



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Diabetes Management System

(BDM)

User Manual

Version 2.0 Patch 16
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Office of Information Technology
Division of Information Resource Management

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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			Patch 12 updates to the menus and workflow in addition to supporting the 2019 Audit
1.2	10/21/2019	Lori Butcher, Mark Williams, Skip Squires			Patch 13 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 Patch 14
1.5	11/1/2021	Lori Butcher, Skip Squires			Revised for Patch 15
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 Patch 16 and updated screen shots throughout. Revised manual to remove prediabetes, where applicable.

Preface

This manual has been developed for physicians, mid-level practitioners, nurses, case managers, and diabetes coordinators responsible for the care of Native Americans with diabetes. It provides instructions for:

- The setup and maintenance of the Resource and Patient Management System (RPMS) Diabetes Management System, including:
 - Taxonomies of 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.
- Entry of data items into the Patient Care Component (PCC) for optimizing patient care and reporting capabilities.
- Performing an electronic Diabetes Audit.
- Generating a variety of reports for patient and program management.

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

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 a diabetes program using an automated audit system and as a supplement to the Case Management System and PCC Management Reports which have been used together in the past to meet these needs.

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.
- Monitoring and prompting of health maintenance reminders on the Health Summary.
- Standard nomenclature for recording diabetes exams and education on PCC forms.
- Tools for conducting Diabetes Audits.
- 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 of medications, laboratory tests, education topics, and health factors required by the Diabetes Management System.
- An automated Diabetes Audit report that can be generated for an individual patient, a template of patients, the entire IHS Diabetes Register at a facility, or for a random sample of patients from the Register.
- 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.

1.1 Summary of Changes for Audit 2023

This section includes a summary of changes to the DMS software for the annual Diabetes Audit. The logic used for Audit 2023 is detailed in Appendix D.11.1.

1.1.1 Individual Audit Form

- Depression Changes:
 - Input:
 - Removed skip pattern and changed order of items (now screening first for all, then diagnosis for all).
 - Depression diagnosis now requires documentation of active depression during Audit period.
 - Report – Depression section: Four report items replaced with three new ones.
 - Screened during Audit period
 - Active diagnosis during Audit period
 - Screened during Audit period and/or active diagnosis
 - Report – Diabetes-Related Conditions section: Item replaced with new one.
 - Active depression diagnosis during Audit period
 - Depression Screening:
 - Removed a visit with a mood disorder diagnosis (BGP MOOD DISORDERS taxonomy) as a ‘hit’ on depression screening. The visit must have one of the screening exams, measurements, diagnoses or CPT codes in order to count as depression screening.
 - Depression active diagnosis:
 - Removed problem list lookup. Active diagnosis only looks at purpose of visits now.
 - The PCC and BH systems are reviewed for at least two (2) 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.
- Note:** Two diagnoses on one visit **DOES NOT** count, diagnosis must be two separate visits (the visits can be on the same day).
- DM Therapy: Added new medication, Tirzepatide [Mounjaro] to input and report.
 - Add new drug category to audit: Tirzepatide Drugs, taxonomy is DM AUDIT TIRZEPATIDE DRUGS.

- Add new taxonomy DM AUDIT GLP-1 RECEPT AGONISTS which combines the drugs from the DM AUDIT INCRETIN MIMETIC and DM AUDIT GLP-1 ANALOG DRUGS. This new taxonomy will be used for item GLP-1 receptor agonist.
- eGFR:
 - Removed calculation of eGFR from creatinine value
- Foot Exam:
 - Add CPT code G0245 INITIAL FOOT EXAM PT LOPS as a documented foot exam.
 - Add CPT code G0246 FOLLOWUP EVAL OF FOOT P LOP as a documented foot exam.
 - Removed a visit to clinic 65=PODIATRY or B7=Diabetic Foot clinic without also a documented exam code or CPT code as a hit on diabetic foot exam being done.
 - Removed a visit on which a podiatrist (provider class codes 33=PODIATRIST, 84=PEDORTHIST or 25=CONTRACT PODIATRIST) was the provider without also a documented exam code or CPT code as a hit on diabetic foot exam being done.

Note: The 2 items removed (clinic and provider visits) will still show up on the DPCS with a notation of “Maybe”.

- Hepatitis B immunization: New vaccine, PreHevbrio® (3-dose series) and CPT Updates.
 - Add 220 HepB recombinant, 3-antigen, Al(OH)₃
 - Add CPT codes 90697 and 90759
- Influenza
 - Updated to use the BGP FLU IZ CVX CODES taxonomy, which includes the following vaccines:
 - 15 INFLUENZA, SPLIT [TIVhx] (INCL PURIFIED)
 - 16 INFLUENZA, WHOLE
 - 88 INFLUENZA, NOS
 - 111 INFLUENZA, Intranasal, Trivalent
 - 135 INFLUENZA, HIGH DOSE SEASONAL
 - 140 INFLUENZA, seasonal, injectable, preservative free, trivalent
 - 141 INFLUENZA [TIV], SEASONAL, INJ
 - 144 INFLUENZA, INTRADERMAL
 - 149 INFLUENZA, Live, Intranasal, Quadrivalent

- 150 INFLUENZA, INJECTABLE, QUAD, PF
- 151 INFLUENZA NASAL, UNSPECIFIED
- 153 INFLUENZA, INJECTABLE, MDCK, PF
- 155 INFLUENZA, INJECTABLE, RECOMB, PF
- 158 INFLUENZA, Injectable, Quadrivalent
- 161 INFLUENZA, injectable,quadrivalent, preservative free, pediatric
- 166 INFLUENZA, intradermal, quadrivalent, preservative free
- 168 INFLUENZA, Trivalent, adjuvanted
- 171 Influenza, injectable, MDCK, preservative free, quadrivalent
- 185 Influenza, recombinant, quadrivalent,injectable, preservative free
- 186 Influenza, injectable, MDCK, quadrivalent
- 194 Influenza, Southern Hemisphere
- 197 Influenza, high dose, quadrivalent
- 200 Influenza, Southern Hemisphere, pediatric, preservative free
- 201 Influenza, Southern Hemisphere, preservative free
- 202 Influenza, Southern Hemisphere, quadrivalent, with preservative
- 205 Influenza vaccine, quadrivalent, adjuvanted
- Add the following CPT codes as a 'hit' on Influenza
 - 90694 VACC AIV4 NO PRSRV 0.5ML IM
 - Q2034 AGRIFLU VACCINE
 - Q2035 AFLURIA VACC, 3 YRS & >, IM
 - Q2036 FLULAVAL VACC, 3 YRS & >, IM
 - Q2037 FLUVIRIN VACC, 3 YRS & >, IM
 - Q2038 FLUZONE VACC, 3 YRS & >, IM
 - Q2039 INFLUENZA VIRUS VACCINE, NOS
- Pneumococcal immunization: Changed to count any of the current vaccines (PCV20, PCV15, PPSV23), ever.

Note: PCV13 does not count.

- Add ICD9 V03.82 Pneumovax/PPSV23 vaccine
- Add CPT 90732 Pneumovax/PPSV23 vaccine
- Add CPT 90671 Pneumococcal conjugate vaccine, 15 valent (PCV15)
- Add CPT 90677 Pneumococcal conjugate vaccine, 20 valent (PCV20)
- Add HCPCS G0009 Pneumovax/PPSV23 vaccine
- Add HCPCS G8115 Pneumovax/PPSV23 vaccine

- Add HCPCS G9279 Pneumovax/PPSV23 vaccine
- Add CVX 33 PNEUMOCOCCAL
- Add CVX 109 PNEUMOCOCCAL, NOS
- Add CVX 215 Pneumococcal conjugate vaccine, 15 valent (PCV15)
- Add CVX 216 Pneumococcal conjugate vaccine, 20 valent (PCV20)
- Tobacco Screening:
 - Add Z71.6 Tobacco abuse counseling as a ‘hit’ on tobacco screening
 - Add CPT code G9458 Tob user recd cess interv as a ‘hit’ on tobacco screening
- Tobacco Use Status
 - Add Z71.6 Tobacco abuse counseling as documentation of a user
 - Add CPT code G9458 Tob user recd cess interv as documentation of a user
- Tobacco Cessation Counseling
 - Add Z71.6 Tobacco abuse counseling as a ‘hit’ on cessation counseling
 - Add CPT code G9458 Tob user recd cess interv as a ‘hit’ on cessation counseling

1.1.2 Cumulative Audit Report

- Minor text changes.
- Minor changes to formatting on the Audit form and Audit Report.

1.1.3 Other Changes

- Removed the Pre-Diabetes Audit options.
- Removed the information regarding the IHS Prediabetes Register from this user manual as it is part of the Case Management System Version 2.0.
- Updated the Prediabetes Patient Care Summary.

1.2 Patch 16 Audit Setup

Audit setup and instructions for running the 2023 diabetes audit can be found in Appendix D .

Patch 16 samples and descriptions for the following outputs for the 2023 audit and are also detailed in Appendix D :

- **Individual Audit Form**

- **Annual Audit Report**
- **Web Audit export file**
- **SDPI Report**

The system capitalizes on data contained in the PCC and minimizes redundant data entry for local Diabetes Coordinators. Detailed instructions for implementing and utilizing the Diabetes Management System's features are included in this manual. This manual is updated annually to reflect the changes to the Diabetes Audit from year to year. To identify a complete list of changes for 2023, compare this manual to the BDM v2.0 p15 User Manual and User Addendum.

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 (Figure 2-1).

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 for accepting default values and entering 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: USER,DAVID K       DKR
  Are you adding 'DIABETES TEAM' as a new MAIL GROUP (the 1ST for this
BULLETIN)
? No// Y (Yes) [ENT]
Select MEMBER: USER,DAVID K       DKR
Are you adding 'ROSS,DAVID K' as a new MEMBER (the 1ST for this MAIL
GROUP)? No// Y (Yes) [ENT]
Select MEMBER: USER,BETSY
```

Figure 2-1: Sample computer dialogue

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, 2022 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
COSTA
      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      6 Comments          11 Health Summary
2 Where Followed      7 Local Option Entry 12 DM Care Summary (DPCS)
3 Case Manager        8 Last Visit        13 Print Letter
4 Client Contact      9 Review Appointments Q Quit
5 DX/Date of Onset    10 Audit Status

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 wish 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 wish 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.

The Caret: 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 preceding 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 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

Please consult the latest Installation Guide 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
BDMZ REGISTER MAINTENANCE
BDMZ SWITCH OLD DX ENTRIES

Case Management System:

ACMZMENU

PCC Management Reports:

APCLZMENU
APCLZ TAXONOMY SETUP

QMan

AMQQZMENU
AMQQZCLIN
AMQQZRPT

Health Summary (Generate Multiple Health Summaries)

APCHSMGR

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 Register

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 Version 2.0 Patch 16, all updates through Patch 16 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 wish 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 software to work with a register, the word **Diabetes** must be in the name of the register. If you change the name of an existing register, you will be asked if you wish to re-index files. You must answer **Yes**.

The following data items are automatically included in the **IHS Diabetes Register**:

Table 3-1: IHS Diabetes Register data items

IHS Diabetes Register Data Items
Patient Status
Active
Inactive
Transient
Unreviewed
Deceased
Non-IHS
Lost to follow-up
Noncompliant

Diagnosis

Prediabetes	
Gestational DM	
Type 1	Onset Date: (for Complication)
Type 2	
Impaired Glucose Tolerance	Primary Provider: (display only)
Onset Date: (for Diagnosis)	Register Provider:

Figure 3-1: IHS Diabetes Register Diagnosis Information

Entry Date: Date entered in Register	Case Mgr:
Last Edited Date:	Last Review Date:
Contact:	Next Review Date:
Where followed:	

Figure 3-2: Other IHS Diabetes Register Information

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.

3.1 IHS Prediabetes Register

The IHS Prediabetes Register is part of the Case Management System Version 2.0.

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 the patients in your population with diabetes. This must be done at the facility level because of variations in terminology and file entries at various facilities.

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.

```

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 16)
                        DEMO HOSPITAL (INST)
                        MAIN MENU

RM   Register Maintenance ...
AS   Audit Setup ...
AR   Audit Reporting ...

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 can add other authorized users or modify register components. A sample dialog for adding authorized users 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 16)
                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 Maintenance menu.
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 entered.

```

**          DIABETES MANAGEMENT SYSTEM          **
*****
                VERSION 2.0
                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:  USER,BENJAMIN P          BPC

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

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

Allow USER,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.
3. The system will display a list of current DMS Authorized users.

```

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

Figure 4-4: Listing the current DMS users

4.2 Flow Sheet Setup (FS)

The **Flow Sheet Setup** option 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 16)
                                DEMO HOSPITAL (INST)
                                REGISTER MANAGEMENT

US      User Setup
    
```

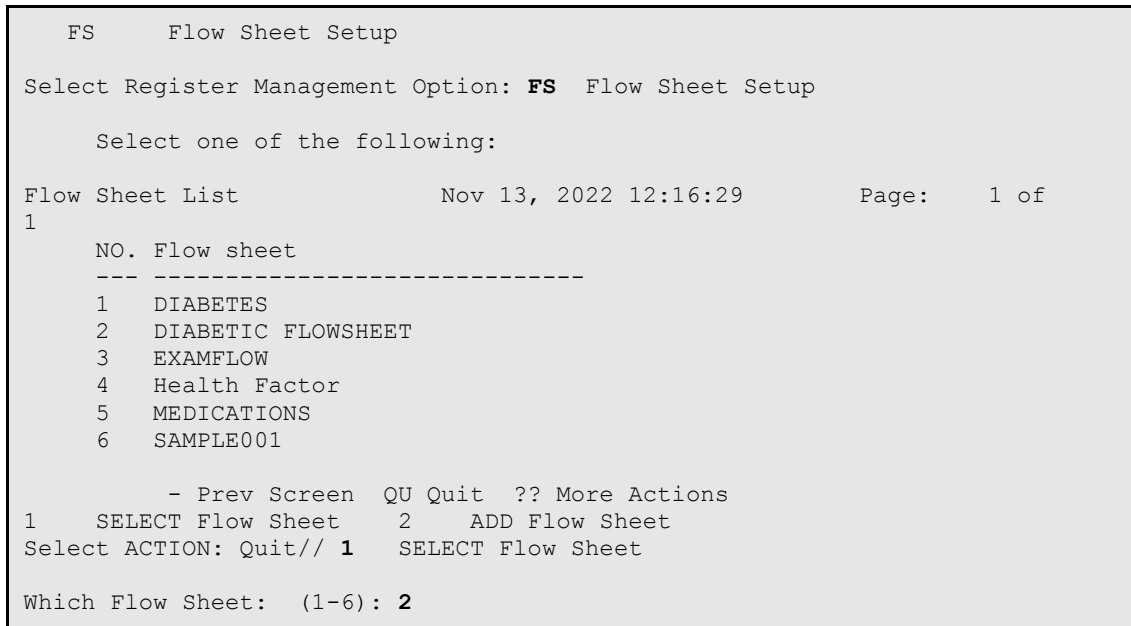
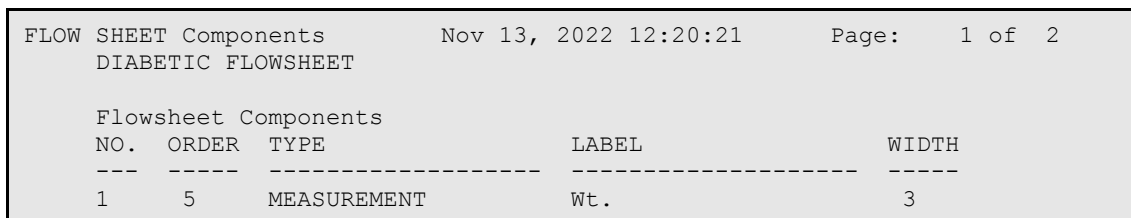


Figure 4-5: Adding a new user to DMS

Overview of Process

1. Print the Flow Sheet (or a health summary displaying a Flow Sheet) for an existing diabetes patient.
2. Flow Sheets may be modified or added to the system using the RPMS Health Summary Maintenance Menu or the Diabetes Management System.
3. When using the Diabetes Management System, select **FS** from the Register Maintenance Main Menu.
4. A list of the current Flow Sheets available in your system will display.
5. You will be given options to ADD a new Flow Sheet or Select an existing Flow Sheet.
6. Select the existing Diabetes Flow Sheet.
7. 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.



2	10	WEIGHT 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

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 for the Diabetes Flow Sheet. In reviewing the Diabetes Flow Sheet on the next page, you will 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, e.g., 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, 2022 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 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 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, 2022 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, you will be prompted to enter:

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

2. The data type of the item. Type one question mark (?) to review the data types available to use on the Flow Sheet.
3. The label or header to be used at the top of each column.
4. The width of the column.

DIABETES FLOW SHEET ORDER	TYPE	Components LABEL	WIDTH
-			
COMMAND:		Press <PF1>H for help	Insert

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**.


```

DIABETIC FLOWSHEET

Flowsheet Components
NO.  ORDER  TYPE                                LABEL                                WIDTH
---  -
1     5     MEASUREMENT                          Wt.                                3
      5     WEIGHT
2     10    LAB RESULT                            DM Labs                             8
      10    _GLUCOSE
      10    _PS Alc
      10    _GLUCOSE
      10    URINE Protein (POCT)
      10    _SQL Glucose,Body Fluid
3     15    MEASUREMENT                          BP                                  7
      15    BLOOD PRESSURE
4     20    EXAMINATION                          Foot Chk.                          9
      20    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. 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, 2022 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. 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 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, 2022 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 Alc
      _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, 2022 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
-----
05/10/20  : 235  :145/80 : 9.2H :      :      : .3      : NEGAT :
           :      :      :      :      :      :      : IVE    :
-----
11/03/20  : 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.

```

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. 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, 2022)      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.

```
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:

```

                                VERSION 2.0 (Patch 16)
                                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

3. The system will display the available options at the bottom of the screen.

```

DMS Letters                      Nov 05, 2022 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. Please review Section 4.4 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. 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 wish 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|

```



```

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 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 is a secondary menu option that all users have but do not normally see on their screen. See Figure 4-26.
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:

```

                                VERSION 2.0 (Patch 16)
                                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

- The system will display the available letters at the top of the screen. Choose the letter you wish 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

- You will be prompted to choose from the following options:

```

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

- 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 and if #3 is chosen you will be prompted to enter the name of a register.
- 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 four ways to add patients to the Diabetes Register:

- Enter patients manually, one at a time
 - Transfer patients from a QMan-generated search template
 - Transfer patients from a File Manager file
 - Add patients to the Register using the Data Entry mnemonic, REG
1. QMan is a menu option in Diabetes Management. However, you will need three additional security keys to use QMan for Diabetes Management. See your Site Manager for assignment of the security keys: **AMQQZMENU**, **AMQQZCLIN**, and **AMQQZRPT**.
 2. Transfer of patients from a File Manager file is seldom, if ever, required. It involves using FileMan to do a search for a file of patients with diabetes, creating a template of those patients, and then using the menu option for transferring this template of patients into the Diabetes Management System. If this functionality is required, please seek technical assistance from your local or area Information Systems personnel.

Each of the standard methods for entering patients into the Diabetes Register is described in Sections 5.1 through 5.5.

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 16)
                                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 14, 2022 15:57:10          Page: 1 of 1
      PATIENT: DEMO,LAURA MARIAN          AGE: 30
      ADDRESS: 1709 OCOTILLO AVENUE,ALB,NM,87119    DOB: 07/12/1988
      PHONE: 555-555-4108                  HRN: 133250
PRIM CARE PROV:          RES: RIVERSIDE
      STATUS: ACTIVE
WHERE FOLLOWED:
CASE MGR:
CONTACT:
ENTRY DATE: NOV 14,2022          LAST EDITED:
DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:

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

```

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 the Diabetes program, 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 core medical clinics (01,06,10,12,13,20,24,28,57,70,80,89) 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 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: [CORE MEDICAL CLINICS

Members of CORE MEDICAL CLINIC Taxonomy =>

GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE
WOMEN'S HEALTH SCREENING
URGENT CARE
EVENING CLINIC
IMMUNIZATION

Enter ANOTHER CLINIC: [ENT}

The following have been selected =>
GENERAL
DIABETIC
INTERNAL MEDICINE
PEDIATRIC
WELL CHILD
FAMILY PRACTICE
WOMEN'S HEALTH SCREENING
URGENT CARE
EVENING CLINIC
IMMUNIZATION
DIABETIC

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

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

```

Exact starting date: 1/1/20 (JAN 01, 2020)
Exact ending date: 12/31/22 (DEC 31, 2022)

Subject of subquery: VISIT
CLINIC (DIABETIC/INTERNAL MED...)
BETWEEN JAN 1, 2020 and DEC 31,2022@23:59:59

Next condition of "VISIT": AT LEAST
Enter the value which 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, 2020 and DEC 31, 2022@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, 2020 and DEC 31,2022@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.

```
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. 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: 890926

(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: 890926
  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 Adding Patients Using REG Mnemonic

If a provider notes that a patient is not on the Diabetes Register or a related Register, they may alert PCC Data Entry staff to add that patient to the appropriate Register. The provider must identify the Register to which they wish the patient added. For example, if a provider wishes a patient to be added to the IHS DIABETES Register he/she would record REG- IHS DIABETES in the Chief Complaint section of the PCC Encounter Form. Data Entry staff may then use the REG mnemonic to add the patient to the specified register.

Note: The REG mnemonic is distributed as Not Allowed in PCC Data Entry patch 8. In order to use this mnemonic, the Data Entry Supervisor will need to use the **MNE Update PCC Mnemonic's Allowed/Not Allowed** menu option to allow use of this mnemonic.

When using the REG mnemonic, Data Entry staff will need to select which type of Register will be updated. The Diabetes Registers are Case Management Registers. A sample dialogue of using the REG mnemonic is displayed below.

```

MNEMONIC: REG [ENT]      Add Patient to a Register      ALLOWED      NON-
VISIT/VISIT MNEMONIC
The following is a list of registers this patient can be added to.
If you choose a CASE MANAGEMENT REGISTER you will be prompted to
enter which of the 36 CMS registers to add the patient to.

1) IMMUNIZATION REGISTER
2) ASTHMA REGISTER
3) WOMEN'S HEALTH REGISTER

```

```

4) CASE MANAGEMENT REGISTER

Enter the REGISTER you wish to add WATERMAN,BECKY to: (1-99999): //4[ENT]
Enter the name of the CASE MANAGEMENT Register: IHS DIABETES [ENT]

      Adding WATERMAN,BECKY
      to the IHS DIABETES REGISTER CMS Register.

WATERMAN,BECKY has been added to the IHS DIABETES REGISTER.

```

Figure 5-6: Sample dialogue of using the REG mnemonic

5.4 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, 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 16)
                                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 5-7: Deleting patients from the register

5.5 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 four methods of identification are described below.

Referral Copy of PCC Form

When a healthcare provider diagnoses a new case of diabetes, diagnoses a new complication, or is aware that the patient being seen for diabetes is new to the facility, the provider should indicate a referral to the Diabetes Coordinator in the lower right section of the PCC Encounter Form and forward the referral (yellow) copy of the form to the Diabetes Coordinator. Medical Records staff should be alert to these referrals and forward the yellow copy to the Diabetes Coordinator if the provider of service has not already done so. The provider may also make a notation on the PCC Encounter form for Data Entry staff to add this patient to the Diabetes Register. This may be accomplished by the Data Entry operator using the REG mnemonic for a Case Management Register.

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 5-8) 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 5-8: 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 5-9.

```

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 5-9: 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 Appendix B 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. 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 may be added or updated using option **1 Edit Register Data**.

```

Register Data          Nov 14, 2022 12:17:06          Page: 1 of 1
  PATIENT: TEST,PATIENT TEN                          AGE: 18
  ADDRESS:                                               DOB: 01/01/2000
  PHONE:                                               HRN: 123456
PRIM CARE PROV:                                         RES: TOPPENISH
  STATUS: ACTIVE
WHERE FOLLOWED:
  CASE MGR:
  CONTACT:
  ENTRY DATE: NOV 14,2022                          LAST EDITED:
  DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:

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

```



Select Action: Quit// 1

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:

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-Indian 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 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 wish 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 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, 2022 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, 2022		LAST EDITED: NOV 16, 2022
DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)		
COMMENTS:		
LOCAL OPTION:		
LOCAL OPTION TEXT:		
- Previous Screen	QU Quit	?? for More Actions
1 Register Status	6 Comments	11 Health Summary

```

2 Where Followed          7 Local Option Entry    12 DM Care Summary (DPCS)
3 Case Manager            8 Last Visit           13 Print Letter
4 Client Contact          9 Review Appointments  Q Quit
5 DX/Date of Onset       10 Audit Status

```

Select Action: Quit// 5

Figure 6-3: Adding complications, screen 1

In the patient example given, **Prediabetes** is currently listed. So, another Diagnosis will be added, **Type 2**.

```

Register Diagnoses          Nov 16, 2022 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 clinician's 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 15,2022

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

```

Figure 6-4: Adding complications, screen 2

You will be given the choice of entering one or more of the following Diagnoses.

Note: This display is the Diagnosis List created under Register Maintenance.

```

1  PREDIABETES
2  GESTATIONAL DM
3  TYPE 1
4  TYPE 2

```

Figure 6-5: 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 wish to edit. A window will display 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    PREDIABETES                             NOV 2020

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

```

Figure 6-6: Diagnosis selection

6.3 Add Case Comments

Free text case comments may be added 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 14, 2022 15:48:20      Page: 1 of 1
  PATIENT: TEST,PATIENT TEN                AGE: 18
  ADDRESS:                                       DOB: 01/01/2000
  PHONE:                                       HRN: 123456
PRIM CARE PROV:   RES: TOPPENISH
  STATUS: ACTIVE
WHERE FOLLOWED:
  CASE MGR:
  CONTACT:
  ENTRY DATE: NOV 14,2022                    LAST EDITED: NOV 16,2022
  DIAGNOSIS: (NO DIAGNOSIS ON FILE FOR THIS PATIENT)
COMMENTS:
LOCAL OPTION:
LOCAL OPTION TEXT:
- Previous Screen      QU Quit      ?? for More Actions
1 Register Status      6 Comments      11 Health Summary
2 Where Followed      7 Local Option Entry  12 DM Care Summary (DPCS)
3 Case Manager        8 Last Visit    13 Print Letter
4 Client Contact      9 Review Appointments  Q Quit
5 DX/Date of Onset   10 Audit Status
Select Action: Quit// 6

```

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. To enter free-text comments, press Enter at the "Comments" prompt to open a word-processing field.

```

PATIENT: GREENJEANS,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 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 will display 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 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) 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 wish to print and enter the Device number of the printer you wish to use.

7.0 Update Diabetes Patient Data (DMU)

The DMU option was developed to enable Diabetes Coordinators to update certain diabetes-related data in the PCC if it is documented in the chart but has not been recorded in PCC. This includes both patient care data as well as refusals of service. The option is especially useful at small facilities which are not using the RPMS Laboratory or Pharmacy Packages or who use outside contracted providers for dental, eye, or podiatry services.

Warning: Do **NOT** enter medications through the DMU option. Any medications entered through this option will **NOT** be in the EHR Medications tab and they will **NOT** be checked for any drug interactions or order checking.

Note: If possible, it is highly recommended that you use the IHS Electronic Health Record (EHR) to enter patient-related health information performed outside of your facility, including historical data.

In addition, it is highly recommended that all immunization information is entered through the EHR or the immunization tracking system. IHS sends and receives immunization information from state immunization registries; therefore, immunizations performed outside of the facility may exist in those systems already. These systems include options for obtaining immunization history and immunization forecasting, whereas, the DMU option does not have this capability.

This option may also be used by certified Diabetes educators to directly enter the health factors relating to educational assessment and record the data items associated with education documentation including provider, level of understanding, length of educational session, individual or group setting, identify the objectives met, and the behavior code. It is often difficult to find the space to document these data items on a traditional PCC Encounter Record. However, a PCC Encounter Record still must be completed for each patient encounter documenting the patient encounter with the educator for statistical and billing purposes.

Data entered via DMU creates an “event” or “historical” type visit in PCC and therefore does not contribute to the PCC visit error report run prior to PCC visit exports. Before using the option, you need to review the health summary of the patient whose PCC record is to be updated, to ensure that the data truly does not reside in PCC. If the data is indeed missing and you plan to update the record, begin by selecting the DMU option and enter the name or chart number of the patient whose record will be updated.

```

                PCC DATA ENTRY
                Diabetes Patient Data Update

Select PATIENT NAME:  PATIENT,BARRY   M 05-09-1963 001040010   SE 100035

The data you enter for the above patient will be updated in the PCC
database.

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

Okay, one more thing ... If you intend to update the DM Date of Onset, you
must have the patient's DM problem number available from the problem list
The problem number must be entered in the correct field in the following
format: XXnn, where XX is the facility abbreviation and nn is the
problem number, e.g.: MU7

Note: If possible, it is highly recommended that you use the IHS
Electronic Health Record (EHR) to enter patient-related health information
performed outside of your facility, including historical data.
In addition, it is highly recommended that all immunization information
is entered through the EHR or the immunization tracking system. IHS sends
and receives immunization information from state immunization registries;
therefore, immunizations performed outside of the facility may exist in
those systems already. These systems include options for obtaining
immunization history and immunization forecasting, whereas, the DMU option
does not have this capability.

Press enter to continue:

One more warning: Any medications entered through this option will NOT
be in the EHR Medications tab and they will NOT be checked for any drug
interactions or order checking.

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

```

Figure 7-1: Updating Diabetes Patient Data, screen 1

Data may be entered for any of the data items displayed on the screen.

```

                *****  DIABETES PATIENT DATA UPDATE  *****
Patient Name: JOE,BRENDA ANN                      HRN: 101439
-----
Problem Number:                                Date of DM Onset:
Height Date:                                   Height Value:
Weight Date:                                  Weight Value (lbs):
BP Date:                                       BP Value:
Any HEALTH FACTORS to record?  N
Foot Exam Date:                               Foot Exam Result:
Eye Exam Date:                                Eye Exam Result:
Depression Screening Date:                    Depression Screening Result:
Dental Exam Date:

Any immunizations/vaccines to enter?  N

PPD Date:                                     PPD Reading:
Any EDUCATION to record? N Any LABs to enter? N Any Medications to Enter? N

```

Figure 7-2: Update Diabetes Patient Data, data items

Date of DM Onset

Note: Updating the problem list is best done using the integrated problem list in EHR.

If you do not have access to the EHR and plan to append a Date of DM Onset, the patient must first have an active problem of diabetes. That problem number must be specified before you will be allowed to enter a date of onset. You may determine the problem number by reviewing the active problem list of the patient’s health summary. On the following Health Summary, the patient has an active problem of Diabetes recorded on 4/15/02 but there is no date of onset. This would normally be seen as a date in parenthesis after the problem, e.g., DIABETES MELLITIS TYPE 2 (onset 04/82). The problem number is SE3.

```

----- ACTIVE PROBLEMS -----
      ENT.      MODIFIED
SE1      05/03/67 05/03/67 ANEMIA DUE TO DEFICIENT INTAKE OF IRON
SE3      04/15/02 04/15/02 DIABETES MELLITIS TYPE 2
    
```

Figure 7-3: Updating Diabetes Patient Data, active problem

The date of onset may be updated by recording the date of onset of April 1982 on problem SE3 using the DMU option. After recording this data, the changes may be saved by typing S and then pressing the Enter key followed by typing E and then pressing the Enter key at the “COMMAND:” prompt to save and exit the DMU screen.

```

***** DIABETES PATIENT DATA UPDATE *****
Patient Name: PATIENT,BARRY                HRN: 100035
-----
Problem Number: SE3                        Date of DM Onset: 4/1982
    
```

Figure 7-4: Updating Diabetes Patient Data, date of onset

When the active problem list on the Health Summary is reviewed, it will now reflect the date of onset. If the patient does not have an active problem of Diabetes, the DMU option may not be used to add a date of onset.

```

----- ACTIVE PROBLEMS -----
      ENT.      MODIFIED
SE1      05/03/67 05/03/67 ANEMIA DUE TO DEFICIENT INTAKE OF IRON
SE3      04/15/02 05/30/03 DIABETES MELLITIS TYPE 2 (onset 04/82)
    
```

Figure 7-5: Updating Diabetes Patient Data, updated screen

Health Factors

The categories of health factors that may be updated using the DMU option include:

- Self-Monitoring of Blood Glucose
- Tobacco Use
- Electronic Nicotine Delivery System (ENDS)
- TB Health Factor
- Barriers to Learning
- Readiness to Learn
- Learning Preference

```

Problem Number:                               Date of DM Onset:
Height Date: MAR 12,2022                     Height Value: 56
Weight Date: MAR 12,2022                    Weight Value (lbs): 234
BP Date: MAR 12,2022                        BP Value: 145/80

Any HEALTH FACTORS to record?  Y [ENT]
    
```

Figure 7-6: Updating Diabetes Patient Data and Health Factors

Begin by typing Y and pressing the Enter key to indicate that you will be updating the patient’s record with health factors. A screen will open in which you can identify one or more categories of health factors to update. Use the Enter or Tab keys to move through the fields. The date of the health factor will default to the date the update was made unless you change the date to the date that the health factor was actually recorded.

```

                                HEALTH FACTOR UPDATE
Enter the appropriate Health Factor for each category you wish to update

Tobacco Use:                               DATE: JUN 30,2022
Electronic Nicotine (ENDS) Use:           DATE: OCT 20,2022
TB Health Factor:                          DATE: JUN 30,2022
Self Monitoring Blood Glucose:            DATE: JUN 30,2022
Barriers to Learning:                     DATE: JUN 30,2022
Learning Preference:                       DATE: JUN 30,2022
    
```

Figure 7-7: Updating Diabetes Patient Data, Health Factor Choices

The choice of health factors to enter under each category may be displayed by typing two question marks (??) when the cursor is blinking next to a health factor category. The choices will display at the bottom of the screen.

```

Must be a Diabetes Self Monitoring Health Factor
    
```

```

Choose from:
SELF MONITORING BLOOD GLUCOSE - NO
SELF MONITORING BLOOD GLUCOSE - REFUSED
Press RETURN or ENTER to continue or '^' to exit: [ENT]
SELF MONITORING BLOOD GLUCOSE - YES

```

Figure 7-8: Updating Diabetes Patient Data, Self Monitoring of Blood Glucose Health Factors

The Enter key must be pressed as many times as necessary to display all the choices for that category.

When the cursor is once more blinking next to the category of health factor, the choice may be entered by typing the first few letters of that health factor. Select the number of the correct health factor. The date may also be changed to the date the health factor was documented.

```

Self Monitoring Blood Glucose: SELF [ENT]          DATE: 6/10/21
Barriers to Learning:                             DATE: JUN 30,2022
Readiness to Learn:                               DATE: JUN 30,2022
Learning Preference:                              DATE: JUN 30,2022
-----
1 SELF MONITORING BLOOD GLUCOSE - NO
2 SELF MONITORING BLOOD GLUCOSE - REFUSED
3 SELF MONITORING BLOOD GLUCOSE - YES
Choose 1-3 or '^' to quit: 2 [ENT]

```

Figure 7-9: Updating Diabetes Patient Data, Entering Self-Monitoring Health Factor

If more than one match is found, all matches will display in a numbered list at the bottom of the screen and the choice may be made by number.

When all health factor data has been updated, the screen may be closed by pressing the Enter key when the cursor is blinking on the “Close” COMMAND:.

Influenza, Hepatitis B, Pneumococcal, or TD Immunizations

To update Influenza, Hepatitis B, Pneumococcal, or Td immunizations, type **Y** to indicate that you will be making one or more entries in this field.

```

Any immunizations/vaccines to enter? Y [ENT]

```

Figure 7-10: Updating Diabetes Patient Data, Immunizations

A vaccine and the date given must be documented for each immunization type documented. The Enter or Tab keys may be used to move between fields. If the first few letters of a vaccine are entered, any vaccines in that category that match those letters will display and the correct vaccine may be chosen by number.

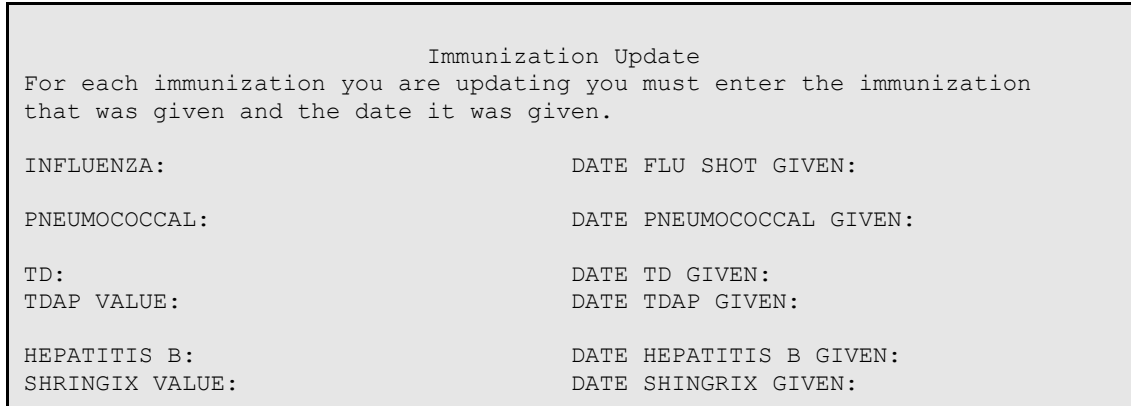


Figure 7-11: Updating Diabetes Patient Data, Entering Pneumococcal vaccine

When immunization data updates have been completed, press the Enter key until the cursor drops to COMMAND: where the word “Close” is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Education

To enter Medications, Laboratory Tests, or Patient Education, type **Y** to indicate that you will be making entries in this field.

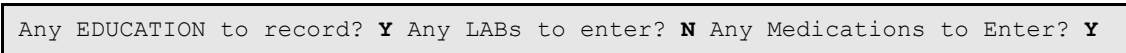


Figure 7-12 Updating Diabetes Patient Data, Education

A screen will open to allow entry of the desired information. Use standard IHS Patient Education mnemonics for recording education topics. If the category of the topic is typed, e.g., DM or DMC, the list of topics in that category will display below the data entry box. The Enter key may be pressed as many times as necessary to review the entire list of topics in that category before selecting the number of the desired topic.

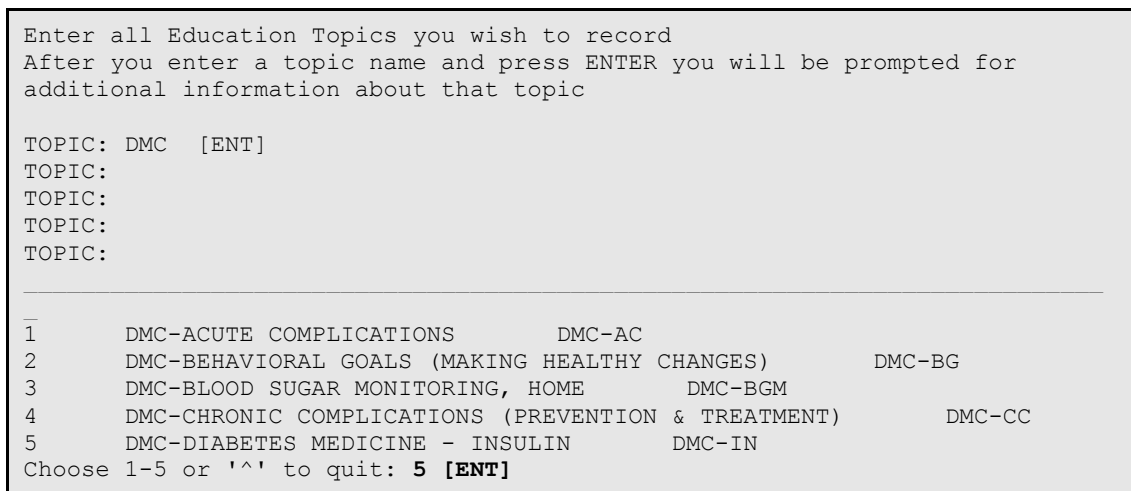


Figure 7-13: Updating Diabetes Patient Data, Entering new education topic

When an education topic has been selected and the Enter key is pressed, a screen will open to allow entry of additional information about that educational encounter. The only required fields are those underlined or highlighted. If choices for a field are unknown, two question marks (??) may be typed and information about that field definition will display.

```

DM EDUCATION: DMC-DIABETES MEDICINE - INSULIN
DATE EDUCATION PROVIDED: JUN 10,2022      [ENT]
PROVIDER: SHORR,GREGORY                    [ENT]
LEVEL OF UNDERSTANDING: POOR              [ENT]
LENGTH OF EDUCATION (MINUTES): 60         [ENT]
INDIVIDUAL/GROUP: INDIVIDUAL              [ENT]
OBJECTIVES MET:
BEHAVIOR CODE: ?? [ENT]

Choose from:
GS      GOAL SET
GM      GOAL MET
GNM     GOAL NOT MET
    
```

Figure 7-14: Updating Diabetes Patient Data, Entering educational data items

When education topic data updates have been completed, press the Enter key until the cursor drops to COMMAND: where the word “Close” is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Laboratory Tests

To enter Laboratory Tests, type Y to indicate that you will be making entries in this field.

```

Any EDUCATION to record? N Any LABs to enter? Y Any Medications to Enter? N
    
```

Figure 7-15: Updating Diabetes Patient Data, Laboratory tests

A screen will open to allow entry of the desired information. Type only the first few letters of the laboratory test. Matching tests will display in a list at the bottom of the screen. Select the number of the correct test. Record the date of the test and the result. When entering numeric data, enter only the numeric results not any flags or other indications of normal or abnormal.

Lab Test Name	Date of Test	Value
CHOLESTEROL	DEC 15,2022	340
TRIGLYCERIDE	DEC 15,2022	510
LDL	DEC 15,2022	210
HDL	DEC 15,2022	40

Figure 7-16: Updating Diabetes Patient Data, updated lab test information

Upon completion of entry of the laboratory test information, press the Enter key until the cursor drops to COMMAND: where the word “Close” is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Medications

To enter Medications, type **Y** to indicate that you will be making entries in this field.

```
Any EDUCATION to record? N Any LABs to enter? N Any Medications to Enter? Y
```

Figure 7-17: Updating Diabetes Patient Data, Medications

A screen will open to allow entry of the desired information. Type the first few letters of the medication and select the correct medication from the list that will display at the bottom of the screen. Enter the date and the quantity of medication dispensed. SIG is optional information and does not need to be entered.

Drug Name	Date Dispensed	Qty	SIG
Aspirin 81MG TAB	May 2, 2022	100	
Any EDUCATION to record? N Any LABs to enter? N Any Medications to enter? Y			

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

COMMAND: Close	Press <PF!>H for help	Insert	

Figure 7-18: Updating Diabetes Patient Data, Recording medication data

Upon completion of entry of the medication information, press the Enter key until the cursor drops to COMMAND: where the word “Close” is displayed. Pressing the Enter key will close the window and return you to the main DMU screen.

Height, Weight, BP, Foot Exam, Eye Exam, Dental Exam, Depression Screen, and PPD

Each of these data items requires entry of the date of the exam, measurement, skin test or procedure. When the Enter key is pressed after recording the date, you will be prompted to enter the result of the measurement. For Foot Exam, and Eye Exam you will be prompted to enter a result of **NORMAL** or **ABNORMAL**.

Note: Be extremely careful about accurately recording data as it will be passed directly to PCC when the data is saved, and you exit the screen. Only data entry staff can delete or correct inaccurate data once it has been stored in PCC. If you do need to delete incorrectly recorded data BEFORE exiting from the DMU screen, position the cursor in the erroneous field using the ↓ or ↑ keys or the Tab key and either type over the incorrect data with the correct data or type the at (@) symbol which is the RPMS symbol used for deletion.

```

*****  DIABETES PATIENT DATA UPDATE  *****
Patient Name: DEMO,POLLY                      HRN: 143782
-----
Problem Number:                               Date of DM Onset:
Height Date: MAR 12,2022                      Height Value: 66
Weight Date: MAR 12,2022                     Weight Value (lbs): 234
BP Date: MAR 12,2022                         BP Value: 145/80

Any HEALTH FACTORS to record? N

Foot Exam Date:                               Foot Exam Result:
Eye Exam Date: 2/10/2022                     Eye Exam Result: NORMAL
Depression Screening Date:                   Depression Screening Result:
Dental Exam Date:

Any immunizations/vaccines to enter? N

PPD Date: MAR 12,2022                        PPD Reading: 5
Any EDUCATION to record? Y Any LABs to enter? N Any Medications to Enter? N

```

Figure 7-19: Diabetes Patient Data, Update

Once all the desired data has been updated on the DMU screen, typing **S** and then pressing the Enter key followed by typing **E** and then pressing the Enter key will save the data and result in an updated PCC database.

When the PCC database update has completed, you will be prompted to enter any refusals. Begin by typing **Y** to indicate that one or more refusals will be documented and then record the date the refusal was documented.

```

Exit      Save      Refresh

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

COMMAND: E                                     Press <PF1>H for help
Insert

Updating PCC database....hold on a moment...

Do you want to enter any Patient REFUSALS? N//Y [ENT]

```

Enter Date of Refusal: 6/10/20 [ENT]

Figure 7-20: Updating Diabetes Patient Data, updating the PCC database and entering refusals

This tool may be used to document any services that could not be provided to a patient because they were medically contra-indicated, the patient failed to respond to follow up, the provider discontinued the service, the patient failed to respond, or the patient refused the service. Refusals may be documented for the items below.

Note: Refusals are not counted in the Audit Reports or documented in Audit Data Files.

- CPT
- EDUCATION TOPICS
- EXAM
- IMMUNIZATION
- LAB
- MEASUREMENTS
- MEDICATION/DRUG
- SKIN TEST

Select the Refusal type from the list of Refusal Types. The above list may be displayed by typing two question marks (??) when prompted for refusal type.

Identify the Refusal Type by typing the first few letters.

Type the name of the specific item that was refused, e.g., name of medication if a MEDICATION/DRUG, name of laboratory test if a LABORATORY TEST, specific immunization if an IMMUNIZATION, etc.

Enter the refusal reason from the following list:

- **R** Refused Service
- **N** **Not Medically Indicated**
- **F** No Response to Followup
- **P** Provider Discontinued
- **U** Unable to Screen

Enter REFUSAL TYPE: ?? [ENT]

Choose from:
CPT

```
EDUCATION TOPICS
EXAM
IMMUNIZATION
LAB
MEASUREMENTS
MEDICATION/DRUG
SKIN TEST
Enter Refusal Type: EXAM
Enter the EXAM value: DIABETIC EYE EXAM      03
Enter Reason not Done: R  DECLINED SERVICE
creating Refusal entry in PCC...

Would you like to enter another refusal? N//
```

Figure 7-21: Updating Diabetes Patient Data, documenting DIABETIC EYE EXAM refusal

Upon completion of data entry for one refusal you may enter additional refusals by typing **Y** when prompted to enter another refusal.

The last step in using the DMU option for updating Diabetes-related data is to display the patient's health summary and individual Audit to ensure that updated data is accurately displayed.

8.0 Register Reports (RR)

Numerous reports can be generated from the IHS Diabetes Register through the Diabetes Management System's Register Reports option. 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 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 16)
                                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 8-1: 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 8-2 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 16)
                                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 8-2: Register Reports Menu

8.1 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, 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 8-3: Select Register

8.2 Multiple Register Patient Case Summaries (MS)

This option allows you to produce Case Summaries (Section 8.1) 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. 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// ndividual 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 8-4: 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 8-5: Patient Summary

8.3 Master List (ML)

The Diabetes Management Master List 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*, 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 8-6: 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

HRN      PATIENT                CASE MANAGER          LAST      LAST      NEXT
REVIEW                                     VISIT      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 8-7: Diabetes Register Master List Output

8.4 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 8-8. 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 8-8: Register Patient General Retrieval (Lister)

After pressing Enter to use all the patients in the Register or entering specific selection criteria, you can choose to select 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 this file be emailed, sent via FTP, or returned to you on a floppy disk, CD, or USB device by your site manager. 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 a variety of PC-based 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 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:
          *****      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 8-9: 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 8-10: Register Patient General Retrieval (Lister), screen 3

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

Users can seek assistance from Area Diabetes Consultants for importing this flat file, delimited by the caret (^), into a PC-based software program.

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 8-11.

```

                                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 8-11: 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 printed and how you would like them sorted. Print items are shown in Figure 8-12.

```

                                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 8-12: Print items

Note: Only one sort criterion may be used.

Sort Criteria are shown in Figure 8-13.

```

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 8-13: 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, please refer to the Case Management (Version 2.0) User’s Manual.

8.5 Patient and Statistical Reports (PR)

This report option 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 8-14: Statistical Reports

Most reports can be sorted by Patient Name, Community, Facility where Followed, Age, Sex, or a combination of these factors. 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 8-15: Statistical Reports

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 8-16, 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 12,2022  17:01   PAGE 1
      DIAGNOSIS
-----
-----
COUNT      1

End of report.  Strike <CR> to continue.

```

Figure 8-16: Patient and statistical report

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

This option permits the diabetes coordinator to review appointments for all patients entered in the Diabetes Register to ensure that the appropriate scheduling 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: 10/1/2022  (OCT 01, 2022)
Enter Ending Appointment Date: 12/31/2022  (DEC 31, 2022)

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 8-17: Listing patient appointments

The report displays as shown in Figure 8-18.

```

      SHS                      Nov 12, 2022                      Page
1
      PATIENTS ON THE DEMO DIABETES REGISTER WITH AN APPOINTMENT
      Appointment Dates: Oct 01, 2022 to Dec 31, 2022
      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 8-18: Listing patient appointments, screen 2

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

When calculating the duration of diabetes for the cumulative Audit, 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.

```

      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 8-19: DM Register Pts w/no recorded DM Date of Onset

The resulting report 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
1
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
DEMO,BRAZ             103193 Sep 07, 2010 M
DEMO,JESSICA          101578 Jul 10, 1957 F    Nov 12, 2022    14          NO
DEMO,CHRISTIAN JA     135554 Nov 19, 1989 M
DEMO,DANIEL MICHA     135205 Feb 10, 1986 M
DEMO,RHIANNON RAIN    144277 Jan 20, 1995 F    Oct 28, 2017    4           NO
TEST,AMY              679458 Dec 23, 1934 F    Jan 06, 2022    3           YES
TEST,DONNA            13976  Feb 17, 1954 F    Dec 29, 2018    1           NO
End of report.  HIT RETURN:
    
```

Figure 8-20: 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.

8.8 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 identified by the Diabetes program. 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 example (Figure 8-21), 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 Alc
  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 8-21: Using the FU option

The resulting report displays the community, patients, chart numbers, and the last foot exam. Only those patients who have not had a foot exam in the past year or 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, 2022 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 12,2022

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 8-22: 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.

8.9 Multiple Registries Community DM Audit (MRDA)

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. 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 2023 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 Alc (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	# members	Last patient update
1	DEMO DIABETES REGISTER	535	539	11/09/2022
2	2020 KDS DIABETES REGISTER	13	13	10/26/2022
3	IHS DIABETES	553	556	09/11/2022
4	DEMO DIABETES REGISTER	29	29	10/05/2022
5	PARKER DIABETES REGISTER	1,002	1,012	10/03/2022
6	SDPI NON DIABETES	158	158	10/04/2022

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, 2022)

      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 8-23: Multiple Registries Community DM Audit

9.0 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 on patients in the IHS Diabetes Register.

9.1 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 9-1), 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 9-1: 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. 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, 2022)      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 9-2: PCC management reports, screen 2

The resulting report is displayed in Figure 9-3.

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 9-3: PCC management reports, screen 3

9.2 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. In 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 8.5.

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 will not be 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 to you.

9.2.1 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.

```

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 9-4: 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.

```

SUBQUERY: Analysis of multiple HEMOGLOBIN A1C
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 9-5: Using Register as the Subject of a Search (steps 5–9)

A section of the resulting report displays as shown in Figure 9-6.

PATIENTS	DEMO	A1C	A1C DATE
	NUMBER	%	
PATIENT, SALLY*	100010	13.3 H	JAN 12, 2022
PATIENT, BARRY	100035	10.8 H	SEP 22, 2022
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, 2022
PATIENT, ROSE	101599	6.0	JUL 13, 2019
PATIENT, BARRY	101860	7.2 H	DEC 1, 2018

Figure 9-6: Using Register as the subject of a search, sample report

9.2.2 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 9-7 through Figure 9-9) 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 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 9-7: 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 9-8: Using a Template of Patients with Diabetes as an Attribute (steps 4–13)

QMan will display the patients 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 (Alive)	DEMO	VISIT NUMBER

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

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

9.2.3 More Complex QMan Search for Multiple Attributes

At times QMan can be used for more sophisticated retrievals like following liver function tests on patients in the Register taking drugs known to have a hepatotoxic effect.

In this example, the entire Register can be used as the subject, RX can be used as an attribute, and AST, ALT, GGT, or LDH can be used as additional attributes. It is difficult to perform QMan searches for multiple clinical attributes because of a limiting factor in display called "Rule of Last." Because of this limitation, only the value of the last clinical attribute listed will actually display. Therefore, lab values for more than one lab test cannot be displayed in a single query. In the following example (Figure 9-10), prescriptions of Glipizide issued during the last six months and SGOT values during that time frame will display.

```

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

      A      Active
      I      Inactive
      T      Transient
      U      Unreviewed
      D      Deceased
      Z      All Register Patients

Which patients: Active// [ENT]
Attribute of IHS DIABETES REGISTER: RX

Enter RX: GLIPIZ
      1  GLIPIZIDE 10MG TAB
      2  GLIPIZIDE 5MG TAB
CHOOSE 1-2: 1
Enter ANOTHER RX: GLIP << If more than one formula and concentration for a
drug exists, additional entries may be added one at a time by selecting the
next entry on the displayed list each time Enter ANOTHER RX is displayed.>>
      1  GLIPIZIDE 10MG TAB
      2  GLIPIZIDE 5MG TAB
CHOOSE 1-2: 2
Enter ANOTHER RX: [ENT]

The following have been selected =>

      GLIPIZIDE 5MG TAB
      GLIPIZIDE 10MG TAB
Want to save this RX group for future use? No// [ENT]
SUBQUERY: Analysis of multiple RXS

First condition of "RX": Since
Exact Date: T-180

Attribute of IHS DIABETES REGISTER: AST
SUBQUERY: Analysis of multiple AST
First condition of "AST": SINCE
Exact Date: T-180
Next Condition of "AST": ANY << forces results or lack of results to
display>>
Attribute of IHS DIABETES REGISTER: [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// 2

```

Figure 9-10: More complex QMan search for multiple attributes

The report of patients in the Register taking Glipizide during the last six months and their AST values during that time frame appears as shown in Figure 9-11.

PATIENTS	DEMO RX NUMBER	AST U/L	AST DATE
PATIENT, SALLY*	100010 +	347	SEP 6, 2022
PATIENT, SALLY*	100010 +	150	FEB 9, 2022
PATIENT, MEGAN	100557 +	-	-
PATIENT, DARLENE	101240 +	-	-
PATIENT, ROSE	101599 +	38	SEP 11, 2022
Total: 5			

Figure 9-11: More complex QMan search for multiple attributes, report sample

VGEN in the PCC Management Reports option for Quality Assurance Reports can also be useful when trying to combine multiple clinical attributes without the limitations of QMan displays. In Figure 9-11, the list of patients taking Glipizide drugs can be saved in a template. This template of patients can then be used in VGEN to display all four of the laboratory values of interest during the desired time frame.

9.2.4 Special QMan Outputs

In addition to providing lists of your search results, QMan can also produce age-group reports, mailing labels, health summaries, or ASCII output to use on a personal computer for statistical analysis or graphics displays. To use these features, select the **6 R-Man Special Report Generator** option when presented with QMan Output Options.

Refer to QMan Volume 3 for specific instructions on how to obtain these outputs.

10.0 Diabetes Program 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 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 IHS Annual Diabetes Audit.

Refer to the Appendix D for details on the Audit.

11.0 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 11.1. 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, including ER and General Clinic, and not just visits to the Diabetic Clinic where the Diabetes Standard Health Summary may be used.

11.1 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** will allow you to select a Health Summary type. When prompted for a health summary type, enter **DIABETES STANDARD**. The Health Summary will display 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 return 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 Diabetic Clinic visit. In addition, the Diabetes Standard Summary includes a Diabetes Patient Care Summary which 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 diabetic 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, 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 11-1: Default DM Health Summary Type: Diabetes Standard

A sample Diabetes Flow Sheet is shown in Figure 11-2. 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
-----
01/14/20 :196      :133/77      :          :          :          :          :
-----
01/12/20 :207      :104/66      :10.1      :          :          :          :
-----
10/22/19 :191      :          :12.9      :          :          :          :
-----
08/20/19 :193      :140/100     :10.9      :          :          :          :
-----
07/16/19 :194      :162/92      :          :          :          :          :
-----
06/04/19 :195      :158/92      :10.6      :          :          :          :
-----
04/16/19 :188      :173/99      :          :          :          :2         :
-----
03/05/19 :187      :136/77      :          :          :          :          :
```

Figure 11-2: 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.

11.2 Diabetes Patient Care Summary

The Diabetes Patient Care Summary, also referred to as the Diabetes Supplement provides a complete review of the patient's care in relation to the IHS National Diabetes Standards of Care. It includes virtually all data items used by the Diabetes Management System Audit Report. 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 11-3 for an example.

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

```

***** CONFIDENTIAL PATIENT INFORMATION [LB] Oct 24, 2022 *****
DIABETES PATIENT CARE SUMMARY Report Date: 10/24/2022

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 10/06/2022
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:
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 10/06/2022

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 10/06/2022 CPT: G0245
Eye: Yes 10/06/2022 Diabetic Eye Exam
Dental: No

Depression:
Screened in past year: Yes - DX: Z13.32 10/06/2022
Active diagnosis in past year: No

Immunizations:
Influenza vaccine (since August 1st): Yes 10/06/2022
Pneumococcal [PCV15, PCV20, or PPSV23] (ever): Yes 02/02/2022

```

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	10/06/2022	TOTAL CHOLESTEROL
LDL Cholesterol:	100	10/06/2022	LDL CHOLESTEROL
HDL Cholesterol:	45	10/06/2022	HDL CHOLESTEROL (R)
Triglycerides:	120	10/06/2022	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 11-3: 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.

11.3 Prediabetes Patient Care Summary

The Prediabetes Patient Care Summary was updated in the BDM Version 2.0 Patch 16.. 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 Impaired Glucose Tolerance, Impaired Fasting Glucose, Metabolic Syndrome (Syndrome X) or Prediabetes 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 Supplement is provided in Figure 11-4.

```

***** CONFIDENTIAL PATIENT INFORMATION [LAB] Nov 11, 2022 *****
PREDIABETES PATIENT CARE SUMMARY Report Date: Nov 11, 2022
Patient Name: DEMO,MAYLENE HRN: 890009
Age: 73 Sex: F DOB: Nov 04, 1949

Classification:
No Impaired Fasting Glucose
No Impaired Glucose Tolerance
Yes Prediabetes: Date of Onset from Problem List: Mar 01, 2021

Primary Care Provider:

Last Height: 66 inches Nov 08, 2022
Last 3 Weight: 180 lbs Nov 08, 2022 BMI: 29.1
                176 lbs Apr 03, 2022 BMI: 28.4

Last Waist Circumference: 40 Nov 08, 2022

Last 3 non-ER BP: 120/90 Nov 08, 2022
                  130/88 Apr 03, 2022

Tobacco Use:
Last Screened: 11/08/2022
Current Status: Current user CURRENT SMOKER, SOME DAY 11/08/2022
Tobacco cessation counseling/education received in the past year: No

Prediabetes Education Provided (in past yr):
Last Dietitian Visit: 11/08/2022 TESTING
97804-MEDICAL NUTRITION GROUP 11/08/2022
DM-NUTRITION 11/08/2022
E11.21-EXERCISE 11/08/2022

HTN Diagnosed: No

Laboratory Results (most recent):
Last Fasting Glucose: 66 11/08/2022 GLUCOSE
Last 75 GM 2 hour Glucose:
A1C: 8.3 11/08/2022 HEMOGLOBIN A1C
Next most recent A1C: 7.9 09/09/2022 HEMOGLOBIN A1C

Total Cholesterol: 200 11/08/2022 CHOLESTEROL (POCT)

```

(POCT)	LDL Cholesterol:	100	11/08/2022	LDL CHOLESTEROL
	HDL Cholesterol:	55	11/08/2022	HDL CHOLESTEROL
	Triglycerides:			
DEMO, MAYLENE		DOB: 11/4/1949	Chart #TST	

Figure 11-4: Prediabetes Patient Care Summary

11.4 Other Health Summary Components

There are four other health summary components that may be desirable for Diabetes programs:

- 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 11-5.

```

----- 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 11-5: 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. Please 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.

Please seek assistance from your local or area IS 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 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 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 section 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 the User 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**. Double-click that icon to open the DMS GUI.

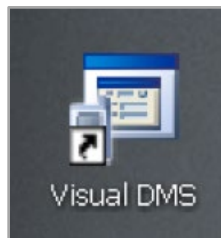


Figure C-1: Visual DMS shortcut

2. The program screen will display briefly before you are prompted to enter an RPMS server and port.



Figure C-2: Visual DMS splash screen

3. On the RPMS server address screen, 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.

The dialog box is titled "Visual DMS Login". It contains a dropdown menu for "RPMS Server" with "cmba" selected. Below are text input fields for "Access Code" and "Verify Code". There is an unchecked checkbox for "Use Windows Authentication". At the bottom are "OK" and "Cancel" buttons. A "Description" box at the bottom states: "Use this panel to enter the Access and Verify codes that you use to log in to the RPMS server."

Figure C-3: Visual DMS Login screen

4. If you are a multidivisional site the following box will display. Select the appropriate division from the list displayed.

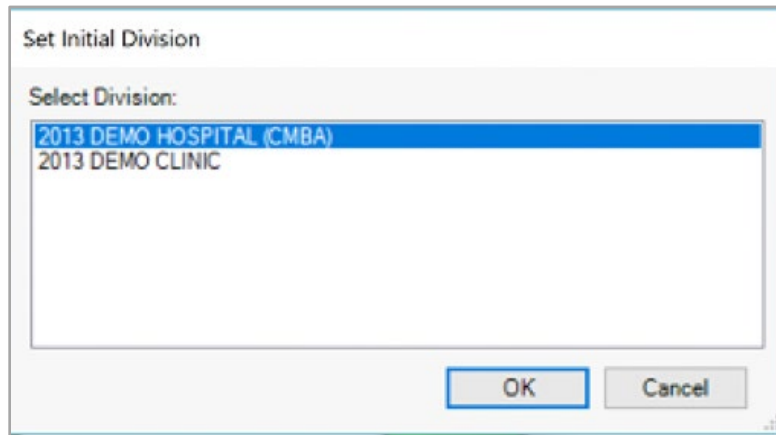


Figure C-4: Select Initial Division screen

5. A list of Registers for which you are an authorized user will display. Click on the Register Name that you wish to use.

Register Name	Active Members	Members	Last Patient Update
2017 DIABETES REGISTER	539	543	10/28/2021
2020 KDS DIABETES REGISTER	14	14	11/23/2020
IHS DIABETES	553	556	09/11/2020
IHS PRE-DIABETES	124	124	10/26/2015
LORI'S DIABETES REGISTER	33	34	10/28/2021
MOHAVE DIABETES REGISTER	110	110	05/18/2004
PARKER DIABETES REGISTER	1,001	1,012	10/03/2018

Figure C-5: Select Register list

6. The **Visual DMS** window will open and display the main menu.

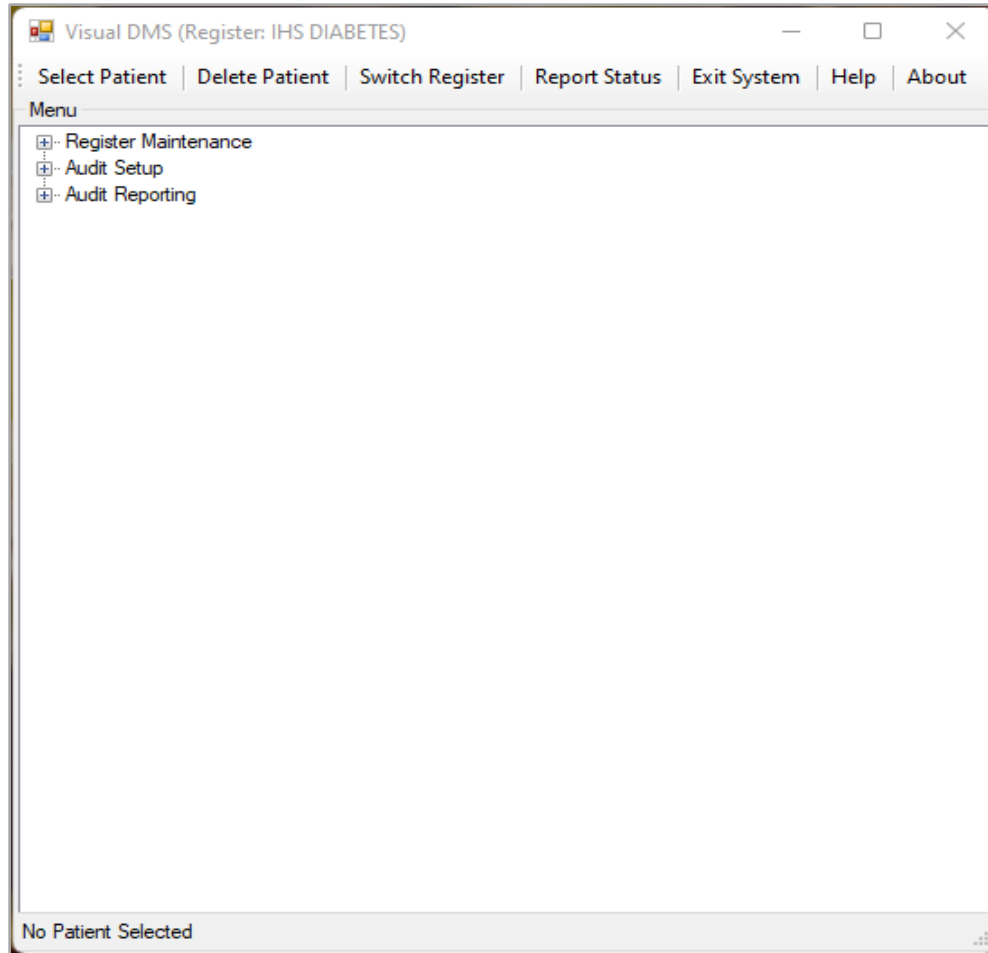


Figure C-6: Visual DMS main menu

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

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, or Chart Number.

Click the **Display** button or press **Enter** to view a list of matching patients. 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. Click on a name in the list to select a patient.

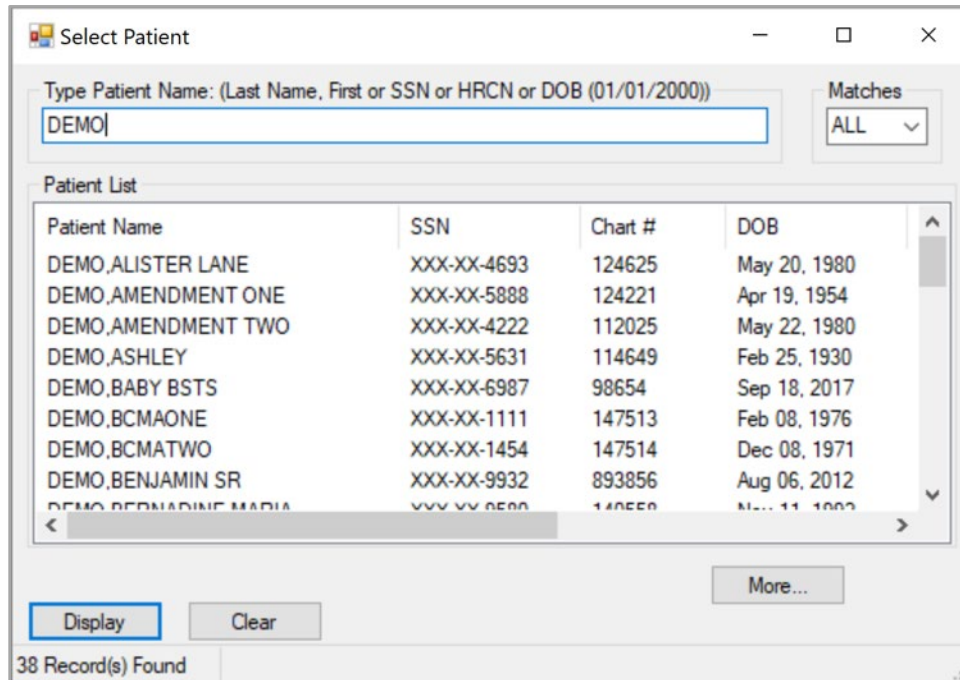


Figure C-7: Select Patient window

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

If you click on the Select Patient toolbar button while working on another patient, a warning box will ask if you wish to switch patients. 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. If you have a patient currently selected, their identifying information displays in the gray bar at the bottom of the window.

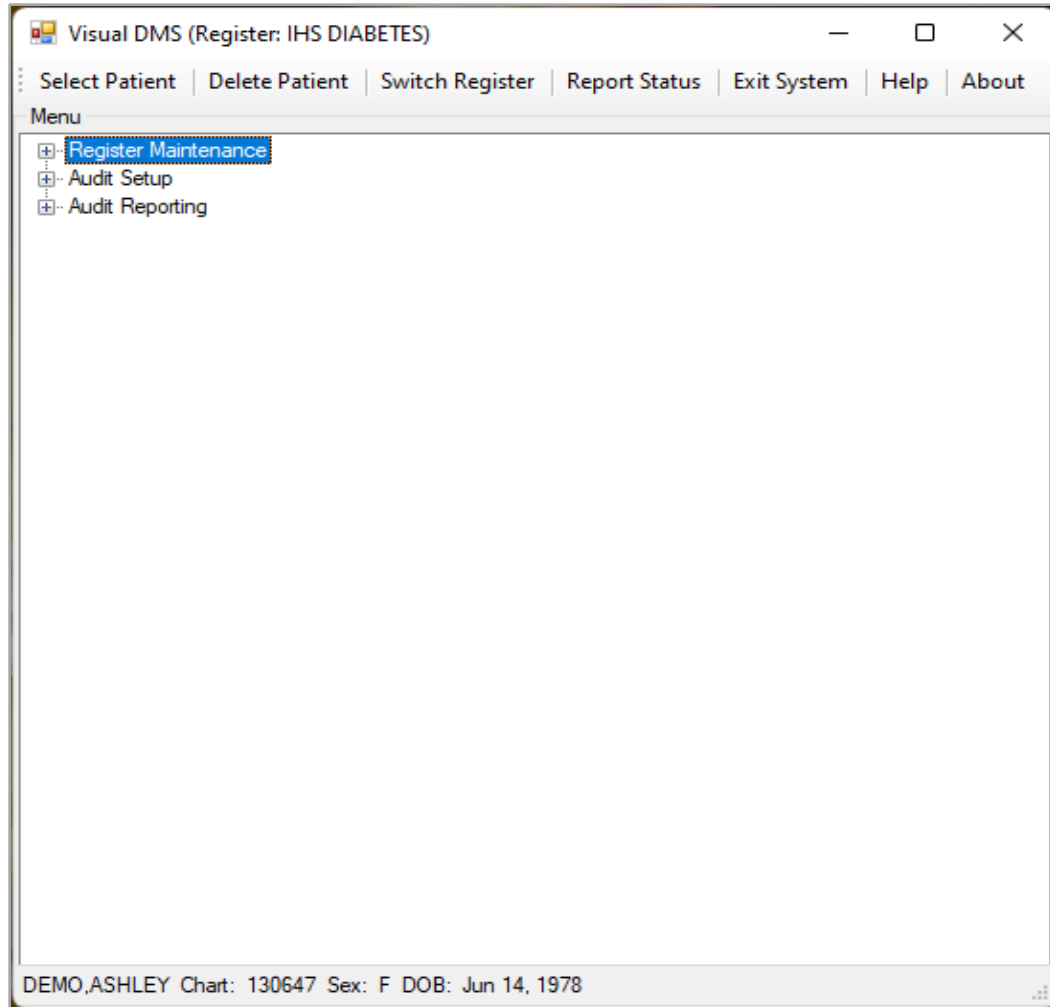


Figure C-8: Visual DMS with patient selected

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 wish 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 wish to delete (patient's Last Name, First Name, Chart Number, or Date of Birth). Click on 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 on this Toolbar option to switch to another Register. Click on the **Register Name** you wish 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 click on 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 clicking to place a check mark in the box in front of the report, 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 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 that correspond to the traditional RPMS Diabetes Management System Menu options. These options will be explained in the following sections.

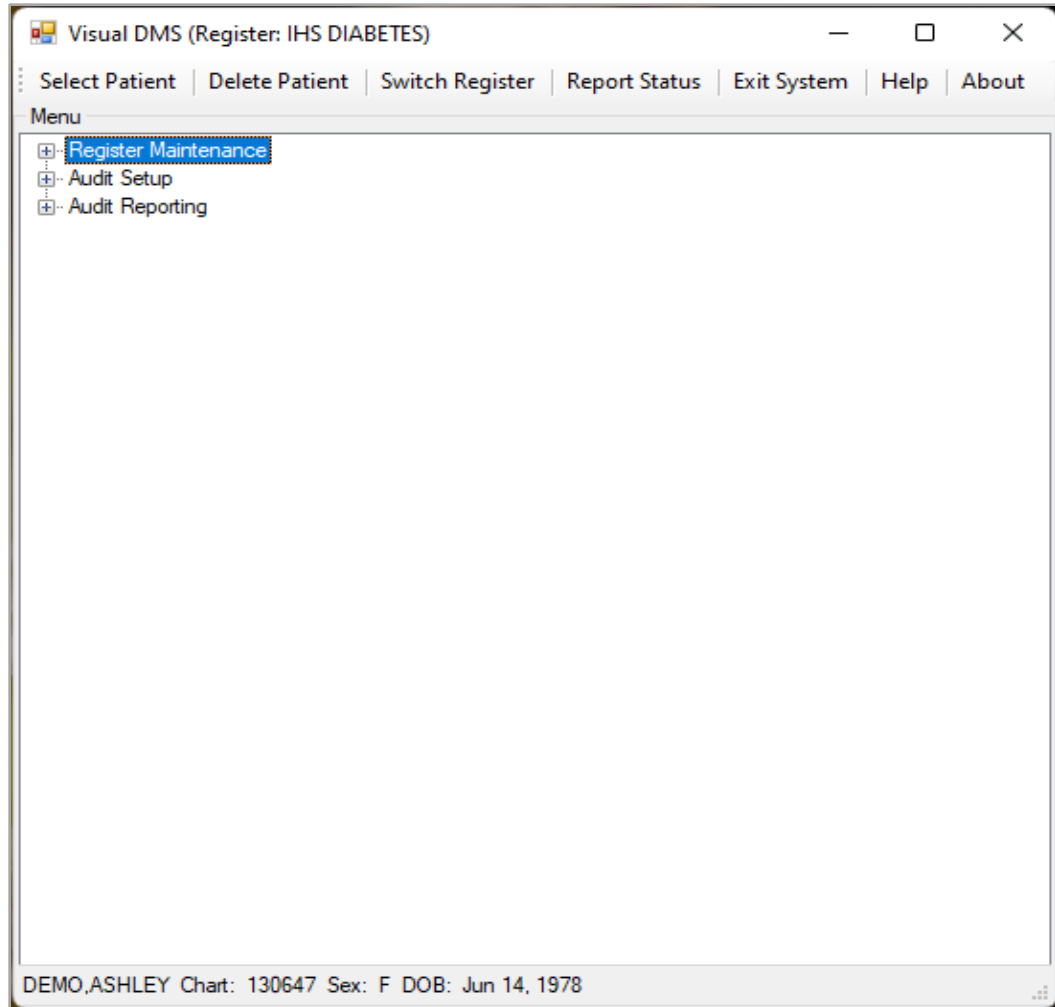


Figure C-9: Visual DMS main menu

C.3.1 Register Maintenance

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

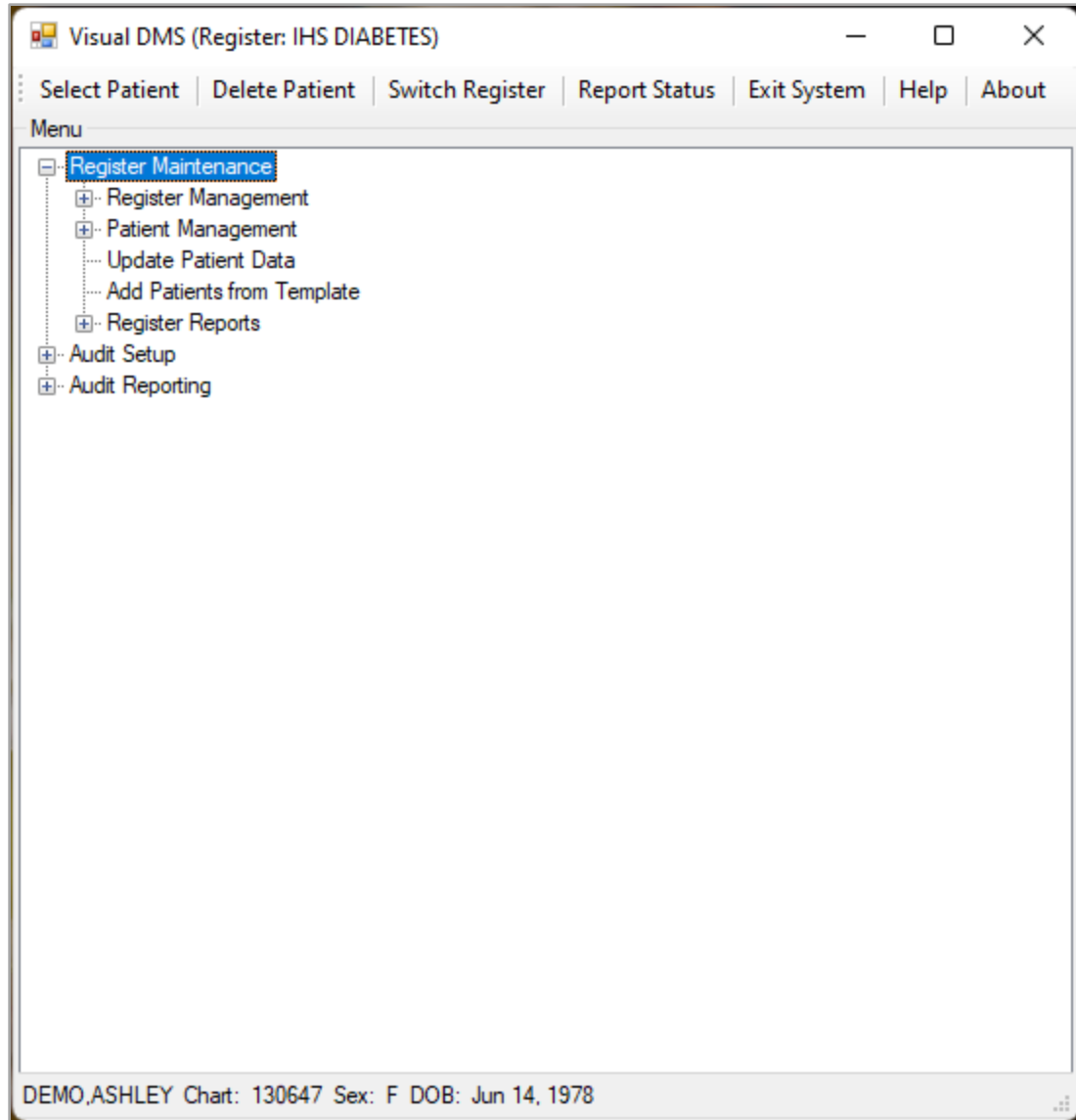


Figure C-10: Register Maintenance Menu option

3. The **Patient Management** options are disabled until a patient is selected using the **Select Patient** option on the toolbar.
4. The selected patient's name will display in the gray bar at the bottom of the window.
5. Menu options will be described separately in its own section.
6. 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. The only available option is **User Setup**.

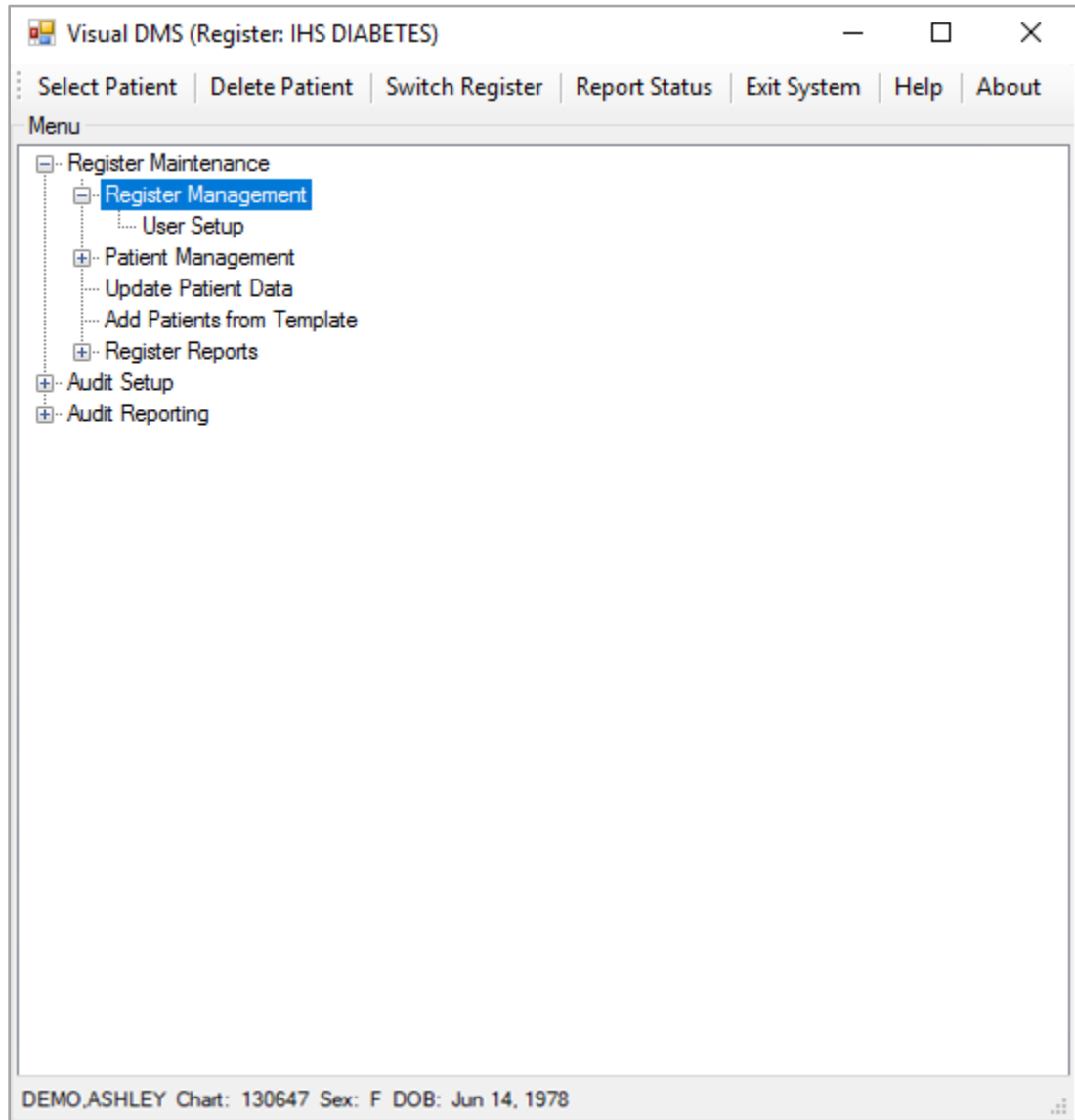


Figure C-11: Register Management

C.3.1.2 User Setup

Click **User Setup** to review current authorized users of the Register and update the user list.

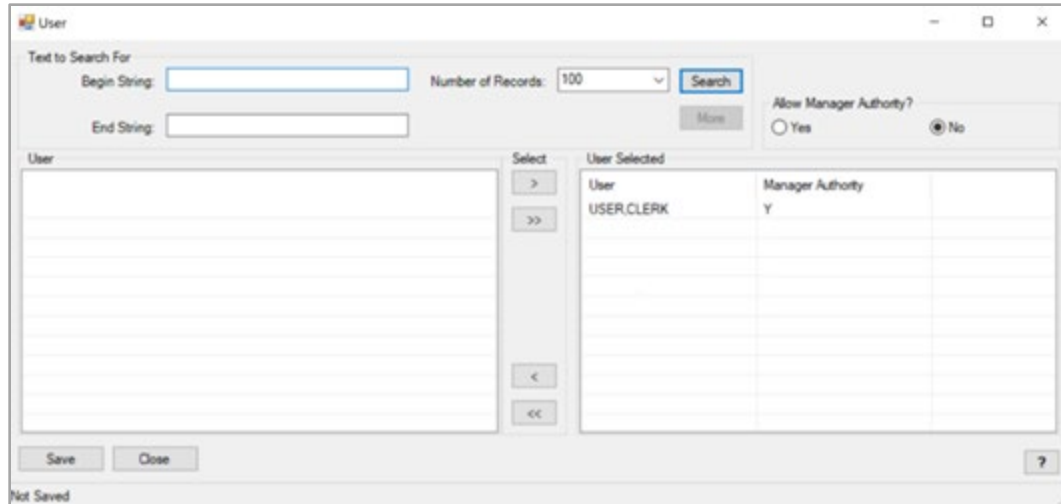


Figure C-12: User selection

1. 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.
2. 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 will display. 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 on the left arrow (<).
3. If a user is to be give 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.
4. 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.

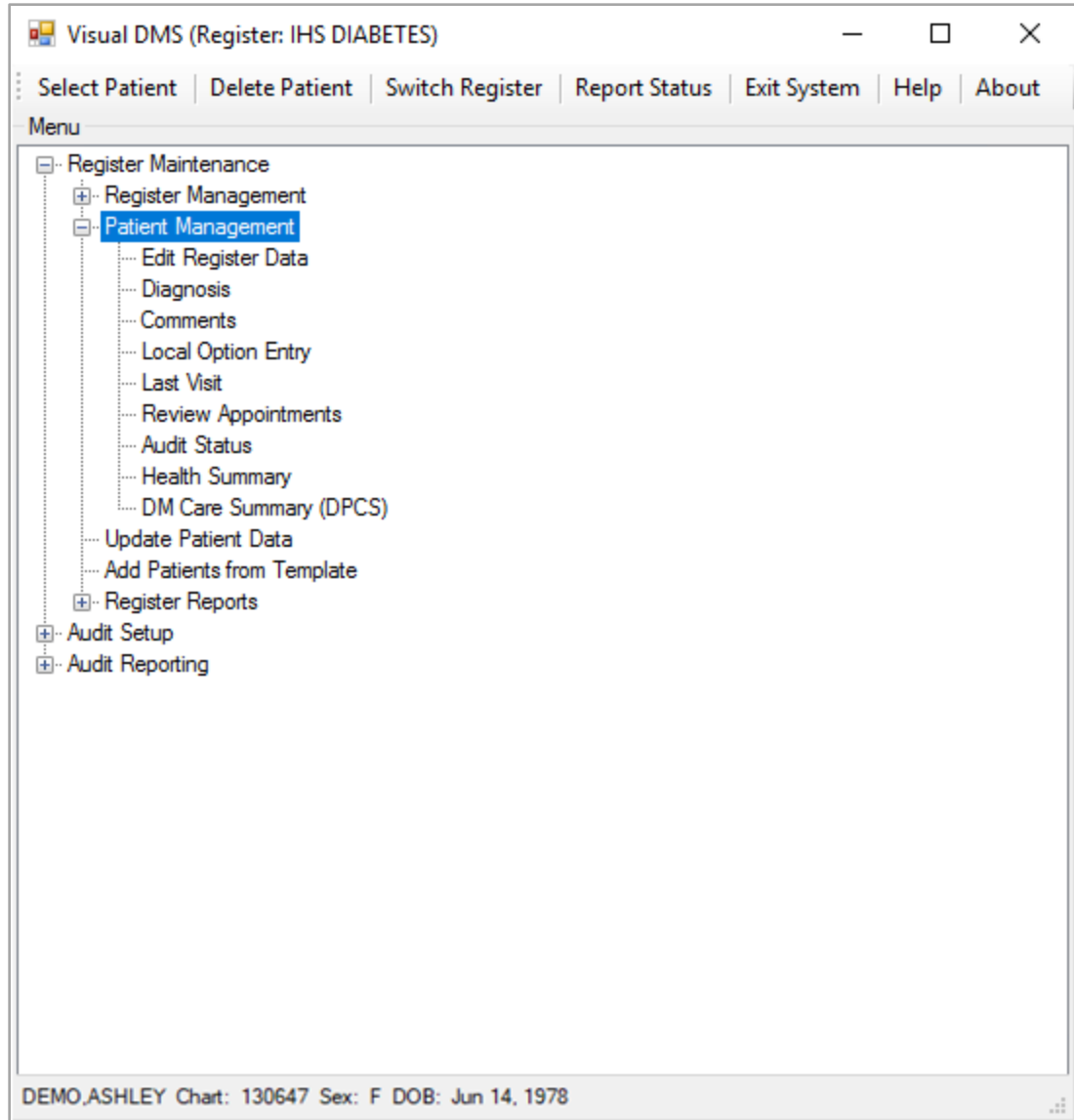


Figure C-13: Patient Management options

C.3.2.1 Edit Register Data

1. Use the **Patient Profile** dialog to change **Register Status**, **Where Followed**, **Case Manager**, **Contact**, **Last Review**, and **Next Review Date**.

Patient Profile

Register Data

Address/City/State/Zip Code
 PO BOX 1472 CORRALES NEW MEXICO 87120

Phone
 Residence
 CORRALES

Primary Care Provider

Editable Patient Data

Status
 A-Active

Case Manager
 JONES, KAREN **Select**

Where Followed
Select

Contact

Last Edited
 Wednesday, November 2, 2022

Entry Date
 Wednesday, November 2, 2022

Next Review
 Wednesday, November 2, 2022

Last Review
 Wednesday, November 2, 2022

Save **Close**

DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978 Saved

Figure C-14: Patient Profile dialog

2. Change date fields, as needed, by clicking on 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 click on 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 on the name of the facility where the patient is followed.

- 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.

Please note that if your site also utilizes Certified EHR (Electronic Health Record) and the Integrated Problem List (IPL), 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.

ID	DX	Narrative	Onset	Status
DB2	E11.9	*DIABETES TYPE 2	Sep 03, 2003	CHRONIC

Diagnosis: TYPE 2

Severity: [Empty]

Onset Date: Wednesday, November 2, 2022

Diagnosis	Severity	Onset Date
<input type="checkbox"/> TYPE 2		

DEMO.ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978

Figure C-15: Diagnosis dialog

- To add a new diagnosis, select a **Diagnosis** from the list. Then, select the severity from the **Severity** list and enter an **Onset Date**. Click **Add** to add it to the **Diagnosis List** box.
- To delete a diagnosis, select the check box next to it and click the **Delete Checked Items** button. Click **Yes** to proceed at the following dialog.

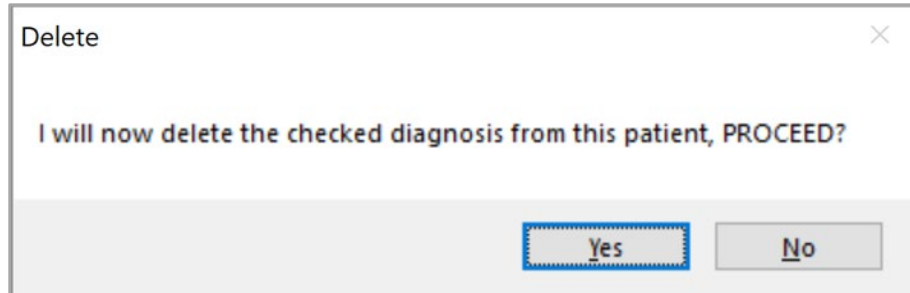


Figure C-16: Delete diagnosis confirmation

3. Click the **X** in the upper right corner to close the diagnosis dialog.

C.3.2.3 Comments

1. Enter case comments by clicking the **Comments** option.
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 screen by clicking the **X** in the window's upper right corner or click **Close**.

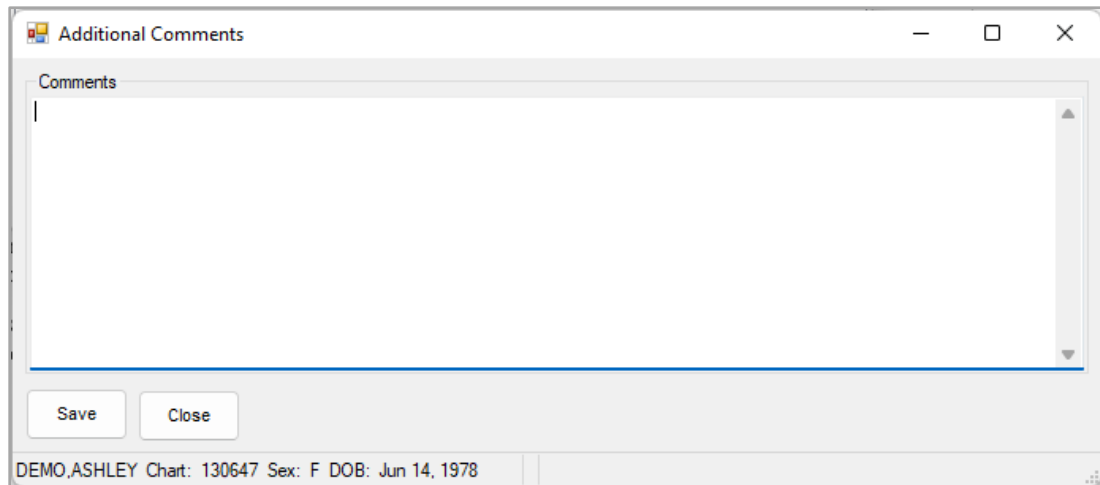


Figure C-17: Additional Comments dialog

C.3.2.4 Local Option Entry

Click the **Local Option Entry** menu option to open the **Local Option Entry** window.

1. Enter the **DM Audit Local Option** code and text click **OK** to save.
2. Click **Close** or close the dialog to exit the **Local Option Entry** form.

Figure C-18: Local Option Entry window

C.3.2.5 Last Visit

1. Display the patient's last visit by clicking the **Last Visit** menu option.
2. The visit record will open in Microsoft Word. Users can browse or print the visit record, as needed.
3. When the record review is complete, close the Word window by clicking the **X** in the upper right corner.

```

PCC Visit DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978
-----
Patient Name:      DEMO,ASHLEY
Chart #:           130647
Date of Birth:    JUN 14, 1978
Sex:              F
Visit IEN:        247575

===== VISIT FILE =====
VISIT/ADMIT DATE&TIME: NOV 02, 2022@15:00
DATE VISIT CREATED:   NOV 02, 2022
TYPE:                 IHS
PATIENT NAME:        DEMO,ASHLEY
LOC. OF ENCOUNTER:   2016 DEMO HOSPITAL
SERVICE CATEGORY:   AMBULATORY
CLINIC:              DIABETIC
DEPENDENT ENTRY COUNT: 3
DATE LAST MODIFIED:  NOV 02, 2022
WALK IN/APPT:       UNSPECIFIED
CREATED BY USER:    BUTCHER, LORI
USER LAST UPDATE:    BUTCHER, LORI
OLD/UNUSED UNIQUE VIS: 5054300000247575
ORIGINAL DATA ENTRY D: NOV 02, 2022
DATE/TIME LAST MODIFI: NOV 02, 2022@15:16:09
CHART AUDIT STATUS:  REVIEWED/COMPLETE
NDW UNTOHPE VISIT TD (: 999990000247575
-----
Current Page No.: 1      Total Page No.: 1      Zoom Factor: 100%

```

Figure C-19: Last Visit display

C.3.2.6 Review Appointments

Click the **Review Appointments** menu option to display a list of scheduled appointments for the selected patient.

1. This list will only include appointments made in the IHS Scheduling or PIMS Scheduling modules.
2. The list will display in a Crystal Reports document.
3. The user can browse or print the list as needed.
4. Close the Crystal Reports document by clicking the **X** in the upper right corner when the review is complete.

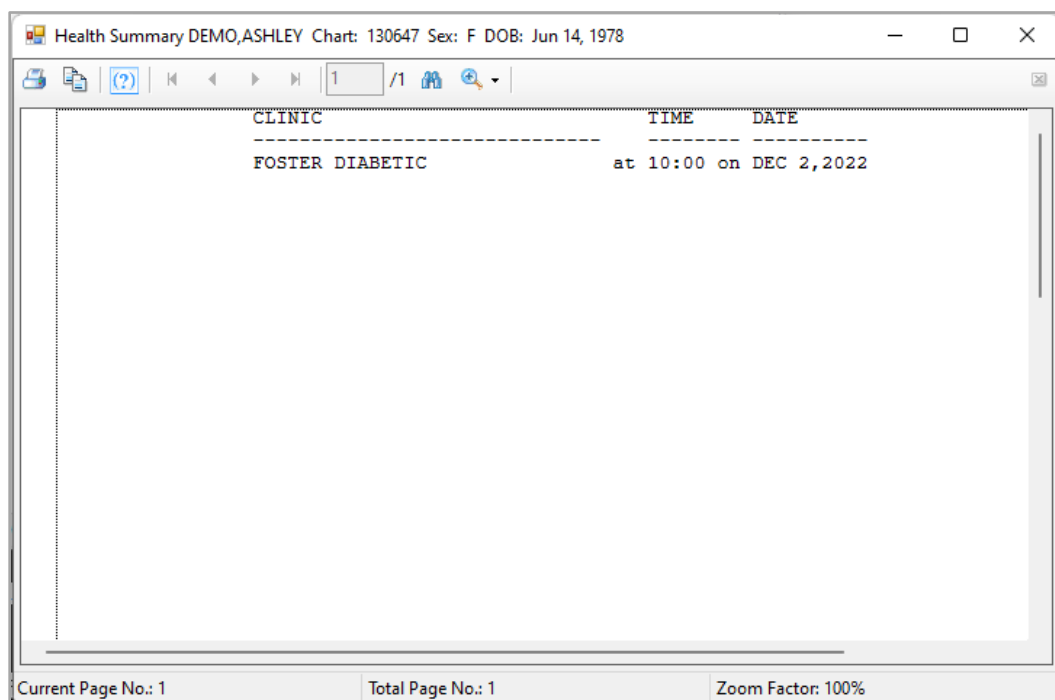


Figure C-20: Review appointments

C.3.2.7 Audit Status

Click the **Audit Status** menu option to display the **Audit Status** screen.

1. 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.
2. When entries are complete, click the **Print** button. The Audit will display in a Crystal Reports document.
3. Browse or print the Audit, as needed.

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

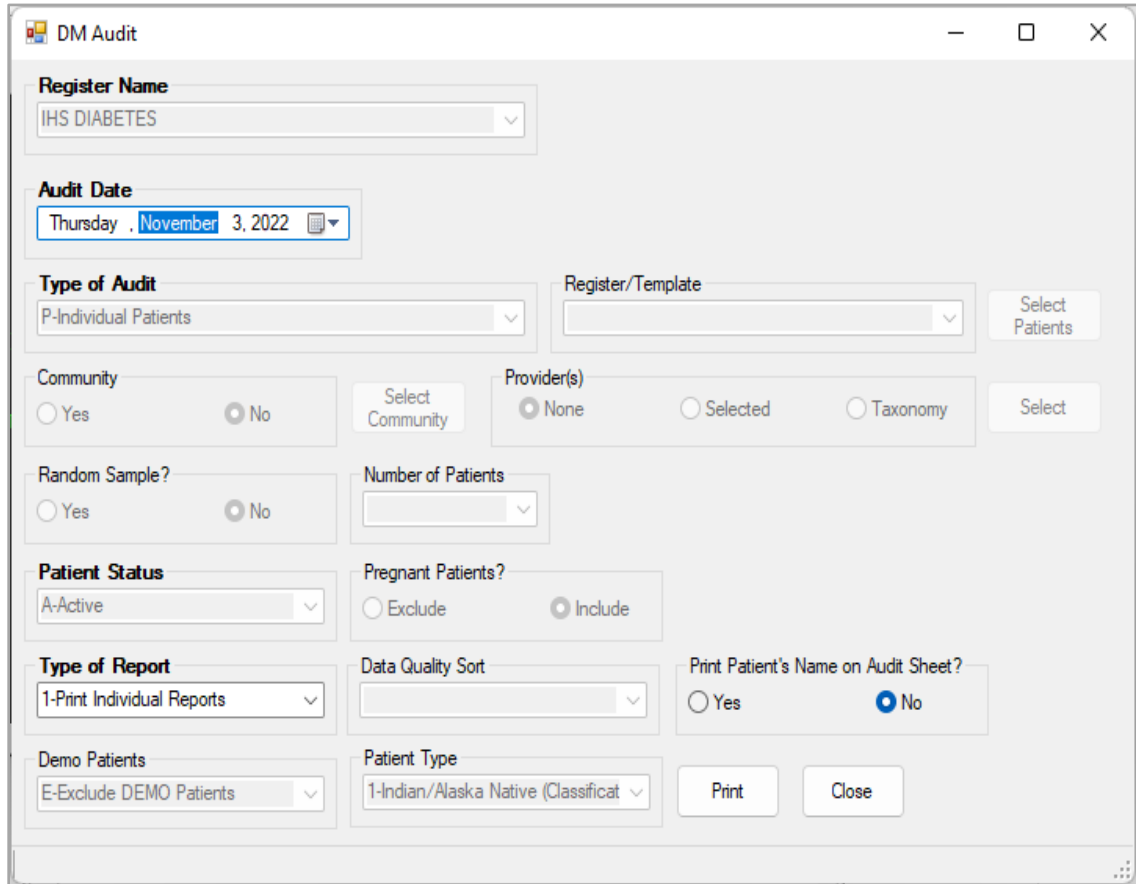


Figure C-21: DM Audit screen

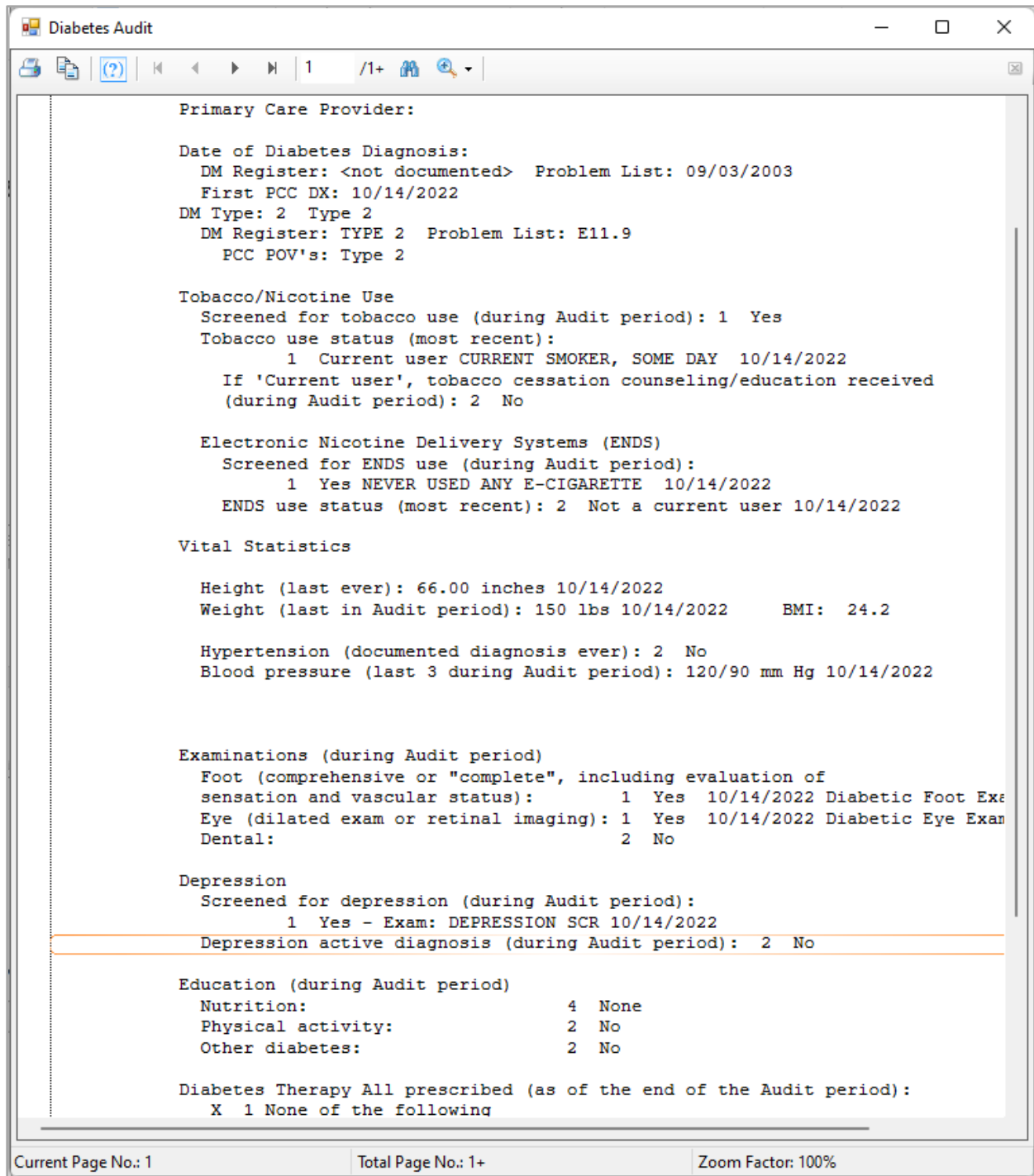


Figure C-22: Individual Audit

C.3.2.8 Health Summary

Click the **Health Summary** menu option to open **Health Summary** window.

1. Click the arrow next to **Health Summary Type** to display the available choices.

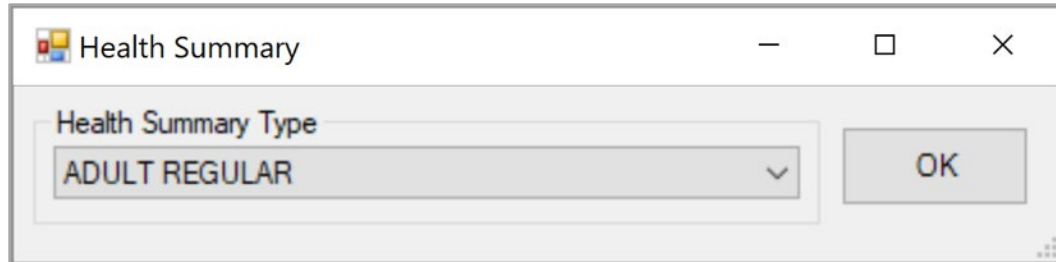


Figure C-23: Health Summary dialog

2. Select a health summary type and click **OK**.
3. The health summary will display 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.

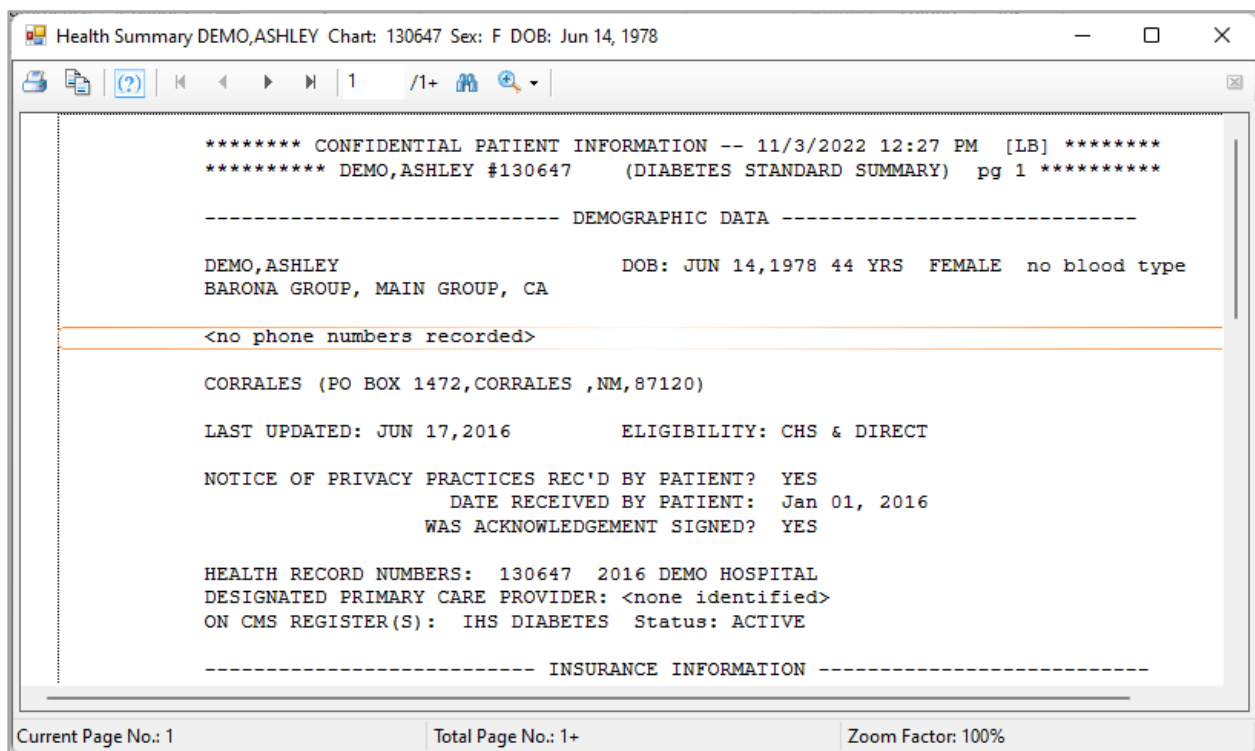


Figure C-24: Health Summary display

C.3.2.9 DM Care Summary (DPCS)

1. Click the **Diabetes Care Summary (DPCS)** menu item to open **Diabetes Care Summary (DPCS)**.
2. A Crystal Reports document will open, displaying the **Summary**.
3. Click the **X** in the upper right corner to close the Crystal Reports document.

Diabetic Care Summary DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978

***** CONFIDENTIAL PATIENT INFORMATION [LB] Nov 03, 2022 *****
 DIABETES PATIENT CARE SUMMARY Report Date: 11/03/2022

Patient: DEMO,ASHLEY HRN: 130647
 Age: 44 (DOB 06/14/1978) Sex: FEMALE
 CLASS/BEN: INDIAN/ALASKA NATIVE Designated PCP:

Date of DM Diagnosis: 09/03/2003 (Problem List)
 Diabetes type: (1 or 2): 2

BMI: 24.2 Last Height: 66.00 inches 10/14/2022
 Last Weight (ever): 150 lbs 10/14/2022

Tobacco Use:
 Last Screened: 10/14/2022
 Current Status: Current user CURRENT SMOKER, SOME DAY 10/14/2022
 Tobacco cessation counseling/education received in the past year: No

Electronic Nicotine Delivery Systems (ENDS)
 Last Screened: 10/14/2022
 Current Status: NEVER USED ANY E-CIGARETTE 10/14/2022

HTN Diagnosed ever: No
 CVD Diagnosed ever: No
 Last 3 BP: 120/90 10/14/2022

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

Exams (in past 12 months):
 Foot: Yes 10/14/2022 Diabetic Foot Exam
 Eye: Yes 10/14/2022 Diabetic Eye Exam
 Dental: No

Current Page No.: 1 Total Page No.: 1+ Zoom Factor: 100%

Figure C-25: DM Care Summary display

C.3.3 Update Patient Data

1. Click the **Update Patient Data** menu option.
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.

Diabetes Patient Data Update

Education Topics | Labs | Meds | Imms | Health Factors | Refusals | Save | Help | Close

Problem Number

Date of DM Onset Wednesday, November 16, 2022

Height Date Wednesday, November 16, 2022

Height Value

Weight Date Wednesday, November 16, 2022

Weight Value

Graph Weight

BP Date Wednesday, November 16, 2022

BP Value

Graph BP

Foot Exam Date Wednesday, November 16, 2022

Foot Exam Result Normal Abnormal

Eye Exam Date Wednesday, November 16, 2022

Eye Exam Result Normal Abnormal

Dental Exam Date Wednesday, November 16, 2022

PPD Date Wednesday, November 16, 2022

PPD Reading

Depression Screening Date Wednesday, November 16, 2022

Depression Screening Result

DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978 Not Saved

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.

The screenshot shows the 'Education Topics' dialog box. It includes the following fields and controls:

- Education Topics:** A dropdown menu.
- Education Date:** A date picker showing 'Thursday, November 3, 2022'.
- Provider:** A text input field with a 'Select' button.
- Individual/Group:** Radio buttons for 'Individual' (selected) and 'Group'.
- Level of Understanding/Time Spent (in minutes):** Two dropdown menus.
- Objectives Met:** A text input field.
- Behavior Code:** Three checkboxes: 'Goal Set', 'Goal Met', and 'Goal Not Met'.
- Education Topics Table:** A table with columns: Topic, Date, Provider, LOU, Time, Ind/Grp, Obj Met, Beh Code.
- Buttons:** 'Add', 'Clear', 'Save', and 'Close'.

At the bottom of the dialog, the patient information is displayed: DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978 Not Saved.

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.

The screenshot shows a 'Labs' dialog box with the following elements:

- Lab Test:** A text input field with a 'Select' button to its right.
- Lab Date:** A date dropdown menu currently showing 'Thursday, November 3, 2022'.
- Buttons:** 'Add', 'Clear', and 'Graph Labs' buttons are located to the right of the date field.
- Result:** A text input field below the 'Lab Test' field.
- Labs Table:** A table with three columns: 'Lab Test', 'Date', and 'Result'. The table is currently empty.
- Bottom Buttons:** 'Save' and 'Close' buttons.
- Status Bar:** 'DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978' and 'Not Saved'.

Figure C-28: Labs dialog

8. Click the **Select** button to select a Lab Test. Once you select a Lab Test, enter the result. Click the **Add** button to add it to the list and repeat this process for additional labs. When all desired labs have been entered, click **Save**.
9. Click the **Meds** button to update Meds.

Medications

Medication Date Dispensed Thursday, November 3, 2022

Quantity SIG

Medication(s)

Drug Name	Date	Quantity	Sig
-----------	------	----------	-----

DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978 Not Saved

Figure C-29: Medications dialog

10. Click the **Select** button to select a Medication. Once you select a Medication, then enter the **Quantity** and **SIG**. Click the **Add** button to add it to the list and repeat this process for additional Medications. When all desired Medications have been entered, click **Save**.
11. Click the **Imms** button to update Immunizations.

DM Immunizations

Influenza Date: Thursday, November 3, 2022

Influenza

Pneumococcal Date: Thursday, November 3, 2022

Pneumococcal

TD Date: Thursday, November 3, 2022

Td

TDAP Date: Thursday, November 3, 2022

TDap

Hepatitis B Date: Thursday, November 3, 2022

Hepatitis B

Shingrix Date: Thursday, November 3, 2022

Shingrix

DEMO, ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978 Not Saved

Figure C-30: DM Immunizations dialog

12. Update the Immunizations and click **Save**.
13. Click the **Health Factors** button to update Health Factors.

Figure C-31: DM Health Factors dialog

14. Update the Health Factors and click **Save**.

15. Click the **Refusals** button to update Refusals.

Refusal Type	Date	Item	Reason

Figure C-32: Refusals/Not Medically Indicated dialog

16. Use the dropdown menu to select a **Type of Refusal**. Once you have selected the **Type of Refusal**, select the item refused and enter the **Refusal Reason**. Click the **Add** button to add it to the list; once it is added, you can repeat the process for additional Refusals. 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 wish to add to the Register.



Figure C-33: Search Template dialog

2. Click the arrow next to the **Search Template** box to view a list of available templates. Select the desired template and click **OK**.
3. A pop-up window will display indicating if the patients have been added successfully. 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. No patient needs to be selected to run reports.

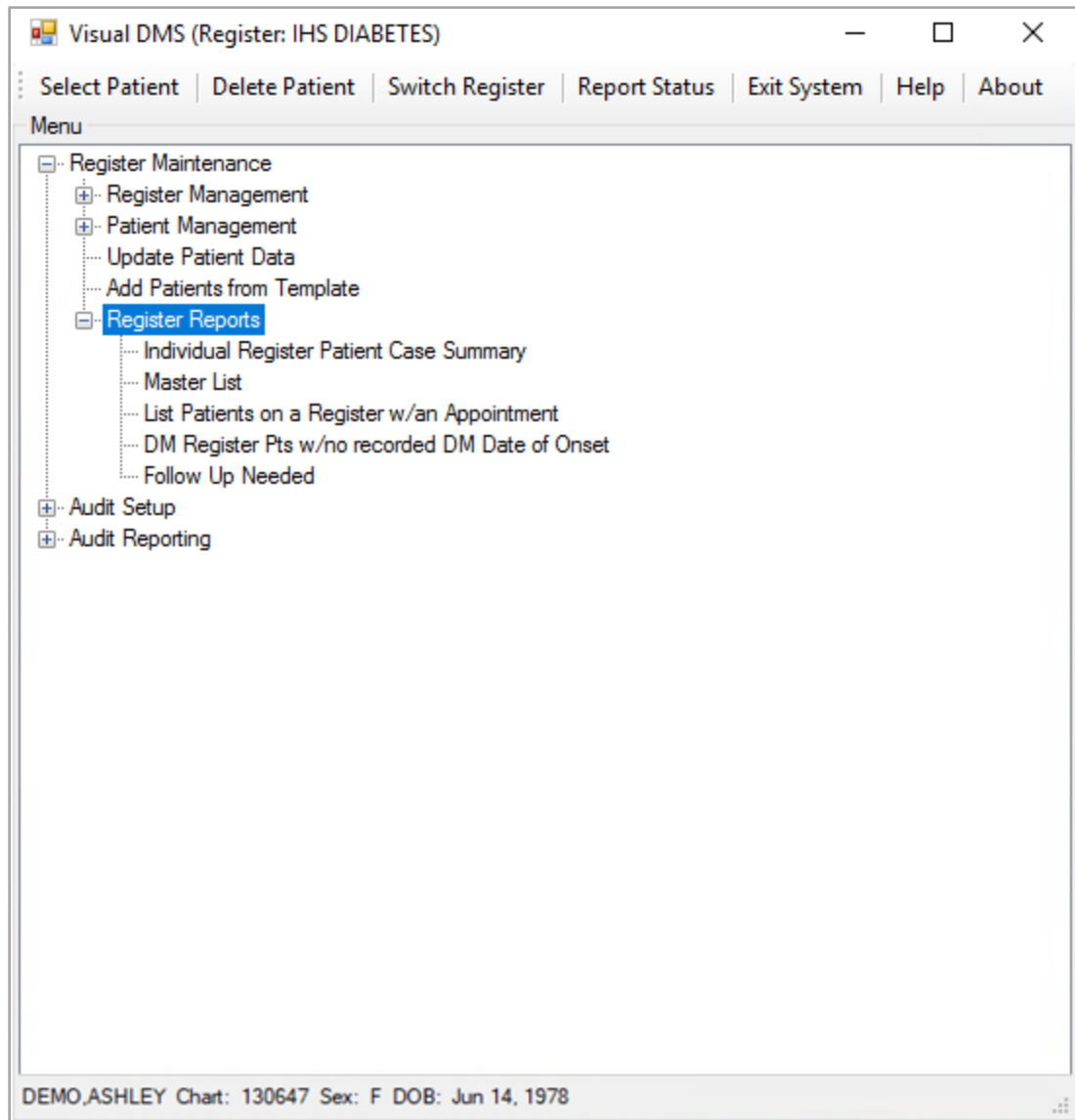


Figure C-34: Register Reports menu options

C.3.5.1 Individual Register Patient Case Summary

1. To review the Individual Case Summary, click the **Individual Register Patient Case Summary** menu option.
2. The case summary will display as a Microsoft Word document that the user can browse or print.
3. Close the document when the review is complete.

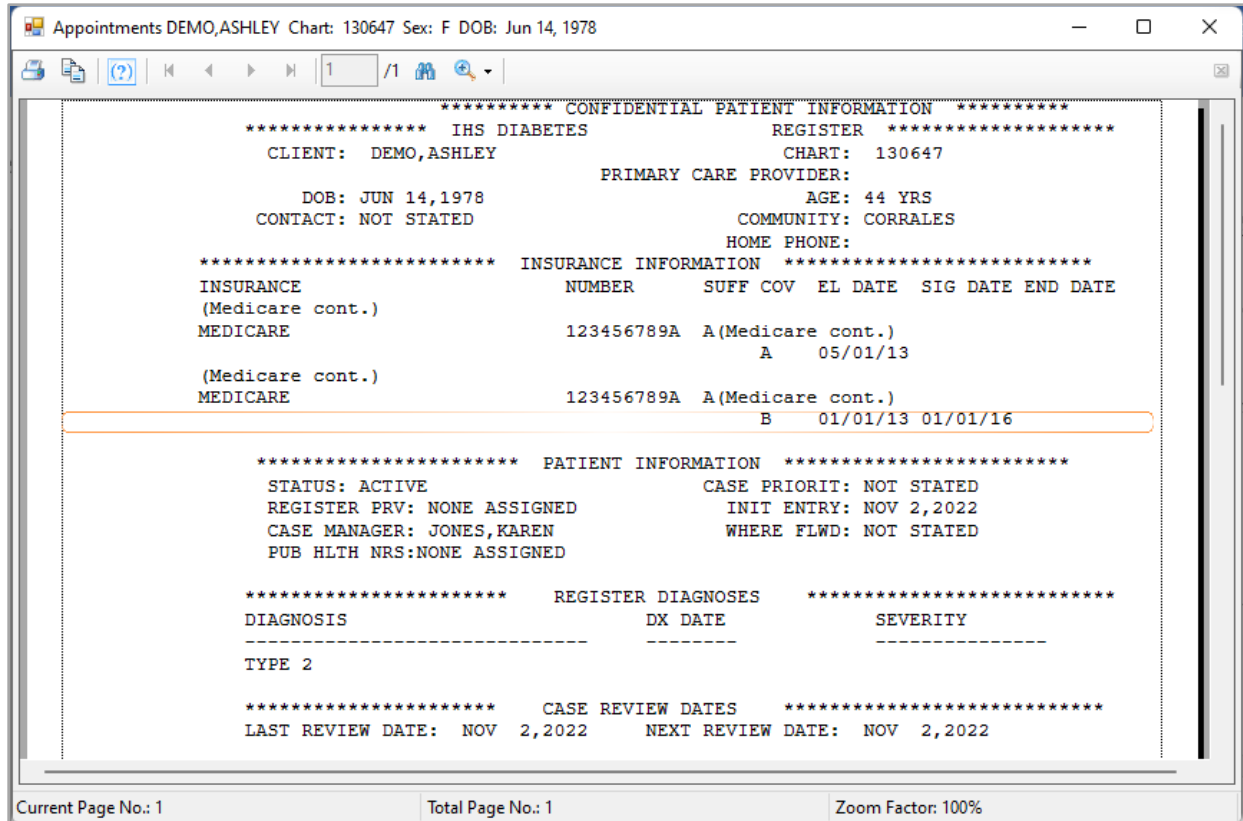


Figure C-35: Individual Register Case Summary

C.3.5.2 Master List

Click the Master List menu item to open the **Master List** dialog.

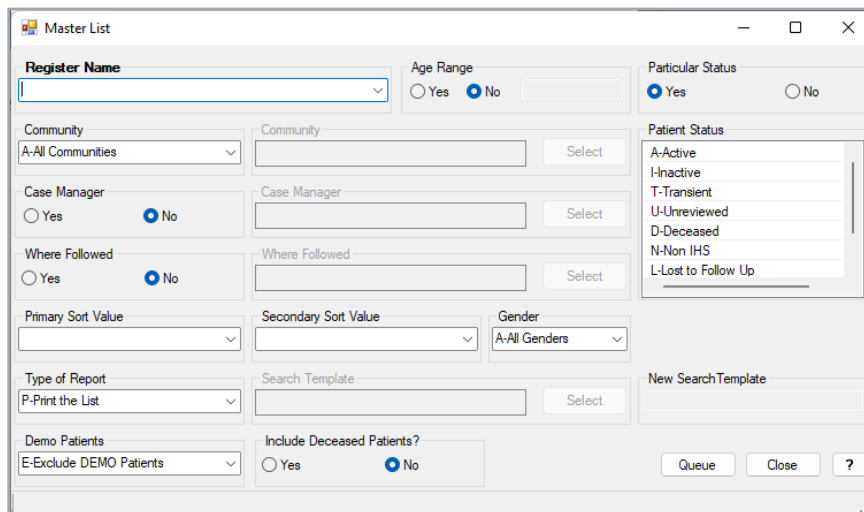
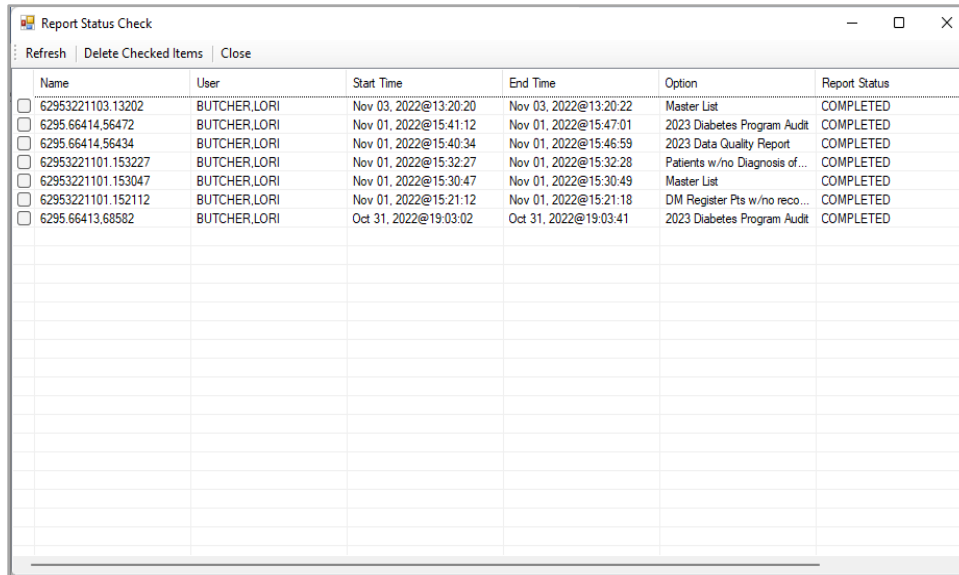


Figure C-36: Master List parameters

1. Select the **Register Name** from the list and specify any other parameters you would like to use.
2. Click **Queue** to queue the report.
3. Once the report is queued to run, click the **Report Status** option on the main window toolbar to review the report progress.



Name	User	Start Time	End Time	Option	Report Status
<input type="checkbox"/> 62953221103.13202	BUTCHER, LORI	Nov 03, 2022@13:20:20	Nov 03, 2022@13:20:22	Master List	COMPLETED
<input type="checkbox"/> 6295.66414.56472	BUTCHER, LORI	Nov 01, 2022@15:41:12	Nov 01, 2022@15:47:01	2023 Diabetes Program Audit	COMPLETED
<input type="checkbox"/> 6295.66414.56434	BUTCHER, LORI	Nov 01, 2022@15:40:34	Nov 01, 2022@15:46:59	2023 Data Quality Report	COMPLETED
<input type="checkbox"/> 62953221101.153227	BUTCHER, LORI	Nov 01, 2022@15:32:27	Nov 01, 2022@15:32:28	Patients w/no Diagnosis of...	COMPLETED
<input type="checkbox"/> 62953221101.153047	BUTCHER, LORI	Nov 01, 2022@15:30:47	Nov 01, 2022@15:30:49	Master List	COMPLETED
<input type="checkbox"/> 62953221101.152112	BUTCHER, LORI	Nov 01, 2022@15:21:12	Nov 01, 2022@15:21:18	DM Register Pts w/no reco...	COMPLETED
<input type="checkbox"/> 6295.66413.68582	BUTCHER, LORI	Oct 31, 2022@19:03:02	Oct 31, 2022@19:03:41	2023 Diabetes Program Audit	COMPLETED

Figure C-37: Report Status Check

4. Click a report to review it.
5. The report will display in a Crystal Reports document that the user can save or print.

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.

- When the **List Patients on Register with An Appointment** window opens, click the arrow next to the **Register Name** box to display a list of Registers. Select the desired Register for the report.

Figure C-38: List Patients on Register with an Appointment window

- Click the 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.
- If you wish to see all appointments, regardless of clinic, select **Any** under **Select a Clinic**. If you wish to only review appointments for one or more particular clinics, click the **Select Clinic** button.

Type the first three letters of the clinic with a scheduled appointment in the beginning string box. 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 on the right arrow (>) button to move the clinic into the right column. When all desired clinics have been added to the **Clinic Selected List**, click on the **Save** button.

- 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.
- The report status can be checked by clicking on 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.

- Begin by clicking on the menu option, **DM Register Pts with No Recorded DM Onset**. 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

- Click the arrow next to **Register Name**. Select a **Register Name** from the list displayed.

3. Click on **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.

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 wish 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 wish 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.
9. 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. 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. When all communities have been selected, click the **Save** button. Close the **Community** window.

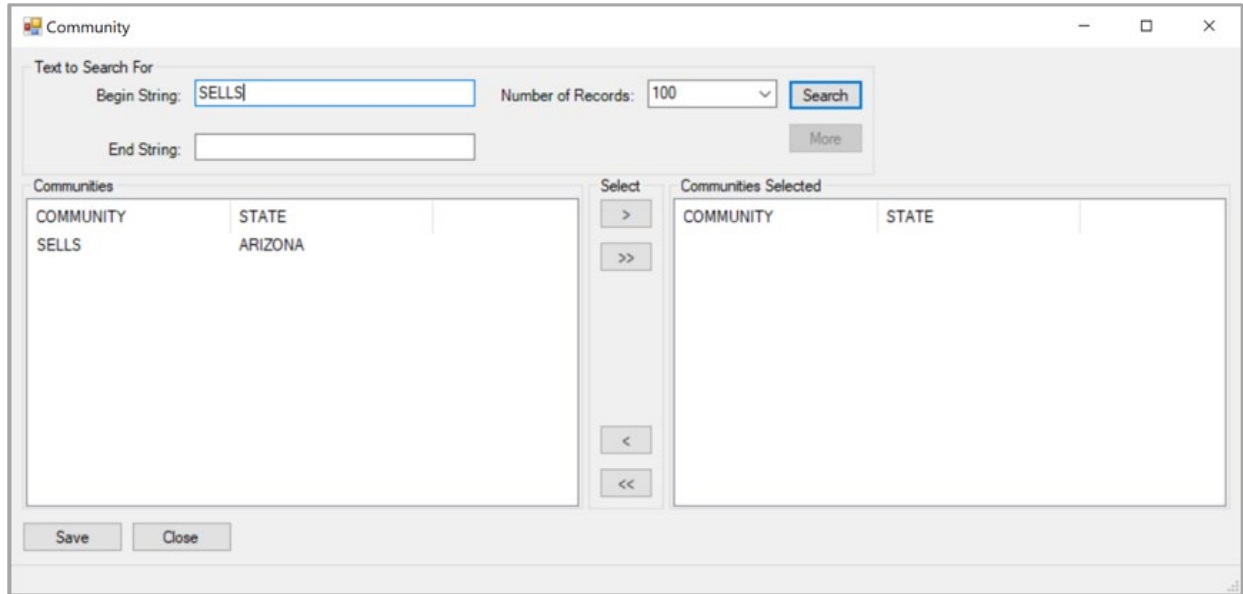


Figure C-41: Community dialog

10. Click the box next to **Type of Report** to select the **Follow Up Report**.
11. Select **the Report Run Date/Time** from the calendar.
12. When all desired options have been selected, click the **Queue** button to initiate the report generation.
13. 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 to open the submenu.

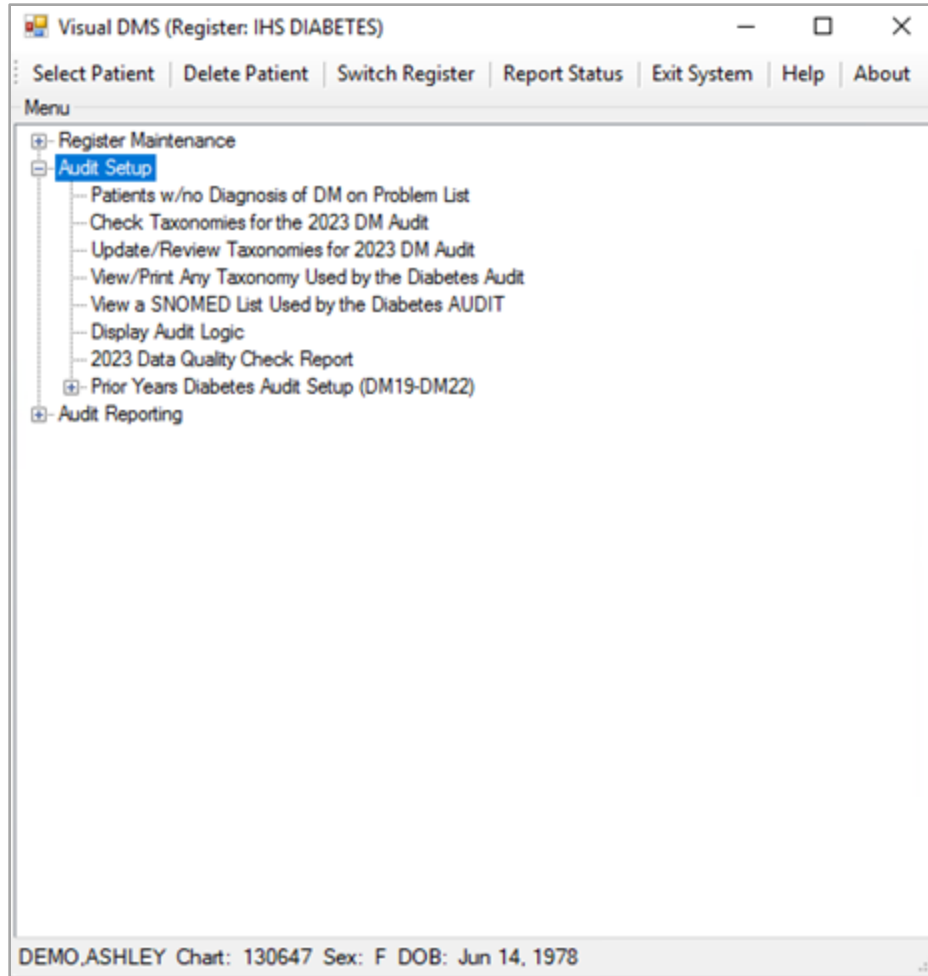


Figure C-42: Audit Setup options

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 on the **Patients with No DX of DM on Problem List** menu option.
2. A window will open which allows you to define the report criteria.

Figure C-43: DM Patients with No Dx of DM on Problem List

3. 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.
4. 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**.
5. To restrict your list to only those patients whose most recent diabetes diagnosis is since a certain date, click the arrow next to the **Restrict to recent Diabetes DX?** to select a date. Click on the desired date of how far back you wish to look at diagnoses. You can also click on 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 2023 DM Audit

1. Click the **Check Taxonomies for the 2023 DM Audit** menu option 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.

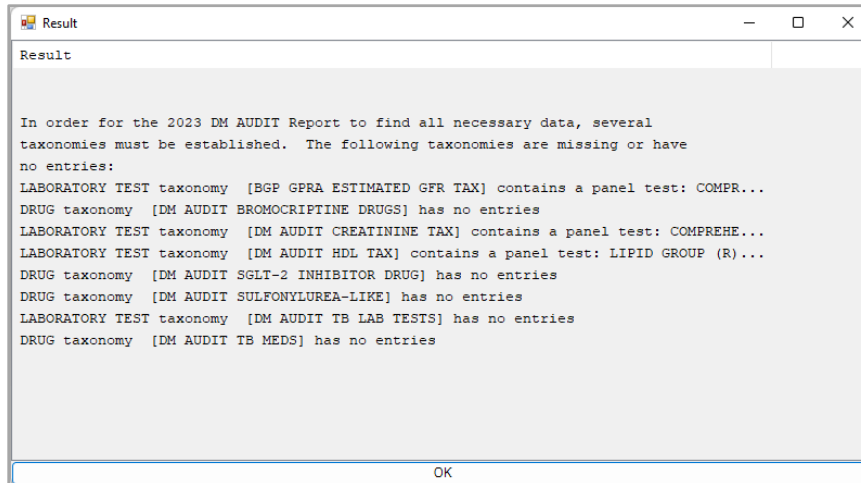


Figure C-44: Check Taxonomies for the 2023 DM Audit

C.3.6.3 Update/Review Taxonomies for 2023 DM Audit

Click the menu option, **Update/Review Taxonomies for 2023 DM Audit**, to open the taxonomy update window.

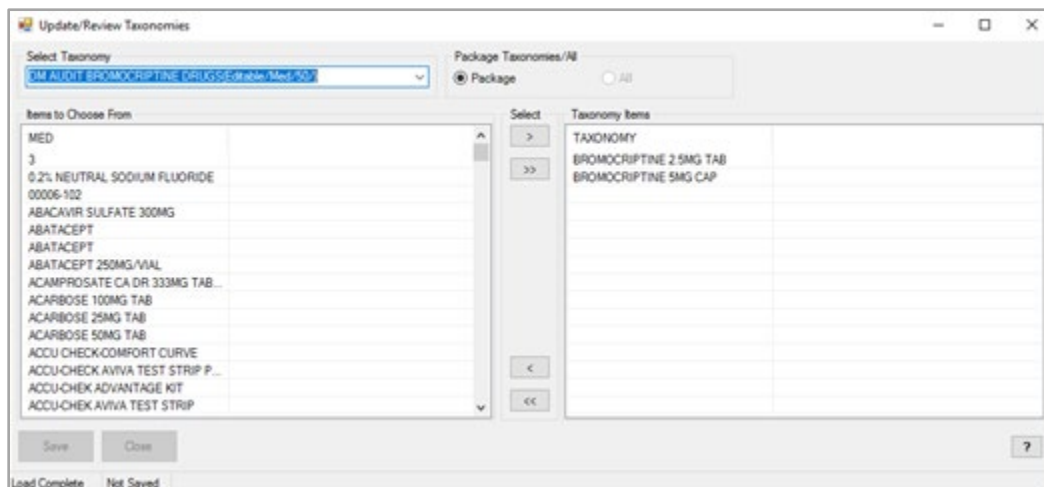


Figure C-45: Update/Review Taxonomies for 2023 DM Audit

1. Select a taxonomy that you want to update from the list.

2. 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**.
3. 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 (<) button to remove them. Click **Save**.
4. Click Close or the **X** to exit.

C.3.6.4 View/Print Any Taxonomy Used by the Diabetes Audit

Click the **View/Print Any Taxonomy** used by the Diabetes Audit.

1. Select the **Audit Year** and **Taxonomies** to print. Click **Print**.

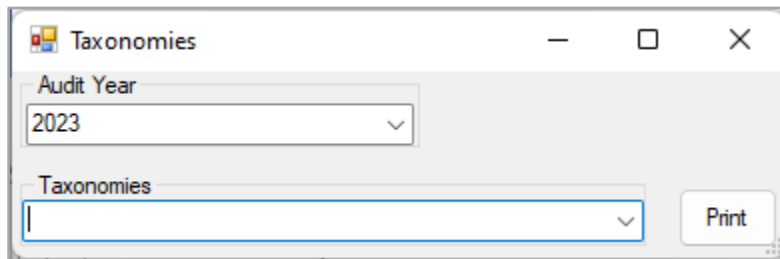


Figure C-46: Audit and Taxonomy Selection

2. The taxonomy displays in Crystal Reports.

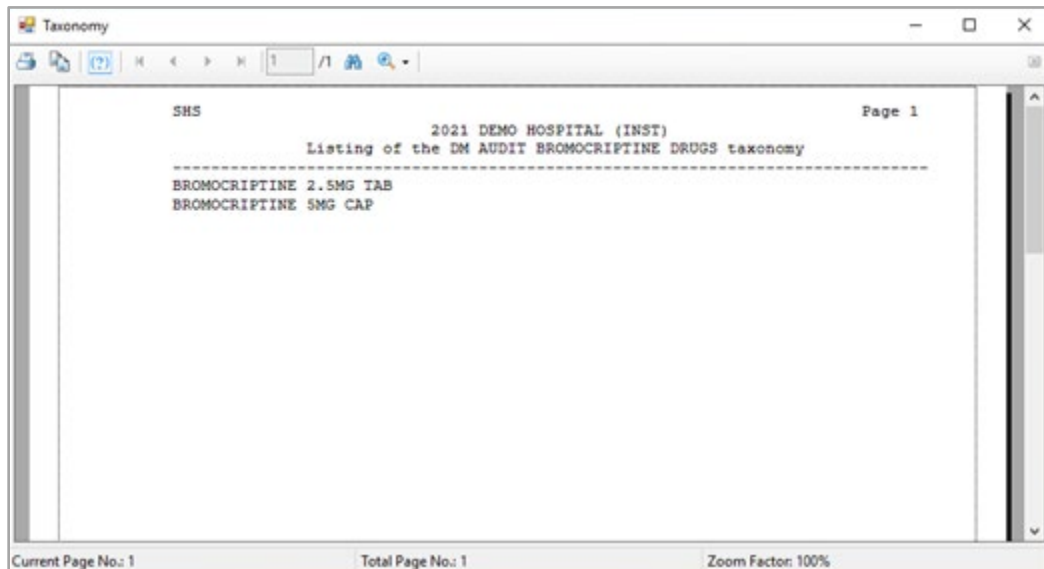


Figure C-47: Taxonomy Listing

3. Click **Close** or the **X** to exit.

C.3.6.5 View a SNOMED List Used by the Diabetes AUDIT

Click the **View a SNOMED List Used by the Diabetes AUDIT**.

1. Select the **Audit Year** and **SNOMED Lists** to print. Click **Print**.

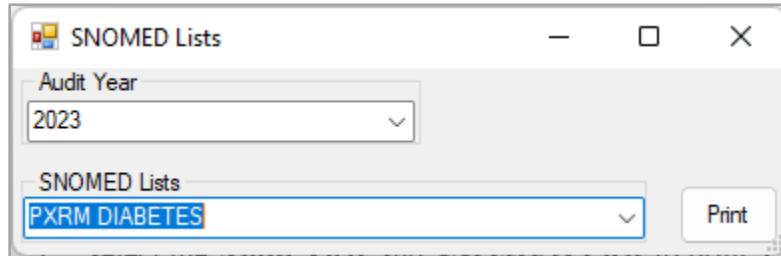


Figure C-48: Audit Year and SNOMED List Selection

2. The SNOMED list displays in Crystal Report, click the **X** to close the display.

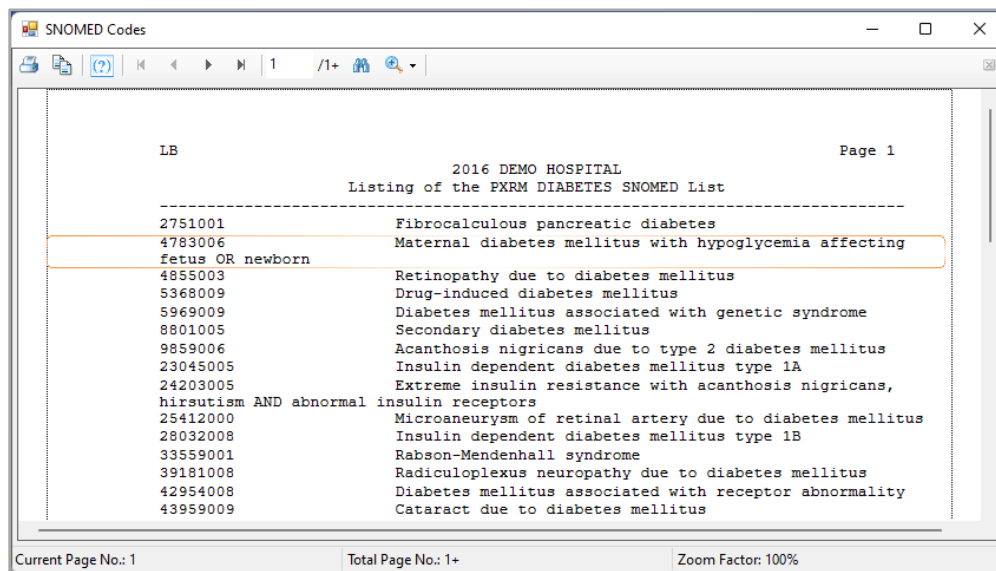


Figure C-49: SNOMED List sample

C.3.6.6 Display Audit Logic

1. Click the **Display Audit Logic** menu item.
2. Select the **Audit Year** from the list.

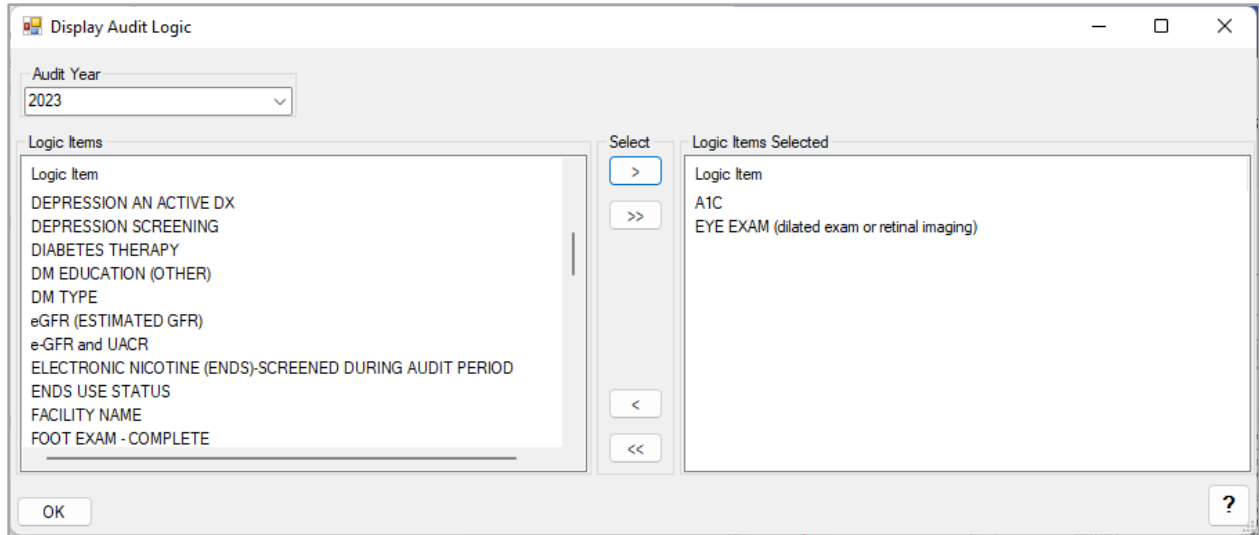


Figure C-50: Display Audit Logic options

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. Click the **X** in the upper right corner to close the display.

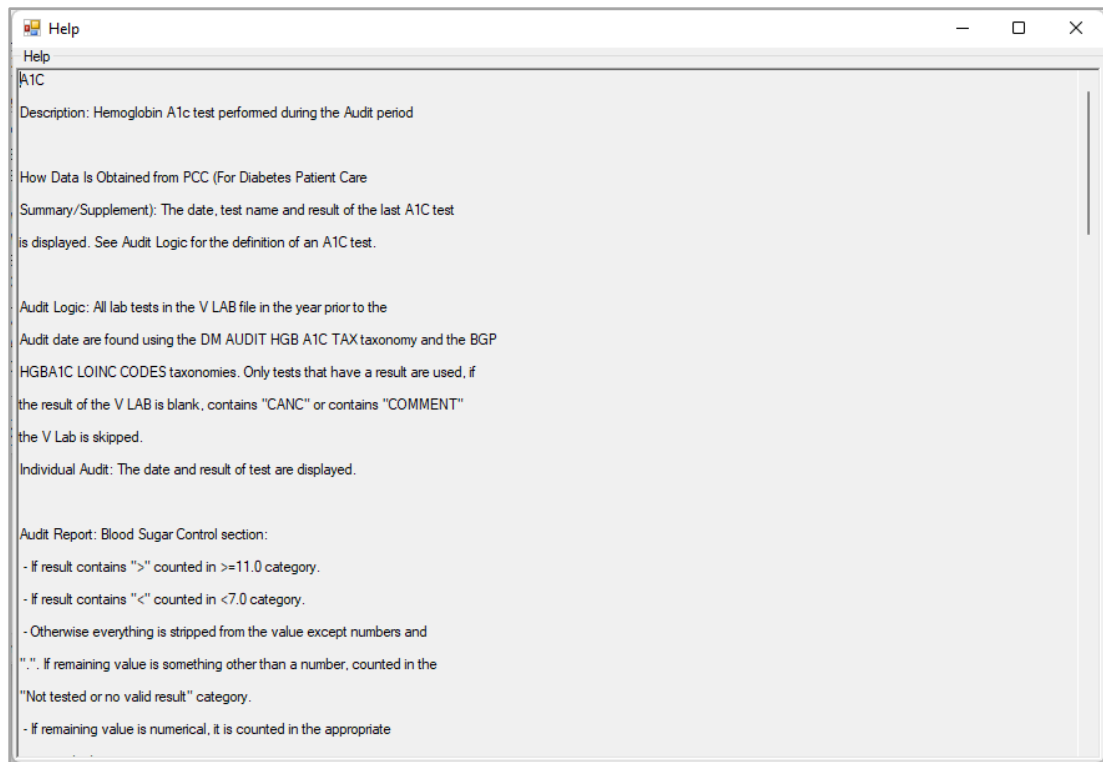


Figure C-51: Display Audit Logic

C.3.6.7 2023 Data Quality Check Report

1. Click the **2023 Data Quality Check Report** menu item to display the **Taxonomy Check**. 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.

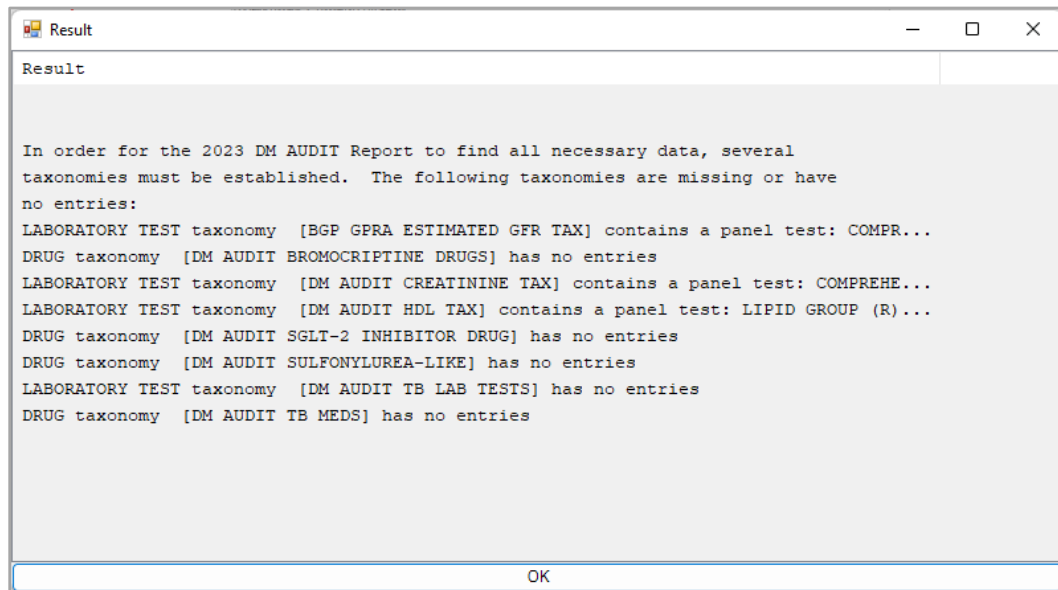


Figure C-52: Taxonomy Check Results

3. The **Data Quality Report** dialog displays.

Figure C-53: Data Quality Report parameters

4. Select a **Register Name** from the box, the **Audit Date** from the calendar, the **Type of Audit**, and any other options. Click **Queue**.
5. The report is queued. Use the **Report Status Toolbar** button from the **Main Menu** to view a list of reports. Click to display the report.

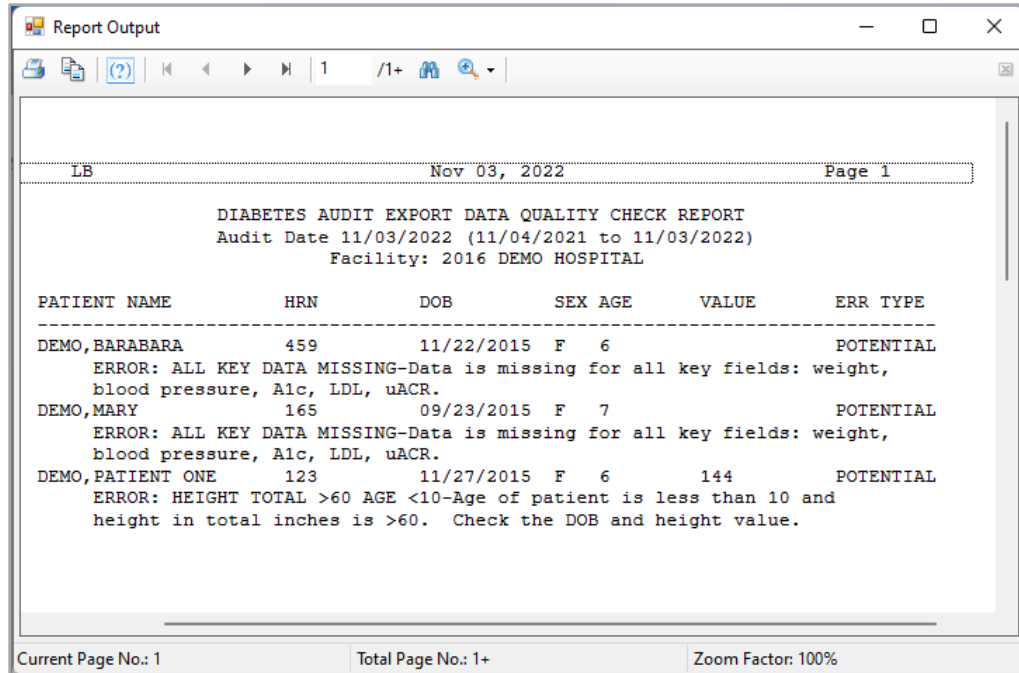


Figure C-54: Data Quality Check Report

C.3.6.8 Prior Years Diabetes Audit Setup (DM19 - DM22)

Click the plus sign (+) next to **Prior Years Diabetes Audit Setup (DM19-DM22)** to open the menu.

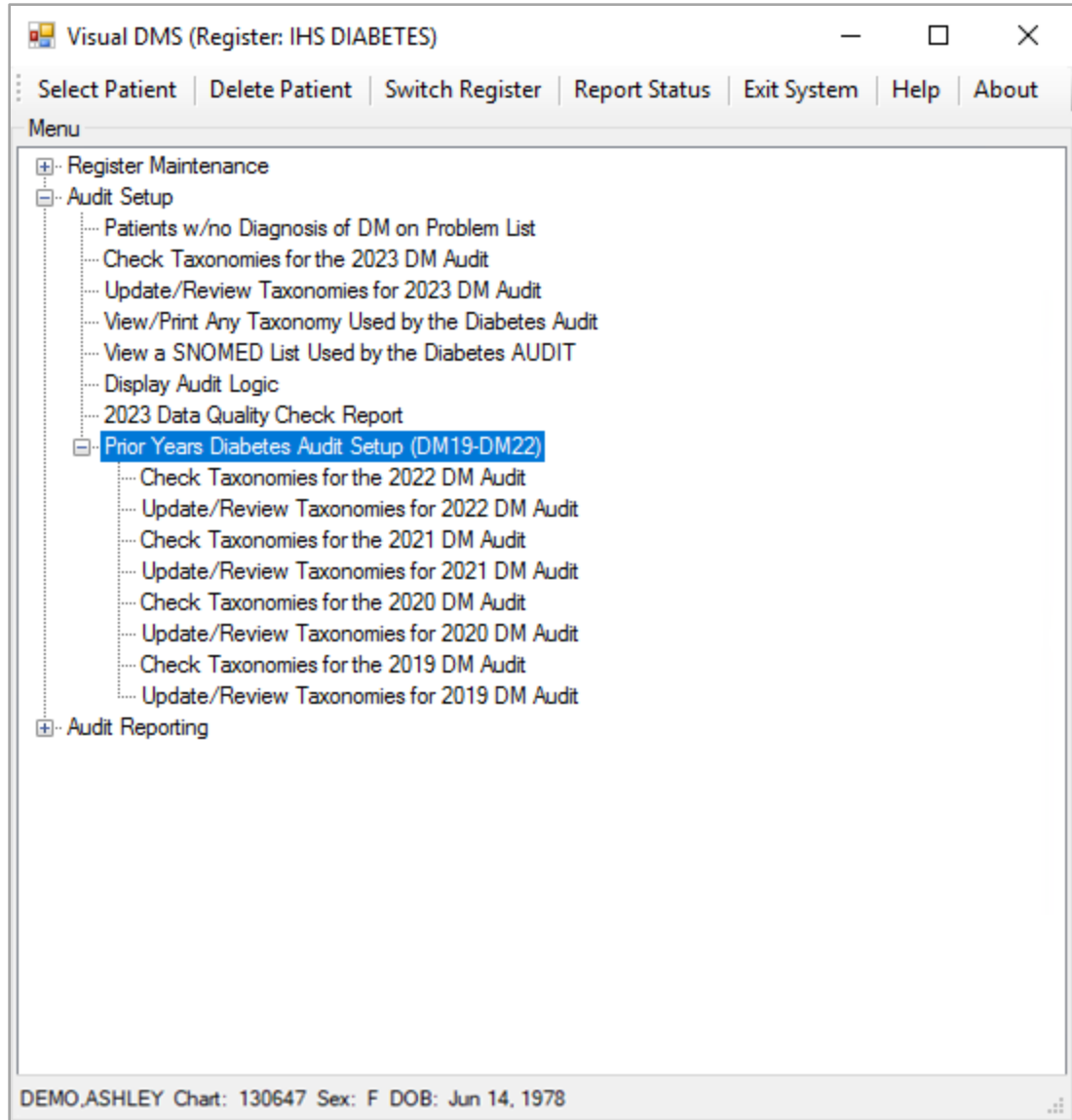


Figure C-55: Prior Years Options

Select any of the menu options. The options work the same as the **Check Taxonomies for the 2023 DM Audit** and **Update/Review Taxonomies for the 2023 DM Audit**.

C.3.7 Audit Reporting

Click the plus sign (+) in front of **Audit Reporting** to open this menu.

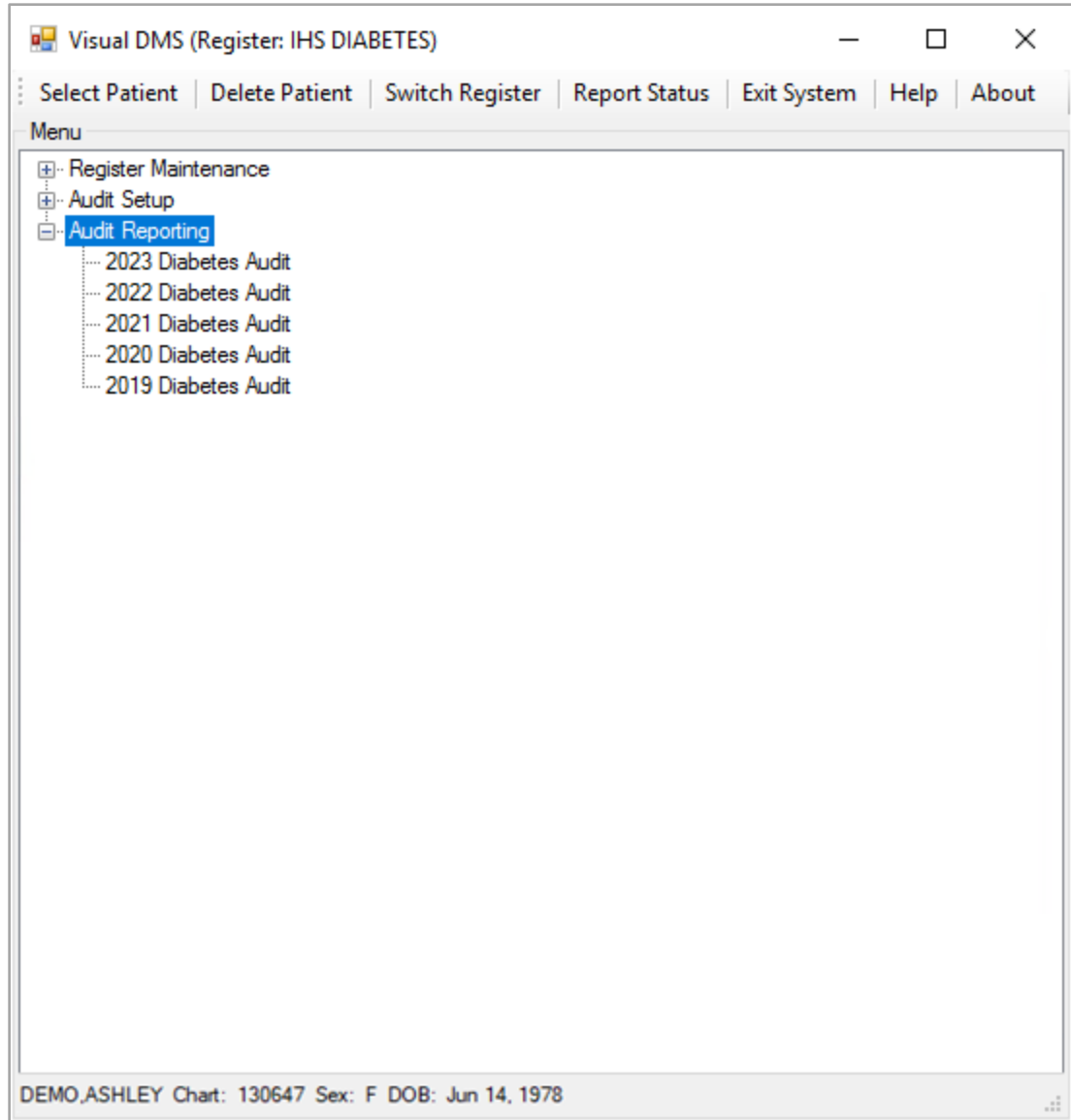


Figure C-56: Audit Reporting options

C.3.7.1 2023 Diabetes Audit

1. Click on the **2023 Diabetes Audit** menu option to run the 2023 Audit. Before the Audit window opens, a taxonomy check will run, and the results will display on the screen.

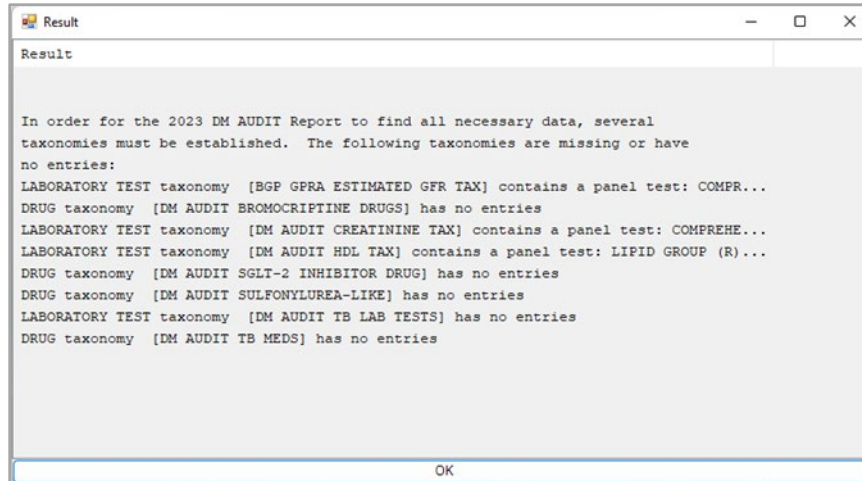


Figure C-57: Taxonomy Check Results

2. Close the **Taxonomy Check Result** screen.

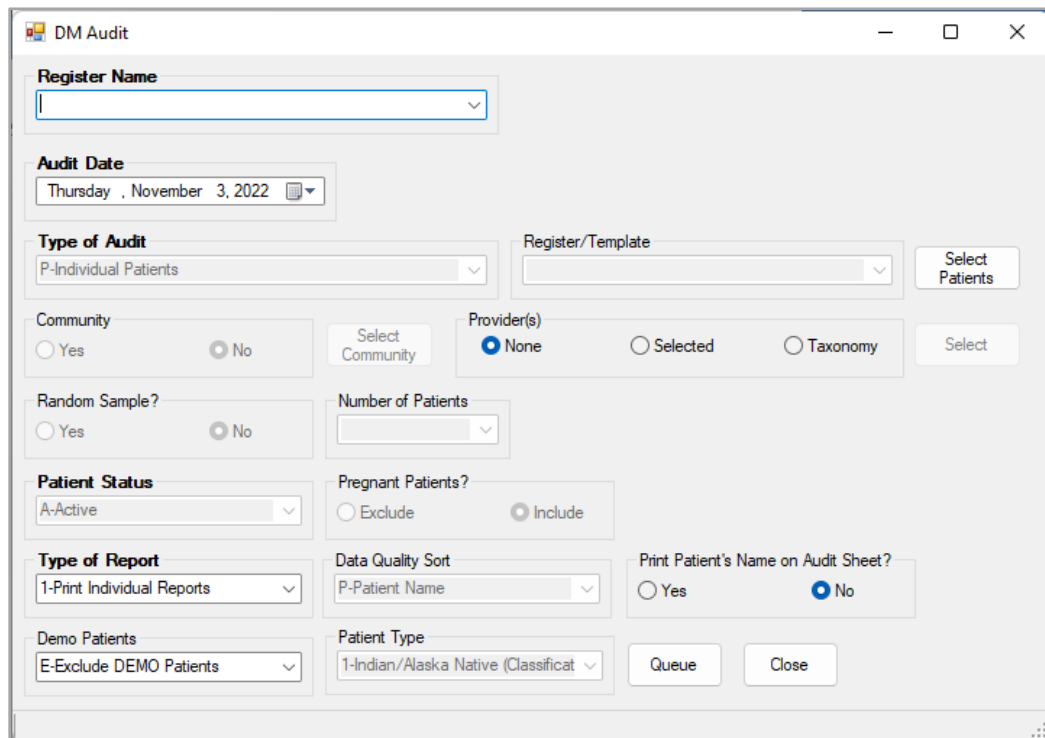


Figure C-58: Diabetes Audit options

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 on 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. Click on patients who you wish to include in the Audit. Their names will appear on the **Patients Selected** screen. Repeat the process until all desired patients are identified. Click the **Save** button when the list is complete.
7. If you choose **Search Template of Patients**, select the desired template from the Register/Template list.
8. If you choose **Members of a CMS Register**, select the desired register from the Register/Template list.
9. If you choose **E Audit**, indicate if you want **Only ACTIVE members of the register selected** and select a **Community Taxonomy**.
10. If you wish 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, click on the desired community.
11. If you wish to run the Audit by either a provider, selected providers, or a taxonomy of providers, click on the appropriate button in the **Provider(s)** box. Then click the **Select** button to select providers or the taxonomy you wish 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 on 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.
12. If you chose the 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**.
13. Use the **Patient Status** box to identify the status of the patients to be included in the Audit.

14. Use the **Pregnant Patients?** box to indicate whether pregnant patients should be included or excluded.
15. Select the **Type of Report** you wish 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**
16. Choose whether to exclude **Demo Patients**.
17. Select **Patient Type**.
18. 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. Close the pop-up window by clicking the **X** in the upper right corner.
19. The report status may be checked by clicking the **Report Status** button on the toolbar.
20. The **Individual** or **Cumulative Audit** may be opened by clicking on the report when it shows a status of complete.
21. It will open in a Crystal Reports document.
22. 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 2019 - 2022 Diabetes Audit

This is the same functionality as the 2023 Diabetes Audit. See Appendix D for complete instructions.

Appendix D 2023 Diabetes Audit

The Diabetes Management System (DMS) can be used to conduct a Diabetes Audit, including creation of an Audit data file 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. 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:

1. The Audit Setup menu includes tools for Audit preparation.
2. The Audit Reporting menu includes tools for creating Audit data files and reports.

Additional information about the IHS Diabetes Care and Outcomes Audit can be found on the Audit website: <https://www.ihs.gov/diabetes/audit/>.

DMS Main Menu

The DMS main menu provides four options (Figure D-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 16)
                        DEMO HOSPITAL
                        MAIN MENU

RM   Register Maintenance ...
AS   Audit Setup ...
AR   Audit Reporting ...

```

Figure D-1: RPMS DMS Main Menu

Visual DMS includes the same options to prepare for and conduct an Audit (Figure D-2).

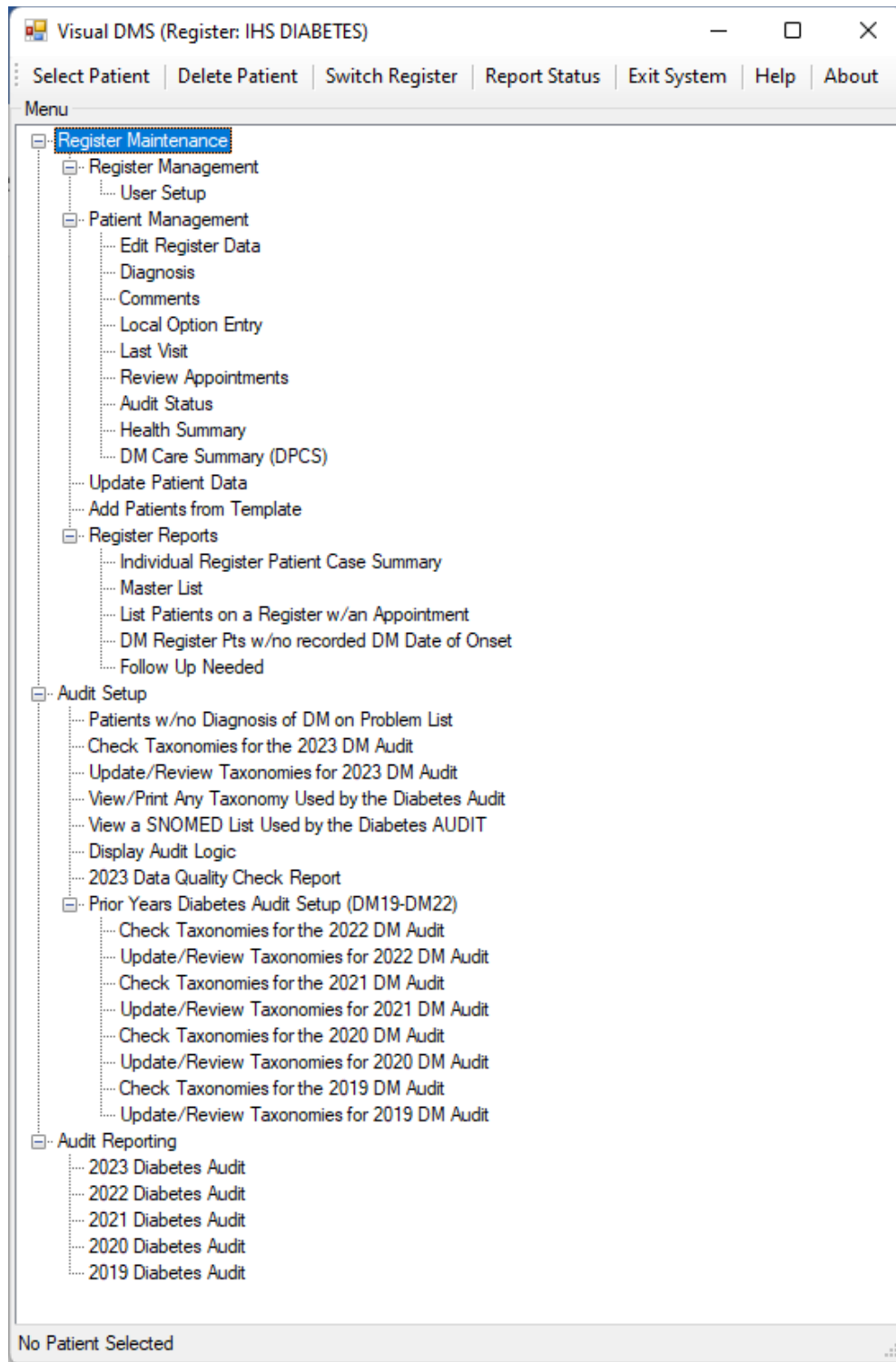


Figure D-2: Visual DMS Menu

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. Removing 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 patients with diabetes who are receiving care.
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 16)
                        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 2023 DM Audit
TU    Update/Review Taxonomies for 2023 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   2023 Data Quality Check Report
-----
ASPR  Prior Years Diabetes Audit Setup (DM19-DM22) ...
    
```

Figure D-3: Audit Setup Menu

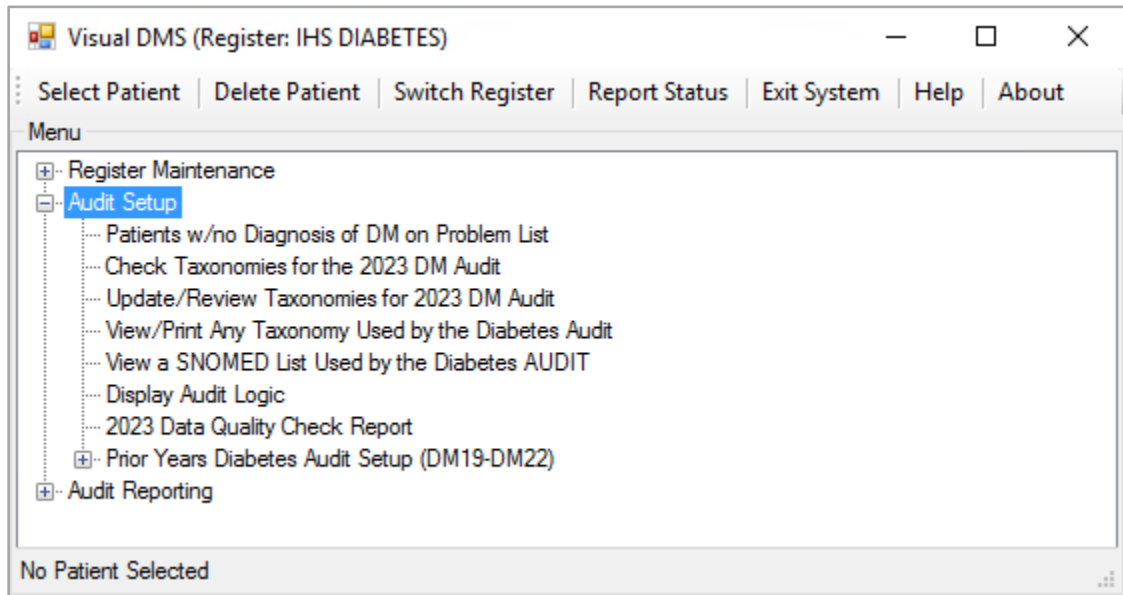


Figure D-4: Visual DMS Audit Setup Menu

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 2023 Annual Diabetes Audit:

First, identify patients who meet all of the following criteria:

1. Have a diagnosis of diabetes mellitus.
2. Are American Indian or Alaska Native.
3. 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):
 - a. General (01)
 - b. Diabetic (06)
 - c. Internal Medicine (13)
 - d. Pediatric (20)
 - e. Family Practice (28)
 - f. Chronic Disease (50)
 - g. Endocrinology (69)

Then, exclude patients who:

1. Received the majority of their primary care during the Audit period outside of your facility.
2. Are currently on dialysis **and** received the majority of their primary care during the Audit period at the dialysis unit.
3. Have died before the end of the Audit period.
4. Were pregnant during any part of the Audit period.
5. Have prediabetes (as determined by documented diagnosis or impaired fasting glucose [IFG], impaired glucose tolerance [IGT], or elevated A1C level).
6. 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 2023 Diabetes Audit

The Diabetes Register may be used for the 2023 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 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 that 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 that 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 2023 Annual Audit, the IHS Division of Diabetes requires review of the care provided during the calendar year ending December 31, 2022. Reports identifying patients with an active status should be run for the time period between 1/1/2022 and 12/31/2022.

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, 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: 1/1/22 (JAN 01, 2022)
Enter Ending Visit Date: 12/31/22 (DEC 31, 2022)

```

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, 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, 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, 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                                     DEMO HOSPITAL                                     Page 1
                                     Patients NOT on the DEMO HOSPITAL DIABETES Register
                                     with at least 3 visits with a DX of Diabetes between
                                     Jan 01, 2022 and Dec 31, 2022
PATIENT NAME          HRN      DOB          COMMUNITY      LAST VISIT # DM  LAST DM
                                     DXS      DX
-----
DEMO,RACHEL PATIENT  100019  03/28/1941  LAKE HAVSU     03/20/22      3  03/20/22
DEMOPATIENT,NEOMI   888885  03/15/1955  KINGMAN        03/22/22      3  03/22/22
PATIENTDEMO,CARLEE  122222  11/12/1993  PARKER         04/03/22      3  02/27/22
DEMO-CARTER,PATIENT A 144444  05/25/1977  PARKER         03/27/22      4  03/19/22
+           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 2023 Annual Audit is for the time frame
between January 1, 2022 and December 31, 2022. 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: 1/1/22 (JAN 01, 2022)
Enter Ending Visit Date: 12/31/22 (DEC 31, 2022)

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, 2022 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 02/22/2019
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      6 Comments      11 Health Summary
2 Where Followed      7 Local Option Entry  12 DM Care Summary (DPCS)
3 Case Manager        8 Last Visit      13 Print Letter
4 Client Contact      9 Review Appointments  Q Quit
5 DX/Date of Onset   10 Audit Status
Select Action: Quit//
  
```

Figure D-14: Select Register Status (1)

3. At the “Select Action” prompt, 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).

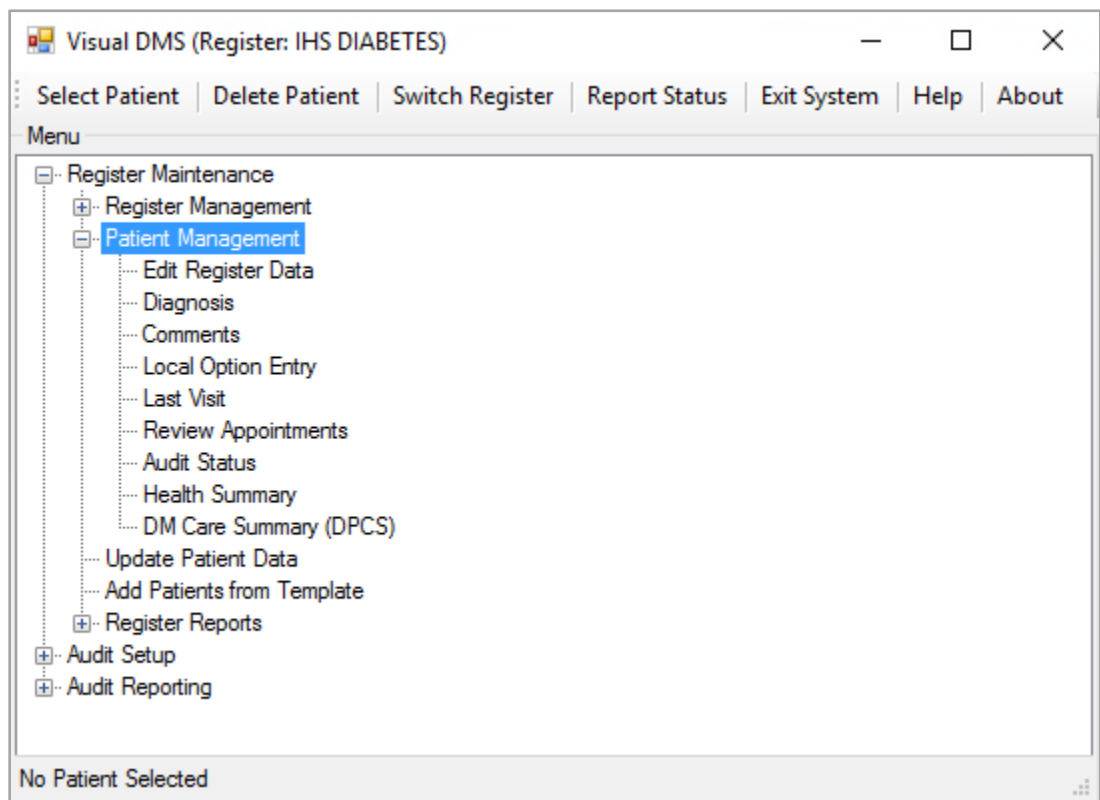


Figure D-16: Selecting Edit Register Data from the Patient Management menu

3. Click **Edit Register Data**. The **Patient Profile** (Figure D-17) displays.

The screenshot shows a 'Patient Profile' window with the following fields and values:

- Register Data:**
 - Address/City/State/Zip Code: PO BOX 1472, CORRALES, NEW MEXICO, 87120
 - Phone: (empty)
 - Residence: CORRALES
 - Primary Care Provider: (empty)
- Editable Patient Data:**
 - Status: A-Active
 - Case Manager: JONES, KAREN
 - Where Followed: (empty)
 - Last Edited: Wednesday, November 2, 2022
 - Next Review: Wednesday, November 2, 2022
 - Last Review: Wednesday, November 2, 2022
- Contact:** (empty)
- Entry Date:** Wednesday, November 2, 2022

Buttons: Save, Close

Status Bar: DEMO,ASHLEY Chart: 130647 Sex: F DOB: Jun 14, 1978 Saved

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 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 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 2023 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 2023 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: 1/1/22 (JAN 01, 2022)
Exact ending date: 12/31/22 (DEC 31, 2022)

  Subject of subquery: VISIT
  CLINIC (GENERAL/DIABETIC...)
  BETWEEN JAN 1,2022 and DEC 31,2022@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 1,2022 and DEC 31,2022@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: 1/1/22 (JAN 01, 2022)
Exact ending date: 12/31/22 (DEC 31, 2022)

Next condition of "DIAGNOSIS":
Computing Search Efficiency
Rating.....

  Subject of search: PATIENTS
    ALIVE TODAY
    Subject of subquery: VISIT
    CLINIC (GENERAL/DIABETIC...)
    
```

```

        BETWEEN JAN 1,2022 and DEC 31,2022@23:59:59
        DIAGNOSIS (250.01/250.11...)
        Subject of subquery: DIAGNOSIS
        BETWEEN JAN 1,2022 and DEC 31,2022@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 2023
        Are you adding 'DM AUDIT 2023' 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//12/31/22 (DEC 31, 2022)
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: 1/1/2022 (JAN 01, 2022)
Exact ending date: 12/31/2022 (DEC 31, 2022)

  Subject of subquery: VISIT
  CLINIC (GENERAL/DIABETIC...)
  BETWEEN JAN 1,2022 and DEC 31,2022@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: 1/1/22   (JAN 01, 2022)
Exact ending date: 12/31/22  (DEC 31, 2022)

Next condition of "DIAGNOSIS":

Computing Search Efficiency Rating

  Subject of search: PATIENTS
    ALIVE TODAY
    Subject of subquery: VISIT
      CLINIC (GENERAL/DIABETIC...)
        BETWEEN JAN 1,2022 and DEC 31,2022@23:59:59
    DIAGNOSIS (250.01/250.11...)
      Subject of subquery: DIAGNOSIS
        BETWEEN JAN 1,2022 and DEC 31,2022@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 2023
  Are you adding 'DM AUDIT 2023' 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 2023 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 2022 Annual Audit, they must be reviewed and updated again before running the 2023 Annual Audit as new medications may have been added to the pharmacy formulary or new lab tests offered.

DM AUDIT TAXONOMY UPDATE		Oct 26, 2022 16:26:19	Page: 1 of 1
TAXONOMIES TO SUPPORT 2023 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 wish to list” prompt, type **L** (LAB TESTS) and press Enter.
4. Type the beginning and ending dates for the report (**1/1/22** and **12/31/22** for the 2023 Annual Diabetes Audit), pressing Enter after each.
5. At the “Do you wish to” prompt, do one of the following:
 - To print the output, accept the default (**P**) by pressing Enter. A prompt asking for the device name displays; type the device’s name and press Enter.
 - To browse the output on the screen, type **B** and press Enter.

A sample report is shown in Figure D-27.

LAB TEST NAME TAXONOMIES		IENT	# DONE	UNITS	RESULT
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 (**7/1/22** and **12/31/22** for the 2023 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, 2022			Page 1
MEDICATIONS (DRUGS) Used at DEMO HOSPITAL			
Date Range: Jul 01, 2022 - Dec 31, 2022			
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 hemoglobin A1C, lipid breakdown, or estimated GFR 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.

For 2023, there is now a single taxonomy called DM AUDIT GLP-1 RECEPT AGONISTS which replaces the two separate taxonomies used in previous years (DM AUDIT INCRETIN MIMETICS and DMAUDIT GLP-1 ANALOG DRUGS).

Combination drugs should be added to the taxonomy for each of the components of that drug.

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
<p>DM AUDIT ACE INHIBITORS</p> <p>Note: This taxonomy includes both ACE inhibitors and angiotensin II receptor blockers (ARBs).</p>	<p>ACE INHIBITORS</p> <p>Amlodipine and benazepril (Lotrel)</p> <p>Benazepril (Lotensin)</p> <p>Benazepril and hydrochlorothiazide (Lotensin HCT)</p> <p>Captopril</p> <p>Captopril and hydrochlorothiazide</p> <p>Enalapril (Vasotec, Epaned)</p> <p>Enalapril and diltiazem (Teczem)</p> <p>Enalapril and felodipine (Lexxel)</p> <p>Enalapril and hydrochlorothiazide (Vaseretic)</p> <p>Fosinopril</p> <p>Lisinopril (Prinivil, Zestril, Qbrelis)</p> <p>Lisinopril and hydrochlorothiazide (Prinzide, Zestoretic)</p> <p>Moexipril</p> <p>Moexipril and hydrochlorothiazide (Uniretic)</p> <p>Perindopril (Aceon)</p> <p>Quinapril (Accupril)</p> <p>Quinapril and hydrochlorothiazide (Accuretic)</p> <p>Ramipril (Altace)</p> <p>Trandolapril (Mavik)</p> <p>Trandolapril and verapamil (Tarka)</p> <p>ANGIOTENSIN II RECEPTOR BLOCKERS (ARBs)</p> <p>Amlodipine and valsartan (Exforge)</p> <p>Amlodipine, valsartan and hydrochlorothiazide (Exforge HCT)</p> <p>Azilsartan (Edarbi)</p> <p>Azilsartan and chlorthalidone (Edarbyclor)</p> <p>Candesartan (Atacand)</p> <p>Candesartan and hydrochlorothiazide (Atacand HCT)</p> <p>Eprosartan (Teveten)</p> <p>Eprosartan and hydrochlorothiazide (Teveten HCT)</p> <p>Irbesartan(Avapro)</p> <p>Irbesartan and hydrochlorothiazide (Avalide)</p> <p>Losartan (Cozaar)</p> <p>Losartan and hydrochlorothiazide (Hyzaar)</p> <p>Nebivolol and valsartan (Byvalson)</p> <p>Olmesartan (Benicar)</p> <p>Olmesartan and hydrochlorothiazide (Benicar HCT)</p> <p>Sacubitril and valsartan (Entresto)</p> <p>Telmisartan (Micardis)</p> <p>Telmisartan and amlodipine (Twynsta)</p> <p>Telmisartan and hydrochlorothiazide (Micardis HCT)</p> <p>Valsartan (Diovan, Prexxartan)</p> <p>Valsartan and hydrochlorothiazide (Diovan HCT)</p>

Taxonomy	Drugs
DM AUDIT ACARBOSE DRUGS	Acarbose (Precose) Miglitol (Glyset)
DM AUDIT AMYLIN ANALOGUES	Pramlinitide (Symlin)
DM AUDIT ANTIPLT/ANTICOAG THERAPY	<p>Antiplatelet Drugs Any non-aspirin anti-platelet product including Cilostazol (Pletal) Clopidogrel (Plavix) Dipyridamole (Persantine) Prasugrel (Effient) Ticagrelor (Brilinta) Ticlopidine (Ticlid) Vorapaxar (Zontivity)</p> <p>Anticoagulants Apixaban (Eliquis) Dabigatran etexilate (Pradaxa) Edoxaban (Savaysa) Enoxaparin (Lovenox) Rivaroxaban (Xarelto) Warfarin (Coumadin)</p>
DM AUDIT ASPIRIN DRUGS	Any Aspirin (ASA) or Aspirin containing product Aspirin and dipyridamole (Aggrenox)
DM AUDIT BROMOCRIPTINE DRUGS	Bromocriptine 0.8 mg (Cycloset)
DM AUDIT COLESEVELAM DRUGS	Colesevelam (Welchol)
DM AUDIT DPP-4 INHIBITOR DRUGS	<p>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(Jentaduetto, Jentaduetto 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)</p>

Taxonomy	Drugs
DM AUDIT GLITAZONE DRUGS (a.k.a.: Thiazolidinediones)	<p>Alogliptin and pioglitazone (Oseni) Pioglitazone (Actos) Pioglitazone and metformin (ActoPlus Met, ActoPlus Met XR) Pioglitazone and glimepiride (Duetact) Rosiglitazone (Avandia) Rosiglitazone and metformin (Avandamet)</p>
DM AUDIT GLP-1 RECEPT AGONISTS	<p>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)</p>
DM AUDIT INSULIN DRUGS	<p>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)</p> <p>Pre-Mixed Insulins: 70/30-REG/NPH, ASPART/NPA, ASPART/DEGLUDEC 75/25-LISPRO/NPL 50/50-LISPRO/NPL</p> <p>Insulin Combinations: Insulin degludec and liraglutide (Xultrophy), Insulin glargine and lixisenatide (Soliqua)</p>

Taxonomy	Drugs
DM AUDIT METFORMIN DRUGS	<p>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)</p>
DM AUDIT SGLT-2 INHIBITOR DRUGS	<p>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)</p>
DM AUDIT STATIN DRUGS	<p>Amlodipine and atorvastatin (Caduet) Atorvastatin (Lipitor) Ezetimibe and atorvastatin (Liptruzet) Ezetimibe and simvastatin (Vytorin) Fluvastatin (Lescol, Lescol XL) Lovastatin (Mevacor, Altocor, Altoprev) Niacin XR and lovastatin (Advicor) Niacin XR and simvastatin (Simcor) Pravastatin (Pravachol) Pitavastatin (Livalo, Zypitamag) Rosuvastatin (Crestor, Ezallor) Simvastatin (Zocor) Sitagliptin and simvastatin (Juvissync)</p>

Taxonomy	Drugs
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) Rifampin 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.

Table D-2: DM Audit Laboratory Test Taxonomies

Taxonomy	Topics
BGP GPRA ESTIMATED GFR TAX	Estimated GFR, Calculated GFR, _GFR, Estimated, _GFR Non-African American, EST GFR, eGFR
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

Taxonomy	Topics
DM AUDIT CREATININE TAX (Be careful not to include any tests for Urine Creatinine.)	Creatinine, POC Creatinine, Serum Creatinine, _Creatinine
DM AUDIT HDL TAX	HDL, HDL Cholesterol, POC HDL Cholesterol, _HDL Cholesterol
DM AUDIT HGB A1C TAX	Hemoglobin A1C, A1C, HGB A1C, HBA1C, HA1C, POC HEMOGLOBIN A1C, _A1C
DM AUDIT LDL CHOLESTEROL TAX	LDL, Direct LDL, LDL Cholesterol, LDL Cholesterol (calc), POC LDL Cholesterol, _LDL Cholesterol
DM AUDIT MICROALBUMINURIA TAX	Microalbumin
DM AUDIT QUANT UACR TAX	Microalbumin/Creatinine Ratio measured in actual numeric values (mg/g Creatinine). Look for tests A/C, A:C, Albumin/Creatinine, _A/C, -A/C, asterisk (*)A/C, Microalbumin/Creatinine, M-Alb/Creatinine.
DM AUDIT TB LAB TESTS	QFT-G, T SPOT-TB, Quantiferon GOLD
DM AUDIT TRIGLYCERIDE TAX	Triglyceride, POC Triglyceride, _Triglyceride
BGP HEP C TESTS TAX	Hepatitis C tests

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

When deciding which tests should be included in a taxonomy, it 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.

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)	01/16/20	5.7	%	4.3-6.1
DM AUDIT HGB A1C				
LIPID PROFILE (R)	01/16/20			
HDL CHOLESTEROL (R)	01/16/20	44	MG/DL	40-125
DM AUDIT HDL CHOLESTEROL				
TRIGLYCERIDE (R)	01/16/20	109	MG/DL	30-150
DM AUDIT TRIGLYCERIDE				
LDL CHOLESTEROL (R)	01/16/20	97	MG/DL	0-130
DM AUDIT LDL CHOLESTEROL				
CHOLESTEROL (R)	01/16/20	163	MG/DL	100-200
DM AUDIT CHOLESTEROL				
CHOL/HDL RATIO (R)	01/16/20	3.70	RATIO	0.00-4.44
CALCULATED GFR (R)	01/16/20			
_GFR AFRICN AMER	01/16/20	>60	ML/MIN	>60-
BGP GPRA ESTIMATED GFR				
_GFR NON AFR AMR	01/16/20	>60	ML/MIN	>60-
BGP GPRA ESTIMATED GFR				
COMPREHENSIVE-14 METABOLIC (R)	01/16/20			
AST (SGOT) (R)	01/16/20	18	U/L	0-40

ALT (SGPT) (R)	01/16/20	15	U/L	0-40
BUN (R)	01/16/20	11	MG/DL	5-19
ALBUMIN (R)	01/16/20	4.2	GM/DL	3.9-5.0
CHLORIDE (R)	01/16/20	104	MMOL/L	96-108
BILIRUBIN, TOTAL (R)	01/16/20	0.9	MG/DL	0.1-1.0
ALKALINE PHOS (R)	01/16/20	76	U/L	28-110
SODIUM (R)	01/16/20	139	MMOL/L	135-145
CREATININE (R)	01/16/20	0.86	MG/DL	0.50-1.00
DM AUDIT CREATININE				
CALCIUM (R)	01/16/20	8.9	MG/DL	8.5-10.5
POTASSIUM (R)	01/16/20	5.6 (H)	MMOL/L	3.5-5.5
PROTEIN, TOTAL (R)	01/16/20	7.7	GM/DL	6.7-8.3
GLUCOSE RANDOM (R)	01/16/20	68 (L)	MG/DL	70-100
CO2 (R)	01/16/20	23	MMOL/L	18-30
ANION GAP (R)	01/16/20	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)	01/22/20			
_ MICROALB, RANDOM	01/22/20	<5.0	MG/L	0.0-20.0
DM AUDIT MICROALBUMINURIA				
_ ALB/CREAT RATIO	01/22/20	FOOTNOTE	MG/GCR	0.0-16.9
DM AUDIT QUANT UACR				
_ CREAT UR, MG/DL	01/22/20	138	MG/DL	
_ CREAT/100 Calc Malb	01/22/20	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 **2023** as the Audit year. A list of the taxonomies used in the 2023 Diabetes Audit display (Figure D-30). Note that 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 a RPMS printer. Figure D-31 shows a sample of the taxonomy contents for the creatinine kinase test.

```

DM AUDIT TAXONOMY VIEW          Nov 02, 2022 11:31:16      Page:    1 of    8
TAXONOMIES TO SUPPORT 2023 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 **2023**.
4. The SNOMED Lists used in the 2023 Diabetes Audit will display (Figure D-32).
5. Type **S** to indicate a selection will be made.

6. Enter the number preceding the SNOMED List of interest. The contents of the SNOMED List may be browsed on the screen or printed to a RPMS printer.

```

DM AUDIT SNOMED LIST VIEW      Nov 02, 2022 11:30:36      Page: 1 of 1
SNOMED LISTS TO SUPPORT 2023 DIABETES AUDIT REPORTING
* View SNOMED Lists

1) BREASTFEEDING PATIENT ED
2) DEPRESSION DIAGNOSES
3) PXRMBGP CURRENT TOBACCO
4) PXRMBGP DM ATK AMP
5) PXRMBGP DM BTK AMP
6) PXRMBGP DM RETINOPATHY
7) PXRMBGP QUIT TOBACCO
8) PXRMBGP TOBACCO SCREENED
9) PXRMBGP TOBACCO SMOKELESS
10) PXRMBGP TOBACCO SMOKER
11) PXRMBGP TOBACCO TOPICS
12) PXRMBQI TUBERCULOSIS
13) PXRMBDIABETES
14) PXRMBESSENTIAL HYPERTENSION
15) PXRMBHEPATITIS 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, 2022 10:51:50      Page: 1 of 5
BHS
                                DEMO HOSPITAL
                                Listing of the PXRMBGP 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 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 data file to the WebAudit.

The Data Check Report 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 2023 DM Audit
TU    Update/Review Taxonomies for 2023 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   2023 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 2023 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, 2023

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: 12/31/22 (DEC 31, 2022)

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> 0

Limit the patients who live in a particular community? N// <Enter> 0

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 2023 Data Quality Check Report is displayed in Figure D-37.

LAB	Nov 03, 2022	Page 1			
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
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 2023 Audit Tools

Instructions for creating and submitting a Diabetes Audit data file are provided in the Audit 2023 Instructions which 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, the Audit Report, the SDPI RKM Report, and an Audit Data (Export) file. Even those doing manual Audits may find it useful to print individual Audits which 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, please refer to the DMS General User Manual. 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** (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 Audit sheet, accept the default (**N**) by pressing Enter.
 - To print the patient’s name, type **Y** and press Enter.
5. At the “Do you wish to” prompt, do one of the following:
 - To print the output, accept the default (**P**) by pressing Enter. A prompt asking for the device name displays; type the device’s name and press Enter.
 - To browse the output on the screen, type **B** and press Enter.

A sample individual Audit is shown in Figure D-38.

```

IHS Diabetes Care and Outcomes Audit, 2023  DATE RUN: 10/26/2022  Page: 1

Audit Period Ending Date: 12/31/2022  Facility Name: 2016 DEMO HOSPITAL
Reviewer initials: LB  Community: HORTON
State of Residence: NM
Chart #: 101439  DOB: 01/16/1973  Sex: FEMALE
Primary Care Provider:

Date of Diabetes Diagnosis:
  DM Register: <not documented>  Problem List: 03/01/2019
  First PCC DX: 10/06/2022
DM Type: 2  Type 2
  DM Register: <not documented>  Problem List: E11.9
  PCC POV's: Type 2

Tobacco/Nicotine Use
  Screened for tobacco use (during Audit period): 1  Yes
  Tobacco use status (most recent):
    1  Current user CURRENT SMOKER, SOME DAY  10/06/2022
  If 'Current user', tobacco cessation counseling/education received
  (during Audit period): 1  Yes 10/06/2022 CPT G9458

Electronic Nicotine Delivery Systems (ENDS)
  Screened for ENDS use (during Audit period): 2  No
  ENDS use status (most recent): 3  Not documented

Vital Statistics

  Height (last ever): 65.00 inches 10/06/2022
  Weight (last in Audit period): 150 lbs 10/06/2022  BMI: 25.0

  Hypertension (documented diagnosis ever): 1  Yes
  Blood pressure (last 3 during Audit period): 120/90 mm Hg 10/06/2022

Examinations (during Audit period)
  Foot (comprehensive or "complete", including evaluation of
  sensation and vascular status): 1  Yes 10/06/2022 CPT: G0245
  Eye (dilated exam or retinal imaging): 1  Yes 10/06/2022 Diabetic Eye
Exam
  Dental: 2  No

Depression
  Screened for depression (during Audit period):
    1  Yes - DX: Z13.32 10/06/2022
  Depression active diagnosis (during Audit period): 2  No

Education (during Audit period)
  Nutrition: 2  Yes (Non RD) NRD: DM-N 10/06/2022
  Physical activity: 1  Yes DM-EX 10/06/2022
  Other diabetes: 2  No

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 [canagliflozin (Invokana),
 dapagliflozin (Farxiga), empagliflozin (Jardiance),
 ertugliflozin (Steglatro)]
- 8 Pioglitazone [Actos] or rosiglitazone [Avandia]
- X 9 Tirzepatide [Mounjaro]
- 10 Acarbose [Precose] or miglitol [Glyset]
- 11 Repaglinide [Prandin] or nateglinide [Starlix]
- 12 Pramlintide [Symlin]
- 13 Bromocriptine [Cycloset]
- 14 Colesevelam [Welchol]

IHS Diabetes Care and Outcomes Audit, 2023 DATE RUN: 10/26/2022 Page: 2
 Audit Period Ending Date: 12/31/2022
 CHART #: 101439 DOB: Jan 16, 1973 SEX: FEMALE

ACE Inhibitor or ARB

Prescribed (as of the end of the Audit period): 2 No

Aspirin or Other Antiplatelet/Anticoagulant Therapy

Prescribed (as of the end of the Audit period):

1 Yes 10/06/2022 ASPIRIN 325MG EC TAB

Statin Therapy

Prescribed (as of the end of the Audit period): 2 No

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) 09/30/2022

TB test result: 1 - Positive 9/30/22 Reading: 30 Result: P

If TB diagnosis documented or TB result 'Positive', treatment initiated

(isoniazid, rifampin, rifapentine, others): 2 - No

If TB result 'Negative', test date:

Hepatitis C (HCV)

HCV diagnosed (ever): 2 No

If not diagnosed with HCV, screened at least once (ever): 2 No

Retinopathy

Diagnosed (ever): 2 No

Amputation

Lower extremity (ever), any type (e.g., toe, partial foot, above or
 below knee): 2 No

Immunizations

Influenza vaccine (during Audit period): 1 Yes 10/06/2022

Pneumococcal [PCV15, PCV20, or PPSV23] (ever): 1 Yes 10/26/2022

Td, Tdap, DTaP, or DT (in past 10 years): 1 Yes 10/06/2022

Tdap (ever): 1 Yes 10/06/2022

Hepatitis B complete series (ever): 2 No

Shingrix/RZV complete series (ever): 2 No

Laboratory Data (most recent result during Audit period)

A1C: 8.2 10/06/2022 HGB A1C

Total Cholesterol:	200	10/06/2022	TOTAL CHOLESTEROL
HDL Cholesterol:	45	10/06/2022	HDL CHOLESTEROL
LDL Cholesterol:	100	10/06/2022	LDL CHOLESEROL
Triglycerides:	150	10/06/2022	TRIGLYCERIDE (R)
Serum Creatinine:	0.98	10/06/2022	SERUM CREATININE
eGFR:	>60	10/06/2022	eGFR
UACR:	20	10/06/2022	MICROALB/CREA RATIO
COMBINED: Meets ALL: A1C <8.0, statin prescribed, mean BP <140/<90			
2 No A1C: 8.2; statin prescribed: No; Mean BP: 120/90			
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 DM23 option in Visual DMS or run from the traditional RPMS menu. It is highly recommended that the 2023 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 would be 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 Data (Export) 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 ...
DM23  2023 Diabetes Audit

Select 2023 Diabetes Program Audit Option: DM23  Run 2023 Diabetes Program
Audit

In order for the 2023 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     11/14/2022
  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: 12/31/22 (DEC 31, 2022)

  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> 0

Limit the patients who live in a particular community? N// <Enter> 0

  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 2023 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 2023 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 **DM23** (2023 Diabetes Audit) and follow the prompts as shown in the script in Figure D-41.

```

DM23  2023 Diabetes Audit

In order for the 2023 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    11/14/2019
  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: 12/31/22 (DEC 31, 2022)

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> 0
Limit the patients who live in a particular community? N// <Enter> 0

    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 2023 AUDIT

I am going to create a file called dkr 2023 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 2023 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 2023 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 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 **DM23** (2023 Diabetes Audit) and follow the prompts as shown in the script in Figure D-42.

```

Select Audit Reporting Option: DM23 Run 2023 Diabetes Program Audit

In order for the 2023 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	# members	Last patient update
1	2017 DIABETES REGISTER	37	40	02/07/2020
2	IHS DIABETES	552	555	11/14/2019
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: 12/31/22 (DEC 31, 2022)

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> 0

Limit the patients who live in a particular community? N// <Enter> 0

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      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                               Oct 20, 2022                               Page 1

IHS Diabetes Care and Outcomes Audit - RPMS
SDPI Required Key Measures Report for 2023 (01/01/2022 to 12/31/2022)
Facility: DEMO HOSPITAL
Annual Audit

980 patients were audited

-----
# of # Percent
Patients Considered
(Numerator) (Denominator)

***NOTE: 18 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 or other antiplatelet/anticoagulant therapy currently prescribed	218	398	55%
Blood Pressure (BP) Control			
BP <140/<90 mmHg (one value or mean of 2 or 3 values)	430	980	44%
Chronic Kidney Disease Screening and Monitoring			
In age >=18 years, both UACR and eGFR done	234	948	25%
Dental Exam			
Dental exam received	243	980	25%
Depression Screening			
Screened and/or active diagnosis during Audit period	499	980	51%
Diabetes-Related Education			
Any diabetes topic (nutrition, physical activity, or other)	474	980	48%
Eye Exam - Retinopathy Screening			
Eye exam - dilated exam or retinal imaging	305	980	31%
Foot Exam			
Foot exam - comprehensive	192	980	20%
Glycemic Control			
A1C <8.0%	214	980	22%
Hepatitis C (HCV) Screening			
In age => 18 years, screened for HCV ever or HCV diagnosed ever	210	948	22%
LAB	Oct 20, 2022	Page 2	
IHS Diabetes Care and Outcomes Audit - RPMS SDPI Required Key Measures Report for 2023 (01/01/2022 to 12/31/2022) Facility: DEMO HOSPITAL Annual Audit			
980 patients were audited			

	# of Patients (Numerator)	# Considered (Denominator)	Percent
Immunizations: Hepatitis B			
Hepatitis B complete series - ever or immune to hepatitis B	535	980	55%
Immunizations: Influenza			
Influenza vaccine during report period	365	980	37%
Immunizations: Pneumococcal			

Pneumococcal vaccine (PCV15, PCV20, or PPSV23) - ever	632	980	64%
Immunizations: Tetanus/Diphtheria Td/Tdap/DTap/DT - past 10 years	650	980	66%
Lipid Management in Cardiovascular Disease In patients age 40-75 years and/or with diagnosed CVD, statin currently prescribed	207	781	27%
Nutrition Education Nutrition education - by any provider (registered dietitian and/or other)	290	980	30%
Physical Activity Education Physical activity education	205	980	21%
Tobacco Use Screening Screened for tobacco use during report period	516	980	53%
Tuberculosis (TB) Screening TB test done ever or TB diagnosed ever	560	980	57%

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 2023 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 on **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 on the **Choose File** button and navigate to your data file, then click on the **Open** button.
11. Click on 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 2023 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 2023 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 2023 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.

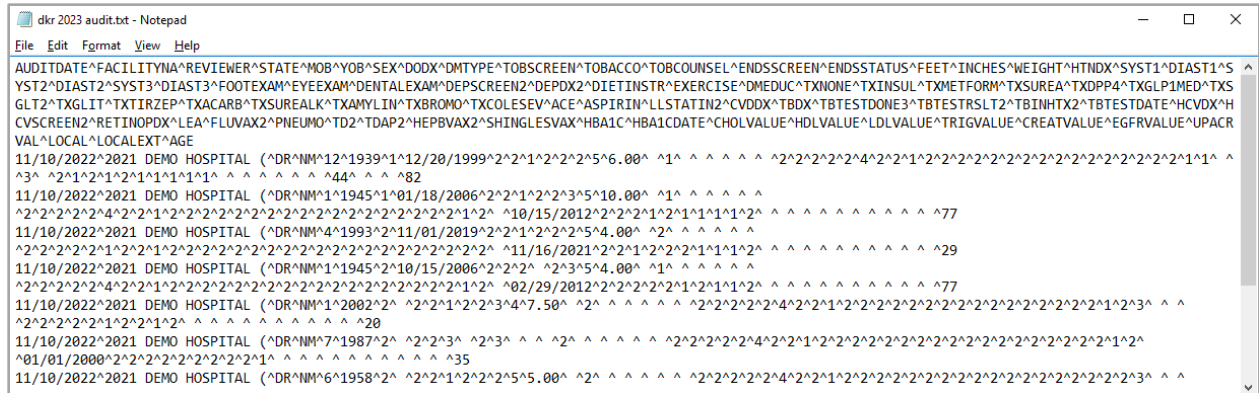


Figure D-44: Sample Audit Export file displayed in Notepad

To import a file into Excel:

1. Open Excel and select a blank workbook.
2. Click **File**, then **Open**; browse to the folder containing the Audit Export file.

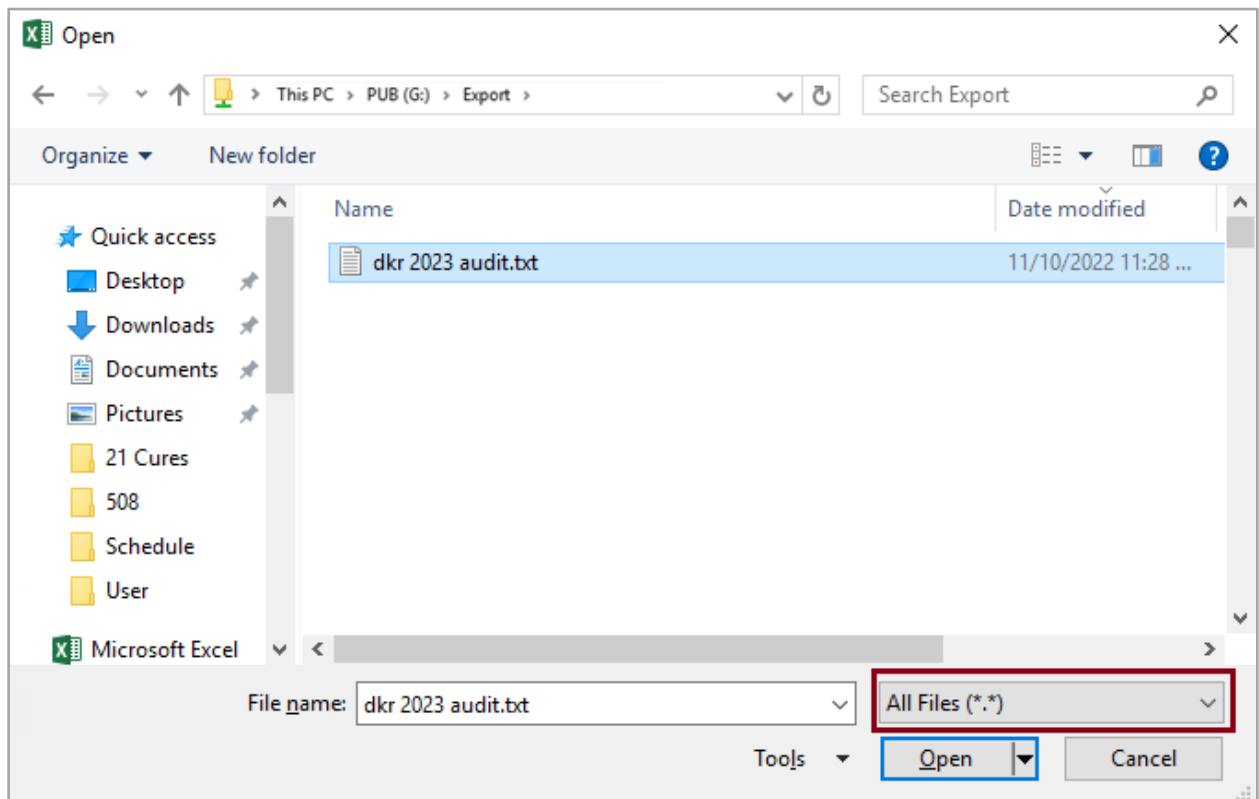


Figure D-45: Excel – Open dialog

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.

- Click **Open**. The **Text Import Wizard – Step 1 of 3** dialog (Figure D-46) displays.

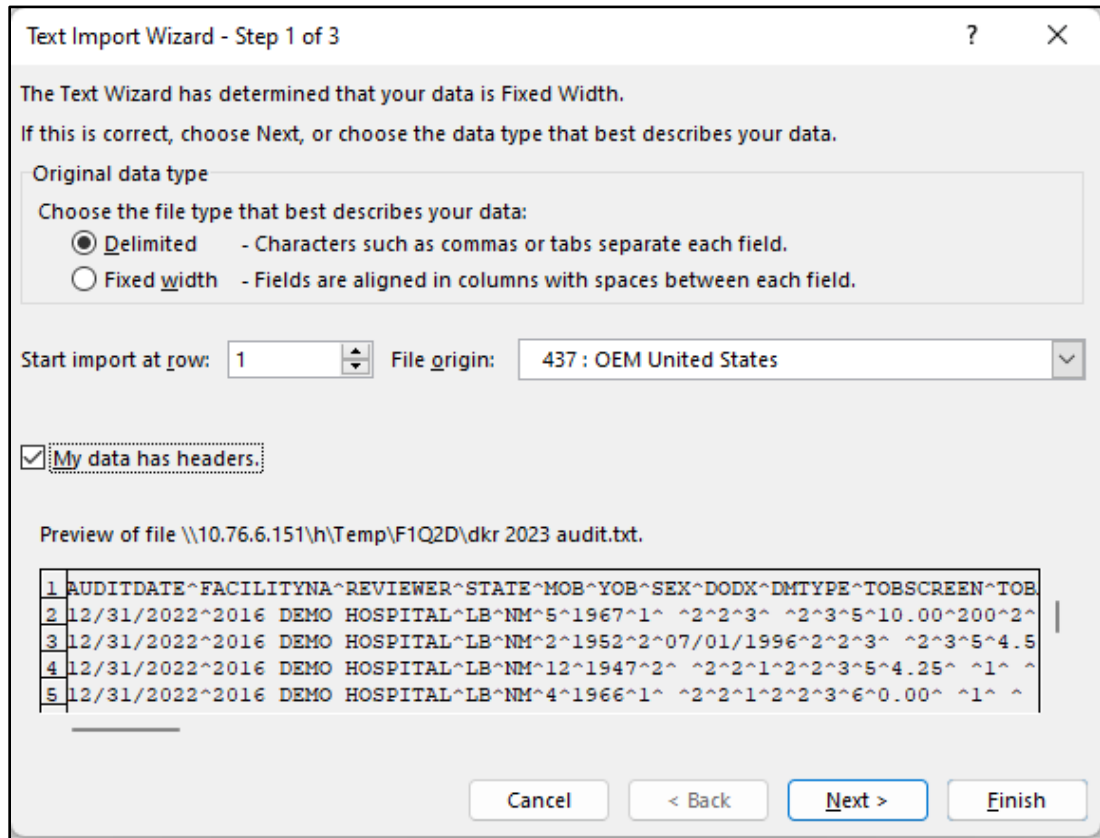


Figure D-46: Text Import Wizard – Step 1 of 3 dialog

- 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.
- Click **Next**. The **Text Import Wizard – Step 2 of 3** dialog (Figure D-47) displays.

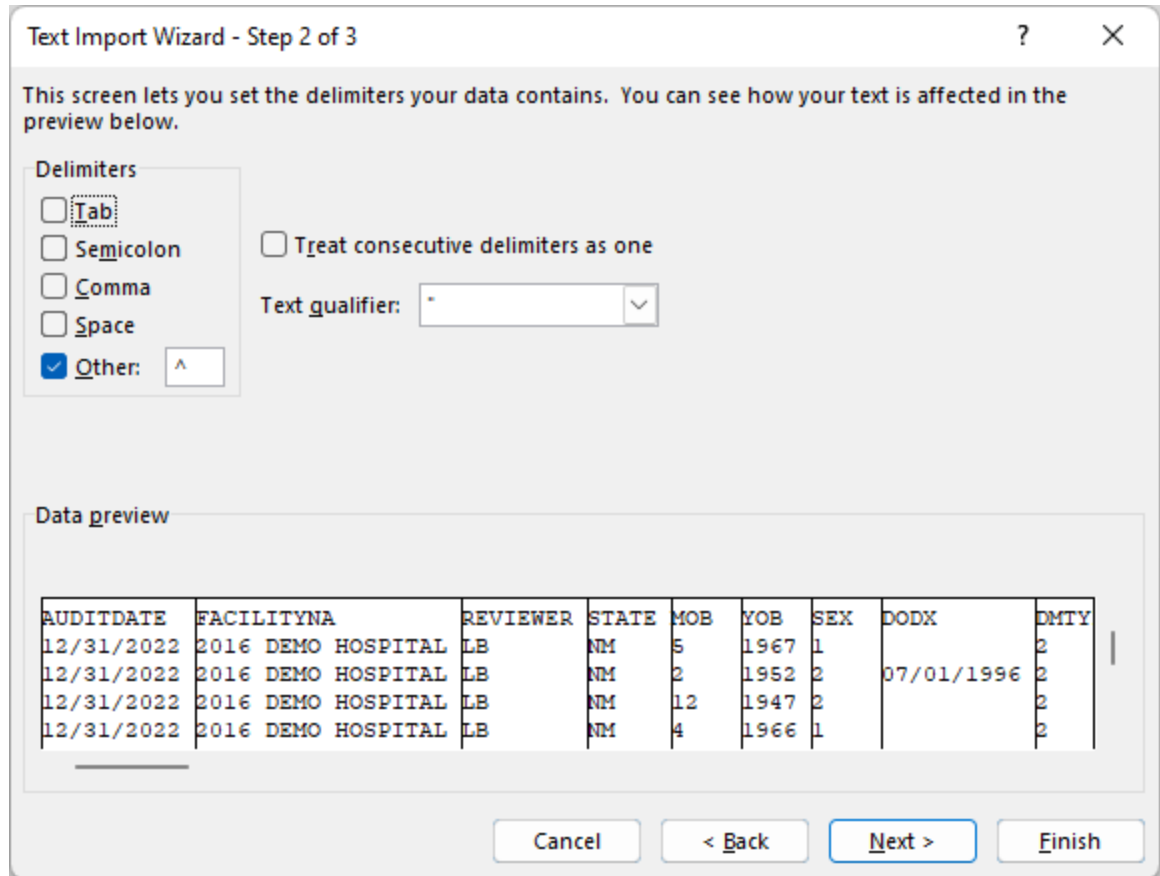


Figure D-47: Text Import Wizard – Step 2 of 3 dialog

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 on 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 2023 Diabetes Audit Logic

The logic for the 2023 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 **2023** for the Audit year and press Enter to display the item list.

DM AUDIT ITEM DESCRIPTION	Nov 02, 2022 12:28:27	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	26) NUTRITION INSTRUCTIO	46) Tdap EVER

7) 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) ELECTRONIC NICOTINE	34) TUBERCULOSIS (TB) DI	54) SERUM CREATININE
15) ENDS USE STATUS	35) TB TEST DONE	55) eGFR (ESTIMATED GFR)
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

- At the “Select Action” prompt, type **S** and press Enter to enable selection of an Audit logic item for review.
- At the next “Select Action” prompt, type the number of the logic item to be displayed and press Enter.
- Once the Audit logic for a selected item displays, print it by typing **PL** at the “Select Action” prompt of the logic item display.
- 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 Patch 16 User Manual (bdm_0200.16u.pdf) can be found on the RPMS website <https://www.ihs.gov/rpms/applications/clinical/> under the Diabetes Management System (BDM) group.
- Diabetes Audit 2023 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 2023 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 2022 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, 2022, data are reviewed for the year prior to this date (January 1-December 31, 2022).
- **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 01/01/2022 to 12/31/2022.)

- **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 various 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 in the Audit Export (Data) File 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 – see item 4.
- **Audit Export Field Name and Details:** MOB YOB Only the month and year of birth are in the Audit Export (Data) File and can be uploaded to the WebAudit.

D.11.1.9 Sex

- **Description:** Gender of patient.

- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** Male, Female or Unknown, from patient registration.
- **Audit Logic:** The gender of the patient. Obtained from data entered through patient registration. Male, Female or Unknown.
- **Audit Report:** Gender – Male, Female
- **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 in the Audit Export (Data) File 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 PXRDIABETES 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 PXRDIABETES 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. Please note: The first diagnosis date from POV is not used. Audit Report categories: Duration of Diabetes:
 - < 1 year
 - <10 years
 - ≥ 10 years
 - Diagnosis date not recorded
- **Audit Export Field Name and Details:** DODX Audit Export (Data) File: The earliest date found from the Diabetes register or the problem list is exported. 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 (Data) Export File and Audit Report. For RPMS individual audit sheet, "Not Documented" is displayed.
- **Audit Report: Diabetes Type:**
 - Type 1
 - Type 2See AUDIT LOGIC for how this is determined.

If the system cannot determine the diabetes type, Type 2 is assumed.
- **Audit Export Field Name and Details: DMATYPE:**
 - 1=Type 1
 - 2=Type 2 (or uncertain)If the system cannot determine the diabetes type, Type 2 is assumed.

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. For the summary the last screening done ever is displayed, it does not have to fall into a certain period of time.
- **Audit Logic:** If any of the following items is documented during the Audit period, then a value of 1 - Yes is assigned. Otherwise, a value of 2 - No is assigned.
 - Health Factor in the TOBACCO (SMOKING) Category.
 - Health Factor in the TOBACCO (SMOKELESS - CHEWING/DIP) Category.

- The PCC Problem list and purpose of visits are scanned for any diagnosis contained in the BGP TOBACCO DXS taxonomy or the SNOMED subsets PXRMBGP TOBACCO SCREENED and PXRMBGP CURRENT TOBACCO.
- Any visit with Dental ADA code 1320 documented.
- Any visit with the following CPT codes documented: BGP TOBACCO SCREEN CPTS taxonomy.
- **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 Status

- **Description:** Tobacco Use Status (most recent documented), does not have to be documented during the report period.
- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** The last documented of the following items is found and displayed:
 - Health Factors in the categories TOBACCO (SMOKING) and TOBACCO (SMOKELESS - CHEWING/DIP) that relate to the patient's tobacco use status. As of the DM Audit 2023 these are the health factors available: (the ones with one asterisk (*) indicate a current user, those with two asterisks (**) are non-tobacco users, the others are put in the "Not Documented" category):
 - *CURRENT SMOKELESS TOBACCO (SMOKELESS - CHEWING/DIP)
 - **PREVIOUS (FORMER) SMOKELESS TOBACCO (SMOKELESS - CHEWING/DIP)
 - **CESSATION-SMOKELESS TOBACCO (SMOKELESS - CHEWING/DIP)
 - SMOKELESS TOBACCO, STATUS UNKNOWN TOBACCO (SMOKELESS - CHEWING/DIP)
 - **NEVER USED SMOKELESS TOBACCO TOBACCO (SMOKELESS - CHEWING/DIP)
 - **NON-TOBACCO USER TOBACCO (SMOKING)
 - *CURRENT SMOKER, STATUS UNKNOWN TOBACCO (SMOKING)
 - **PREVIOUS (FORMER) SMOKER TOBACCO (SMOKING)

- **CESSATION-SMOKER TOBACCO (SMOKING)
- *CURRENT SMOKER, EVERY DAY TOBACCO (SMOKING)
- *CURRENT SMOKER, SOME DAY TOBACCO (SMOKING)
- **NEVER SMOKED TOBACCO (SMOKING)
- SMOKING STATUS UNKNOWN TOBACCO (SMOKING)
- *HEAVY TOBACCO SMOKER TOBACCO (SMOKING)
- *LIGHT TOBACCO SMOKER TOBACCO (SMOKING)

If a factor is found in each of these categories, the one that indicates active use is used. If one is found in just one category, it is used. For example, patient has LIGHT TOBACCO SMOKER and NEVER USED SMOKELESS TOBACCO documented - the LIGHT TOBACCO USER is used. If the patient has NEVER SMOKED and CURRENT SMOKELESS documented, CURRENT SMOKELESS is used.

- Diagnoses contained in the BGP TOBACCO DXS taxonomy or SNOMED subsets PXRMBGP TOBACCO SCREENED and PXRMBGP CURRENT TOBACCO. Both the V POVs and Problem List are checked. The latest documented diagnosis that is contained in the taxonomy is used. Diagnoses that indicate a tobacco user: diagnoses codes in the BGP TOBACCO USER DXS taxonomy and diagnoses codes in the BGP GPRA SMOKELESS DXS taxonomy, all others are considered non-tobacco user. If a SNOMED is found and it is contained in the PXRMBGP CURRENT TOBACCO subset it is used.
- Dental ADA code 1320 - TOBACCO USE INTERVENTION TO PREVENT DISEASE. If this code is documented the patient is considered a tobacco user.
- A CPT code documented that is in the BGP TOBACCO SCREEN CPTS taxonomy. If the code found is in the DM AUDIT TOBACCO USER CPTS taxonomy the patient is considered a tobacco user, all others are considered a non-tobacco user.
 - If the patient is a user, then "1 - Current user" is assigned.
 - If the patient is not a tobacco user, then "2 - Not a current user" is assigned.
 - Otherwise "3 - Not documented" is assigned.
- **Audit Logic:** The last documented of the following items is found:
 - Health Factors in the categories TOBACCO (SMOKING) and TOBACCO (SMOKELESS - CHEWING/DIP) that relate to the patient's tobacco use status. As of the DM Audit 2023 these are the health factors available: (the ones with one asterisk (*) indicate a current user, those with two asterisks (**) are non-tobacco users, the others are put in the "Not Documented" category:

- *CURRENT SMOKELESS TOBACCO (SMOKELESS - CHEWING/DIP)
- **PREVIOUS (FORMER) SMOKELESS TOBACCO (SMOKELESS - CHEWING/DIP)
- **CESSATION-SMOKELESS TOBACCO (SMOKELESS - CHEWING/DIP)
- SMOKELESS TOBACCO, STATUS UNKNOWN TOBACCO (SMOKELESS - CHEWING/DIP)
- **NEVER USED SMOKELESS TOBACCO TOBACCO (SMOKELESS - CHEWING/DIP)
- **NON-TOBACCO USER TOBACCO (SMOKING)
- *CURRENT SMOKER, STATUS UNKNOWN TOBACCO (SMOKING)
- **PREVIOUS (FORMER) SMOKER TOBACCO (SMOKING)
- **CESSATION-SMOKER TOBACCO (SMOKING)
- *CURRENT SMOKER, EVERY DAY TOBACCO (SMOKING)
- *CURRENT SMOKER, SOME DAY TOBACCO (SMOKING)
- **NEVER SMOKED TOBACCO (SMOKING)
- SMOKING STATUS UNKNOWN TOBACCO (SMOKING)
- *HEAVY TOBACCO SMOKER TOBACCO (SMOKING)
- *LIGHT TOBACCO SMOKER TOBACCO (SMOKING)
- Dental ADA code 1320 - TOBACCO USE INTERVENTION TO PREVENT DISEASE. If this code is documented the patient is considered a tobacco user.
- A CPT code documented that is in the BGP TOBACCO SCREEN CPTS taxonomy. If the code found is in the DM AUDIT TOBACCO USER CPTS taxonomy the patient is considered a tobacco user, all others are considered a non-tobacco user.
 - If the patient is a user, then "1 - Current user" is assigned.
 - If the patient is not a tobacco user, then "2 - Not a current user" is assigned.
 - Otherwise "3 - Not documented" is assigned.
- **Audit Report:** Value is used in the Tobacco and Nicotine Use section of the Audit Report. It is also used when determining whether tobacco use is a diabetes related condition.
- **Audit Export Field Name and Details:** TOBACCO
 - 1=Current user

- 2=Not a current user
- 3=Not documented

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):** Any cessation counseling found in the past 365 from the date the summary is run I found. If counseling is found, a yes is displayed along with a description of what was found. See logic for cessation counseling under Audit Logic.
- **Audit Logic:** If the tobacco use status is "1 - Current user" then counseling documented in the past year is searched for. Counseling is defined as any of the following:

- A visit to clinic 94 - TOBACCO CESSATION CLINIC
- A patient education topic that meets any of the following criteria:
 - Begins with TO- (e.g., TO-Q)
 - Ends in -TO (e.g., CAD-TO)
 - Begins with any Tobacco User diagnosis (taxonomy is BGP TOBACCO USER DXS) (e.g., 305.1-L)
 - Begins with any Tobacco User CPT code (e.g., 99407-L) Taxonomy is DM AUDIT TOBACCO USER CPTS
 - Begins with a SNOMED code from any of the following SNOMED subsets:
 - PXRMBGP TOBACCO SMOKER
 - PXRMBGP TOBACCO SMOKELESS
 - PXRMBGP TOBACCO SCREENED
 - PXRMBGP CURRENT TOBACCO

To see a list of these codes, use option VSML View a SNOMED List used by the DM AUDIT which can be found on the Audit Setup menu.

- Any of the following CPT codes documented. These indicate tobacco use counseling:
 - D1320
 - 99406
 - 99407
 - G0375 (old code)

- G0376 (old code)
- 4000F
- 4001F
- G8402
- G8453
- G9016

– Dental ADA code 1320.

The latest documented of the above four data elements is displayed along with the date.

If no counseling is found, then the system will look for a smoking aid prescribed:

- Any prescription for a medication in the site-populated BGP CMS SMOKING CESSATION MEDS taxonomy that does not have a comment of RETURNED TO STOCK.
- A prescription for any medication with name containing "NICOTINE PATCH", "NICOTINE POLACRILEX", "NICOTINE INHALER", or "NICOTINE NASAL SPRAY" that does not have a comment of RETURNED TO STOCK.

If any the above is found, then 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:** TOBCOUNSEL
 - 1=Yes
 - 2=No
 - Blank if value for TOBACCO is not 1=Current user

D.11.1.16 Electronic Nicotine Delivery Systems Screening

- **Description:** Was the patient screened for Electronic Nicotine Delivery Systems (ENDS) use? 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 found. Screened for electronic nicotine delivery system (ENDS) use during Audit period:
 - If a health factor is found a value of 1 - Yes is assigned.
 - If no health factors have been recorded during the Audit period, 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 ENDS Use Status

- **Description:** Most recent ENDS use status documented.
- **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:** The last documented of the following health factors in the category E-CIGARETTES is found.

Note: The health factor CURRENT E-CIG USER W/OTHER SUBSTANCE(S) is not taken into consideration.

Use status is assigned as follows:

- CURRENT E-CIGARETTE USER W/NICOTINE: 1 Current User
- CESSATION ENDS USER: 2 Not a current user
- FORMER E-CIGARETTE USER: 2 Not a current user
- E- NEVER USED ANY E-CIGARETTE: 2 Not a current user
- No health factor recorded: 3 - Not documented
- **Audit Report:** Value is used in the Tobacco and Nicotine Use section of the Audit report.
- **Audit Export Field Name and Details:** ENDSSTATUS
 - 1=Current user
 - 2=Not a current user
 - 3= Not documented

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 Name and Details:**
 - FEET (combine with INCHES)
 - 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 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 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 ≥ 30.0)
 - Height or weight missing
 - Severely obese (BMI ≥ 40.0)
- **Audit Export Field Name and Details:** Not included in the Audit export (Data) File 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: PXRMESSENTIAL 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: PXRMESSENTIAL HYPERTENSION.
- **Audit Report:** Hypertension Diagnosed ever: Diagnosed hypertension and mean BP <140/<90 Diagnosed hypertension and ACE inhibitor, or ARB 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 anyone day, the latest one is used.
- **Audit Report:** Blood Pressure (BP) - Based on one value or mean of two or three values:
 - <140/<90
 - 140/90 - <160/<100
 - 160/100 or higher
 - BP category undetermined
 - If age ≥ 60 years, <150/<90
- **Audit Export Field Name and Details:**
 - SYST1
 - DIAST1
 - SYST2
 - DIAST2
 - SYST3
 - DIAST3

The blood pressure values are exported but mean blood pressure is not.

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-Refractive 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-Refractive 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 Audit Logic. 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, 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, 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 Audit Logic.
- **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:** DEPD2
 - 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 Audit Logic.
- **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 SCRIN 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 Audit Logic for nutrition education, physical activity education and other DM education.
- **Audit Logic:** The values for the Audit are:
 - 1 RD (Registered Dietitian)
 - 2 Other
 - 3 Both RD & Other
 - 4 None

All visits in the year prior to the Audit date are examined. Chart review visits are skipped (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 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 Audit Logic 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 Audit Logic 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 none of the above is documented, the value assigned is 2 – No.
- **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

Therapy	Taxonomy Name(s)
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 Audit logic.
 - 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 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:** 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/documentated 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)
 - "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.

Statin Intolerance/Contraindication defined as:

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 Audit Logic.
- **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 <140/<90

- 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 PXR M 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)
 - 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 Audit Logic 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)
 - 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 Audit Logic 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 value is 2 -Negative.
- If the test type is a blood test then the value of the test is examined:
 - If it is Positive then 1 -, Positive is recorded.
 - If it is negative then 2 -, Negative is 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)
 - 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 Audit Logic 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)
 - 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 Audit Logic 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)

- **Description:** Hepatitis C (HCV) diagnosis ever
- **How Data Is Obtained from PCC (For Diabetes Patient Care Summary/Supplement):** See Audit Logic

- **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 PXR M 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 \geq 18 years, screened 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 Audit Logic. 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 \geq 18 years, screened 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 Audit Logic. 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: PXR M 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 Audit Logic.
- **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 PXR M BGP DM BTK AMP or PXR M 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 Audit Logic 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 DM AUDIT FLU IZ CVX CODES taxonomy

- 15 INFLUENZA, SPLIT [TIVhx] (INCL
- 16 INFLUENZA, WHOLE
- 88 INFLUENZA, NOS
- 111 INFLUENZA, Intranasal, Trivale
- 135 INFLUENZA, HIGH DOSE SEASONAL
- 140 INFLUENZA, seasonal, injectable
- 141 INFLUENZA [TIV], SEASONAL, INJ
- 144 INFLUENZA, INTRADERMAL
- 149 INFLUENZA, Live, Intranasal, Q
- 150 INFLUENZA, INJECTABLE, QUAD, P
- 151 INFLUENZA NASAL, UNSPECIFIED
- 153 INFLUENZA, INJECTABLE, MDCK, P
- 155 INFLUENZA, INJECTABLE, RECOMB,
- 158 INFLUENZA, Injectable, Quadrav
- 161 INFLUENZA, injectable, quadriva
- 166 INFLUENZA, intradermal, quadri
- 168 INFLUENZA, Trivalent, adjuvant
- 171 Influenza, injectable, MDCK, p

- 185 influenza, recombinant, quadri
- 186 Influenza, injectable, MDCK, q
- 197 FLU-HIGH4
- 205 FLU-V4ajv

CPT codes: BGP CPT FLU

- 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: 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 Audit Logic 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 Audit Logic 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.
 - 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
- 196 Td-LF, NOS
- 198 DTP-HbH5

CPT codes: 90714, 90715, 90718 Taxonomy DM AUDIT TD CPTS

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:
 - 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 Audit Logic 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, if found, it 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 Audit Logic 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

- **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 Audit Logic below. 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 Audit Logic 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 is 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 Audit Logic 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 which 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 Audit Logic 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 which 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 Audit Logic 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 which 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 Audit Logic 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 and which 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 Audit Logic 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 which 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 eGFR

- **Description:** Most recent Estimated GFR 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 Audit Logic 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 resultAlso used in the CKD Stage section.

- **Audit Export Field Name and Details:** EGFRVALUE

All characters other than numbers or "." are stripped from the value which is truncated to a total of 5 characters with 1 decimal digit.

D.11.1.58 Quantitative Urine Albumin-to-Creatinine Ratio Value

- **Description:** Most recent Quantitative Urine Albumin-to-Creatinine Ratio (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 Audit Logic 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.

If the test found does not have a valid numeric result, then the system will look for a urine microalbumin test on the same visit date using the DM AUDIT MICROALBUMINURIA TAX taxonomy. If found, the result of that test is evaluated. If the result contains a < symbol or the words "less than," a value of 5 is assigned to UACR value. If the result contains a > symbol or contains the words "greater than" a value of 999 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 resultAlso 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 2023

This section includes the IHS Diabetes Care and Outcomes Audit Data File Specifications for 2023.

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 2023 fields 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 Audit period - 12/31/2022 for Annual Audit 2023	N/A	mm/dd/yyyy	
2	FACILITYNA	Name or abbreviation for the facility	N/A	Character (max length=20)	
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	Gender	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)	
10	TOBSCREEN	Screened for tobacco use	Audit period	# field with: 1=Yes 2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
11	TOBACCO	Tobacco use status	Most recent	# field with: 1=Current user 2=Not a current user 3=Not documented	
12	TOBCOUNSEL	Tobacco cessation counseling/education received	Audit period	# field with: 1=Yes 2=No	Populate only if TOBACCO value is 1=Current user.
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.
14	ENDSSTATUS	ENDS use status	Most recent	# field with: 1=Current user 2=Not a current user 3=Not documented	
15	FEET	Last recorded height - feet part	Last ever	# with up to 2 decimal places	If height is provided as feet and inches, be sure to provide a value for both fields: FEET and INCHES.
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).
17	WEIGHT	Weight in lbs	Last 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	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
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	EYEEEXAM	Dilated retinal exam or retinal imaging exam	Audit period	# field with: 1=Yes 2=No	
27	DENTALEXAM	Dental exam 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	Change for 2023: Skip pattern removed, so this field now should be populated for all patients.
29	DEPDX2	Active diagnosis of depression	Audit period	# field with: 1=Yes 2=No	Change for 2023: Includes active diagnosis during Audit period only.

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
30	DIETINSTR	Nutrition education	Audit period	# field with: 1=Yes by RD 2=Yes by non-RD 3=Yes by 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	
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)

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
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 canagliflozin (Invokana), dapagliflozin (Farxiga), empagliflozin (Jardiance), ertugliflozin (Steglatro)
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	Added for 2023.
42	TXACARB	Prescribed acarbose [Precose] or miglitol [Glyset]	As of the end of the Audit period	# field with: 1=Yes 2=No	
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	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
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 (Prinivil, Zestril), ramipril (Altace), ARBs: candesartan (Atacand), irbesartan (Avapro), losartan (Cozaar), telmisartan (Micardis), olmesartan (Benicar), valsartan (Diovan, Prexxartan)
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)

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
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	
51	TBDX	Tuberculosis (TB) diagnosis (latent or active) documented (ever)	Ever	# field with: 1=Yes 2=No	
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 is 2=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 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 is 1=Yes or TBTESTRSLT2 is 1=Positive.

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
55	TBTESTDATE	Date of last TB test	Ever	mm/dd/yyyy	Populate only if 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	
57	HCVSCREEN2	If not diagnosed with HCV, screened for HCV at least once	Ever	# field with: 1=Yes 2=No	Populate only if HCVDX is 2=no.
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	Change for 2023: Now also includes PCV15 and PCV20 in addition to PPSV23. PCV13 does not count.
62	TD2	Tetanus (Td, Tdap, DTaP, or DT) vaccine	Past 10 years	# field with: 1=Yes 2=No	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
63	TDAP2	Tdap vaccine	Ever	# field with: 1=Yes 2=No	
64	HEPBVAX2	Hepatitis B complete series	Ever	# field with: 1=Yes 2=No 3=Immune	-Either complete 2-dose series or complete 3-dose series counts. -Change for 2023: Now includes Prevhebro.
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	
69	HDLVALUE	HDL cholesterol value (mg/dL)	Most recent in Audit period	# with 0 decimal places	
70	LDLVALUE	LDL cholesterol value (mg/dL)	Most recent in Audit period	# with 0 decimal places	
71	TRIGVALUE	Triglyceride value (mg/dL)	Most recent in Audit period	# with 0 decimal places	

Order	Field Name	Description	Timeframe	Format/Values/Units	Comments
72	CREATVALUE	Serum creatinine value (mg/ dL)	Most recent in Audit period	# with up to 2 decimal places	
73	EGFRVALUE	Estimated GFR (eGFR) value	Most recent in Audit period	# with 1 decimal place	-Use documented value, if available.
74	UPACRVAL	Quantitative urine albumin/creatinine ratio (UACR) value (mg/g)	Most recent in Audit period	# with up to 2 decimal places	
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.
GENDER NOT VALID	Gender of patient is missing or is invalid. Check this patient's gender 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. Update the patient's DM register status.
DIABETES TYPE INVALID	Diabetes Type is invalid. Value must be 1 or 2. Update the patient's diabetes type in the diabetes register.
DIABETES TYPE - CHECK	Diabetes Type 2 is unusual in young children. Check Diabetes Type is DM TYPE = 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 for Yes, 2 for No.
TOBACCO USE IS INVALID	Tobacco Use value is invalid, must be a 1, 2 or 3.
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 or 3-Undocumented. 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, 2, or 3.
HEIGHT IN FEET LOW FOR AGE >18	Height in feet value is unusually low (less than 4). Check patient's last Height value.

Error	Definition
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.
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.

Error	Definition
DENTAL EXAM NOT VALID	Dental Exam value must be 1 or 2.
DEPRESSION ACTIVE DIAGNOSIS	Depression Active Diagnosis must be 1 or 2.
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 DM TYPE = 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 value 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 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.

Error	Definition
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.
TX SLGT2/DM TYPE 1	TX SLGT2 inhibitor therapy 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.
TD 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.

Error	Definition
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.
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 .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.
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 Cumulative Audit Report over several pages.

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IHS Diabetes Care and Outcomes Audit - RPMS Audit Audit Report for 2023 (Audit Period 01/01/2012 to 12/31/2012) Facility: 2021 DEMO HOSPITAL (INST) Annual Audit 980 patients were audited		

Unless otherwise specified, time period for each item is the 12-month Audit Period

	# of Patients (Numerator)	# Considered (Denominator)	Percent
*** NOTE: 18 Patients were not included in this report because their date of onset was after the Audit period end date.			
Gender			
Male	395	980	40%
Female	585	980	60%
Age			
<20 years	37	980	4%
20-44 years	155	980	16%
45-64 years	409	980	42%
>=65 years	379	980	39%
Diabetes Type			
Type 1	35	980	4%
Type 2	945	980	96%
Duration of Diabetes			
<1 year	5	980	1%
<10 years	80	980	8%
>=10 years	511	980	52%
Diagnosis date not recorded	389	980	40%
Body Mass Index (BMI) Category			
Normal (BMI<25.0)	53	980	5%
Overweight (BMI 25.0-29.9)	126	980	13%
Obese (BMI >=30.0)	398	980	41%
Height or weight missing	403	980	41%
Severely obese (BMI >=40.0)	121	980	12%
Blood Sugar Control			
A1C <7.0	127	980	13%
A1C 7.0-7.9	87	980	9%
A1C 8.0-8.9	69	980	7%
A1C 9.0-9.9	57	980	6%
A1C 10.0-10.9	40	980	4%
A1C >=11.0	100	980	10%
Not tested or no valid result	500	980	51%
A1C <8.0	214	980	22%
A1C >9.0	190	980	19%

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Unless otherwise specified, time period for each item is the 12-month Audit Period

	# of Patients (Numerator)	# Considered (Denominator)	Percent

Blood Pressure (BP) - Based on one value or mean of two or three values			
<140/<90	430	980	44%
140/90 - <160/<100	115	980	12%
160/100 or higher	32	980	3%
BP category undetermined	403	980	41%
Hypertension			
Diagnosed ever	718	980	73%
Diagnosed hypertension and mean BP <140/<90	379	718	53%
Diagnosed hypertension and ACE inhibitor or ARB currently prescribed.	393	718	55%
Tobacco and Nicotine Use			
Tobacco use screening during Audit period:			
Screened	516	980	53%
Not screened	464	980	47%
Tobacco use status (most recent)			
Current tobacco user	161	980	16%
In current users, cessation counseling/education received			
Yes	61	161	38%
No	100	161	62%
Not a current tobacco user	551	980	56%
Tobacco use not documented	268	980	27%
Electronic nicotine delivery system (ENDS) use screening during Audit period			
Screened	0	980	0%
Not screened	980	980	100%
ENDS use status (most recent)			
Current ENDS user	0	980	0%
Not a current ENDS user	0	980	0%
ENDS use not documented	980	980	100%

Current user of both tobacco and ENDS	0	980	0%
Current user of tobacco and/or ENDS	161	980	16%
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Facility: 2021 DEMO HOSPITAL (INST)			
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980 patients were audited			
Unless otherwise specified, time period for each item is the 12-month Audit Period			

	# of Patients (Numerator)	# Considered (Denominator)	Percent
Diabetes Treatment			

Number of diabetes meds currently prescribed			
None	541	980	55%
One medication	155	980	16%
Two medications	111	980	11%
Three medications	104	980	11%
Four or more medications	69	980	7%
Diabetes meds currently prescribed, alone or in combination			
Insulin	334	980	34%
Metformin [Glucophage, others]	262	980	27%
Sulfonylurea [glipizide, glyburide, others]	232	980	24%
DPP-4 inhibitor [alogliptin (Nesina), linagliptin (Tradjenta), saxagliptin (Onglyza), sitagliptin (Januvia)]	134	980	14%
GLP-1 receptor agonist [dulaglutide (Trulicity), exenatide (Byetta, Bydureon), liraglutide (Victoza, Saxenda), lixisenatide (Adlyxin), semaglutide (Ozempic, Rybelsus, Wegovy)]	3	980	0%
SGLT-2 inhibitor [canagliflozin, (Invokana), dapagliflozin (Farxiga), empagliflozin (Jardiance), ertugliflozin (Steglatro)]	0	980	0%
Pioglitazone [Actos] or rosiglitazone [Avandia]	0	980	0%
Tirzepatide [Mounjaro]	0	980	0%
Acarbose [Precose] or miglitol [Glyset]	2	980	0%
Repaglinide [Prandin] or nateglinide [Starlix]	0	980	0%
Pramlintide [Symlin]	0	980	0%
Bromocriptine [Cycloset]	0	980	0%
Colesevelam [Welchol]	0	980	0%
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IHS Diabetes Care and Outcomes Audit - RPMS Audit Audit Report for 2023 (Audit Period 01/01/2012 to 12/31/2012) Facility: 2021 DEMO HOSPITAL (INST) Annual Audit 980 patients were audited Unless otherwise specified, time period for each item is the 12-month Audit Period			

	# of Patients (Numerator)	# Considered (Denominator)	Percent

Statin Prescribed (Currently)			
Yes*	217	936	23%
Allergy, intolerance, or contraindication	44	980	4%
In patients with diagnosed CVD			
Yes*	129	374	34%
Allergy, intolerance, or contraindication	24	398	6%
In patients age 40-75 years			
Yes*	177	664	27%
Allergy, intolerance, or contraindication	26	690	4%
In patients with diagnosed CVD and/or age 40-75 years			
Yes*	207	781	27%
Allergy, intolerance, or contraindication	32	813	4%
*Denominator excludes patients with an allergy, intolerance, or contraindication.			
Cardiovascular Disease (CVD)			
CVD diagnosed ever	398	980	41%
CVD and mean BP <140/<90	203	398	51%
CVD and not current tobacco user	278	398	70%
CVD and aspirin or other antiplatelet/anticoagulant therapy currently prescribed	218	398	55%
CVD and GLP-1 receptor agonist currently prescribed	1	398	0%
CVD and SGLT-2 inhibitor currently prescribed	0	398	0%
CVD and statin currently prescribed*	129	374	34%
*Denominator excludes patients with an allergy, intolerance, or contraindication.			
Retinopathy			
Diagnosed ever	0	980	0%
Lower Extremity Amputation			
Any type ever (e.g., toe, partial foot, above or below knee)	58	980	6%
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Annual Audit			
980 patients were audited			
Unless otherwise specified, time period for each item is the 12-month Audit Period			
	# of Patients (Numerator)	# Considered (Denominator)	Percent

Exams			
Foot exam - comprehensive	192	980	20%
Eye exam - dilated exam or retinal imaging	305	980	31%
Dental exam	243	980	25%

Diabetes-Related Education			
Nutrition - by any provider (RD and/or other)	290	980	30%
Nutrition - by RD	157	980	16%
Physical activity	205	980	21%
Other diabetes education	439	980	45%

Any of above	474	980	48%
Immunizations			
Influenza vaccine during Audit period	365	980	37%
Pneumococcal vaccine (PCV15, PCV20, or PPSV23) - ever	632	980	64%
Td/Tdap/DTap/DT - past 10 years	650	980	66%
Tdap - ever	538	980	55%
If not immune, hepatitis B complete series - ever	532	977	54%
Immune - Hepatitis B	3	980	0%
In patients age >=50 years	0	705	0%
Shingrix/recombinant zoster vaccine (RZV) series - ever			
Depression			
Screened during Audit period	478	980	49%
Active diagnosis during Audit period	57	980	6%
Screened and/or active diagnosis during Audit period	499	980	51%
Lipid Evaluation - Note these results are presented as population level CVD risk markers and should not be considered treatment targets for individual patients.			
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Unless otherwise specified, time period for each item is the 12-month Audit Period			

	# of Patients (Numerator)	# Considered (Denominator)	Percent
LDL cholesterol	377	980	38%
LDL <100 mg/dL	278	980	28%
LDL 100-189 mg/dL	98	980	10%
LDL >=190 mg/dL	1	980	0%
Not tested or no valid result	603	980	62%
HDL cholesterol	380	980	39%
In females			
HDL <50 mg/dL	120	585	21%
HDL >=50 mg/dL	109	585	19%
Not tested or no valid result	356	585	61%
In males			
HDL <40 mg/dL	67	395	17%

HDL >=40 mg/dL	84	395	21%
Not tested or no valid result	244	395	62%
Triglycerides [1]	380	980	39%
Trig <150 mg/dL	201	980	21%
Trig 150-499 mg/dL	167	980	17%
Trig 500-999 mg/dL	12	980	1%
Trig >=1000 mg/dL	0	980	0%
Not tested or no valid result	600	980	61%
Kidney Evaluation			
Estimated Glomerular Filtration Rate (eGFR) to assess kidney function (In age >=18 years)	503	948	53%
eGFR >=60 mL/min	338	948	36%
eGFR 30-59 mL/min	108	948	11%
eGFR 15-29 mL/min	23	948	2%
eGFR < 15 mL/min	34	948	4%
eGFR Not tested or no valid result	445	948	47%
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980 patients were audited			
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	# of Patients (Numerator)	# Considered (Denominator)	Percent
Urine Albumin-to-Creatinine Ratio (UACR) to assess kidney damage	241	980	25%
UACR - normal: <30 mg/g	125	241	52%
UACR increased:			
30-300 mg/g	90	241	37%
>300 mg/g	26	241	11%
Not tested or no valid result	739	980	75%
In patients age >=18 years, eGFR and UACR	234	948	25%
Chronic Kidney Disease (CKD) (In age >=18 years)			
CKD [2]	244	948	26%
CKD [2] and mean BP <140/<90	169	244	69%
CKD [2] and ACE inhibitor or ARB currently prescribed	174	244	71%
CKD [2] and GLP-1 receptor agonist currently prescribed	1	244	0%
CKD [2] and SGLT-2 inhibitor currently prescribed	0	244	0%
CKD Stage			
Normal: eGFR >=60 mL/min and UACR <30 mg/g	95	948	10%
Stages 1 and 2: eGFR >=60 mL/min and UACR >=30 mg/g	79	948	8%
Stage 3: eGFR 30-59 mL/min	108	948	11%

Stage 4: eGFR 15-29 mL/min	23	948	2%
Stage 5: eGFR <15 mL/min	34	948	4%
Undetermined	609	948	64%
Tuberculosis (TB) Status			
TB diagnosis documented ever and/or positive test result ever	58	980	6%
If not diagnosed, TB test done ever (skin test or blood test)	528	948	56%
If TB diagnosis documented and/or positive test result, treatment initiated ever	8	58	14%
If most recent TB test result was negative, was test done after diabetes diagnosis	248	359	69%
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	# of Patients (Numerator)	# Considered (Denominator)	Percent

Hepatitis C (HCV)			
Diagnosed HCV ever	27	980	3%
In patients not diagnosed with HCV and age >= 18 years, screened ever	183	921	20%
Combined Outcome Measure			
Patients age >= 40 years meeting ALL of the following criteria: A1C <8.0, Statin currently prescribed* and mean BP <140/<90	50	815	6%
*Denominator excludes patients with a statin allergy, intolerance, or contraindication			
Diabetes Related Conditions (In age >=18 years)			
Severely obese (BMI >=40)	119	948	13%
Hypertension diagnosed ever	706	948	74%
Current tobacco user	160	948	17%
CVD diagnosed ever	386	948	41%
Retinopathy diagnosed ever	0	948	0%
Lower extremity amputation ever (any type (e.g., toe, partial foot, above or below knee)	57	948	6%
Active Depression diagnosis during Audit period	56	948	6%
CKD stage 3-5	165	948	17%
Number of diabetes related conditions			
Diabetes only	179	948	19%
Diabetes plus: One	242	948	26%

Two	281	948	30%
Three	162	948	17%
Four	64	948	7%
Five or more	20	948	2%

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

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Unless otherwise specified, time period for each item is the 12-month Audit Period

	# of Patients (Numerator)	# Considered (Denominator)	Percent
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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 agonists = glucagon-like peptide-1 receptor agonists
 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 ratio

Figure D-49: Sample Cumulative Audit Report

Appendix E 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><http://security.ihs.gov/>.

<p>Note: Users must be logged on to the IHS D1 Intranet to access these documents.</p>

The ROB listed in the following sections are specific to RPMS.

E.1 All RPMS Users

In addition to these rules, each application may include additional ROB that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

E.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.

E.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.

E.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.

E.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.

E.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.

E.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).

E.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.

E.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.

E.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.

E.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.

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.

E.1.11 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.

E.1.12 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.

E.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.

E.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).

Microalbuminuria

Albuminuria characterized by a relatively low rate of urinary excretion of albumin typically between 30 and 300 milligrams per 24-hour period.

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, please contact the IHS IT Service Desk.

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