Y//



Do you want to select register patients with a particular status? Y// ES
Select status: A// ACTIVE
Select another status:


Limit the patients who live in a particular community ? N// YES
Select COMMUNITY NAME: PARKER
```

```
PARKER     LA PAZ     ARIZONA     285     0415285

     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
Native (Classification 01)

There are 443 individual patients in those registers that meet this
criteria.


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:  123120  (DEC 31, 2023)

     Select one of the following:

          I          Include Pregnant Patients
          E          Exclude Pregnant Patients

Select whether to include or exclude pregnant patients in the audit: E//
xclude Pregnant Patients
okay, hold on...this may take a few minutes..

There are 443 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          Audit Report (Cumulative Audit)
          4          Both Individual and Cumulative Audits
          5          SDPI RKM Report

Enter Print option: 1// 3  Audit Report (Cumulative Audit)  >> Choose the
output type

     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

Do you wish to: P//




Samples of the various outputs can be found in Appendix D
```

Figure 7-23: Multiple Registries Community DM Audit

8.0 Retrieval of Clinical Data from the PCC for Patients in the IHS Diabetes Register

Both PCC Management Reports and QMan can be used to retrieve a variety of data for patients in the IHS Diabetes Register.

8.1 PCC Management Reports

Use the **Body Mass Index (BMI) Reports** tool in **PCC Management Reports** to follow patients with diabetes. You can run the reports on all the patients in your Register or selected groups based on search templates using the **Patient and Statistical Report** option or QMan. In the following example (Figure 8-1), a **BMI** report will be run on the **TYPE 2 DM PTS** template. Begin by selecting the **BMI** menu option from the main **PCC Management Report Menu**.

```
                      DEMO HOSPITAL


   PLST    Patient Listings ...
   RES     Resource Allocation/Workload Reports ...
   INPT    Inpatient Reports ...
   QA      Quality Assurance Reports ...
   DM      Diabetes Program QA Audit ...
   APC     APC Reports ...
   PCCV    PCC Ambulatory Visit Reports ...
   BILL    Billing Reports ...
   BMI     Body Mass Index Reports ...
   ACT     Activity Reports by Discipline Group ...
   CNTS    Dx & Procedure Count Summary Reports ...
   IMM     Immunization Reports ...
   DR      PCC Patient Data Retrieval Utility
   RT      Report Template Utility ...
   STS     Search Template System ...
   QMAN    Q-Man (PCC Query Utility)
   FM      FileMan (General) ...
   TB      Tuberculosis Report

Select PCC Management Reports Option:  BMI
```

Figure 8-1: PCC management reports

There are several different report options for displaying Body Mass Index, but for the purpose of this example, a list of patients with height, weight and BMI sorted by BMI will display (Figure 8-2). Therefore, the **Listing of Patients with Height/Weight/BMI (LPAT)** option has been selected.

```
        *****  RISK FOR OVERWEIGHT PREVALENCE REPORT  *****

                        PATIENT LIST
This report will produce a listing of all patients of the age and sex
that you specify. The report will list their weight, height and BMI.
```

```
 Select one of the following:

         S          Search Template of Patients
         P          Search All Patients

Select List : Search Template of Patients [ENT]

Enter Visit SEARCH TEMPLATE name:    TYPE 2 DM PTS
                          (Sep 27, 2023)      User #605 File #9000001

     Select one of the following:

         M          Males
         F          Females
         B          Both

Report should include: B// [ENT]

Do you wish to include ONLY Indian/Alaska Native Beneficiaries? N// Y

Enter a Range of Ages (e.g. 5-12) [HIT RETURN TO INCLUDE ALL RANGES]:
[ENT]

No age range entered. All ages will be included.

Select one of the following

         R          Report (Printed or Browsed)
         S          Sort Template

Type of Output: R//[ENT]

 Select one of the following:

         P          Patient Name
         A          Age of Patient
         B          BMI
Sort the report by: P// B

Do you wish to suppress patient identifying data (name,chart #)? N// [ENT]
DEVICE: HOME// Enter Printer number
```

Figure 8-2: PCC management reports, screen 2

The resulting report is displayed in Figure 8-3.

```
DKR                            DEMO HOSPITAL                          Page 1
                    OVERWEIGHT/OBESITY PREVALENCE REPORT
                             PATIENT LISTING

                    Report includes: MALES & FEMALES / ALL AGES
                    Report Includes: INDIAN/ALASKA NATIVES ONLY
                    Search Template of Patients: DM TYPE 2 PTS
                                                          >=      >=
                                    DATE OF            NHANES NHANES
PATIENT NAME    HRN #  HEIGHT WEIGHT WEIGHT  AGE SEX  BMI   85TH%  95TH%
--------------------------------------------------------------------
PATIENT,BARR    100005 63.8   222.1  01/24/21 33  M   39.6   N      Y
PATIENT,SALLY   100000 64.0   333.0  08/07/21 47  F   58.9   N      Y
```

Figure 8-3: PCC management reports, screen 3

8.2   QMan

QMan, the PCC query tool, provides virtually unlimited access to PCC clinical data for patients in your IHS Diabetes Register. Many of the follow-up reports formerly requiring QMan to generate are now available through the **Follow-up Report** menu option of the **Diabetes Management System**.

When using QMan, all of the patients in your Register may be used as the subject of your query by entering **REGISTER** as the subject and IHS Diabetes (or the name of your local diabetes register) when prompted for a Register. You may also use QMan for retrieving clinical data on specific subsets of the patients in your register. These subsets of patients are referred to as cohorts or search templates.

You can use the **Master List** or **Patient and Statistical Reports** option to create templates of patients. Both of these options are accessed from the **Register Reports** menu in the **Diabetes Management System**. Using these report-generating options, you can create a template of all patients in your register, all active patients, patients in selected age groups or communities, patients with selected diagnoses or complications, or patients in other categories as needed.

> **Note**: It is extremely important to remember that if sorting by
>   diagnosis, each patient in the Register must have been
>   assigned a diagnosis or the resulting report will be invalid.

The process for generating templates is described in Section 7.5.

Formal QMan training for Diabetes Coordinators is essential to optimize use of the link between the Diabetes Register and the PCC. Instructions on using QMan are not provided in this manual. The remainder of this section provides QMan dialogue for producing three QMan outputs. These outputs are representative of the many QMan searches of PCC clinical data that are available.

8.2.1   Using Register as the Subject of a Search

In this example, a list of the last Hemoglobin A1C for each patient in the Register will be created. User responses and instructions are in **bold** type.

1. Type **REGISTER** at the **What is the subject of your search** prompt.

2. Type the **name** of your **Register** at the **Which CMS Register** prompt.

3. Type the **Status** of the patients at the **Which Patients** prompt.

4. Type the **Diabetes Diagnosis** of the patients for this report at the **Which Diagnosis** prompt.

   Remember, you may only select a specific diagnosis if all of your patients have been assigned a Register diagnosis.

5. Type the desired **attribute** at the **Attribute of IHS Diabetes Register** prompt (Figure 8-4).

```
What is the subject of your search?  LIVING PATIENTS // REGISTER
Which CMS REGISTER: IHS DIABETES
       Select the Patient Status for this report

           1       Active
           2       Inactive
           3       Transient
           4       Unreviewed
           5       Deceased
           6       Non-IHS
           7       All Register

Which patients: 1// [ENT]

Select the Diabetes 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//

Attribute of IHS DIABETES REGISTER: A1C
```

Figure 8-4: Using Register as the Subject of a Search (steps 1-4)

6. Type the first **condition** at the **First condition of attribute** prompt.

7. Type the **value** at the **Value** prompt.

8. Type another **condition** or press **Enter** to continue at the **Next condition of attribute** prompt.

9. Type a selection from the **QMan Output Options** at the **Your Choice** prompt.

10. If a clinical attribute was chosen, choose between values of the clinical attribute, an extended display of the values, or unduplicated patients by typing a number for the selection at the **Your Choice** prompt (Figure 8-5).

```
        SUBQUERY: Analysis of multiple HEMOGLOBIN A1CS
          First condition of "HEMOGLOBIN A1C": LAST
                Enter the value which goes with LAST; e.g., LAST 3, LAST
10,
                etc.
                Value: 1
          Next condition of "HEMOGLOBIN A1C": [ENT]

     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

You have 3 options for listing HEMOGLOBIN A1C RESULTS =>

     1) List every RESULTS meeting search criteria.
     2) List every RESULTS and EXPANDED LAB REPORT meeting search
        criteria.
     3) List all PATIENTS with RESULTS you specified, but DO NOT list
        individual RESULTS or EXPANDED LAB REPORT (FASTEST OPTION!!)
        (Displays UNDUPLICATED list of PATIENTS)
Your choice (1-3): 1// [ENT]
```

Figure 8-5: Using Register as the Subject of a Search (steps 5–9)

A section of the resulting report displays as shown in Figure 8-6.

```
PATIENTS            DEMO   A1C        A1C DATE
                    NUMBER %
-------------------------------------------------------
PATIENT,SALLY*      100010    13.3 H     JAN 12,2023
PATIENT,BARRY       100035    10.8 H     SEP 22,2023
PATIENT,RUTH        100383    6.5        DEC 1,2018
PATIENT,MEGAN       100557    4.5        JUL 13,2019
PATIENT,BARBARA     100643    7.8 H      DEC 1,2018
PATIENT,MAXINE      100771    10.0 H     DEC 1,2018
PATIENT,DARLENE     101240    8.4 H      JUL 13,2023
PATIENT,ROSE        101599    6.0        JUL 13,2019
PATIENT,BARRY       101860    7.2 H      DEC 1,2018
```

Figure 8-6: Using Register as the subject of a search, sample report

8.2.2   Using a Template of Patients with Diabetes as an Attribute

In this example, a search will be made using the **Type 2 DM Patients** template as an attribute and a query will be made to determine which of them have not been seen in the dental clinic in the last year. To use a template of patients as an attribute, begin by identifying your search subject as LIVING PATIENTS. When you are prompted for an Attribute of the patients, type the **left bracket symbol** followed by the name of your template: **[TYPE 2 DM PTS]**. You will then be given four options related to your template. Select option **1** to indicate that the patients to be searched must be members of your template.

The following QMan examples (Figure 8-7 through Figure 8-8) will produce the list of patients who have not been seen in the Dental Clinic in the last year. User responses and instructions are in bold type.

1. Type the **subject** of your search at the **What is the subject of your search** prompt.

2. Type the **attribute** at the **Attribute** prompt.

3. Type a **number** for the selection list at the **Your Choice** prompt.

```
What is the subject of your search?  LIVING PATIENTS // [ENT]

Attribute: [TYPE 2 DM PTS
Select one of the following =>

   1) LIVING PATIENTS must be a member of the TYPE 2 DM PTS
      cohort
   2) LIVING PATIENTS must NOT be a member of the TYPE 2 DM PTS
      cohort
   3) Select a random sample of the TYPE 2 DM PTS cohort
   4) Count the number of entries in the TYPE 2 DM PTS cohort

Your choice (1-4): 1// [ENT]
```

Figure 8-7: Using a Template of Patients with Diabetes as an Attribute (steps 1-3)

4. Type an **attribute** at the next **Attribute** prompt.

5. Type the first **condition** of the attribute, **During**, at the **First Condition/Attribute of VISIT** prompt.

6. Type the **date** or the **date one year ago** at the **Exact Date** prompt.

7. Type the next **condition** at the **Next Condition/Attribute of Visit** prompt.

8. Type the **name** of the clinic, **Dental**, at the **Clinic** prompt.

9. Type the **name** of another clinic or press the **Enter** key to continue at the next **Enter Clinic** prompt.

10. Type the next **condition**, **NULL**, at the **Next Condition/Attribute of Visit** prompt. Null means that the patient has not had a dental clinic visit in the past year.

11. Type the next **condition** or press **Enter** to continue at the **Next Condition/Attribute of Visit** prompt.

12. Type the next **attribute** or press **Enter** to continue at the **Next Attribute** prompt.

13. Type the **number** for the selection of **QMan Output Options** at the **Your Choice** prompt.

```
Attribute:  VISIT
First Condition/Attribute of VISIT:   SINCE
Exact Date:  T-365
Next Condition/Attribute of VISIT:   CLINIC
Enter Clinic:  DENTAL
Enter Clinic:  [ENT]
Next Condition/Attribute of VISIT:   NULL
Next Condition/Attribute of VISIT:   [ENT]
Next Attribute:  [ENT]

* * 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
    [ETC.]

Your Choice:  DISPLAY// 1
```

Figure 8-8: Using a Template of Patients with Diabetes as an Attribute (steps 4–13)

QMan will display the patients (Figure 8-9) in your cohort who have not visited the dental clinic in the past year. A dash (**-**) in the **Visit** column indicates that no visit to the dental clinic within the designated time frame has occurred.

```
PATIENTS          DEMO  VISIT
(Alive)           NUMBER
---------------------------------------------------------------

PATIENT,RAE*      100003 -
PATIENT,SALLY*    100010 -
PATIENT,BARRY     100035 -
Total: 3
```

Figure 8-9: Using a template of patients with diabetes as an attribute, sample

9.0   Diabetes Audit

Each year since 1986, the **IHS Division of Diabetes Treatment and Prevention** has coordinated a medical records review of American Indian and Alaska Native diabetes patients from IHS, tribal, and urban (I/T/U) facilities. The Audit measures 80–90 different items, some reflecting the process of diabetes care and others reflecting diabetes outcomes. The **DA Diabetes Audit** option in the **Diabetes Management System** allows you to either partially or fully automate the process of gathering data for the **Annual Diabetes Audit**.

Refer to Appendix D for details on **DMS Audit** tools.

Additional information about the Audit is available on the **Division of Diabetes** website: https://www.ihs.gov/diabetes/audit/

10.0   Health Summary Tools for Diabetes Care

The tools described below–Diabetes Flow Sheet, Diabetes Patient Care Summary, Educational Assessment, Refusals, and DM Health Maintenance Reminders–can be included on any type of Health Summary. They are described in Section 10.1. However, it is strongly recommended that they be added to the routinely used adult health summary at your facility. At most facilities that would be the Adult Regular Health Summary or a locally developed version of the Adult Regular Summary. This recommendation is made so that these important diabetes care reminders are seen by providers at all visits, such as Diabetes Clinic, Primary Care Clinics, Specialty Clinics, Urgent Care, and Emergency Room.

10.1   Diabetes Standard Summary

A special type of health summary for patients with diabetes is available: The **Diabetes Standard Summary**. There are several ways to display the Diabetes Standard Summary for a patient with diabetes. At the main Diabetes Management System menu, select **RM Register Maintenance** and then **PM Patient Management**. In the **Patient Management** dialog, option **11** enables you to select a **Health Summary** type. When prompted for a health summary type, enter **DIABETES STANDARD**. The **Health Summary** displays on the terminal screen. This option permits the user to use the **minus**, **plus**, **up-arrow**, and **down-arrow** keys to scroll through the Health Summary or to review various items of interest.

This Health Summary is similar to the Adult Regular Summary except that it includes a Diabetes Flow Sheet at the end of the report as well as a Diabetes Patient Care Summary. The Flow Sheet contains items that have been identified for provider review at each clinic visit. In addition, the Diabetes Standard Summary includes a Diabetes Patient Care Summary that provides an overview of all IHS Diabetes Standards of Care for that patient. Both the Diabetic Flow Sheet and the Diabetes Patient Care Summary are triggered by the presence of a problem of Diabetes on the Active Problem list or a diagnosis of Diabetes in the last year by a primary provider. The Diabetes Standard Health Summary should be routinely printed by Health Records staff for all diabetes clinic visits.

An option can be set to automatically print the **Diabetes Standard Health Summary** for patients with Diabetes regardless of when or where the health summary is printed. The **Update Health Summary Site Parameters** option is included under the **Health Summary Maintenance Menu**. Instructions for setting up this feature are provided below.

1. In the **Health Summary Maintenance Menu**, select **HSSP Update Health Summary Site parameters**.

2. Identify the **name** of your facility.

3. Type **YES** at the **Auto-switch to DM Summary** prompt.

4. At the **Default DM Health Summary Type** prompt (Figure 10-1), type
    DIABETES STANDARD.

```
Select HEALTH SUMMARY SITE PARAMETERS SITE NAME: DEMO HOSPITAL [ENT]
SITE NAME: DEMO HOSPITAL// [ENT]
AUTO-SWITCH TO DM SUMMARY: YES [ENT]
DEFAULT DIABETES SUMMARY TYPE: DIABETES STANDARD [ENT]
```

Figure 10-1: Default DM Health Summary Type: Diabetes Standard

A sample Diabetes Flow Sheet is shown in Figure 10-2. Remember that only data that
has been entered into the PCC will display on the Health Summary Flow Sheet.

```
--------------- FLOW SHEETS (max 10 visits or 2 years) -----------------

DIABETES FLOW SHEET
          WT        BP          A1C      CHOL      CREAT     PROT      TRIG
-----------------------------------------------------------------------------
01/14/23  :196      :133/77     :        :         :         :         :
-----------------------------------------------------------------------------
01/12/23  :207      :104/66     :10.1     :         :         :         :
-----------------------------------------------------------------------------
10/22/22  :191      :           :12.9     :         :         :         :
-----------------------------------------------------------------------------
08/20/22  :193      :140/100    :10.9     :         :         :         :
-----------------------------------------------------------------------------
07/16/22  :194      :162/92     :        :         :         :         :
-----------------------------------------------------------------------------
06/04/22  :195      :158/92     :10.6     :         :         :         :
-----------------------------------------------------------------------------
04/16/22  :188      :173/99     :        :         :         :2        :
-----------------------------------------------------------------------------
03/05/22  :187      :136/77     :        :         :         :         :
-----------------------------------------------------------------------------
```

Figure 10-2: Diabetes Standard Summary

> **Note**: The Flow Sheet will display when a Diabetes Standard
> Health Summary is retrieved, but only for those patients
> with a diagnosis of diabetes on the PCC Problem List
> (ICD-9 codes 250.00–250.93; ICD-10 E10–13.8) or who
> have had a diagnosis of diabetes within the last year by a
> primary provider.

10.2   Diabetes Patient Care Summary

The **Diabetes Patient Care Summary** (Figure 10-3), also referred to as the **Diabetes Supplement**, provides a complete review of the patient's care in relation to the **IHS Diabetes Standards of Care**. It includes virtually all data items used by the **Diabetes Management System Audit**. It is intended to alert providers to **Diabetes Standards of Care** for which the patient is deficient each time the patient is seen, thus encouraging providers to attend to these needs prospectively during the course of the year. See Figure 10-3 for an example.

For more detail, refer to Appendix D for the logic and clinical data as it relates to the **Diabetes Audit**.

```
********** CONFIDENTIAL PATIENT INFORMATION [LB]  Oct 24, 2023 **********
DIABETES PATIENT CARE SUMMARY              Report Date:  10/24/2023


Patient: DEMO,BRENDA ANN                HRN: 101439
Age:  49 (DOB 01/16/1973)               Sex: FEMALE
CLASS/BEN: INDIAN/ALASKA NATIVE         Designated PCP:

Date of DM Diagnosis: 03/01/2019 (Problem List)
Diabetes type: (1 or 2): 2

BMI: 25.0  Last Height:        65.00 inches   10/06/2023
           Last Weight (ever): 150 lbs         10/06/2023

Tobacco Use:
   Last Screened: 10/06/2022
   Current Status: Current user CURRENT SMOKER, SOME DAY  10/06/2023
      Tobacco cessation counseling/education received in the past year:
         Yes 10/06/2022 CPT G9458

Electronic Nicotine Delivery Systems (ENDS)
   Last Screened:  Never
   Current Status:

HTN Diagnosed ever:  Yes
CVD Diagnosed ever:  No
Last 3 BP:      120/90   10/06/2023

ACE Inhibitor or ARB prescribed (in past 6 months): No
Aspirin or Other Anti-platelet/Anticoagulant prescribed (past 6 months):
   Yes  10/06/2022 ASPIRIN 325MG EC
Statin prescribed (in past 6 months):  No

Exams (in past 12 months):
   Foot:   Yes  10/06/2023 CPT: G0245
   Eye:    Yes  10/06/2022 Diabetic Eye Exam
   Dental: No

Depression:
   Screened in past year:  Yes - DX: Z13.32 10/06/2023
   Active diagnosis in past year: No

Immunizations:
   Influenza vaccine (since August 1st): Yes  10/06/2023
   Pneumococcal [PCV15, PCV20, or PPSV23] (ever): Yes  02/02/2023
```

```
      Td/Tdap/DTAP/DT (in past 10 yrs):      Yes  10/06/2022
      Tdap (ever):                           Yes  10/06/2022
      Hepatitis B complete series (ever):    No
      Shingrix/RZV complete series (ever):   No

  Tuberculosis (TB):
      TB diagnosis (latent or active) documented ever: No
      Last Documented TB Test: Skin test (PPD) 09/30/2022
        TB Test Result: Positive 9/30/22 Reading: 30 Result: P
      TB Treatment initiated (isoniazid, rifampin, rifapentine, others):
        No

  Hepatitis C (HCV)
      Diagnosed with HCV ever: No
      Screened for HCV ever: No

  Retinopathy Diagnosed (ever): No

  Amputation
      Lower extremity (ever), any type (e.g., toe, partial foot, above or
      below knee):  No

  Laboratory Results (most recent):                    RPMS LAB TEST NAME
      A1C:                  8.234           10/06/2022 HA1C-DEHR
      Next most recent A1C:

      Serum Creatinine:
      eGFR:
      UACR:

      Total Cholesterol:   220              10/06/2023 TOTAL CHOLESTEROL
      LDL Cholesterol:     100              10/06/2023 LDL CHOLESTEROL
      HDL Cholesterol:     45               10/06/2023 HDL CHOLESTEROL (R)
      Triglycerides:       120              10/06/2023 TRIGLYCERIDE (R)

  Education Provided (in past yr):
    Last Dietitian Visit (ever):
      DM-EXERCISE                 10/06/2022
      DM-NUTRITION                10/06/2022

  DEMO,BRENDA ANN                     DOB: 1/16/1973     Chart #DB 101439
```

Figure 10-3: Diabetes Patient Care Summary

Normally the **Patient Care Summary** prints after the Flow Sheet on the **Diabetes Standard Health Summary**. In the **Patient Management** dialog, the option **12 DM Care Summary (DPCS)** allows the user to display the DPCS to the terminal. This option permits the user to use the **minus**, **plus**, **up-arrow**, and **down-arrow** keys to scroll through the DPCS or to return to review various items. Some facilities choose to print these for each patient with diabetes prior to a clinic appointment and highlight overdue items as a reminder for the provider seeing the patient.

10.3   Prediabetes Patient Care Summary

The Prediabetes Patient Care Summary was updated in the BDM v2.0 p17. It must be added under health summary maintenance as a supplement type to any health summaries that are routinely used at your health care facility. Printing of this supplement is triggered by a diagnosis of Prediabetes, Impaired Fasting Glucose, or Impaired Glucose Tolerance on the active problem list or made by a primary care provider in the past year. It will not print if the patient has a diagnosis of diabetes on the active problem list or a primary provider has used a diagnosis of diabetes in the past year. This supplement was designed as a tool for displaying those data items that are important in following patients who may be predisposed to developing diabetes. An example of a Prediabetes Patient Care Summary is provided in Figure 10-4.

```
********** CONFIDENTIAL PATIENT INFORMATION [LAB]  Nov 07, 2023 **********
PREDIABETES PATIENT CARE SUMMARY                    Report Date:  Nov 07, 2023

Patient: DEMOPATIENT,CHARLES                                    HRN: 142692
Age:  29 (DOB 11/23/1993)              Birth Sex: MALE
CLASS/BEN: INDIAN/ALASKA NATIVE        Designated PCP: NURSE,BARBARA A R N

Diagnosis
 Problem List (Date of Diagnosis)
  Impaired Fasting Glucose    (Date of Onset not recorded)
  Prediabetes                 (Feb 01, 2023)

 Diagnosis first recorded in PCC (Used as POV):
  Impaired Fasting Glucose    Mar 02, 2020
  Prediabetes                 Aug 04, 2023

BMI: 27.1  Last Height:        72.00 inches   08/04/2023
           Last Weight (ever): 200 lbs        08/04/2023

Tobacco Use:
    Last Screened: 08/04/2023
    Current Status: Current user CURRENT SMOKER, SOME DAY  08/04/2023
      Tobacco cessation counseling/education received in the past year:
        Yes 08/04/2023 TO-QT

HTN Diagnosed ever:  No
Last 3 BP:      120/76   08/04/2023
(non ER)        130/88   12/05/2022
                108/65   05/01/2012

Statin prescribed (in past 6 months):  No

Laboratory Results (most recent):                    RPMS LAB TEST NAME
 A1C:                        6.2 %      08/04/2023 _HEMOGLOBIN A1C
 Next most recent A1C:       5.6 %      03/02/2020 _HEMOGLOBIN A1C
 Last Fasting Glucose:       110 mg/dL  08/04/2023 GLUCOSE (CCDA)
 Last 75 GM 2 hour Glucose:  150        08/04/2023 _SQL
Glucose,Imp.GTT.2 Hr
 Quantitative UACR:          15 mg/g    08/04/2023 ..ALBUMIN/CREATININE

 Total Cholesterol:          200 mg/dL  08/04/2023 CHOLESTEROL (POCT)
 LDL Cholesterol:            90 mg/dL   08/04/2023 LDL CHOLESTEROL
```

```
 HDL Cholesterol:                50 mg/dL    08/04/2023 HDL CHOLESTEROL
 Triglycerides:                 300 mg/dL    08/04/2023 TRIGLYCERIDE (POCT)


Education Provided (in past yr):
  Last Dietitian Visit (ever):
   DM-DISEASE PROCESS               09/27/2023
   DM-MEDICAL NUTRITION THERAPY   12/05/2022  CHASE,RENEE           MD
   DM-NUTRITION                     09/27/2023

DEMO,CHARLES           DOB: 11/23/1993     Chart #TST 142692
```

Figure 10-4: Prediabetes Patient Care Summary

10.4   Other Health Summary Components

There are four other health summary components that may be useful for diabetes care:

- **Patient Refusals**–Groups all refusals of services.

- **Educational Assessment**–Displays the health factors for Learning Preference, Barriers to Learning, and Readiness to Learn. These are required data elements for the IHS Patient Education program.

- **Medications**–Displays medications for the patient.

- **Laboratory Data**–Displays lab tests and results for the patient.

These components may be added using the **Create/Modify a Summary Type** menu option under **Health Summary Maintenance**. A segment of a health summary showing these components is displayed in Figure 10-5.

```
------------------------ EDUCATIONAL ASSESSMENT ------------------
Most recent Health Factor recorded.
Learning Preference:  LEARNING PREFERENCE-VIDEO  Sep 09, 2022
Readiness to Learn:  READINESS TO LEARN-UNRECEPTIVE  Sep 09, 2022
Barriers to Learning:  BARRIERS TO LEARNING-NO BARRIERS  Sep 09, 2022
---------- PATIENT REFUSALS FOR SERVICE (max 10 visits or 2 years) ----------

   Jun 23, 2022  SCREENING MAMMOGRAM   (RADIOLOGY EXAM)
     Refusal Type:  REFUSED SERVICE
   Jun 22, 2022  ECG SUMMARY   (EKG)
     Refusal Type:  REFUSED SERVICE

*** END  CONFIDENTIAL PATIENT INFORMATION -- 6/28/2022  2:07 PM  [CMI] ******
```

Figure 10-5: Educational Assessment and Refusals of Service Components

Appendix A   Bulletin System for Notification of Newly Diagnosed Patients

The **RPMS MailMan** system can be used to generate bulletins to members of a Diabetes Team, so that newly diagnosed diabetic patients, those with new complications, those with abnormal fasting glucose values, or those with abnormal 2-hour glucose tolerance test results are not lost to follow-up. The bulletins are added automatically to the facility Bulletin file during installation of the **PCC Management Reports Package**. Refer to the **PCC Management Reports** documentation to add them manually, if they are not available.

The bulletins are:

- APCL DIABETES REG COMPLICATION

- APCL DIABETES REG NEW CASE

- APCL IFG NOTIFICATION

> **Note:** You must have Fasting Glucose lab tests added as members to the DM AUDIT FASTING GLUCOSE lab test taxonomy.

- APCL IGT NOTIFICATION

> **Note:** You must have the 2-Hr Post 75 Gm Glucose test added as a member to the DM AUDIT 75GM 2HR GLUCOSE lab test taxonomy.

Seek assistance from your local IT staff if you do not have FileMan security to set up a new **Mail Group**, **Add Members**, and add that Mail Group to the **PCC Management Reports Bulletins**.

It is currently recommended that only the bulletins for patients newly diagnosed with Diabetes, IGT, or IFG be set up. If the complications on the complication list have been appropriately linked to **ICD-9** or **ICD-10** codes, the patients on the Diabetes Register will automatically be updated with their complications via provider POV recording and data entry coding.

A Mail Group for the Diabetes Team (Figure A-1) may already exist on your system. If not, one may be set up as follows:

```
VA Fileman Version 21.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: MAIL GROUP//
EDIT WHICH FIELD: ALL//
Select MAIL GROUP NAME: DIABETES TEAM
Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 17TH)? No// Y  (Yes)
    MAIL GROUP COORDINATOR: USER,DAVID K          DKR
Select MEMBER: USER,BETTY         BM
  Are you adding 'USER,BETTY' as a new MEMBER (the 1ST for this MAIL GROUP)? No// Y
(Yes)
Select MEMBER: USER,DAVID K
Are you adding 'USER,DAVID' as a new MEMBER (the 2ND for this MAIL GROUP)? No// Y
(Yes)
DESCRIPTION:
  No existing text
  Edit? NO//Y
==[ WRAP ]==[ INSERT ]=====< DESCRIPTION >======[ <PF1>H=Help ]====
THIS GROUP RECEIVES BULLETINS FOR NEWLY DIAGNOSED DIABETICS AND THOSE WITH NEW
COMPLICATIONS.

TYPE: PRIVATE
ORGANIZER: USER,DAVID K
COORDINATOR: USER,DAVID K
Select AUTHORIZED SENDER:
ALLOW SELF ENROLLMENT?: NO
REFERENCE COUNT:
LAST REFERENCED:
RESTRICTIONS: 0
```

Figure A-1: Setting up a mail group for the Diabetes Team

Additional entries to the mail group may be made for remote members outside the
local facility but will require assistance from the IHS National Mailman Coordinator.

Once the mail group and members have been defined, all that remains is assigning
this mail group (Figure A-2) to the desired APCL Bulletins:

```
VA Fileman Version 21.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: BULLETIN
EDIT WHICH FIELD: ALL// [ENT]


Select BULLETIN NAME: APCL
     1   APCL DIABETES REG COMPLICATION
     2   APCL DIABETES REG NEW CASE
CHOOSE 1-2: 2  APCL DIABETES REG NEW CASE
NAME: APCL DIABETES REG NEW CASE  Replace
SUBJECT: DM NEW CASE// [ENT]
Select MAIL GROUP: DIABETES TEAM
Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 1ST for this BULLETIN)
? No// Y
Select MAIL GROUP:
DESCRIPTION:
This bulletin will be sent to diabetes control officer when a patient is seen for
the first time for a dm diagnosis

  Edit? NO//
MESSAGE:. . .
       . . .
was seen on |3| at |15|
with the following diagnosis:
     ICD10 Code: |1|  ICD Description: |8|
     Provider Stated: |4|
 This is the first time that this patient has been seen for the
diabetes diagnosis listed above. This patient/visit may require
your follow-up. Please review the patient's medical record at your
earliest convenience for further information.

  Edit? NO// [ENT]
```

Figure A-2: Assigning a mail group to the desired APCL Bulletins

Repeat the process for the bulletins APCL DIABETES REG COMPLICATION, APCL IFG NOTIFICATION, and APCL IGT NOTIFICATION.

To be sure that the bulletin system works correctly, add a new diabetic complication as a Purpose of Visit to a DEMO, PATIENT in your facility database. If the Mail Groups and Bulletins have been set up correctly, you should see, within a few minutes of entering the complication as a Purpose of Visit, a notice that you have a new mail message when signing on to RPMS.

Appendix B   Word Processing Commands

This appendix lists the commands used in the ScreenMan word processing fields. These commands can be accessed at any time in the word processing screen by pressing **F1**(**PF1** on some keyboards) followed by the **H** key.

B.1   Summary of Key Sequences

Navigation

```
   Incremental movement            Arrow keys
   One word left and right         <Ctrl-J> and <Ctrl-L>
   Next tab stop to the right      <Tab>
   Jump left and right             <PF1><Left> and <PF1><Right>
   Beginning and end of line       <PF1><PF1><Left> and <PF1><PF1><Right>
   Screen up or down               <PF1><Up> and <PF1><Down>
                                       or:  <PrevScr> and <NextScr>
                                       or:  <PageUp>  and <PageDown>
   Top or bottom of document       <PF1>T and <PF1>B
   Go to a specific location       <PF1>G
```

Figure B-1: Navigation Options

Exiting/Saving Options

```
   Exit and save text              <PF1>E
   Quit without saving             <PF1>Q
   Exit, save, and switch editors  <PF1>A
   Save without exiting            <PF1>S
```

Figure B-2: Exiting/Saving

Deleting

```
   Character before cursor         <Backspace>
   Character at cursor             <PF4>  or  <Remove>  or  <Delete>
   From cursor to end of word      <Ctrl-W>
   From cursor to end of line      <PF1><PF2>
   Entire line                     <PF1>D
```

Figure B-3: Deleting Options

Settings/Modes

```
   Wrap/nowrap mode toggle         <PF2>
   Insert/replace mode toggle      <PF3>
   Set/clear tab stop              <PF1><Tab>
   Set left margin                 <PF1>,
   Set right margin                <PF1>.
   Status line toggle              <PF1>?
```

Figure B-4: Settings/Modes Options

Formatting

```
    Join current line to next line   <PF1>J
    Reformat paragraph               <PF1>R
```

Figure B-5: Formatting Options

Finding

```
    Find text                        <PF1>F  or  <Find>
    Find next occurrence of text     <PF1>N
    Find/Replace text                <PF1>P
```

Figure B-6: Finding Options

Cutting, Copying, and Pasting

```
    Select (Mark) text               <PF1>M at beginning and end of text
    Unselect (Unmark) text           <PF1><PF1>M
    Delete selected text             <Delete> or <Backspace> on selected text
    Cut and save to buffer           <PF1>X on selected text
    Copy and save to buffer          <PF1>C on selected text
    Paste from buffer                <PF1>V
    Move text to another location    <PF1>X at new location
    Copy text to another location    <PF1>C at new location
```

Figure B-7: Cutting, Copying, and Pasting Options

Appendix C   Visual DMS

A graphical user interface (GUI) or Windows-based version is available for the **Diabetes Management System (DMS)** software. The GUI version of the software contains most of the existing functionality of the traditional **Roll and Scroll RPMS** application, including patient management, register maintenance, running reports, and running the **Diabetes Audit**.

To avoid redundancy, this Appendix only includes the steps for using the **Visual DMS** and does not include background information, such as how to use the patient management list manager, set up taxonomies, add or delete users, or run reports. This information is included in other sections of this manual.

C.1   Getting Started

1. After the **DMS GUI** is installed, a shortcut will appear on the **Windows desktop** that is labeled **Visual DMS** (Figure C-1). Double-click that icon to open the **DMS GUI**.
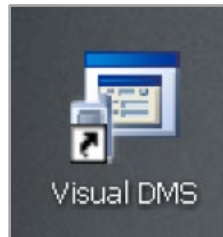
Figure C-1: Visual DMS shortcut

2. The program window (Figure C-2) will display briefly before you are prompted to enter an **RPMS** server and **port**.

Figure C-2: Visual DMS splash window

3. On the **RPMS** server address dialog (Figure C-3), select the server you want to connect to from the list and enter your access and verify codes. Click **OK**.

> **Note:** This information will be saved and will not need to be changed unless you select a different server.

Figure C-3: Visual DMS Login dialog

4. If you are a multidivisional site, the following dialog will display. Select the appropriate **division** (Figure C-4) from the list displayed.
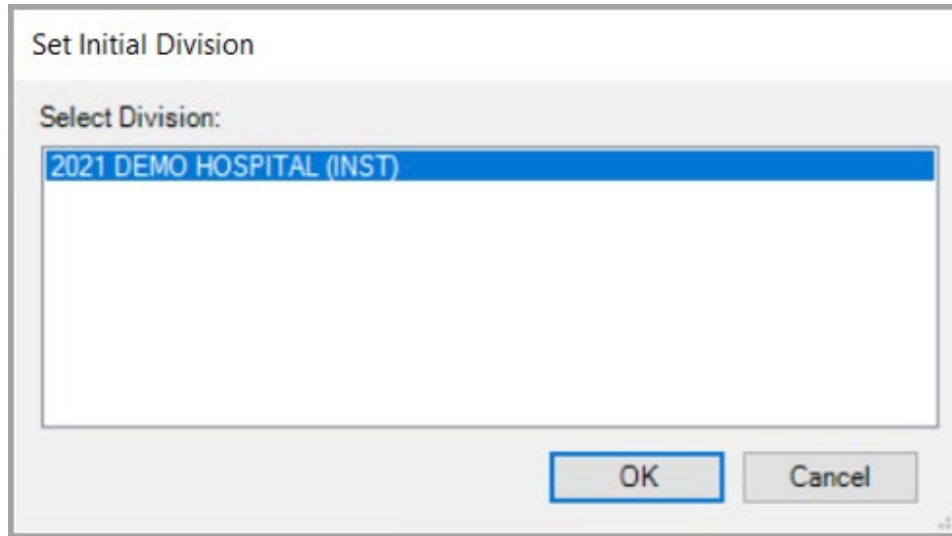
Figure C-4: Select Initial Division dialog

5. A list of **Registers** for which you are an authorized user displays. Select the **Register Name** (Figure C-5) that you want to use.

Figure C-5: Select Register list dialog

6. The **Visual DMS** window (Figure: C-6) opens and displays the main menu.
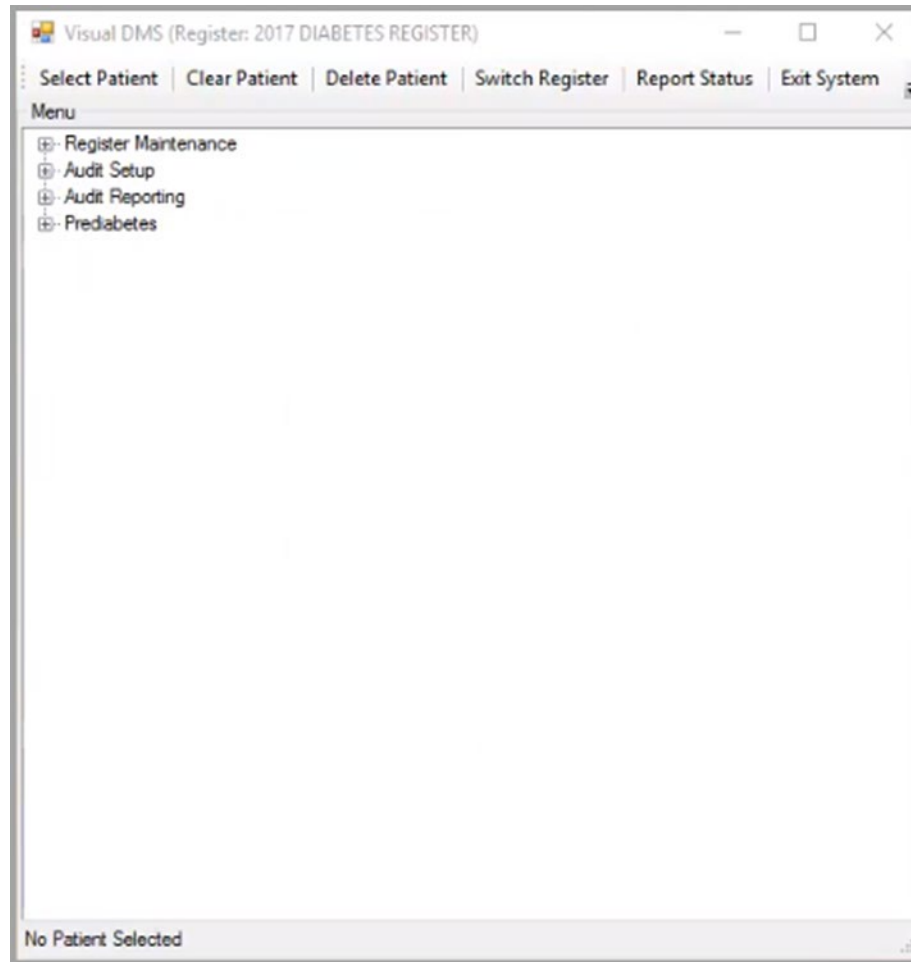
Figure: C-6: Visual DMS main menu dialog

7. Select a **Register** to begin using either the listed options or select from the toolbar at the top of the window.

    The name of the **Register** that you are currently using displays in the title bar of the window.

    The window can be enlarged by either clicking on the box in the upper right corner of the screen or using the mouse to resize. To use the mouse, point it at the lower right-corner of the screen, hold down the left mouse button, and drag to resize the window.

    A plus sign (+) in a box preceding a menu item indicates more menu options in that category. Display the options by clicking the plus sign.

C.2   Toolbar Options

There are seven toolbar options and four main menu options. The seven toolbar options are described in the following sections.

C.2.1   Select Patient

1. Click the **Select Patient** button to select a patient and use any of the **Patient Management** options. Patients can be identified by:

   - **Last Name**

   - **First Name**

   - **Date of Birth**

   - **SSN**

   - **Chart Number**

2. Click the **Display** button or press **Enter** to view a list of matching patients (Figure C-7). If the list is too long to display on a single page, use the scroll bar or click the **More** button to view additional names.

3. Select a **name** in the list to select a patient.

Figure C-7: Select Patient dialog

If you select a patient who is not currently a member of the Register, you will be asked if you want to add the patient to the Register.

4. Click **Yes** to add the patient.

If you click the **Select Patient** toolbar button while working on another patient, a warning box will ask if you want to switch patients.

5. Click **Yes** to switch or **No** to continue working with the same patient.

The **Register** with which you are currently working always displays in the title bar at the top of the window (Figure C-8). If you have a patient currently selected, their identifying information is displayed in the gray bar at the bottom of the window.
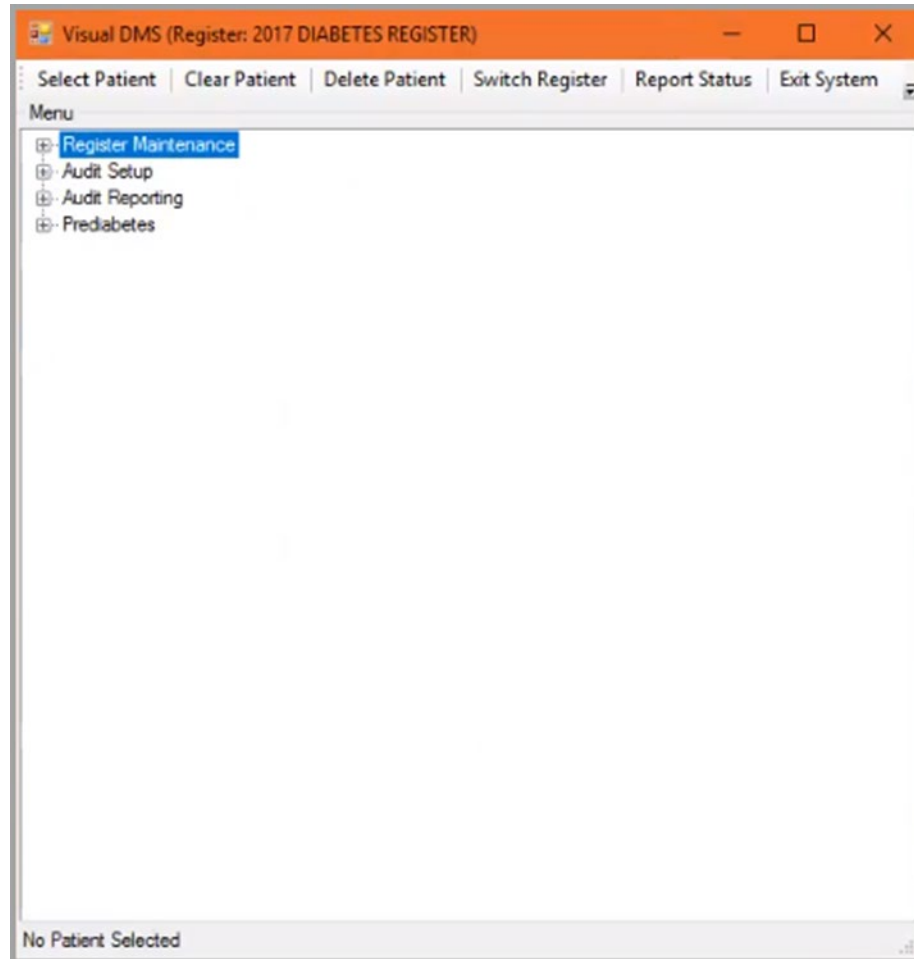
Figure C-8: Visual DMS with patient selected dialog

C.2.2   Delete Patient

To delete a patient from the Register, click the **Delete Patient** option. If you click this option while working with a patient (the name displayed at bottom of the window), the program will assume that you want to delete this patient. Click **Yes** to delete this patient.

If no patient is selected and you click the **Delete Patient** option, you will be prompted to identify the patient you want to delete (patient's Last Name, First Name, Chart Number, or Date of Birth). Select the patient to immediately delete the record from the **Register**.

> **Warning:** Deletion is *FINAL*. Any Register data associated with this patient will be deleted as well.

C.2.3   Switch Register

If you are an authorized user of other **Registers**, click this toolbar option to switch to another **Register**. Select the **Register Name** you want to view from the displayed list.

C.2.4   Report Status

Click the **Report Status** button to display any reports that are currently running or that have been completed. You can select a report name to automatically open it in Microsoft Word. Reports can be printed or saved as with any other Word document. If a report is no longer needed, delete it by selecting the check box in front of the report and then clicking the **Delete** button on the toolbar.

C.2.5   Exit System

Clicking the **Exit System** button on the toolbar, will result in the display of a pop-up that displays: **Are You Sure You Want to Exit?**. Click **Yes** or **No** as appropriate. Click the **X** in the upper-right corner of the window to exit.

C.2.6   Help

Click the **Help** button on the toolbar to display the online help. Help is also available on each applicable form.

C.2.7   About

Click the **About** button on the toolbar to display the current version of **Visual DMS**. Click **OK** to close the window.

C.3   Menu Options

There are three main menu options in **Visual DMS** (Figure C-9) that correspond to the traditional **RPMS Diabetes Management System** menu options. These options will be explained in the following sections.
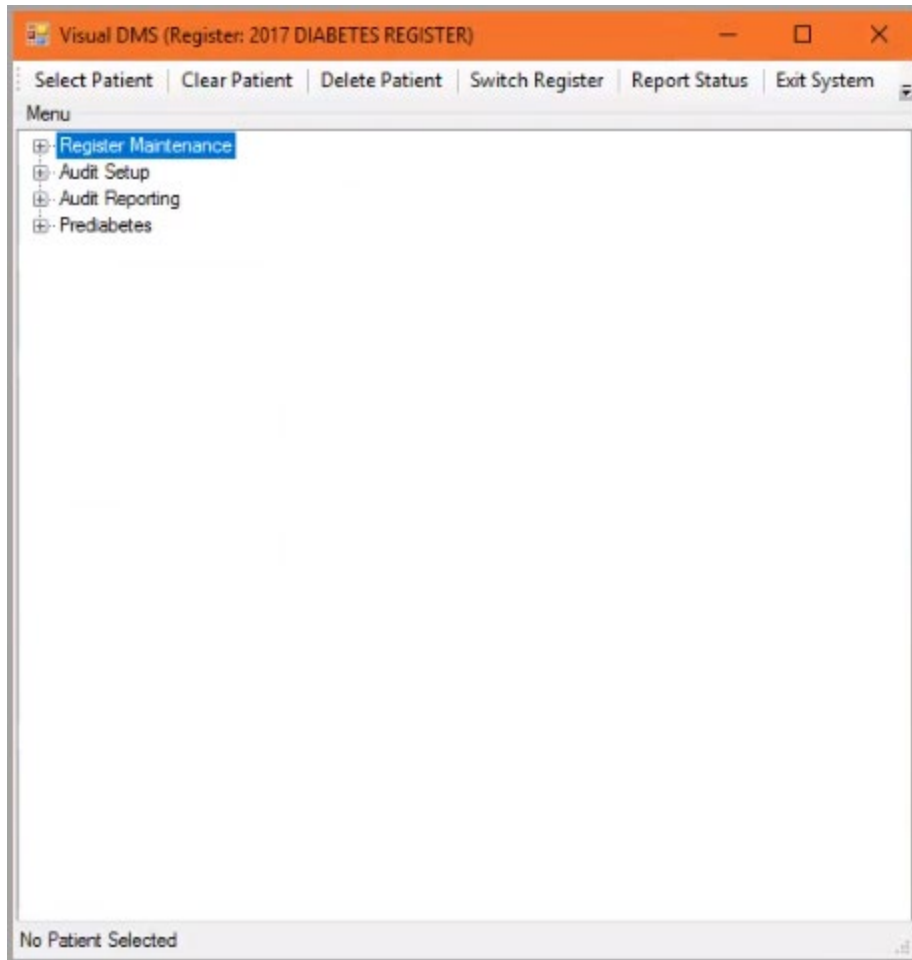
Figure C-9: Visual DMS main menu dialog

C.3.1   Register Maintenance

1. Open the **Register Maintenance Menu** by clicking the plus sign (**+**) in front of **Register Maintenance**.

2. A submenu (Figure C-10) with the following options displays: **Register Management**, **Patient Management**, **Update Patient Data**, **Add Patients from Template**, and **Register Reports**. These options correspond to the same menu options in RPMS.
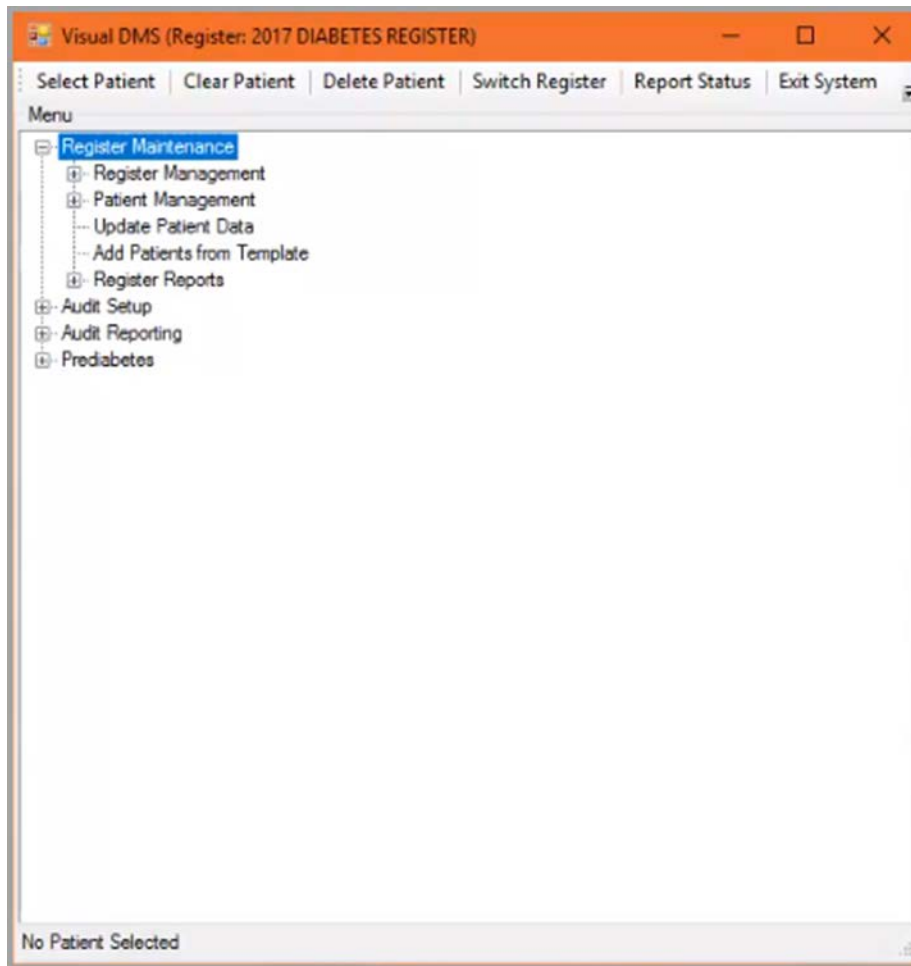
Figure C-10: Register Maintenance Menu option dialog

3. The **Patient Management** options are disabled until a patient is selected using the **Select Patient** option on the toolbar. The selected patient's name will display in the gray bar at the bottom of the window.

   Menu options will be described separately in their own section.

4. When finished with the **Register Maintenance Menu**, click the **minus sign (-)** in front of **Register Maintenance** to close the menu.

C.3.1.1   Register Management

Click the **plus sign (+)** in front of **Register Management** to expand this menu (Figure C-11). The only available option is **User Setup**.
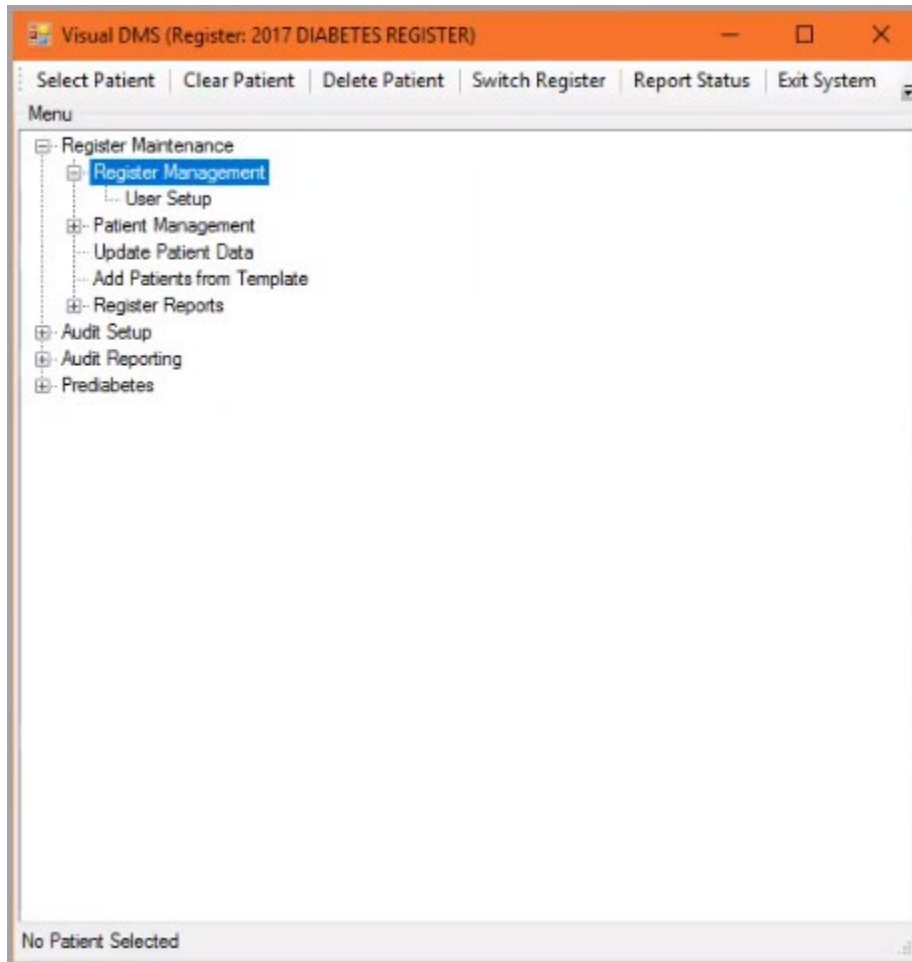
Figure C-11: Register Management menu option dialog

C.3.1.2   User Setup

Click **User Setup** to review current authorized users (Figure C-12) of the **Register** and update the user list.
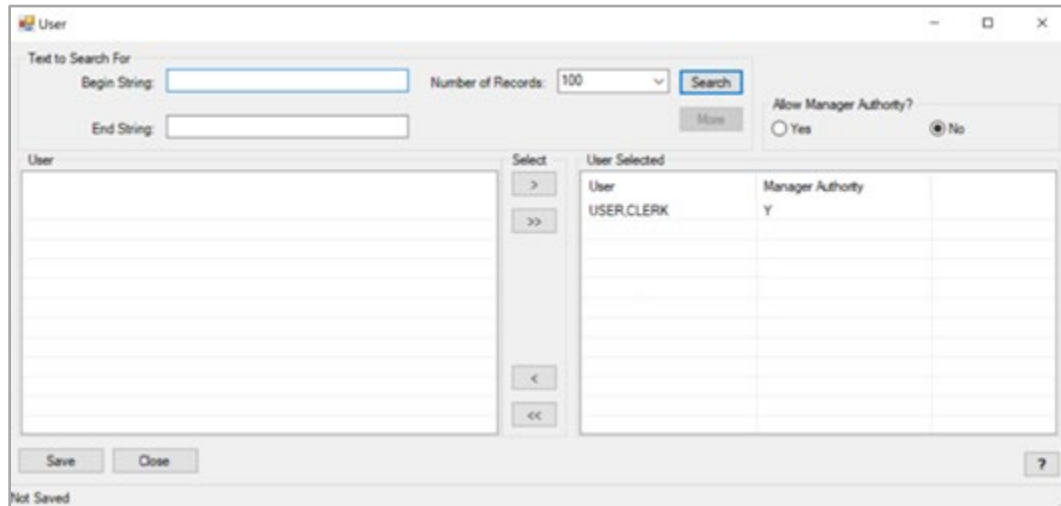
Figure C-12: User Selection dialog

Current users of the **Register** will be listed in the **User Selected** list. Those who have Manager authority will have a **Y** in the **Manager Authority** column.

1. If additional authorized users are to be added to the **Register**, type the first few letters of that user's last name in the **Begin String** box. A list of matching entries displays.

    -   Either click and drag a user's name from the **User** list to the **User Selected** list or select the user and click the **right arrow (>)** to move them into the **User** list.

    -   If user(s) are to be removed from the **User Selected** list, either drag their name back to the **User** list or select their name and click the **left arrow (<)**.

2. If a user is to be given manager authority, click the **Yes** button under **Allow Manager Authority?**, and then click the **user's name**. Manager authority may be removed in a similar manner, by clicking the **No** button under **Allow Manager Authority?** And then click the **name(s) of user(s)** who will not be allowed manager authority.

3. When the list of authorized users has been updated, click the **Save** button to save changes. Close the **User** window.

C.3.2   Patient Management

Click the **plus sign (+)** next to **Patient Management** to open the **Patient Management** menu (Figure C-13).
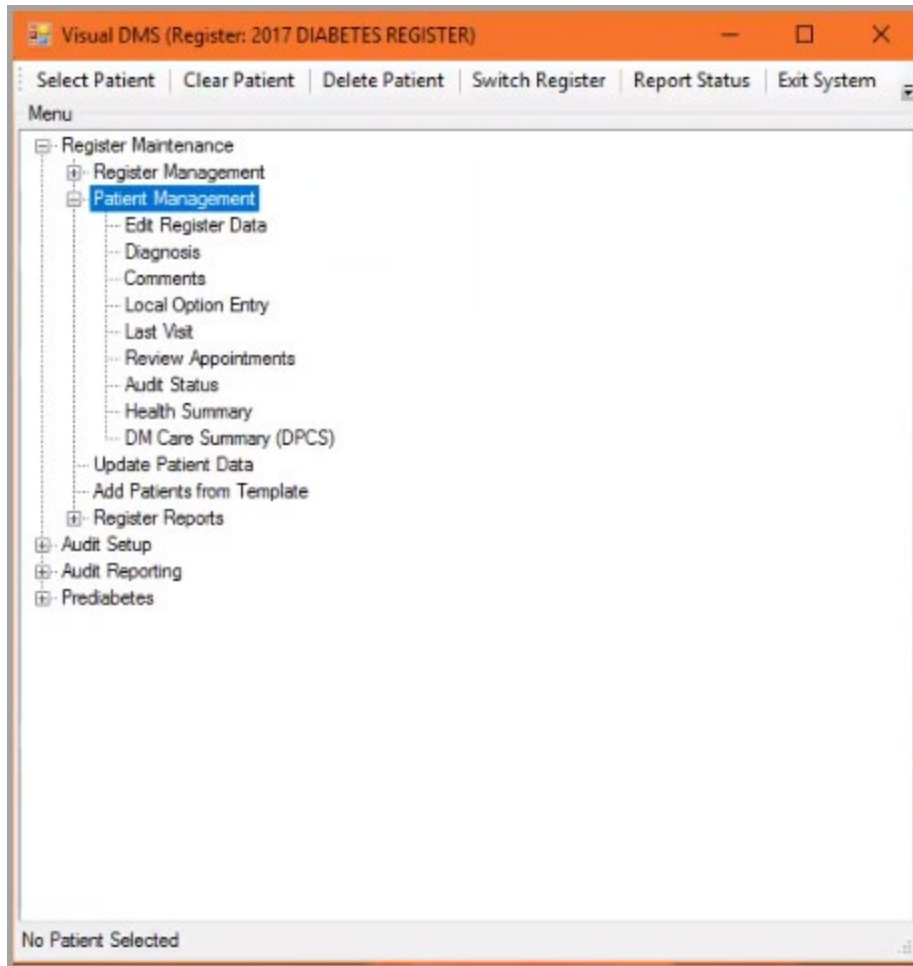
Figure C-13: Patient Management options dialog

C.3.2.1   Edit Register Data

1. Use the **Patient Profile** dialog (Figure C-14) to change **Register Status**, **Where Followed**, **Case Manager**, **Contact**, **Last Review**, and **Next Review Date**.

Figure C-14: Patient Profile dialog

2. Change **date fields**, as needed, by clicking the **date** (month, day, or year) and using the **up** or **down arrows** to change the month, date, or year.

   - The date and year can also be changed by typing the desired new date or year to replace the one displayed.

   - Alternatively, click the **arrow** to open a calendar and browse to a date by scrolling, using the **right** and **left arrows**. Click a **date** on the calendar to select it.

3. The **Contact** field is a free-text field in which to enter patient contact information.

4. Click the **Select** button to the right of the field **Case Manager** to display a list. Browse the list to find the desired entry and select it.

5. The **Where Followed** field requires a match on the name of a facility. Type the first few letters of the facility name in the **Begin String** box and click **Search**.

6. Click the **name** of the facility where the patient is followed.

7. When all data entry is complete, click **Save** to exit. Then click the **X** in the upper right corner of the window to close the **Patient Profile** dialog and stop editing the register data.

C.3.2.2   Diagnosis

Click the **Diagnosis** menu option to open the **Diagnosis** dialog.

If your site also utilizes **Certified EHR (Electronic Health Record)** and the **Integrated Problem List (IPL)** (Figure C-15), the diagnoses entered here with date of onset should also be entered into the IPL, so that all clinicians will be aware of the diagnoses.

Figure C-15: Diagnosis dialog

1. To add a new diagnosis, select a **Diagnosis** from the list.

2. Select the severity from the **Severity** list and enter an **Onset Date**.

3. Click **Add** to add it to the **Diagnosis List** box.

4. To delete a diagnosis, select the **check box** next to it and click the **Delete Checked Items** button.

5. Click **Yes** to proceed at the **Delete Diagnosis Confirmation** dialog (Figure C-16) or click the **X** in the upper-right corner to close it.
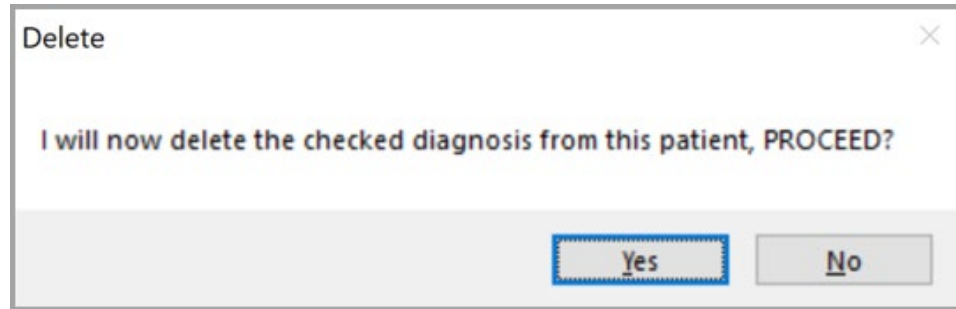
Figure C-16: Delete Diagnosis Confirmation dialog

C.3.2.3   Comments

1. Enter **case comments** by clicking the **Comments** option. The **Additional Comments** dialog (Figure C-17) displays.

2. Enter any **comments** in the free-text field and click **Save** when the entry is complete. The **Not Saved** text in the gray bar at the bottom of the window is replaced by **Saved**.

3. Close the dialog by clicking the **X** in the window's upper-right corner or click **Close**.
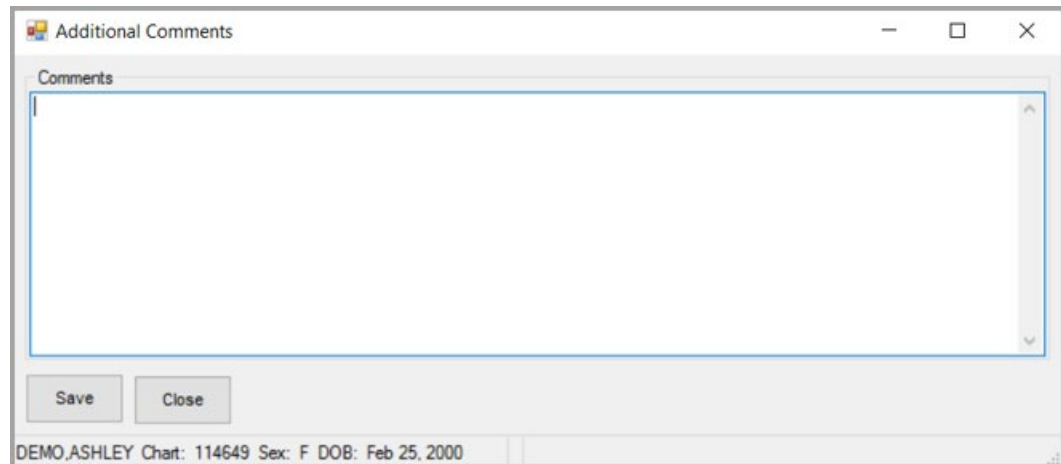
Figure C-17: Additional Comments dialog

C.3.2.4   Local Option Entry

1. Click the **Local Option Entry** menu option to open the **Local Option Entry** dialog.

2. Enter the **DM Audit Local Option** code and text click **OK** to save.

3. Click **Close** or close the dialog to exit the **Local Option Entry** form (Figure C-18).
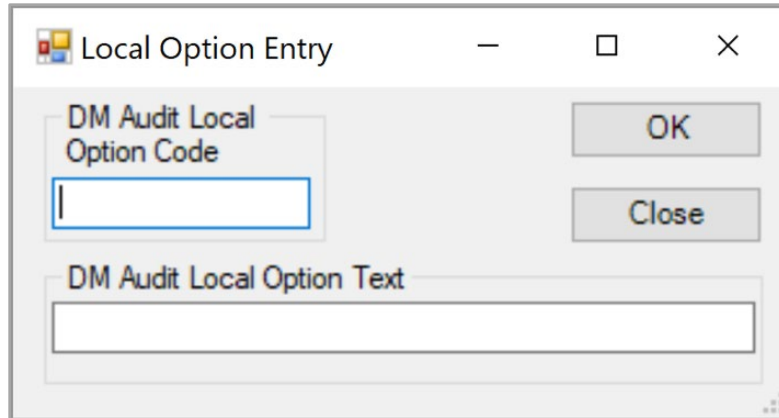
Figure C-18: Local Option Entry dialog

C.3.2.5   Last Visit

1. Display the patient's last visit by clicking the **Last Visit** menu option.

   The visit record (Figure C-19) will open in Microsoft Word. Users can browse or print the visit record, as needed.

2. When the record review is complete, close the Word window by clicking the **X** in the upper-right corner.
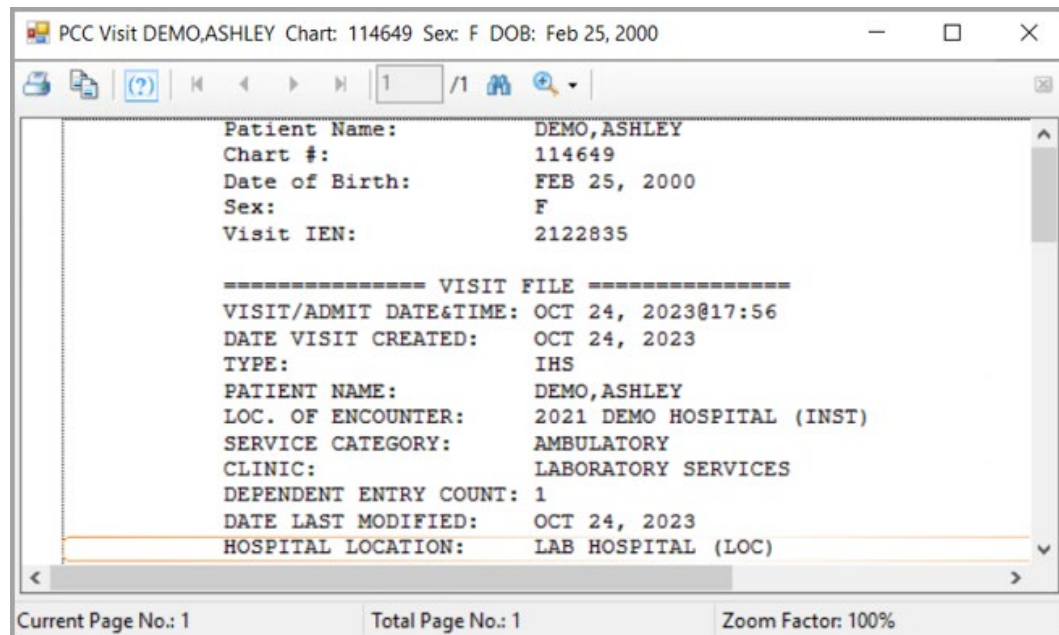
Figure C-19: Last Visit display window

C.3.2.6   Review Appointments

1. Click the **Review Appointments** menu option to display a list of scheduled appointments (Figure C-20) for the selected patient.

    - This list will only include appointments made in the **IHS Scheduling** or **PIMS Scheduling** modules.

    - The list will display in a **Crystal Reports** document. The user can browse or print the list as needed.

2. Close the **Crystal Reports** document by clicking the **X** in the upper-right corner when the review is complete.
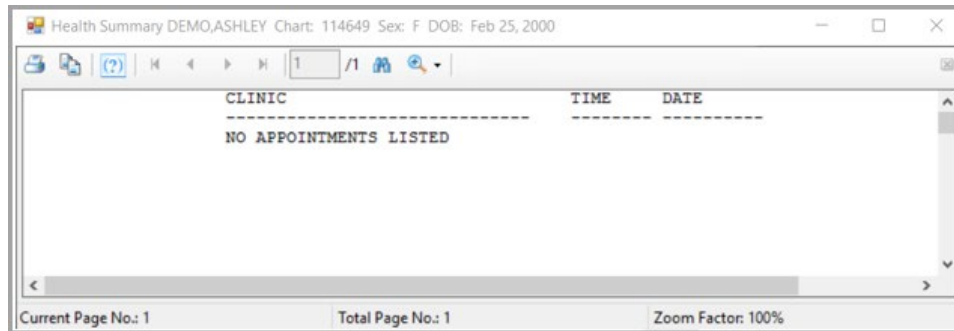
Figure C-20: Review appointments window

C.3.2.7   Audit Status

1. Click the **Audit Status** menu option to display the **Audit Status** dialog (Figure C-21).

Figure C-21: DM Audit dialog

2. When the window for setting the **Audit** options opens, use the calendar to select the **Audit** date or change it by typing in a new day, month, and/or year in the date box.

3. When entries are complete, click the **Print** button. The **Audit** will display in a **Crystal Reports** document (Figure C-22).

4. Browse or print the **Audit**, as needed.

5. When the review is complete, close the **Crystal Reports** document by clicking the **X** in the upper right corner.

```
IHS Diabetes Care and Outcomes Audit, 2024    DATE RUN: 12/04/2023   Page: 1

Audit Period Ending Date: 12/04/2023    Facility Name: 2021 DEMO HOSPITAL (INST
Reviewer initials: AP                    Community: LAKE HAVSU C
State of Residence: NM
Chart #: 136938
DOB: 09/02/1955    Birth Sex: FEMALE
Primary Care Provider:  DEMO,DOCTOR A MD

    Date of Diabetes Diagnosis:
      DM Register: <not documented>  Problem List: 03/01/2007
      First PCC DX: 10/06/2007
    DM Type: 2  Type 2
      DM Register: <not documented>  Problem List: E11.9
        PCC POV's: Type 2

    Tobacco/Nicotine Use (during Audit period)
        Screened for tobacco use: 1  Yes
          If screened, tobacco user: 1  Yes CURRENT SMOKER, SOME DAY  04/03/2023
            If screened and current user, tobacco cessation counseling/education
            received: 1  Yes 04/03/2023 TO-QT

      Electronic Nicotine Delivery Systems (ENDS)
          Screened for ENDS use: 1  Yes 04/03/2023 NEVER USED ANY E-CIGARETTE
            If screened, ENDS use: 2  Not a current user 04/03/2023

    Vital Statistics

      Height (last ever): 56.00 inches 04/03/2023
      Weight (last in Audit period): 165 lbs 04/03/2023     BMI:  37.0

      Hypertension (documented diagnosis ever): 1  Yes
      Blood pressure (last 3 during Audit period): 140/88 mm Hg 05/04/2023
                                                   150/90 mm Hg 04/03/2023

    Examinations (during Audit period)
      Foot (comprehensive or "complete", including evaluation of
      sensation and vascular status):        1  Yes  04/03/2023 Diabetic Foot Exam
      Eye (dilated exam or retinal imaging): 2  No
      Dental:                                1  Yes  02/09/2023 Dental Exam

    Depression
      Screened for depression (during Audit period):
              1  Yes - Exam: DEPRESSION SCR 04/03/2023
      Depression active diagnosis (during Audit period):  2  No

    Education (during Audit period)
      Nutrition:                     2  Yes (Non RD) NRD: DM-N 04/03/2023
      Physical activity:             2  No
      Other diabetes:                1  Yes DM-C  04/03/2023
```

Figure C-22: Individual Audit window

C.3.2.8   Health Summary

1. Click the **Health Summary** menu option to open **Health Summary** window (Figure C-23).

2. Click the **arrow** next to **Health Summary Type** to display the available choices.
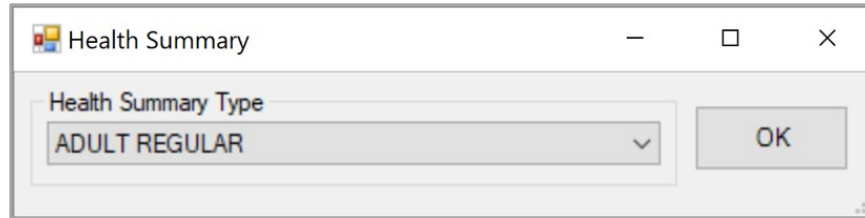
Figure C-23: Health Summary dialog

3. Select a **health summary type** and click **OK**.

   The health summary (Figure C-24) displays in **Crystal Reports**. Browse or print the health summary as needed.

4. Click the **X** in the upper right corner to close the **Health Summary** dialog.
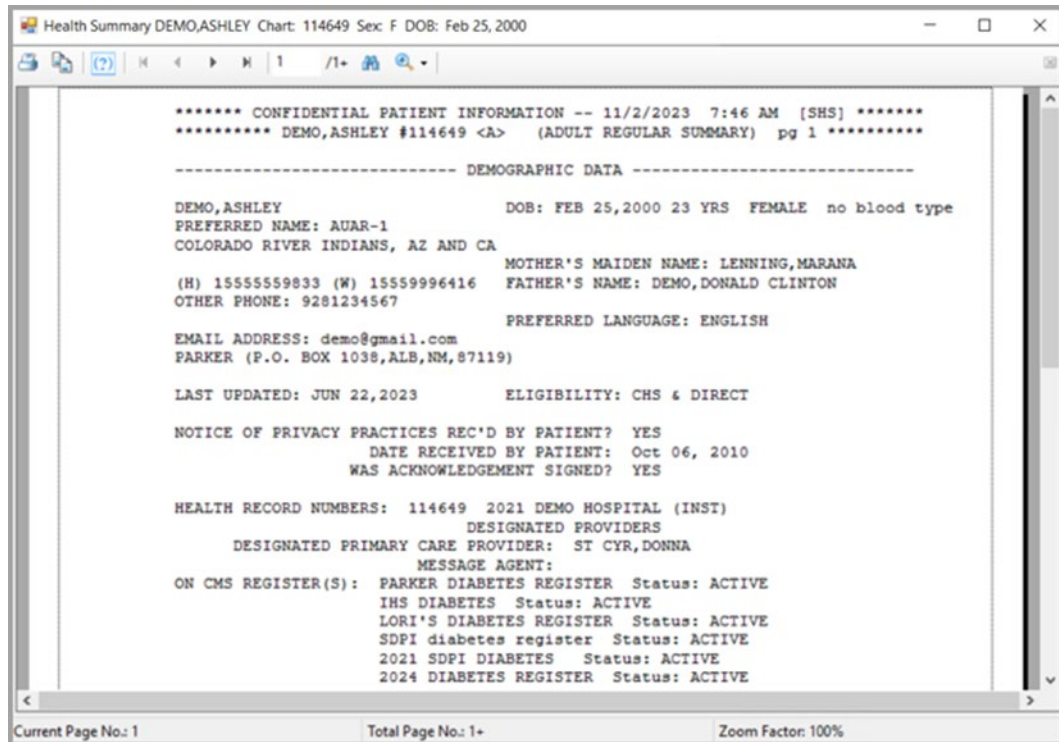
Figure C-24: Health Summary display window

C.3.2.9   DM Care Summary (DPCS)

1. Click the **Diabetes Care Summary** (**DPCS**) menu item to open **Diabetes Care Summary** (**DPCS**).

   A **Crystal Reports** document (Figure C-25) will open, displaying the summary.

2. Click the **X** in the upper-right corner to close the **Crystal Reports** document.
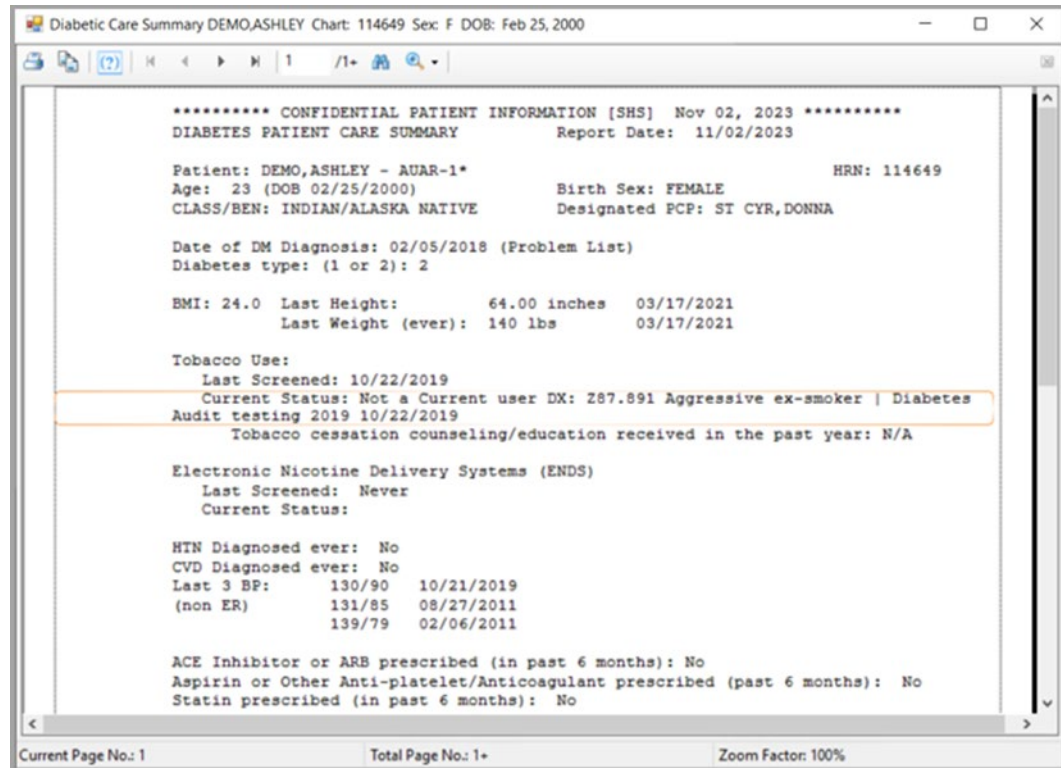
Figure C-25: DM Care Summary display window

C.3.3   Update Patient Data

1. Click the **Update Patient Data** menu option. The **Update Patient Data** dialog (Figure C-26) displays.

2. Update the applicable information on the **Diabetes Patient Data Update** form.

3. Select the **Education Topics**, **Labs**, **Meds**, **Imms**, **Health Factors**, or **Refusals** button from the toolbar to update the data for these items.

Figure C-26: Update Patient Data dialog

4. Once you have updated the **Diabetes Patient Data Update** form and any of the selectable items, click the **Save** button on the toolbar to save all items.

5. Click the **Education Topics** button to update **Education Topics**. (Figure C-27).
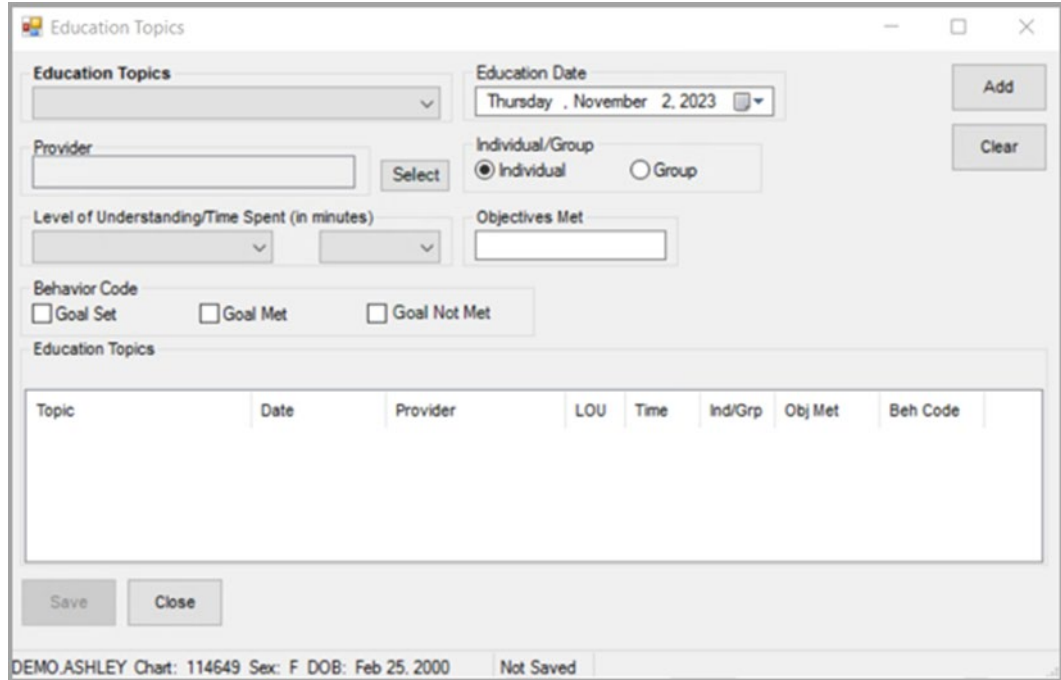
Figure C-27: Education Topics dialog

6. Select the appropriate **Education Topic**, and complete any other needed information, click **Save**.

7. Click the **Labs** button to update **Labs** (Figure C-28).
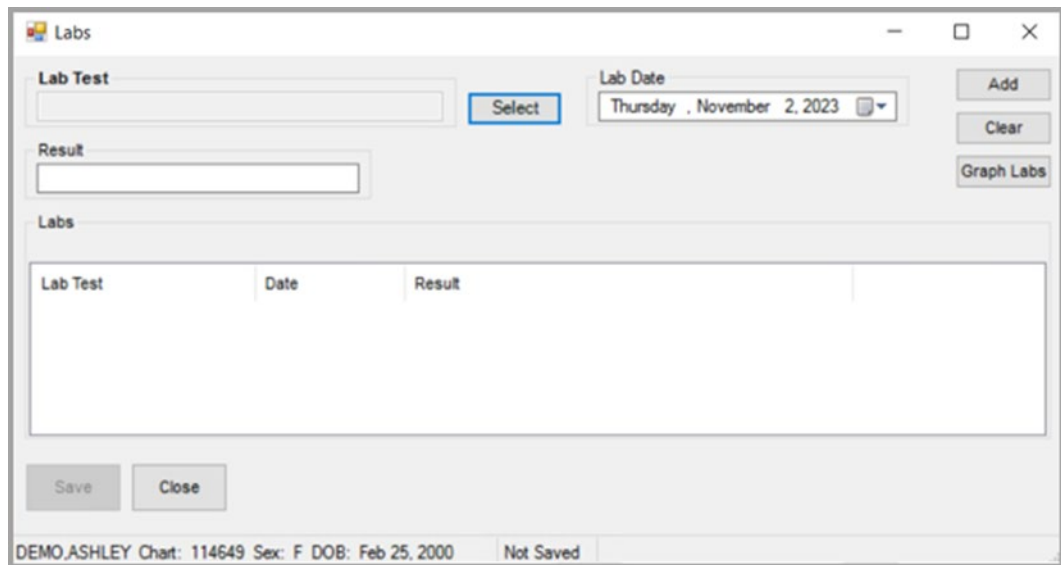
Figure C-28: Labs dialog

8. Click the **Select** button to select a **Lab Test**. Once you select a **Lab Test**, enter the result.

9. Click the **Add** button to add it to the list and repeat this process for additional labs.

10. When all desired labs have been entered, click **Save**.

11. Click the **Meds** button to update **Meds** (Figure C-29).

Figure C-29: Medications dialog

12. Click the **Select** button to select a **Medication**. Once you select a **Medication**, then enter the **Quantity** and **SIG**.

   a. Click the **Add** button to add it to the list and repeat this process for additional Medications.

   b. When all desired **Medications** have been entered, click **Save.**

13. Click the **Imms** button to update **Immunizations** (Figure C-30).
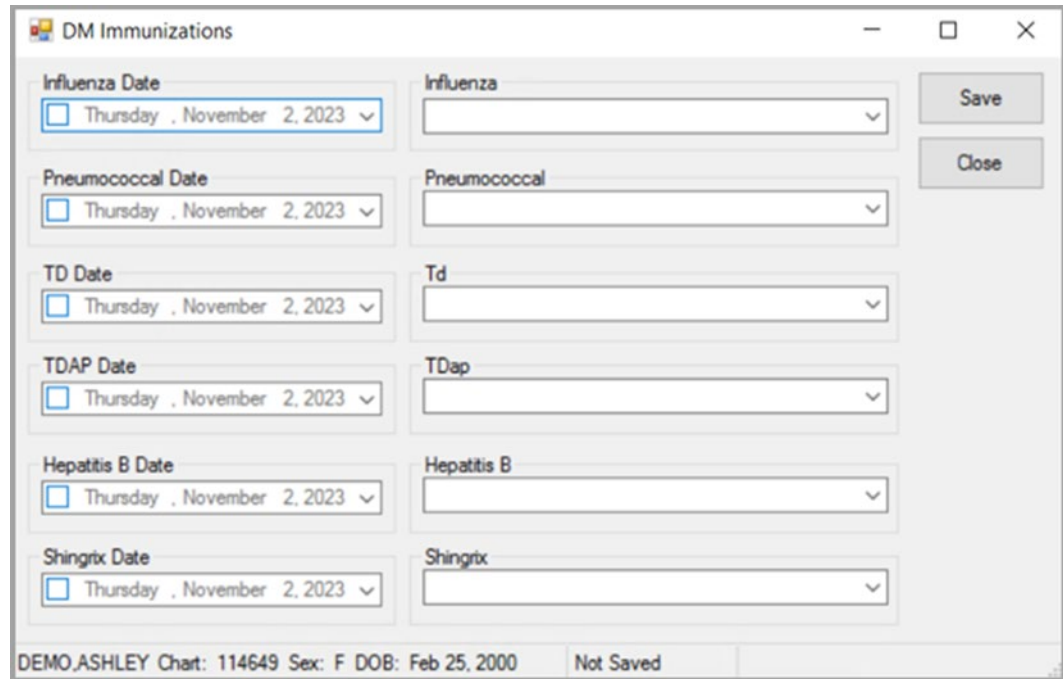
Figure C-30: DM Immunizations dialog

14. Update the **Immunizations** and click **Save**.

15. Click the **Health Factors** button to update **Health Factors** (Figure C-31).
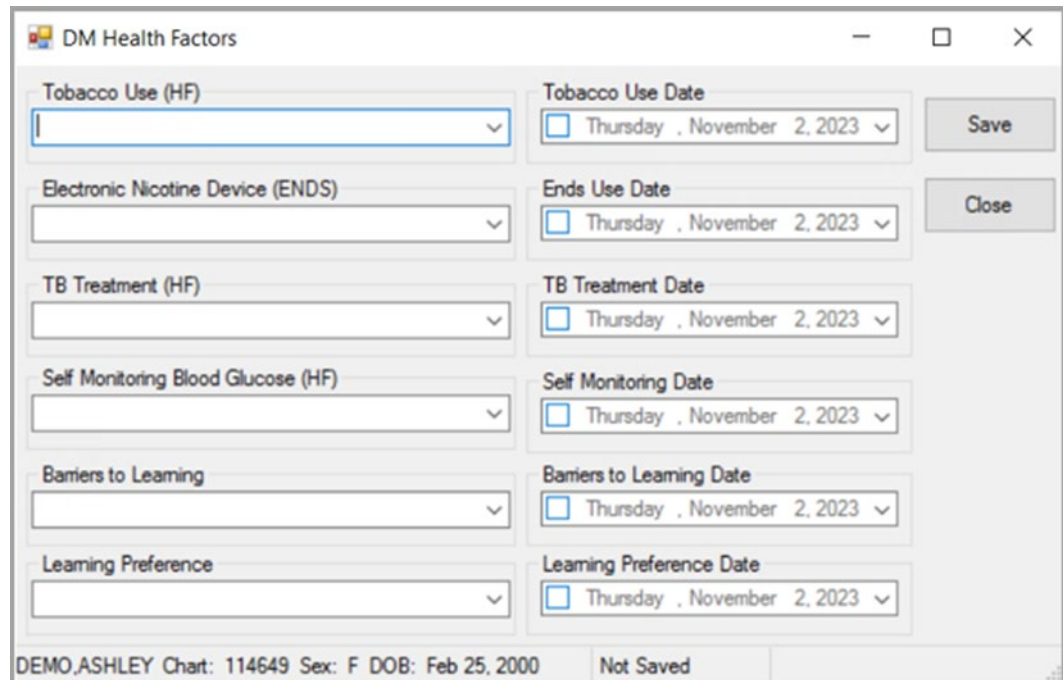
Figure C-31: DM Health Factors dialog

16. Update the **Health Factors** and click **Save.**

17. Click the **Refusals** button to update **Refusals** (Figure C-32).

Figure C-32: Refusals/Not Medically Indicated dialog

18. Use the dropdown menu to select a **Type of Refusal**.

19. Once you have selected the **Type of Refusal**, select the item refused and enter the **Refusal Reason.**

20. Click the **Add** button to add it to the list; once it is added, you can repeat the process for additional **Refusals**.

21. Once all desired refusals have been entered, click **Save**.

C.3.4   Add Patients from Template

1. Click the **Add Patients from Template** menu option, if you have a template of patients that you want to add to the **Register**.

Figure C-33: Search Template dialog

2. Click the **arrow** next to the **Search Template** (Figure C-33) check box to view a list of available templates.

3. Select the desired template and click **OK**.

A pop-up window displays indicating if the patients have been added successfully.

4. Click **OK** to close the pop-up window.

C.3.5   Register Reports

Click the **plus sign (+)** in front of **Register Reports** to display the **Register Reports** options (Figure C-34). No patient needs to be selected to run reports.
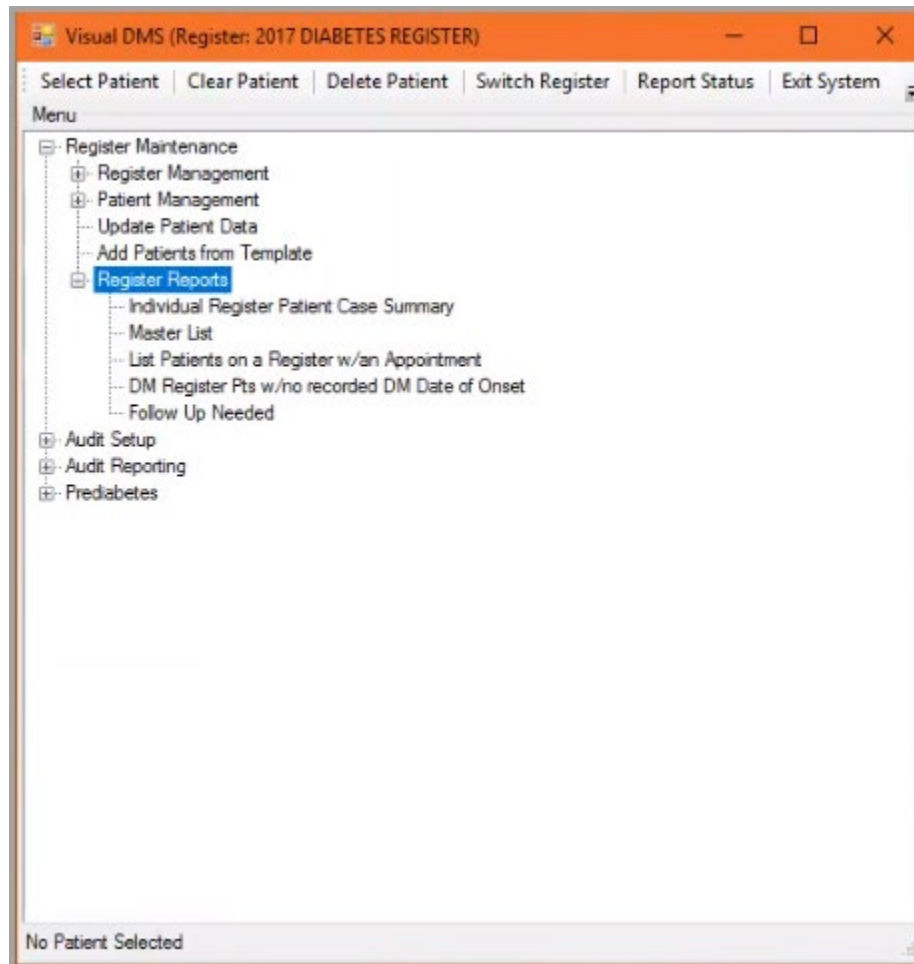
Figure C-34: Register Reports menu options dialog

C.3.5.1   Individual Register Patient Case Summary

1. To review the **Individual Case Summary**, click the **Individual Register Patient Case Summary** menu (Figure C-35) option.

    The case summary will display as a Microsoft Word document that the user can browse or print.

2. Close the document when the review is complete.
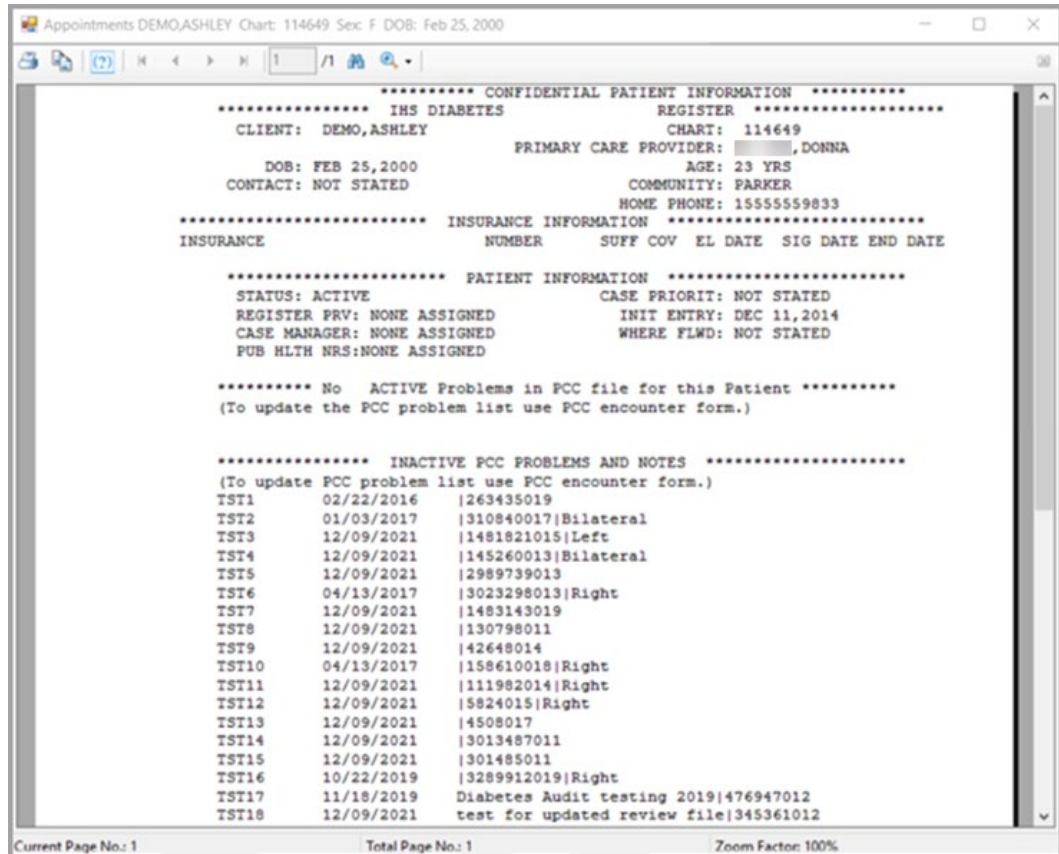
Figure C-35: Individual Register Case Summary

C.3.5.2   Master List

Figure C-36: Master List parameters dialog

1. Click the **Master List** menu item to open the **Master List** dialog (Figure C-36).

2. Select the **Register Name** from the list and specify any other parameters you would like to use.

3. Click **Queue** to queue the report.

4. Once the report is queued to run, click the **Report Status** option (Figure C-37) on the main window toolbar to review the report progress.

Figure C-37: Report Status Check window

5. Select a **report** to review it.

The report will display in a **Crystal Reports** document that the user can save or print.

6. When review of the report is complete, close the **Crystal Reports** document by clicking the **X** in the upper right corner.

   If a report is no longer needed, select the check box to the right of the report name. Then, click the **Delete Checked Items** option on the toolbar to delete all checked reports.

C.3.5.3   List Patients on a Register w/an Appointment

This report will allow you to print a list of patients on a Register with appointments within a specified date range in all or in selected clinics.

1. Begin by clicking the **List Patients on a Register w/an Appointment** menu option.

2. When the **List Patients on Register with An Appointment** window (Figure C-38) opens, click the **down arrow** next to the **Register Name** box to display a list of **Registers**.

3. Select the desired **Register** for the report.

Figure C-38: List Patients on Register with an Appointment window

4. Click the **down arrow** next to the **Appointment Begin Date** or **Appointment End Date** to select a date. The month, day, or year may be changed by clicking on each and using the **up** or **down arrows** to set the date.

5. If you want to see all appointments, regardless of clinic, select **Any** under **Select a Clinic**. If you want to only review appointments for one or more particular clinics, click the **Select Clinic** button.

    a. Type the first three letters of the clinic with a scheduled appointment in the beginning string box.

    b. When the list of matching clinics displays, the desired clinic may be highlighted and dragged into the column on the right. You may also highlight the clinic and click the **right arrow (>)** button to move the clinic into the right column.

    c. When all desired clinics have been added to the **Clinic Selected List**, click the **Save** button.

6. Click the **Queue** button to run the report. A pop-up window will notify you that the report has been queued.

7. Close the pop-up window by clicking the **X** in the upper right corner.

8. The report status can be checked by clicking the **Report Status** button on the toolbar. See Section C.3.5.2 for complete instructions.

C.3.5.4　DM Register Pts w/no Recorded DM Date of Onset

This report identifies patients on the **Register** who do not have a date of onset of diabetes recorded in RPMS.

1. Begin by clicking the menu option, **DM Register Pts with No Recorded DM Onset** (Figure C-39). A window will display that allows selection of the **Register** to be reviewed and identify, if necessary, the status of the patients who will be reviewed for the report.

Figure C-39: DM Patients with No Date of Onset dialog

2. Click the **arrow** next to **Register Name**. Select a **Register Name** from the list displayed.

3. Click **Yes** or **No** in the **Select a Status** box.

4. Use the **arrow** next to the **Patient Status** box to display the list of statuses. Click to select the desired status.

5. Click the **Queue** button to run the report. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper-right corner.

6. The report status can be checked by clicking the **Report Status** button on the toolbar. See Section C.3.5.2 for complete instructions.

C.3.5.5   Follow Up Needed

This option will allow the user to generate a report of patients that are due now or within the next 30 days for specific diabetes care needs.

1. Begin by clicking the **Follow up Needed** menu option. The **Follow Up Report** dialog displays (Figure C-40).

Figure C-40: Follow Up Report dialog

2. Identify which follow-up report is needed. Either highlight the option in the **Report Types** list and click the **arrow** to move it to the **Reports Type Selected** box or drag it from the list on the left to the list on the right.

3. Determine whether the report will be run for members of your **Register** or for a preselected group of patients stored in a search template. If **Search Template** is chosen, use the list of search templates to identify the desired search template of patients for the report.

4. Select the **Patient Status** for the report.

5. Select the **Diabetes Diagnosis** for the report.

6. If you are using the **IHS Scheduling Package** or **PIMS**, determine whether you want to see a list of appointments for patients on the report by selecting **Yes** or **No** in the **Include Patient Appointments** box.

7. If you want to see scheduled appointments, indicate the beginning and end dates using the calendars. Click the **arrow** to change the month or day or use the **up-** and **down-arrow** keys.

8. The report may be printed by **Community**, **Primary Provider**, or **Where Followed**. Make your selection by using the **arrow** next to the **Print by** box and clicking the desired selection.

   - If **Print By Community** is selected, you may choose all or individual communities.

   - If **Selected Communities** is chosen, a window will open where the first few letters of the desired community may be chosen by typing them in the **Begin String** box (Figure C-41).

9. Click the **right-arrow (>)** button to move the desired community into the **Communities Selected** box. This process may be repeated as many times as necessary to identify all communities to be included in the report.

10. When all communities have been selected, click the **Save** button. Close the **Community** window.
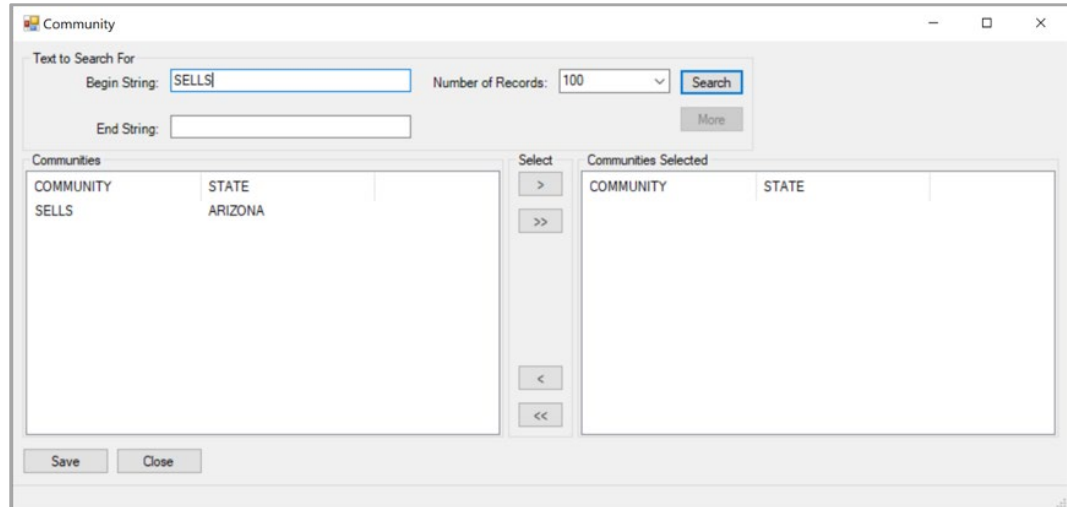
Figure C-41: Community dialog

11. Click the **box** next to **Type of Report** to select the **Follow Up Report**.

12. Select **the Report Run Date/Time** from the calendar.

13. When all desired options have been selected, click the **Queue** button to initiate the report generation.

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

C.3.6   Audit Setup

Click the **plus sign (+)** next to the **Audit Setup Menu** option (Figure C-42) to open the submenu.
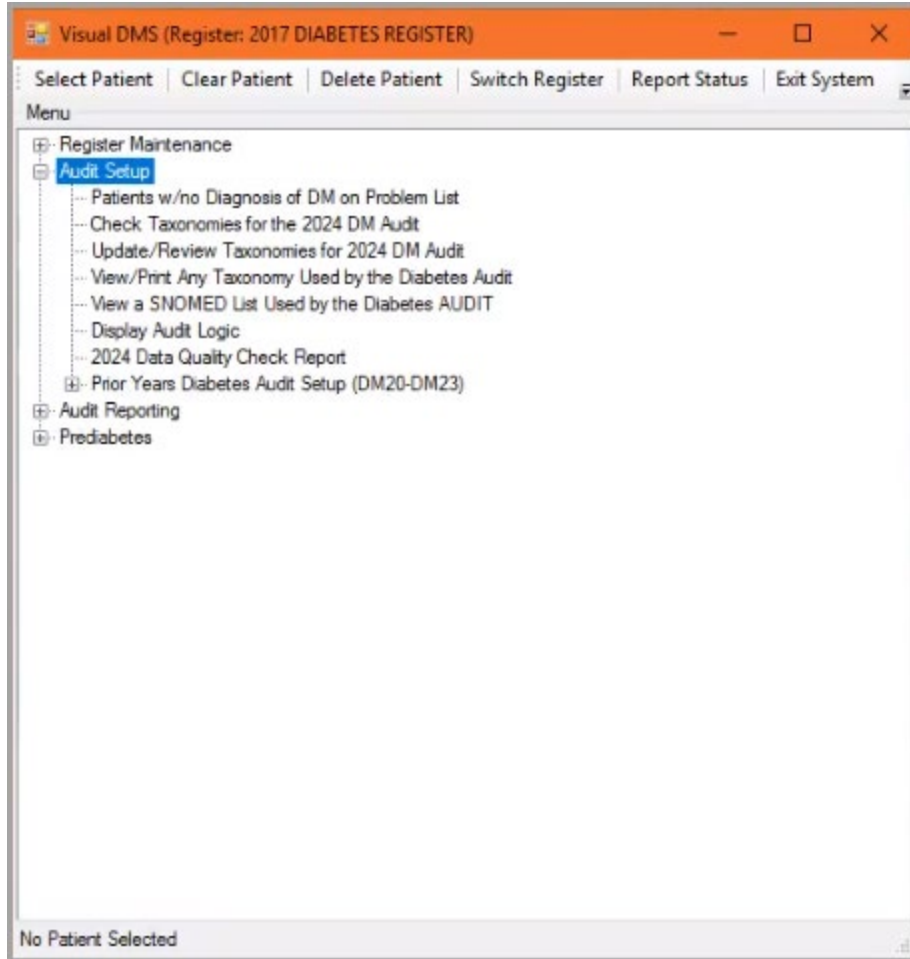
Figure C-42: Audit Setup options dialog

C.3.6.1   Patients w/no Diagnosis of DM on Problem List

This report identifies patients who do not have a diagnosis of diabetes on their problem list but are on your register or have a certain number of diabetes diagnosis codes.

1. Click the **Patients with No DX of DM on Problem List** menu option (Figure C-43).

    A window opens that allows you to define the report criteria.

Figure C-43: DM Patients with No DX of DM on Problem List menu

2. Click either **Those who are members of a Register** or **Those with N Diabetes Diagnoses**. **N** refers to the number of diabetes diagnoses a patient has had.

3. If you select **Those with N Diabetes Diagnoses**, you will need to select the **Number of Dx**. If you select **Those who are members of a Register**, you will need to select a **Register Name**.

4. To restrict your list to only those patients whose most recent diabetes diagnosis is since a certain date, click the **down arrow** next to the **Restrict to Recent Diabetes DX?** to select a date.

5. Select the **desired date** of how far back you want to look at diagnoses. You can also select the **month**, **date**, or **year** and use the **up** or **down arrows** to change those entries.

6. When your selections are completed, click the **Queue** button. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper right corner.

7. You can check the report status by clicking on the **Report Status** button on the toolbar.

C.3.6.2   Check Taxonomies for the 2024 DM Audit

1. Click the **Check Taxonomies for the 2024 DM Audit** menu option (Figure C-44) to determine whether any taxonomies have not been populated. The result of the taxonomy check will display in a result box.

2. Close the box by clicking the **X** in the upper-right corner.
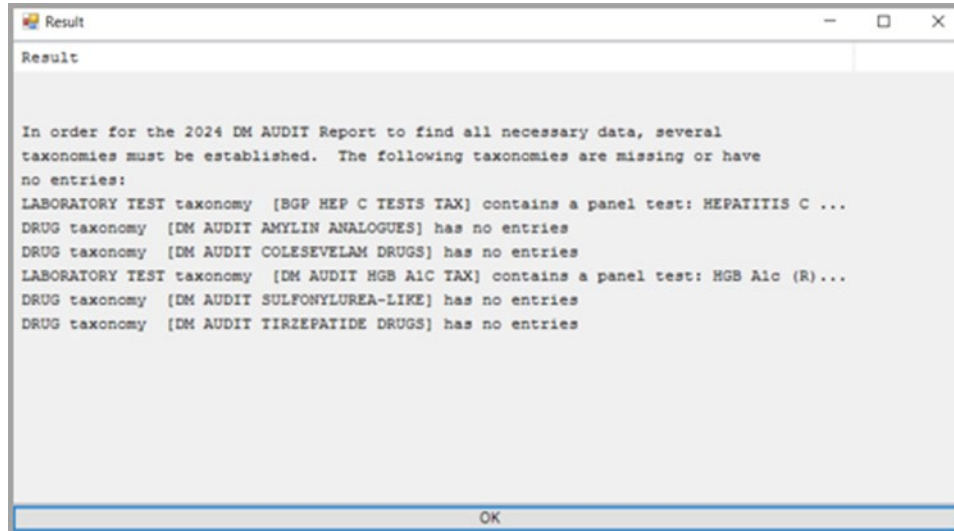
Figure C-44: Check Taxonomies for the 2024 DM Audit window

C.3.6.3   Update/Review Taxonomies for 2024 DM Audit

1. Click the menu option, **Update/Review Taxonomies for 2024 DM Audit** dialog (Figure C-45) to open the taxonomy update window.
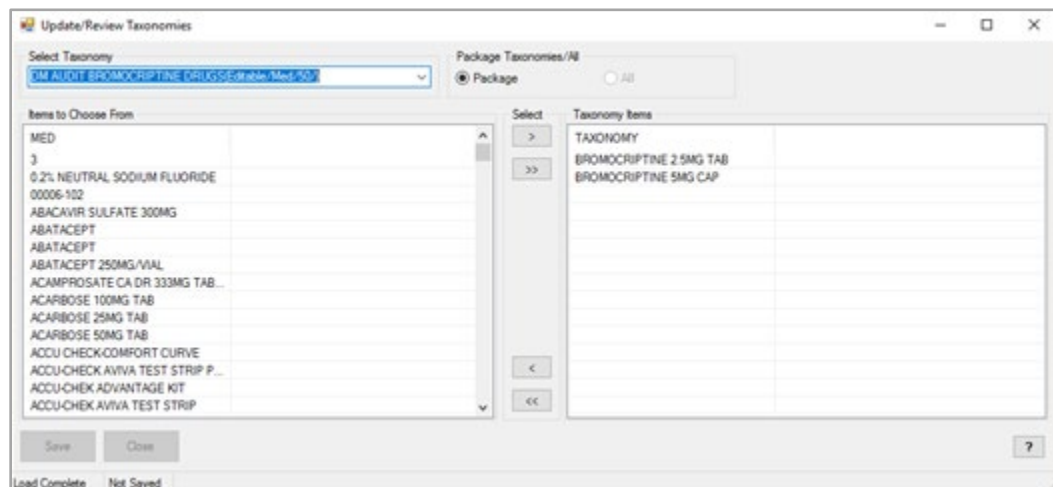
Figure C-45: Update/Review Taxonomies for 2024 DM Audit dialog

2. Select a **taxonomy** that you want to update from the list.

3. Select the items you want in the taxonomy from the left column titled **Items to Choose From** and click the **right-arrow (>)** button to move them to the **Taxonomy Items** column on the right, click **Save**.

4. To remove an item from the taxonomy, select the item(s) to remove in the **Taxonomy Items List View** and click the **left-arrow (<)** button to remove them. Click **Save**.

5. Click **Close** or the **X** to exit.

C.3.6.4   View/Print Any Taxonomy Used by the Diabetes Audit

1. Click the **View/Print Any Taxonomy** used by the **Diabetes Audit**.

2. Select the **Audit Year** and **Taxonomies** (Figure C-46) to print. Click **Print**.
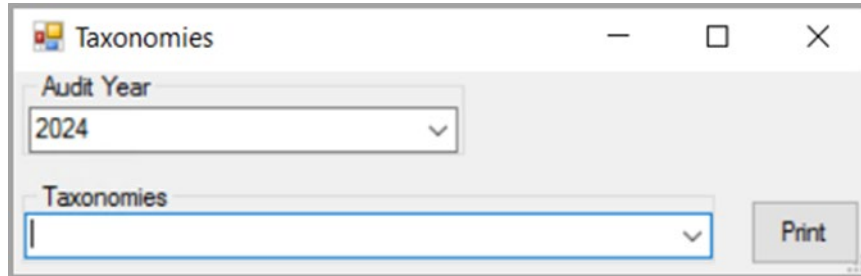
Figure C-46: Audit and Taxonomy Selection dialog

The taxonomy displays in **Crystal Reports** (Figure C-47).

Figure C-47: Taxonomy Listing window

3. Click **Close** or the **X** to exit.

C.3.6.5   View a SNOMED List Used by the Diabetes AUDIT

1. Click the **View a SNOMED List Used by the Diabetes AUDIT** (Figure C-48).

2. Select the **Audit Year** and **SNOMED Lists** to print. Click **Print**.
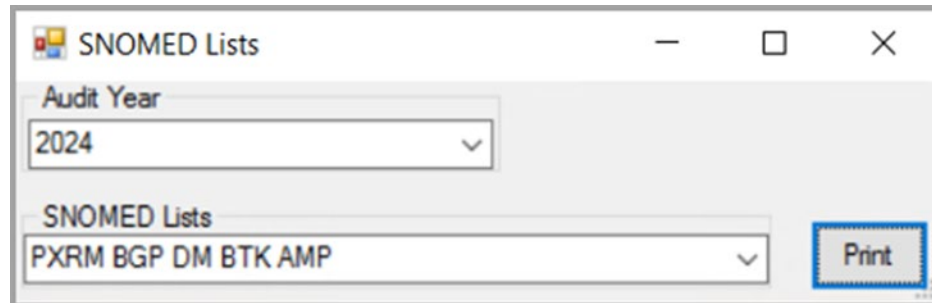
Figure C-48: Audit Year and SNOMED List Selection dialog

The **SNOMED** list displays in **Crystal Reports** (Figure C-49).

3. Click the **X** to close the display.
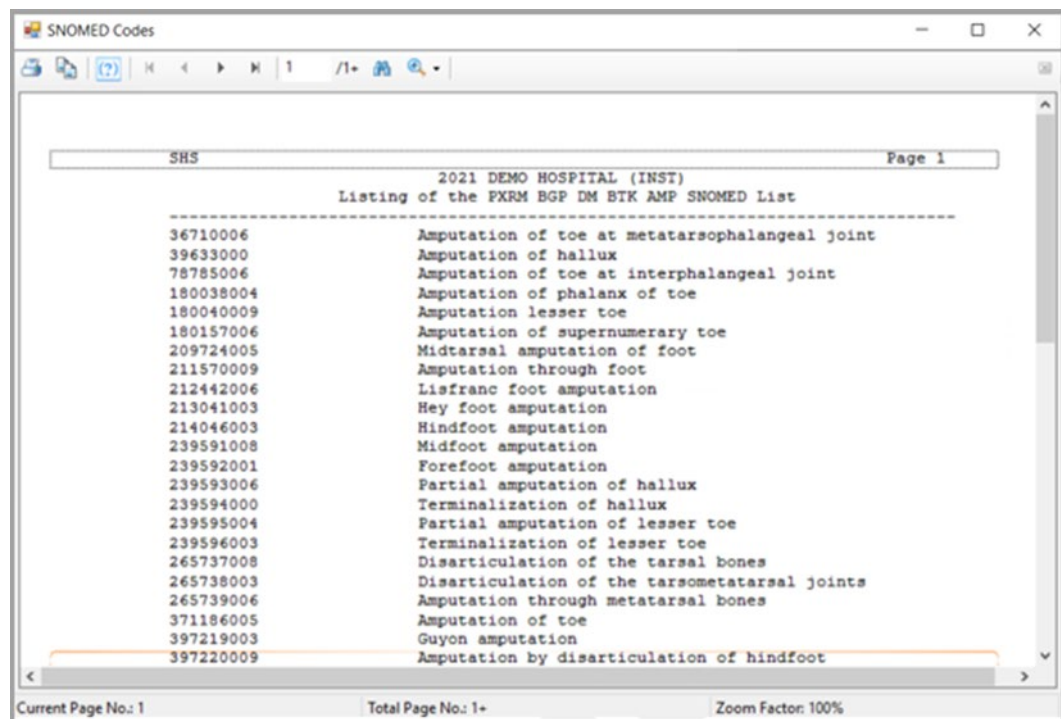
Figure C-49: SNOMED List sample window

C.3.6.6   Display Audit Logic

1. Click the **Display Audit Logic** (Figure C-50) menu item.

2. Select the **Audit Year** from the list.
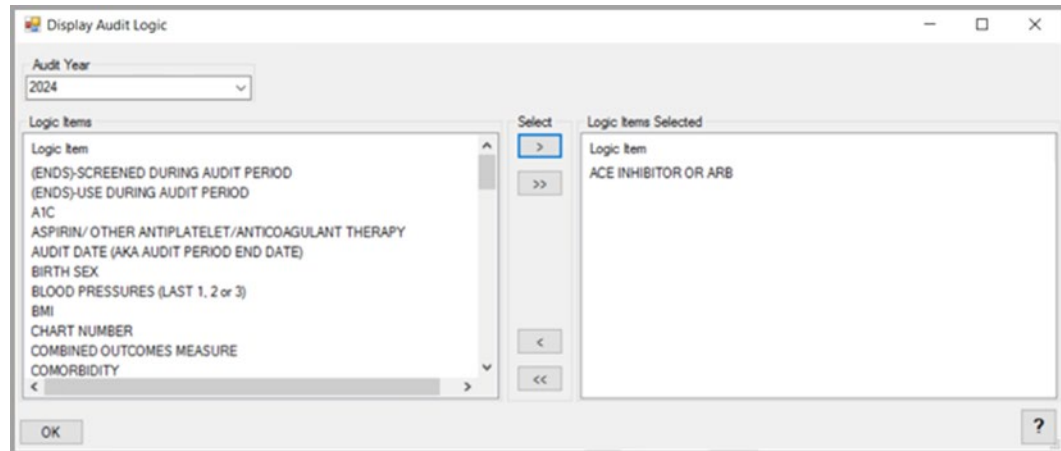
Figure C-50: Display Audit Logic options dialog

3. Select the **Logic Item** you want to display from the **Logic Items List** and click the **right-arrow (>)** button. To display all **Logic Items**, click the **double right-arrow (>>)** button. Click **OK**.

4. The result is displayed in **Crystal Reports** (Figure C-51). Click the **X** in the upper-right corner to close the display.
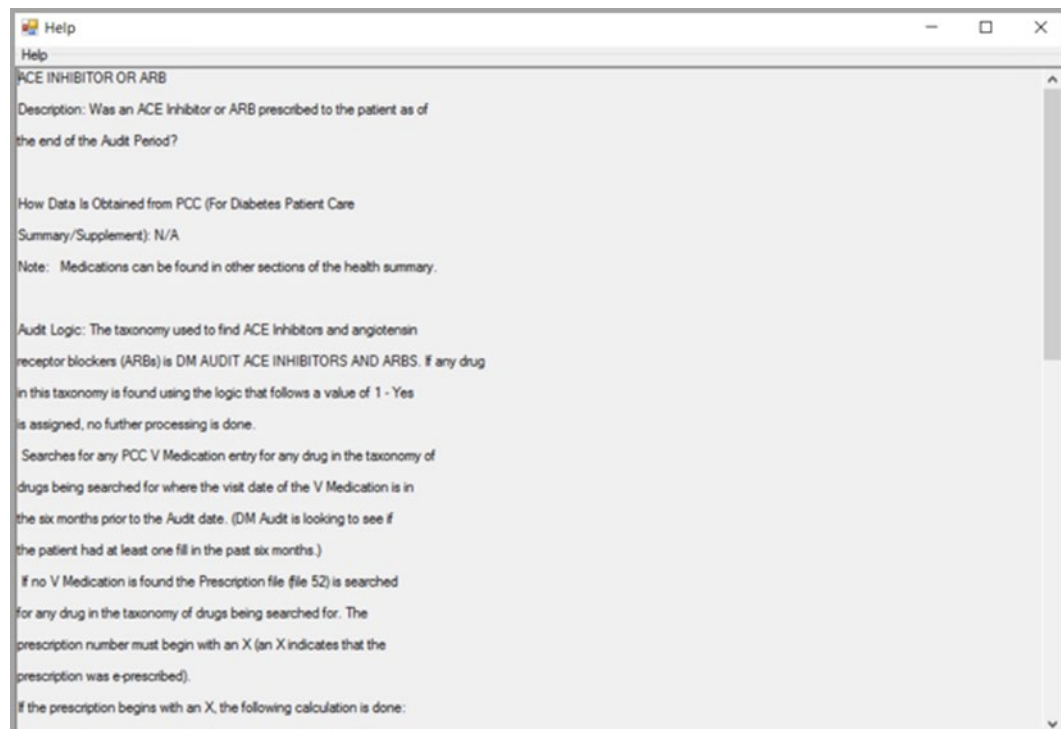
Figure C-51: Display Audit Logic window

C.3.6.7   2024 Data Quality Check Report

1. Click the **2024 Data Quality Check Report** menu item to display the **Taxonomy Check** (Figure C-52). Before the **Audit** window opens, a taxonomy check will run, and the results will display on the screen.

2. Close the **Taxonomy Check Result** screen.
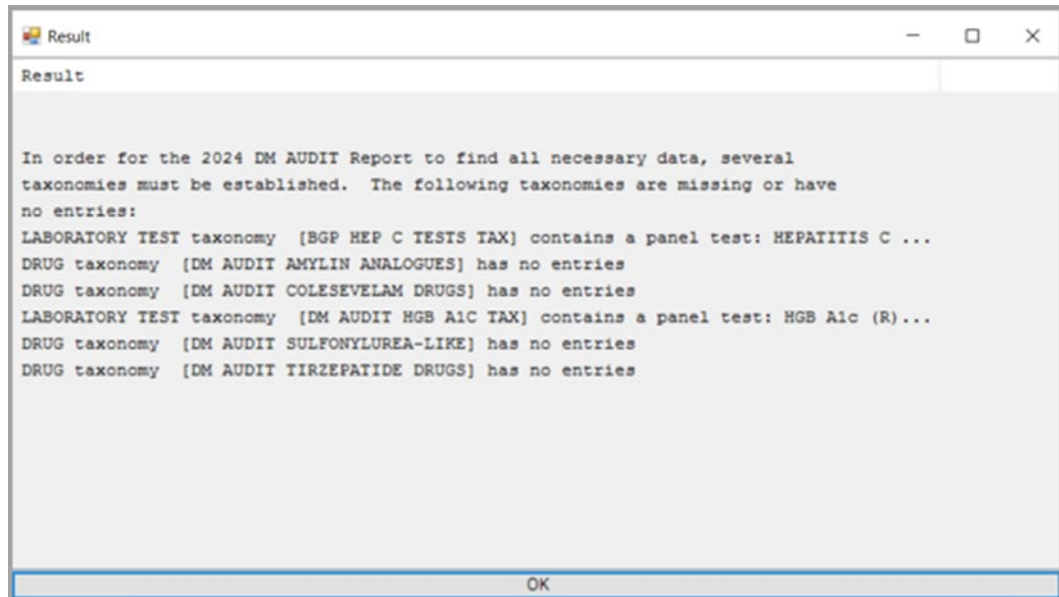
Figure C-52: Taxonomy Check Results window

3. The **Data Quality Report** dialog (Figure C-53) displays.
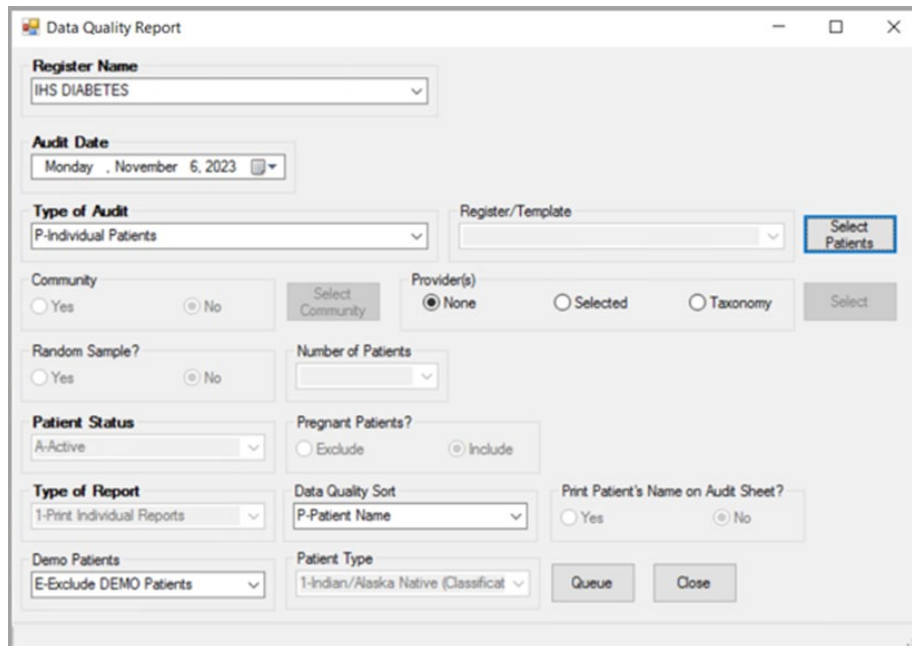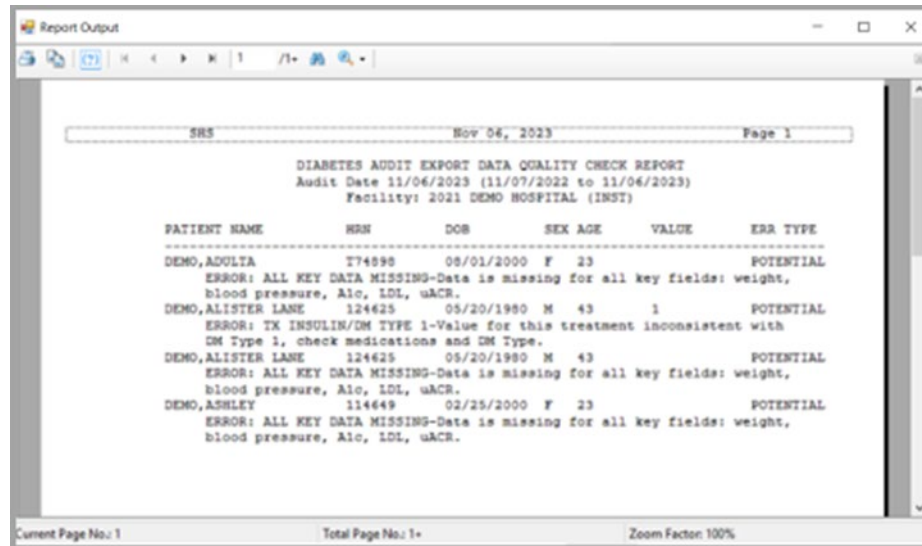
Figure C-53: Data Quality Report parameters dialog

4. Select a **Register Name** from the box, the **Audit Date** from the calendar, the **Type of Audit**, and any other options.

5. Click **Queue**.

6. The report is queued. Use the **Report Status Toolbar** button from the main menu to view a list of reports (Figure C-54). Click to display the report.


Figure C-54: Data Quality Check Report window

C.3.6.8   Prior Years Diabetes Audit Setup (DM20–DM23)

1. Click the **plus sign (+)** next to **Prior Years Diabetes Audit Setup (DM20-DM23)** to open the menu (Figure C-55).
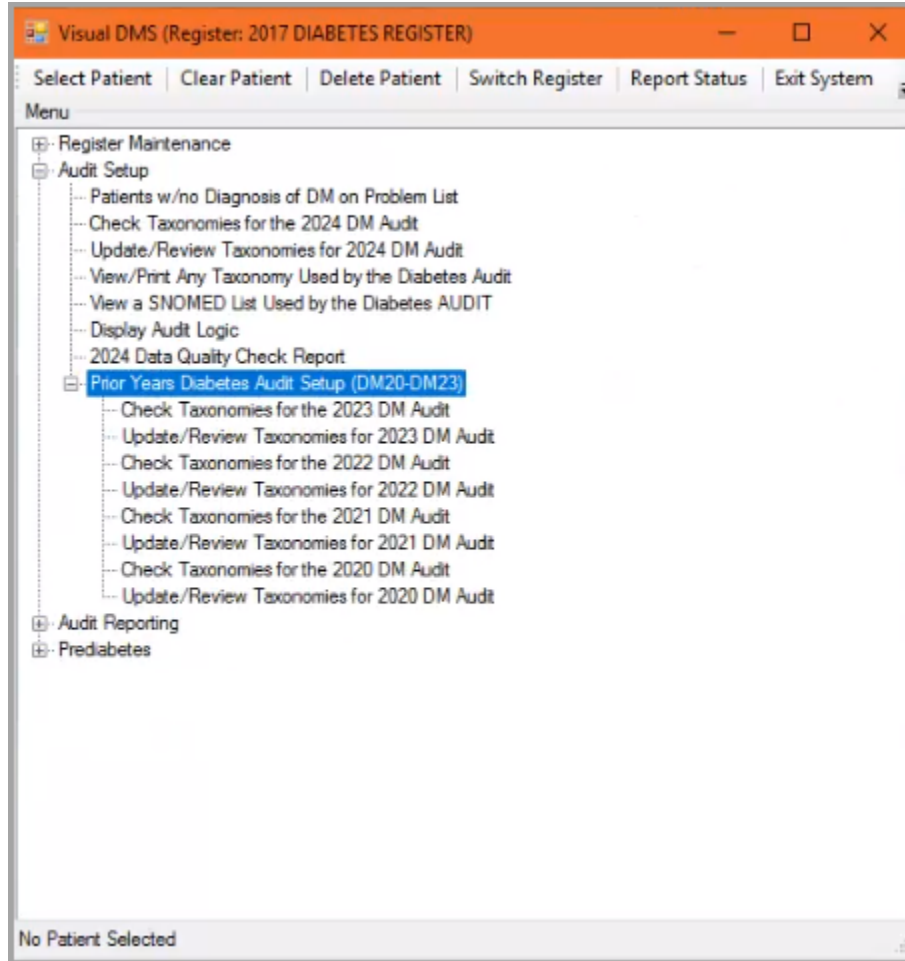
Figure C-55: Prior Years Options window

2. Select any of the menu options. The options work the same as the **Check Taxonomies for the 2024 DM Audit** and **Update/Review Taxonomies for the 2024 DM Audit**.

C.3.7   Audit Reporting

Click the **plus sign (+)** in front of **Audit Reporting** (Figure C-56) to open this menu.
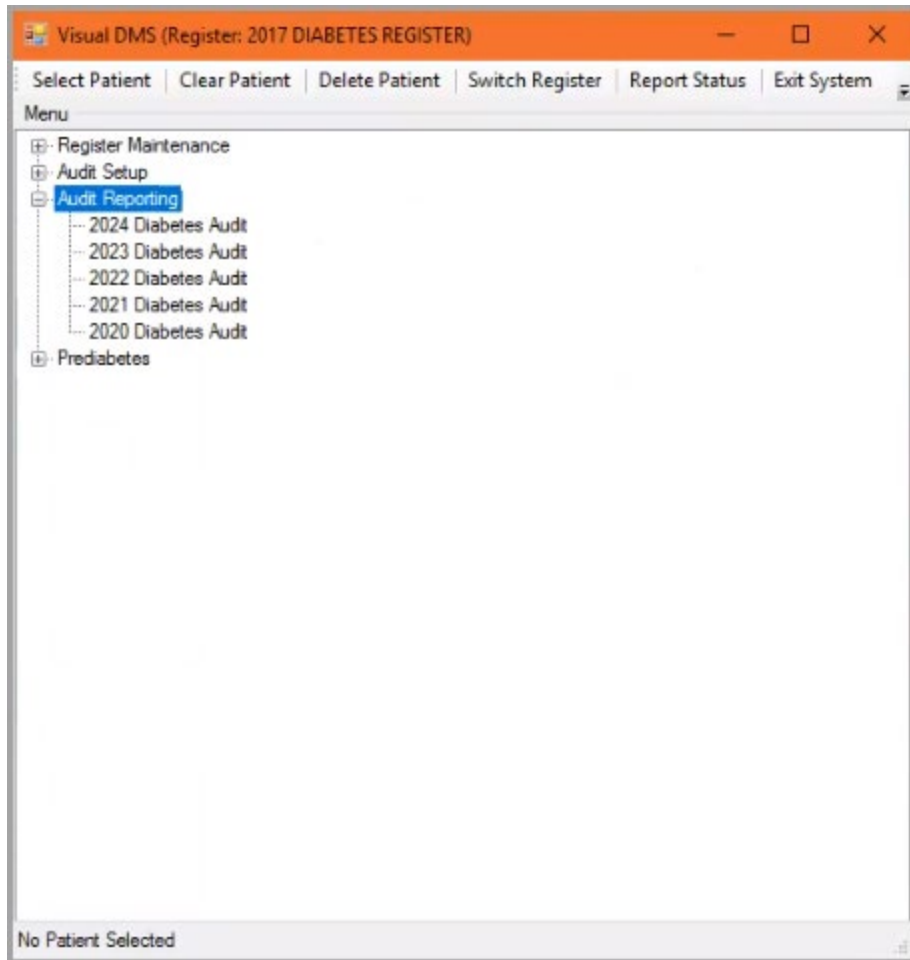
Figure C-56: Audit Reporting options window

C.3.7.1   2024 Diabetes Audit

1. Click the **2024 Diabetes Audit** menu option (Figure C-57) to run the 2024 Audit.
    Before the Audit window opens, a taxonomy check will run, and the results will
    display on the screen.
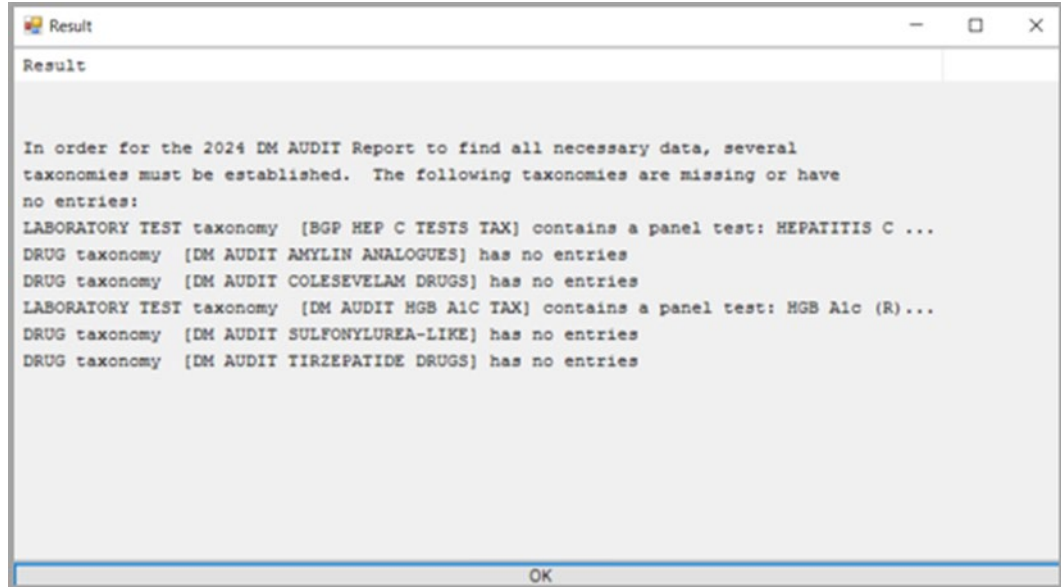
Figure C-57: Taxonomy Check Results window

2. Close the **Taxonomy Check Result** window (Figure C-58).
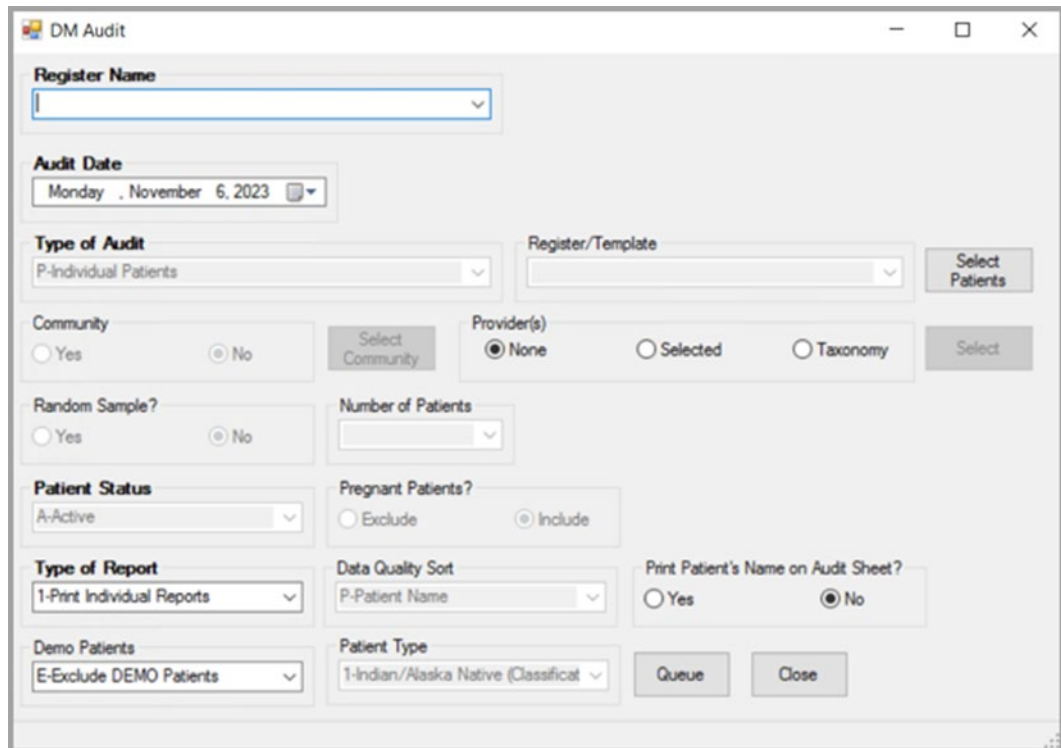
Figure C-58: Diabetes Audit options dialog

3. Select a **Register Name** from the list of available **Registers**.

4. Select the **Audit Date** from the calendar. Alternatively, use the **up-** or **down-arrow** keys to select the month, day, or year to change the **Audit Date**.

5. Select the **Type of Audit**:

   P–Individual Patients

   **S–Search Template of Patients**

   C–Members of a CMS Register

   E–E Audit (predefined set of patients)

6. If you choose **Individual Patients**, click the **Select Patients** button that is highlighted when this selection is made.

   - Enter patients one at a time by chart number, last name, first name, or date of birth on the patient selection screen.

   - If you only enter a last name, the entire list of matching patients may be displayed by clicking on the **Display** button.

7. Select the **patients** who you want to include in the **Audit**. Their names will appear on the **Patients Selected** window. Repeat the process until all desired patients are identified.

8. Click the **Save** button when the list is complete.

   - If you choose **Search Template of Patients**, select the desired template from the **Register/Template** list.

   - If you choose **Members of a CMS Register**, select the desired register from the **Register/Template** list.

   - If you choose **E Audit**, indicate if you want **Only ACTIVE members of the register selected** and select a **Community Taxonomy**.

   - If you want to run the **Audit** on patients that live in a particular community, click **Yes** in the **Select Community** box. A window will display where you can type the first few letters in the community name in the **Begin String** box. When the list of communities displays, select the desired community.

   - If you want to run the **Audit** by either a provider, selected **providers**, or a **taxonomy of providers**, click the appropriate button in the **Provider(s)** box. Then click the **Select** button to select providers or the taxonomy you want to use. A window will open where you can type the first few letters of the primary care provider's last name in the **Begin String** box. When the list of providers displays, click the desired provider's name, then the **right-arrow** button. Repeat if multiple providers are desired. If selecting a **Taxonomy** a list of taxonomies will display.

- If you chose to run the Audit on **Members of a CMS Register**, you may answer **Yes** or **No** in the **Select a Random Sample?** box. If you select **Yes**, you will be prompted to enter the **Number of Patients**.

9. Use the **Patient Status** box to identify the status of the patients to be included in the **Audit**.

10. Use the **Pregnant Patients?** box to indicate whether pregnant patients should be included or excluded.

11. Select the **Type of Report** you want to run:

    1–**Print Individual Reports**

    2–**Create Audit Export File**

    3–**Cumulative Audit Only**

    4–**Both Individual and Cumulative Audit**

    5–**SDPI RKM Report**

12. Choose whether to exclude **Demo Patients**.

13. Select **Patient Type**.

14. When all selections are made for the **DM Audit**, click the **Queue** button. A pop-up window will notify you that the report has been queued.

15. Close the pop-up window by clicking the **X** in the upper right corner.

    - The report status may be checked by clicking the **Report Status** button on the toolbar.

    - The **Individual** or **Cumulative Audit** may be opened by clicking the report when it shows a status of complete.

    It opens in a **Crystal Reports** document.

16. The report can be printed or browsed. The document may be closed when review is complete by clicking the **X** in the upper right corner.

C.3.7.2   2020–2023 Diabetes Audit

This is the same functionality as the **2024 Diabetes Audit**. See Appendix D for complete instructions.

C.3.8   Prediabetes Audit and Reports

Prediabetes functionality (Figure C-59) has been restored and redesigned to allow users to review the **Prediabetes Patient Care Summary**, **Prediabetes Assessment of Care**, and **Prediabetes Health Status Reports**.
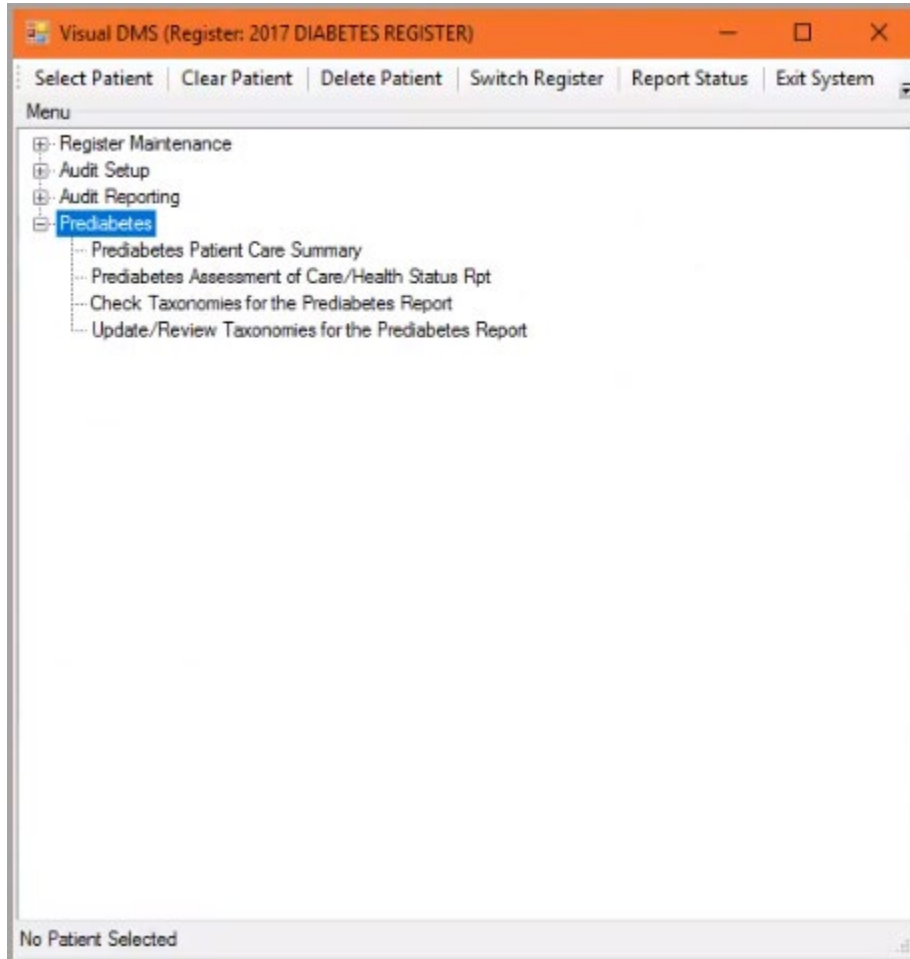

Figure C-59: Prediabetes Audit Functionality window

C.3.8.1   Prediabetes Patient Care Summary

1. Click the **Prediabetes Care Summary (DPCS)** menu item (Figure C-60) to open **Prediabetes Care Summary (DPCS)**.
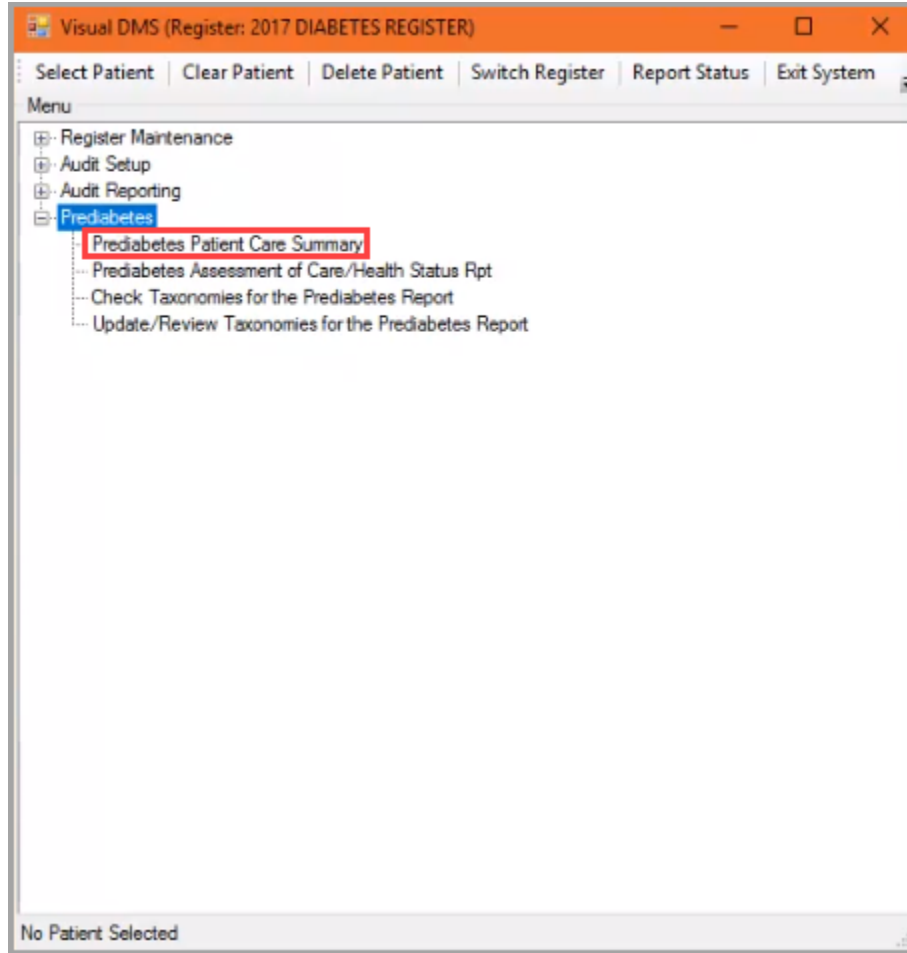
Figure C-60: Prediabetes Care Summary (DPCS) menu item

A **Crystal Reports** document (Figure C-61) opens displaying the **Summary**.

```
********** CONFIDENTIAL PATIENT INFORMATION [AP]  Dec 05, 2023 **********
PREDIABETES PATIENT CARE SUMMARY                    Report Date:  Dec 05, 2023

Patient: DEMO,ALTON CHARLES                                    HRN: 142692
Age:  30 (DOB 11/23/1993)              Birth Sex: MALE
CLASS/BEN: INDIAN/ALASKA NATIVE       Designated PCP: EVANS,BARBARA A R N

Diagnosis
 Problem List (Date of Diagnosis)
  Impaired Fasting Glucose   (Date of Onset not recorded)
  Impaired Glucose Tolerance (Jan 01, 2020)
  Prediabetes                (Feb 01, 2023)

 Diagnosis first recorded in PCC (Used as POV):
  Impaired Fasting Glucose    Mar 02, 2020
  Prediabetes                 Aug 04, 2023

BMI: 27.1  Last Height:        72.00 inches   08/04/2023
           Last Weight (ever): 200 lbs        08/04/2023

Tobacco Use:
    Last Screened: 08/04/2023
    Current Status: Current user CURRENT SMOKER, SOME DAY  08/04/2023
       Tobacco cessation counseling/education received in the past year:
          Yes 08/04/2023 TO-QT

HTN Diagnosed ever:  No
Last 3 BP:       120/76   08/04/2023
(non ER)         130/88   12/05/2022
                 108/65   05/01/2012

Statin prescribed (in past 6 months):  No

Laboratory Results (most recent):                    RPMS LAB TEST NAME
 A1C:                        6.2 %      08/04/2023 _HEMOGLOBIN A1C
 Next most recent A1C:       5.6 %      03/02/2020 _HEMOGLOBIN A1C
 Last Fasting Glucose:       110 mg/dL  08/04/2023 GLUCOSE (CCDA)
 Last 75 GM 2 hour Glucose:  150        08/04/2023 _SQL Glucose,Imp.GTT.2 Hr
 Quantitative UACR:          15 mg/g    08/04/2023 ..ALBUMIN/CREATININE RATI

 Total Cholesterol:          200 mg/dL  08/04/2023 CHOLESTEROL (POCT)
 LDL Cholesterol:            90 mg/dL   08/04/2023 LDL CHOLESTEROL (POCT)
 HDL Cholesterol:            50 mg/dL   08/04/2023 HDL CHOLESTEROL (POCT)
 Triglycerides:              300 mg/dL  08/04/2023 TRIGLYCERIDE (POCT)

Education Provided (in past yr):
  Last Dietitian Visit (ever):
    DM-DISEASE PROCESS              09/27/2023
    DM-MEDICAL NUTRITION THERAPY   12/05/2022  CHASE,RENEE          MD
    DM-NUTRITION                   09/27/2023

DEMO,ALTON CHARLES                 DOB: 11/23/1993    Chart #TST 142692
```

Figure C-61: Crystal Reports Summary screen

2. Click the **X** in the upper-right corner to close the **Crystal Reports** document.

C.3.8.2   Prediabetes Assessment of Care/Health Status Rpt

1. To view the **Prediabetes Assessment of Care/Health Status Report**, click the **menu option** to run the **2024 Prediabetes Assessment of Care Report**.

   Before the **Assessment** window opens, a taxonomy check will run, and the results will display (Figure C-62).
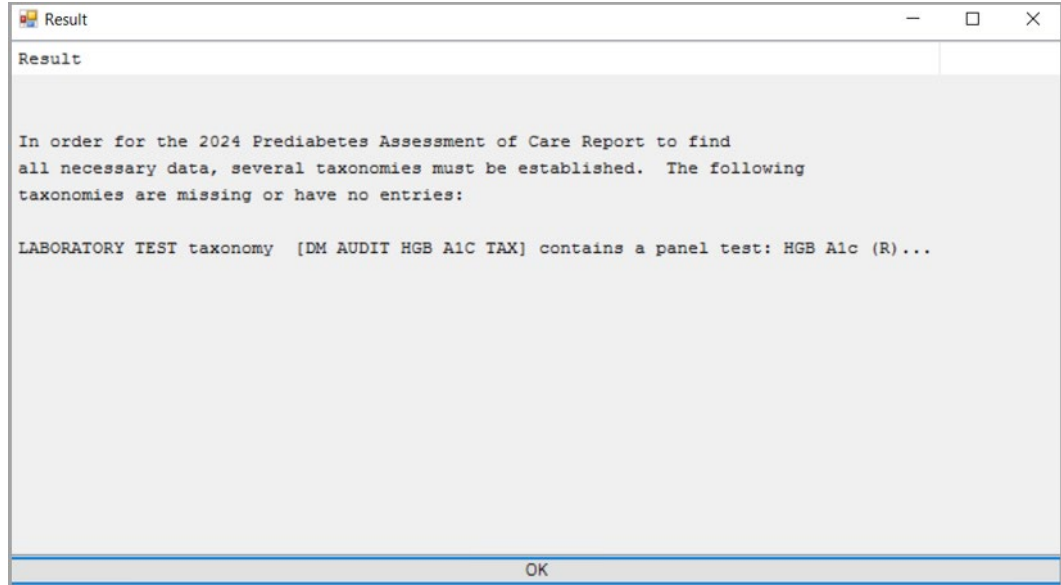
Figure C-62: Taxonomy Check Results window

2. Close the **Taxonomy Check Result** window. The **Pre-diabetes Audit** dialog (Figure C-63) opens.
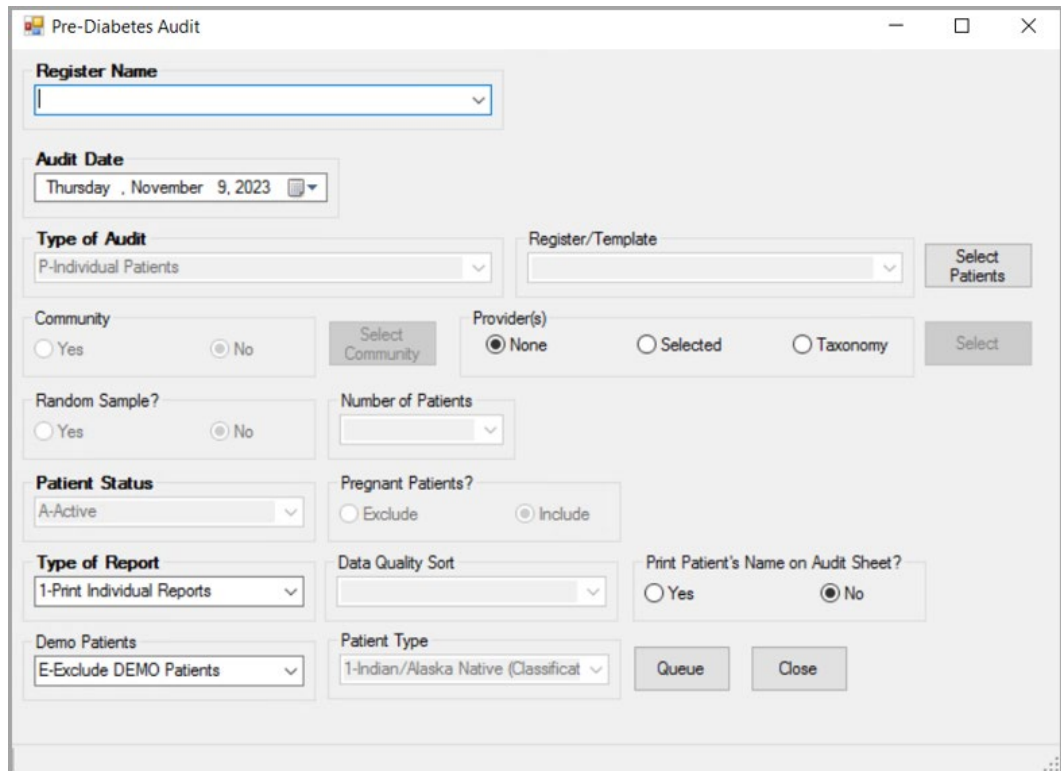

Figure C-63: Pre-diabetes Audit dialog

3. Select a **Register Name** from the list of available registers.

4. Select the **Audit Date** from the calendar. Alternatively, use the up or **down-arrow** keys to select the month, day, or year to change the **Audit Date**.

5. Select the **Type of Audit**:

    P–Individual Patients

    S–Search Template of Patients

    C–Members of a CMS Register

6. If you select **Individual Patients**, click the **Select Patients** button that is highlighted when this selection is made.

7. Enter patients one at a time by **chart number**, **last name**, **first name**, or **date of birth** on the **Patient Selection** dialog.

    - If you only enter a last name, the entire list of matching patients may be displayed by clicking on the **Display** button.

8. Select the **patients** who you want to include in the **Audit**. Their names will appear on the **Patients Selected** window. Repeat the process until all desired patients are identified.

9. Click the **Save** button when the list is complete.

10. If you choose **Search Template of Patients**, select the desired template from the **Register/Template** list.

    - If you choose **Members of a CMS Register**, select the desired register from the **Register/Template** list.

    - If you want to run the **Audit** on patients that live in a particular community, click **Yes** in the **Select Community** box. A window will display where you can type the first few letters in the community name in the **Begin String** box. When the list of communities displays, select the desired community.

    - If you want to run the **Audit** by either a provider, selected providers, or a taxonomy of providers, click the appropriate button in the **Provider(s)** box. Then click the **Select** button to select providers or the taxonomy you want to use. A window will open where you can type the first few letters of the primary care provider's last name in the **Begin String** box. When the list of providers displays, click the desired provider's name, then the **right-arrow** button. Repeat if multiple providers are desired. If selecting a **Taxonomy**, a list of taxonomies will display.

    - If you chose to run the **Audit** on **Members of a CMS Register**, you may answer **Yes** or **No** in the **Select a Random Sample?** box. If you select **Yes**, you will be prompted to enter the **Number of Patients**.

11. Use the **Patient Status** box to identify the status of the patients to be included in the **Audit**.

12. Use the **Pregnant Patients?** box to indicate whether pregnant patients should be included or excluded.

13. Select the **Type of Report** you want to run:

    1–Print Individual Reports

    2–Cumulative Audit Only

    3–Both Individual and Cumulative Audit

14. Choose whether to exclude **Demo Patients**.

15. Select **Patient Type**.

16. When all selections are made for the **Audit**, click the **Queue** button. A pop-up window will notify you that the report has been queued. Close the pop-up window by clicking the **X** in the upper-right corner.

    - The report status may be checked by clicking the **Report Status** button on the toolbar.

    - The **Individual** or **Cumulative Audit** may be opened by clicking the report when it shows a status of complete.

    It will open in a **Crystal Reports** document (Figure C-64).

17. The report can be printed or browsed. The document may be closed when review is complete by clicking the **X** in the upper-right corner.
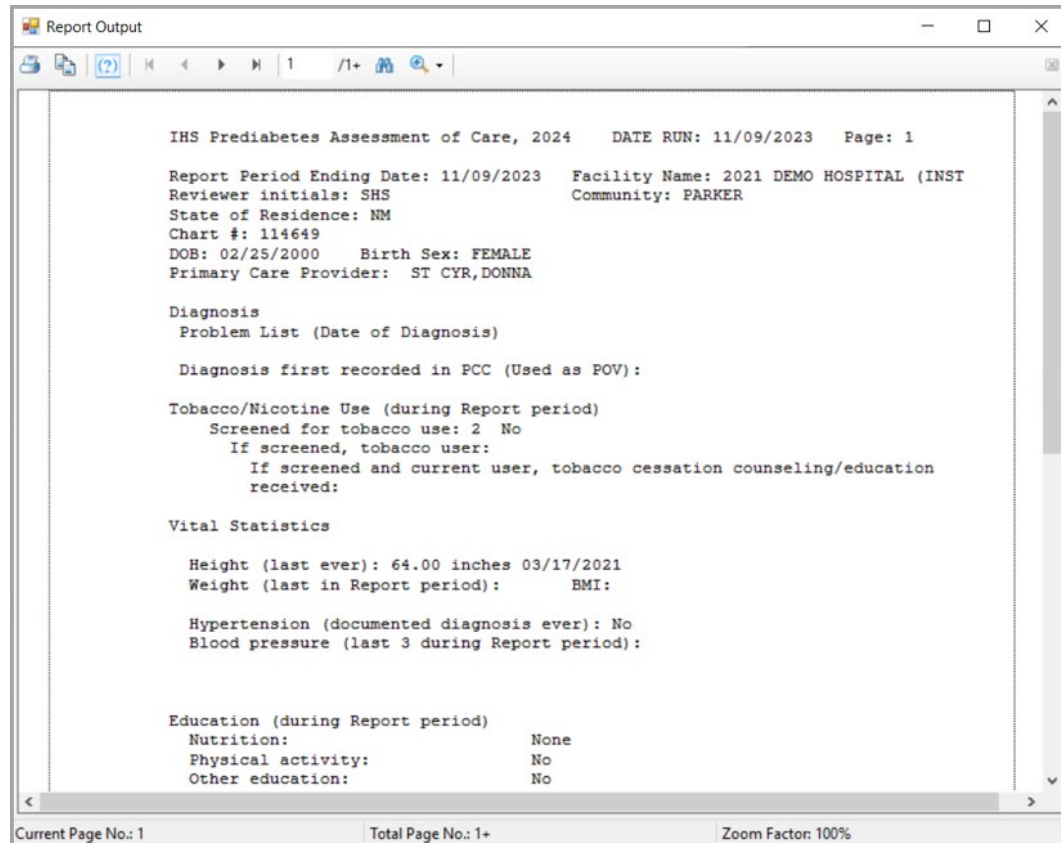
Figure C-64: Report Output window

C.3.8.3   Check Taxonomies for the Prediabetes Audit

1. Click the **Check Taxonomies** for the **Prediabetes Audit** menu option to determine whether any taxonomies have not been populated. The result of the taxonomy check will display in a result box (Figure C-65).

2. Close the box by clicking the **X** in the upper-right corner.
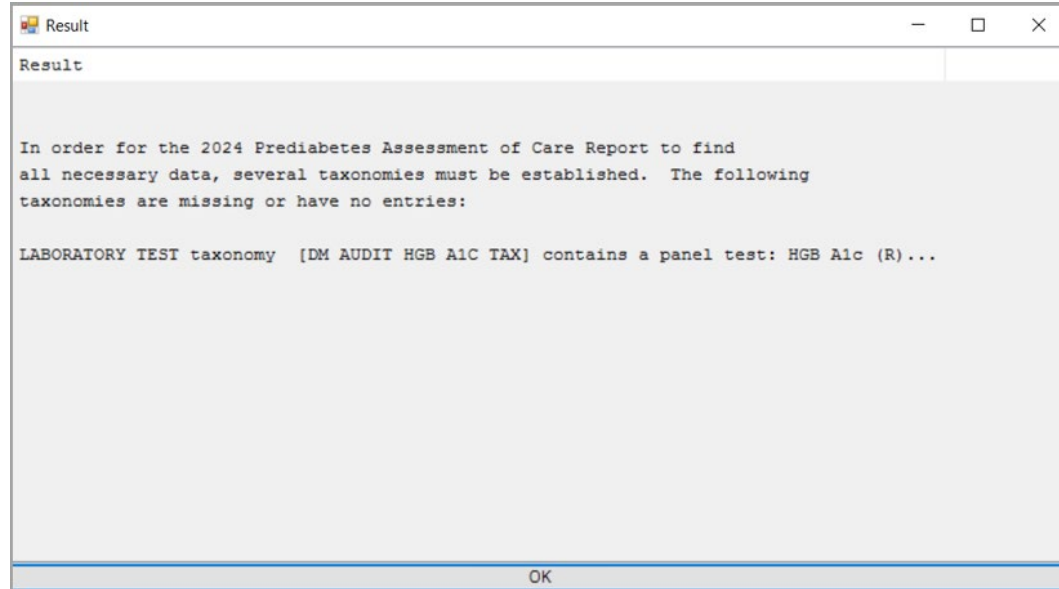
Figure C-65: Taxonomy Check Displayed in a result box

C.3.8.4   Update/Review Taxonomies for the Prediabetes Audit

1. Click the menu option **Update/Review Taxonomies for Prediabetes Audit** (Figure C-66) to open the taxonomy update window.
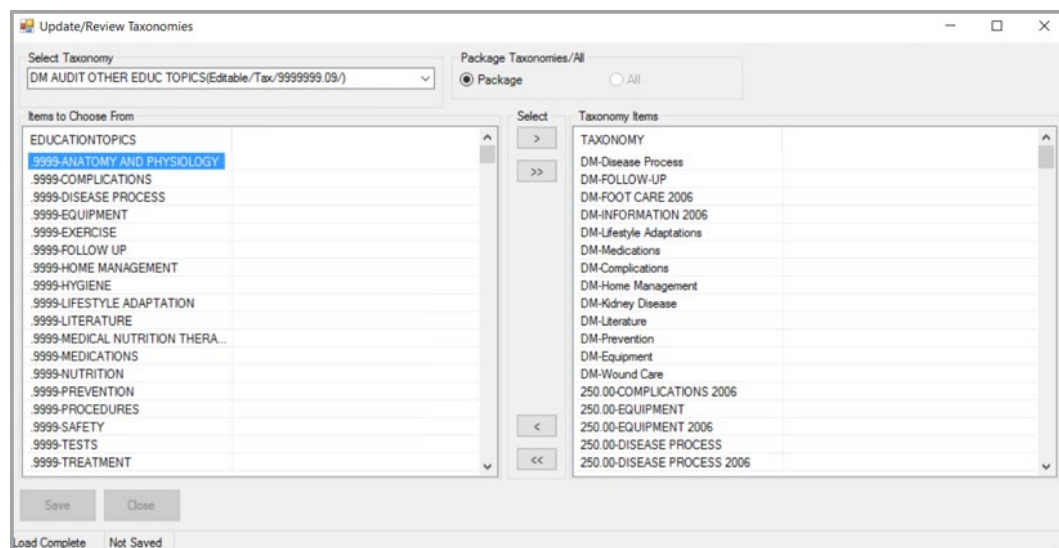
Figure C-66: Update/Review Taxonomies for Prediabetes Audit dialog

2. Select a **taxonomy** that you want to update from the list.

3. Select the **items** you want in the taxonomy from the left-column titled **Items to Choose From** and click the **right-arrow (>)** button to move them to the **Taxonomy Items** column on the right.

4. Click **Save**.

5. To remove an item from the taxonomy, select the **item(s)** to remove in the
   Taxonomy Items List View and click the **left-arrow (<)** button to remove them.

6. Click **Save**.

7. Click **Close** or the **X** to exit.

Appendix D   2024 Diabetes Audit

The **Diabetes Management System (DMS)** can be used to conduct a **Diabetes Audit**, including creation of **Audit** data files and reports. This section focuses on the DMS menu options used to prepare for and conduct an Audit.

The general steps for conducting an Audit are:

1. Complete the **Audit Setup** (preparing for the Audit).

2. Create an **Audit** data file and/or reports.

3. Upload the **Audit** data file to the **WebAudit** (required for **Annual Audits**, optional otherwise).

The **DMS** menu system is structured to follow these steps:

*   The **Audit Setup** menu includes tools for Audit preparation.

*   The **Audit Reporting** menu includes tools for creating Audit data files and reports.

Additional information about the **IHS Diabetes Care and Outcomes Audit** and WebAudit can be found on the Audit website: https://www.ihs.gov/diabetes/audit/.

DMS Main Menu

The **DMS** main menu (Figure D-1) provides four options.

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
        BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
           *****************************************************
           **            DIABETES MANAGEMENT SYSTEM         **
           *****************************************************
                          VERSION 2.0 (Patch 17)
                              DEMO HOSPITAL
                                MAIN MENU
   RM     Register Maintenance ...
   AS     Audit Setup ...
   AR     Audit Reporting ...
   PDM    Prediabetes Menu
```

Figure D-1: RPMS DMS main menu screen

Visual DMS (Figure D-2) includes the same options to prepare for and conduct an Audit.
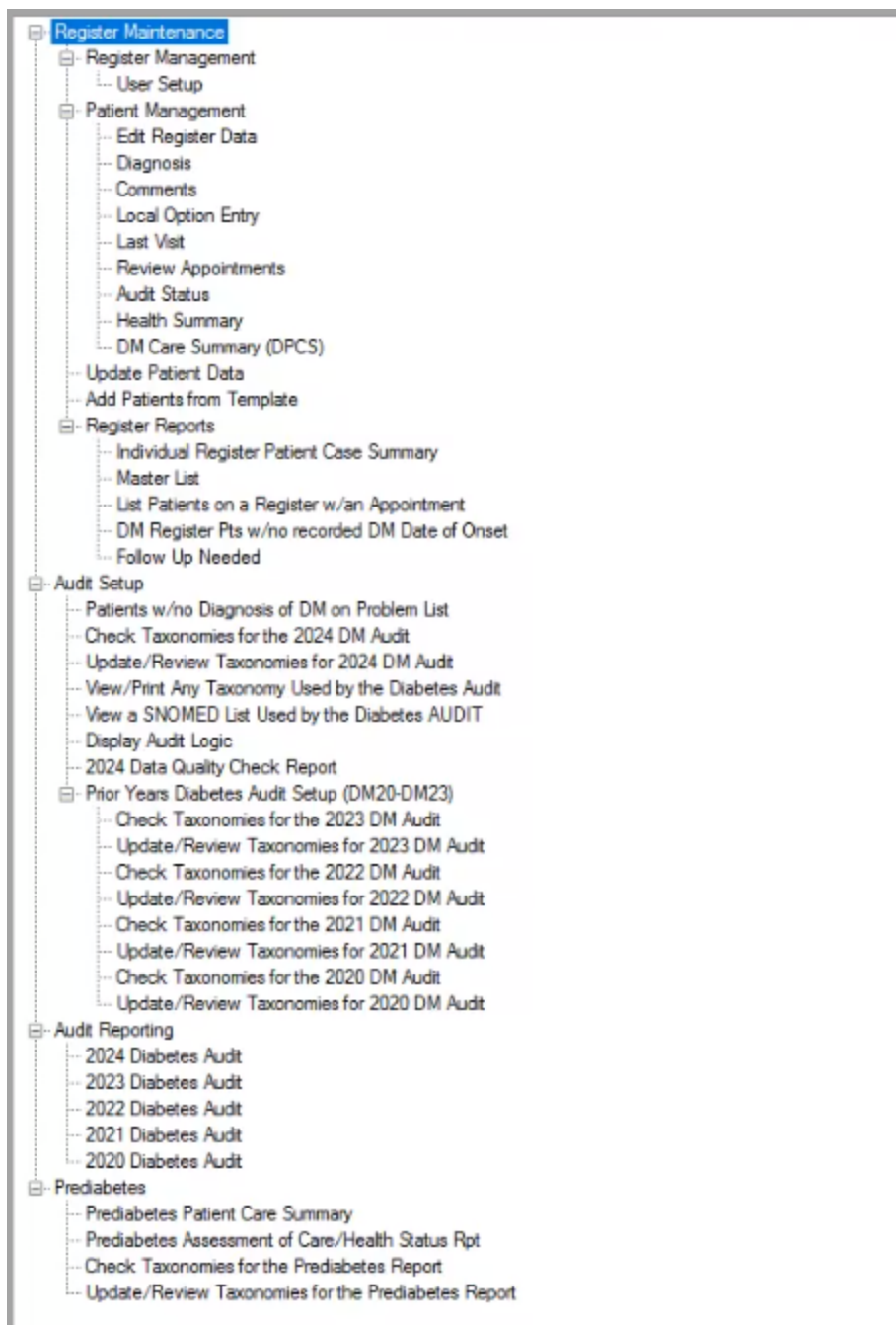
Figure D-2: Visual DMS Menu dialog

D.1   Audit Setup–Prepare for an Audit

There are three main steps to follow when preparing to conduct a **Diabetes Audit** using **DMS**:

1. Identify the cohort of patients to be included in the **Audit**. Two ways of doing this are described below. See Section D.3 for additional information.

- Use the patients who are members of a diabetes register and have a status of active. First ensure that the register is current by:

  – Adding patients who are receiving care at your facility but are not currently on the register.

  – Inactivating patients who are on the register with an active status but are no longer receiving care at your facility. Deleting patients from the register is not recommended.

  – Updating patients who are on the register with an active status but do not have diabetes on their problem list.

- If the facility does not maintain a diabetes register, use **QMAN** to create a search template of eligible patients with diabetes.

2. Review and update **taxonomies** for medications and laboratory tests as needed (see Section D.4).

3. Run and review a **Data Quality Check** report. Make corrections as appropriate. See Section D.5 for additional information.

D.2   Audit Setup Menu

The **Audit Setup** (**AS**) menu provides reports and utilities used to prepare for conducting an Audit. Details of **AS** menu options are provided in Figure D-3 and Figure D-4.

```
              THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
              BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
                 ****************************************************
                 **            DIABETES MANAGEMENT SYSTEM          **
                 ****************************************************
                            VERSION 2.0 (Patch 17)
                             DEMO HOSPITAL (CMBA)
                                 AUDIT SETUP

   DXNR   Patients with DM Diagnosis and not on Register
   INA    List Possible Inactive Pts in the DM Register
   PLDX   Patients w/no Diagnosis of DM on Problem List
          ----------------------------------------
   LMR    List Labs/Medications Used at this Facility
   TC     Check Taxonomies for the 2024 DM Audit
   TU     Update/Review Taxonomies for 2024 DM Audit
   VTAX   View/Print Any Taxonomy Used by the Diabetes Audit
   VSML   View a SNOMED List Used by the Diabetes AUDIT
   DAL    Display Audit Logic
          ----------------------------------------
   DQC    2024 Data Quality Check Report
          ----------------------------------------
   ASPR   Prior Years Diabetes Audit Setup (DM19-DM22) ...
```

Figure D-3: Audit Setup Menu
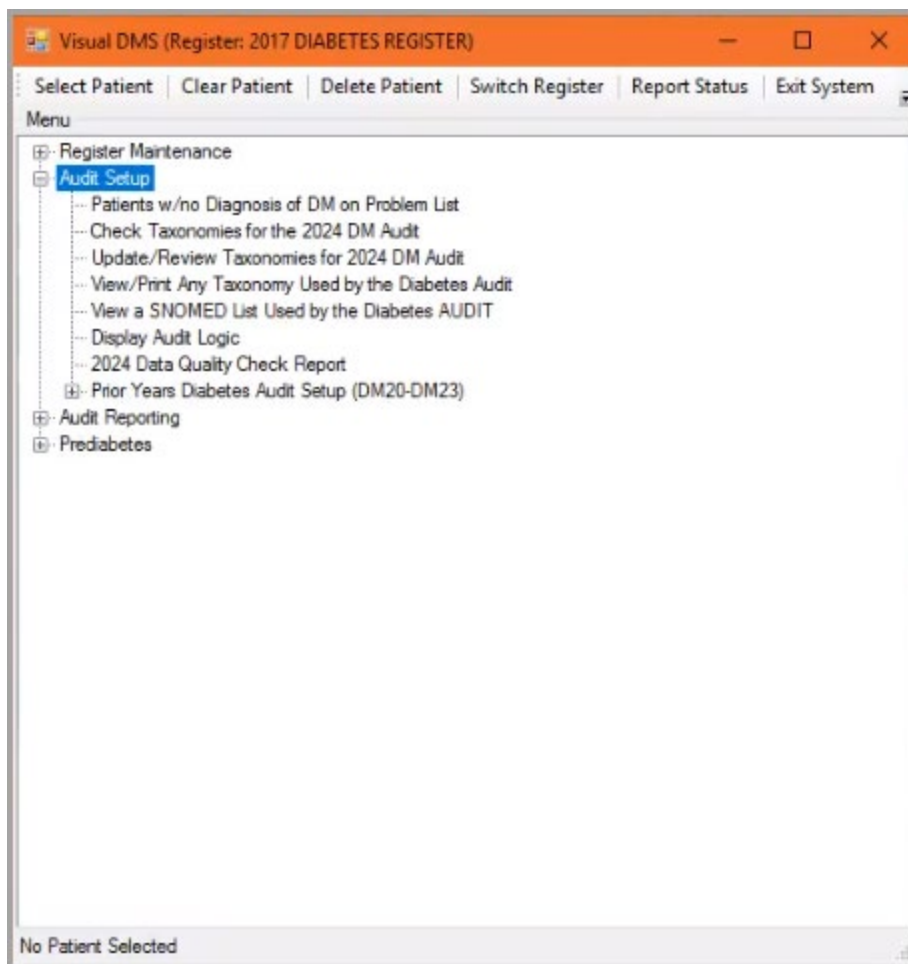
Figure D-4: Visual DMS Audit Setup Menu

D.3   Identify Patients to Be Included in an Audit

Guidelines for Selecting Patients

Per guidance from the **IHS Division of Diabetes Treatment and Prevention (Division of Diabetes)**, for the **2024 Annual Diabetes Audit**:

1. First, identify patients who meet all of the following criteria:

    - Have a diagnosis of diabetes mellitus.

    - Are American Indian or Alaska Native.

    - Have at least one visit (in person or Telehealth) to any of the following clinics during the one-year Audit period (numbers in parentheses are IHS-specific clinic codes):

        – **General (01)**
        – **Diabetic (06)**

       – **Internal Medicine (13)**

       – **Pediatric (20)**

       – **Well Child (24)**

       – **Family Practice (28)**

       – **Chronic Disease (50)**

       – **Endocrinology (69)**

2. Then, exclude patients who:

- Received the majority of their primary care during the Audit period outside of your facility.

- Are currently on dialysis *and* received the majority of their primary care during the Audit period at the dialysis unit.

- Have died before the end of the Audit period.

- Were pregnant during any part of the Audit period.

- Have prediabetes (as determined by documented diagnosis or impaired fasting glucose [IFG], impaired glucose tolerance [IGT], or elevated A1C level).

- Have moved–permanently or temporarily.

Unless the **Diabetes Register** is updated frequently, some of the patients identified as being in an active status might not qualify to be included in the **Annual Audit**. In addition, some patients who do qualify for inclusion may not be on the register in an active status. See Section D.3.1 for guidance in reviewing and updating the **Diabetes Register**.

D.3.1   Using the Diabetes Register for the 2024 Diabetes Audit

The **Diabetes Register** may be used for the **2024 Annual Audit** by updating patients who are on the register in an active status, as needed. This may require changing the status of some patients from active to inactive and adding new patients to the register with a status of active.

The **QMAN (AMQQMENU)** tools and **DMS** reports below can help identify patients in the **Diabetes Register** who should and should not be included in the Audit. Contact your site manager if you do not know how to access QMAN.

- Section D.3.1.1 describes how to find patients in the Register who have a Register Diagnosis of Prediabetes or Gestational Diabetes Mellitus (GDM) and should not be included in the Audit.

- Section D.3.1.2 describes how to use the **DXNR Patients with DM Diagnosis and not on Register** report to generate a list of patients who have a diabetes diagnosis and received care during the Audit period but are not currently on the diabetes register.

> **Note:** This report is only available in traditional **DMS**, not **Visual DMS**.

- Section D.3.1.3 describes how to use the **INA List Possible Inactive Pts in the DM Register** report to list patients on the register with a status of Active who have not had a primary care visit during the Audit period and therefore do not meet the inclusion criteria.

> **Note:** This report is only available in traditional **DMS**, not **Visual DMS**.

- Section D.3.1.4 describes how to change the status of a patient on the **Register**, as needed, after reviewing the above-mentioned reports. When ineligible patients have been identified, their status can be changed by using the **Register Status** option under **Patient Management** in the **DMS**. The **Patient Management** option can also be used to add a new patient to the register.

> **Note:** For the **2024 Annual Audit**, the **IHS Division of Diabetes** requires review of the care provided during the calendar year ending December 31, 2023. Reports identifying patients with an active status should be run for the time period between 1/1/2023 and 12/31/2023.

D.3.1.1   Identify IHS Diabetes Register Patients with GDM or Prediabetes Using QMAN

The **IHS Diabetes Register** allows entry of **GDM** and **Prediabetes** as **Register** diagnoses. It is generally recommended that the **IHS Diabetes Register** include only patients with a diagnosis of **Type 1** or **Type 2** diabetes. Separate registries should be set up for patients with **GDM** and **Prediabetes**.

The **QMAN** search shown in Figure D-5 will retrieve a list of patients in the register who have been given a particular **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 Impaired Glucose Tolerance**. If any patients are found, their information should be reviewed, and the patient status should be updated appropriately, or the patient should be deleted from the register.

> **Note:** QMAN searches are not available in Visual DMS and must be performed in traditional RPMS.

```
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 & Type2
4      Gestational DM
5      Impaired Glucose Tolerance
6      All Diagnoses

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

Figure D-5: QMAN search to identify patients with Register Diagnosis of GDM

Figure D-6 shows the QMAN 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
-------------------------------------------------------------------

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

Figure D-6: QMAN Search results

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

D.3.1.2   DXNR–Patients with DM Diagnosis and not on Register

The **Patients with DM Diagnosis and not on Register** report is used to find patients with a diabetes diagnosis who are being seen at your facility but are not currently on your diabetes register. This report can be especially useful at sites that have not kept their register up to date throughout the calendar year.

> **Notes:** This report does not exclude non-Indian patients. Directions for running this report are shown in the following sequence followed by a sample of the report output.
>
> This report is not available in **Visual DMS** and must be run in traditional RPMS.

1. At the **Diabetes Management System** main menu, type **AS** and press **Enter**.

2. Select **DXNR Patients with DM Diagnosis and not on Register**.

3. At the **Enter the Name of the Register** prompt (Figure D-7), type some portion of the register name and press **Enter**.

```
DXNR Patients with DM Diagnosis and not on Register.

This report will list patients who are not on the diabetes register
but who have had a visit with a diagnosis of diabetes in a date range
specified by the user.

Enter the Name of the Register: IHS DIABETES
Enter the time frame to look for visits with a diabetes diagnosis.

Enter Beginning Visit Date:  1/1/23   (JAN 01, 2023)
Enter Ending Visit Date:  12/31/23   (DEC 31, 2023)
```

Figure D-7: Enter the register name and time frame to look for visits with a diabetes diagnosis

4. At the **Enter Beginning Visit Date** prompt, type the beginning date and press **Enter**.

5. At the **Enter Ending Visit Date** prompt (Figure D-8), type the ending date and press **Enter**.

```
How many diagnoses must the patient have had in that time period:  (1-99):
2//
```

Figure D-8: Type number of diagnoses the patient must have in the selected time period

6. At the **How many diagnoses must the patient have had in that time period** prompt, type the answer as a number and press **Enter**.

```
      Select one of the following:

          P             PRINT the List
          B             BROWSE the List on the Screen

Output Type: P// BROWSE the List on the Screen
```

Figure D-9: Enter the output type

7. At the **Output Type** prompt (Figure D-9), do one of the following:

   - Type **P** and press **Enter** to print the list.

   - Type **B** and press **Enter** to browse the list on the screen.

```
      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
```

Figure D-10: Prompt to include or exclude demo patients

8. At the **Demo Patient Inclusion/Exclusion** prompt (Figure D-10), do one of the following:

   - Type **I** and press **Enter** to include all patients.

   - Type **E** and press **Enter** to exclude demo patients.

   - Type **O** and press **Enter** to include only demo patients.

   The report is printed or displayed as in Figure D-11:

```
OUTPUT BROWSER              Nov 17, 2022 12:00:26        Page:    1 of   26

           ********** CONFIDENTIAL PATIENT INFORMATION **********
DR                                                                    Page 1
                            DEMO HOSPITAL
              Patients NOT on the DEMO HOSPITAL DIABETES Register
              with at least 3 visits with a DX of Diabetes between
                        Jan 01, 2023 and Dec 31, 2023


PATIENT NAME          HRN    DOB          COMMUNITY    LAST VISIT # DM  LAST DM
                                                                  DXS   DX

-----------------------------------------------------------------------------
DEMO,RACHEL PATIENT  100019 03/28/1941 LAKE HAVSU   03/20/23    3  03/20/23
DEMOPATIENT,NEOMI     888885 03/15/1955 KINGMAN      03/22/23    3  03/22/23
PATIENTDEMO,CARLEE    122222 11/12/1993 PARKER       04/03/23    3  02/27/23
DEMO-CARTER,PATIENT A 144444 05/25/1977 PARKER       03/27/23    4  03/19/23
+         Enter ?? for more actions                                        >>>
+    NEXT SCREEN         -    PREVIOUS SCREEN     Q    QUIT
Select Action: +//
```

Figure D-11: Report of patients not on the Diabetes register that have a diabetes diagnosis

D.3.1.3   INA–List Possible Inactive Pts in the DM Register

The **INA List Possible Inactive Pts in the DM Register** option (Figure D-12) can be used to identify patients who are no longer being seen at your facility but are still marked as active in the diabetes register. Patients on this list can be changed to inactive in the register so they will not be included in the Audit. This report can be especially useful at sites that have large numbers of patients whose Register status might not be accurate.

```
The report is in the AS – Audit Setup menu of the Diabetes Management System.

Begin by selecting AS Audit Setup . . .

Type INA to initiate the report for Possible Inactive Patients

Enter the name of the Register that is to be reviewed for inactive patients.

Select A for patients on the Register with a Register status of ACTIVE.

At the Clinic prompt, type [BGP PRIMARY CARE CLINICS]
This taxonomy contains the primary care clinics used by official GPRA reports. You
may use just these six primary care clinics, or you may add additional clinics such
as ENDOCRINOLOGY.

Enter the beginning and ending dates for searching for a visit to one or more of
these primary care clinics. Note that the 2024 Annual Audit is for the time frame
between January 1, 2023 and December 31, 2023. To be considered as an active
patient, there should be at least one documented visit to a primary care clinic
during that time frame.

Choose the option to Browse the list. Note the number of pages in the report in the
upper right hand corner of the screen.
```

Figure D-12: Report option details

1. The report may be printed by typing **PL** at the **Select Action** prompt.

2. At the **Device** prompt, enter the **printer name** or **number** where the report should be printed.

The sequence to generate this report is shown in Figure D-13:

```
AS AUDIT SETUP . . .

Select Reports Option: INA  List Possible Inactive Pts in the DM Register

                          DEMO HOSPITAL
                          DEMO,DOROTHY

This report will list patients who are on the diabetes register who have not
had a visit to a set of primary care clinics in a date range defined by the
user.
The report provides a way to identify patients who could possibly be inactivated
in the register.

Enter the Name of the Register:    IHS DIABETES REGISTER
```

```
Select the Patient Status for this report

     Select one of the following:

          A         ACTIVE
          I         INACTIVE
          T         TRANSIENT
          U         UNREVIEWED
          D         DECEASED
          N         NON-IHS
          L         LOST TO FOLLOW-UP
          NON       NONCOMPLIANT

          0         All Register Patients

Which Status: A// CTIVE

Enter the list of clinics that you have determined to be primary care clinics.
You can enter them 1 at a time or enter a taxonomy using the '[' notation.

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

Members of BGP PRIMARY CARE CLINICS Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE

Enter ANOTHER CLINIC: ENDOCRINOLOGY       69
Enter ANOTHER CLINIC:

The following have been selected =>

     GENERAL
     DIABETIC
     INTERNAL MEDICINE
     PEDIATRIC
     WELL CHILD
     FAMILY PRACTICE
     ENDOCRINOLOGY

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

Enter the time frame to look for visits.

Enter Beginning Visit Date:  1/1/23  (JAN 01, 2023)
Enter Ending Visit Date:  12/31/23  (DEC 31, 2023)

     Select one of the following:

          P         PRINT the List
          B         BROWSE the List on the Screen

Output Type: P// BROWSE the List on the Screen

     Select one of the following:

          I         Include ALL Patients
          E         Exclude DEMO Patients
```

```
        O           Include ONLY DEMO Patients

Demo Patient Inclusion/Exclusion: E// [ENT] xclude DEMO Patients


OUTPUT BROWSER                Dec 31, 2023   12:25:21        Page:   1 of   48

          ********** CONFIDENTIAL PATIENT INFORMATION **********
DR                                                                      Page 1
                          DEMO HOSPITAL
                  Patients on the IHS DIABETES Register
          without a visit between Jan 01, 2022 and Dec 31, 2022

PATIENT NAME          HRN     STATUS   CASE         LAST VISIT  # DM   LAST DM DX
                                       MANAGER                  DXS
------------------------------------------------------------------------------
DEMO,MARIE            999490 ACTIVE                 03/22/2019   158  02/22/2022
DEMOA,CHANTEL         999991 ACTIVE                 05/17/2005    18  02/08/2005
DEMOB,LAYLA GABRIELL  999992 ACTIVE                 08/09/2010     4  08/09/2010
DEMOC,PHYLLIS N       999993 ACTIVE                 04/10/2019   124  04/10/2019
DEMOD,CARLA           999994 ACTIVE                 11/05/2004     0
DEMOF,ILLYANA         999995 ACTIVE                 10/29/1993     1  10/27/1993
+        Enter ?? for more actions                            >>>
+   NEXT SCREEN         -    PREVIOUS SCREEN      Q   QUIT
Select Action: +//
```

Figure D-13: INA List Possible Inactive Pts in the DM Register report

D.3.1.4   Update Patient Register Status

If there are patients currently in an active status in the register, their register status may be updated using the Patient Management tool in the **DMS Register Maintenance** menu.

How to Edit Register Status in DMS

1. Open the **RM–Register Maintenance** menu of **DMS**.

2. Open the **Patient Management** option (Figure D-14).

```
Register Data                Nov 01, 2022 13:14:24        Page:   1 of    1
        PATIENT: DEMO,MARY JANE                          AGE: 55
        ADDRESS: P.O. BOX 234,ALB,NM,87119               DOB: 05/13/1963
          PHONE: 555-555-4811                            HRN: 105176
PRIM CARE PROV: DOCTOR,MICHAEL J                         RES: TUCSON
         STATUS: ACTIVE
WHERE FOLLOWED:
       CASE MGR: DEMO,LORI ANN
        CONTACT:
     ENTRY DATE: DEC 6,2016                     LAST EDITED: OCT 4,2022
      DIAGNOSIS: TYPE 2                         ONSET DATE: FEB 1,1978
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:

          - Previous Screen   Q Quit   ?? for More Actions
1  Register Status   7  Local Option Entry    13 Print Letter
2  Where Followed    8  Last Visit            14 PREDM Care Summary (PPCS)
3  Case Manager      9  Review Appointments   15 PREDM Assessment of Care
```

```
4  Client Contact   10 DM Audit Status         Q  Quit
5  DX/Date of Onset 11 Health Summary
6  Comments         12 DM Care Summary (DPCS)
Select Action: Quit//
```

Figure D-14: Select Register Status (1)

3. At the **Select Action** prompt (Figure D-15), type **1** and press **Enter**.

```
STATUS: ACTIVE//
```

Figure D-15: Updating the Status

4. To change the **Register Status**, select the new status from the **Status** list.

- **A**–Active patients who receive their primary healthcare at a facility and who have had care at that 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 diabetes care at a facility and 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. However, 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.

- **NON**–Noncompliant patients with repeated documented refusals of recommended services.

> **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 above can be used as a guideline in the absence of Area-defined criteria.

How to Edit Register Status in Visual DMS

1. Select the desired **Patient** using the **Select Patient** tab at the top of the screen.

2. Open the **Patient Management** menu (Figure D-16).
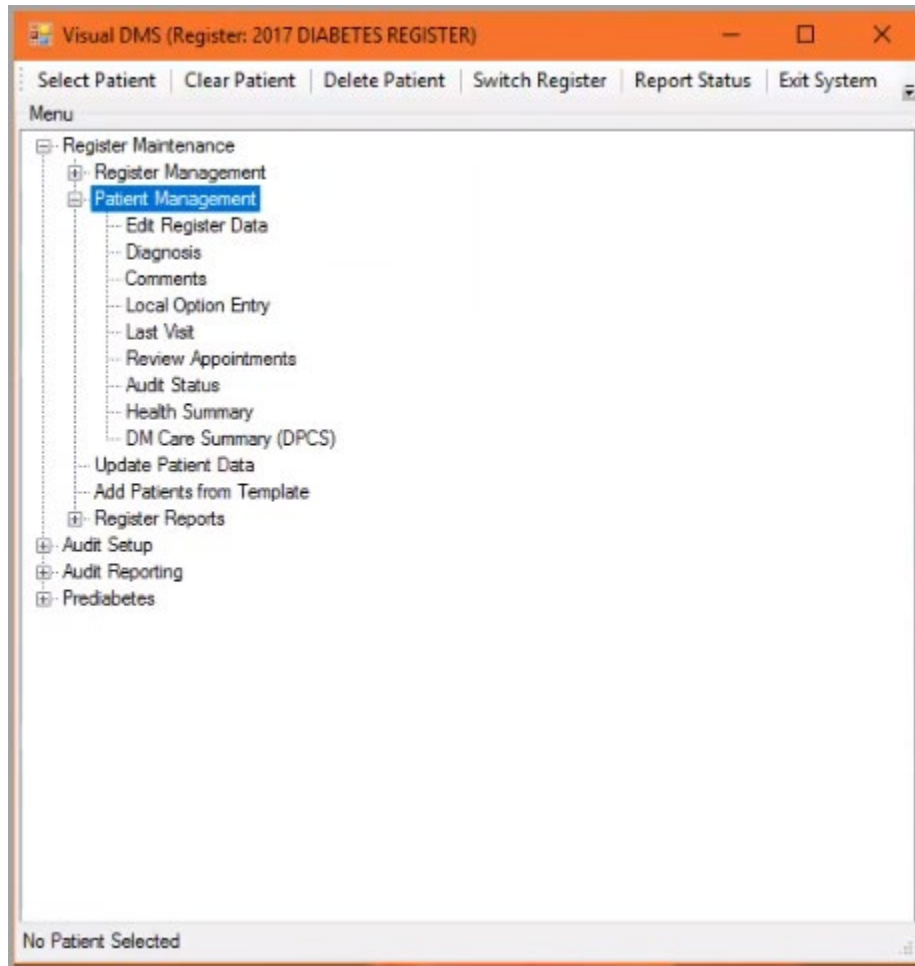
Figure D-16: Selecting Edit Register Data from the Patient Management menu

3. Click **Edit Register Data**. The **Patient Profile** (Figure D-17) displays.

Figure D-17: Patient Profile screen display

4. To change the **Register Status**, select the new status from the **Status** list. Click the **arrow** to view the list of available status choices.

5. Click **Save**.

6. Close the **dialog**.

D.3.1.5   PLDX–Patients w/No Diagnosis of DM on Problem List

This report (Figure D-18) identifies patients who do not have a problem list diagnosis of diabetes. In addition, these patients will not have the date of onset documented on the problem list. You will be first prompted to choose between patients on the **Register** or those with a specified number of diagnoses of diabetes but not an active problem of diabetes. If you select the **Register**, you will be prompted to identify the name of the Register and the status of the patients you would like reviewed.

```
This report will list patients who do not have Diabetes on their Problem
List but who are on a Diabetes Register or who have had at least N
diagnoses of diabetes.

     Select one of the following:

        R          Those who are members of a Register
        D          Those with at least N Diabetes Diagnoses

List which subset of patients: R// [ENT]

Enter the Name of the Register: IHS DIABETES
Do you want to select register patients with a particular status? Y// [ENT]
Which status: A//[ENT] ACTIVE
```

Figure D-18: Patients w/No Diagnosis of DM on Problem List

The resulting report (Figure D-19) will display alphabetically all active patients on
the **Register** who do not have an active problem of diabetes along with the date of the
last diabetes diagnosis and the total number of diabetes diagnoses.

```
       ********** CONFIDENTIAL PATIENT INFORMATION **********
DKR                                                                  Page 1
                            DEMO HOSP
       PATIENTS WITH NO DIAGNOSIS OF DIABETES ON PROBLEM LIST
                  Patients on the IHS DIABETES Register

PATIENT NAME          HRN    DOB              LAST DM DX    # OF DM DXS
-------------------------------------------------------------------
PATIENT,AMANDA        101500 Sep 19, 1985  F  Jan 01, 2022   1
PATIENT,BARNEY        101988 Aug 08, 1996  M  Jun 18, 2022   1
PATIENT,BRANDON       101867 May 06, 1996  M  Jun 18, 2022   1
PATIENT,GRANT         101857 Jan 30, 1995  M  Jun 18, 2022   1
PATIENT,GREG          101738 May 16, 1992  M  Jun 18, 2022   1
PATIENT,JENNIFER      100044 Jul 19, 1938  F  Jan 13, 2022   1
```

Figure D-19: Patients w/No Diagnosis of DM on Problem List, report sample

D.3.2   Create a Template of Patients for the 2024 Diabetes Audit

If the **IHS Diabetes Register** is not current or has not been routinely used for
management of patients with diabetes, you can use a **QMAN** search to identify
patients with diabetes who have had a visit to a primary care clinic during the Audit
period. The template created from this query can be used for the **2024 Annual
Diabetes Audit**.

Users can run the **QMAN** search using either the general patient population (see
Section D.3.2.1) or the **Diabetes Register** (see Section D.3.1). In either case, if
patients with diabetes who are not American Indian or Alaska Native are seen at the
clinic or included in the **Register**, another attribute called **Classification** can be used
to exclude these patients. The classification for American Indian/Alaska Native
patients is 01.

D.3.2.1 Create a Template using the General Population

The **QMAN** search in the sequence that follows 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 (Figure D-20 through Figure D-22).

```
                    *****  SEARCH CRITERIA  *****

What is the subject of your search?  LIVING PATIENTS // <ENTER>   LIVING
PATIENTS

Include list of upcoming appts for the patient? NO// <ENTER>

    Subject of search: PATIENTS
        ALIVE TODAY

Attribute of LIVING PATIENTS: 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 BGP PRIMARY CARE CLINICS Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE

Enter ANOTHER CLINIC: ENDOCRINOLOGY

The following have been selected =>

     GENERAL
     DIABETIC
     INTERNAL MEDICINE
     PEDIATRIC
     WELL CHILD
     FAMILY PRACTICE
     ENDOCRINOLOGY

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

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

Exact starting date: 1/1/23  (JAN 01, 2023)
Exact ending date: 12/31/23  (DEC 31, 2023)

        Subject of subquery: VISIT
        CLINIC (GENERAL/DIABETIC...)
        BETWEEN JAN 1,2023 and DEC 31,2023@23:59:59

Next condition of "VISIT":

Computing Search Efficiency Rating....
```

```
    Subject of search: PATIENTS
        ALIVE TODAY
            Subject of subquery: VISIT
            CLINIC (GENERAL/DIABETIC...)
            BETWEEN JAN 1,2023 and DEC 31,2023@23:59:59

Attribute of LIVING PATIENTS: DX              DIAGNOSES

Enter DX: [SURVEILLANCE DIABETES
```

Figure D-20: Search Criteria

> **Note:** Use the taxonomy **SURVEILLANCE DIABETES**, as it
> includes all diabetes diagnosis codes, including ICD-9 and
> ICD-10.

```
250.00 - 250.93
E10.10
E10.11
E10.21
E10.22
E10.29
E10.311
E10.319
E10.321
E10.329
E10.331
E10.339
E10.341
<>
```

Figure D-21: Code Listing

> **Note:** The symbols <> denote a page break. Press **Enter** to
> continue listing codes each time <> displays.

```
  (THIS FULL LIST OF CODES WILL DISPLAY)

Enter ANOTHER DX: No or <ENTER>

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

SUBQUERY: Analysis of multiple DIAGNOSES

First condition of "DIAGNOSIS": DURING THE TIME PERIOD
Exact starting date: 1/1/23  (JAN 01, 2023)
Exact ending date: 12/31/23  (DEC 31, 2023)

Next condition of "DIAGNOSIS":
Computing Search Efficiency
Rating.........................................

    Subject of search: PATIENTS
        ALIVE TODAY
            Subject of subquery: VISIT
            CLINIC (GENERAL/DIABETIC...)
```

```
              BETWEEN JAN 1,2023 and DEC 31,2023@23:59:59
          DIAGNOSIS (250.01/250.11...)
             Subject of subquery: DIAGNOSIS
              BETWEEN JAN 1,2023 and DEC 31,2023@23:59:59


Attribute of LIVING 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
           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 AUDIT 2024
  Are you adding 'DM AUDIT 2024' as a new SORT TEMPLATE? No// Y  (Yes)
DESCRIPTION:
  No existing text
  Edit? NO// <ENTER>

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// <ENTER>    (No)

...HMMM, JUST A MOMENT PLEASE...

PATIENTS          DEMO H   ICD CODE  VISIT
(Alive)           NUMBER #
-----------------------------------------------------------------------------

DEMOG,ABE         999996 +           +
```

```
DEMOH,MICKEY*     999997 +          +
DEMOJ,JANE*       999998 +          +
DEMOK,AMY  *      999999 +          +
DEMOM,SHANE       999910 +          +
DEMO,JESSICA*     999911 +          +
DEMOO,ALEXANDRI   999912 +          +
DEMOPAT,RHIANNON  999913 +          +
TEST,AMY          999914 +          +
```

Figure D-22: Audit Template

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

D.3.2.2   Create 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 (subset) of patients on the register who have had at least one visit to a primary clinic during the Audit year and have a diagnosis of diabetes. The QMAN search demonstrating how to create that template is shown in the following sequences (Figure D-23 through Figure D-25).

```
What is the subject of your search?  LIVING PATIENTS // 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// 3  Type 1 & Type
2.....................

There are 74 register patients for the combination selected.
```

```
Attribute of IHS DIABETES REGISTER: ALIVE
Alive at least until exactly what date: TODAY//12/31/23  (DEC 31, 2023)
Computing Search Efficiency Rating.......................................

    Subject of search: PATIENTS
        MEMBER OF 'IHS DIABETES REGISTER-4104' COHORT      ALIVE AS OF DEC
31,2022

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 BGP PRIMARY CARE CLINICS Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE


Enter ANOTHER CLINIC:

The following have been selected =>

      GENERAL
      DIABETIC
      INTERNAL MEDICINE
      PEDIATRIC
      WELL CHILD
      FAMILY PRACTICE


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

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

Exact starting date: 1/1/2023  (JAN 01, 2023)
Exact ending date: 12/31/2023  (DEC 31, 2023)

        Subject of subquery: VISIT
        CLINIC (GENERAL/DIABETIC...)
        BETWEEN JAN 1,2023 and DEC 31,2023@23:59:59

Next condition of "VISIT":

Attribute of LIVING PATIENTS: DX             DIAGNOSES

Enter DX: [SURVEILLANCE DIABETES
250.00 - 250.93
E10.10
E10.11
E10.21
```

Figure D-23: Creating a Template of Register Patients

> **Note:** The **SURVEILLANCE DIABETES** taxonomy contains all of the **ICD-9** and **ICD-10** codes pertaining to Diabetes. Not all of the **ICD-10** codes are listed in this illustration, as there are numerous pages of them.

```
<>E10.42
```

Figure D-24: Sample ICD-10 code

> **Note:** The symbols <> denote a page break. Press **Enter** to continue listing codes each time <> displays.

```
Enter ANOTHER DX: No or <ENTER>

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

SUBQUERY: Analysis of multiple DIAGNOSES

First condition of "DIAGNOSIS": DURING THE TIME PERIOD

Exact starting date: 1/1/23  (JAN 01, 2023)
Exact ending date: 12/31/23  (DEC 31, 2023)

Next condition of "DIAGNOSIS":

Computing Search Efficiency Rating

    Subject of search: PATIENTS
       ALIVE TODAY
          Subject of subquery: VISIT
          CLINIC (GENERAL/DIABETIC...)
          BETWEEN JAN 1,2023 and DEC 31,2023@23:59:59
       DIAGNOSIS (250.01/250.11...)
          Subject of subquery: DIAGNOSIS
           BETWEEN JAN 1,2023 and DEC 31,2023  @23:59:59

Attribute of LIVING 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
          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 AUDIT 2024
  Are you adding 'DM AUDIT 2024' 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// <ENTER>  (No)

...HMMM, JUST A MOMENT PLEASE...

PATIENTS          2103 D ICD CODE  VISIT
(Alive)           NUMBER #
------------------------------------------------------------------------

DEMOQ,NKITA     100006 +          +
DEMOR,ARON*     100007 +          +
DEMOS,MARIE*    100008 +          +
DEMOT,ADRIANN*  100009 +          +
DEMOU,SHANTELI  100010 +          +
DEMOV,JESSICA*  100011 +          +
DEMOW,ALEXANDRI 100012 +          +
DEMOX,RHIANNON  100014 +          +
```

Figure D-25: QMAN search demonstrating how to create a template of patients for the Audit

D.4   Taxonomy Review and Setup

An important step in preparing for a diabetes Audit is to make sure that all relevant medication and lab test taxonomies are up to date and include all appropriate drugs and lab tests that are currently being used at your facility.

The taxonomies listed in Figure D-26 are referenced in the 2024 RPMS Diabetes Audit. You will notice in the list below that several of the taxonomies begin with **BGP** rather than **DM AUDIT**. These taxonomies, as well as several of the **DM AUDIT** taxonomies, are shared between the **Government Performance and Results Act (GPRA)** program and the **DMS**. It is imperative that staff work together to review and update these taxonomies.

Even though taxonomies might have been updated for the 2023 Annual Audit, they must be reviewed and updated again before running the 2024 Annual Audit as new medications may have been added to the pharmacy formulary or new lab tests offered.

```
DM AUDIT TAXONOMY UPDATE        Oct 26, 2023 16:26:19    Page:   1 of    1
TAXONOMIES TO SUPPORT 2024 DIABETES AUDIT REPORTING
* Update Taxonomies
------------------------------------------------------------------------
1)   BGP CMS SMOKING CESSATION MEDS    DRUG
2)   BGP CREATINE KINASE TAX           LABORATORY TEST
3)   BGP GPRA ESTIMATED GFR TAX        LABORATORY TEST
4)   BGP HEP C TESTS TAX               LABORATORY TEST
5)   BGP PQA STATIN MEDS               DRUG
6)   DM AUDIT ACARBOSE DRUGS           DRUG
7)   DM AUDIT ACE INHIBITORS           DRUG
8)   DM AUDIT ALT TAX                  LABORATORY TEST
9)   DM AUDIT AMYLIN ANALOGUES         DRUG
10)  DM AUDIT ANTIPLT/ANTICOAG RX      DRUG
11)  DM AUDIT ASPIRIN DRUGS            DRUG
12)  DM AUDIT AST TAX                  LABORATORY TEST
13)  DM AUDIT BROMOCRIPTINE DRUGS      DRUG
14)  DM AUDIT CHOLESTEROL TAX          LABORATORY TEST
15)  DM AUDIT COLESEVELAM DRUGS        DRUG
16)  DM AUDIT CREATININE TAX           LABORATORY TEST
17)  DM AUDIT DIET EDUC TOPICS         EDUCATION TOPICS
18)  DM AUDIT DPP4 INHIBITOR DRUGS     DRUG
19)  DM AUDIT EXERCISE EDUC TOPICS     EDUCATION TOPICS
20)  DM AUDIT GLITAZONE DRUGS          DRUG
21)  DM AUDIT GLP-1 RECEPT AGONISTS    DRUG
22)  DM AUDIT HDL TAX                  LABORATORY TEST
23)  DM AUDIT HGB A1C TAX              LABORATORY TEST
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 DRUGS DRUG
31)  DM AUDIT STATIN DRUGS             DRUG
32)  DM AUDIT SULFONYLUREA DRUGS       DRUG
33)  DM AUDIT SULFONYLUREA-LIKE        DRUG
34)  DM AUDIT TB LAB TESTS             LABORATORY TEST
35)  DM AUDIT TB MEDS                  DRUG
36)  DM AUDIT TIRZEPATIDE DRUGS        DRUG
37)  DM AUDIT TRIGLYCERIDE TAX         LABORATORY TEST
```

Figure D-26: Audit user-populated taxonomies

D.4.1   LMR–List Labs or Medications Used at this Facility

Note: This report is not available in Visual DMS and must be run in traditional RPMS.

This report displays the laboratory tests reported or the drugs prescribed at a facility 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. This report can be very helpful for reviewing and updating taxonomies. To run the laboratory tests version of this report:

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

2. Type **LMR** (List Labs/Medications Used at this Facility) and press **Enter**.

3. At the **Do you want to list** prompt, type **L** (LAB TESTS) and press **Enter**.

4. Type the **beginning** and **ending dates** for the report (**1/1/23** and **12/31/23** for the 2024 Annual Diabetes Audit), pressing **Enter** after each.

5. At the **Do you want 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 D-27.

```
Oct 31, 2023                                                Page 1
                       LAB TESTS Used at DEMO HOSPITAL
                   Date Range:  Jan 01, 2023 - Dec 31, 2023
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 D-27: Sample Report of Lab Tests Documented during the Audit Period

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

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

2. 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 (**7/1/23** and **12/31/23** for the 2024 Annual Diabetes Audit), pressing **Enter** after each.

    This is July 1 rather than January 1, as with labs. The Audit only reviews medications prescribed during the last six months of the Audit period.

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 D-28.

```
Oct 31, 2023                                              Page 1
                 MEDICATIONS (DRUGS) Used at DEMO HOSPITAL
                   Date Range:  Jul 01, 2023 - Dec 31, 2023
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 D-28: Sample Report of Drugs Prescribed during the last six months of the Audit period

D.4.2   Update Taxonomies

The taxonomies can be reviewed and updated with the **TU** option under the **AS-Audit Setup** menu in **DMS** 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 results in the display of a warning. This warning is displayed because the Audit cannot correctly determine individual values such as A1C, LDL, HDL, or eGFR 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 Tirzepatide [Mounjaro], then the DM AUDIT TIRZEPATIDE DRUGS taxonomy will not have any members.

Taxonomies in the following sections must be reviewed carefully. Possible members of the taxonomies are listed but are by no means to be considered comprehensive.

D.4.2.1 Drug Taxonomies

Table D-1 provides a list of **DM Audit Drug Taxonomies**. Review this list with the pharmacist to be sure it includes all that are available at your facility or may be ordered/prescribed as outside medications.

Combination drugs should be added to the taxonomy for each of the components of that drug. For example, Empagliflozin and metformin (Synjardy, Synjardy XR) should be included in both the SGLT-2 inhibitor taxonomy (for empagliflozin) and the metformin taxonomy.

> **Note:** The BGP PQA STATIN MEDS taxonomy is not included in the list that follows as it is pre-populated using the NDC numbers of Statin Drugs and does not need to be reviewed or populated on a local basis.

Table D-1: DM Audit Drug Taxonomies

Taxonomy	Drugs–Note: Bold font used to indicate drug in class relevant to Taxonomy.
DM AUDIT ACE INHIBITORS **Note:** This taxonomy includes both ACE inhibitors and angiotensin II receptor blockers (ARBs).	**ACE INHIBITORS** Amlodipine and **benazepril** (Lotrel) Benazepril (Lotensin) **Benazepril** and hydrochlorothiazide (Lotensin HCT) Captopril **Captopril** and hydrochlorothiazide Enalapril (Vasotec, Epaned) **Enalapril** and diltiazem (Teczem) **Enalapril** and felodipine (Lexxel) **Enalapril** and hydrochlorothiazide (Vaseretic) Fosinopril Lisinopril (Prinivil, Zestril, Qbrelis) **Lisinopril** and hydrochlorothiazide (Prinzide, Zestoretic) Moexipril **Moexipril** and hydrochlorothiazide (Uniretic) Perindopril (Aceon) Quinapril (Accupril) **Quinapril** and hydrochlorothiazide (Accuretic) Ramipril (Altace) Trandolapril (Mavik) **Trandolapril** and verapamil (Tarka) **ANGIOTENSIN II RECEPTOR BLOCKERS (ARBs)** Amlodipine and **valsartan** (Exforge) Amlodipine, **valsartan** and hydrochlorothiazide (Exforge HCT) Azilsartan (Edarbi) **Azilsartan** and chlorthalidone (Edarbyclor)

Taxonomy	Drugs–Note: Bold font used to indicate drug in class relevant to Taxonomy.
	Candesartan (Atacand) **Candesartan** and hydrochlorothiazide (Atacand HCT) Eprosartan (Teveten) **Eprosartan** and hydrochlorothiazide (Teveten HCT) Irbesartan(Avapro) **Irbesartan** and hydrochlorothiazide (Avalide) Losartan (Cozaar) **Losartan** and hydrochlorothiazide (Hyzaar) Nebivilol and **valsartan** (Byvalson) Olmesartan (Benicar) **Olmesartan** and hydrochlorothiazide (Benicar HCT) Sacubitril and **valsartan** (Entresto) Telmisartan (Micardis) **Telmisartan** and amlodipine (Twynsta) **Telmisartan** and hydrochlorothiazide (Micardis HCT) Valsartan (Diovan, Prexxartan) **Valsartan** and hydrochlorothiazide (Diovan HCT)
DM AUDIT ACARBOSE DRUGS	Acarbose (Precose) Miglitol (Glyset)
DM AUDIT AMYLIN ANALOGUES	Pramlinitide (Symlin)
DM AUDIT ANTIPLT/ANTICOAG THERAPY	**Antiplatelet Drugs** Any non-aspirin anti-platelet product including Cilostazol (Pletal) Clopidogrel (Plavix) Dipyridamole (Persantine) Prasugrel (Effient) Ticagrelor (Brilinta) Ticlopidine (Ticlid) Vorapaxar (Zontivity) **Anticoagulants** Apixaban (Eliquis) Dabigatran etexilate (Pradaxa) Dalteparin (Fragmin) Edoxaban (Savaysa) Enoxaparin (Lovenox) Fondaparinux (Arixtra) Rivaroxaban (Xarelto) Warfarin (Coumadin)
DM AUDIT ASPIRIN DRUGS	Any Aspirin (ASA) or Aspirin containing product Aspirin and dipyridamole (Aggrenox)

Taxonomy	Drugs–Note: Bold font used to indicate drug in class relevant to Taxonomy.
DM AUDIT BROMOCRIPTINE DRUGS	Bromocriptine 0.8 mg (Cycloset)
DM AUDIT COLESEVELAM DRUGS	Colesevelam (Welchol)
DM AUDIT DPP-4 INHIBITOR DRUGS	Alogliptin (Nesina) **Alogliptin** and metformin (Kazano) **Alogliptin** and pioglitazone (Oseni) Linagliptin (Tradjenta) Empagliflozin and **linagliptin** (Glyxambi) Empagliflozin. **linagliptin** and metformin (Trijardy XR) **Linagliptin** and metformin(Jentadueto, Jentadueto XR) Sitagliptin (Januvia) Ertugliflozin and **sitagliptin** (Steglujan) **Sitagliptin** and metformin (Janumet, Janumet XR) **Sitagliptin** and simvastatin (Juvisync) Saxagliptin (Onglyza) Dapagliflozin and **saxagliptin** (Qtern) Dapagliflozin, **saxagliptin** and metformin (Qternmet XR) **Saxagliptin** and metformin (Kombiglyze XR)
DM AUDIT GLITAZONE DRUGS (a.k.a.: Thiazolidinediones)	Alogliptin and **pioglitazone** (Oseni) Pioglitazone (Actos) **Pioglitazone** and metformin (ActoPlus Met, ActoPlus Met XR) **Pioglitazone** and glimepiride (Duetact) Rosiglitazone (Avandia) **Rosiglitazone** and metformin (Avandamet)
DM AUDIT GLP-1 RECEPT AGONISTS	Dulaglutide (Trulicity) Exenatide (Byetta, Bydureon, Bydureon BCise) Insulin degludec and **liraglutide** (Xultrophy) Insulin glargine and **lixisenatide** (Soliqua) Liraglutide (Victoza, Saxenda) Lixisenatide (Adlyxin) Semaglutide (Ozempic, Rybelsus, Wegovy)
DM AUDIT INSULIN DRUGS	**Any Insulin product in Drug File:** Insulin, REG, NPH, Insulin lispro (Humalog, Admelog, Lyumjev), Insulin glargine (Lantus, Basaglar, Rezvoglar, Semglee, Toujeo), Insulin detemir (Levemir), Insulin degludec (Tresiba), Insulin aspart (Novolog, Fiasp), Insulin glulisine (Apidra), **Inhalable Insulin:** (Affreza) **Pre-Mixed Insulins:** 70/30-REG/NPH, ASPART/NPA, ASPART/DEGLUDEC 75/25-LISPRO/NPL 50/50-LISPRO/NPL

Taxonomy	Drugs–Note: Bold font used to indicate drug in class relevant to Taxonomy.
	Insulin Combinations: Insulin degludec and liraglutide (Xultrophy), Insulin glargine and lixisenatide (Soliqua)
DM AUDIT METFORMIN DRUGS	Alogliptin and **metformin** (Kazano) Canagliflozin and **metformin** (Invokamet, Invokamet XR) Dapagliflozin and **metformin** (Xigduo XR) Dapagliflozin, saxagliptin and **metformin** (Qternmet XR) Empagliflozin. linagliptin and **metformin** (Trijardy XR) Empagliflozin and **metformin** (Synjardy, Synjardy XR) Ertugliflozin and **metformin** (Segluromet) Glipizide and **metformin** (Metaglip) Glyburide and **metformin** (Glucovance) Linagliptin and **metformin** (Jentadueto, Jentadueto XR) Metformin (Glucophage, Fortamet, Glumetza, Riomet) Metformin extended release (Glucophage XR, Glumetza) Pioglitazone and **metformin** (ActoPlus Met, ActoPlus Met XR) Repaglinide and **metformin** (PrandiMet) Rosiglitazone and **metformin** (Avandamet) Saxagliptin and **metformin** (Kombiglyze XR) Sitagliptin and **metformin** (Janumet, Janumet XR)
DM AUDIT SGLT-2 INHIBITOR DRUGS	Bexagliflozin (Brenzavvy) Canagliflozin (Invokana) **Canagliflozin** and metformin (Invokamet, Invokamet XR) Dapagliflozin (Farxiga) **Dapagliflozin** and metformin (Xigduo XR) **Dapagliflozin** and saxagliptin (Qtern) **Dapagliflozin**, saxagliptin and metformin (Qternmet XR) Empagliflozin (Jardiance) **Empagliflozin** and metformin (Synjardy, Synjardy XR) **Empagliflozin** and linagliptin (Glyxambi) **Empagliflozin**, linagliptin and metformin (Trijardy XR) Ertugliflozin (Steglatro) **Ertugliflozin** and metformin (Segluromet) **Ertugliflozin** and sitagliptin (Steglujan) Sotagliflozin (Inpefa)
DM AUDIT STATIN DRUGS	Amlodipine and **atorvastatin** (Caduet) Atorvastatin (Lipitor) Ezetimibe and **atorvastatin** (Liptruzet) Ezetimibe and **simvastatin** (Vytorin) Fluvastatin (Lescol, Lescol XL) Lovastatin (Mevacor, Altocor, Altoprev)

Taxonomy	Drugs–Note: Bold font used to indicate drug in class relevant to Taxonomy.
	Niacin XR and **lovastatin** (Advicor)
	Niacin XR and **simvastatin** (Simcor)
	Pravastatin (Pravachol)
	Pitavastatin (Livalo, Zypitamag)
	Rosuvastatin (Crestor, Ezallor)
	Simvastatin (Zocor)
	Sitagliptin and **simvastatin** (Juvisync)
DM AUDIT SULFONYLUREA DRUGS	Acetohexamide (Dymelor) Chlorpropamide (Diabinese) Glimepiride (Amaryl) Glipizide (Glucotrol) **Glipizide** and metformin (Metaglip) Glyburide (Diabeta, Micronase,Glynase, Glynase PresTab Glycron) **Glyburide** and metformin (GlucoVance) Pioglitazone and **glimepiride** (Duetact) Tolazamide (Tolinase) Tolbutamide (Orinase)
DM AUDIT SULFONYLUREA-LIKE DRUGS	Nateglinide (Starlix) Repaglinide (Prandin) **Repaglinide** and metformin (PrandiMet)
DM AUDIT TIRZEPATIDE DRUGS	Tirzepatide (Mounjaro)
DM AUDIT TB MEDS	Ethambutol (Myambutol) Isoniazid (INH) Pyrazinamide Rifabutin (Myobutin) Rifampin (Rifadin) Rifamipin and isoniazid (Rifamate) Rifampin, isoniazid and pyrazinamide (Rifater) Rifapentine (Priftin)

D.4.2.2   Laboratory Test Taxonomies

Table D-2 lists the taxonomies that must be reviewed for potential changes in laboratory testing at a facility each year. Note that the DM AUDIT ALT, DM AUDIT AST, and DM AUDIT CREATINE KINASE taxonomies are used to check for test values that would be indicative of an adverse reaction to statin therapy.

With the advent of reference laboratory interfaces and Point of Care result entry, there is considerable variation in test nomenclature. Solicit assistance from laboratory staff in updating taxonomies.

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

Table D-2: DM Audit Laboratory Test Taxonomies

Taxonomy	Tests
BGP GPRA ESTIMATED GFR TAX	Estimated GFR, Calculated GFR, _GFR, Estimated, _GFR Non-African American, EST GFR, eGFR
BGP CREATINE KINASE TAX	CK, CPK, Creatine Kinase, Total CK
DM AUDIT ALT TAX	ALT, SGPT
DM AUDIT AST TAX	AST, SGOT
DM AUDIT CHOLESTEROL TAX	Cholesterol, Total Cholesterol, _Cholesterol, POC Cholesterol
DM AUDIT CREATININE TAX	Creatinine, POC Creatinine, Serum Creatinine, _Creatinine **Note:** Do not include any tests for Urine 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. **Note:** Check with your laboratory supervisor to confirm that the tests added to this taxonomy reflect true quantitative test values.
DM AUDIT TB LAB TESTS	QFT-G, T SPOT-TB, Quantiferon GOLD
DM AUDIT TRIGLYCERIDE TAX	Triglyceride, POC Triglyceride, _Triglyceride
BGP HEP C TESTS TAX	Hepatitis C tests

Figure D-29 shows a Health Summary sample with the name of the taxonomy that the test is included in noted underneath the lab test.

```
HGB A1C-GLYCO (R)                01/16/23 5.7    %    4.3-6.1
   DM AUDIT HGB A1C
LIPID PROFILE (R)                01/16/23
HDL CHOLESTEROL (R)              01/16/23 44        MG/DL  40-125
   DM AUDIT HDL CHOLESTEROL
TRIGLYCERIDE (R)                 01/16/23 109       MG/DL  30-150
   DM AUDIT TRIGLYCERIDE
```

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

Figure D-29: Health Summary with recommended taxonomy placement

D.4.3   View/Print Any DM Audit Taxonomy

The **View/Print Any DM Taxonomy** option may be used to review any of the Diabetes Audit taxonomies, including CPT Codes, Diagnoses Codes, LOINC Codes, Medications, Laboratory Tests, or Education Topics. To review a taxonomy:

1. Select **AS** (Audit Setup) from the **DMS** main menu.

2. Select **VTAX View/Print Any DM Audit Taxonomy**.

3. When prompted, type **2024** as the Audit year. A list of the taxonomies used in the 2024 Diabetes Audit display (Figure D-30).

> **Note:** There are multiple pages of taxonomies. Use the **up-arrow** or **down-arrow** to browse the list.

4. Type **S** to indicate a selection will be made. Then type the number preceding the taxonomy of interest.

The taxonomy contents may be browsed on the screen or printed to an RPMS printer. Figure D-31 shows a sample of the taxonomy contents for the creatinine kinase test.

```
DM AUDIT TAXONOMY VIEW          Nov 02, 2023 11:31:16     Page:    1 of    8
TAXONOMIES TO SUPPORT 2024 DIABETES AUDIT REPORTING
* View Taxonomies

1)   BGP ABORTION PROCEDURES         ICD OPERATION/PROCEDURE
2)   BGP ADV EFF CARDIOVASC NEC      ICD DIAGNOSIS
3)   BGP ALCOHOL HEPATITIS DXS       ICD DIAGNOSIS
4)   BGP ALT LOINC                   LAB LOINC
5)   BGP ASA ALLERGY 995.0-995.3     ICD DIAGNOSIS
6)   BGP AST LOINC                   LAB LOINC
7)   BGP BREASTFEEDING DXS           ICD DIAGNOSIS
8)   BGP CABG CPTS                   CPT
9)   BGP CABG DXS                    ICD DIAGNOSIS
10)  BGP CABG PROCS                  ICD OPERATION/PROCEDURE
11)  BGP CMS SMOKING CESSATION MEDS  DRUG
12)  BGP CPT ABORTION                CPT
13)  BGP CPT FLU                     CPT
14)  BGP CPT FOOT EXAM               CPT
15)  BGP CPT MISCARRIAGE             CPT
16)  BGP CREATINE KINASE LOINC       LAB LOINC
+          Enter ?? for more actions
S    Select Taxonomy to View            Q    Quit
Select Action:+/
```

Figure D-30: Taxonomy list for Diabetes Audit

```
DKR                                                              Page 1
                          DEMO HOSPITAL
             Listing of the BGP CREATINE KINASE LOINC taxonomy
     -----------------------------------------------------------------------
2157-6         CREATINE KINASE:CCNC:PT:SER/PLAS:QN
24335-2        CREATINE KINASE PANEL: - :PT:SER/PLAS:QN
50756-6
```

Figure D-31: Sample of a Taxonomy for Creatine Kinase LOINC Codes

D.4.4   View a SNOMED List Used by the DM Audit

The **View a SNOMED List Used by the DM Audit** option may be used to review any SNOMED list that is used by the Diabetes Audit.

1. Select **AS** (Audit Setup) from the **DMS** main menu.

2. Select **VSML** View a SNOMED List Used by the DM AUDIT.

3. When prompted for the year, type 2024.

   The **SNOMED Lists** used in the 2024 Diabetes Audit will display (Figure D-32 and Figure D-33).

4. Type **S** to indicate a selection will be made.

5. Enter the number preceding the **SNOMED List** of interest. The contents of the **SNOMED List** may be browsed on the screen or printed to an RPMS printer.

```
DM AUDIT SNOMED LIST VIEW     Nov 02, 2023 11:30:36        Page:  1 of    1
SNOMED LISTS TO SUPPORT 2024 DIABETES AUDIT REPORTING
* View SNOMED Lists

1)   BREASTFEEDING PATIENT ED
2)   DEPRESSION DIAGNOSES
3)   PXRM BGP CURRENT TOBACCO
4)   PXRM BGP DM ATK AMP
5)   PXRM BGP DM BTK AMP
6)   PXRM BGP DM RETINOPATHY
7)   PXRM BGP QUIT TOBACCO
8)   PXRM BGP TOBACCO SCREENED
9)   PXRM BGP TOBACCO SMOKELESS
10)  PXRM BGP TOBACCO SMOKER
11)  PXRM BGP TOBACCO TOPICS
12)  PXRM BQI TUBERCULOSIS
13)  PXRM DIABETES
14)  PXRM ESSENTIAL HYPERTENSION
15)  PXRM HEPATITIS C
          Enter ?? for more actions
S    Select SNOMED List to View        Q    Quit
Select Action:+//S   Select SNOMED List to View

Which SNOMED List:  (1-5): 5

      Select one of the following:

          P          PRINT Taxonomy Output
          B          BROWSE Taxonomy Output on Screen

Do you wish to: B//
```

Figure D-32: Selecting a SNOMED List used in the Diabetes Audit

```
OUTPUT BROWSER                    Dec 11, 2023 10:51:50        Page:   1 of    5

BHS                                                                     Page 1
                          DEMO HOSPITAL
          Listing of the PXRM BGP DM RETINOPATHY SNOMED List
-------------------------------------------------------------------------------
4855003                Diabetic retinopathy
25412000               Diabetic retinal microaneurysm
59276001               Proliferative diabetic retinopathy
193349004              Preproliferative diabetic retinopathy
193350004              Advanced diabetic maculopathy
232020009              Diabetic maculopathy
```

```
232022008                    Proliferative diabetic retinopathy with new vessels on
232023001                    Proliferative diabetic retinopathy with new vessels els
232023006                    Diabetic traction retinal detachment
311782002                    Advanced diabetic retinal disease
312903003                    Mild non-proliferative diabetic retinopathy
+        Enter ?? for more actions                                          >>>
+   NEXT SCREEN         -    PREVIOUS SCREEN      Q    QUIT
Select Action: +//
```

Figure D-33: Browsing a selected SNOMED List used in the Diabetes Audit

D.5   Run a Data Quality Check Report

This report identifies potential errors in the data extracted for your Audit data file and/or report–the same errors that would be identified by the **WebAudit Data Quality Check**. The DMS version of the report includes patient identifiers, which the WebAudit version does not, making it easier to locate and correct the relevant data. It is highly recommended that you run this report using DMS and fix all possible errors prior to uploading any **Audit Export (Data)** file to the WebAudit.

The **Data Quality Check Report** (Figure D-34) has two sections, one listing the details of each potential error and one listing the number of potential errors for each Audit item. An Audit item with a large number of errors may indicate a taxonomy or some other systematic issue. It is recommended that these issues be resolved as the first step in data cleaning.

> **Note:** When running this report, use the exact same parameters that you will be using when creating the Audit data file.

```
The Data Quality Check Report (DQC) is on the AS (Audit Setup) menu.

   DXNR   Patients with DM Diagnosis and not on Register
   INA    List Possible Inactive Pts in the DM Register
   PLDX   Patients w/no Diagnosis of DM on Problem List
          --------------------------------------
   LMR    List Labs/Medications Used at this Facility
   TC     Check Taxonomies for the 2024 DM Audit
   TU     Update/Review Taxonomies for 2024 DM Audit
   VTAX   View/Print Any Taxonomy Used by the Diabetes Audit
   VSML   View a SNOMED List Used by the Diabetes AUDIT
   DAL    Display Audit Logic
          --------------------------------------
   DQC    2024 Data Quality Check Report
          --------------------------------------
   ASPR   Prior Years Diabetes Audit Setup (DM19-DM22) ...
```

Figure D-34: Audit Setup Menu

Figure D-35 shows a script on how to run the **Data Quality Check Report**.

```
Diabetes Management System ...

AS – Audit Setup

   DQC – Data Quality Check

In order for the 2024 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 COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries
End of taxonomy check. HIT RETURN: <Enter>

                    ASSESSMENT OF DIABETES CARE, 2024

                          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:  12/31/23  (DEC 31, 2023)

     Select one of the following:

          P          Individual Patients
          S          Search Template of Patients
          C          Members of a CMS Register
          E          E-Audit (predefined set of patients)

Run the audit for: P// C  Members of a CMS Register

Do you want to select register patients with a particular status? Y// ES
Which status: A// <Enter> ACTIVE

There are 873 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> O

Limit the patients who live in a particular community? N// <Enter> 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// <Enter>
Indian/Alaskan Native (Classification 01)

     Select one of the following:
```

```
            I           Include Pregnant Patients
            E           Exclude Pregnant Patients

Select whether to include or exclude pregnant patients in the audit: E//
<Enter> xclude Pregnant Patients
okay, hold on...this may take a few minutes.

   Note:  When not running an official Audit, you may choose to include
   pregnant patients. Pregnant patients are identified as those who have
   had two or more pregnancy-related visits during the Audit period to a
   non-pharmacy clinic, or where the provider is not a CHR. The list of
   pregnancy-related diagnoses may be reviewed under the View/Print
   Taxonomy Lists.

There are 860 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// <Enter> LL Patients selected so far

     Select one of the following:

          P           PATIENT NAME
          E           ERROR FIELD NAME

How should the report be sorted: P// <Enter>

     Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// <Enter> xclude DEMO Patients

     Select one of the following:

          P           PRINT Output
          B           BROWSE Output on Screen

Do you wish to: P// BROWSE Output on Screen
```

Figure D-35: Running a Data Quality Check Report

If the **Print Output** option is selected, at the **Device** prompt, type the printer name. This report can be queued to run later as shown in Figure D-36.

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

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

Figure D-36: Device prompt

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

A sample 2024 Data Quality Check Report is displayed in Figure D-37.

```
   LAB                          Nov 03, 2023                     Page 1

               DIABETES AUDIT EXPORT DATA QUALITY CHECK REPORT
                 Audit Date 12/31/2023 (01/01/2023 to 12/31/2023)
                       Facility: DEMO HOSPITAL (CMBA)

PATIENT NAME          HRN         DOB        SEX AGE      VALUE      ERR TYPE
------------------------------------------------------------------------------
DEMOA,CHARLENE        111111      12/06/1985  F    27                POTENTIAL
    ERROR: ALL KEY DATA MISSING-Data is missing for all key fields: weight,
    blood pressure, A1c, LDL, uACR.
DEMOB,MARIE           222222      09/15/1970  F    42       145      POTENTIAL
    ERROR: HDL VALUE <12 OR >140-HDL Value is less than 12 or greater than
    120.  Check the value, if accurate no action necessary.
DEMOC,LORI            333333      04/28/1992  F    20       2        POTENTIAL
    ERROR: TX INSULIN / DM TYPE 1-Value for this medication is inconsistent
    with DM Type 1.  Check the value for insulin therapy and DM Type.
DEMOD,MARY ANN        444444      10/14/1940  M    72       28       POTENTIAL
    ERROR: DIASTOLIC 1 <30 OR >140-Diastolic 1 is less than 30 or greater
    than 140. Check value.
DEMOF,MINNIE          555555      01/10/1969  F    43        15.6    POTENTIAL
    ERROR: BMI <16 OR >80-BMI is less than 16 or greater than 80.  Check
    values and if necessary correct HT/WT.  If value is correct, no action
    is necessary.
DEMOG,ANGELA          666666      08/17/1920  F    92        7       POTENTIAL
    ERROR: HEIGHT IN FEET HIGH FOR AGE >9-Height is high (>6) for patient
    age >9.  Check the patient's last height value.
DEMOH,JOHN MITCHELL  777777 09/07/2014  F   -1      03/07/1997  DEFINITE
    ERROR: DATE OF DX BEFORE YOB-Date of Diabetes Diagnosis is before year
    of birth.
…
   LAB                          Nov 03, 2022                     Page 36

               DIABETES AUDIT EXPORT DATA QUALITY CHECK REPORT
                 Audit Date 12/31/2022 (01/01/2022 to 12/31/2022)
                       Facility:  DEMO HOSPITAL (CMBA)

PATIENT NAME          HRN         DOB        SEX AGE      VALUE      ERR TYPE
------------------------------------------------------------------------------

                          SUMMARY OF POTENTIAL ERRORS

ERROR MESSAGE                        # OF POTENTIAL ERRORS

AGE OVER 100                         1
ALL KEY DATA MISSING                 25
BMI <16 OR >80                       2
CREATININE VALUE <0.3 OR >15         1
DATE OF DX BEFORE YOB                1
DIASTOLIC 1 <30 OR >140              1
DURATION OF DM                       1
EGFR VALUE <5 OR >250                2
HBA1C DATE <20 DAYS BEFORE DOO       1
HDL VALUE <12 OR >140                4
```

```
HEIGHT IN FEET HIGH FOR AGE >9        1
HEIGHT IN FEET LOW FOR AGE <19        1
HEIGHT IN FEET LOW FOR AGE >18        2
HEIGHT IN FEET MISSING                1
HEIGHT TOTAL <24 AGE<18               1
HEIGHT TOTAL <48 AGE>17               2
HEIGHT TOTAL >60 AGE <10              4
HEIGHT TOTAL >84 AGE >9               1
TB TEST DATE < YOB                    2
WEIGHT LESS THAN 80, AGE >17          1
```

Figure D-37: Sample Data Quality Check Report

D.6   2024 Audit Tools

Instructions for creating and submitting a **Diabetes Audit** data file are provided in the **Audit 2024 Instructions** that can be found on the **Audit** website: https://www.ihs.gov/diabetes/audit/audit-resources/.

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

Output options include an individual **Audit**, **Audit Report**, **SDPI RKM Report**, and **Audit Export (Data)** file. Even those doing manual Audits may find it useful to print individual Audits that most likely have some information on them, such as measurements.

D.6.1   Individual Audits

Individual Audits list all of the Audit data items for a particular patient. These can be run either via the Audit Reporting menu or the Patient Management option. To run using the Audit Reporting menu, refer to Section C.3.7. To run an individual Audit using the Patient Management option do the following:

1. At the **Diabetes Management Systems** menu, type **RM** for Register Maintenance and press **Enter**, then type **PM** for Patient Management and press **Enter**.

2. At the **Patient Management** menu, select your diabetes register. Then in Register Data, type **10** (DM Audit Status) and press **Enter**.

3. At the **Enter the Audit Date** prompt, type the ending date of the 12-month 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 individual Audit, 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 individual Audit is shown in Figure D-38.

```
IHS Diabetes Care and Outcomes Audit, 2024   DATE RUN: 10/03/2023   Page: 1


Audit Period Ending Date: 12/31/2023    Facility Name: DEMO HOSPITAL
Reviewer initials: LAB                  Community: LAKE HAVSU C
State of Residence: NM
Name: DEMO,ANGELA MARIE     Chart #: 136938
DOB: 09/02/1955    Birth Sex: FEMALE
Primary Care Provider:  EVANS,BARBARA A R N


Date of Diabetes Diagnosis:
  DM Register: <not documented>  Problem List: 03/01/2007
  First PCC DX: 10/06/2007
DM Type: 2  Type 2
  DM Register: <not documented>  Problem List: E11.9
    PCC POV's: Type 2


Tobacco/Nicotine Use (during Audit period)
    Screened for tobacco use: 1  Yes
     If screened, tobacco user: 1  Yes CURRENT SMOKER, SOME DAY  4/03/2023
       If screened and current user, tobacco cessation counseling/education
        received: 1  Yes 04/03/2023 TO-QT

  Electronic Nicotine Delivery Systems (ENDS)
    Screened for ENDS use: 1  Yes 04/03/2023 NEVER USED ANY E-CIGARETTE
      If screened, ENDS use: 2  Not a current user 04/03/2023

Vital Statistics

  Height (last ever): 56.00 inches 04/03/2023
  Weight (last in Audit period): 165 lbs 04/03/2023     BMI:  37.0

  Hypertension (documented diagnosis ever): 1  Yes
  Blood pressure (last 3 during Audit period): 140/88 mm Hg 05/04/2023
                                               150/90 mm Hg 04/03/2023


Examinations (during Audit period)
  Foot (comprehensive or "complete", including evaluation of
  sensation and vascular status):       1  Yes  04/03/2023 Diabetic Foot
  Eye (dilated exam or retinal imaging): 2  No
  Dental:                                1  Yes  02/09/2023 Dental Exam

Depression
  Screened for depression (during Audit period):
        1  Yes - Exam: DEPRESSION SCR 04/03/2023
  Depression active diagnosis (during Audit period):  2  No

Education (during Audit period)
  Nutrition:                            2  Yes (Non RD) NRD: DM-N 04/03/2023
```

```
     Physical activity:                  2  No
     Other diabetes:                     1  Yes DM-C  04/03/2023



IHS Diabetes Care and Outcomes Audit, 2024   DATE RUN: 10/03/2023   Page: 2
Audit Period Ending Date: 12/31/2023
NAME: DEMO,ANGELA MARIE     CHART #: 136938    DOB: Sep 02, 1955    SEX:
FEMALE
------------------------------------------------------------------------

Diabetes Therapy All prescribed (as of the end of the Audit period):
      1 None of the following
      2 Insulin
   X  3 Metformin [Glucophage, others]
      4 Sulfonylurea [glipizide, glyburide, glimepiride]
      5 DPP-4 inhibitor [alogliptin (Nesina), linagliptin (Tradjenta),
        saxagliptin (Onglyza), sitagliptin (Januvia)]
      6 GLP-1 receptor agonist [dulaglutide (Trulicity), exenatide (Byetta,
        Bydureon), liraglutide (Victoza, Saxenda), lixisenatide (Adlyxin),
        semaglutide (Ozempic, Rybelsus, Wegovy)]
      7 SGLT-2 inhibitor [bexagliflozin (Brenzavvy), canagliflozin
       (Invokana), dapagliflozin (Farxiga), empagliflozin (Jardiance),
        ertugliflozin (Steglatro), sotagliflozin (Inpefa)]
      8 Pioglitazone [Actos] or rosiglitazone [Avandia]
      9 Tirzepatide [Mounjaro]
      10 Acarbose [Precose] or miglitol [Glyset]
      11 Repaglinide [Prandin] or nateglinide [Starlix]
      12 Pramlintide [Symlin]
      13 Bromocriptine [Cycloset]
      14 Colesevelam [Welchol]

ACE Inhibitor or ARB
Prescribed (as of the end of the Audit period):
        1  Yes  09/01/2023 LISINOPRIL 2.5MG TAB *

Aspirin or Other Antiplatelet/Anticoagulant Therapy
Prescribed (as of the end of the Audit period):
        2  No

Statin Therapy
  Prescribed (as of the end of the Audit period):
        1  Yes  09/01/2023 ATORVASTATIN 40MG TAB

Cardiovascular Disease (CVD)
  Diagnosed (ever):   2  No

Tuberculosis (TB)
  TB diagnosis (latent or active) documented (ever):  2 No
  TB test done (most recent): 1 - Skin test (PPD) 09/07/2006
  TB test result: 2 - Negative 9/7/06 Reading: 0 Result: N
    If TB diagnosis documented or TB result 'Positive', treatment initiated
    (isoniazid, rifampin, rifapentine, others):
    If TB result 'Negative', test date: 09/07/2006

Hepatitis C (HCV)
  HCV diagnosed (ever): 2  No
    If not diagnosed with HCV, screened at least once (ever):
        1  Yes - 09/08/2008 _SQL Hep C Ab Result (<0.02)

Retinopathy
  Diagnosed (ever): 2  No
```

```
IHS Diabetes Care and Outcomes Audit, 2024   DATE RUN: 10/03/2023   Page: 3
Audit Period Ending Date: 12/31/2023
NAME: DEMO,ANGELA MARIE    CHART #: 136938    DOB: Sep 02, 1955    SEX:
FEMALE
--------------------------------------------------------------------------

Amputation
  Lower extremity (ever), any type (e.g., toe, partial foot, above or
  below knee): 1  Yes - Problem List Z89.442 04/03/2023

Immunizations
  Influenza vaccine (during Audit period):        1  Yes  04/03/2023
  Pneumococcal [PCV15, PCV20, or PPSV23] (ever):  1  Yes  05/02/2022
  Td, Tdap, DTaP, or DT (in past 10 years):       1  Yes  03/04/2020
  Tdap (ever):                                    1  Yes  03/04/2020
  Hepatitis B complete series (ever):             2  No
  Shingrix/RZV complete series (ever):            1  Yes

Laboratory Data (most recent result during Audit period)
  A1C:                    7.0 %          04/03/2023    _HEMOGLOBIN A1C
  Total Cholesterol:      220 mg/dL      04/03/2023    _CHOLESTEROL (Q)
  HDL Cholesterol:        52 mg/dL       04/03/2023    HDL CHOLESTEROL
  LDL Cholesterol:        110 mg/dL      04/03/2023    LDL CHOLESTEROL
  Triglycerides:          109 mg/dL      04/03/2023    TRIGLYCERIDE
  Serum Creatinine:       0.86 mg/dl     04/03/2023    CREATININE (R)
  eGFR:                   55 mL/min      04/03/2023    ESTIMATED GFR
  Quantitative UACR:      30 mg/g        04/03/2023    ALBUMIN/CREATININ

COMBINED: Meets ALL: A1C <8.0, statin prescribed, mean BP <130/80
     2  No  A1C: <7.0; statin prescribed: Yes; Mean BP: 145/89

Local Questions

  Select one:
  Text:
```

Figure D-38: Individual Audit sample

D.6.2   Audit Report

The **Audit Report** summarizes all of the Audit data items for a selected group of patients. The **Audit Report** can be either queued using the DM24 option in Visual DMS or run from the traditional RPMS menu. It is highly recommended that the **2024 Audit Report** be run and reviewed twice before creating a data file to submit via the **WebAudit** for the **Annual Audit**.

The first time run the **Audit Report** on all active members of the register with **Type 1** or **Type 2 Diabetes** or on the created template of eligible patients with **Type 1** or **Type 2 Diabetes**.

Review the initial **Audit Report** carefully and look for Audit items that have no data or that have far larger or smaller numbers than expected. If any are found, this may be due to improperly populated taxonomies. If necessary, review taxonomy set up and edit taxonomies as needed. Then run and review the Audit Report again to make sure that problems are corrected before creating the **Audit Export (Data)** file.

> **Note:** It is possible to have taxonomies with no members, if the
> drugs or laboratory tests referenced are not used at a
> facility. See Section D.4 for more information.

Figure D-39 shows the steps for generating an Audit Report.

```
Diabetes Management System ...
AR   Audit Reporting ...
DM24  2024 Diabetes Audit

Select 2024 Diabetes Program Audit Option: DM24  Run 2024 Diabetes Program
Audit

In order for the 2024 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 COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries
End of taxonomy check. HIT RETURN: <Enter>

Select DIABETES Register
  No. Register Name                    # Active # members Last patient update
                                       members
  --- ------------------------------- -------- --------- -------------------
  1   2022 DIABETES REGISTER               37        40   02/07/2020
  2   IHS DIABETES                        552       555   11/14/2023
  3   CLINIC DIABETES REGISTER             29        29   10/05/2019
  4   DEMO DIABETES REGISTER            1,002     1,012   10/03/2019

Which REGISTER:  (1-5):

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:  12/31/23  (DEC 31, 2023)

     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

Do you want to select register patients with a particular status? Y//
<Enter> ES
Which status: A// <Enter> ACTIVE

There are 873 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> O
```

```
Limit the patients who live in a particular community? N// <Enter> 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// <Enter>
Indian/Alaskan Native (Classification 01)

     Select one of the following:

          I          Include Pregnant Patients
          E          Exclude Pregnant Patients

Select whether to include or exclude pregnant patients in the audit: E//
<Enter> xclude Pregnant Patients
okay, hold on...this may take a few minutes.

   Note:  When not running an official Audit, you may choose to include
   pregnant patients. Pregnant patients are identified as those who have
   had two or more pregnancy-related visits during the Audit period to a
   non-pharmacy clinic, or where the provider is not a CHR. The list of
   pregnancy-related diagnoses may be reviewed under the View/Print
   Taxonomy Lists.

There are 543 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// <Enter> LL Patients selected so far

     Select one of the following:

          1          Print Individual Reports
          2          Create AUDIT EXPORT file
          3          Audit Report (Cumulative Audit)
          4          Both Individual and Cumulative Audits
          5          SDPI RKM Report

Enter Print option: 1// 3  Audit Report (Cumulative Audit)

     Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// <Enter> xclude DEMO Patients

     Select one of the following:

          P          PRINT Output
          B          BROWSE Output on Screen
```

```
Do you wish to: P// BROWSE Output on Screen
```

Figure D-39: Running a Cumulative Audit (Audit Report)

If the **Print Output** option is selected, at the **Device** prompt, type the printer name. This report can be queued to run later as shown in Figure D-40.

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

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

Figure D-40: Device prompt

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

A sample 2024 Audit Report is displayed in Section D.14.

D.6.3   Audit Export (Data) File

IHS recommends that the **Annual Audit** include all eligible diabetes patients. There may be patients on your register who do not have Type 1 or Type 2 diabetes or otherwise do not meet the inclusion and exclusion criteria outlined in the Audit 2024 Instructions and in Section D.2. If that is the case, you may need to edit your register or create a separate template of patients for the Audit.

The option to create an **Audit Export (Data)** file is on the **AR Audit Reporting** menu. To generate this report:

1. At the **Diabetes Management System** main menu, type **AR** and press **Enter**.

2. Select **DM24** (2024 Diabetes Audit) and follow the prompts as shown in the script in Figure D-41.

```
  DM24  2024 Diabetes Audit

In order for the 2024 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 COLESEVELAM DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SGLT-2 INHIBITOR DRUGS] has no entries
DRUG taxonomy  [DM AUDIT SULFONYLUREA-LIKE] has no entries
End of taxonomy check. HIT RETURN: <Enter>

Select DIABETES Register
  No. Register Name                  # Active # members Last patient update
                                     members
  --- -------------------------- -------- --------- -------------------
   1   2017 DIABETES REGISTER          37       40   02/07/2020
   2   IHS DIABETES                   552      555   11/14/2023
   3   CLINIC DIABETES REGISTER        29       29   10/05/2019
```

```
   4    DEMO DIABETES REGISTER              1,002    1,012    10/03/2019
   5    ANOTHER DIABETES REGISTER            158      158    10/04/2019


Which REGISTER:  (1-5):

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:  12/31/23   (DEC 31, 2023)

     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

Do you want to select register patients with a particular status? Y// <Enter> ES
Which status: A// <Enter> ACTIVE

There are 543 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> O

Limit the patients who live in a particular community? N// <Enter> 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// <Enter>   Indian/Alaskan
Native (Classification 01)

     Select one of the following:

         I          Include Pregnant Patients
         E          Exclude Pregnant Patients

Select whether to include or exclude pregnant patients in the audit: E// <Enter>
xclude Pregnant Patients
okay, hold on...this may take a few minutes.

   Note:  When not running an official Audit, you may choose to include pregnant
   patients. Pregnant patients are identified as those who have had two or more
   pregnancy-related visits during the Audit period to a non-pharmacy clinic, or
   where the provider is not a CHR. The list of pregnancy-related diagnoses may be
   reviewed under the View/Print Taxonomy Lists.

There are 861 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// <Enter> LL Patients selected so far

     Select one of the following:

        1           Print Individual Reports
        2           Create AUDIT EXPORT file

        3           Audit Report (Cumulative Audit)
        4           Both Individual and Cumulative Audits
        5           SDPI RKM 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 2024 AUDIT

I am going to create a file called dkr 2024 audit.txt which will reside in
the X:\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. PLEASE jot down and remember the following file name:
            **********   DKR 2024 audit.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 2024 audit.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// <Enter> ES

     Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// <Enter> xclude DEMO Patients

Won't you queue this ? Y// <Enter> ES

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

Figure D-41: Creating an Audit Export file

Make a note of the file name you provided and notify the RPMS site manager that a
Diabetes Audit Export file has been created. Provide the file name 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.

D.6.4   SDPI RKM Report

The option to create an SDPI RKM Report is on the **AR Audit Reporting** menu. To generate this report, do the following:

1. At the **Diabetes Management System** main menu, type **AR** and press **Enter**.

2. Select **DM24** (2024 Diabetes Audit) and follow the prompts as shown in the script in Figure D-42.

```
Select Audit Reporting Option: DM24  Run 2024 Diabetes Program Audit

In order for the 2024 DM AUDIT Report to find all necessary data, several
taxonomies must be established. The following taxonomies are missing or have
no entries:
LABORATORY TEST taxonomy  [BGP CREATINE KINASE TAX] contains a panel test: SQL C
KMB 5030 and should not.
DRUG taxonomy   [DM AUDIT AMYLIN ANALOGUES] has no entries
DRUG taxonomy   [DM AUDIT COLESEVELAM DRUGS] has no entries
DRUG taxonomy   [DM AUDIT SGLT-2 INHIBITOR DRUGS] has no entries
DRUG taxonomy   [DM AUDIT SULFONYLUREA-LIKE] has no entries
End of taxonomy check. HIT RETURN: <Enter>

Select DIABETES Register
  No. Register Name                     # Active # members Last patient update
                                        members

  --- ------------------------------ -------- --------- ------------------
   1   2017 DIABETES REGISTER               37       40   02/07/2020
   2   IHS DIABETES                        552      555   11/14/2023
   3   CLINIC DIABETES REGISTER             29       29   10/05/2019
   4   DEMO DIABETES REGISTER            1,002    1,012   10/03/2019
   5   ANOTHER DIABETES REGISTER           158      158   10/04/2019


Which REGISTER:  (1-5):

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:  12/31/23  (DEC 31, 2023)

     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

Do you want to select register patients with a particular status? Y// <Enter> ES
Which status: A// <Enter> ACTIVE

There are 1002 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> O
```

```
Limit the patients who live in a particular community? N// <Enter> 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// <Enter>   Indian/Alaskan
Native (Classification 01)

     Select one of the following:

          I          Include Pregnant Patients
          E          Exclude Pregnant Patients

Select whether to include or exclude pregnant patients in the audit: E// <Enter>
xclude Pregnant Patients
okay, hold on...this may take a few minutes.

   Note:  When not running an official Audit, you may choose to include pregnant
   patients. Pregnant patients are identified as those who have had two or more
   pregnancy-related visits during the Audit period to a non-pharmacy clinic, or
   where the provider is not a CHR. The list of pregnancy-related diagnoses may be
   reviewed under the View/Print Taxonomy Lists.

There are 980 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// <Enter> 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 RKM Report

Enter Print option: 1//5

     Select one of the following:

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

Demo Patient Inclusion/Exclusion: E// <Enter> xclude DEMO Patients

     Select one of the following:

          P          PRINT Output
          B          BROWSE Output on Screen

Do you wish to: P//                        <BROWSE or PRINT as desired>
```

Figure D-42: Running an SDPI RKM Report

The **SDPI RKM** Report is displayed in Figure D-43.

```
   LAB                          Dec 31, 2023                        Page 1

                  IHS Diabetes Care and Outcomes Audit - RPMS
       SDPI Required Key Measures Report for 2024 (01/01/2023 to 12/31/2023)
                     Facility: 2021 DEMO HOSPITAL (INST)
                          Annual Audit/SDPI Reporting

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


   ***NOTE:  6 Patients were not included in this report because
   their date of onset was after the Audit end period date.


   Aspirin or Other Antiplatelet Therapy in Cardiovascular Disease (CVD)
        In patients with diagnosed CVD, aspirin     216         304        71%
        or other antiplatelet/anticoagulant
        therapy currently prescribed

   Blood Pressure (BP) Control
        BP <130/<80 mmHg                            266         620        43%
        (one value or mean of 2 or 3 values)

   Chronic Kidney Disease Screening and Monitoring
        In age >=18 years,                          231         596        39%
        both quantitative UACR and eGFR done

   Dental Exam
        Dental exam received                        240         620        39%

   Depression Screening
        Screened and/or active diagnosis            474         620        76%
        during Audit period

   Diabetes-Related Education
        Any diabetes topic (nutrition,              470         620        76%
        physical activity, or other)

   Eye Exam - Retinopathy Screening
        Eye exam - dilated exam or retinal imaging  304         620        49%

   Foot Exam
        Foot exam - comprehensive                   191         620        31%


   LAB                          Dec 31, 2023                        Page 2

                  IHS Diabetes Care and Outcomes Audit - RPMS
       SDPI Required Key Measures Report for 2024 (01/01/2023 to 12/31/2023)
                     Facility: 2021 DEMO HOSPITAL (INST)
                          Annual Audit/SDPI Reporting

                        620 patients were audited
   ---------------------------------------------------------------------------
```

```
                                    # of        #            Percent
                                    Patients    Considered
                                    (Numerator) (Denominator)

Glycemic Control
    A1C <8.0%                          213         620          34%

Hepatitis C (HCV) Screening
    In age => 18 years, screened for HCV  181     596          30%
    ever or HCV diagnosed ever

Immunizations: Hepatitis B
    Hepatitis B complete series - ever   439       620          71%
    or immune to hepatitis B

Immunizations: Influenza
    Influenza vaccine during report period 364     620          59%

Immunizations: Pneumococcal
    Pneumococcal vaccine (PCV15, PCV20,   508       620          82%
    or PPSV23) - ever

Immunizations: Tetanus/Diphtheria
    Td/Tdap/DTap/DT - past 10 years      573       620          92%

Lipid Management in Cardiovascular Disease
    In patients age 40-75 years and/or   205       515          40%
    with diagnosed CVD, statin currently prescribed*
    *Excludes patients with an allergy, intolerance,
    or contraindication

Nutrition Education
    Nutrition education - by any provider 286       620          46%
    (registered dietitian and/or other)

Physical Activity Education
    Physical activity education          202       620          33%

Tobacco Use Screening
    Screened for tobacco use during      514       620          83%
    report period


   LAB                        Dec 31, 2023                    Page 3

               IHS Diabetes Care and Outcomes Audit - RPMS
    SDPI Required Key Measures Report for 2024 (01/01/2012 to 12/31/2012)
                   Facility: 2021 DEMO HOSPITAL (INST)
                       Annual Audit/SDPI Reporting

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

Tuberculosis (TB) Screening
    TB test done ever or TB              457       620          74%
    diagnosed ever
```

Figure D-43: Sample SDPI RKM Report

D.7   Upload the Export (Data) File to WebAudit

Audit Export (Data) files can be uploaded to the **WebAudit** for data cleaning, report generation, and submission of data to the IHS Division of Diabetes. For further information and resources, visit the **IHS Division of Diabetes Audit** website at https://www.ihs.gov/diabetes/audit/. To upload a file:

1. Request a **WebAudit** account if you do not already have one.

2. Log in to **WebAudit**.

3. From the main or left menu, select **Facility Administration**, then **Enter Facility Information**.

4. Select an **Audit Type**. For the Annual Audit submitted to the Division of Diabetes, select **Annual Audit**. For all other Audits, select **Interim Audit**. Click the **Go** button.

5. Enter the **number of patients** who meet the inclusion and exclusion criteria found in the 2024 Audit Instructions and Section D.2 of this manual.

6. Click the **Submit button**.

7. Select **Upload file for this facility** from the onscreen menu or click **Data Processing** in the left-hand menu, then select **Upload Data**.

8. Individuals with access to multiple facilities will need to select a facility.

9. Select the electronic health record system that was used to create the file (RPMS if you used RPMS/DMS).

10. Click the **Choose File** button and navigate to your data file, then click the **Open** button.

11. Click the **Upload File button**.

    - If the data file upload is successful, you will receive a message on the screen to that effect.

    - If the upload is unsuccessful, you will receive an error message telling you that the file upload attempt was unsuccessful and details about the problems found.

12. Once the file is successfully uploaded, proceed with checking the data quality, if you have not already done so in DMS, as described in the Audit 2024 Instructions, which can be found on the Audit website: https://www.ihs.gov/diabetes/audit/audit-resources/.

13. Generate and review the **Audit Report**, as described in the Audit 2024 Instructions.

D.8   Import the Audit Export (Data) File to Excel (Optional)

When researching patients or data values, it may be helpful to import the Audit Export file into Excel to view, sort, and/or filter the data. The 2024 Diabetes Audit Export file is a delimited text file with all of the Audit data items for each patient in a single row separated by caret symbols (^). Not only can the file be uploaded to the WebAudit, but it can also be opened with Notepad or imported into Excel for local use. The data items are identified by headers in the first row of the file.

> **Note**: The Excel file cannot be uploaded to the WebAudit; the original delimited text file must be uploaded.

Section D.6.3 provides details about the Audit Export file format and field definitions.

Figure D-44 shows a sample Audit Export file opened in Notepad.

Figure D-44: Sample Audit Export file displayed in Notepad

To import a file into Excel:

1. Open **Excel** and select a blank workbook (Figure D-45).

2. Click **File**, then **Open**; browse to the folder containing the **Audit Export** file.

Figure D-45: Excel–Open dialog

3. Change the file type from **All Excel Files** to **All Files** (Figure D-45). This is necessary to see and select the Audit Export file, which is not in Excel format.

4. Select the **Audit Export** file to import.

5. Click **Open**. The **Text Import Wizard–Step 1 of 3** dialog (Figure D-46) displays.
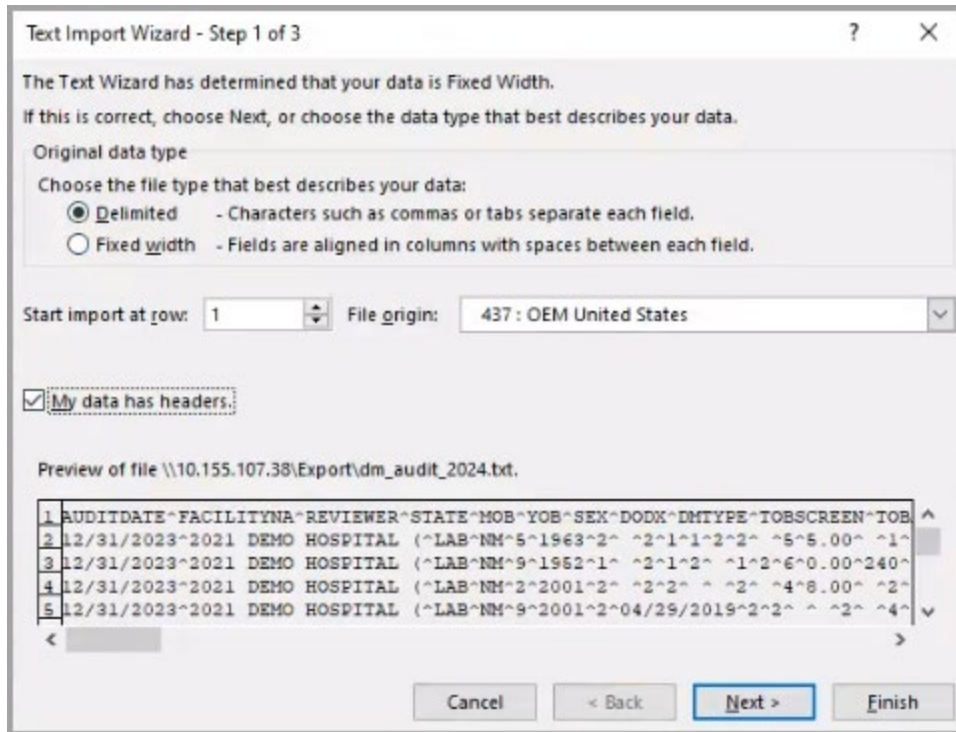
Figure D-46: Text Import Wizard–Step 1 of 3 dialog

6. If the Text Import Wizard does not correctly identify that this is a delimited file, select the **Delimited** option button. Also, select the **My data has headers** check box.

7. Click **Next**. The **Text Import Wizard–Step 2 of 3** dialog (Figure D-47) displays.
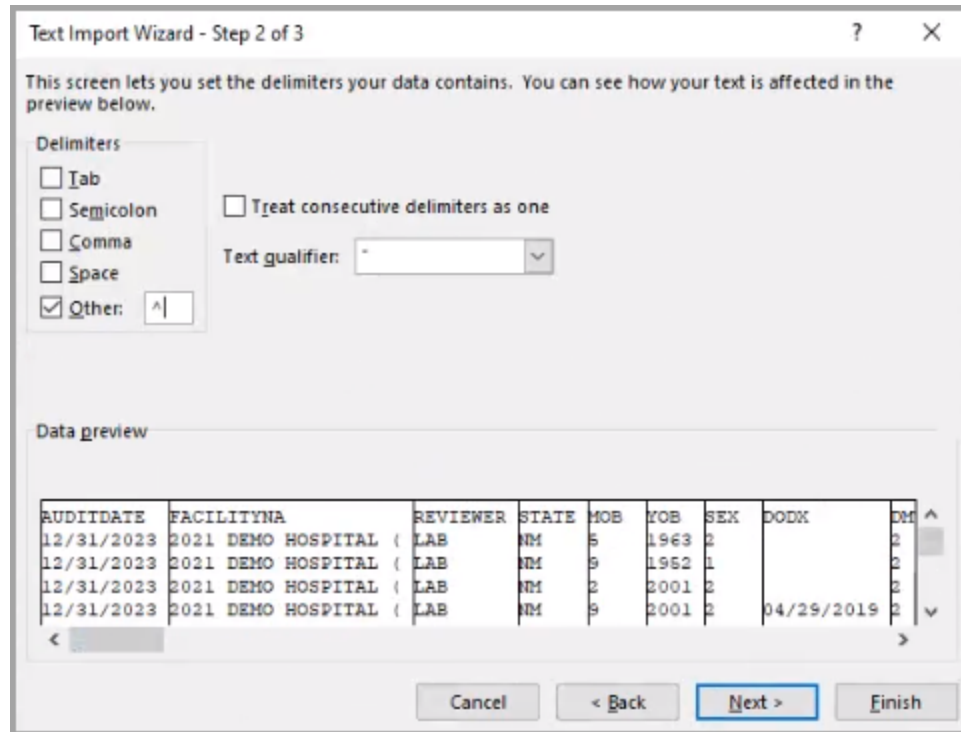
Figure D-47: Text Import Wizard–Step 2 of 3 dialog

8. Under **Delimiters**, select the **Other** check box and type a **caret (^)** in the field to the right of the check box.

9. Deselect the **Tab** check box.

10. Click **Next**. Vertical lines will display between the columns of data.

11. Click **Finish** to complete the import to Excel. Expand columns and sort data as desired.

12. To save the file in Excel format, select **Save As**.

13. Save as an Excel file. Save the Excel file in a secure folder as identified by the Information Technology (IT) staff at your facility.

> **Note**:   The Excel file cannot be uploaded to the WebAudit; the original delimited text file must be uploaded.

D.9   Identify Patients with Potential Errors in the Audit Export File

The DMS Data Quality Check report can identify potential data errors prior to uploading data to the WebAudit (see Section D.6.2). The DMS version of this report includes patient identifiers, which the WebAudit version does not. If you do need to identify patients from the WebAudit version of the Data Quality Check, you can use the instructions that follow:

1. In the **WebAudit**, use the **Data Quality Check** tool to run the **Annual Audit Potential Data Entry Errors Details** report.

2. Scan through the errors. Edit the data and/or add comments for each item in the list, as needed. Clicking the icon in the **Edit** column will open a full screen with all of the data for the selected patient, for review and/or editing.

   - The Year and Month of Birth, Sex, and Date of Diagnosis may all be used to identify the patient via iCare. The RPMS Data Quality Check report may also be used to identify the patients with errors. Running this report is described in Section D.5. The RPMS Data Quality Check report includes the patient's name and chart number.

   - Once the patient is identified, either edit the record directly in the WebAudit using the View/Edit Data tool or correct the data in RPMS, then generate and upload a new Audit Export file.

There are two ways to use the **GEN Report** to identify patients. (See Section 8.4 for additional detail on this functionality):

- By Date of Diagnosis

- By Register Status, Sex, and Year and Month of Birth

D.10   Display 2024 Diabetes Audit Logic

The logic for the 2024 Diabetes Audit is provided under the **DAL** menu option in the **AS**–Audit Setup menu, as shown in Figure D-48.

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

2. At the **Select DMS Audit Item Descriptions Audit Year** prompt, type 2024 for the Audit year and press **Enter** to display the item list.

```
DM AUDIT ITEM DESCRIPTION      Nov 07, 2023 16:26:32       Page:   1 of   2

1)   AUDIT DATE (AKA AUDI   21)   FOOT EXAM - COMPLETE   41)   RETINOPATHY (DIAGNOS
2)   FACILITY NAME          22)   EYE EXAM (dilated ex   42)   LOWER LEG AMPUTATION
3)   REVIEWER INITIALS      23)   DENTAL EXAM            43)   INFLUENZA VACCINE DU
4)   STATE OF RESIDENCE     24)   DEPRESSION SCREENING   44)   Pneumococcal Vaccine
5)   CHART NUMBER           25)   DEPRESSION AN ACTIVE   45)   Td, Tdap, DTap, or D
```

```
 6)   DATE OF BIRTH (DOB)    26)   NUTRITION INSTRUCTIO  46)   Tdap EVER
 7)   BIRTH SEX              27)   PHYSICAL ACTIVITY IN  47)   HEPATITIS B COMPLETE
 8)   PRIMARY CARE PROVIDE   28)   DM EDUCATION (OTHER)  48)   SHRINGRIX COMPLETE S
 9)   DATE OF DIABETES ONS   29)   DIABETES THERAPY      49)   A1C
10)   DM TYPE                30)   ACE INHIBITOR OR ARB  50)   TOTAL CHOLESTEROL
11)   TOBACCO - SCREENED D   31)   ASPIRIN/ OTHER ANTIP  51)   HDL CHOLESTEROL
12)   TOBACCO USE STATUS     32)   STATIN THERAPY        52)   LDL CHOLESTEROL
13)   TOBACCO CESSATION CO   33)   CVD                   53)   TRIGLYCERIDES
14)   (ENDS)-SCREENED DURI   34)   TUBERCULOSIS (TB) DI  54)   SERUM CREATININE
15)   (ENDS)-USE DURING AU   35)   TB TEST DONE          55)   Estimated Glomerular
16)   HEIGHT                 36)   TB TEST RESULT        56)   QUANTITATIVE URINE A
17)   WEIGHT                 37)   TB RESULT POSITIVE,   57)   COMBINED OUTCOMES ME
18)   BMI                    38)   TB RESULT NEGATIVE,   58)   e-GFR and UACR
19)   HYPERTENSION DOCUMEN   39)   HEPATITIS C - HCV Di  59)   COMORBIDITY
+          Enter ?? for more actions
S    Select Item          A    Display All Items    Q    Quit
Select Action: +//
```

Figure D-48: Diabetes Audit Logic (DAL) items

3. At the **Select Action** prompt, type **S** and press **Enter** to enable selection of an Audit logic item for review.

4. At the next **Select Action** prompt, type the number of the logic item to be displayed and press **Enter**.

5. Once the Audit logic for a selected item displays, print it by typing **PL** at the **Select Action** prompt of the logic item display.

6. Enter the desired printer for the output at the **Device** prompt.

Section D.11.1 provides a complete listing of the logic for all Audit items.

D.11 Audit Resources

- The complete DMS v2.0 p17 User Manual (bdm_0200.17u.pdf) can be found on the RPMS website https://www.ihs.gov/rpms/applications/clinical/ under the Diabetes Management System (BDM) group.

- Diabetes Audit 2024 information can be found on the IHS Division of Diabetes website: https://www.ihs.gov/diabetes/audit/.

- IHS Diabetes Standards of Care and Resources for Clinicians and Educators can be found on the IHS Division of Diabetes website: https://www.ihs.gov/diabetes/clinician-resources/soc/.

D.11.1 2024 Diabetes Audit Logic

> **Notes:** Audit Logic uses several taxonomies that are used by other national RPMS programs, including diagnosis codes, CPT codes, LOINC codes, SNOMED codes, and medications. The contents of those taxonomies may be reviewed by using the **VTAX** (View/Print Any DM Audit Taxonomy) report option, found in the **Diabetes Management System Reports** menu.
>
> View or print the contents of site-populated taxonomies by using the **TU** (Update/Review Taxonomies for 2024 DM Audit) menu option under the **AS** menu option of the **Diabetes Management System** menu.
>
> View contents of SNOMED lists by using the **VSML** (View a SNOMED List Used by the DM AUDIT) menu option.

D.11.1.1 Report Date

- **Description:** Date report was generated

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Date report was generated

- **Audit Logic:** N/A

- **Audit Report:** The date the report was generated is included in the header of the report

- **Audit Export Field Name and Details:** N/A

D.11.1.2 Audit Date

- **Description:** Last day of 12-month Audit period for which data are reviewed

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** This date, supplied by the user, determines the time period for which data are reviewed for the Audit. For most items, data are reviewed for the 12 months prior to the Audit date, known as the Audit period. For example, if the Audit date is December 31, 2023, data are reviewed for the year prior to this date (January 1–December 31, 2023).

- **Audit Report:** AUDIT DATE (AKA AUDIT PERIOD ENDING DATE) is used to determine the Audit period and is displayed in the header of the report. (Audit Period 01/01/2023 to 12/31/2023.)

- **Audit Export Field Name and Details:** AUDITDATE MM/DD/YYYY

D.11.1.3 Facility Name

- **Description:** Facility Name.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** 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.)

- **Audit Report:** FACILITY NAME Facility name is displayed in the report header.

- **Audit Export Field Name and Details:** FACILITYNA (max length 20).

D.11.1.4 Age

- **Description:** Patient age

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Age of patient in years on the date the report or file was generated.

- **Audit Logic:** Age of the patient as of the Audit date.

- **Audit Report:** Age in years is grouped into the following:

  - **< 20 years**
  - **20–44 years**
  - **45–64 years**
  - **≥ 65 years**

  Age is also used in sections that have age specific items.

- **Audit Export Field Name and Details:** AGE
  Age in years as of the Audit date # with maximum of 3 digits and no decimal places Calculate as: integer part of difference in days between AUDITDATE and date of birth, divided by 365.25.

D.11.1.5 Reviewer Initials

- **Description:** Reviewer initials

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** Initials of the person running the Audit. A maximum of 3 initials may be used. This information is taken from the New Person (file 200) entry for the user.

- **Audit Report:** REVIEWER INITIALS Displayed in the Audit Report header.

- **Audit Export Field Name and Details:** REVIEWER

D.11.1.6 State of Residence

- **Description:** Postal abbreviation for patient's last known state of residence.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** This is the state in which the patient resides at the time the Audit is conducted. This is captured from the mailing address.

- **Audit Report:** N/A

- **Audit Export Field Name and Details:** STATE 2-character state abbreviation.

D.11.1.7 Chart Number

- **Description:** The Patient's Health Record Number.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The Health Record Number at the facility at which the summary was generated.

- **Audit Logic:** Health record number of the patient at the facility where the Audit is run.

- **Audit Report:** N/A

- **Audit Export Field Name and Details:** Not included and not uploaded to the WebAudit.

D.11.1.8 DOB

- **Description:** Patient's date of birth.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Patient's DOB from Patient Registration.

- **Audit Logic:** The patient's Date of Birth. Obtained from data entered through patient registration.

- **Audit Report:** Date of Birth is used to calculate age.

- **Audit Export Field Names and Details:** MOB and YOB.
  Only the month and year of birth are included and can be uploaded to WebAudit.

D.11.1.9 Birth Sex

- **Description:** Patient's sex recorded at birth

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Male, Female or Unknown, from patient registration.

- **Audit Logic:** Sex of patient recorded at birth. Obtained from data entered through patient registration. Male, Female, or Unknown.

- **Audit Report:** Gender–Male, Female, Unknown.

- **Audit Export Field Name and Details:** SEX.
  - **1**=Male
  - **2**=Female
  - **3**=Unknown

D.11.1.10 Primary Care Provider

- **Description:** Primary Care Provider name.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The name of the Primary Care Provider from RPMS.

- **Audit Logic:** The name of the primary care (designated) provider documented in RPMS. Taken from field Primary Care Provider (#14) of the patient file.

- **Audit Report:** N/A.

- **Audit Export Field Name and Details:** Not included and not uploaded into the WebAudit.

D.11.1.11 Date of DM Onset

- **Description:** Date of diabetes onset.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** First, the system looks for a Register in the Case Management system that contains the term **DIAB**. If one exists, it will look for this patient and get the date of onset from the date of onset field of the register. If none exists, the PCC Problem list is scanned for all problems in the ICD diagnosis code ranges defined in the SURVEILLANCE DIABETES taxonomy or SNOMED code defined in PXRM DIABETES SNOMED subset. For each problem on the problem list in these code ranges the date of onset is picked up. The earliest of all the dates of onset found is used. Where the date of onset was found is also displayed.

  For the selected date: if year only documented, 0701 is used for month/day; if month/year are documented 15 is used for the day.

- **Audit Logic:** The diabetes onset date. This date is used in the calculation of the duration of diabetes. The system obtains the date from three different dates in the following order:

  - 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 defined in the SURVEILLANCE DIABETES taxonomy or SNOMED code defined in PXRM DIABETES SNOMED subset.

– The first recorded diagnosis (POV) of diabetes in PCC. ICD codes: SURVEILLANCE DIABETES taxonomy.

- **Audit Report:** Duration of Diabetes: 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 Audit date. 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.

> **Note:** The first diagnosis date from POV is not used.

Audit Report categories for Duration of Diabetes:

- – < 1 year
- – < 10 years
- – ≥ 10 years
- – Diagnosis date not recorded

- **Audit Export Field Name and Details:** DODX
The earliest date found from the Diabetes register or the problem list is included. Format: MM/DD/YYYY.

D.11.1.12 Diabetes Type

- **Description:** Type of Diabetes (Type 1 or Type 2)

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** The following logic is used to determine diabetes type. Once a 'hit' is made, no further processing is done:

  - If the diagnosis documented in the Diabetes Register is NIDDM the type is assumed to be Type 2.
  - If the diagnosis documented in the Diabetes Register is "TYPE II" the type is assumed to be Type 2.
  - If the diagnosis documented in the Diabetes Register contains a '2' the type is assumed to be Type 2.
  - If the diagnosis documented in the Diabetes Register contains IDDM the type is assumed to be Type 1.
  - If the diagnosis documented in the Diabetes Register is "Type I" the type is assumed to be Type 1.
  - If the diagnosis documented in the Diabetes Register contains a '1' type is assumed to be Type 1.

- 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 Type 2.

- 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.

- 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 1.

- If type is not determined by any of the above, type is assumed to be Type 2 for the Audit Export (Data) File and Audit Report. For the individual Audit, **Not Documented** is displayed.

- **Audit Report:** Diabetes Type:

  - Type 1
  - Type 2

- **Audit Export Field Name and Details:** DMTYPE

  - 1=Type 1
  - 2=Type 2 (or uncertain)

D.11.1.13 Screened for Tobacco Use

- **Description:** Was the patient screened for tobacco use during the audit period?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Audit Logic below. The last screening done ever is displayed, it does not have to be from the audit period.

- **Audit Logic:** If any of the following items are documented during the Audit period, then a value of **1**=Yes is assigned. Otherwise, a value of **2**=No is assigned.

  - Any Health Factor for category Tobacco [C004], TOBACCO (SMOKING) [C017], TOBACCO (SMOKELESS–CHEWING/DIP) [C016], ECIGARETTES [C019], TOBACCO (EXPOSURE) [C015]

  - POV or Problem List entry where the status is not Inactive or Deleted:–ICD-10: F17.2*, O99.33*, Z71.6, Z72.0, Z87.891 [BGP TOBACCO DXS]–SNOMED data set PXRM BGP TOBACCO SCREENED (Problem List only)

  - Dental code 1320 or D1320

- Patient Education codes containing "TO-", "-TO", "-SHS," 305.1, 305.1* (old codes), 649.00 through 649.04, V15.82, F17.2*, O99.33*, Z71.6, Z72.0, Z87.891, D1320, 99406, 99407, G0030, 1034F, 1035F, 1036F, 1000F, 4000F, 4001F, G9016, G9275, G9276, G9458, or SNOMED 408939007 or data set PXRM BGP TOBACCO SCREENED

- CPT D1320, 99406, 99407, G0030, G9016, G9275, G9276, G9458, 1034F (Current Tobacco Smoker), 1035F (Current Smokeless Tobacco User), 1036F (Current Tobacco Non-User), 1000F (Tobacco Use Assessed), 4000F, 4001F [BGP TOBACCO SCREEN CPTS]

- **Audit Report:** Value is used in the Tobacco and Nicotine Use section of the Audit Report.

- **Audit Export Field Name and Details:** TOBSCREEN.

  - **1**=Yes
  - **2**=No

D.11.1.14 Tobacco Use

- **Description:** Tobacco use during the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Audit Logic below is applied, but not limited to Audit period. Current use (Yes or No) is determined and displayed, along with last documented of the items in the Audit Logic.

- **Audit Logic:** If tobacco screening is **1**=Yes, then tobacco use documented in the audit period is searched for. If any of the following items are found, then a value of **1**=Yes is assigned. Otherwise, a value of **2**=No is assigned.

  - **Health Factors:** Current Smokeless [F003]; Current Smoker and Smokeless [F030]; Current Smoker, status unknown [F002]; Current smoker, every day [F108]; Current smoker, some day [F109]; Heavy Tobacco Smoker [F121]; Light Tobacco Smoker [F122]

  - **Diagnosis (POV or Problem List entry where the status is not Inactive or Deleted):**
    - ICD-10: F17.2*0, F17.2*3, F17.2*8, F17.2*9, O99.33*, Z71.6, Z72.0 [BGP TOBACCO USER DXS]

    - ICD-10: F17.200, F17.203 through F17.210, F17.213 through F17.219, F17.290, F17.293 through F17.299, O99.33* [BGP GPRA SMOKING DXS]

    - SNOMED data set PXRM BGP CURRENT TOBACCO (Problem List only)

    - SNOMED data set PXRM BGP TOBACCO SMOKER (Problem List only)

- ICD-10: F17.220, F17.223 through F17.229 [BGP GPRA SMOKELESS DXS]

- SNOMED data set PXRM BGP TOBACCO SMOKELESS (Problem List only)

  - **CPT Codes**
    - CPT 99406, 99407, 1034F, 1035F, 4000F, 4001F, G9016, G9276, G9458 [BGP TOBACCO USER CPTS]

    - CPT 99406, 99407, G9016 [BGP SMOKER CPTS]

    - CPT 1035F [BGP SMOKELESS TOBACCO CPTS]

- **Audit Report:** Value is used in the Tobacco and Nicotine Use and CVD sections.

- **Audit Export Field Name and Details:** TOBACCOUSE

  - **1**=Yes
  - **2**=No

D.11.1.15 Tobacco Cessation Counseling

- **Description:** If the patient is a tobacco user, were they provided cessation counseling during the audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Audit Logic below is applied. Any cessation counseling found in the past 12 months from the date the summary is run. If counseling is found, **Yes** is displayed along with a description of what was found, otherwise **No** is displayed.

- **Audit Logic:** If screened for tobacco use and tobacco use is **1**=Yes, then counseling documented in the audit period is searched for. If any of the following items are found, then a value of **1**=Yes is assigned. Otherwise, a value of **2**=No is assigned.

  - Patient education codes containing TO-, -TO, -SHS, 305.1, 305.1* (old codes), 649.00 through 649.04, V15.82, F17.2*, O99.33*, Z71.6, Z72.0, Z87.891, D1320, 99406, 99407, 4000F, G0030, G9016, G9458, or SNOMED data set PXRM BGP TOBACCO SCREENED.

  - Clinic code 94 (tobacco cessation clinic)

  - Dental code 1320

  - CPT D1320, 99406, 99407, G0030, G9016, G9458, 4000F

  - POV ICD-10: Z71.6

  - Prescription for Tobacco Cessation Aid–Any of the following documented anytime during the Report Period:

- Prescription for medication in the site-populated BGP CMS SMOKING CESSATION MEDS taxonomy that does not have a comment of RETURNED TO STOCK

- Prescription for any medication with name containing "NICOTINE PATCH," "NICOTINE POLACRILEX," "NICOTINE INHALER," "NICOTINE NASAL SPRAY" that does not have a comment of RETURNED TO STOCK.

- CPT 4001F

- **Audit Report:** Value is used in the Tobacco and Nicotine Use section of the Audit Report.

- **Audit Export Field Name and Details:** TOBCOUNSEL

  - **1**=Yes
  - **2**=No
  - **Blank** if value for TOBACCOUSE is not **1**=Yes

D.11.1.16 Electronic Nicotine Delivery Systems (ENDS) Screening

- **Description:** Was the patient screened for Electronic Nicotine Delivery Systems (ENDS) use during the audit period? ENDS include vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and e-pipes.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last documented health factor in the category E-CIGARETTES is found and the date documented is displayed. If none are found "Never" is displayed.

- **Audit Logic:** The last documented health factor in the category E-CIGARETTES during the Audit period is reviewed.

  - If a health factor is found, a value of **1**=Yes is assigned.
  - If no health factors have been recorded, a value of **2**=No is assigned.

- **Audit Report:** Value is used in the Tobacco and Nicotine Use section of the Audit report.

- **Audit Export Field Name and Details:** ENDSSCREEN

  - **1**=Yes
  - **2**=No

D.11.1.17 Electronic Nicotine Delivery System (ENDS) Use

- **Description:** ENDS use during the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last documented health factor in the category E-CIGARETTES is found and displayed. If none are found **Never** is displayed.

- **Audit Logic:** If ENDS screening is **1**=Yes, then ENDS use documented in the audit period is searched for.

  If Health Factor Current E-cigarette user w/nicotine [F124] is found during Audit period, a value of **1**=Yes is assigned. Otherwise, a value of **2** = No is assigned.

- **Audit Report:** Value is used in the Tobacco and Nicotine Use section of the Audit report.

- **Audit Export Field Name and Details:** ENDSUSE

  – **1**=Yes
  – **2**=No

D.11.1.18 Height

- **Description:** Height (most recent)

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last measurement HT is found. The date obtained and the value is displayed in inches.

- **Audit Logic:** The last recorded height value (measurement HT) taken on or before the Audit date. Total height in inches is displayed for the Individual Audit.

- **Audit Report:** Height is used to calculate BMI, which is categorized as Body Mass Index (BMI) Category:

  – Normal (BMI < 25.0)
  – Overweight (BMI 25.0–29.9)
  – Obese (BMI ≥ 30.0)
  – Height or weight missing
  – Severely obese (BMI ≥ 40.0)

- **Audit Export Field Names and Details:**

  – FEET (combine with INCHES or blank)
  – INCHES (total or in combination with FEET)
  – Last recorded height prior to the Audit date either in feet and inches or just inches. Inches are rounded to two decimal digits. For example, 1.25 inches.

D.11.1.19 Weight

- **Description:** Weight in lbs

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last recorded measurement WT is found, the date and value in lbs. is displayed.

- **Audit Logic:** The last weight value during the Audit period is found and displayed.

- **Audit Report:** Weight is used to calculate BMI, which is assigned to a Body Mass Index (BMI) Category:

   - Normal (BMI <25.0)
   - Overweight (BMI 25.0–29.9)
   - Obese (BMI $\geq$ 30.0)
   - Height or weight missing
   - Severely obese (BMI $\geq$ 40.0)

- **Audit Export Field Name and Details:** WEIGHT
  Last recorded weight during the Audit period, truncated to the nearest whole pound.

D.11.1.20 Body Mass Index

- **Description:** Calculated BMI

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** BMI is calculated as:

  BMI=(weight/[height*height]) x 703 where:

   - weight=the last weight (in lbs).
   - height=the last height (in inches) recorded any time.

  If the patient has a pregnancy diagnosis on the date of the weight, the BMI is not calculated or displayed.

  If the patient is < 19 years of age the height and weight must be on the same day or the BMI is not calculated.

- **Audit Logic:** BMI is calculated as:

  BMI=(weight/[height*height]) x 703.

   - weight=the last weight (in lbs.) documented during the Audit period.
   - height=the last height (in inches) recorded any time before the Audit date.

- **Audit Report:** Body Mass Index (BMI) Category:

   - Normal (BMI < 25.0)
   - Overweight (BMI 25.0–29.9)
   - Obese (BMI $\geq$ 30.0)
   - Height or weight missing

– Severely obese (BMI ≥ 40.0)

- **Audit Export Field Name and Details:** Not included and not uploaded into the WebAudit.

D.11.1.21 Hypertension Diagnosed

- **Description:** Has this patient had a diagnosis of Hypertension.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** If hypertension is on the problem list or the patient has had at least three visits with a diagnosis of hypertension ever, then it is assumed that they have hypertension and a value of Yes displays. Otherwise, a No is displayed. Taxonomy used: SURVEILLANCE HYPERTENSION. SNOMED List: PXRM ESSENTIAL HYPERTENSION.

- **Audit Logic:** If hypertension is on the problem list or the patient has had at least three visits with a diagnosis of hypertension ever, then it is assumed that they have hypertension and a value of 1 - Yes is assigned. Otherwise, a value of 2 - No is assigned. Taxonomy used: SURVEILLANCE HYPERTENSION. SNOMED List: PXRM ESSENTIAL HYPERTENSION.

- **Audit Report:**

  – Hypertension Diagnosed ever:

    - Diagnosed hypertension and mean BP <130/<80

    - Diagnosed hypertension and mean BP <140/<90

    - Diagnosed hypertension and ACE inhibitor or ARB currently prescribed.

  Also used when determining diabetes related conditions.

- **Audit Export Field Name and Details:** HTNDX

  – **1**=Yes
  – **2**=No

D.11.1.22 Blood Pressure

- **Description:** Last three Blood Pressure values recorded during the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last three non-ER Blood Pressures values and the date they were obtained are displayed.

- **Audit Logic:** The most recently recorded systolic and diastolic blood pressure values (up to three on different days) on non-ER clinic visits during the Audit period are obtained. If more than one blood pressure is recorded on the same day, the latest one is used.

- **Audit Report:**

Blood Pressure (BP)

- – <130/<80
- – 130/80–<140/<90
- – 140/90–<160/<100
- – 160/100 or higher
- – BP category undetermined
- – <140/<90
- – **Chronic Kidney Disease (CKD)**
  - • CKD and mean BP <130/<80
  - • CKD and mean BP <140/<90

- • **Audit Export Field Name and Details:** The blood pressure values are exported but mean blood pressure is not.
  - – SYST1
  - – DIAST1
  - – SYST2
  - – DIAST2
  - – SYST3
  - – DIAST3

D.11.1.23 Foot Exam

- • **Description:** Foot exam (comprehensive or complete) during the Audit period.

- • **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last foot exam done in the past year (from the date the summary is run) is obtained and displayed. The logic used in determining if a comprehensive or complete foot exam has been done is as follows:

  - – A documented DIABETIC FOOT EXAM, COMPLETE (CODE 28) is searched for in the past year. This is recorded in V Exam. If found, no other processing is done, an exam is assumed to have been done.

  - – CPT codes 2028F, G0245, G0246, and G9226 in V CPT [Taxonomy: BGP CPT FOOT EXAM]

  - – 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 not assumed the exam was done so the term "maybe" is displayed with the date of the visit.

- 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, it is not assumed the exam was done so the term "maybe" is displayed with the date of the visit.

- **Audit Logic:** The logic used in determining if a comprehensive or complete foot exam has been done is as follows:

  - 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.

  - CPT codes 2028F, G0245, G0246, and G9226 in V CPT [Taxonomy: BGP CPT FOOT EXAM]

    - If found, no other processing is done.

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

    - If none of the above are found, the value is 2=No.

- **Audit Report:** In the Exam section of the Audit report. Foot exam–comprehensive

- **Audit Export Field Name and Details:** FOOTEXAM:

  - **1**=Yes
  - **2**=No

D.11.1.24 Eye Exam

- **Description:** Eye Exam (dilated or retinal imaging) performed during the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The logic used in determining if a diabetic eye exam has been done is as follows:

  - The system looks for the last documented Diabetic Eye Exam in the year prior to the date the summary was generated. Diabetic Eye Exam is defined as:

    - EXAM 03 - Diabetic Eye Exam

    - CPT in either the BGP DM RETINAL EXAM CPTS or the BGP DM EYE EXAM CPTS taxonomy.

  - If one of the above is found, Yes, along with the date the exam was found, is displayed.

    - If none of the above is found, then all PCC Visits in the year prior to the Audit date 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, or A2).

- If found, the term "Maybe," along with the date the visit 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.

  – If none of the above are found, a No is displayed.

- **Audit Logic:** The logic used in determining if a diabetic eye exam has been done is as follows:

  – The system looks for the last documented Diabetic Eye Exam in the year prior to the Audit date. Diabetic Eye Exam is defined as:

    - EXAM 03 - Diabetic Eye Exam

    - CPT in either the BGP DM RETINAL EXAM CPTS or the BGP DM EYE EXAM CPTS taxonomy.

  – If one of the above is found, the value 1 - Yes is assigned and no further processing is done.

  – If none of the above is found, then all PCC Visits in the year prior to the Audit date 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, or A2). If found, then the value 1–Yes is assigned 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.

  – If none of the above are found, the value 2–No is assigned.

- **Audit Report:** In the Exam section of the Audit report. Eye exam–dilated or retinal imaging.

- **Audit Export Field Name and Details:** EYEEXAM

  – **1**=Yes
  – **2**=No

D.11.1.25 Dental Exam

- **Description:** Dental exam performed during the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10. For the DPSC if the only item found is a visit to a dentist or to dental clinic then **Maybe** is displayed rather than a **Yes**.

- **Audit Logic:** The logic used in determining if a dental exam has been done is as follows:

- A documented DENTAL EXAM (CODE 30) is searched for in the year prior to the Audit date. If found, the value **1**=Yes is assigned and no other processing is done.

- 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, and there is any ADA code other than 9991 or D9991, then it is assumed the exam was done, the value 1 - Yes is assigned and no other processing is done.

- 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 or D9991, then it is assumed the exam was done, the value **1**=Yes is assigned and no further processing is done.

- A Visit on which a CPT code from the BGP DENTAL VISIT CPT CODES taxonomy was recorded.

  - If found, then it is assumed the exam was done, and the value **1**=Yes is assigned.

  - If none of the above are found, the value **2**=No is assigned.

- **Audit Report:** In the Exam section of the Audit report. Dental exam.

- **Audit Export Field Name and Details:** DENTALEXAM:

  - **1**=Yes
  - **2**=No

D.11.1.26 Depression Active Diagnosis

- **Description:** Does patient have depression as an active diagnosis during the Audit period?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10.

- **Audit Logic:** The PCC and BH systems are reviewed for at least two visits with any of the following in the year prior to the Audit date.

  - Diagnosis (POV) contained in the BGP MOOD DISORDERS
  - Behavioral Health Problem Codes 14 or 15
  - If two POVs are found, then the value assigned is **1**=Yes.
  - If not, then a value of **2**=No is assigned.

- **Audit Report:** Depression section:

  - Active diagnosis during Audit period
  - Screened and/or active diagnosis during Audit period
  - Also used to determine if depression is a diabetes related condition.

- **Audit Export Field Name and Details:** DEPDX2

- – **1**=Yes
- – **2**=No

D.11.1.27 Depression Screening

- **Description:** Was patient screened for depression in the audit period?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10.

- **Audit Logic:** The PCC and Behavioral health databases are reviewed for any of the following documented in the past year:
  - – Exam 36 or Behavioral Health Module Depression Screening.
  - – Diagnosis–V POV, V79.0, Z13.3*, [BGP DEPRESSION SCRN DXS].
  - – Measurement of PHQ2, PHQ9, PHQT.
  - – Behavioral Health Module Diagnosis (POV) of 14.1.
  - – CPT codes 1220F, 3725F or G0444 in PCC or Behavioral Health. Taxonomy: [BGP DEPRESSION SCREEN CPTS].
  - – If any of the above is found, then a value of **1**=Yes is assigned. If not, then a value of **2**=No is assigned.

- **Audit Report:** Depression section:
  - – Screened during Audit period
  - – Screened and/or active diagnosis during Audit period

- **Audit Export Field Name and Details:** DEPSCREEN2
  - – **1**=Yes
  - – **2**=No

D.11.1.28 Nutrition Education

- **Description:** Was nutrition education provided during the audit period?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** All DM education provided in the year prior to the date the summary is generated is displayed on the DPSC. For DM education definition see Section D.10 for nutrition education, physical activity education and other DM education.

- **Audit Logic**
  - – All visits in the year prior to the Audit date are examined. Chart review visits are skipped (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, 97804, G0270, G0271 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-
  - Topic beginning with DNCN-

The V Patient Education entry is examined:

- If the provider documented in that entry is a Dietitian or Nutritionist, the RD is assigned.

- If the provider is blank or not a dietitian/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**=Both 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 **4**=None is assigned.

- **Audit Report:** Diabetes-Related Education.
  - Nutrition–by any provider (RD and/or other)
  - Nutrition–by RD
- **Audit Export Field Name and Details:** DIETINSTR
  - **1**=Yes by RD
  - **2**=Yes by non-RD
  - **3**=Yes by both RD & non-RD
  - **4**=None

D.11.1.29 Physical Activity Education

- **Description:** Physical activity education provided during the audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** All DM education provided in the year prior to the date the summary is generated is displayed on the DPSC. For DM education definition see Section D.10 for nutrition education, physical activity education and other DM education.

- **Audit Logic:**

  - All visits in the year prior to the Audit date are examined. If either of the following is true:

    - There is a visit on which a patient education topic in the DM AUDIT EXERCISE EDUC TOPICS taxonomy.

    - Any topic ending in -EX is documented.

  - A **1**=Yes value is assigned. No further processing is done.

  - All visits in the year prior to the Audit date are examined for a POV of Z71.82 taxonomy BGP EXERCISE COUNSELING DXS

    - If one is found A **1**=Yes is assigned.

    - If none of the above is documented, the value **2**=No is assigned.

- **Audit Report:** Diabetes-Related Education: Physical Activity.

- **Audit Export Field Name and Details:** EXERCISE:

  - **1**=Yes
  - **2**=No

D.11.1.30 Other Diabetes Education

- **Description:** Diabetes education, other than nutrition or physical activity, provided during the audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** All DM education provided in the year prior to the date the summary is generated is displayed on the DPSC. For DM education definition see Section D.10 for nutrition education, physical activity education and other DM education.

- **Audit Logic:** All education topics documented in the year prior to the Audit date are examined.

  - If any 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 a member of the **DM AUDIT OTHER EDUC TOPICS** taxonomy OR the topic begins with one of the following:

- **DM-** (e.g., DM-L)
- **DMC-** (e.g., DMC-L)
- An **ICD Diagnosis** code that is a member of the **SURVEILLANCE DIABETES** taxonomy (e.g., 250.00-L, E10.51-L)
- A **Diabetes SNOMED** code (e.g., 46635009-L)

  - If no patient education topic matching the above criteria is found, then all visits documented during the report period are examined. If any visit meets the following criteria, then a value of **1=Yes** is assigned:

    - If the visit has a CPT documented of **95249**, **95250**, **95251**, **98960**, **98962**, **G0109**, **G0108**.

    - If clinic code is **A1 (DIABETES EDUCATION-INDIVIDUAL), 60 (EDUCATION CLASSES)**, or **98 (DIABETES EDUCATION-GROUP)**

- **Audit Report:** Diabetes-Related Education Other diabetes education.

- **Audit Export Field Name and Details:** DMEDUC:

  - **1=Yes**
  - **2=No**

D.11.1.31 Diabetes Therapy

- **Description:** Diabetes Therapy–all medications that the patient has been prescribed in the six months prior to the audit date.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

> **Note:** Medications can be found in other sections of the health summary.

- **Audit Logic:** The following logic is used to determine if the patient is currently taking any medication in each of the categories below:

  - Looks for any PCC V Medication entry for any drug in the taxonomy of drugs being searched for where the visit date of the V Medication is in the six months prior to the Audit date. (Looking to see if the patient had at least one fill in the past six months.)

  - If no V Medication is found, the Prescription file (file 52) is searched for any drug in the taxonomy of drugs being searched for. The prescription number must begin with an X (an X indicates that the prescription was e-prescribed). If the prescription begins with an X the following calculation is done:

    - Days' supply times (# of refills +1) (this is the total number of days the prescription covers)

- Number of days calculated above + issue date (this is the last date the prescription covers) - If the date calculated above is greater than the Audit date minus 180 days it is assumed the patient was taking that medication in the six months prior to the end of the Audit date.

  - If no medications are found in the searches shown above the system will look for any EHR Outside Medication that fits into one of medication categories. EHR Outside Medications are found in the V Medication file and have a value in the EHR Outside Medication field and no discontinued date. The system will go back 10 years to find one of these medications.

  It is assumed that a medication entered as an EHR Outside Medication is active until it is discontinued. If any medication in the taxonomy specified is found, then an 'X' is placed by the therapy name DM therapy items.

Table D-3: Diabetes Therapy Taxonomy Names

Therapy	Taxonomy Name(s)
Insulin	DM AUDIT INSULIN DRUGS
Metformin	DM AUDIT METFORMIN DRUGS
Sulfonylurea	DM AUDIT SULFONYLUREA DRUGS
DPP-4 inhibitor	DM AUDIT DPP-4 INHIBITOR DRUGS
GLP-1 receptor agonist	DM AUDIT GLP-1 RECEPT AGONISTS
SGLT-2 inhibitor	DM AUDIT SGLT-2 INHIBITOR DRUGS
Pioglitazone, rosiglitazone	DM AUDIT GLITAZONE DRUGS
Tirzepatide	DM AUDIT TIRZEPATIDE DRUGS
Acarbose, miglitol	DM AUDIT ACARBOSE DRUGS
Repaglinide, Nateglinide	DM AUDIT SULFONYLUREA-LIKE
Pramlintide	DM AUDIT AMYLIN ANALOGUES
Bromocriptine	DM AUDIT BROMOCRIPTINE DRUGS
Colesevelam	DM AUDIT COLESEVELAM DRUGS

- **Audit Report:** Diabetes Treatment section.

  - Number of diabetes medications currently prescribed.
  - Diabetes meds currently prescribed, alone or in combination:
    - Insulin
    - Metformin
    - Sulfonylurea
    - DPP-4 inhibitor
    - GLP-1 receptor agonist
    - SGLT-2 inhibitor

- Pioglitazone or rosiglitazone

- Tirzepatide [Mounjaro]

- Acarbose or miglitol

- Repaglinide or Nateglinide

- Pramlintide

- Bromocriptine

- Colesevelam

- **Audit Report:** Cardiovascular Disease (CVD) section.

  – CVD and GLP-1 receptor agonist currently prescribed
  – CVD and SGLT-2 inhibitor currently prescribed

- **Audit Report:** Chronic Kidney Disease (CKD) section.

  – CKD and GLP-1 receptor agonist currently prescribed
  – CKD and SGLT-2 inhibitor currently prescribed

- **Audit Export Field Name and Details:** See Section D.10.

  – If any med is found in a category, value=1 for the corresponding field, otherwise value=2.
  – If no meds are found value=1 for TXNONE.

    - TXNONE

    - TXINSUL

    - TXMETFORM

    - TXSUREA

    - TXDPP4

    - TXGLP1MED

    - TXSGLT2

    - TXGLIT

    - TXTIRZEP

    - TXACARB

    - TXSUREALK

    - TXAMYLIN

    - TXBROMO

    - TXCOLESEV

D.11.1.32 ACE Inhibitor or ARB

- **Description:** Was an ACE Inhibitor or ARB prescribed to the patient at the end of the Audit Period?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

> **Note:** Medications can be found in other sections of the health summary.

- **Audit Logic:** The taxonomy used to find ACE Inhibitors and angiotensin receptor blockers (ARBs) is **DM AUDIT ACE INHIBITORS**. If any drug in this taxonomy is found using the logic that follows a value of **1**=Yes is assigned, no further processing is done.

  - Searches for any PCC V Medication entry for any drug in the taxonomy of drugs being searched for where the visit date of the V Medication is in the six months prior to the Audit date. (DM Audit is looking to see if the patient had at least one fill in the past six months.)

  - If no V Medication is found the **Prescription** file (**file 52**) is searched for any drug in the taxonomy of drugs being searched for. The prescription number must begin with an X (an X indicates that the prescription was e-prescribed).

    If the prescription begins with an X, the following calculation is done:

    - Days' supply times (# of refills +1) (this is the total number of days the prescription covers)

    - # of days calculated above + issue date (this is the last date the prescription covers)

    If the date calculated is greater than the Audit date minus 180 days, it is assumed the patient was taking that medication in the six months prior to the end of the Audit date.

  - If no medications are found in the previous two searches, the system will look for any EHR Outside Medication that fits into one of these medication groups.

    - EHR Outside Medications are found in the V Medication file and have a value in the EHR Outside Medication field and no discontinued date. The system will go back 10 years to find one of these medications. It is assumed that a medication entered as an EHR Outside Medication is active until it is discontinued.

      If no relevant drugs are found, then a 2 - No is assigned.

- **Audit Report:**

  - Hypertension section:
    - Diagnosed hypertension and ACE inhibitor or ARB currently prescribed

- Chronic Kidney Disease (CKD) section:
  - CKD and ACE inhibitor or ARB currently prescribed
- **Audit Export Field Name and Details:** ACE:
  - **1**=Yes
  - **2**=No

D.11.1.33 Aspirin or Other Antiplatelet/Anticoagulant Therapy

- **Description:** Was the patient prescribed Aspirin or Other Antiplatelet or Anticoagulant Therapy as of the end of the Audit period?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

> **Note:** Medications can be found in other sections of the health summary.

- **Audit Logic:** Two taxonomies are used to find Aspirin and Other Antiplatelet/Anticoagulant therapy:

  - DM AUDIT ASPIRIN DRUGS
  - DM AUDIT ANTIPLT/ANTICOAG RX
  - If any drug in these taxonomies is found using the logic that follows, a value of 1 - Yes is assigned, no further processing is done.
  - Searches for any PCC V Medication entry for any drug in the taxonomy of drugs being searched for where the visit date of the V Medication is in the six months prior to the Audit date. (DM Audit is looking to see if the patient had at least one fill in the past six months.)
  - If no V Medication is found the Prescription file (file 52) is searched for any drug in the taxonomy of drugs being searched for. The prescription number must begin with an X (an X indicates that the prescription was e-prescribed). If the prescription begins with an X the following calculation is done:
  - Days' supply times (# of refills +1) (this is the total number of days the prescription covers).

    Number of days calculated above + issue date (this is the last date the prescription covers).

    If the date calculated is greater than the Audit date minus 180 days, it is assumed the patient was taking that medication in the six months prior to the end of the Audit date.

- If no medications are found in the searches, the system will look for any EHR Outside Medication that fits into one of medication groups. EHR Outside Medications are found in the V Medication file and have a value in the EHR Outside Medication field and no discontinued date. The system will go back 10 years to find one of these medications. It is assumed that a medication entered as an EHR Outside Medication is active until it is discontinued.

- 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 seven characters is "ASPIRIN" and whose eighth character is not a "/".

  If no relevant drugs are found, then a 2 - No is assigned.

- **Audit Report:**

  - Cardiovascular Disease (CVD) section:

    - CVD and aspirin or other antiplatelet/anticoagulant therapy currently prescribed.

- **Audit Export Field Name and Details:** ASPIRIN

  - **1**=Yes
  - **2**=No

D.11.1.34 Statin Therapy

- **Description:** Statin Therapy prescribed as of the end of the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

> **Note:** Medications can be found in other sections of the health summary.

- **Audit Logic:** One taxonomy is used to find Statin therapy medications: BGP PQA STATIN MEDS. If any drug in this taxonomy is found using the logic that follows, a value of **1**=Yes is assigned, no further processing is done.

  - Searches for any PCC V Medication entry for any drug in the taxonomy of drugs being searched for where the visit date of the V Medication is in the six months prior to the Audit date. (DM Audit is looking to see if the patient had at least one fill in the past six months.)

  - If no V Medication is found, the **Prescription** file (**file 52**) is searched for any drug in the taxonomy of drugs being searched for. The prescription number must begin with an X (an X indicates that the prescription was e-prescribed).

  - If the prescription begins with an X, the following calculation is done:

    - Days' supply times (# of refills +1 (this is the total number of days the prescription covers)

- Number of days calculated + issue date (this is the last date the prescription covers)

  If the calculated date is greater than the Audit date minus 180 days, it is assumed the patient was taking that medication in the six months prior to the end of the Audit date.

  – If no medications are found in the searches described, the system will look for any EHR Outside Medication that fits into one of medication groups. EHR Outside Medications are found in the V Medication file and have a value in the EHR Outside Medication field and no discontinued date. The system will go back 10 years to find one of these medications. It is assumed that a medication entered as an EHR Outside Medication is active until it is discontinued.

  – Statin Allergy defined as: Adverse drug reaction/documented statin allergy defined as any of the following:

    - ALT and/or AST > 3x the Upper Limit of Normal (ULN) (i.e., Reference High) on two or more consecutive visits during the Audit Period.

    - Creatine Kinase (CK) levels > 10x ULN or CK > 10,000 IU/L during the Report Period.

    - Myopathy/Myalgia, defined as any of the following during the Report Period: Dx in the BGP MYOPATHY/MYALGIA DXS taxonomy.

    - 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)
      – 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 the BGP ALT LOINC taxonomy.

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

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

  – Contraindications to Statins defined as any of the following:

    - Pregnancy (see definition below)

- 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.

- Acute Alcoholic Hepatitis, defined as POV ICD-9: 571.1; ICD-10: K70.10, K70.11 during the Report Period.

- 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 Documented codes in the following taxonomies:

- BGP PREGNANCY DIAGNOSES 2; BGP PREGNANCY ICD PROCEDURES; BGP PREGNANCY CPT CODES where the 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, the Audit 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: Codes documented that are contained in the following taxonomies: BGP MISCARRIAGE/ABORTION DXS; BGP ABORTION PROCEDURES; BGP CPT ABORTION; BGP CPT MISCARRIAGE.

- **Audit Report:** Statin Prescribed section

  – Yes*
  – Allergy, intolerance, or contraindication
  – These three items also reported:
  – In patients with diagnosed CVD
  – In patients age 40–75 years
  – In patients with diagnosed CVD and/or age 40–75 years

  *Excludes patients with an allergy, intolerance, or contraindication

- **Audit Export Field Name and Details:** LLSTATIN2

  – **1**=Yes
  – **2**=No
  – **3**=Allergy/intolerance/contraindication
  – Look for **Yes**, then allergy or intolerance or contraindication, then **No**.

D.11.1.35 Cardiovascular Disease

- **Description:** CVD Diagnosed Ever?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10.

- **Audit Logic:** CVD diagnosis (using DM AUDIT CVD DIAGNOSES taxonomy) is searched for on the patient's problem list. If a diagnosis is found, a 1 - Yes is assigned. If no problem is found on the problem list, then the V POV file is searched for the following, if found, a **1**=Yes is assigned along with the visit date on which the item was found:

  – One diagnosis ever of any code in the BGP CABG DXS taxonomy.

  – One diagnosis ever of any code in the BGP PCI DXS taxonomy.

  – 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.

- If none of the above are found, a value of **2**=No is assigned.

- **Audit Report:** Cardiovascular Disease (CVD) section:

  – CVD diagnosed ever

  – CVD and mean BP <130/<80

  – CVD and not current tobacco user

  – CVD and aspirin or other antiplatelet/anticoagulant therapy currently prescribed

  – CVD and GLP-1 receptor agonist currently prescribed

  – CVD and SGLT-2 inhibitor currently prescribed

  – CVD and statin currently prescribed*

  *Excludes patients with allergy, intolerance, or contraindication

- **Audit Export Field Name and Details:** CVDDX

  – **1**=Yes

  – **2**=No

D.11.1.36 Tuberculosis (TB) (latent or active) diagnosis (ever)

- **Description:** Was Tuberculosis (TB) (latent or active) diagnosed ever?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Any health factor in the TB STATUS category is found, if one is found that health factor is display. If no health factor found, then the problem list and purpose of visits are examined for any that are contained in the DM AUDIT TUBERCULOSIS DXS diagnosis taxonomy or the PXMR BQI TUBERCULOSIS SNOMED subset. If one is found, it is displayed.

- **Audit Logic:** If the patient has a TB health factor recorded, TB on the problem list, or any diagnosis of TB documented in the PCC, a 1–Yes is assigned. If none of these are found, a value of 2 - No is assigned. Definition of diagnosis:

  - TB Health Factor–any health factor in the TB STATUS category.
  - Problem list diagnosis and Purpose of visit in the DM AUDIT TUBERCULOSIS DXS taxonomy or the PXRM BQI TUBERCULOSIS SNOMED subset.

- **Audit Report:** Tuberculosis (TB) Status section:

  - TB diagnosis documented and/or positive test result
  - If not diagnosed, TB test done (skin test or blood test)
  - TB test done ever or TB diagnosed ever
  - If TB diagnosis documented and/or positive test result, treatment initiated
  - If TB negative test result, was test done after diabetes diagnosis

- **Audit Export Field Name and Details:** TBDX

  - **1**=Yes
  - **2**=No

D.11.1.37 TB Test Done (Most Recent)

- **Description: In patients with no diagnosis of Tuberculosis** (TB) Was a TB test done ever? Skin Test; Blood test; No test documented.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** TB–Last Documented Test. The date of the last documented TB test is displayed along with what type of test was done. See Section D.10 for TB Test definition.

- **Audit Logic: If there is not a TB diagnosis documented, a TB test is searched for** in the following way:

  - All recorded PPD entries and TB lab tests using the DM AUDIT TB LAB 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 assigned, if it is a lab test then 2–Blood Test is assigned.
  - If no TB test is found, then the value is 3 - No test documented.

- **Audit Report:** Tuberculosis (TB) Status section:

- – TB diagnosis documented and/or positive test result
- – If not diagnosed, TB test done (skin test or blood test)
- – TB test done ever or TB diagnosed ever
- – If TB diagnosis documented and/or positive test result, treatment initiated
- – If TB negative test result, was test done after diabetes diagnosis
- • **Audit Export Field Name and Details:** TBTESTDONE3
  - – **1**=Skin test (PPD)
  - – **2**=Blood test (QFT-GIT, T-SPOT)
  - – **3**=No test documented
  - – **Blank** if TBDX is not 2=No.

D.11.1.38 TB Test Result

- • **Description:** Result of the most recent TB Test.

- • **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** TB Test Result: The last documented TB Test result is displayed. See Section D.10 for TB Test definition.

- • **Audit Logic:** If **there is not a TB diagnosis documented** and a TB test was done, the test result is determined in the following way:
  - – All recorded PPD entries and TB lab tests using the DM AUDIT TB LAB 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 assigned 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 result of the test is examined:
      - – If it is Positive then **1**=Positive is assigned.
      - – If it is Negative then **2**=Negative is assigned.
      - – If the results are Null the value **3**=No result documented is assigned.
      - – If no result is found, then the value assigned is **3**=No result documented.
- • **Audit Report:** Tuberculosis (TB) Status section:
  - – TB diagnosis documented and/or positive test result
  - – If not diagnosed, TB test done (skin test or blood test)
  - – TB test done ever or TB diagnosed ever
  - – If TB diagnosis documented and/or positive test result, treatment initiated

- If TB negative test result, was test done after diabetes diagnosis

- **Audit Export Field Name and Details:** TBTESTRSLT2

  - **1**=Positive
  - **2**=Negative
  - **3**=No result documented
  - Leave **blank** if value for TBTESTDONE3 is not 1 or 2

D.11.1.39 TB Treatment

- **Description:** If TB diagnosed ever and/or result positive, was treatment initiated?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10 for definition of treatment initiated. The value of the last TB Health factor or medication displayed.

- **Audit Logic:** If **TB** diagnosis documented ever is **YES** or the value of the **TB Test** result is **POSITIVE**, then the last TB health factor and TB medication taxonomy are 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–IN PROGRESS

  The value assigned is based on the last recorded health factor or prescription of any medication from the TB medication taxonomy (DM AUDIT TB MEDS/DM AUDIT TB DRUG NDC) ever:

  - TX COMPLETE: **1**=Yes
  - TX INCOMPLETE: **1**=Yes
  - TX UNTREATED: **2**=No
  - TX IN PROGRESS: **1**=Yes
  - TX UNKNOWN: **3**=Unknown
  - TB medication prescribed **1**=Yes

- **Audit Report:** Tuberculosis (TB) Status section:

  - TB diagnosis documented and/or positive test result
  - If not diagnosed, TB test done (skin test or blood test)
  - TB test done ever or TB diagnosed ever
  - If TB diagnosis documented and/or positive test result, treatment initiated
  - If TB negative test result, was test done after diabetes diagnosis

- **Audit Export Field Name and Details:** TBINHTX2

  - **1**=Yes
  - **2**=No
  - **3**=Unknown
  - Leave **blank** if value for TBDX is not **1**=Yes or TBTESTRSLT2 is not **1**=Positive

D.11.1.40 TB Test Date

- **Description:** Date of last TB test.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** TB–Last Documented Test. The date of the last documented TB test is displayed along with what type of test was done. See Section D.10 for TB Test Done for definition of a TB test.

  For the selected date: if year only documented, 0701 is used for month/day; if month/year are documented 15 is used for the day.

- **Audit Logic:** If the value of TB test result is **NEGATIVE**, then the date of the last TB test is displayed.

- **Audit Report:** Tuberculosis (TB) Status: If negative TB test, test done after diabetes diagnosis.

- **Audit Export Field Name and Details:** TBTESTDATE MM/DD/YYYY

  Leave **blank** if value for **TBTESTRSLT2** is not **2=Negative**.

D.11.1.41 Hepatitis C (HCV) Diagnosis

- **Description:** Hepatitis C (HCV) diagnosis ever

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10.

- **Audit Logic:** The Purpose of Visits are scanned for any diagnosis ever contained in the BGP HEPATITIS C DXS taxonomy. If one is found the value of 1 - Yes is assigned, if no diagnosis is found the Problem List is scanned for a diagnosis contained in the BGP HEPATITIS C DXS taxonomy or a SNOMED contained in the PXRM HEPATITIS C SNOMED list. If that is found on the problem list a value of 1 - Yes is assigned, if not found a value of 2 - No is assigned.

- **Audit Report:** Hepatitis C (HCV) section:

  - Diagnosed HCV ever
  - In patients not diagnosed with HCV and age ≥ 18 years, screened ever
  - HCV test done ever or HCV diagnosed ever

- **Audit Export Field Name and Details:** HCVDX

- **1**=Yes
- **2**=No

D.11.1.42 Hepatitis C Screen

- **Description:** Screened for HCV at least once (ever) if no diagnosis of Hepatitis C.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10. The date, test name and the test result are displayed.

- **Audit Logic:** If the patient has a diagnosis of Hepatitis C, this item is skipped.

  Hepatitis C Screening (Ab Test) is determined by the following:

  - CPT 86803
  - BGP HEP C TEST LOINC CODES taxonomy
  - Site-populated lab test taxonomy BGP HEP C TEST TAX.

  The **V LAB** file is scanned for any test contained in the lab test and LOINC taxonomies. The **V CPT** file is scanned for CPT 86803.

  - If a lab test or **CPT** code is found a value of **1–Yes** is assigned
  - If a lab test or **CPT** code is not found a value of **2–No** is assigned

- **Audit Report:** Hepatitis C (HCV) section:

  - Diagnosed HCV ever
  - In patients not diagnosed with HCV and age ≥ 18 years, screened ever
  - HCV test done ever or HCV diagnosed ever

- **Audit Export Field Name and Details:** HCVSCREEN2

  - **1**=Yes
  - **2**=No
  - **Blank** if value for HCV is not **2**=No

D.11.1.43 Retinopathy Diagnosis

- **Description:** Retinopathy diagnosed ever?

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10. The date of the diagnosis is displayed.

- **Audit Logic:** If retinopathy is on the problem list or the patient has had at least one visit with a diagnosis of retinopathy ever, then it is assumed that they have been diagnosed with retinopathy and a value of **1**=Yes is assigned. Otherwise, a value of **2**=No is assigned.

Taxonomy used: BGP DM RETINOPATHY DX

SNOMED List: PXRM BGP DM RETINOPATHY

- **Audit Report:** Retinopathy Diagnosed ever. Also used in calculation of diabetes-related conditions.

- **Audit Export Field Name and Details:** RETINOPDX

  - **1**=Yes
  - **2**=No

D.11.1.44 Lower Extremity Amputation

- **Description:** Lower Extremity Amputation (ever), any type (e.g., toe, partial foot, above or below knee).

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10.

- **Audit Logic:** The patient's electronic record is scanned for documentation of any of the following items:

  - The purpose of visits is scanned for any diagnosis in the BGP DM BTK AMP DXS or the BGP DM ATK AMP DXS taxonomies. If a diagnosis is found a value of **1**=Yes is assigned.
  - The problem list is scanned for a diagnosis in the BGP DM BTK AMP DXS or BGP DM ATK AMP DXS taxonomies or a SNOMED in the PXRM BGP DM BTK AMP or PXRM BGP DM ATK AMP SNOMED subsets.
  - The procedures are scanned for a procedure in the BGP DM BTK AMP PROCS or BGP DM ATK AMP PROCS taxonomies.
  - The CPT codes are scanned for a CPT in the BGP DM BTK AMP CPTS or BGP DM ATK AMP CPTS taxonomies.

  If any of the above are found, a value of **1**=Yes is assigned, otherwise a value of **2**=No is assigned.

- **Audit Report:** Lower Extremity Amputation, any type ever (e.g., toe, partial foot, above or below knee).

  Also used in calculation of diabetes-related conditions

- **Audit Export Field Name and Details:** LEA

  - **1**=Yes
  - **2**=No

D.11.1.45 Influenza Vaccine

- **Description:** Influenza vaccine received during the Audit Period

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10 for definition of Influenza vaccine. The date of the vaccine since August 1st is displayed. If no documented Influenza vaccine is found, a search is done for a documented refusal or contraindication, if found, it is displayed.

- **Audit Logic:** The patient's data is scanned for an influenza vaccine in the 12 months prior to the Audit date. Influenza vaccine is determined by:

  Immunization CVX codes: See BGP FLU IZ CVX CODES taxonomy.

  - CPT codes: BGP CPT FLU
    - If any of the above are found, a value of **1**=Yes is assigned.
    - If none of the above are found, a value of **2**=No is assigned.

- **Audit Report:** Immunization section: Influenza vaccine during Audit period.

- **Audit Export Field Name and Details:** FLUVAX2:
  - **1**=Yes
  - **2**=No

D.11.1.46 Pneumococcal Vaccine

- **Description:** Pneumococcal vaccine [PCV15, PCV20, or PPSV23] vaccine (ever)

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10 for the definition of a pneumococcal vaccine. The date of the last pneumococcal vaccine is displayed. If no documented vaccine is found a search is done for a documented refusal or contraindication, if found, it is displayed.

- **Audit Logic:** Data is scanned for pneumococcal vaccine any time prior to the Audit date. A pneumococcal vaccine is determined by:
  - Immunization CVX codes:
    - BGP PCV15 CVX CODES:
      - 215 PNEUMOCOCCAL CONJUGATE PCV15
    - BGP PCV20 CVX CODES:
      - 216 PNEUMOCOCCAL CONJUGATE PCV20
    - BGP PPSV23 CVX CODES:
      - 33 PNEUMOCOCCAL POLYSACCHARIDE PPSV23
      - 109 PNEUMOCOCCAL, NOS
  - Diagnoses: V03.82 (Note: There are no ICD-10 codes.)
  - Immunization CPT codes:
    - BGP PCV15 CPT CODES:

- – 90671
    - • BGP PCV20 CPT CODES:
        - – 90677
    - • BGP PPSV23 CPT CODES:
        - – 90732, G0009, G8115 (old code), G9279
    - – If any of the above is found, a value of **1**=Yes is assigned.
    - – If none of the above are found, a value of **2**=No is assigned.
- • **Audit Report:** Immunization section:
    - – Pneumococcal vaccine [PCV15, PCV20, or PPSV23]–ever
- • **Audit Export Field Name and Details:** PNEUMO
    - – **1**=Yes
    - – **2**=No

D.11.1.47 Td, Tdap, DTaP, or DT in Past 10 Years

- • **Description:** Td, Tdap, DTaP, or DT in past 10 years.

- • **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10 for the definition of the vaccines. The date of the last vaccine is displayed. If no documented vaccine is found a search is done for a documented refusal or contraindication, if found, it is displayed.

- • **Audit Logic:** Immunizations are scanned for any tetanus vaccine in the 10 years prior to the Audit date. Logic used to find a TD vaccine: Immunization CVX codes: DM AUDIT TD CVX CODES (listed below)
    - – 9 TD (ADULT)
    - – 113 TD (ADULT) PRESERVATIVE FREE
    - – 115 Tdap
    - – 138 Td-NA
    - – 139 Td,NOS
    - – 1 DTP
    - – 20 DTAP
    - – 28 DT (PEDIATRIC)
    - – 35 TETANUS TOXOID
    - – 106 DTAP, 5 PERTUSSIS ANTIGENS
    - – 107 DTAP, NOS
    - – 112 TETANUS TOXOID, NOS
    - – 22 DTP-HIB

- 50 DTAP-HIB
- 110 PEDIARIX
- 120 PENTACEL
- 130 KINRIX
- 132 DTaPIPVHHb
- 146 DTAP,IPV,HIB,HEPB
- 196 Td-LF, NOS
- 198 DTP-HbH5
- **CPT codes:**
    - 90696, 90697, 90714, 90715, 90718 Taxonomy DM AUDIT TD CPTS
- If any of the above are found, a value of **1**=Yes is assigned.
- If none of the above are found, a value of **2**=No is assigned.
- **Audit Report:** Immunization section:
    - Td/Tdap/DTaP/DT–past 10 years
- **Audit Export Field Name and Details:** TD2
    - **1**=Yes
    - **2**=No

D.11.1.48 Tdap (Ever)

- **Description:** Tdap given ever
- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10 for the definition of Tdap. The date of the last Tdap is displayed. If no documented vaccine is found, a search is done for a documented refusal or contraindication, which if found, is displayed.
- **Audit Logic:** Immunizations are scanned for a Tdap vaccine ever. A Tdap vaccine is determined by:
    - CVX code 115 Tdap
    - CPT code 90715
        - If either of the above is found, a value of **1**=Yes is assigned. If neither is found, a value of **2**=No is assigned.
- **Audit Report:** Immunization section:
    - Tdap–ever
- **Audit Export Field Name and Details:** TDAP2
    - **1**=Yes
    - **2**=No

D.11.1.49 Hepatitis B Complete Series (Ever)

- **Description:** Hepatitis B complete series received ever.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10 for definition of Hepatitis B vaccines. If no documented vaccine is found, a search is done for an immune contraindication which, if found, is displayed.

- **Audit Logic:** Data is scanned for Hepatitis B vaccine any time prior to the Audit date.

  HEP B (3 DOSE SERIES) is determined by:

  - CVX codes:
    - 8 HEP B, ADOLESCENT OR PEDIATRIC
    - 42 HEP B, ADOLESCENT/HIGH RISK IN
    - 43 HEP B,ADULT
    - 44 HEP B, DIALYSIS
    - 45 HEP B, NOS
    - 51 HIB-HEP B
    - 102 DTP-HIB-HEP B
    - 104 HEP A-HEP B
    - 110 DTaP-Hep B-IPV
    - 132 DTaP-IPV-HIB-HEP B, historical
    - 146 DTaP,IPV,Hib,HepB
    - 193 Hep A-Hep B, pediatric/adolescent
    - 220 HEP B, recombinant, 3-antigen, AI(OH)3

  - CPT codes contained in the BGP HEPATITIS CPTS taxonomy: 90636, 90697, 90723, 90731, 90739, 90740, 90743, 90744, 90745, 90746, 90747, 90748, 90759, G0010, Q3021, Q3023.

  - HEP B (2 DOSE SERIES) is determined by: CVX code 189 Hep B, adjuvanted.

  - Vaccinations must be given at least 20 days apart. If the appropriate number is found (two for the two-dose series or three for the three-dose series) a value of **1**=Yes is assigned.

- If less than the required number of vaccines are found, the system will look for an Immune Contraindication in the Immunization contraindications file. If it is found, a value of **3**=Immune is assigned. The system then looks for evidence of disease: Problem List or V POV of [BGP HEP EVIDENCE] Taxonomy. If it is found, a value of **3**=Immune is assigned.

  - If none of the above are found, a value of **2**=No is assigned.

- **Audit Report:** Immunization section:

  - If not immune, hepatitis B complete series–ever

  - Immune–hepatitis B

  - Hepatitis B complete series ever or immune to hepatitis B

- **Audit Export Field Name and Details:** HEPBVAX2:

  - **1**=Yes

  - **2**=No

  - **3**=Immune

D.11.1.50 Shingrix (recombinant zoster vaccine, RZV) Complete Series (Ever)

- **Description:** Shingrix complete series received ever.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Section D.10. If no documented vaccine is found, a search is done for a documented refusal or contraindication, if found, it is displayed.

- **Audit Logic:** Data is scanned for Shingrix vaccine any time prior to the Audit date. Shingrix vaccine is determined by documentation of 2 doses:

  - CPT Code 90750

  - CVX Code 187, zoster recombinant

- **Audit Report:** Immunization section:

  - In patients age >=50 years Shingrix complete series–ever

- **Audit Export Field Name and Details:** SHINGLESVAX:

  - **1**=Yes

  - **2**=No

D.11.1.51 A1C

- **Description:** Hemoglobin A1C test performed during the Audit period.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last A1C test is displayed. See Section D.10 for the definition of an A1C test.

For the selected date: if year only documented, 0701 is used for month/day; if month/year are documented 15 is used for the day.

- **Audit Logic:** All lab tests in the V LAB file in the year prior to the Audit date are found using the DM AUDIT HGB A1C 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 are displayed.

- **Audit Report:** Blood Sugar Control section:

  - If result contains ">" counted in >=11.0 category.

  - If result contains "<" counted in <7.0 category.

  - Otherwise, everything is stripped from the value except numbers and ".". If remaining value is something other than a number, counted in the "Not tested or no valid result" category.

  - If remaining value is numerical, it is counted in the appropriate category(ies):

    - A1C <7.0

    - A1C 7.0-7.9

    - A1C 8.0-8.9

    - A1C 9.0-9.9

    - A1C 10.0-10.9

    - A1C >=11.0

    - Not tested or no valid result

    - A1C <8.0

    - A1C >9.0

- **Audit Export Field Name and Details:**

  - HBA1C.

  - HBA1CDATE.

  - When exported, all characters that are not a number or a "**.**" are stripped from the value. For example, if the value is **<7.0**, **7.0** is exported. A maximum of 4 digits are exported.

  - Date is in MM/DD/YYYY format.

D.11.1.52 Total Cholesterol

- **Description:** Most recent Total Cholesterol value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last Total Cholesterol test is displayed. See Section D.10 for the definition of a Total Cholesterol test.

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

- **Audit Report:** Not reported.

- **Audit Export Field Name and Details:** CHOLVALUE

  – All characters other than numbers and "." are stripped from the value that is then rounded to the closest whole number and truncated to a total of three characters with zero decimal digits. Rounding is done by adding .5 to the result and sending the non-decimal portion.

    - E.g., Value in RPMS is 100.1, then .5 is added to get 100.6; then 100 is sent to the audit

    - E.g., Value in RPMS is 100.5; then .5 is added to get 101.0; then 101 is sent to the audit

D.11.1.53 HDL Cholesterol

- **Description:** Most recent HDL Cholesterol value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last HDL Cholesterol test is displayed. See Section D.10 for the definition of a HDL Cholesterol test.

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

- **Audit Report:** HDL cholesterol section: If result is blank OR first digit is not a number, then counted in the "Not tested or no valid result" category. For example, if the value is "cancelled".

  – 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 Field Name and Details:** HDLVALUE All characters that are not numbers or "." are stripped from the value that is then rounded to the closest whole number and truncated to a total of three characters with zero decimal digits. Rounding is done by adding .5 to the result and sending the non-decimal portion.

  - E.g., Value in RPMS is 45.1; then .5 is added to get 45.6; then 45 is sent to the audit
  - E.g., Value in RPMS is 60.5; then .5 is added to get 61.0; then 61 is sent to the audit

D.11.1.54 LDL Cholesterol

- **Description:** Most recent LDL Cholesterol value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last LDL Cholesterol test is displayed. See Section D.10 for the definition of a LDL Cholesterol test.

- **Audit Logic:** 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.

- **Audit Report:** LDL cholesterol section:

  If the first digit of the result is not a number, then counted in the "Not tested or no valid result" category. For example, if the value is "UNK."

  - LDL <100 mg/dL
  - LDL 100-189 mg/dL
  - LDL >=190 mg/dL
  - Not tested or no valid result

- **Audit Export Field Name and Details:** LDLVALUE

- All characters that are not numbers or "**.**" are stripped from the result value that is then rounded to the closest whole number and truncated to a total of three characters with zero decimal digits. Rounding is done by adding .5 to the result and sending the non-decimal portion.

  - E.g., Value in RPMS is 100.1; then .5 is added to get 100.6; then 100 is sent to the audit
  - E.g., Value in RPMS is 100.5; then .5 is added to get 101.0; then 101 is sent to the audit

D.11.1.55 Triglyceride Value (mg/dL)

- **Description:** Most recent Triglyceride value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last Triglyceride test is displayed. See Section D.10 for the definition of a Triglyceride test.

- **Audit Logic:** The last lab test with a result in the year prior to the Audit date that is a member of the DM AUDIT TRIGLYCERIDE 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.

- **Audit Report:** Triglycerides section: If the result is blank OR first digit is not a number then counted in the **Not tested or no valid result** category. For example, if the value is **cancelled**.

    - TG <150 mg/dL
    - TG 150-499 mg/dL
    - TG 500-999 mg/dL
    - TG ≥1000 mg/dL
    - Not tested or no valid result

- **Audit Export Field Name and Details:** TRIGVALUE

    - All characters other than numbers and "**.**" are stripped from the value that is then rounded to the closest whole number and truncated to a total of 4 characters with 0 decimal digits. Rounding is done by adding .5 to the result and sending the non-decimal portion.
    - E.g., Value in RPMS is 100.1; then .5 is added to get 100.6; then 100 is sent to the audit
    - E.g., Value in RPMS is 100.5; then .5 is added to get 101.0; then 101 is sent to the audit

D.11.1.56 Serum Creatinine

- **Description:** Most recent Serum Creatinine value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last Serum Creatinine test is displayed. See Section D.10 for the definition of a Serum Creatinine test.

- **Audit Logic:** 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, the actual value that is in V LAB is displayed.

- **Audit Report:** Not reported

- **Audit Export Field Name and Details:** CREATVALUE

All characters other than numbers and "." are stripped from the value that is truncated to a total of four characters with two decimal digits.

- – E.g., Value in RPMS is 6.25; then 6.25 is sent to the audit

D.11.1.57 Estimated Glomerular Filtration Rate (eGFR)

- **Description:** Most recent eGFR value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name and result of the last eGFR test is displayed. See Section D.10 for the definition of an eGFR test.

- **Audit Logic:** 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, the actual value that is in V LAB is displayed.

- **Audit Report:** Kidney Evaluation section: If the first character of the value is "**>**," it goes into ≥ 60 ml/min. Otherwise, all characters other than numbers and "**.**" are stripped and the resulting value is placed in the following categories:

  - – eGFR ≥60 mL/min
  - – eGFR 30-59 mL/min
  - – eGFR 15-29 mL/min
  - – eGFR <15 mL/min
  - – Not tested or no valid result

  Also used in the CKD Stage section.

- **Audit Export Field Name and Details:** EGFRVALUE

All characters other than numbers or "**.**" are stripped from the value that is truncated to a total of 5 characters with 1 decimal digit.

D.11.1.58 Quantitative Urine Albumin-to-Creatinine Ratio (UACR) Value

- **Description:** Most recent UACR value.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The date, test name, and result of the last UACR test is displayed. See Section D.10 for the definition of a UACR test.

- **Audit Logic:** 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 result of the test is assigned to **UACR** value.

  Result reporting: For the individual Audit, the resulting value is displayed.

- **Audit Report:** Kidney Evaluation section:

  - UACR - normal: <30 mg/g
  - UACR increased: 30-300 mg/g
  - UACR increased: >300 mg/g
  - Not tested or no valid result

  Also used in the CKD Stage section.

- **Audit Export Field Name and Details:** UPACRVAL

  All non-numeric characters are stripped from the value.

D.11.1.59 Local Questions

- **Description:** Single digit 1-9 Locally defined data element.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** Data is obtained from the LOCAL OPTION field of the Diabetes Register.

- **Audit Report:** Not reported

- **Audit Export Field Name and Details:** LOCAL #, single digit, 1-9. This field may be left blank for all patients if the facility does not choose to populate it.

D.11.1.60 Extended Local Question

- **Description:** Extended Local Question Locally defined data element.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** N/A

- **Audit Logic:** Data is obtained from the LOCAL OPTION TEXT field of the Diabetes Register.

- **Audit Report:** Not reported.

- **Audit Export Field Name and Details:** LOCALEXT character (max length=50). This field may be left blank for all patients if the facility does not choose to populate it.

D.12   Audit Export (Data) File Specifications for 2024

This section includes the IHS Diabetes Care and Outcomes Audit Data File Specifications for 2024.

D.12.1   General Information

1. **Data File Format:** Delimited text, with the following general requirements.

    a. Delimiter **must** be the ^ symbol, not a tab, space, or any other character.

    b. Line 1 contains the Audit field names in the order they appear below.

    c. Lines 2 and beyond contain the data, with each line representing a single record/patient.

    d. All records must contain a value or a placeholder for all fields. If there is no value for a field (because data are missing or due to skip pattern), the place holder is one blank space between the delimiters (i.e., ^ ^).

2. **Data Fields:**

    a. A list of Audit 2024 fields (Table D-4) and basic details/requirements for each is provided on subsequent pages of this document.

    b. Extracting accurate data for many fields requires additional information, some of which is available in the Audit documentation.

    c. Other information is specific to the health record system being used and must be determined locally, including documentation of medications and education.

3. **Additional Information and Resources**

    a. Audit website: https://www.ihs.gov/diabetes/audit/

    b. Contact the Audit team via email: diabetesaudit@ihs.gov

D.12.2   List of Audit Data Fields

Table D-4: List of Fields

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
1	AUDITDATE	Ending date of the one-year Audit period: 12/31/2023 for Annual Audit 2024	N/A	mm/dd/yyyy	
2	FACILITYNA	Name or abbreviation for the facility	N/A	Character (max length=20)	For confirmation purposes only, since the WebAudit will automatically supply and display the name.
3	REVIEWER	Reviewer's initials	N/A	Character (max length=3)	
4	STATE	Postal abbreviation for last known state of residence	N/A	Character (max length=2)	Do not populate if patient's address is outside of the US (e.g., in Canada).
5	MOB	Month of birth	N/A	# with value 1-12	
6	YOB	Year of birth	N/A	yyyy	

7	SEX	Birth sex	N/A	# field with:
				1=Male
				2=Female
				3=Unknown	

8	DODX	Date of diabetes diagnosis	N/A	mm/dd/yyyy	If only year is known, use value 07/01/yyyy. If only month and year are known, use 15 for the day. Leave blank if year or entire date is unknown.

9	DMTYPE	Diabetes type	N/A	# field with:
				1=Type 1
				2=Type 2 (or uncertain)	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments

10	TOBSCREEN	Screened for tobacco use	Audit period	# field with:
				1=Yes
				2=No	

11	TOBACCOUSE	Tobacco use	Audit period	# field with:
				1=Yes
				2=No
					Populate only if TOBSCREEN value is 1=Yes.

12	TOBCOUNSEL	Tobacco cessation counseling/education received	Audit period	# field with:
				1=Yes
				2=No
					Populate only if TOBSCREEN value is 1=Yes and TOBACCO TOBACCOUSE value is 1=Yes.

13	ENDSSCREEN	Screened for electronic nicotine delivery system (ENDS) use during Audit period	Audit period	# field with:
				1=Yes
				2=No
					ENDS include: vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and e-pipes.
					Limit to nicotine for Audit.

14	ENDSUSE	ENDS use	Audit period	# field with:
				1=Yes
				2=No
					Populate only if ENDSSCREEN value is 1=Yes.
					
					ENDS include: vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and e-pipes.
					
					Limit to nicotine for Audit

15	FEET	Last recorded height - feet part	Last ever	# with 0 decimal places	If height is provided as feet and inches, be sure to provide a value for both fields: FEET and INCHES.

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
16	INCHES	Last recorded height - inches part	Last ever	# with up to 2 decimal places	If height is provided as total in inches only, FEET field should not be populated (i.e., do not submit 0 or any other value). Round to 2 decimal places, if necessary.
17	WEIGHT	Weight in lbs	Most recent in Audit period	# with 0 decimal places	Truncate to nearest whole pound

18	HTNDX	Hypertension diagnosed	Ever	# field with:
				1=Yes
				2=No	

19	SYST1	Most recent systolic blood pressure (mmHg)	Audit period	# with 0 decimal places	
20	DIAST1	Most recent diastolic blood pressure (mmHg)	Audit period	# with 0 decimal places	
21	SYST2	Next most recent systolic blood pressure BP (mmHg)	Audit period	# with 0 decimal places	
22	DIAST2	Next most recent diastolic blood pressure (mmHg)	Audit period	# with 0 decimal places	
23	SYST3	Third most recent systolic blood pressure (mmHg)	Audit period	# with 0 decimal places	
24	DIAST3	Third most recent diastolic blood pressure (mmHg)	Audit period	# with 0 decimal places	

25	FOOTEXAM	Complete diabetic foot exam including evaluation of sensation and vascular status	Audit period	# field with:
				1=Yes
				2=No	

26	EYEEXAM	Dilated retinal exam or retinal imaging exam	Audit period	# field with:
				1=Yes
				2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments

27	DENTALEXAM	Dental exam conducted by a dental professional including examination of teeth and gingiva	Audit period	# field with:
				1=Yes
				2=No	

28	DEPSCREEN2	Screened for depression	Audit period	# field with:
				1=Yes
				2=No	

29	DEPDX2	Active diagnosis of depression	Audit period	# field with:
				1=Yes
				2=No	

30	DIETINSTR	Nutrition education	Audit period	# field with:
				1=Yes by RD
				2=Yes by non-RD
				3=Yes by both RD & non-RD
				4=None	

31	EXERCISE	Physical activity education	Audit period	# field with:
				1=Yes
				2=No	

32	DMEDUC	Diabetes education other than nutrition and physical activity	Audit period	# field with:
				1=Yes
				2=No	

33	TXNONE	None of the listed diabetes medications prescribed	As of the end of the Audit period	# field with:
				1=Yes
				2=No
					-If value for this field=1:Yes, then all other TX fields should=2:No.
					-If all other TX fields=2:No, then value for this field should=1:Yes.

34	TXINSUL	Prescribed any insulin	As of the end of the Audit period	# field with:
				1=Yes
				2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
35	TXMETFORM	Prescribed metformin	As of the end of the Audit period	# field with: 1=Yes 2=No	Includes Glucophage, others
36	TXSUREA	Prescribed a sulfonylurea	As of the end of the Audit period	# field with: 1=Yes 2=No	Includes glipizide, glyburide, glimepiride
37	TXDPP4	Prescribed a DPP-4 inhibitor	As of the end of the Audit period	# field with: 1=Yes 2=No	Includes alogliptin (Nesina), linagliptin (Tradjenta), saxagliptin (Onglyza), sitagliptin (Januvia)
38	TXGLP1MED	Prescribed a GLP-1 receptor agonist	As of the end of the Audit period	# field with: 1=Yes 2=No	Includes dulaglutide (Trulicity), exenatide (Byetta, Bydureon), liraglutide (Victoza, Saxenda), lixisenatide (Adlyxin), semaglutide (Ozempic, Rybelsus, Wegovy)
39	TXSGLT2	Prescribed an SGLT-2 inhibitor	As of the end of the Audit period	# field with: 1=Yes 2=No	Includes bexagliflozin (Brenzavvy), canagliflozin (Invokana), dapagliflozin (Farxiga), empagliflozin (Jardiance), ertugliflozin (Steglatro), sotagliflozin (Inpefa)
40	TXGLIT	Prescribed pioglitazone [Actos] or rosiglitazone [Avandia]	As of the end of the Audit period	# field with: 1=Yes 2=No	
41	TXTIRZEP	Prescribed tirzepatide [Mounjaro]	As of the end of the Audit period	# field with: 1=Yes 2=No	
42	TXACARB	Prescribed acarbose [Precose] or miglitol [Glyset]	As of the end of the Audit period	# field with: 1=Yes 2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
43	TXSUREALK	Prescribed repaglinide [Prandin] or nateglinide [Starlix]	As of the end of the Audit period	# field with: 1=Yes 2=No	
44	TXAMYLIN	Prescribed injectable pramlintide [Symlin]	As of the end of the Audit period	# field with: 1=Yes 2=No	
45	TXBROMO	Prescribed bromocriptine [Cycloset]	As of the end of the Audit period	# field with: 1=Yes 2=No	
46	TXCOLESEV	Prescribed colesevelam [Welchol]	As of the end of the Audit period	# field with: 1=Yes 2=No	
47	ACE	Prescribed an ACE inhibitor or ARB	As of the end of the Audit period	# field with: 1=Yes 2=No	Commonly prescribed medications include: ACE Inhibitors: benazepril (Lotensin), captopril, enalapril (Vasotec, Epaned), fosinopril, lisinopril (Zestril), ramipril (Altace), ARBs: candesartan (Atacand), irbesartan (Avapro), losartan (Cozaar), telmisartan (Micardis), olmesartan (Benicar), valsartan (Diovan, Prexxartan)

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments

48	ASPIRIN	Prescribed aspirin or other antiplatelet/ anticoagulant therapy	As of the end of the Audit period	# field with:
				1=Yes
				2=No
					Commonly prescribed medications include:
					Antiplatelets: aspirin, aspirin/dipyridamole (Aggrenox), cilostazol (Pletal), clopidogrel (Plavix), prasugrel (Effient), ticagrelor (Brilinta)
					Anticoagulants: apixaban (Eliquis), dabigatran (Pradaxa), edoxaban (Savaysa), enoxaparin (Lovenox), rivaroxaban (Xarelto), warfarin (Coumadin)

49	LLSTATIN2	Prescribed a statin therapy	As of the end of the Audit period	# field with:
				1=Yes
				2=No
				3=Allergy/intolerance/ contraindication
					-Look for yes, then allergy or intolerance or contraindication, then no.
					
					-Commonly prescribed medications include: atorvastatin, fluvastatin, lovastatin, pitavastatin, pravastatin, rosuvastatin, simvastatin

50	CVDDX	Diagnosed cardiovascular disease (CVD)	Ever	# field with:
				1=Yes
				2=No
					Includes coronary artery disease (CAD), hypertensive heart disease, heart failure, cardiomyopathy, heart dysrhythmias, valvular heart disease, stroke, and/or peripheral vascular disease.

51	TBDX	Tuberculosis (TB) diagnosis (latent or active) documented (ever)	Ever	# field with:
				1=Yes
				2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments

52	TBTESTDONE3	Most recent skin (PPD) or blood test for tuberculosis (TB) with valid result	Most recent ever	# field with:
				1=Skin test (PPD)
				2=Blood test (QFT-GIT, T-SPOT)
				3=No test documented
					-Populate only if TBDX value is2 =No.
					
					-If more than one test is documented, use the most recent.

53	TBTESTRSLT2	TB test result	Most recent	# field with:
				1=Positive
				2=Negative
				3=No result documented
					Populate only if TBDX value is 2=No and TBTESTDONE3 value is 1=Skin test or 2=Blood test.

54	TBINHTX2	TB treatment initiated (isoniazid, rifampin, rifapentine, others)	Ever	# field with:
				1=Yes
				2=No
				3=Unknown
					Populate only if TBDX value is 1=Yes or (TBDX value is 1=No and TBTESTDONE3 value is 1=Skin test or 2=Blood test and TBTESTRSLT2 value is 1=Positive).

55	TBTESTDATE	Date of last TB test	Ever	mm/dd/yyyy	**Populate only if TBDX value is 2=No and TBTESTDONE3 value is 1=Skin test or 2=Blood test and TBTESTRSLT2 is 2=Negative.** If only year is known, use value 07/01/yyyy. If only month and year are known, use 15 for the day. Leave blank if year or entire date is unknown.

56	HCVDX	Diagnosed hepatitis C (HCV)	Ever	# field with:
				1=Yes
				2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments

57	HCVSCREEN2	If not diagnosed with HCV, screened for HCV at least once	Ever	# field with:
				1=Yes
				2=No
					Populate only if HCVDX value is 2=No.
					
					Screening is performed using the Hepatitis C antibody (anti-HCV) test.

58	RETINOPDX	Diagnosed retinopathy	Ever	# field with:
				1=Yes
				2=No	

59	LEA	Lower extremity amputation, any type (e.g., toe, partial foot, above or below knee)	Ever	# field with:
				1=Yes
				2=No	

60	FLUVAX2	Influenza vaccine	Audit period	# field with:
				1=Yes
				2=No	

61	PNEUMO	Pneumococcal vaccine (PCV15, PCV20, or PPSV23)	Ever	# field with:
				1=Yes
				2=No	

62	TD2	Tetanus (Td, Tdap, DTaP, or DT) vaccine	Past 10 years	# field with:
				1=Yes
				2=No	

63	TDAP2	Tdap vaccine	Ever	# field with:
				1=Yes
				2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments

64	HEPBVAX2	Hepatitis B complete series	Ever	# field with:
				1=Yes
				2=No
				3=Immune
					Either complete 3-dose series or complete 2-dose series counts.
					
					3-dose series includes: Engerix-B®, PreHevbrio®, Recombivax HB®, and Twinrix® vaccines.
					
					2-dose series includes: Heplisav-B® vaccine.

65	SHINGLESVAX	Shingrix/recombinant zoster vaccine (RZV) complete series	Ever	# field with:
				1=Yes
				2=No
					-Complete series for Shingrix is 2 doses.
					
					Note: Zostavax vaccine does not count for this item.

66	HBA1C	HbA1c test result (%)	Most recent in Audit period	# with 1 decimal place	
67	HBA1CDATE	Date of most recent HbA1c	Most recent in Audit period	mm/dd/yyyy	If only year is known, use value 07/01/yyyy. If only month and year are known, use 15 for the day. Leave blank if year or entire date is unknown.
68	CHOLVALUE	Total cholesterol value (mg/dL)	Most recent in Audit period	# with 0 decimal places	Round to 0 decimal places, if necessary.
69	HDLVALUE	HDL cholesterol value (mg/dL)	Most recent in Audit period	# with 0 decimal places	Round to 0 decimal places, if necessary.

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
70	LDLVALUE	LDL cholesterol value (mg/dL)	Most recent in Audit period	# with 0 decimal places	Round to 0 decimal places, if necessary.
71	TRIGVALUE	Triglyceride value (mg/dL)	Most recent in Audit period	# with 0 decimal places	Round to 0 decimal places, if necessary.
72	CREATVALUE	Serum creatinine value (mg/ dL)	Most recent in Audit period	# with up to 2 decimal places	Round to 2 decimal places, if necessary.
73	EGFRVALUE	Estimated GFR (eGFR) value	Most recent in Audit period	# with 1 decimal place	Use documented value, if available. Round to 1 decimal place, if necessary
74	UPACRVAL	Quantitative urine albumin/creatinine ratio (UACR) value (mg/g)	Most recent in Audit period	# with up to 2 decimal places	Round to 2 decimal places, if necessary.
75	LOCAL	Local question	N/A	#, single digit, 1-9	This field may be left blank for all patients if the facility does not choose to populate it.
76	LOCALEXT	Extended local question	N/A	Character (max length=50)	This field may be left blank for all patients if the facility does not choose to populate it.
77	AGE	Patient age in years at time of AUDITDATE	N/A	# with maximum of 3 digits and no decimal places	Calculate as: integer part of difference in days between AUDITDATE and date of birth, divided by 365.25

D.13   Data Quality Error Report Error Definitions

Table D-5: Error Report Definitions

Error	Definition
REVIEWER INITIALS MISSING	Review initials are missing. IT staff should update the NEW PERSON entry and add initials for the reviewer.
MONTH OF BIRTH NOT VALID	Month of birth is invalid. Check this patient's DOB in patient registration.
YEAR OF BIRTH MISSING	Year of Birth is missing. Check this patient's DOB in patient registration.
AGE LESS THAN 1	Age is less than 1, check DOB and audit date.
AGE OVER 100	Age of the patient is greater than 100. Check to be sure this patient should be included in the audit.
BIRTH SEX NOT VALID	Birth sex of patient is missing or is invalid. Check this patient's birth sex in patient registration.
DATE OF DX BEFORE YOB	Date of Diabetes Diagnosis is before year of birth.
DATE OF DX SAME AS DOB	Date of Diabetes Diagnosis equal to DOB. Check both dates.
DATE OF DX > AUDIT DATE	Date of Diabetes diagnosis is after the audit date.
DATE OF DX =AUDIT DATE	Date of Diabetes Diagnosis is equal to the audit date.
DIABETES TYPE MISSING	Diabetes Type is missing.
DIABETES TYPE - CHECK	Diabetes Type 2 is unusual in young children. Check Diabetes Type is DMTYPE=2 and AGE is less than or equal to 5 yrs.
TOBACCO SCREEN IS MISSING	Tobacco Screen in past year is missing.
TOBACCO SCREEN IS INVALID	Tobacco Screen is invalid, must be 1=Yes, 2=No.
TOBACCO USE IS INVALID	Tobacco Use value is invalid, must be a 1 or 2.
TOBACCO USE IS MISSING	Tobacco Use is missing.
TOBACCO COUNSEL INVALID	Tobacco Use is 1=Yes. Tobacco Counsel Must be 1 or 2; it cannot be blank.
TOBACCO COUNSEL INVALID	Tobacco Use Status is 2=No. Tobacco Counsel should be blank.
ENDS SCREEN MISSING	ENDS Use Screen in past year is missing.
ENDS SCREEN INVALID	ENDS Screen value is invalid, must be a 1 or 2.
ENDS USE STATUS MISSING	ENDS Use Status is missing.
ENDS USE STATUS INVALID	ENDS Use value is invalid, must be a 1 or 2.
HEIGHT IN FEET LOW FOR AGE >18	Height in feet value is unusually low (less than 4). Check patient's last Height value.
HEIGHT IN FEET LOW FOR AGE <19	Height in feet is unusually low for patient under 19 years old. Value is less than 2, check patient's last height value.

Error	Definition
HEIGHT IN FEET HIGH AGE <10	Height Value is high (greater than 5) for patient age under 10. Check the patient's last height value.
HEIGHT IN FEET HIGH FOR AGE <9	Height is high (over 6) for patient under the age of <9. Check the patient's last height value.
HEIGHT INCHES IS <0	Height in inches is blank or less than zero. Check patient's last height value.
HEIGHT INCHES >12, FEET ENTERED	Height in feet is entered, inches cannot be greater than 12.
HEIGHT TOTAL <48 AGE>17	Age of patient is greater than 17 and total height is less than 48 inches. Check the DOB and height value.
HEIGHT TOTAL <24 AGE<18	Age of patient is less than 17 and total height in inches is less than 24 inches. Check the DOB and height value.
HEIGHT TOTAL >60 AGE <10	Age of patient is less than 10 and height in total inches is greater than 60. Check the DOB and height value.
HEIGHT TOTAL >84 AGE >9	Age of patient is greater than 9 and total height is greater than 84. Check the DOB and height value.
HEIGHT IN FEET MISSING	Height in feet is missing, inches is present. Check patient's last height value.
WEIGHT IS NOT A WHOLE NUMBER	Weight in lbs must be a whole number. No decimals.
WEIGHT LESS THAN 80, AGE >17	Weight is less than 80 lbs and patient is over 17 years old. Check the patient's last weight value. If accurate, no action necessary.
WEIGHT LESS THAN 50, AGE <18	Weight is less than 50 lbs and patient is under 18 years old. Check the patient's last weight value. If accurate, no action necessary.
HYPERTENSION DX NOT VALID	Hypertension diagnosed value is not a 1–Yes or a 2–No.
SYSTOLIC 1 VALUE <50 OR >250	Systolic 1 value is less than 50 or greater than 250. Check value and change if necessary.
SYSTOLIC 2 VALUE <50 OR >250	Systolic 2 value is less than 50 or greater than 250. Check value and change if necessary.
SYSTOLIC 3 VALUE <50 OR >250	Systolic 3 value is less than 50 or greater than 250. Check value and change if necessary.
DIASTOLIC 1 <30 OR >140	Diastolic 1 is less than 30 or greater than 140. Check value.
DIASTOLIC 2 <30 OR >140	Diastolic 2 is less than 30 or greater than 140. Check value.
DIASTOLIC 3 <30 OR >140	Diastolic 3 is less than 30 or greater than 140. Check value.
FOOT EXAM NOT VALID	Foot Exam value must be 1 or 2.
EYE EXAM NOT VALID	Eye Exam value must be 1 or 2.
DENTAL EXAM NOT VALID	Dental Exam value must be 1 or 2.
DEPRESSION ACTIVE DIAGNOSIS	Depression Active Diagnosis must be 1 or 2.

Error	Definition
DEPRESSION SCREEN NOT VALID	Depression Screen value not valid. Must be blank, 1, or 2.
NUTRITION EDUCATION NOT VALID	Nutrition education does not equal 1, 2, 3, or 4.
PHYSICAL ACTIVITY EDUCATION NOT VALID	Physical Activity Education value must be 1 or 2.
OTHER DIABETES EDUCATION NOT VALID	Other Diabetes Education value must be 1 or 2.
TX NONE IS INVALID	TX None must be 1 or 2.
TX INSULIN NOT VALID	TX insulin must be 1 or 2.
TX INSULIN/DM TYPE 1	Value for this treatment inconsistent with DM Type 1; check medications and DM Type if DMTYPE=1 and TXINSUL=2
TX SULFONYLUREA INVALID	TX Sulfonylurea value must be 1 or 2.
TX SULFONYLUREA/DM TYPE 1	Value for this treatment inconsistent with DM Type 1; check medications and DM Type.
TX SULFONYLUREA LIKE INVALID	TX Sulfonylurea like therapy must be 1 or 2.
TX SULFONYLUREA LIKE/DM TYPE 1	Value for this treatment inconsistent with DM Type 1, check medications and DM Type.
TX METFORMIN INVALID	TX Metformin value must be 1 or 2.
TX METFORMIN/DM TYPE 1	TX Metformin may be inconsistent with DM Type 1. Check medications and DM Type.
TX ACARBOSE INVALID	TX Acarbose must be 1 or 2.
TX ACARBOSE/DM TYPE 1	TX Acarbose inconsistent with DM Type 1. Check medications and DM Type.
TX GLITAZONE INVALID	TX Glitazone must be 1 or 2.
TX GLITAZONE/DM TYPE 1	TX Glitazone therapy inconsistent with DM Type 1. Check the patient's medications and DM Type.
TX GLP-1 INVALID	TX GLP-1 value must be 1 or 2.
TX GLP-1/DM TYPE 1	TX GLP-1 may be inconsistent with DM Type 1. Check the patient's medications and DM Type.
TX DPP-4 INVALID	TX DPP4 must be 1 or 2.
TX DPP-4/DM TYPE 1	TX DPP4 inconsistent with DM Type 1. Check the patient's medications and DM Type.
TX AMYLIN INVALID	TX Amylin must be 1 or 2.
TX BROMO INVALID	TX Bromocriptine must be 1 or 2.
TX BROMO/DM TYPE 1	Tx Bromocriptine therapy inconsistent with DM Type 1. Check the patient's medications and DM Type.
TX COLESEV INVALID	TX Colesevelam must be 1 or 2.
TX COLESEV/DM TYPE 1	TX Colesevelam therapy inconsistent with DM Type 1. Check the patient's medications and DM Type.
TX SLGT2 INVALID	TX SGLT2 must be 1 or 2.

Error	Definition
TX SLGT2/DM TYPE 1	TX SLGT2 inhibitor therapy may be inconsistent with DM Type 1. Check the patient's medication and DM Type.
TX TIRZEP INVALID	TX TIRZEP must be 1 or 2.
TX TIRZEP/DM TYPE 1	TX TIRZEP inconsistent with DM Type 1. Check the patient's medications and DM Type.
ACE INHIBITOR INVALID	ACE Inhibitor value must be 1 or 2.
ASPIRIN INVALID	Aspirin value must be 1 or 2.
CVD DX INVALID	CVD Dx value must be 1 or 2.
TB DIAGNOSIS INVALID	TB Diagnosis must be 1 or 2.
TB TEST DONE INVALID	TB Test Done must be 1, 2, or 3.
TB DIAGNOSIS/TB TEST DONE INCONSISTENT	TB Test Done must be blank if the TB Diagnosis value is 1-Yes.
TB TEST RESULT INVALID	TB Test Result must be 1, 2, or 3.
TB RESULT/TB TEST INCONSISTENT	TB Test Result must be blank if the TB Test Done value is 3-No test documented.
TB TX/TB TEST RESULT	If TB Diagnosis is 1-Yes or TB Test result is 1–Positive, TB Treatment must not be blank.
TB TX/TB TEST NEGATIVE	If TB Diagnosis is not 1-Yes or TB Test Result is not 1–Positive, TB Treatment must be blank.
TB TX INVALID	TB Treatment must be a value of 1, 2, 3, or blank.
TB TEST DATE < YOB	Date of TB Test is earlier than year of birth.
TB TEST DATE > AUDIT DATE	Date of TB Test is after audit date.
TB TEST DATE/TB TEST RESULT	TB Test date should be blank if TB Test Result is not 2–Negative.
TB TEST RESULT/TB TEST DATE	TB Test date should not be blank if TB Test Result is 2.
HEPATITIS C DX INVALID	Hepatitis C Diagnosis must be 1 or 2.
HEPATITIS C SCREEN INVALID	Hepatitis C Screen must be 1 or 2.
RETINOPATHY INVALID	Retinopathy Diagnosis must be 1 or 2.
LEA INVALID	Lower extremity amputation (LEA) must be 1 or 2.
FLU VACCINE INVALID	Flu vaccine value must be 1 or 2.
PNEUMOCOCCAL VACCINE INVALID	Pneumococcal vaccine value must be 1 or 2.
TD2 INVALID	TD value must be 1 or 2.
TDAP INVALID	TDAP value must be 1 or 2.
SHINGLES VACCINE INVALID	Shingles vaccine value must be 1 or 2.
HEP B VACCINE INVALID	Hepatitis B Vaccine value must be 1, 2, or 3.
HBA1C TEST RESULT <4 OR >18	HbA1c value is less than 4 or greater than 18; check value and if accurate no action necessary.
HBA1C DATE > AUDIT DATE	Date of HbA1c is after the audit date.
HBA1C BEFORE AUDIT BEGIN DATE	HbA1c date is before audit begin date.

Error	Definition
HBA1C DATE < YOB	HbA1c date is before year of birth.
HBA1C DATE >20 DAYS BEFORE DOO	HbA1c date is more than 20 days prior to the date of onset. Check both values; if they are accurate no action is necessary.
TOTAL CHOLESTEROL <70 OR >500	Total Cholesterol Value is less than 70 or greater than 500. Check the value; if accurate no action necessary.
HDL VALUE <12 OR >140	HDL Value is less than 12 or greater than 140. Check the value; if accurate no action necessary.
HDL > TOTAL CHOLESTEROL	HDL value is greater than the Total Cholesterol value. Check both values; if accurate, no action necessary.
LDL VALUE <10 OR >300	LDL value is less than 10 or greater than 300. Check the value; if accurate, no action necessary.
LDL > TOTAL CHOLESTEROL	LDL value is greater than the Total Cholesterol. Check both values; if accurate, no action necessary.
TRIGLYCERIDE <25 OR >4000	Triglyceride value is less than 25 or greater than 4000. Check the value; if accurate, no action necessary.
CREATININE VALUE <0.3 OR >15	Serum Creatinine value is less than 0.3 or greater than 15. Check the value; if accurate, no action necessary.
EGFR VALUE <5 OR >250	eGFR value is less than 5 or greater than 250. Check the value; if accurate, no action necessary.
QUANTITATIVE UACR VALUE > 20,000	Quantitative urine albumin creatinine value is greater than 20,000. Check the value; if accurate, no action necessary.
BMI <16 OR >80	BMI is less than 16 or greater than 80. Check values and if necessary correct HT/WT. If value is correct, no action is necessary.
DURATION OF DM	Duration of Diabetes is less than zero or greater than the patient's age.
ALL KEY DATA MISSING	Data is missing for all key fields: weight, blood pressure, A1C, LDL, UACR.

D.14   Sample Audit Report

Figure D-49 displays a sample Audit Report over several pages.

```
    LAB                          Oct 30, 2023                     Page 1

            IHS Diabetes Care and Outcomes Audit - RPMS Audit
        Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                    Facility: 2021 DEMO HOSPITAL (INST)
                              Annual Audit
                      620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
------------------------------------------------------------------------------
```

```
                                        # of        #          Percent
                                        Patients    Considered
                                        (Numerator) (Denominator)


*** NOTE:  6 Patients were not included in this report because their
date of onset was after the Audit period end date.

Birth Sex
   Male                                    242         620         39%
   Female                                  378         620         61%
   Unknown                                   0         620          0%

Age
   <20 years                                26         620          4%
   20-44 years                             101         620         16%
   45-64 years                             280         620         45%
   >=65 years                              213         620         34%

Diabetes Type
   Type 1                                   18         620          3%
   Type 2                                  602         620         97%

Duration of Diabetes
   <1 year                                   4         620          1%
   <10 years                                70         620         11%
   >=10 years                              416         620         67%
   Diagnosis date not recorded             134         620         22%

Body Mass Index (BMI) Category
   Normal (BMI<25.0)                        53         620          9%
   Overweight (BMI 25.0-29.9)              123         620         20%
   Obese (BMI >=30.0)                      398         620         64%
   Height or weight missing                 46         620          7%
   --------------------------------
   Severely obese (BMI >=40.0)             121         620         20%

Blood Sugar Control
   A1C <7.0                                126         620         20%
   A1C 7.0-7.9                              87         620         14%
   A1C 8.0-8.9                              68         620         11%
   A1C 9.0-9.9                              55         620          9%
   A1C 10.0-10.9                            40         620          6%
   A1C >=11.0                              100         620         16%

   Not tested or no valid result          144         620         23%
   --------------------------------
   A1C <8.0                                213         620         34%
   A1C >9.0                                189         620         30%

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           IHS Diabetes Care and Outcomes Audit - RPMS Audit
      Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                 Facility: 2021 DEMO HOSPITAL (INST)
                          Annual Audit
                    620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
--------------------------------------------------------------------------------
                                        # of        #          Percent
                                        Patients    Considered
```

```
                                        (Numerator) (Denominator)


Blood Pressure (BP) - Based on one value or mean of two or three values
   <130/<80                                     266       620        43%
   130/80 - <140/<90                            162       620        26%
   140/90 - <160/<100                           115       620        19%
   160/100 or higher                             31       620         5%
   BP category undetermined                      46       620         7%
   ---------------------------------
   <140/<90                                     428       620        69%

Hypertension
   Diagnosed ever                               543       620        88%
      Diagnosed hypertension and mean BP <130/<80  232    543        43%
      Diagnosed hypertension and mean BP <140/<90  378    543        70%
      Diagnosed hypertension and ACE inhibitor   392      543        72%
         or ARB currently prescribed.

Tobacco and Nicotine Use
Tobacco use
   Screened                                     514       620        83%
      If screened, user                          93       514        18%
        If user, counseled                       55        93        59%

Electronic nicotine delivery system (ENDS) use
   Screened                                      90       620        15%
      If screened, user                          10        90        10%
---------------------------------
User of both tobacco and ENDS*                   39       250        16%
User of tobacco and/or ENDS*                     10       250         4%
*Excludes patients not screened for both tobacco and ENDS use

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           IHS Diabetes Care and Outcomes Audit - RPMS Audit
      Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                  Facility: 2021 DEMO HOSPITAL (INST)
                             Annual Audit
                       620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
--------------------------------------------------------------------------------
                                       # of        #          Percent
                                       Patients    Considered
                                       (Numerator) (Denominator)


Diabetes Treatment

   Number of diabetes meds currently prescribed
      None                                      184       620        30%
      One medication                            154       620        25%
      Two medications                           109       620        18%
      Three medications                         104       620        17%
      Four or more medications                   69       620        11%

   Diabetes meds currently prescribed, alone or in combination

      Insulin                                   331       620        53%

      Metformin [Glucophage, others]            261       620        42%
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      Sulfonylurea [glipizide, glyburide,      231       620       37%
      others]

      DPP-4 inhibitor [alogliptin (Nesina),     134       620       22%
      linagliptin (Tradjenta), saxagliptin (Onglyza),
      sitagliptin (Januvia)]

      GLP-1 receptor agonist [dulaglutide
      (Trulicity), exenatide (Byetta, Bydureon),   3       620        0%
      liraglutide (Victoza, Saxenda),
      lixisenatide (Adlyxin),
      semaglutide (Ozempic, Rybelsus, Wegovy)]

      SGLT-2 inhibitor                             0       620        0%
      [bexagliflozin (Brenzavvy),
      canagliflozin,(Invokana),
      dapagliflozin (Farxiga),
      empagliflozin (Jardiance),
      ertugliflozin (Steglatro),
      sotagliflozin (Inpefa)]

      Pioglitazone [Actos] or rosiglitazone        0       620        0%
      [Avandia]

      Tirzepatide [Mounjaro]                       0       620        0%

      Acarbose [Precose] or miglitol [Glyset]      2       620        0%

      Repaglinide [Prandin] or nateglinide         0       620        0%
      [Starlix]

      Pramlintide [Symlin]                         0       620        0%

      Bromocriptine [Cycloset]                     0       620        0%

      Colesevelam [Welchol]                        0       620        0%

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            IHS Diabetes Care and Outcomes Audit - RPMS Audit
        Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                  Facility: 2021 DEMO HOSPITAL (INST)
                            Annual Audit
                       620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
--------------------------------------------------------------------------
                                        # of        #          Percent
                                        Patients    Considered
                                        (Numerator) (Denominator)


Statin Prescribed (Currently)
   Yes*                                    216       591       37%
   Allergy, intolerance, or contraindication  29       620        5%

   In patients with diagnosed CVD
      Yes*                                 127       284       45%
      Allergy, intolerance, or contraindication  20      304        7%

   In patients age 40-75 years
```

```
        Yes*                                     176      449      39%
        Allergy, intolerance, or contraindication  18      467       4%


   In patients with diagnosed CVD and/or age 40-75 years
        Yes*                                     205      515      40%
        Allergy, intolerance, or contraindication  24      539       4%


  *Denominator excludes patients with an allergy, intolerance,
   or contraindication.

Cardiovascular Disease (CVD)
   CVD diagnosed ever                            304      620      49%
      CVD and mean BP <130/<80                   129      304      42%
      CVD and not tobacco user*                  223      270      83%
      *Excludes patients not screened for tobacco use
      CVD and aspirin or other                   216      304      71%
         antiplatelet/anticoagulant therapy
         currently prescribed
      CVD and GLP-1 receptor agonist               1      304       0%
         currently prescribed
      CVD and SGLT-2 inhibitor                     0      304       0%
         currently prescribed
      CVD and statin currently prescribed*       127      284      45%
      *Denominator excludes patients with an allergy, intolerance,
       or contraindication.


Retinopathy
   Diagnosed ever                                  0      620       0%

   LAB                          Oct 30, 2023                    Page 5

           IHS Diabetes Care and Outcomes Audit - RPMS Audit
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                  Facility: 2021 DEMO HOSPITAL (INST)
                            Annual Audit
                     620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
-------------------------------------------------------------------------------
                                     # of        #          Percent
                                     Patients   Considered
                                     (Numerator) (Denominator)


Lower Extremity Amputation
   Any type ever (e.g., toe, partial            48       620       8%
   foot, above or below knee)


Exams
   Foot exam - comprehensive                    191      620      31%
   Eye exam - dilated exam or retinal imaging   304      620      49%
   Dental exam                                  240      620      39%

Diabetes-Related Education
   Nutrition - by any provider (RD and/or other)  286    620      46%
   Nutrition - by RD                            154      620      25%
   Physical activity                            202      620      33%
   Other diabetes education                     435      620      70%
   ---------------------------------
   Any of above                                 470      620      76%

Immunizations
```

```
   Influenza vaccine during Audit period      364      620      59%
   Pneumococcal vaccine (PCV15, PCV20,        508      620      82%
        or PPSV23) - ever
   Td/Tdap/DTap/DT - past 10 years            573      620      92%
   Tdap - ever                                518      620      84%
   If not immune, hepatitis B complete        437      618      71%
        series - ever
     Immune - hepatitis B                       2      620       0%
   Hepatitis B complete series ever or        439      620      71%
   immune to hepatitis B
   In patients age >=50 years                   0      446       0%
   Shingrix/recombinant zoster vaccine
        (RZV) series - ever


Depression
   Screened during Audit period               474      620      76%
   Active diagnosis during Audit period         0      620       0%
   Screened and/or active diagnosis           474      620      76%
        during Audit period


Lipid Evaluation - Note these results are presented as population level CVD
risk markers and should not be considered treatment targets for individual
patients.

   LAB                          Oct 30, 2023                     Page 6

          IHS Diabetes Care and Outcomes Audit - RPMS Audit
       Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                  Facility: 2021 DEMO HOSPITAL (INST)
                          Annual Audit
                    620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
--------------------------------------------------------------------------
                                        # of        #          Percent
                                     Patients    Considered
                                     (Numerator) (Denominator)


   LDL cholesterol                            374      620      60%
     LDL <100 mg/dL                           277      620      45%
     LDL 100-189 mg/dL                         96      620      15%
     LDL >=190 mg/dL                            1      620       0%
     Not tested or no valid result            246      620      40%

   HDL cholesterol                            377      620      61%
     In females
        HDL <50 mg/dL                         118      378      31%
        HDL >=50 mg/dL                        108      378      29%
        Not tested or no valid result         152      378      40%

     In males
        HDL <40 mg/dL                          67      242      28%
        HDL >=40 mg/dL                         84      242      35%
        Not tested or no valid result          91      242      38%

   Triglycerides [1]                          377      620      61%
     Trig <150 mg/dL                          200      620      32%
     Trig 150-499 mg/dL                       165      620      27%
     Trig 500-999 mg/dL                        12      620       2%
     Trig >=1000 mg/dL                          0      620       0%
     Not tested or no valid result            243      620      39%
```

```
Kidney Evaluation
   Estimated Glomerular Filtration Rate (eGFR)      499       596       84%
   to assess kidney function
   (In age >=18 years)
      eGFR >=60 mL/min                              334       596       56%
      eGFR 30-59 mL/min                             108       596       18%
      eGFR 15-29 mL/min                              23       596        4%
      eGFR < 15 mL/min                               34       596        6%
      eGFR Not tested or no valid result             97       596       16%


    LAB                          Oct 30, 2023                        Page 7

               IHS Diabetes Care and Outcomes Audit - RPMS Audit
         Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                    Facility: 2021 DEMO HOSPITAL (INST)
                              Annual Audit
                        620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
--------------------------------------------------------------------------------
                                          # of        #           Percent
                                          Patients    Considered
                                          (Numerator) (Denominator)


   Quantitative Urine Albumin-to-Creatinine       238       620       38%
   Ratio (UACR) to assess kidney damage
      UACR - normal: <30 mg/g                      124       238       52%
      UACR increased:
         30-300 mg/g                                88       238       37%
         >300 mg/g                                  26       238       11%
      Not tested or no valid result               382       620       62%

   In patients age >=18 years, eGFR and UACR       231       596       39%

Chronic Kidney Disease (CKD) (In age >=18 years)
   CKD [2]                                         242       596       41%
      CKD [2] and mean BP <130/<80                 104       242       43%
      CKD [2] and mean BP <140/<90                 168       242       69%
      CKD [2] and ACE inhibitor or ARB             174       242       72%
         currently prescribed
      CKD [2] and GLP-1 receptor agonist             1       242        0%
         currently prescribed
      CKD [2] and SGLT-2 inhibitor                   0       242        0%
         currently prescribed

   CKD Stage
      Normal: eGFR >=60 mL/min                      94       596       16%
         and UACR <30 mg/g
      Stages 1 and 2: eGFR >=60 mL/min              77       596       13%
         and UACR >=30 mg/g
      Stage 3: eGFR 30-59 mL/min                   108       596       18%
      Stage 4: eGFR 15-29 mL/min                    23       596        4%
      Stage 5: eGFR <15 mL/min                      34       596        6%
      Undetermined                                 260       596       44%

Tuberculosis (TB) Status
   TB diagnosis documented ever and/or             52       620        8%
   positive test result ever
   If not diagnosed, TB test done ever            428       591       72%
   (skin test or blood test)
```

```
   TB test done ever or TB diagnosed              457        620         74%
   ever
   If TB diagnosis documented and/or                6         52         12%
   positive test result, treatment
   initiated ever
   If most recent TB test result was              218        291         75%
   negative, was test done after
   diabetes diagnosis


    LAB                            Oct 30, 2023                    Page 8

             IHS Diabetes Care and Outcomes Audit - RPMS Audit
        Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                     Facility: 2021 DEMO HOSPITAL (INST)
                                Annual Audit
                          620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
------------------------------------------------------------------------------
                                       # of        #          Percent
                                       Patients    Considered
                                       (Numerator) (Denominator)


Hepatitis C (HCV)
   Diagnosed HCV ever                             23        620          4%

   In patients not diagnosed with HCV and
   age >= 18 years, screened ever                158        573         28%
   In age >= 18 years, screened for HCV ever
   or HCV diagnosed ever                         181        596         30%

Combined Outcome Measure
   Patients age >= 40 years meeting ALL of the    37        508          7%
   following criteria:  A1C <8.0, Statin currently
   prescribed* and mean BP <130/<80
   *Denominator excludes patients with a statin allergy, intolerance,
    or contraindication

Diabetes Related Conditions (In age >=18 years)
   Severely obese (BMI >=40)                      119       596         20%
   Hypertension diagnosed ever                    532       596         89%
   CVD diagnosed ever                             293       596         49%
   Retinopathy diagnosed ever                       0       596          0%
   Lower extremity amputation ever (any            47       596          8%
      type (e.g., toe, partial foot, above
      or below knee)
   Active depression diagnosis during               0       596          0%
      Audit period
   CKD stage 3-5                                  165       596         28%

   Number of diabetes related conditions
      Diabetes only                               41        596          7%
      Diabetes plus:
        One                                      173        596         29%
        Two                                      212        596         36%
        Three                                    127        596         21%
        Four                                      37        596          6%
        Five or more                              6         596          1%

Footnotes
   [1] For triglycerides: >150 is a marker of CVD risk, not a treatment
```

```
target; >1000 is a risk marker for pancreatitis.
   [2] Chronic Kidney Disease (CKD): eGFR <60 or UACR >=30

   LAB                            Oct 30, 2023                    Page 9

            IHS Diabetes Care and Outcomes Audit - RPMS Audit
        Audit Report for 2024 (Audit Period 01/01/2023 to 12/31/2023)
                  Facility: 2021 DEMO HOSPITAL (INST)
                            Annual Audit
                       620 patients were audited
Unless otherwise specified, time period for each item is the 12-month Audit
Period
-----------------------------------------------------------------------------
                                          # of        #           Percent
                                          Patients   Considered
                                          (Numerator) (Denominator)


Abbreviations
   A1C = hemoglobin A1c (HbA1c)
   ACE inhibitor = angiotensin converting enzyme inhibitor
   ARB = angiotensin receptor blocker
   BMI = body mass index
   BP = blood pressure
   DPP-4 inhibitor = dipeptidyl peptidase 4 inhibitor
   DT = diphtheria and tetanus
   DTaP = diphtheria, tetanus, and acellular pertussis
   CKD = chronic kidney disease
   CVD = cardiovascular disease
   eGFR = estimated glomerular filtration rate
   ENDS = electronic nicotine delivery systems
   GLP-1 receptor agonist = glucagon-like peptide-1 receptor agonist
   HCV = hepatitis C virus
   HDL = high-density lipoprotein
   LDL = low-density lipoprotein
   RD = registered dietitian
   SGLT-2 inhibitor = sodium-glucose co-transporter-2 inhibitor
   TB = tuberculosis
   Td = tetanus and diphtheria
   Tdap = tetanus, diphtheria, and acellular pertussis
   Trig = triglycerides
   UACR = urine albumin-to-creatinine
```

Figure D-49: Sample Cumulative Audit Report

Appendix E   Prediabetes Register and Reports

The **IHS Prediabetes Register** is a tool for maintaining a list of patients with prediabetes. This register is designed to be used in the **Diabetes Management System (DMS)** under **Register Maintenance (RM)**. A **Prediabetes Menu** has been added in the **DMS Version 2.0 Patch 17**.

The **Prediabetes Menu** (Figure E-1) displays access to the Prediabetes Register and Reports.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
             ****************************************************
             **              DIABETES MANAGEMENT SYSTEM         **
             ****************************************************
                          VERSION 2.0 (Patch 17)
                          2021 DEMO HOSPITAL (INST)
                       PREDIABETES REGISTER AND REPORTS


   PDPM   Prediabetes Register Patient Management
   PPCS   Prediabetes Patient Care Summary
   PDAR   Prediabetes Assessment of Care/Health Status Rpt
   PDTC   Check Taxonomies for the Prediabetes Report
   PDTU   Update/Review Taxonomies for Prediabetes Report
   PDIR   Install Pre-Diabetes Register

Select Prediabetes Menu <TEST ACCOUNT> Option:
```

Figure E-1: Prediabetes Menu

E.1   Prediabetes Menu Items

The **Prediabetes Menu** items described in this section include:

- Installation of the Prediabetes Register
- Prediabetes Patient Care Summary
- Assessment of Prediabetes Care (individual report)
- Prediabetes Health Care Status (cumulative report)
- Prediabetes Report Taxonomies

To access the **Prediabetes Menu**, select **Prediabetes Register (PDM)** (Figure E-2) on the **DMS** main menu.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
             ****************************************************
             **              DIABETES MANAGEMENT SYSTEM         **
             ****************************************************
```

```
                          VERSION 2.0 (Patch 17)
                          2021 DEMO HOSPITAL (INST)
                                 MAIN MENU


   RM      Register Maintenance ...
   AS      Audit Setup ...
   AR      Audit Reporting ...
   PDM     Prediabetes Menu ...



Select Diabetes Management System <TEST ACCOUNT> Option:
```

Figure E-2: Selecting the PDM option

E.1.1   Installation of the IHS Prediabetes Register

The **IHS Prediabetes Register** can be installed through DMS using the **Install Prediabetes Register (PDIR)** option on the **Prediabetes Menu** (Figure E-3).

The **IHS Prediabetes Register** uses the same functionalities described for the **IHS Diabetes Register**.

If a **Prediabetes Register** already exists, the user is provided with directions on how to update the existing Register with the IHS standards. It provides a core set of data items with predefined lists and standard definitions. It also permits you to establish your own lists and definitions in support of these data items. The **IHS Prediabetes Register** helps simplify the process of creating a Case Management-based register, but you are in no way limited to this core set of data items and the lists that accompany them. Remember that you always have access to all existing PCC demographic and clinical data without keeping these items in the **Diabetes Register**.

```
        THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
        BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
           *****************************************************
           **              DIABETES MANAGEMENT SYSTEM        **
           *****************************************************
                          VERSION 2.0 (Patch 17)
                          2021 DEMO HOSPITAL (INST)
                       PREDIABETES REGISTER AND REPORTS


   PDPM    Prediabetes Register Patient Management
   PPCS    Prediabetes Patient Care Summary
   PDAR    Prediabetes Assessment of Care/Health Status Rpt
   PDTC    Check Taxonomies for the Prediabetes Report
   PDTU    Update/Review Taxonomies for Prediabetes Report
   PDIR    Install Pre-Diabetes Register


Select Prediabetes Menu <TEST ACCOUNT> Option:
```

Figure E-3: Prediabetes Menu

Once the **IHS Prediabetes Register** (Figure E-4) is installed it becomes available to use in **DMS–Register Maintenance**. Once installed it cannot be installed again.

```
  Select DIABETES Register
   No. Register Name                       # Active # members  Last patient
update
                                           member
   --- ------------------------------ -------- --------- ------------------
    1   IHS DIABETES                        558       561   09/27/2023
    2   IHS PRE-DIABETES                    130       130   10/02/2023
    3   2024 DIABETES REGISTER               35        36   09/15/2023
    4   DEMO DIABETES REGISTER            1,002     1,013   06/07/2022
    5   SDPI NON DIABETES                   158       158   10/04/2018

Which REGISTER:  (1-5):
```

Figure E-4: Prediabetes Register

> **Note:** To Add Authorized Users for the IHS Prediabetes Register
> go to Register Management Menu, then User Setup (US).
> See Section 4.0, Register Maintenance.

E.2   Prediabetes Patient Care Summary (PPCS)

The **Prediabetes Patient Care Summary** was updated in the **BDM Version 2.0** Patch 17. It must be added under health summary maintenance as a supplement type to any health summaries that are routinely used at your health care facility.

Printing of this supplement is triggered by a diagnosis of **Prediabetes**, **Impaired Fasting Glucose**, or **Impaired Glucose Tolerance** on the active problem list or made by a primary care provider in the past year. It will not print if the patient has a diagnosis of diabetes on the active problem list or a primary provider has used a diagnosis of diabetes in the past year as a purpose of visit.

This summary was designed as a tool for displaying data items that are important in following patients who may be predisposed to developing diabetes. An example of a **Prediabetes Patient Care Summary** is provided in Figure E-5.

```
********** CONFIDENTIAL PATIENT INFORMATION [LAB]  Oct 03, 2023 **********
PREDIABETES PATIENT CARE SUMMARY                    Report Date:  Oct 03, 2023

Patient: DEMO,ALTON CHARLES                                HRN: 142692
Age:  29 (DOB 11/23/1993)               Birth Sex: MALE
CLASS/BEN: INDIAN/ALASKA NATIVE         Designated PCP: NURSE,BARBARA A R N

Diagnosis
 Problem List (Date of Diagnosis)
  Impaired Fasting Glucose   (Date of Onset not recorded)
  Prediabetes                (Feb 01, 2023)
```

```
 Diagnosis first recorded in PCC (Used as POV):
  Impaired Fasting Glucose     Mar 02, 2020
  Prediabetes                  Aug 04, 2023

BMI: 27.1  Last Height:        72.00 inches   08/04/2023
           Last Weight (ever): 200 lbs        08/04/2023

Tobacco Use:
   Last Screened: 08/04/2023
   Current Status: Current user CURRENT SMOKER, SOME DAY  08/04/2023
      Tobacco cessation counseling/education received in the past year:
         Yes 08/04/2023 TO-QT

HTN Diagnosed ever:  No
Last 3 BP:      120/76   08/04/2023
(non ER)        130/88   12/05/2022
                108/65   05/01/2012

Statin prescribed (in past 6 months):  No

Laboratory Results (most recent):                    RPMS LAB TEST NAME
 A1C:                        6.2 %      08/04/2023 _HEMOGLOBIN A1C
 Next most recent A1C:       5.6 %      03/02/2020 _HEMOGLOBIN A1C
 Last Fasting Glucose:       110 mg/dL  08/04/2023 GLUCOSE (CCDA)
 Last 75 GM 2 hour Glucose:  150        08/04/2023 _SQL Glucose,Imp.GTT.2 Hr
 Quantitative UACR:           15 mg/g   08/04/2023 ..ALBUMIN/CREATININE RATI

 Total Cholesterol:          200 mg/dL  08/04/2023 CHOLESTEROL (POCT)
 LDL Cholesterol:             90 mg/dL  08/04/2023 LDL CHOLESTEROL (POCT)
 HDL Cholesterol:             50 mg/dL  08/04/2023 HDL CHOLESTEROL (POCT)
 Triglycerides:              300 mg/dL  08/04/2023 TRIGLYCERIDE (POCT)

Education Provided (in past yr):
  Last Dietitian Visit (ever):
    DM-DISEASE PROCESS            09/27/2023
    DM-MEDICAL NUTRITION THERAPY  12/05/2022  NURSE,RENEE          MD
    DM-NUTRITION                  09/27/2023

DEMO,ALTON CHARLES        DOB: 11/23/1993    Chart #TST 1426925/13/1963
Chart #TST 105176
```

Figure E-5: Prediabetes Patient Care Summary

E.3   Prediabetes Assessment of Care and Health Status Reports

Prediabetes Reports can be generated for an individual patient, a template of patients, the entire **IHS Prediabetes Register** at a facility, or for a random sample of patients from the Register. The **Prediabetes Assessment of Care** (individual report) and the **Prediabetes Health Status Report** (cumulative) are modeled after the Diabetes Audit reports.

E.4   Prediabetes Assessment of Care–Individual Report

The **Prediabetes Assessment of Care (PDAR)** (Figure E-6) provides a report for individual patients during a 12-month reporting period.

This report will display all diagnoses documented in the **Prediabetes Register** for this patient. The date of onset recorded will also be displayed.

In addition, the system searches for a diagnosis of diabetes on the problem list and in the purpose of visits recorded for the patient. If a diagnosis is found, it is displayed along with the date of the diagnosis.

```
IHS Prediabetes Assessment of Care, 2024    DATE RUN: 01/20/2024   Page: 1

Report Period Ending Date: 12/31/2023   Facility Name: 2021 DEMO HOSPITAL (INST
Reviewer initials: LAB                  Community: RIVERSIDE
State of Residence: NM
Chart #: 142692
DOB: 11/23/1993    Birth Sex: MALE
Primary Care Provider:  NURSE,BARBARA A R N

Diagnosis
 Problem List (Date of Diagnosis)
  Impaired Fasting Glucose   (Date of Onset not recorded)
  Prediabetes               (Feb 01, 2023)

 Diagnosis first recorded in PCC (Used as POV):
  Impaired Fasting Glucose    Mar 02, 2020
  Prediabetes                 Aug 04, 2023

Tobacco/Nicotine Use (during Report period)
    Screened for tobacco use: 1  Yes
      If screened, tobacco user: 1  Yes CURRENT SMOKER, SOME DAY  08/04/2023
        If screened and current user, tobacco cessation counseling/education
        received: 1  Yes 08/04/2023 TO-QT

Vital Statistics

  Height (last ever): 72.00 inches 08/04/2023
  Weight (last in Report period): 200 lbs 08/04/2023     BMI:  27.1

  Hypertension (documented diagnosis ever): No
  Blood pressure (last 3 during Report period): 120/76 mm Hg 08/04/2023

Education (during Report period)
  Nutrition:                      Yes (Non RD) NRD: DM-N 09/27/2023
  Physical activity:              No
  Other education:                Yes DM-DP  09/27/2023

Medication Therapy prescribed (as of the end of the Report period):
   X  1 None of the following
      2 Metformin [Glucophage, others]
      3 SGLT-2 inhibitor [bexagliflozin (Brenzavvy), canagliflozin (Invokana),
        dapagliflozin (Farxiga), empagliflozin (Jardiance),
        ertugliflozin (Steglatro), sotagliflozin (Inpefa)]
      4 GLP-1 receptor agonist [dulaglutide (Trulicity), exenatide (Byetta,
        Bydureon), liraglutide (Victoza, Saxenda), lixisenatide (Adlyxin),
        semaglutide (Ozempic, Rybelsus, Wegovy)]
      5 Tirzepatide [Mounjaro]
      6 Pioglitazone [Actos] or rosiglitazone [Avandia]
      7 Acarbose [Precose] or miglitol [Glyset]

Statin Therapy
```

```
   Prescribed (as of the end of the Report period): 2  No

IHS Assessment of Prediabetes Care, 2024    DATE RUN: 01/20/2024   Page: 2
Audit Period Ending Date: 12/31/2023
CHART #: 142692    DOB: Nov 23, 1993    SEX: MALE
------------------------------------------------------------------------------

Laboratory Data (most recent result during Report period)
  A1C:                     6.2 %          08/04/2023   _HEMOGLOBIN A1C
  Next most recent A1C:    5.6 %          03/02/2020   _HEMOGLOBIN A1C
  Fasting Glucose:         110 mg/dl      8/4/2023     GLUCOSE (CCDA)
  75 Gm 2 hour Glucose:    150 mg/dl      8/4/2023     _SQL Glucose,Imp.GT
  Total Cholesterol:       200 mg/dL      08/04/2023   CHOLESTEROL (POCT)
  LDL Cholesterol:         90 mg/dL       08/04/2023   LDL CHOLESTEROL (PO
  HDL Cholesterol:         50 mg/dL       08/04/2023   HDL CHOLESTEROL (PO
  Triglycerides:           300 mg/dL      08/04/2023   TRIGLYCERIDE (POCT)
  Quantitative UACR:       15 mg/g        08/04/2023   ..ALBUMIN/CREATININ

Local Questions

  Select one:
  Text:
```

Figure E-6: Prediabetes Assessment of Care

E.5   Prediabetes Health Status Report–Cumulative Report

The **Prediabetes Health Status Report (PDAR)** (Figure E-7) provides a cumulative report for a template of patients, an entire **Prediabetes Register**, or a random sample of patients from the Register during a 12-month reporting period.

```
   LAB                        Jan 03, 2024                      Page 1

        ***   PREDIABETES HEALTH STATUS OF PATIENTS - RPMS   ***
           (Report Period: Jan 01, 2023 to Dec 31, 2023)
                     2021 DEMO HOSPITAL (INST)


127 patients were reviewed
Unless otherwise specified, time period for each item is the 12-month Audit
Period
------------------------------------------------------------------------------
                                     # of        #            Percent
                                     Patients    Considered
                                     (Numerator) (Denominator)

Birth Sex
   Male                                 37          127          29%
   Female                               90          127          71%
   Unknown                               0          127           0%

Age
   <15 yrs                               7          127           6%
   15-44 yrs                            66          127          52%
   45-64 yrs                            46          127          36%
   65 yrs and older                      8          127           6%

Classification
   Prediabetes                           1          127           1%
   Impaired Fasting Glucose             62          127          49%
```

```
      Impaired Glucose Tolerance                     41        127        32%


Duration of Prediabetes
   <1 year                                            0        127         0%
   <10 years                                          0        127         0%
   >=10 years                                        95        127        75%
   Diagnosis date not recorded                       32        127        25%


Body Mass Index (BMI) Category
   Normal (BMI<25.0)                                  8        127         6%
   Overweight (BMI 25.0-29.9)                        23        127        18%
   Obese (BMI >=30.0)                                64        127        50%
   Height or weight missing                          32        127        25%
   --------------------------------
   Severely obese (BMI >=40.0)                       30        127        24%


Blood Sugar Control
   A1C <5.7                                          12        127         9%
   A1C 5.7-6.4                                       25        127        20%
   A1C >=6.5                                          1        127         1%

   Not tested or no valid result                     89        127        70%


      LAB                          Jan 03, 2024                    Page 2

           ***   PREDIABETES HEALTH STATUS OF PATIENTS - RPMS  ***
                 (Report Period: Jan 01, 2023 to Dec 31, 2023)
                          2021 DEMO HOSPITAL (INST)



127 patients were reviewed
Unless otherwise specified, time period for each item is the 12-month Audit
Period
-------------------------------------------------------------------------------
                                       # of        #             Percent
                                       Patients    Considered
                                       (Numerator) (Denominator)



Blood Pressure (BP) - Based on one value or mean of two or three values
   <120/<70                                          10        127         8%
   120/70 - <130/<80                                 34        127        27%
   130/80 - <140/<90                                 26        127        20%
   140/90 or higher                                  25        127        20%
   BP category Undetermined                          32        127        25%


Hypertension
   Diagnosed ever                                    49        127        39%

Tobacco and Nicotine Use
Tobacco use
   Screened                                          73        127        57%
      If screened, user                              10         73        14%
        If user, counseled                           10         10       100%


Prediabetes Treatment
   Metformin [Glucophage, others]                     1        127         1%

   GLP-1 receptor agonist [dulaglutide
   (Trulicity), exenatide (Byetta, Bydureon),         0        127         0%
   liraglutide (Victoza, Saxenda),
   lixisenatide (Adlyxin),
```

```
   semaglutide (Ozempic, Rybelsus, Wegovy)]

   SGLT-2 inhibitor                                0      127        0%
   [bexagliflozin (Brenzavvy),
   canagliflozin,(Invokana),
   dapagliflozin (Farxiga),
   empagliflozin (Jardiance),
   ertugliflozin (Steglatro),
   sotagliflozin (Inpefa)]

   Pioglitazone [Actos] or rosiglitazone           0      127        0%
   [Avandia]

   Tirzepatide [Mounjaro]                          0      127        0%

   Acarbose [Precose] or miglitol [Glyset]         0      127        0%

   LAB                          Jan 03, 2024               Page 3

           ***   PREDIABETES HEALTH STATUS OF PATIENTS - RPMS   ***
                (Report Period: Jan 01, 2023 to Dec 31, 2023)
                         2021 DEMO HOSPITAL (INST)


127 patients were reviewed
Unless otherwise specified, time period for each item is the 12-month Audit
Period
-------------------------------------------------------------------------------
                                          # of        #          Percent
                                          Patients    Considered
                                          (Numerator) (Denominator)


Statin Prescribed (Currently)
   Yes*                                       7         119          6%
   Allergy, intolerance, or contraindication  8         127          6%

  *Denominator excludes patients with an allergy, intolerance,
   or contraindication.

Lipid Evaluation - Note these results are presented as population level CVD
risk markers and should not be considered treatment targets for individual
patients.

   LDL cholesterol                            25        127         20%
      LDL <100 mg/dL                          17        127         13%
      LDL 100-189 mg/dL                        8        127          6%
      LDL >=190 mg/dL                          0        127          0%
      Not tested or no valid result          102        127         80%

   HDL cholesterol                            25        127         20%
      In females
         HDL <50 mg/dL                         9         90         10%
         HDL >=50 mg/dL                        6         90          7%
         Not tested or no valid result        75         90         83%

      In males
         HDL <40 mg/dL                         4         37         11%
         HDL >=40 mg/dL                        6         37         16%
         Not tested or no valid result        27         37         73%

   Triglycerides [1]                          25        127         20%
```

```
        Trig <150 mg/dL                                    15        127        12%
        Trig 150-499 mg/dL                                 10        127         8%
        Trig 500-999 mg/dL                                  0        127         0%
        Trig >=1000 mg/dL                                   0        127         0%
        Not tested or no valid result                     102        127        80%


   LAB                            Jan 03, 2024                    Page 4

              ***  PREDIABETES HEALTH STATUS OF PATIENTS - RPMS  ***
                 (Report Period: Jan 01, 2023 to Dec 31, 2023)
                          2021 DEMO HOSPITAL (INST)


127 patients were reviewed
Unless otherwise specified, time period for each item is the 12-month Audit
Period
------------------------------------------------------------------------------
                                              # of        #          Percent
                                            Patients   Considered
                                          (Numerator) (Denominator)


   Quantitative Urine Albumin-to-Creatinine       7        127         6%
   Ratio (UACR) to assess kidney damage
      UACR - normal: <30 mg/g                      6          7        86%
      UACR increased:
         30-300 mg/g                               1          7        14%
         >300 mg/g                                 0          7         0%
      Not tested or no valid result              120        127        94%

Footnotes
   [1] For triglycerides: >150 is a marker of CVD risk, not a treatment
target; >1000 is a risk marker for pancreatitis.
```

Figure E-7: Prediabetes Health Status Report

E.6   Prediabetes Report Taxonomies

The **Prediabetes Reports** are modeled after the diabetes audit reports and use most of the existing **Diabetes Audit Logic** and **taxonomies** (see Appendix D).

The last **Fasting Glucose** and last **75 Gm 2-hour Glucose** are reported only on the **Prediabetes Patient Care Summary and the Prediabetes Assessment of Care**. These lab taxonomies should be reviewed and updated locally in addition to those for the Diabetes Audit. See Section D 4, **Taxonomy Review and Setup** for guidance in reviewing and updating Lab Taxonomies.

E.6.1   Lab Taxonomies

E.6.1.1   Fasting Glucose

The last **Fasting Glucose** test in the **V LAB** file are found. The taxonomy used to find these tests is the **DM AUDIT FASTING GLUCOSE TESTS** lab taxonomy. If no test in that taxonomy is found, then the **V LAB** file is searched for a **LOINC** code in the **DM AUDIT FASTING GLUC LOINC** code taxonomy.

> **Note:** Do not include Point of Care testing.

E.6.1.2   75 GM 2-Hour Glucose

The last lab test in the year prior to the audit date that is a member of the **DM AUDIT 75GM 2HR GLUCOSE** taxonomy is found in **V LAB**. If no test in that taxonomy is found, then the **V LAB** file is searched for a **LOINC** code in the **DM AUDIT 75GM 2HR LOINC** code taxonomy (Figure E-8).

> **Note:** Do not include 2-Hour Oral Glucose Tolerance Test in Pregnancy.

```
          THIS SYSTEM CONTAINS CONFIDENTIAL PATIENT INFORMATION COVERED
          BY THE PRIVACY ACT.  UNAUTHORIZED USE OF THIS DATA IS ILLEGAL
              *****************************************************
              **              DIABETES MANAGEMENT SYSTEM        **
              *****************************************************
                            VERSION 2.0 (Patch 17)
                           2021 DEMO HOSPITAL (INST)
                        PREDIABETES REGISTER AND REPORTS


    PDPM   Prediabetes Register Patient Management
    PPCS   Prediabetes Patient Care Summary
    PDAR   Prediabetes Assessment of Care/Health Status Rpt
    PDTC   Check Taxonomies for the Prediabetes Report
    PDTU   Update/Review Taxonomies for Prediabetes Report
    PDIR   Install Pre-Diabetes Register

 Select Prediabetes Menu <TEST ACCOUNT> Option:
```

Figure E-8: Prediabetes Menu (PDTU)

Additional Modifications for Prediabetes reporting are noted below:

E.6.2   Prediabetes Diagnosis Classifications

E.6.2.1   Prediabetes

The system first looks at the problem list for a documented problem with **ICD-10 code R73.03–PREDIABETES**. If one is found, it will display **Problem List:** with the date of onset, if the date of onset is documented. The system then looks at all of a patient's purpose of visits for the code **R73.03**. If it finds one, it displays the date of the earliest one found.

E.6.2.2   Impaired Fasting Glucose

The system first looks at the problem list for a documented problem with **ICD-9 code 790.21** or **ICD-10-code R73.01–IMPAIRED FASTING GLUCOSE**. If one is found, it will display **Problem List:** with the date of onset, if the date of onset is documented. The system then looks at all of a patient's purpose of visits for codes **790.21** or **R73.01**. If it finds one, it displays the dates of the earliest one found.

E.6.2.3   Impaired Glucose Tolerance

The system first looks at the problem list for a documented problem with **ICD-9 code 790.22** or **ICD-10 code R73.02–IMPAIRED GLUCOSE TOLERANCE**. If one is found, it will display **Problem List** with the date of onset, if the date of onset is documented. The system then looks at all of a patient's purpose of visits for codes **790.22** or **R73.02**. If it finds one, it displays the date of the earliest one found.

E.6.3   Medication Therapy

The following medications are reported on the **Prediabetes Reports**:

- Metformin
- SGLT-2 Inhibitor
- GLP-1 Receptor Agonist
- Tirzepatide
- Pioglitazone
- Acarbose

See Table E-1 for **Medication List** and **Taxonomy Name(s)**.

The list of medications is displayed on the **Prediabetes Assessment of Care** and **Prediabetes Health Status Reports**–an **X** designates the medication(s) prescribed.

Table E-1: Prediabetes Medication Therapy Taxonomy Names

Medication List	Taxonomy Name(s)
Metformin	DM AUDIT METFORMIN DRUGS
GLP-1 receptor agonist	DM AUDIT GLP-1 RECEPT AGONISTS
SGLT-2 inhibitor	DM AUDIT SGLT-2 INHIBITOR DRUGS
Pioglitazone, rosiglitazone	DM AUDIT GLITAZONE DRUGS
Tirzepatide	DM AUDIT TIRZEPATIDE DRUGS
Acarbose, miglitol	DM AUDIT ACARBOSE DRUGS

Appendix F   Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is ***FOR OFFICIAL USE ONLY***. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (ROB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general ROB for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).

- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS website:
https://home.ihs.gov/security/index.cfm.

> **Note:** Users must be logged on to the IHS D1 Intranet to access these documents.

The ROB listed in the following sections are specific to RPMS.

F.1   All RPMS Users

In addition to these rules, each application may include additional ROBs that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

F.1.1   Access

RPMS users shall

- Only use data for which you have been granted authorization.

- Only give information to personnel who have access authority and have a need to know.

- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or nonpublic agency information.

- Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not

- Retrieve information for someone who does not have authority to access the information.

- Access, research, or change any user account, file, directory, table, or record not required to perform their *official* duties.

- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.

- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their jobs or by divulging information to anyone not authorized to know that information.

F.1.2   Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the functions they perform, such as system administrator or application administrator.

- Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

F.1.3   Accountability

RPMS users shall

- Behave in an ethical, technically proficient, informed, and trustworthy manner.

- Log out of the system whenever they leave the vicinity of their personal computers (PCs).

- Be alert to threats and vulnerabilities in the security of the system.

- Report all security incidents to their local Information System Security Officer (ISSO).

- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.

- Protect all sensitive data entrusted to them as part of their government employment.

- Abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and information technology (IT) information processes.

F.1.4   Confidentiality

RPMS users shall

- Be aware of the sensitivity of electronic and hard copy information and protect it accordingly.

- Store hard copy reports/storage media containing confidential information in a locked room or cabinet.

- Erase sensitive data on storage media prior to reusing or disposing of the media.

- Protect all RPMS terminals from public viewing at all times.

- Abide by all Health Insurance Portability and Accountability Act (HIPAA) regulations to ensure patient confidentiality.

RPMS users shall not

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.

- Store sensitive files on a portable device or media without encrypting.

F.1.5   Integrity

RPMS users shall

- Protect their systems against viruses and similar malicious programs.

- Observe all software license agreements.

- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.

- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not

- Violate federal copyright laws.

- Install or use unauthorized software within the system libraries or folders.

- Use freeware, shareware, or public domain software on/with the system without their manager's written permission and without scanning it for viruses first.

F.1.6   System Logon

RPMS users shall

- Have a unique User Identification/Account name and password.

- Be granted access based on authenticating the account name and password entered.

- Be locked out of an account after five successive failed login attempts within a specified time period (e.g., one hour).

F.1.7   Passwords

RPMS users shall

- Change passwords a minimum of every 90 days.

- Create passwords with a minimum of eight characters.

- If the system allows, use a combination of alpha-numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.

- Change vendor-supplied passwords immediately.

- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts or batch files).

- Change passwords immediately if password has been seen, guessed, or otherwise compromised, and report the compromise or suspected compromise to their ISSO.

- Keep user identifications (IDs) and passwords confidential.

RPMS users shall not

- Use common words found in any dictionary as a password.

- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).

- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.

- Reuse passwords. A new password must contain no more than five characters per eight characters from the previous password.

- Post passwords.

- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.

- Give a password out over the phone.

F.1.8   Backups

RPMS users shall

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.

- Make backups of systems and files on a regular, defined basis.

- If possible, store backups away from the system in a secure environment.

F.1.9   Reporting

RPMS users shall

- Contact and inform their ISSO that they have identified an IT security incident and begin the reporting process by providing an IT Incident Reporting Form regarding this incident.

- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not

- Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

F.1.10   Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall

- Utilize a screen saver with password protection set to suspend operations at no greater than 10 minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on the screen after some period of inactivity.

F.1.11   Hardware

RPMS users shall

- Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).

- Keep an inventory of all system equipment.

- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not

- Eat or drink near system equipment.

F.1.12   Awareness

RPMS users shall

- Participate in organization-wide security training as required.

- Read and adhere to security information pertaining to system hardware and software.

- Take the annual information security awareness.

- Read all applicable RPMS manuals for the applications used in their jobs.

F.1.13   Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that:

- Are in writing.

- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.

- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.

- Ensure adequate storage of files, removal, and nonrecovery of temporary files created in processing sensitive data, virus protection, and intrusion detection, and provide physical security for government equipment and sensitive data.

- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall

- Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not

- Disable any encryption established for network, internet, and Web browser communications.

F.2   RPMS Developers

RPMS developers shall

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.

- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.

- Only access information or code within the namespaces for which they have been assigned as part of their duties.

- Remember that all RPMS code is the property of the U.S. Government, not the developer.

- Not access live production systems without obtaining appropriate written access and shall only retain that access for the shortest period possible to accomplish the task that requires the access.

- Observe separation of duties policies and procedures to the fullest extent possible.

- Document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change, and reason for the change.

- Use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.

- Follow industry best standards for systems they are assigned to develop or maintain and abide by all Department and Agency policies and procedures.

- Document and implement security processes whenever available.

RPMS developers shall not

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.

- Grant any user or system administrator access to RPMS unless proper documentation is provided.

- Release any sensitive agency or patient information.

F.3   Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators, have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.

- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.

- Advise the system owner on matters concerning information technology security.

- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.

- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.

- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need-to-know basis.

- Verify that users have received appropriate security training before allowing access to RPMS.

- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.

- Document and investigate known or suspected security incidents or violations and report them to the ISSO, Chief Information Security Officer (CISO), and systems owner.

- Protect the supervisor, superuser, or system administrator passwords.

- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).

- Watch for unscheduled, unusual, and unauthorized programs.

- Help train system users on the appropriate use and security of the system.

- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.

- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.

- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords and delete or reassign related active and backup files.

- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.

- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.

- Shall follow industry best standards for systems they are assigned to and abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties.

- Grant any user or system administrator access to RPMS unless proper documentation is provided.

- Release any sensitive agency or patient information.

Glossary

Amputation

To cut a limb from the body.

Caret (^)

A caret, also known as a circumflex, up-hat, or hat, is used as a piece delimiter in a global. The caret is denoted as "^" and typed by pressing **Shift-6** on the keyboard.

CRS

Clinical Reporting System: A RPMS program for running standard reports for facility or service unit performance on GPRA indicators.

CVA

Short for Cerebrovascular accident, also known as a stroke.

Default Response

A suggested response that can be activated simply by pressing the Return key. For example: "Do you really want to quit? No//." Pressing the Return key tells the system you do not want to quit. "No//" is considered the default response.

Device

The name of the printer you want the system to use when printing information. Home means the computer screen.

Diabetes

Referring to Diabetes Mellitus, a variable disorder of carbohydrate metabolism caused by a combination of hereditary and environmental factors and usually characterized by inadequate secretion or utilization of insulin, by excessive urine production, by excessive amounts of sugar in the blood and urine, and by thirst, hunger, and loss of weight.

Discharge

To release a patient from care

DOB

Date of Birth

DOS

Date of Service

Enter Key

Used interchangeably with the **Return** key. Press **Enter** to show the end of an entry such as a number or a word. Press **Enter** each time you respond to a computer prompt. If you want to return to the previous screen, press **Enter** without entering a response. This will return you to the previous menu screen. The **Enter** key on some keyboards is shown as the **Return** Key. Whenever you see **[ENT]** or the **Enter** key, press the **Enter** or **Return** key.

Export

To format data so it can be used by another application.

Fields

Fields are a collection of related information that comprises a record. Fields on a display screen function like blanks on a form. For each field, you will find a prompt requesting specific types of data. There are nine basic field types in RPMS programs, and each collects a specific type of information.

File

A set of related records or entries treated as a single unit.

FileMan

The database management system for RPMS.

Free Text Field

This field type will accept numbers, letter, and most of the symbols on the keyboard. There may be restrictions on the number of characters you are allowed to enter.

Full Screen Editor

A word processing system used by RPMS. In many ways, the Full Screen Text Editor works just like a traditional word processor. The lines wrap automatically, the up, down, right, and left arrows move the cursor around the screen, and a combination of uppercase and lowercase letters can be used.

Global

In MUMPS, global refers to a variable stored on disk (global variable) or the array to which the global variable may belong (global array).

GPRA Indicators

The Government Performance and Results Act (GPRA) requires Federal agencies to report annually on how the agency measured up against the performance targets set in its annual Plan. IHS GPRA indicators include measures for clinical prevention and treatment, quality of care, infrastructure, and administrative efficiency functions.

Hypertension

High arterial blood pressure

I/T/U

Abbreviation referring to all IHS direct, tribal, and urban facilities. Using the abbreviation, I/T/U generally means that all components of the Indian health care system are being referred to.

ICD Codes

One of several code sets used by the healthcare industry to standardize data. The International Classification of Disease is an international diagnostic coding scheme. In addition to diseases, ICD also includes several families of terms for medical-specialty diagnoses, health status, disablements, procedure and reasons for contact with healthcare providers. IHS currently uses ICD-9 for coding.

Imminent

Almost or ready to occur

Interfaces

A boundary where two systems can communicate.

Kernel

The set of MUMPS software utilities that function as an intermediary between the host operating system and application packages, such as Laboratory and Pharmacy. The Kernel provides a standard and consistent user and programmer interface between application packages and the underlying MUMPS implementation. These utilities provide the foundation for RPMS.

Line Editor

A word-processing editor that allows to you edit text line by line.

Logic

The detailed definition, including specific RPMS fields and codes, of how the software defines a denominator or numerator.

MailMan

Short for Mail Manager, MailMan is a VA-based utility that facilitates messaging for a number of RPMS packages.

Mandatory

Required. A mandatory field is a field that must be completed before the system will allow you to continue.

Menu

A list of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection. When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).

Myocardial Infarction

Also known as a MI or heart attack; infarction of the myocardium that results typically from coronary occlusion, that may be marked by sudden chest pain, shortness of breath, nausea, and loss of consciousness, and that sometimes results in death.

Mnemonic

A short cut or code that is designated to access a particular menu option, data entry option, name, or facility.

Namespace

A unique set of two to four alpha characters that are assigned by the database administrator to a software application.

Narrative Description

A detailed description given using words rather than codes.

Option

An entry in the Option file. As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by TaskMan.

Outpatient Treatment

Treatment that occurs within a medical facility that does not involve an overnight stay.

Prompt

A field displayed onscreen indicating that the system is waiting for input. Once the computer displays a prompt, it waits for you to enter some specific information.

Provider

One who provides direct medical care to a patient (i.e., physician, nurse, physician's assistant).

Provider Codes

Codes that are assigned at the time a provider is added as a new user to RPMS and denotes the provider's discipline.

QMan

Short for Query Manager

Queuing

Requesting that a job be processed at a later time rather than within the current session.

Return key

Press the Return key to indicate the end of an entry such as a number or a word. Press the Return key each time you respond to a computer prompt. If you want to return to the previous screen, press the Return key without entering a response. This will take you back to the previous menu screen. The Return key on some keyboards is shown as the **Enter Key**. Whenever you see [RET] or the Return key, press the **Return** or **Enter Key**.

Retinopathy

Any of various noninflammatory disorders of the retina including some that cause blindness.

Routine

A program or sequence of instructions called by a program that may have some general or frequent use. MUMPS routines are groups of program lines that are saved, loaded, and called as a single unit via a specific name.

RPMS

Resource and Patient Management System; a suite of software packages used by IHS.

Select

To choose one option from a list of options.

Site Manager

The person in charge of setting up and maintaining the RPMS System at the facility or area level.

Submenu

A menu that is accessed through another menu.

Taxonomy

Grouping of functionally related data elements.

Text Editor

A word processing program that allows you to enter and edit text.

Triage

Sorting patients by the urgency of their need for care.

Type 1 Diabetes

Diabetes of a form that usually develops during childhood or adolescence and is characterized by a severe deficiency of insulin secretion resulting from atrophy of the islets of Langerhans and causing hyperglycemia and a marked tendency toward ketoacidosis. Also called insulin-dependent diabetes, *insulin-dependent diabetes mellitus*, *juvenile diabetes*, *juvenile-onset diabetes*, *type 1 diabetes mellitus.*

Type 2 Diabetes

Diabetes mellitus of a common form that develops especially in adults and most often in obese individuals and that is characterized by hyperglycemia resulting from impaired insulin utilization coupled with the body's inability to compensate with increased insulin production. Also called *adult-onset diabetes*, *late-onset diabetes*, *maturity-onset diabetes*, *non-insulin-dependent diabetes*, *non-insulin-dependent diabetes mellitus*, *type 2 diabetes mellitus*.

Utility

A callable routine line tag or function. A universal routine usable by anyone.

Variable

A character or group of characters that refers to a value. MUMPS recognizes 3 types of variables: local variables, global variables, and special variables. Local variables exist in a partition of the main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays.

Walk-In

A patient who walks into a medical facility seeking care but who does not have an appointment.

Word Processing Field

This is a field that allows the user to write, edit, and format text for letters, MailMan messages, etc.

Acronym List

Acronym	Meaning
A1C	Hemoglobin A1c (HbA1c)
ACE Inhibitor	Angiotensin Converting Enzyme Inhibitor
ARB	Angiotensin Receptor Blocker
ASUFAC	Area, Service Unit, and Facility
BDM	Namespace for the Diabetes Management System
BGP	Namespace for the Clinical Reporting System
BMI	Body Mass Index
BP	Blood Pressure
CKD	Chronic Kidney Disease
CRS	Clinical Reporting System
CVA	Cerebrovascular Accident
CPT	Current Procedural Terminology
CVD	Cardiovascular Disease
DAL	Display Audit Logic
DM	Diabetes Mellitus
DMS	Diabetes Management System
DMU	Update Diabetes Patient Data
DOB	Date of Birth
DOS	Date of Service
DPCS	Diabetes Patient Care Summary
DPP-4 Inhibitor	Dipeptidyl Peptidase-4 Inhibitor
eGFR	Estimated Glomerular Filtration Rate
EHR	Electronic Health Record
ENDS	Electronic Nicotine Delivery System
GDM	Gestational Diabetes Mellitus
GEN	General Retrieval Report
GLP-1 Receptor Agonist	Glucagon-like Peptide 1 Receptor Agonist
GPRA	Government Performance and Results Act
GUI	Graphical User Interface
HCV	Hepatitis C Virus
HDL	High-Density Lipoproteins
HTN	Hypertension
ICD	International Classification of Disease

Acronym	Meaning
IFG	Impaired Fasting Glucose
IGT	Impaired Glucose Tolerance
IHS	Indian Health Service
IT	Information Technology
LDL	Low-Density Lipoproteins
LMR	Lists, Labs, or Medications used at this Facility
LOINC	Logical Observation Identifiers Names and Codes
MI	Myocardial Infarction
NDC	National Drug Code
PCC	Patient Care Component
POC	Point of Care
RD	Registered Dietitian
RML	Master List Report
RPMS	Resource and Patient Management System
SDPI	Special Diabetes Program for Indians
SGLT-2 Inhibitor	Sodium-glucose Cotransporter 2 Inhibitor
SNOMED	Systematized Nomenclature of Medicine
TB	Tuberculosis
TD	Tetanus and Diphtheria
TDAP	Tetanus, Diphtheria, and Pertussis
TRIG	Triglycerides
UACR	Urine Albumin-to-Creatinine Ratio
VA	Veteran's Administration

Contact Information

If you have any questions or comments regarding this distribution, contact the IHS IT Service Desk.

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