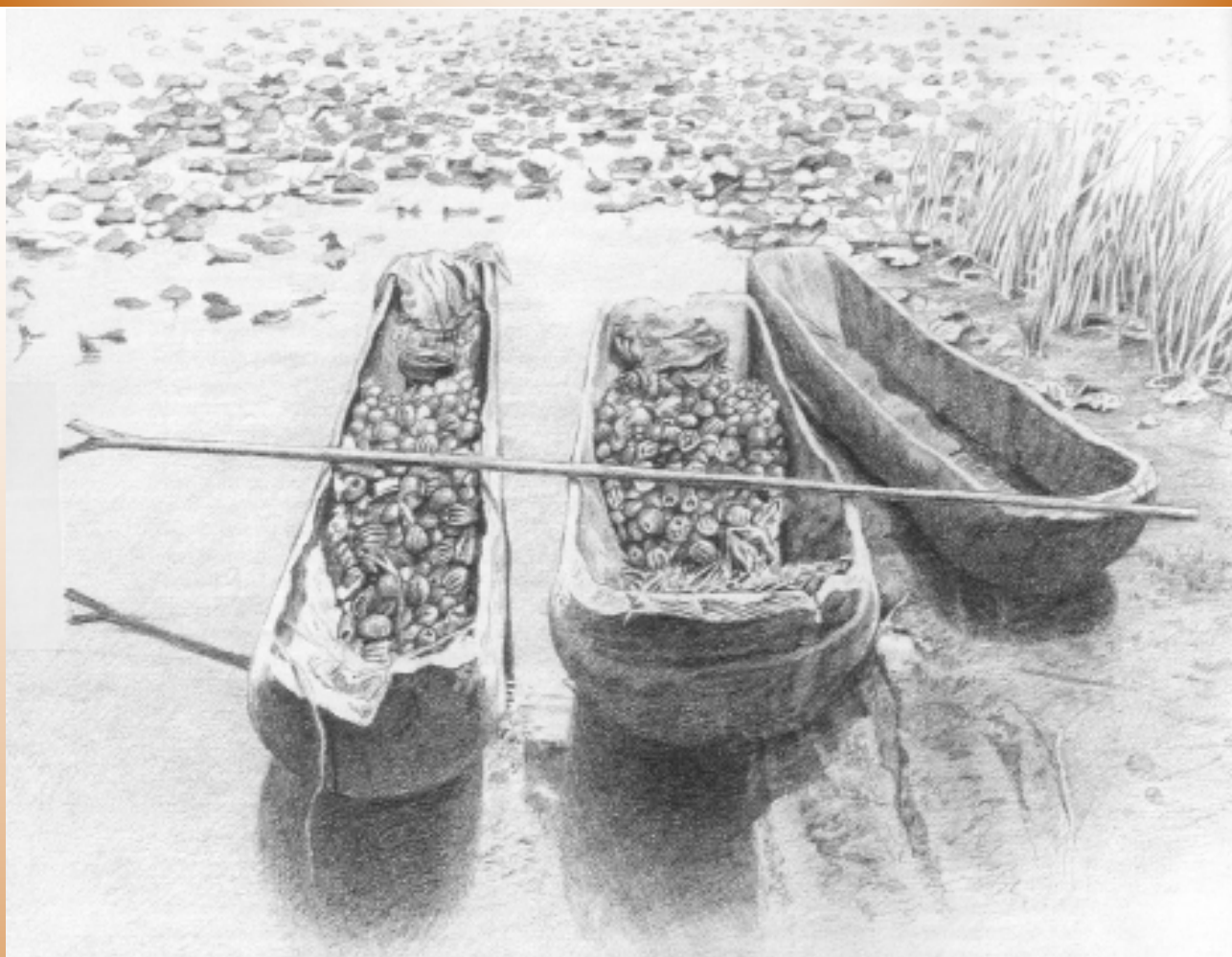


Diabetes Management System

Shortcut & Reference Manual

Western Tribal Diabetes Project

2023



Northwest Portland Area Indian Health Board

Toll Free: 800-862-5497

wtdp@npaihb.org

www.npaihb.org

Western Tribal Diabetes Project

2121 SW Broadway, Suite 300

Portland, OR 97201

Telephone: 503.228.4185
Toll Free: 800.862.5497
Fax: 503.228.4801



www.npaihb.org

Kerri Lopez, Director
klopez@npaihb.org

Don Head, Specialist
dhead@npaihb.org

Erik Kakuska, Specialist
ekakuska@npaihb.org

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Diabetes Management System

Section 1: DMS Shortcuts



Entering Patients into the Register

What: To add a patient to the diabetes register, the most common (and recommended) method is to enter patients one at a time through the Patient Management menu option. This allows you to verify that patients actually have diabetes before you enter them into the register.

You can also transfer a batch of patients using a Q-Man search template or a File-Manager file. However, when you transfer a group of patients, you risk adding miscoded patients who do not actually have diabetes.

Why: To track patient care in relation to the *IHS Standards of Care for Patients with Type 2 Diabetes*.

When: When patients are diagnosed or identified as having diabetes

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM**
2. Select Register Maintenance Option: **PM**
3. Which Register: (1-3): **Select the number corresponding to your register**
4. Select PATIENT NAME: **LAST NAME, FIRST NAME** (any patient name or health record number/chart number)
5. Add this client to the Register? NO// **YES**
6. At this point, you will be directed to the Patient Management screen

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** DIABETES MANAGEMENT SYSTEM **

VERSION 2.0 (PATCH 16)
CHEMAWA H CT
MAIN MENU - NPAIHB DIABETES

Select PATIENT NAME:

BUTTER,PEANUT M 02-01-1978 XXX-XX-5555 TRN 700055

BUTTER,PEANUT is not on
the NPAIHB DIABETES Register

Add this client to the Register? NO// Y

If the patient is not
in the register, the
system will prompt you
to add this patient to
the register.

Deleting a Patient from the Register

What: You may use the Delete Patient from the Register option to remove any patient who has not been diagnosed with diabetes. (For patients who are deceased or have moved out of the area, change register status under Patient Management #1 - Edit register data, p. 5.)

Note that this only removes the patient from the register. All demographic and visit information remains in the main clinic database (PCC).

Why: To delete miscoded patient(s) from your diabetes population.

When: As needed.

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM**
2. Select Register Maintenance Option: **DEL**
3. Which Register: (1-3): **Select the number corresponding to your register**
4. NAME OR CHART: **LAST NAME, FIRST NAME** (any patient name or health record number/chart number)
5. Are you certain you want to do this? No// **Y** (Yes)
6. Press RETURN to continue or '^' to exit. **<Enter>**

```
*****
NPAIHB DIABETES REGISTER
*****
VERSION 2.0 (Patch 16)
CHEMAWA H CT
MAIN MENU - NPAIHB DIABETES

PATIENT LOOKUP UTILITY

Select CLIENT

NAME OR CHART: BUTTER,PEANUT    M 08-07-1976 XXX-XX-5555    TRN 700055
NPAIHB DIABETES    BUTTER,PEANUT    M 08-07-1976 XXX-XX-5555    TRN 700055

***** WARNING *****

This procedure will delete ALL data for
PEANUT BUTTER from the
NPAIHB DIABETES register.
Are you certain you want to do this? No// Y (Yes)

Deletion of PEANUT BUTTER
from the NPAIHB DIABETES register...is now complete.
```

Patient information is not removed from the PCC repository, only from the diabetes register.



What: Register data includes register status, case manager, and review dates. These are only seen by people who use the Diabetes Register. The Patient Management screen also shows items such as the patient's name, address, health record number, and date of birth, which come from the PCC database and can only be changed by data entry or registration staff.

Why: Register data should help you manage your register by allowing you to group patients for reports (examples: running the cumulative audit on only active patients, generating patient panels for case managers) and viewing contact information and comments.

When: When patients are added to the register and updated as needed.

Edit register data

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM**
2. Select Register Maintenance Option: **PM**
3. Which Register: (1-3): **Select the number corresponding to your register**
4. Select PATIENT NAME: **LAST NAME, FIRST NAME** (any patient name or health record number/chart number)
5. Select Action: Quit// **Options #1-#13** (register data descriptions are below)

Register Data Descriptions:

#1 Register Status – Active, Inactive, Unreviewed, Transient, Deceased, Non-IHS, and Lost to follow-up

#2 Where followed – Health center where the patient is receiving care

#3 Case manager – This person must be in your clinic database; enter as LAST,FIRST name; can be used to generate several different reports

#4 Client Contact – Enter free text (1-30 characters) for reference by your diabetes team

#6 Comments - This option will open the word processor, and will display comments on the patient's PM Screen. To exit the word processor, type F1 (function key) and then E

#7 Local Option Entry - This option will allow you to enter a code (which you will need to designate beforehand) to differentiate groups of patients. This is a holdover from the EpiInfo 6 application, and is not used much, if at all

The following Register Data items are updated automatically:

Entry date – Provided when the individual is first entered into the diabetes register

Last edited – The last date information for the Register Data was was edited

- 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//		

Patient Management: Diagnosis

What: Type of diabetes and onset date are tracked here, similar to -- but not the same as -- the patient's problem list. You can also describe the severity in an optional field.

Why: The type and duration of diabetes have important ramifications for patient care, so it is important to make sure the onset date is included in the patient's record. The onset date is not necessarily the first visit for diabetes that the patient has at your clinic. The audit reports can find the type of diabetes and onset date from the patient's problem list, if it has been entered there, but those fields can only be updated by data entry staff at the request of a provider. This register field is convenient for diabetes program staff and can be used for reports.

When: The patient's diagnosis of diabetes and onset date should be updated when the patient is first entered onto the diabetes register.

#5 - Diagnosis

How: From the Diabetes Management System Main Menu:

1. Select the Diabetes Management System Option: **RM**
2. Select the Register Maintenance Option: **PM**
3. Which Register: (1-3): **Select the number corresponding to your register**
4. Select the PATIENT NAME: **LAST NAME, FIRST NAME** (any patient name or health record number)
5. Select Action: Quit// **5**
6. Select Action: Quit// **1** ADD Diagnosis
7. Which Diagnosis(s): (1-4): **[Choose diagnosis]**
8. Enter Date of Onset: **[Enter date of onset]**
9. Enter Severity: **N-Normal M-Mild S-Severe MO-Moderate** (optional)
10. Command: **S** to save
11. Command: **E** to exit
12. Select Action: Quit// **<Enter>**

Register Diagnosis Jan 26 2023 11:50:34 Page: 1 of 1
Make sure that the date of onset is also documented on the patient's problem list so other clinicians can see it.
Problem list entries can be modified using EHR.

DIABETES RELATED PROBLEMS ON THE PROBLEM LIST			
PROB #	DX	PROVIDER NARRATIVE	DATE OF ONSET STATUS
WOR3	E11.9	Diabetes mellitus type 2 wi	CHRONIC

Register Diagnosis	
NO.	Diagnosis
---	-----

- Previous Screen Q Quit ?? for More Actions

1 Add Diagnosis 2 Edit Diagnosis 3 Delete Diagnosis
Select Action:Quit// 1 Add Diagnosis

If a patient has a diagnosis of diabetes on their problem list, it will show up here.

The Audit Program will determine duration of diabetes from the earliest date recorded in the Register Diagnosis, the Problem List onset date, or the first PCC Diagnosis.



Patient Management: Diabetes Patient Care Summary

What: The diabetes patient care summary provides a complete review of the patient's care in relation to the *IHS Standards of Care for Patients with Type 2 Diabetes*. It includes the same data items as the audit report except medications.

Some clinics print the diabetes patient care summary at the end of the regular adult health summary.

Why: The diabetes patient care summary is an alternative to the individual audit. It gives dates of service, even if those dates are outside the one-year range of the audit date.

Since the diabetes patient care summary parallels the *IHS Standards of Care for Patients with Type 2 Diabetes*, we encourage you to generate this report before each patient visit for case management as well as for quality assurance.

When: (1) Prior to each patient visit, (2) prior to the annual diabetes audit

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM**
2. Select the Register Maintenance Option: **PM**
3. Which Register: (1-3): **Select the number corresponding to your register**
4. Select PATIENT NAME: **LAST NAME, FIRST NAME** (any patient name or health record number/chart number)
5. Select Action: QUIT// **12** (DM Care Summary (DPCS))
6. Select Action: +// **<Enter>** to scroll through, or **PL** and **<Enter>** to print DPCS to a printer

OUTPUT BROWSER Jan 26, 2023 11:53:145 PAGE 1 OF 5

***** CONFIDENTIAL PATIENT INFORMATION [ST2] FEB 25, 2020 *****
DIABETES PATIENT CARE SUMMARY Report Date: 02/25/2020

Patient: BUTTER,PEANUT HRN: 12345
Age: 43 (DOB 08/07/1976) Sex: FEMALE
CLASS/BEN: INDIAN/ALASKA NATIVE Designated PCP: STRANGE,STEVEN

Date of DM Diagnosis: 09/15/2015 (NPAIHB DIABETES)
Diabetes type: (1 or 2): 2

BMI: 28.3 Last Height: 65.00 inches 12/25/2018
Last weight: 170 lbs 12/25/2018

Tobacco Use:
Last Screened: 09/04/2018
Current Status: Not a Current user NEVER SMOKED 09/04/2018
Counseled in the past year? N/A

+ Enter ?? for more actions

+ NEXT SCREEN - PREVIOUS SCREEN Q QUIT
Select Action: +//



Patient Management: Individual Audit (Option 1)

What: This generates the IHS diabetes audit on one patient, giving a review of the patient's care over one year in comparison to the *IHS Standards of Care for Patients with Type 2 Diabetes*.

To print individual audits for all active patients on the register, see the tip box in the Cumulative Audit instructions.

Why: We encourage you to generate this report before each patient visit for case management as well as quality assurance. It is intended to alert providers to diabetes standards of care for which the patient is deficient.

The individual diabetes audit may also be used to check the accuracy of data.

When: (1) Prior to each patient visit and (2) for checking data quality, for example prior to the annual diabetes audit.

#10 – Audit Status

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM**
2. Select the Register Maintenance Option: **PM**
3. Which Register: (1-3): **Select the number corresponding to your register**
4. Select PATIENT NAME: **LAST NAME,FIRST NAME**
(any patient name or HRN)
5. Select Action: Quit// **10** (Audit Status)
6. Enter the Audit Date: **T** (today) or (any specified date)
7. Do you wish to print the patient's name on the audit sheet? N// **<Enter> or type Y for yes**
8. Do you wish to: P// **P** (to print) or **B** (to browse)
9. DEVICE: HOME// **<Enter>** to view on screen or **PRINTER NAME** to print

The date you specify is the ending date of the audit...the audit will look back one year from the date you specify.

Register Data	Jan 26, 2023 11:56:36	Page: 1 of 1
PATIENT: BUTTER, PEANUT		AGE: 44
ADDRESS: PO BOX 0,WARM SPRINGS,OR,97761		DOB: 02/01/1978
PHONE: 5411234567		HRN: 700055
PRIM CARE PROV: STRANGE,STEVEN		RES: WARM SPRINGS
STATUS: ACTIVE		
WHERE FOLLOWED: CHEMAWA H CT		
CASE MGR: COLE,ELVIS		
CONTACT: MBRADY@AOL.COM		
ENTRY DATE: DEC 4,2008		LAST EDITED:
DIAGNOSIS: TYPE 2		ONSET DATE: SEP 15,2015
COMMENTS:		
COMMENTS SHOW UP HERE		
LOCAL OPTION:		
- 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//		



Individual Audit (Option 2)

What: The individual diabetes audit provides a complete review of the patient's care in comparison to the *IHS Standards of Care For Patients With Type 2 Diabetes*. You can use this option to print individual audits for more than one patient. You can choose whether or not to include the patient's name.

To print individual audits for all active patients on the register, see the tip box in the Cumulative Audit instructions.

Why: Since the individual diabetes audit parallels the *IHS Standards of Care For Patients With Type 2 Diabetes*, we encourage you to generate this report before each patient visit for case management as well as quality assurance.

When: (1) Prior to each patient visit and (2) prior to the annual diabetes audit

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **AR** Audit Reporting...
2. End of taxonomy check. HIT RETURN" **<Enter>**
3. Select Audit Reporting Option: **DM23**
4. Which Register: (1-3): **Select the number corresponding to your register**
5. Enter the Audit Date: **T** for today's date or enter any other date
6. Run the audit for: P// **P** Individual Patients
7. Select PATIENT NAME: **LAST NAME,FIRST NAME** (any patient name or health record number/chart number)
8. Select PATIENT NAME: **<Enter>** or type additional names
9. Enter Print option: 1// **<Enter>** Print Individual Reports
10. Do you wish to print the patient's name on the audit sheet? N// **<Enter>** or **Y** for Yes
11. Do you wish to: P// **<Enter>** to print or B and **<Enter>** to browse on screen
12. DEVICE: HOME// **<Enter>** to view on screen or **PRINTER NAME** to print

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** DIABETES MANAGEMENT SYSTEM **

VERSION 2.0 (Patch 16)
CHEMAWA H CT
AUDIT REPORTING

DM23 2023 Diabetes Audit
DM22 2022 Diabetes Audit
DM21 2021 Diabetes Audit
DM20 2020 Diabetes Audit
DM19 2019 Diabetes Audit

Select Audit Reporting Option:



Sample Individual Diabetes Audit

IHS Diabetes Care and Outcomes Audit, 2023 DATE RUN: 01/26/2023 Page: 1

Audit Period Ending Date: 01/26/2023 Facility Name: CHEMAWA H CT
Reviewer initials: SXO Community: BATTLE GROUND
State of Residence: OR
Name: BUTTER, PEANUT Chart #: 22469 DOB: 12/16/1965 Sex: FEMALE
Primary Care Provider: SINGLETON, KORI

Date of Diabetes Diagnosis:
DM Register: <not documented> Problem List: 05/22/2009
First PCC DX: 05/17/2009
DM Type: 2 Type 2
DM Register: <not documented> Problem List: 250.02
PCC POV's: Type 2

Tobacco/Nicotine Use
Screened for tobacco use (during Audit period): 2 No
Tobacco use status (most recent):
2 Not a Current user NEVER SMOKED 01/05/2012
If 'Current user', tobacco cessation counseling/education received
(during Audit period):

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): 63.00 inches 01/01/2022
Weight (last in Audit period): 170 lbs 09/25/2022 BMI: 30.1

Hypertension (documented diagnosis ever): 1 Yes
Blood pressure (last 3 during Audit period): 120/70 mm Hg 09/25/2022
135/85 mm Hg 07/15/2022
145/94 mm Hg 02/02/2022

Examinations (during Audit period)
Foot (comprehensive or "complete", including evaluation of
sensation and vascular status): 1 Yes
Eye (dilated exam or retinal imaging): 1 Yes
Dental: 1 Yes

Depression
Screened for depression (during Audit period): 2 No
Depression active diagnosis (during Audit period): 2 No

Education (during Audit period)
Nutrition: 4 None
Physical activity: 2 No
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)]
X 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]
9 Tirzepatide [Mounjaro]
10 Acarbose [Precose] or miglitol [Glyset]
11 Repaglinide [Prandin] or nateglinide [Starlix]



Sample Individual Diabetes Audit

12 Pramlintide [Symlin]
13 Bromocriptine [Cycloset]
14 Colesevelam [Welchol]

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):
2 No

Statin Therapy

Prescribed (as of the end of the Audit period): 1 Yes

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) 08/04/1994

TB test result: 2 - Negative 8/4/94 Reading: 0 Result: N

If TB diagnosis documented or TB result 'Positive', treatment initiated
(isoniazid, rifampin, rifapentine, others):

If TB result 'Negative', test date: 08/04/1994

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): 2 No

Pneumococcal [PCV15, PCV20, or PPSV23] (ever): 1 Yes 10/02/2001

Td, Tdap, DTaP, or DT (in past 10 years): 2 No

Tdap (ever): 1 Yes 05/08/2009

Hepatitis B complete series (ever): 1 Yes

Shingrix/RZV complete series (ever): 2 No

Laboratory Data (most recent result during Audit period)

A1C:	6.9	09/25/2022	HEMOGLOBIN A1C
Total Cholesterol:	157	09/25/2022	CHOLESTEROL
HDL Cholesterol:	53	09/25/2022	HDL CHOLESTEROL
LDL Cholesterol:	176	09/25/2022	LDL CHOLESTEROL
Triglycerides:	256	09/25/2022	TRIGLYCERIDES
Serum Creatinine:	1.1	09/25/2022	CREATININE
eGFR:	>60	09/25/2022	EST. GFR
UACR:	36	09/25/2022	MALB.CREAT

COMBINED: Meets ALL: A1C <8.0, statin prescribed, mean BP <140/<90

2 No A1C: <Not Documented>; statin prescribed: No; Mean BP:

Local Questions

Select one:

Text:



Cumulative Diabetes Audit

What: The cumulative diabetes audit summarizes care and outcomes for a group of patients you specify (usually active patients on the register). It shows all items from the *IHS Standards of Care For Patients With Type 2 Diabetes*.

Why: You can use the cumulative diabetes audit to set goals and monitor progress in meeting the IHS standards of care (or documenting the care that is provided). It is also required annually as part of the Special Diabetes Program for Indians (SDPI).

When: Monthly – quarterly – annually for the IHS Diabetes Audit

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **AR** Audit Reporting...
2. Select Audit Reporting Option: **DM23**
3. Checking for Taxonomies to support the 2023 Audit: HIT RETURN: **<ENTER>**
(Note: You will likely see empty taxonomy errors for taxonomies related to labs and medications not used at your facility. These are OK.)
4. Which REGISTER: (1-3): **Select the number corresponding to your register**
5. Enter the Audit Date: **T** for today or exact date, e.g. 123122 for calendar year 2022
6. Run the audit for: P// **C** Members of a CMS Register
7. Do you want to select register patients with a particular status? Y// **YES**
8. Which status: A// **<Enter>** for Active, or type other status
9. Limit the audit to a particular primary care provider? N// **<Enter>** for no
10. Limit the patients who live in a particular community? N// **<Enter>** for no
11. Select Beneficiary Population to include in the audit: 1// **<Enter>**
12. Select whether to include or exclude pregnant patients in the audit: E// **<Enter>**
13. Do you want to select: A// **<Enter>** for ALL Patients selected so far
14. Enter Print option: 1// **3** Audit Report
15. Demo Patient Inclusion/Exclusion: E// **<Enter>**
16. Do you wish to: P// **<Enter>** to print, or **B** and **<Enter>** to browse
17. DEVICE: HOME// **<Enter>** to view on screen or **PRINTER NAME**, such as **SLAVE** or **S-O**, to print

Tip: Choose **1** or **4** to print **individual** sheets for all active patients

DM23 2023 Diabetes Audit
DM22 2022 Diabetes Audit
DM21 2021 Diabetes Audit
DM20 2020 Diabetes Audit
DM19 2019 Diabetes Audit

Select Audit Reporting Option:



Sample Cumulative Diabetes Audit

IHS Diabetes Care and Outcomes Audit - RPMS Audit
Audit Report for 2023 (Audit Period 01/01/2022 to 12/31/2022)
Facility: CHEMAWA H CT
Annual Audit

6827 charts were audited from 7141 patients determined to be eligible
Unless otherwise specified, time period for each item is the 12-month Audit Period

	# of Patients (Numerator)	# Considered (Denominator)	Percent
Gender			
Male	3145	6827	46%
Female	3682	6827	54%
Age			
<20 years	26	6827	0%
20-44 years	1087	6827	16%
45-64 years	3329	6827	49%
>=65 years	2385	6827	35%
Diabetes Type			
Type 1	108	6827	2%
Type 2	6657	6827	98%
Duration of Diabetes			
<1 year	298	6827	4%
<10 years	3036	6827	44%
>=10 years	3101	6827	45%
Diagnosis date not recorded	690	6827	10%
Body Mass Index (BMI) Category			
Normal (BMI<25.0)	413	6827	6%
Overweight (BMI 25.0-29.9)	1147	6827	17%
Obese (BMI >=30.0)	4544	6827	67%
Height or weight missing	723	6827	11%
Severely obese (BMI >=40.0)	1546	6827	23%
Blood Sugar Control			
A1C <7.0	2457	6827	36%
A1C 7.0-7.9	1272	6827	19%
A1C 8.0-8.9	831	6827	12%
A1C 9.0-9.9	516	6827	8%
A1C 10.0-10.9	388	6827	6%
A1C >=11.0	720	6827	11%
Not tested or no valid result	602	6827	9%
A1C <8.0	3748	6827	55%
A1C >9.0	1588	6827	23%
Blood Pressure (BP) - Based on one value or mean of two or three values			
<140/<90	4356	6827	64%
140/90 - <160/<100	1738	6827	25%
160/100 or higher	469	6827	7%
BP category undetermined	264	6827	78%
Hypertension			
Diagnosed ever	5297	6827	78%
Diagnosed hypertension and mean BP <140/<90	3190	5297	60%
Diagnosed hypertension and ACE inhibitor or ARB currently prescribed.	3856	5297	73%
Tobacco and Nicotine Use			
Tobacco use screening during Audit period:			
Screened	4838	6827	71%
Not screened	1989	6827	29%



Sample Cumulative Diabetes Audit

Tobacco use status (most recent)			
Current tobacco user	1930	6827	28%
In current users, cessation counseling/education received			
Yes	702	1930	36%
No	1228	1930	64%
Not a current tobacco user	4604	6827	67%
Tobacco use not documented	293	6827	4%
Electronic nicotine delivery system (ENDS) use screening during Audit period			
Screened	2179	6827	32%
Not screened	4648	6827	68%
ENDS use status (most recent)			
Current ENDS user	71	6827	1%
Not a current ENDS user	3282	6827	48%
ENDS use not documented	3388	6827	50%

Current user of both tobacco and ENDS	31	6827	0%
Current user of tobacco and/or ENDS	1970	6827	29%
Diabetes Treatment			
Number of diabetes meds currently prescribed			
None	1219	6827	18%
One medication	2369	6827	35%
Two medications	1903	6827	28%
Three medications	1029	6827	15%
Four or more medications	267	6827	4%
Diabetes meds currently prescribed, alone or in combination			
Insulin	2322	6827	34%
Metformin [Glucophage, others]	4158	6827	61%
sulfonylurea [glipizide, glyburide, others]	1166	6827	17%
DPP-4 inhibitor [alogliptin (Nesina), linagliptin (Tradjenta), saxagliptin (Onglyza), sitagliptin (Januvia)]	469	6827	7%
GLP-1 receptor agonist [dulaglutide (Trulicity), exenatide (Byetta, Bydureon), liraglutide (Victoza, Saxenda), lixisenatide (Adlyxin), semaglutide (Ozempic, Rybelsus, Wegovy)]	1103	6827	16%
SGLT-2 inhibitor [canagliflozin, (Invokana), dapagliflozin (Farxiga), empagliflozin (Jardiance), ertugliflozin (Steglatro)]	624	6827	9%
Pioglitazone [Actos] or rosiglitazone [Avandia]	390	6827	6%
Tirzepatide [Mounjaro]	0	6827	0%
Acarbose [Precose] or miglitol [Glyset]	17	6827	0%
Repaglinide [Prandin] or nateglinide [Starlix]	13	6827	0%
Pramlintide [Symlin]	106	6827	2%
Bromocriptine [Cycloset]	1	6827	0%



Sample Cumulative Diabetes Audit

Colesevelam [Welchol]	3	6827	0%
Statin Prescribed (Currently)			
Yes*	4061	6653	61%
Allergy, intolerance, or contraindication	173	6827	3%
In patients with diagnosed CVD			
Yes*	1638	2236	73%
Allergy, intolerance, or contraindication	85	2321	4%
In patients age 40-75 years			
Yes*	3461	5352	65%
Allergy, intolerance, or contraindication	143	5496	3%
In patients with diagnosed CVD and/or age 40-75 years			
Yes*	3787	5822	65%
Allergy, intolerance, or contraindication	164	5987	3%
*Denominator excludes patients with an allergy, intolerance, or contraindication.			
Cardiovascular Disease (CVD)			
CVD diagnosed ever	2321	6827	34%
CVD and mean BP <140/<90	1481	2321	64%
CVD and not current tobacco user	1610	2321	69%
CVD and aspirin or other antiplatelet/anticoagulant therapy currently prescribed	1467	2321	63%
CVD and GLP-1 receptor agonist currently prescribed	349	2321	15%
CVD and SGLT-2 inhibitor currently prescribed	213	2321	9%
CVD and statin currently prescribed*	1638	2321	73%
*Denominator excludes patients with an allergy, intolerance, or contraindication.			
Retinopathy			
Diagnosed ever	1138	6827	17%
Lower Extremity Amputation			
Any type ever (e.g., toe, partial foot, above or below knee)	158	6827	2%
Exams			
Foot exam - comprehensive	2582	6827	38%
Eye exam - dilated exam or retinal imaging	2477	6827	36%
Dental exam	2451	6827	36%
Diabetes-Related Education			
Nutrition - by any provider (RD and/or other)	2767	6827	41%
Nutrition - by RD	929	6827	14%
Physical activity	3060	6827	45%
Other diabetes education	3563	6827	52%

Any of above	4480	6827	66%
Immunizations			
Influenza vaccine during Audit period	3156	6827	46%
Pneumococcal vaccine (PCV15, PCV20, or PPSV23) - ever	4552	6827	67%
Td/Tdap/DTap/DT - past 10 years	5226	6827	77%
Tdap - ever	5891	6827	86%
If not immune, hepatitis B complete series - ever	3101	6827	46%
Immune - Hepatitis B	66	6827	1%
In patients age >=50 years	1587	6827	31%
Shingrix/recombinant zoster vaccine			



Sample Cumulative Diabetes Audit

(RZV) series - ever

Depression

Screened during Audit period	3112	4840	64%
Active diagnosis during Audit period	1987	6827	29%
Screened and/or active diagnosis during Audit period	5099	6827	75%

Lipid Evaluation - Note these results are presented as population level CVD risk markers and should not be considered treatment targets for individual patients.

LDL cholesterol	4956	6827	73%
LDL <100 mg/dL	3295	6827	48%
LDL 100-189 mg/dL	1626	6827	24%
LDL ≥190 mg/dL	35	6827	1%
Not tested or no valid result	1871	6827	27%

HDL cholesterol	5115	6827	75%
In females			
HDL <50 mg/dL	1629	3682	44%
HDL ≥50 mg/dL	1150	3682	31%
Not tested or no valid result	903	3682	25%

In males			
HDL <40 mg/dL	1092	3145	35%
HDL ≥40 mg/dL	1244	3145	40%
Not tested or no valid result	809	3145	26%

Triglycerides [1]	4623	6827	68%
Trig <150 mg/dL	1764	6827	26%
Trig 150-499 mg/dL	2611	6827	38%
Trig 500-999 mg/dL	195	6827	3%
Trig ≥1000 mg/dL	53	6827	1%
Not tested or no valid result	2204	6827	32%

Kidney Evaluation

Estimated Glomerular Filtration Rate (eGFR) to assess kidney function (In age ≥18 years)	5752	6813	84%
eGFR ≥60 mL/min	4719	6813	69%
eGFR 30-59 mL/min	884	6813	13%
eGFR 15-29 mL/min	101	6813	1%
eGFR < 15 mL/min	48	6813	1%
eGFR Not tested or no valid result	1061	6813	16%

Urine Albumin-to-Creatinine Ratio (UACR) to assess kidney damage	3249	6827	48%
UACR - normal: <30 mg/g	2020	3249	62%
UACR increased:			
30-300 mg/g	972	3249	30%
>300 mg/g	257	3249	8%
Not tested or no valid result	3578	6827	52%

In patients age ≥18 years, eGFR and UACR	3110	6813	46%
--	------	------	-----

Chronic Kidney Disease (CKD) (In age ≥18 years)

CKD [2]	1962	6813	29%
CKD [2] and mean BP <140/<90	1163	1962	59%
CKD [2] and ACE inhibitor or ARB currently prescribed	1405	1962	72%
CKD [2] and GLP-1 receptor agonist currently prescribed	376	1962	19%
CKD [2] and SGLT-2 inhibitor currently prescribed	191	1962	10%

CKD Stage			
Normal: eGFR ≥60 mL/min	1638	6813	24%



Sample Cumulative Diabetes Audit

and UACR <30 mg/g			
Stages 1 and 2: eGFR ≥60 mL/min	906	6813	13%
and UACR ≥30 mg/g			
Stage 3: eGFR 30-59 mL/min	884	6813	13%
Stage 4: eGFR 15-29 mL/min	101	6813	1%
Stage 5: eGFR <15 mL/min	48	6813	1%
Undetermined	3236	6813	47%
Tuberculosis (TB) Status			
TB diagnosis documented ever and/or positive test result ever	356	6827	5%
If not diagnosed, TB test done ever (skin test or blood test)	2830	6316	45%
If TB diagnosis documented and/or positive test result, treatment initiated ever	106	356	30%
If most recent TB test result was negative, was test done after diabetes diagnosis	1234	2261	55%
Hepatitis C (HCV)			
Diagnosed HCV ever	272	6827	4%
In patients not diagnosed with HCV and age ≥ 18 years, screened ever	4162	6541	64%
Combined Outcome Measure			
Patients age ≥ 40 years meeting ALL of the following criteria: A1C <8.0, Statin currently prescribed* and mean BP <140/<90	1384	5994	23%
*Denominator excludes patients with a statin allergy, intolerance, or contraindication			
Diabetes Related Conditions (In age ≥18 years)			
Severely obese (BMI ≥40)	1542	6813	23%
Hypertension diagnosed ever	5294	6813	78%
Current tobacco user	1929	6813	28%
CVD diagnosed ever	2319	6813	34%
Retinopathy diagnosed ever	1137	6813	17%
Lower extremity amputation ever (any type (e.g., toe, partial foot, above or below knee)	158	6813	2%
Active depression diagnosis during Audit period	1982	6813	29%
CKD stage 3-5	1033	6813	15%
Number of diabetes related conditions			
Diabetes only	435	6813	6%
Diabetes plus:			
One	1549	6813	23%
Two	2045	6813	30%
Three	1699	6813	25%
Four	818	6813	12%
Five or more	269	6813	4%

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



Master List

What: 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

You can also sort by a combination of these register items; for example, a common query is generating an alphabetical list of patients by status.

Why: We encourage you to generate the master list periodically and review the patient listing for status changes and/or case management purposes.

When: Monthly - Quarterly

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM** Register Maintenance...
2. Select Register Management Option: **RR** Register Reports ...
3. Select Register Reports Option: **ML**
4. Enter the Name of the Register: **IHS DIABETES**
5. Do you want to select register patients with a particular status? Y// **YES**
6. Select status: A// **ACTIVE**
7. Select another status: **<ENTER>**
8. Would you like to restrict the master list by Patient age range? NO// **<ENTER>**
9. Include Patients: A// **All Communities**
10. Include which Gender(s): A// **ALL Genders**
11. Do you want to select register patients with a particular CASE MANAGER? N// **NO**
12. Do you want to select patients with a particular facility WHERE FOLLOWED? N// **NO**
13. Select Primary Sort Value: **Patient Name**
14. Select Secondary Sort Value: **<ENTER>**
15. Should patients meeting the above criteria that have a Date of Death documented in patient registration be included in the list? N// **<ENTER>**
16. Output Type: P// **Print the List**
17. Demo Patient Inclusion/Exclusion: E// **Exclude DEMO Patients**

Note: These directions will give you Active patients on your register. You can tailor this report further by restricting age ranges, communities, gender, case manager, or where followed. The order of these criteria are above.



Sample Master List

***** CONFIDENTIAL PATIENT INFORMATION *****

ST2

Page 1

CHEMAWA H CT
DIABETES REGISTER MASTER LIST

Total number of patient selected for this report: 40

HRN	PATIENT	CASE MANAGER	LAST VISIT	LAST REVIEW	NEXT REVIEW
25634	ABUNE, LOUISE LAVERNE		12/17/18		
18623	ADGMUN, KAREN M		06/17/11		
32951	AEGLA STEFF, ANGELA T		01/16/96		
8876	BAGEI, DARELYNE L		05/07/14		
23840	BAGEI, YOLANDA		11/05/13		
400030	BLACKSLEEVE, EPATIENT		03/15/16		
43167	BUOCHERD, CARMINE J		05/18/06		
46515	BYRD, ANDREA L		01/06/14		
10434	CHEVAZ, NANCY		05/01/14	03/22/17	12/22/16
44579	CHOKWO, KELLIE E		11/07/13		
6566	CLERK, JAMES S		04/21/14		
23801	CLUSSUN, LINDA J	HEAD, DON	10/15/13	12/08/16	06/08/17
14769	FARGOSUN, GINA LOUANN		01/24/14	05/25/17	06/09/17
25991	FYNNNSUN, LORAIN Y		05/05/14		
49077	GELEKTYENUFF, LODYNNE		02/27/18		
400026	GREENSLEEVE, APATIENT		02/01/16		
19443	HACUCTE, CHARLES D	CYNKUTIS-SIMON,	04/21/14		
12706	HANSUN, HENRY A		06/25/13		
28220	HOGGYS, HERBERT J		07/27/06		
22447	HUOSAR, LANA E		05/05/14		
9505	HYLBORN, MARVEL J		04/25/14		
19818	JECKSUN, ROBIN L		05/07/14		
8410	JOCOTEN, CHRISTOPHER		05/07/14		
9734	JUHN, PARK H III	ASHRAT, M	01/03/14	06/06/18	06/06/19
43400	LUFSTRUM, ERIC S		02/28/12		
13363	MECKEREVYTZ, EVERETT	HEAD, DON	06/14/12	03/14/17	05/16/17
36514	PATHAL, GUILLERMO JR		06/23/06		
39404	PUWALL, KATHY J		06/27/03		
5372	PYNNACUUSA, RUBENA G	CHANG, KUO	02/28/13		
8108	REMUS, LYLE		04/18/14		
7522	ROSSALL, MELANIE J		04/17/14		
45705	SLAAPYNGBAER, ALISA D		06/12/08		
47000	SMITHA, WENDY A		02/02/15	09/15/17	09/15/17
14870	SMYTH, SHAWNA LOUISE		04/21/14		
31778	U'NAYLL, LAURA NOREEN		02/15/13		
400032	WHITEHORSE, GPATIENT		08/23/16		
400027	WHITESLEEVE, BPATIENT		08/01/18		
43942	WULFBLECK, CAROLYN J		07/12/11		
50517	WYLSUN, LEROY MICHAEL		04/10/14		
400029	YELLOWSLEEVE, DPATIENT		08/16/16		



Follow-Up Reports

What: The follow-up report allows you to identify members of the register who are due for or have never had, exams, procedures, diabetes patient education, immunizations, vaccines, or lab tests as part of their diabetes care.

The follow-up report displays the patients, chart numbers, and date of last exam. Only those patients who have not had a specific exam in the last 11 months 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.

Why: A quick way to identify patients who are due for care.

When: Quarterly, or as needed

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM** Register Maintenance...
2. Select Register Maintenance Option: **RR** Register Reports...
3. Select Register Reports Option: **FU** Follow-up Needed
4. Which Register: (1-3): **Select the number corresponding to your register**
5. Which Report: **ALL**
6. Which Group: Use Register Members// **<Enter>**
7. Which patients: Active// **<Enter>** for Active or type other status
8. Which Diagnosis: All Diagnoses// **<Enter>**
9. Include list of patient's upcoming appointments? NO// **<Enter>**
10. Which one: Community// **<Enter>**
11. Which Community: **<Enter>**
12. Which one: Follow-up Report// **<Enter>**
13. Demo Patient Inclusion/Exclusion: E// **<Enter>**
14. DEVICE: HOME// **<Enter>** to view on screen or **PRINTER NAME** to print

This looks for the diagnosis entered under Patient Management #5

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	Exercise
23	General Info		
3	ALL Immunizations/Vaccines-----		
31	Seasonal Flu Shot	32	Pneumovax
33	Td/Tdap	34	TB Test
35	Hepatitis B		
4	ALL Lab Tests-----		
41	LDL Cholesterol	42	HDL Cholesterol
43	Cholesterol	44	Triglyceride
45	Creatinine	46	Hemoglobin A1c
47	Estimated GFR	48	A/C Ratio
49	Hepatitis C Screening		

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

Use the one-digit codes to find whole categories and two-digit codes for specific items.

Example: '3' returns all immunizations but '31' finds people due for flu shots.



Sample Follow-Up Reports

#1: Sorted by PROVIDER

NPAIHB DIABETES Register - Active Patients

Follow-up Report: EYE EXAM

Page: 1

(For Patients due now or within the next 30 days)

REPORT DATE: JAN 26, 2023

PROVIDER	PATIENT	HRN	STATUS
APPLEGATE-MD, RO	BAGEI, LAVERNA CHAROLETTE	23840	last EYE EXAM MAY 21, 2001
APPLEGATE-MD, RO	BIARS-SCHRUADAR, MARTINA L	35448	last EYE EXAM OCT 21, 2008
APPLEGATE-MD, RO	BLECK, CONNIE L	29070	last EYE EXAM DEC 2, 2010
APPLEGATE-MD, RO	LUFSTRUM, IRVIN	43400	last EYE EXAM FEB 19, 2010
APPLEGATE-MD, RO	PEPPYN, TODD MYCHAL	35726	last EYE EXAM JAN 27, 2011
APPLEGATE-MD, RO	WHAALAR, ALVIE D	11083	last EYE EXAM FEB 22, 1993
BISCHOFF, JASON	NYVELE, CHRYSTOPHER RAY	41963	*NO* EYE EXAM on record.
HANSON, AARON P	BALGERDA, WILLIAM C L	37859	last EYE EXAM SEP 29, 2010
HANSON, AARON P	BERFYALD, RITA K	22895	last EYE EXAM NOV 25, 2010
HANSON, AARON P	CUUNS, BILLY D	36358	last EYE EXAM JAN 27, 2011
HANSON, AARON P	DEWKYNS, DUSTIN B	40950	last EYE EXAM AUG 29, 2010
HANSON, AARON P	HUFMENN, TED	41915	last EYE EXAM DEC 12, 2010
HANSON, AARON P	KULB, COLINDA R	45446	*NO* EYE EXAM on record.
HANSON, AARON P	LYTFYN, DEBRA	30775	last EYE EXAM NOV 17, 2010
HANSON, AARON P	SOLLI, GEORGE L	26904	last EYE EXAM MAY 16, 2005
HANSON, AARON P	THUMES, VIRGINIA RAE	29944	last EYE EXAM JAN 28, 2011
NOT LISTED	BLECKBAER, LISA LENORE	28605	last EYE EXAM NOV 4, 2010
NOT LISTED	HELSTAED, RACHAEL CASSANDR	8734	last EYE EXAM SEP 30, 2010
NOT LISTED	SMUOSA, LENA MARIE	22521	*NO* EYE EXAM on record.
NOT LISTED	SMYTH, MARK CARROLL	42959	last EYE EXAM JAN 14, 2010

#2: Sorted by COMMUNITY

NPAIHB DIABETES Register - Active Patients

Follow-up Report: ALL Patient Education

Page: 1

(For Patients due now or within the next 30 days)

REPORT DATE: JAN 26, 2023

COMMUNITY	PATIENT	HRN	STATUS
BEAVERTON	BLECKBAER, LISA LENORE	28605	*NO* EXERCISE ED on record.
BEAVERTON	HOYSMEN, TAMARA F	40222	*NO* NUTRITION ED on record.
BEAVERTON	HOYSMEN, TAMARA F	40222	*NO* EXERCISE ED on record.
BEAVERTON	HUFMENN, TED	41915	*NO* NUTRITION ED on record.
BEAVERTON	HUFMENN, TED	41915	*NO* EXERCISE ED on record.
CANBY	FUOSA, TONYA L	44027	*NO* NUTRITION ED on record.
CANBY	FUOSA, TONYA L	44027	*NO* EXERCISE ED on record.
ESTACADA	CREYN, MARCUS L JR	22545	*NO* NUTRITION ED on record.
ESTACADA	CREYN, MARCUS L JR	22545	*NO* EXERCISE ED on record.
FOREST GROVE	SMYTH, KEVIN J	45328	*NO* NUTRITION ED on record.
FOREST GROVE	SMYTH, KEVIN J	45328	*NO* EXERCISE ED on record.
FOREST GROVE	SMYTH, KEVIN J	45328	*NO* EXERCISE ED on record.
GRESHAM	SKYNNAR, BONNIE	13165	*NO* NUTRITION ED on record.
GRESHAM	SKYNNAR, BONNIE	13165	*NO* EXERCISE ED on record.



Creating a Follow-Up Letter

What: You can create form letters that are stored on your system. Letter inserts for information such as name, address, and date are filled in when you print.

Form letters can be printed for individual patients through Patient Management, or for groups of patients with the same follow-up needs through Follow-Up Reports.

Why: This option simplifies case management by merging patient data in the RPMS system into a letter of your choice.

When: As needed. Letters can be created, saved, and modified as you wish.

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM** Register Maintenance...
2. Select Register Maintenance Option: **LM** Letter Management...
3. Select Letter Management Option: **LAE** ADD/EDIT DMS Letters
4. Which Register: (1-3): **Select the number corresponding to your register**
5. Select Action: Quit// **2** ADD Letter
6. NAME OF LETTER: **FOOT EXAM** (this is an example name)
7. Are you adding 'FOOT EXAM' as a new DMS LETTER (the 29TH)? No// **Y**
8. LETTER:
No existing text
Edit? NO// **Y**
6. Type your letter using the INSERTS listed below. To use the inserts, enter the number surrounded by the "|" character. ([SHIFT+|], below the backspace key). For example, |3| will insert the patient's address in each letter.
You can also enter the name of the field, ex: |FIRST NAME|.
Tip: It may be easier to write your letter in another program (such as Microsoft Word) and copy and paste it into this window.
7. To save and exit, hit the **F1** key let go, and type **E**. (If that doesn't work, try either **Num Lock and then E, CTRL than E**, or the **End** key.)

TIP: You can use this function to create a quick list of the care a patient is due for. Create a letter that contains the following:

|LAST NAME|, |FIRST NAME|
|CHART|
|PROVIDER NAME|
|FOLLOW UP|

Before an appointment, check this in Patient Management, "Print Letter." Example:

BUTTER, PEANUT	
12345	
APPLEGATE, ROGER	
FOOT EXAM	last FOOT EXAM JUN 7, 2014
EYE EXAM	last EYE EXAM FEB 28, 2014
PAP SMEAR	last PAP SMEAR JUN 7, 2014



Writing a Follow-Up Letter

==[WRAP]==[INSERT]===== [LETTER]===== [<PF1>H=HELP]=====

|8|

|1| |2|

|3|

DEAR |1| |2|,

Our records show that you are due for a dental exam.

|12|

Please call the clinic at (555) 555-5555 to make your appointment.

Thank you,

Rachel Smith
Diabetes Coordinator

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

Letter Inserts

NO. INSERT

--- -----

1	FIRST NAME	14	PNEUMO EDUCATION
2	LAST NAME	15	TETANUS EDUCATION
3	ADDRESS	16	TB TEST EDUCATION
4	PRIMARY CARE PROVIDER	17	A1C HEMOGLOBIN EDUCATION
5	REGISTER PROVIDER	18	CREATININE EDUCATION
6	FOLLOW UP	19	URINE PROTEIN TEST EDUCATION
7	CHART	20	LIPID PANEL EDUCATION
8	DATE	21	FOLLOW UP WITH EDUCATION
9	EDUCATE	22	NUTRITION EDUCATION
10	FOOT EXAM EDUCATION	23	PHYSICAL ACTIVITY EDUCATION
11	EYE EXAM EDUCATION	24	A/C RATIO EDUCATION
12	DENTAL EXAM EDUCATION	25	CENTER
13	FLU SHOT EDUCATION	26	HEP B EDUCATION
		27	FOLLOW UP W/EDUC (W/O DEP, EDUC)
		28	EGFR
		29	EKG
		30	eGFR

The list of inserts is updated periodically. To see all the inserts in RPMS, choose number 4 in step 5 above.



Generating Follow-Up Letters

What: You can print a batch of letters to patients who are due for follow-up using one of the form letters created by you or someone else on your diabetes team. You can also request a follow-up report at the same time, which creates a convenient record of who the letters were printed for.

****To print one letter for a specific patient, use Patient Management option #13.**

Why: The follow-up letter can be a convenient tool to contact patients for needed care. It ensures that the *IHS Standards of Care For Patients With Type 2 Diabetes* is being addressed by your clinic.

When: Monthly, as needed.

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM** Register Maintenance...
2. Select the Register Maintenance Option: **RR** Register Reports...
3. Select Register Reports Option: **FU** Follow-up Needed
4. Which Register: (1-3): **Select the number corresponding to your register**
5. Which Report: **ALL**
6. Which Group: Use Register Members// **<Enter>**
7. Which patients: Active// **<Enter>**
8. Which Diagnosis: All Diagnoses// **<Enter>**
9. Include list of patient's upcoming appointments? NO// **<Enter>**
10. Which one: Community// **<Enter>**
11. Which Community: **<Enter >**
12. Which one: Follow-up Report// **2 (Follow-up letter)**
13. Select Letter No.: **Enter letter #** from list of created letters
14. DEVICE: HOME// **<Enter>** to view on screen or **PRINTER NAME** to print

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 Exercise
23	General Info	
3	ALL Immunizations/Vaccines-----	
31	Seasonal Flu Shot	32 Pneumovax
33	Td/Tdap	34 TB Test
35	Hepatitis B	
4	ALL Lab Tests-----	
41	LDL Cholesterol	42 HDL Cholesterol
43	Cholesterol	44 Triglyceride
45	Creatinine	46 Hemoglobin A1c
47	Estimated GFR	48 A/C Ratio
49	Hepatitis C Screening	

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

The menu is the same for Follow-up Letters and Follow-up Reports. The differentiating step is step 12, choosing either letter, report, or both.



Sample Follow-Up Letter

January 26, 2023

PEANUT BUTTER
2084 MCCOY NE
WS CAMPUS, OR 97305

DEAR PEANUT,

Our records show that you are due for a dental exam.

A yearly DENTAL EXAM is recommended to look for evidence of gum disease and other conditions that can both make diabetes harder to control and can lead to premature tooth loss.

Please call the clinic at (555) 555-5555 to make your appointment.

Thank you,

Barbara Gordon
Diabetes Coordinator



Register Patient General Retrieval (GEN)

What: Use GEN to search for patients in your register and print custom reports. Reports can be either lists of patients or counts of patients.

First, GEN allows you to search (or select) patients in your diabetes register. For example, to find all inactive patients, you would search by register status.

Decide whether you want a listing with one line per patient, or just summary counts.

Next, you choose which information you want to print about the patients you found in step 1. For example, you may want to print each inactive patient's name, chart number, and last visit date.

Lastly, GEN allows you to sort (or group) the resulting list. For example, you may want to sort your list of patients by name (alphabetical list).

Why: This report can be a useful tool for case management, updating your register, and getting information about your diabetic population.

When: As needed.

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **RM** Register Maintenance ...
2. Select Register Maintenance Option: **RR** Register Reports ...
3. Select Register Reports Option: **GEN** Patient General Retrieval (Lister)
4. Which Register: (1-3): **Select the number corresponding to your register**
5. Do you want to use a previously defined report? N// **<Enter>**
6. Select Patients based on which of the above: (1-47): *Choose from the listed criteria to search your register patients. Choose as many as you wish. You will then be asked for more specifics on your chosen criteria. For example, if you chose Register Status, you will need to enter the status you are looking for.*
7. Would you like to select additional PATIENT criteria? NO// **<Enter>**
8. Choose Type of Report: D// **<Enter>**
9. Select print item(s): (1-56): *Choose which of the listed criteria you would like printed for each patient found.*
10. Enter Column width for Patient Name (suggested: 20): (2-80): 20// **<Enter>** (For each criteria you chose to print you will be asked to enter a column width. You are aiming for a total of 80 or less. Simply press enter to choose the default width.)
11. Would you like to select additional PRINT criteria? NO// **<Enter>**
12. Sort Patients by which of the above: (1-25): *Choose which of the listed criteria you would like to have the patients sorted by.*
13. Do you want a separate page for each Patient Name? N// **<Enter>**
14. Would you like a custom title for this report? N// **<Enter>** (You can choose Yes and type in your own title that will appear at the top of the report.)
15. Do you wish to save this SEARCH/PRINT/SORT logic for future use? N// **<Enter>**
16. DEVICE: HOME// **<Enter>** to view on screen or **PRINTER NAME** to print



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

- | | | |
|--------------------------|--------------------------|--------------------------|
| 1) Patient Name | 18) Priv Ins Eligibility | 35) Intervent Result DT |
| 2) Patient Sex | 19) Primary Care Provide | 36) Care Plan |
| 3) Patient DOB | 20) Register Status | 37) Care-Plan Comment |
| 4) Birth Month | 21) Initial Entry Date | 38) Complications |
| 5) Patient Age | 22) Inactivation Date | 39) Complication Onset D |
| 6) Patient DOD | 23) Case Priority | 40) Complication Comment |
| 7) Mlg Address-State | 24) Case Manager | 41) Diagnoses |
| 8) Mlg Address-Zip Code | 25) PHN | 42) Date of Onset |
| 9) Living Patients | 26) Last Review Date | 43) Recall Date |
| 10) Chart Facility | 27) Next Review Date | 44) Etiology |
| 11) Patient Community | 28) Where PT Followed | 45) Risk Factors |
| 12) Patient Tribe | 29) Date Last Edited | 46) Medications |
| 13) Eligibility Status | 30) Case Comments | 47) Services |
| 14) Class/Beneficiary | 31) Register Provider | 48) Diagnostic Criteria |
| 15) Cause of Death | 32) Case History | |
| 16) Medicare Eligibility | 33) Interventions | |
| 17) Medicaid Eligibility | 34) Intervention Due DT | |

<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: (1-48):

* The criteria shown
in gray will not work
for most sites.

T Total Count Only
S Sub-counts and Total Count
D Detailed Patient Listing
F Delimited Export File

Choose Type of Report: D//

PRINT Data Items Menu

- | | | |
|--------------------------|--------------------------|--------------------------|
| 1) Patient Name | 20) Medicaid Eligibility | 39) Intervention Due DT |
| 2) Patient Chart # | 21) Prvt Ins Eligibility | 40) Intervention Results |
| 3) Patient Sex | 22) Patient's Last Visit | 41) Intervent Result DT |
| 4) Patient DOB | 23) Primary Care Provide | 42) Intervent Plan Categ |
| 5) Birth Month | 24) Register Status | 43) Care Plan |
| 6) Patient Age | 25) Initial Entry Date | 44) Care-Plan Comment |
| 7) Patient DOD | 26) Inactivation Date | 45) Complications |
| 8) Mlg Address-Street | 27) Case Priority | 46) Complication Onset D |
| 9) Mlg Address-State | 28) Case Manager | 47) Complication Comment |
| 10) Mlg Address-City | 29) PHN | 48) Diagnoses |
| 11) Mlg Address-Zip Code | 30) Last Review Date | 49) Date of Onset |
| 12) Home Phone | 31) Next Review Date | 50) Recall Date |
| 13) Mother's Name | 32) Where PT Followed | 51) Etiology |
| 14) Patient Community | 33) Date Last Edited | 52) Family Members |
| 15) Patient Tribe | 34) Case Comments | 53) Risk Factors |
| 16) Eligibility Status | 35) Client Contact | 54) Medications |
| 17) Class/Beneficiary | 36) Register Provider | 55) Services |
| 18) Cause of Death | 37) Case History | 56) Diagnostic Criteria |
| 19) Medicare Eligibility | 38) Interventions | |

<Enter a list or a range. E.g. 1-4,5,18 or 10,12,18,30>

<<HIT RETURN to conclude selections or 'A' to exit>>

Select print item(s): (1-56):



GEN Reports

The Patients displayed can be **SORTED** by any one of the following:

- | | |
|--------------------------------|--------------------------|
| 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.>>

Sort Patients by which of the above: (1-26):

Sample GEN Reports

GEN Report for complications

The following report will print out a patient's name, health record number, case manager, and complications, if any. This report is used to determine which patients have complications, and which complications they have. Patients with multiple complications will have them listed on succeeding lines.

Using the directions on page 26, to print out a detailed patient summary, use the following items to:

SEARCH

9) LIVING PATIENTS

38) COMPLICATIONS to specify one or more complications (optional)

Choose Type of Report: D// <Enter>

PRINT

- 1) PATIENT NAME,
- 2) PATIENT CHART #
- 46) COMPLICATIONS
- 47) COMPLICATIONS
DATE OF ONSET

SORT

- 1) PATIENT NAME

CASE MANAGEMENT PATIENT LISTING				Page 1
NPAIHB1 DIABETES REGISTER				
PATIENT NAME	HRN	COMPLICATION	COMPL ONSET DT	

ADLER,STEVEN	WOR-400000	END STAGE RENAL	02/06/99	
AEGLA,JACQUELINE MAR	WOR-46027	--	--	
BACK,STELLA J	WOR-16518	--	--	
BAGEI,GLENN L	WOR-632	KLR DIABETIC SH	10/31/11	
BAGEI,TYRONE A	WOR-24432	HYPERTENSION	06/15/10	
		DEPRESSION	12/07/11	
BEKAR,AMANDA C	WOR-45748	HIGH RISK FOOT	12/06/11	
		DRH DEPRESSION	--	
BEKAR,SHARLA M	WOR-39763	HIGH RISK FOOT	11/06/11	
BERFYALD,CARSON W	WOR-22869	--	--	
Total Patients 108				



Sample GEN Reports (continued)

GEN Report for patient status update

The following report will print out a patient's name, health record number, status, and the last time that they had visited the clinic. This report is used to determine whether your Inactive or Active patients' status is correct.

Using the directions on page 26, to print out a detailed patient summary, use the following items to:

SEARCH

20) REGISTER STATUS, specify ACTIVE, INACTIVE, TRANSIENT

Choose Type of Report: D// <Enter>

PRINT

- 1) PATIENT NAME
- 2) PATIENT CHART #
- 25) REGISTER STATUS
- 23) PATIENT'S LAST VISIT

SORT

- 13) REGISTER STATUS

CASE MANAGEMENT PATIENT LISTING Page 1			
IHS DIABETES REGISTER			
PATIENT NAME	HRN	REGISTER STATUS	LAST VISIT
-----	-----	-----	-----
DONN, SHEILA J	TRN-40457	ACTIVE	APR 24, 2020
BRADY, MARSHA	TRN-660204	ACTIVE	JUL 15, 2020
HUFFMEN, DANIEL B	TRN-11949	ACTIVE	NOV 21, 2020
MOUSE, MICKEY	TRN-700227	INACTIVE	MAR 17, 2010
AWESOMEPOWER, DUDE OF	TRN-199422	INACTIVE	JAN 31, 2008
SMITH, HICKORY	TRN-400000	TRANSIENT	OCT 14, 2010
SMYTH, LEONARD L	TRN-31511	TRANSIENT	SEP 13, 2009
Total Patients 108			

GEN Report to list patients with upcoming review dates and their case manager

This report will list patients with upcoming review dates, and the case manager, if any, that has been assigned to them. It will also list those patients without a case manager.

Using the directions on page 26, to print out a detailed patient summary, use the following items to:

SEARCH

- 27) NEXT REVIEW DATE: you will be prompted to enter a beginning date and an end date for the next review dates; enter a time frame that you want to search, like T-7 (last week) for beginning date, and T+7 (next week) for an end date.

Choose Type of Report: D// <Enter>

PRINT

- 1) PATIENT NAME
- 2) PATIENT CHART #
- 32) NEXT REVIEW
- 29) CASE MANAGER

SORT

- 18) CASE MANAGER

CASE MANAGEMENT PATIENT LISTING Page 1			
NPAIHB1 DIABETES REGISTER			
PATIENT NAME	HRN	NEXT REVIEW	CASE MANAGER
-----	-----	-----	-----
TENNAR, DWIGHT D	WOR-21431	DEC 06, 2011	ABEL, J
HALM, TRACY	WOR-21473	JUN 07, 2011	ABEL, J
FRYCKA, ARVINE J	WOR-23053	MAR 06, 2012	ABEL, J
GUNZELAZ, GREGORY B	WOR-16057	JUN 07, 2011	ACKERMAN, D
HEMPTUN, JACKIE L	WOR-44141	--	ACKERMAN, ROGER
MUURA, PAMELA JANE	WOR-41575	DEC 06, 2011	ADAMS, BOB
RUDRYGOAZ, CHRISTINE	WOR-33204	MAR 06, 2012	ALBERT, L
Total Patients 108			



Sample GEN Reports (continued)

GEN Report to list Active patients by primary care provider with last visit

This GEN report will list the living patients on your register, and their Primary Care Provider (if one is assigned), and their last visit to the clinic.

Using the directions on page 26, to print out a detailed patient summary, use the following items to:

SEARCH

9) LIVING PATIENTS

20) REGISTER STATUS (ACTIVE)

Choose Type of Report: D//
<Enter>

PRINT

1) PATIENT NAME

2) PATIENT CHART #

24) PRIMARY CARE PROVIDER

23) PATIENT'S LAST VISIT

SORT

7) PRIMARY CARE PROVIDER

CASE MANAGEMENT PATIENT LISTING				Page 1
NPAIHB1 DIABETES REGISTER				
PATIENT NAME	HRN	PRIMARY PROVIDE	LAST VISIT	
KAERNS, PHYLLIS A G	WOR-30778	--	JAN 14, 2020	
MURYN, MARTIE D	WOR-31065	--	DEC 08, 2020	
NAWBRUOGH, CARMEN YVO	WOR-33071	HANSON, AARON P	APR 05, 2020	
COLLAN, RANDI MICHELL	WOR-33832	HANSON, AARON P	JAN 13, 2020	
FYNNYCOM, RONDA R	WOR-36126	HANSON, AARON P	JAN 11, 2019	
CUUNS, BILLY D	WOR-36358	HANSON, AARON P	DEC 08, 2020	
SHERAK, TONI L	WOR-40181	HANSON, AARON P	JAN 08, 2020	
Total Patients 100				

GEN Report to count active patients assigned to primary care provider

This report will list all the primary care providers, and the number of patients that are assigned to each. Instead of the Detailed Patient Summary, at the GEN Output Options screen choose Total Counts and Sub-counts.

SEARCH

9) LIVING PATIENTS

20) REGISTER STATUS (ACTIVE)

Choose Type of Report: D// S
(Sub-counts)

SORT

7) PRIMARY CARE PROVIDER

CASE MANAGEMENT PATIENT LISTING		Page 1
NPAIHB1 DIABETES REGISTER		
PATIENT SUB-TOTALS BY: Primary Care Provider (PCC)		

Primary Care Provider (PCC):		
--		13
ADAMS, KAREN		1
APPLEGATE-MD, ROGER H		34
BAILEY, WILLIAM		1
BISCHOFF, JASON M FNP		10
HANSON, AARON P DO		39
LEE, DONNIE MD		1
LEMMERS, MICHAEL J		1
Total Patients 100		



Section 2: Supporting Information



Diabetes Capacity Pyramid

What: A self-assessment tool to measure the ability and needs of tribal diabetes data tracking systems.

Why: To determine diabetes data system needs of each program and to assess progress at improving diabetes data systems.

How: The tribes will use the tool to self-assess their capacity level.

When: This tool will either be mailed to sites and followed up with a phone call or will be discussed during site visits.

The Western Tribal Diabetes Project (WTDP) Diabetes Data Capacity Pyramid is a tool to measure the ability and needs of tribal programs to track the care and health statistics of patients with diabetes. A complete, accurate, and comprehensive data system is key to ensuring the standards of care are met for each patient with diabetes. The data system is necessary to determine the true impact diabetes has on American Indians and Alaska Natives, can be used to strengthen the care of those with diabetes and ultimately move the community towards prevention.

The structure of the Pyramid was chosen to illustrate the need for a solid foundation and the step-by-step approach necessary for a stable, sustainable diabetes data system. Progress upward on the Pyramid is dependent on the strength of the levels below. It is likely that programs will gain and lose capacity over time. By using this tool to assess diabetes data capacity WTDP can best target technical assistance and resources to create successful public health systems. This is a tool developed for tracking diabetes data systems, but can be a model for other disease management and prevention activities.

Components of the Diabetes Data Capacity Pyramid

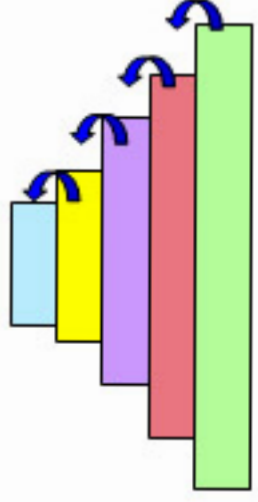
Data-Informed Prevention – ability to focus prevention efforts based on objective data

Data Utilization – ability to use data for case management, standards of care, etc.

Data Retrieval – ability to retrieve information from database

Data Entry – ability to enter comprehensive and quality data

Data Systems Capacity – foundation for a data system





Diabetes Data Capacity Pyramid



Western Tribal Diabetes Project

Site Name: _____
Date of completion: _____
Completed by: _____
____ Diabetes Team Coordinator
____ Executive Director
____ Other _____
Location of Program _____

DATA-DRIVEN PREVENTION

- ☐ Monitor risk factors in populations to target screening and interventions
- ☐ Monitor HgbA1c to prevent complications
- ☐ Monitor patients with Impaired Glucose Tolerance
- ☐ Tribe uses data to shape own research
- ☐ Other _____

DATA UTILIZATION

- ☐ Use diabetes (DM) register to manage patient care
- ☐ Determine rates of diabetes and associated complications
- ☐ Use audit results for quality improvement
- ☐ Present data to clinic
- ☐ Present data to tribe
- ☐ Use DM data for grant writing and reporting
- ☐ Other _____

DATA RETRIEVAL

- ☐ Can generate Q-MAN searches
- ☐ Can generate letters for patients follow up
- ☐ Use Diabetes Register in Q-MAN searches
- ☐ Can generate reports using the Diabetes Management System (DMS)
- ☐ Can generate the cumulative audit in DMS
- ☐ Other _____

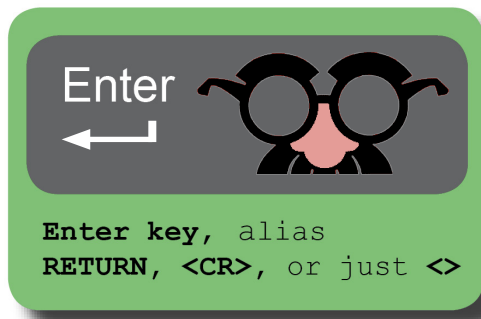
DATA ENTRY

- ☐ Perform timely Patient Care Component (PCC) data entry
- ☐ Maintain and update PCC Active Problem List
- ☐ Register is updated at least every six months
- ☐ Diabetes related care (immunizations, tobacco status, patient education, comprehensive foot exam, eye exam...) is documented in PCC
- ☐ Diabetes diagnosis, complications, and onset dates are documented in register
- ☐ Medications are documented in PCC
- ☐ Lab results are documented in PCC
- ☐ Diabetes Team has access to DMS
- ☐ Other _____

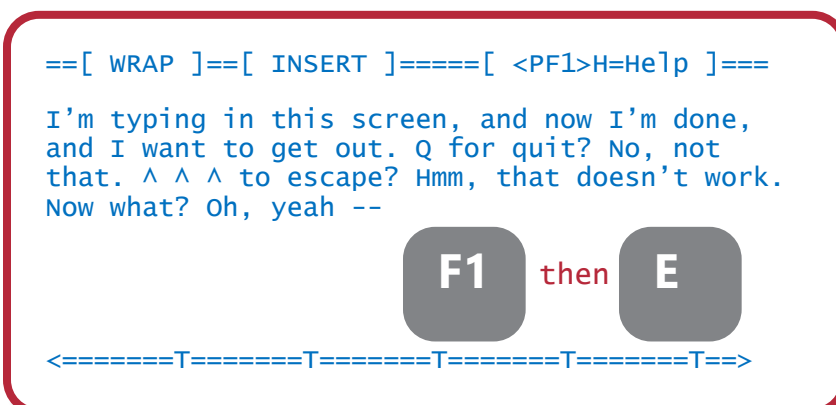
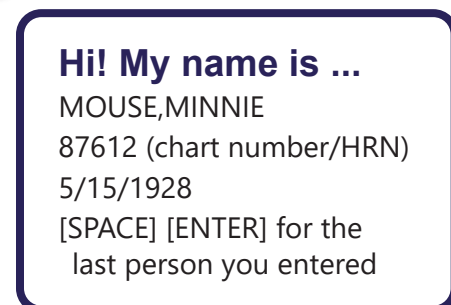
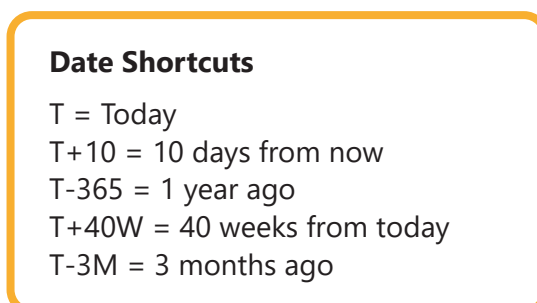
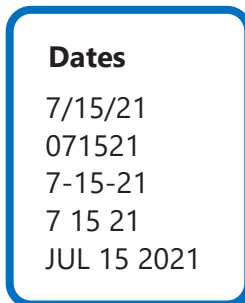
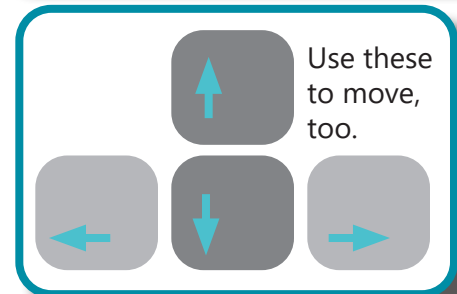
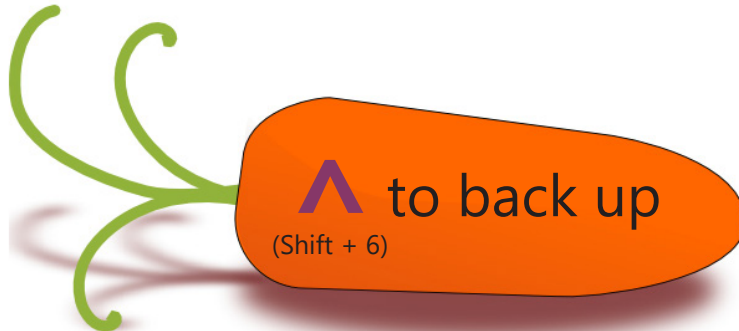
DATA SYSTEMS CAPACITY

- ☐ Have Tribal Health Board support
- ☐ Have administrative support
- ☐ Have clinical support
- ☐ Have RPMS Site Manager support
- ☐ Have computerized medical records (other than RPMS)
- ☐ Have RPMS with current packages
- ☐ Have a Diabetes Coordinator
- ☐ Have multidisciplinary diabetes team
- ☐ Diabetes team trained in DMS
- ☐ Staff trained in PCC data entry and ICD-9 Coding
- ☐ Tribal member trained in DMS
- ☐ Providers trained to document all diabetes-related care on PCC forms
- ☐ Tribal members know health data is being gathered on diabetes
- ☐ Have system to notify key staff of new diabetes patients
- ☐ Other _____

RPMS Hints



For information, type ??
For less info, type ?
For more, type ???



Defining Register Patient Status

Register Patient Status: Each patient in the register must have a register status. This allows you to group patients for reports (example: running the audit on only active patients). There is no standard definition for the different register statuses, but it is helpful if everyone in a clinic has clear guidelines to follow. Here are some examples.

Status	Example 1*	Example 2
Active	Patients who obtain primary care at your facility and have been seen for a diabetes medical visit within the past year. The Active list will be used for the annual IHS Diabetes Audit	Patients with at least 1 primary care visit in the past 12 months or patients who are not attending clinic, but you do not know if they have recently moved or found another source of care
Inactive	Patients not seen within the past 2 years or patients no longer utilizing any services of your facility, or who have moved away.	Patients who have moved away permanently or who you know to be receiving care elsewhere or who have not had a primary care visit in more than 2 years
Transient	Patients who are seen for primary diabetes care elsewhere, but visit your clinic periodically for some level of care, e.g., education, medications, dental, etc.	Not a local resident/resides outside of CHSDA
Deceased	self-explanatory	Patients you know to be deceased (does not require a death certificate on file)
Non-IHS	Non-Indian patients	Non-Indian patients
Unreviewed	Patients in your register who have not gone through medical record review. Add new patients to the Diabetes Register as "un-reviewed" until diagnosis of diabetes is substantiated.	Patients on dialysis <i>Note: The word "unreviewed" has no relationship to dialysis — it is just a category that was not being used. By designating a status for dialysis patients, you can streamline reporting for that group.</i>
Lost to follow-up	Temporary category where patients can be moved until appropriate status category is determined. These are patients seen at your facility that have not had a visit within the last year, but had a visit within the past two years. EX: "Active" register patient who has not had a visit at your facility in 13 months.	Unable to contact, defined as at least 3 tries in 12 months (should be documented in the patient's chart)
Noncompliant	<i>seldom used; not searchable in QMAN</i>	

*Example 1 definitions are taken from recommendations for California diabetes programs in 2005.



Finding New Patients with Diabetes

Saving the Register as a Template

How: From the Diabetes Management System Main Menu:

1. Select IHS CORE Option: **QMAN**
2. Enter RETURN to continue or '^' to exit: **<Enter>**
3. Your choice: SEARCH// **1** Search PCC Database
4. What is the subject of your search? LIVING PATIENTS // **REGISTER**
5. Which CMS REGISTER: **IHS DIABETES** (or the name of your register)
6. Which Status(es): (1-8): 1// **8** (all statuses)
7. Which Diagnosis: All Diagnoses// **6** (all diagnoses)
8. Attribute of IHS DIABETES REGISTER: **<Enter>**
9. Your choice: DISPLAY// **4** STORE results of a search in a FM search template
10. Enter the name of the SEARCH TEMPLATE: **DRH DM REG 030323**
11. Are you adding 'DRH DM REG 030321' as a new SORT TEMPLATE? No// **Y** (Yes)
12. Edit? NO// **<Enter>**
13. Want to run this task in background? No// **<Enter>**

Start with your initials and use the current date to name your template.

Sample Results

PATIENTS	SELLS NUMBER
----------	-----------------

WATERMAN, RAE*	100003
WHEELWRIGHT, MAND	100006
MILLER, SALLY*	100010
ROBERTS, DIANE*	100018
WHEELWRIGHT, WALL	100026
VON BRAUN, RAY	100031
SMITH, MAUDE	100047
WASHINGTON, JOAN*	100050
WINKERBEAN, JESS*	100053
SMITH, FAY*	100065
WHEELWRIGHT, MALC	100069

Search template completed...
This query generates 11 "hits"
Time required to create search template: 1 SECOND



Finding New Patients with Diabetes: Step 2

Using the template to exclude register patients from your search

How: From the Diabetes Management System Main Menu:

1. Select IHS CORE Option: **QMAN**
2. Enter RETURN to continue or '^' to exit: **<Enter>**
3. Your choice: SEARCH// **1** Search PCC Database
4. What is the subject of your search? LIVING PATIENTS // **<Enter>**
5. Attribute of PATIENT: **[DRH DM REG 030323]** ←

Type the name of your search template here.
6. Your choice (1-4): 1// **2** (Living pts must not be a member of the DRH DM REG 030321 cohort)
7. Attribute of PATIENT: **DX**
8. Enter DX: **[SURVEILLANCE DIABETES]** ←

This is a taxonomy that includes all the ICD-9 and 10 codes for diabetes
9. Press return to continue: **<Enter>**
10. Enter ANOTHER DX: **<Enter>**
11. Want to save this DX group for future use? No// **<Enter>** (No)
12. First condition of "DIAGNOSIS": **SINCE**
13. Exact date: **T-3M** (Dec 30, 2020) ←

Type in an appropriate date. You can use an exact date or date a set amount of time in the past (such as T-12M).
14. Next condition of "DIAGNOSIS": **<Enter>**
15. Attribute of LIVING PATIENTS: **<Enter>**
16. Your choice: DISPLAY// **<Enter>** to view on screen or **PRINTER NAME** to print
17. Your choice (1-3): 1// **2** or **3** (see examples below)

Sample Results

Please note: Patients whose names are marked with an "*" may have aliases.

PATIENTS (Alive)	SELLS NUMBER	DX/ICD9 #	DATE OF POV	PROVIDER NARRATIVE
SMITH, CAROL	122695	250.00	FEB 28,2020	TYPE 2 DM
SMITH, CAROL	122695	250.00	MAY 25,2020	TYPE 2 DM
BRADY, MIKE	102695	250.00	MAR 15,2020	DIABETES
WILLIAMS, JASON	102052	250.00	APR 10,2020	DM SCREENING

PATIENTS	G ROND NUMBER	DX/ICD9 #	BENEFICIARY CLASS
WILLIAMS, MARCIA	988	+	INDIAN/ALASKA NA
DAVIDSON, MARK	888	+	INDIAN/ALASKA NA
BRADY, MIKE	34567	+	INDIAN/ALASKA NA
FUDD, ELMER	88879	+	INDIAN/ALASKA NA
Total: 4			

- 2) List of each patient visit where POV was for DM, with provider narratives
- 3) Unduplicated list of patients



Patients with No Diabetes on the Problem List

PLDX: Patients with no diagnosis of diabetes on problem list

The following steps can be used to find patients on your register that do not have a diagnosis of diabetes on their problem list. Patients that do not have a diagnosis of diabetes on their problem list may have been miscoded into the diabetes register. For patients that were not miscoded, it is important for the provider to be aware of the patient's diagnosis of diabetes.

Option 1: Report for patients on the DMS Register

1. Open RPMS
2. Go to **DMS** Diabetes Management System
3. Go to **AS** Audit Setup
4. Enter **PLDX** Patients w/no Diagnosis of DM on Problem List
5. Select **R** Those who are members of a registry
6. Enter the Name of the Register: **IHS DIABETES** [or the name of your register]
7. Do you want to select register patients with a particular status? Y// **<enter>**
8. Which status: A// **<enter>** ACTIVE
9. Output Type: P// **PRINT** the List or **BROWSE** the List on the Screen
10. Enter your **Printer Name**, or use the default "HOME" to display the results on your screen.

Option 2: Report for patients with at least N visits with diabetes as purpose of visit (POV)

1. Open RPMS
2. Go to **DMS** Diabetes QA Audit Menu
3. Go to **AS** Audit Setup...
4. Enter **PLDX** Patients w/no Diagnosis of DM on Problem List
5. Select **D** Those with at least N Diabetes Diagnoses
6. How many diagnoses must the patient have had: (1-999): 3// **[enter any number]**
7. The report will allow you to restrict the results to patients whose last visit was "recent." Otherwise, the report will give you patients with at least N number of diabetes visits since the start of your RPMS database. [Enter a date, e.g., **T-24M**, or **<enter>**]
8. Enter your **Printer Name**, or use the default "HOME" to display the results on your screen.

***** CONFIDENTIAL PATIENT INFORMATION *****

S1

Page 1

TRAINING HC

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
AEGLAMEN, LONNIE W	40785	Dec 27, 1959	M	Oct 30, 2005	3
BACK, TOBI WYNN	21511	Nov 17, 1947	F	Apr 28, 1995	1
BALYLLA, GERALD A JR	30487	Jan 16, 1939	M		0
BOANU, SHERMAN W	37067	Aug 29, 1967	M	Oct 11, 2007	2
JONES, MARSHA	99975	Jan 01, 1967	F	Mar 15, 2006	2



Patients with No Date of Onset

NDOO: Patients with no date of onset

This report will list patients who are on the diabetes register who do not have an onset date for diabetes recorded in either the problem list or the register data (accessed through the Patient Management screen under #5 - Diagnosis). The Annual IHS Audit tracks the duration of time that patients have lived with diabetes.

1. Open RPMS
2. Go to **DMS** Diabetes Management System
3. Go to **RM** Register Maintenance...
4. Go to **RR** Register Reports...
5. Enter **NDOO** DM Register Pts w/no recorded DM Date of Onset
6. Which REGISTER: (1-5): **Select the number corresponding to your register**
7. Do you want to select register patients with a particular status? Y// **<ENTER>**
8. Which status: A// **<ENTER>**
9. Output Type: P// **PRINT** the List or **BROWSE** the List on the Screen
10. Demo Patient Inclusion/Exclusion: E// **<ENTER>**
11. Enter your **Printer Name**, or use the default "HOME" to display the results on your screen.

***** CONFIDENTIAL PATIENT INFORMATION *****

S1

Page 1

TRAINING HC

DIABETES REGISTER PATIENTS WITH NO RECORDED DATE OF ONSET OF DIABETES

Patients on the IHS DIABETES Register

PATIENT NAME	HRN	DOB		LAST DM DX	#DM DXS	DM ON	PL
AEGLA STEFF,AMY M	32951	Ju1 17, 1960	F	Apr 19, 2007	2		YES
ALLYSUN,JULIE ANN	477	Nov 11, 1927	F	Jun 23, 2003	56		YES
BALYLLA,GERALD A JR	30487	Jan 16, 1939	M		0		NO
BOANU,SHERMAN W	37067	Aug 29, 1967	M	Oct 11, 2007	2		NO
BUORESSE,LARRY A SR	40247	Nov 10, 1938	M	Aug 21, 2003	10		YES
CEODLA,CHAD B	29189	Jan 18, 1952	M	Ju1 10, 1995	5		YES
CREM,JOLYNE M	20989	Sep 23, 1948	F	Mar 24, 1999	6		YES
DALGERYTU,HEATHER A	38423	Nov 01, 1972	F	Feb 28, 2002	5		YES
DONN,SHEILA J	40457	Feb 18, 1937	F	Aug 04, 2003	2		YES

Last DM DX refers to the last time a patient received a diagnosis of diabetes. Typically, a patient will receive a diagnosis of diabetes every time that they see a provider for the purpose of diabetes.

#DM DXS DM refers to the number of times a patient has received a diagnosis of diabetes. The number usually refers to how many purpose of visit for diabetes the patient has.

DM ON PL: Does the patient have a diagnosis of diabetes on their problem list?



Submitting the Electronic IHS Audit

Getting ready

Update your active diabetes register patients. These are the people you provide diabetes care to, and who you want to run your reports on throughout the year. If your definition of "active" patients is not the same as the audit definition, you can always use a QMAN search to fix that. (Instructions below.)

Save a template of active patients for your audit. You are aiming to include patients who:

- Have type 1 or type 2 diabetes
- Had at least 1 primary care visit in the calendar year
- Are American Indian or Alaska Native

Exclude patients who:

- Are receiving most of their diabetes care elsewhere (through Contract Health, a dialysis center, jail, nursing home, etc.)
- Did not live in the area during the year, or
- You were unable to contact (3 failed attempts in 12 months)

A QMAN Template for your audit population

SUBJECT: REGISTER

WHICH REGISTER: <name of your register, ex: IHS DIABETES>

WHICH Status(es): 1 (active)

WHICH Register Diagnosis: 6 (all diagnoses)

ATTRIBUTE: DX

Enter DX: [SURVEILLANCE DIABETES

<enter until next condition>

ATTRIBUTE: VISIT

First condition: BETWEEN

Exact starting date: 1/1/2020

Exact ending date: 12/31/2020

Next condition: CLINIC

Enter CLINIC: [BGP PRIMARY (this uses the GPRA taxonomy for primary care visits)

<enter> until you get to the output screen

Your choice: 4 (store results in a search template)

Enter the name of the SEARCH TEMPLATE: DM AUDIT 2020

DESCRIPTION: Edit? Y

Cohort for 2020 Diabetes Audit. Uses Active IHS DIABETES register patients, beneficiary status 01, at least one visit in 2020 for diabetes (SURVEILLANCE DIABETES) coded for a clinic in the BGP PRIMARY CARE taxonomy.

<F1, E> to save and exit

Run this task in background? No// <enter>

Check and update taxonomies. Instructions on pages 48-51.

Review your audit report. Follow the steps below. If you have paper charts (not EHR), you may wish to print an individual audit sheet for all patients and review their charts for missing items (print option 4).

1. From the main menu, go to **DMS** Diabetes Management System (*may also be listed as BDM*)
2. Select Diabetes Management System Option: **AR** (Audit Reporting...)
3. Select Diabetes QA Audit Menu Option: **DM21** (2020 Diabetes Audit)
4. End of taxonomy check. HIT RETURN <enter>
5. Enter the Official Diabetes Register: **IHS DIABETES** (or the name of your register)
6. Enter the Audit Date: 12/31/2020 (The last day of the calendar year)
7. Run the Audit for: P// **S** (Search template of patients, if you made one - C if otherwise)
8. Enter Search Template Name: <the name you saved>
9. Limit the audit to a particular primary care provider? N// <enter>
10. Limit the patients who live in a particular community? N// <enter>
11. Select Beneficiary Population to include in the audit: 1//<enter> **Indian/Alaska Native (Class. 01)**
12. Select whether to include or exclude pregnant patients in the audit: E// <enter> **Exclude Preg. Patients**
13. Do you want to select: A// <enter> (ALL patients selected so far)
14. Enter Print option: 1// **3** (Audit Report)
15. Demo Patient Inclusion/Exclusion: E// <enter>



Submitting the Electronic IHS Audit

16. Do you wish to: P// **P** to print, or **B** to Browse followed by PL to print
17. DEVICE: HOME// *(enter the name of your printer here)*

Create the audit data file

Follow steps 1-13 on the previous page, then:

13. Enter the Print Option: 1// **2** *(Create AUDIT EXPORT file)*
14. Enter the name of the FILE to be Created (3-20 characters): *(Enter a short name, example: DMCLINIC21A. Your file may be saved to a server that is shared with other clinics, so it is useful to include the name or initials of your clinic in the name of the file, plus the year and an "A" in case you have to repeat.)*
15. Write down the name of the file, example: DMCLINIC21A.txt
16. Is everything ok? Do you want to continue? Y// **<enter>**
17. Demo Patient Inclusion/Exclusion: E// **<enter>**
18. Won't you queue this? Y// **<enter>**

Wait a few minutes, then ask your site manager to retrieve the data file for you. It is usually saved in the spub directory (they will know what this is). To get it to you, they should save the file to a secure network drive — please do not send this identified patient information in unencrypted email.

Upload to WebAudit and check for errors

- For audit links, including WebAudit, go to www.diabetes.ihs.gov and click on "Audit" under "Resources" in the navigation list on the left.
 - If you don't have one already, request a WebAudit account.
19. Log in, then click on **Diabetes WebAudit**, then click on **Upload Data** and follow the instructions there.
 20. Run the Data Quality Check. This will identify any values in your audit data that are unusually or impossibly high or low.
 21. Review errors from the Data Quality Check. Some may be actual values (for example, high triglycerides). These can be left as they are.
 22. Correct any actual errors (for example, a height of 12 inches) **in RPMS/EHR, not in WebAudit**. That way, your patient records will be more complete.
 - If you see multiple errors with the same lab test, this is usually because (1) the lab is in the wrong taxonomy, or (2) the lab put a phrase such as "see comments" in the result field. If (1), fix the taxonomy before you create a new data file. If (2), note the chart numbers and correct values and save them for correction by hand in WebAudit (see below).

Repeat, if needed

If you had errors and corrected them in RPMS/EHR, you will need to create and upload a new data file (repeat previous steps).

Make final corrections and lock the data

- If you found errors that you were unable to correct in RPMS/EHR, you can go to "Data Entry" and correct them on the individual records, which are identified by chart number.
- Use the Facility Administration section of WebAudit to enter
 - the total number of patients (same as your number of records unless you used a sample)
 - your SDPI grant number
- When your audit is complete, remember to "lock" the records so that IHS will know to retrieve the final file. You should receive a confirmation email within minutes.

Existing Registers on Your System

Note: You will need access to the Case Management System (CASE, CMS, or ACM) to do this, or work with your site manager.

How: From the RPMS main menu:

1. Select IHS Core Option: **CASE** or **CMS** (depends on how your system is set up)
2. Select Case Management System Option: **CR** (Create/Modify Register Structure)

You should see a list of all the registers on your system.

To exit, hit enter.

If the name has the word DIABETES in it, the register can be used with the Diabetes Management System.

Before you can use a register, you must be added as an authorized user. Only the register creator can add users.

Finding & Changing the Register Creator

How: From the RPMS Main Menu:

1. Select Menu Option: **CMS**
2. Select CASE MANAGEMENT SYSTEM Option: **ECR**
3. Select Register: <Enter the name of your register here>
4. REGISTER CREATOR: LASTNAME,FIRSTNAME// **<Enter>** to keep the same creator or **NEWLASTNAME,NEWFIRSTNAME** to change the creator

```
Select Register: IHS PRE-DIABETES
REGISTER TYPE: IHS PRE-DIABETES      ABBREVIATION: DM
DATE ESTABLISHED: DEC 07, 2010        REGISTER DEVELOPER: POSTMASTER
VIEW ALL LIST ENTRIES: NO             PCC PROBLEM LIST: YES
ALLOW LAYGO FOR LIST ENTRIES: NO     RESTRICT CATEGORY USE: YES
ELEMENTS: COMPLICATIONS
ELEMENTS: DIAGNOSES
ELEMENTS: RISK FACTORS
ELEMENTS: REGISTER DATA
ELEMENTS: DIAGNOSTIC CRITERIA
ELEMENTS: CASE REVIEW DATES
REGISTER CREATOR: HEAD,DON
AUTHORIZED USER: KAKUSKA,ERIK
AUTHORIZED USER: HEAD,DON
AUTHORIZED USER: LOPEZ,KERRI

REGISTER CREATOR: HEAD,DON//
```



Adding Users to Your Diabetes Register

How: From the Diabetes Management System main menu:

1. Select Diabetes Management System Option: **RM** Register Maintenance
2. Select Register Maintenance Option: **RM** Register Management
3. Select Register Management Option: **US** User Setup
4. Which one: **1** Add/Remove DMS Authorized User
5. Select NEW DMS User: LAST NAME, FIRST NAME
6. Do you wish to REMOVE LAST NAME, FIRST NAME as an Authorized User of the Diabetes Management System? **NO**
7. Remove LAST NAME, FIRST NAME's REGISTER MANAGER AUTHORITY? Enter YES or NO depending on whether this user is allowed manager authority.
8. Which one: "**^**" to return to the main menu.

OR

How: From the Case Management System main menu:

1. Select Case Management System Option: **AU** Add Authorized Users
2. REGISTER: **IHS DIABETES** (or the name of your diabetes register)
3. Select AUTHORIZED USER: **LAST NAME, FIRST NAME**
4. Are you adding LAST NAME, FIRST NAME as a new AUTHORIZED USER (the 3RD for this CMS REGISTER TYPE)? **Y**
5. Select AUTHORIZED USER: **<ENTER>** to exit or LAST NAME, FIRST NAME to enter another user

Creating a New Register

DIABETES

☐ Type 1

☐ Type 2

STATUS

☐ Active

☐ Inactive

☐ Transient

☐ Deceased

An analogy

Creating a register is like making a bunch of stickers that you can put on patient charts.

Adding patients to the register is like putting those stickers on charts.

Running reports is like reviewing charts that have certain stickers on them.

Creating a New Register (cont.)

You have three options for creating a register. For all options, from the main RPMS MENU:

1. Select IHS Core Option: **CASE** or **CMS** (depending on your menus -- both are for the CASE MANAGEMENT SYSTEM)

Option 1: Install Pre-Diabetes Register (PDM)

Select to create a register called IHS PRE-DIABETES with the fields listed in column 3 on the next page. You can create the register and rename it (if you wish) using CR - Option 3.

Option 2: Install IHS Diabetes Register (IDR)

Select to create a register called IHS DIABETES with the fields listed in column 1 on the next page. You can create the register and rename it (if you wish) using CR - Option 3.

Option 3: Create/Modify Register Structure (CR)

Use this option to create a diabetes register, or to rename either type of register created with PDM or IDR.

1. Select Case Management System Option: **CR**
2. Register: <SOMETHING> **DIABETES** (Typically IHS DIABETES)
IMPORTANT: The name must include the word DIABETES or PRE-DIABETES so that you can use it with DMS.
3. Are you adding 'IHS DIABETES' as a new CMS REGISTER TYPE? No // **Y**
4. REGISTER NAME: IHS DIABETES // <enter> to confirm or different name to change
5. DATE ESTABLSD: <today's date>
6. REGISTER CREATOR: LASTNAME,FIRSTNAME of person responsible for register
7. HEALTH SUMMARY DISPLAY: **Y** (regular Health Summary will show Diabetes Care Summary at the end for patients on the register)
8. BRIEF DESCRIPTION: (optional--a sentence to describe the purpose of the register)
9. 'A' to ADD, 'D' to DELETE ... ==> **<enter>**
(note: DMS will take care of these options for you, so you can skip this step)

ALL OPTIONS: Next steps (required)

1. Add YOURSELF and anyone else who needs to use the register as an authorized user (see "Adding Users to Your Register" section of this manual).
2. Users must also have security keys for DMS (see "Allocating Security Keys for DMS").
3. To use the register, go to DMS — DIABETES MANAGEMENT SYSTEM. If more than one register exists on your system, you will be prompted to specify which register.
4. There are no patients on a new register. To add them, use PM — PATIENT MANAGEMENT.



Diabetes and Pre-Diabetes Register Fields

Stored in the register		
Diabetes Register (IDR)	Both types of register	Pre-Diabetes Register (PDM)
Diagnosis Gestational DM Imp Glucose Tolerance (IGT) Type 1 Type 2 Complications CVA (Stroke) End Stage Renal Disease Fixed Proteinuria High Risk Foot Hypertension Laser Tx for Retinopathy Major Amputation(s) Minor Amputation(s) Retinopathy + [Any you add]	Register data (modified in Patient Management, #1) Register Status Where followed (clinic name) Register provider Case manager Contact Entry date (i.e. when added to register) Last review [date] Next review [date]	Diagnosis Gestational DM Imp Fasting Glucose (IFG) Imp Glucose Tolerance (IGT) Metabolic Syndrome Other Abnormal Glucose Type 1 Type 2 Complications Acquired Acanthosis Nigricans CVA (Stroke) End Stage Renal Disease Fixed Proteinuria High Risk Foot Hypertension Laser Tx for Retinopathy Major Amputation(s) Minor Amputation(s) Morbid Obesity Obesity - NOS Polycystic Ovaries Proteinuria Retinopathy + [Any you add]

Stored in the main database (PCC), but viewable through register reports		
Registration information Problem list Measurements: Height, weight, BMI, blood pressure Tobacco use & counseling Hypertension Exams: Foot, eye, dental	Patient education Depression as active diagnosis Depression screening Diabetes medications ACE/ARB use Antiplatelet therapy Lipid lower agents TB testing	ECG Immunizations: Flu, pneumovax, Td or Tdap Labs: HbA1c, serum creatinine, estimated GFR, cholesterol, HDL, LDL, triglycerides, urine protein testing

What people see in the regular record of a patient who is on a diabetes register
On the health summary: Diabetes patient care supplement (DPCS) shows up at the end In iCare: Register name displays in the individual patient's record



Allocating Security Keys for DMS

From your Site Manager's menu:

Choose **MENU MANAGEMENT**

Choose **KEY MANAGEMENT**

Choose **ALLOCATION OF SECURITY KEYS**

Allocate key: **AMQQZMENU**

Another key: **AMQQZCLIN**

Another key: **AMQQZEMAN**

Another key: **AMQQZMGR**

Another key: **AMQQZPROG**

Another key: **AMQQZRPT**

Another key: **BDMZMENU**

Another key: **BDMZ REGISTER MAINTENANCE**

Another key: **BDMZ SWITCH OLD DX ENTRIES**

Another key: **BDMZEDIT**

Another key: [Enter]

Holder of key: [LAST NAME, FIRST NAME]

Another holder: [Enter] or [Enter Another User]

<You've selected to following holders:

(User Name)

You are allocating keys. Do you wish to proceed? YES// [Enter]

<Key is being assigned to:

(User Name)

You will also need to go into Edit User and give user an "M" in the File Manager Access Code.

For the DMS GUI (Visual DMS) there are two SECONDARY MENU OPTIONS under Edit User:

SECONDARY MENU OPTIONS: BDMGRPC

SYNONYM: BDMG

SECONDARY MENU OPTIONS: BMXRPC

SYNONYM: BMX

What taxonomies are for

Some items in RPMS are entered the same way in every clinic that uses RPMS. ICD-10 codes, for example, are standardized internationally, so that R73.09 (ICD-10) always means impaired fasting glucose, no matter where you are.

Other RPMS items differ from one facility to the next. Lab tests and drugs are two examples. One site might call its fasting glucose test "Fasting glucose" and another would call it "Glucose, fasting." A person would recognize these two descriptions as the same test, but a computer would not. RPMS needs to be programmed to categorize these items correctly. This is done using taxonomies.

Taxonomies are the lists that tell RPMS what belongs in each category. For example, many patients with prediabetes may receive prescriptions for metformin. These prescriptions are not entered as "metformin," but rather as a specific name and type of metformin, along with a dose level. RPMS needs to reference a list to recognize all of those types and dose levels as "metformin."

When you run a report, such as the audit report, RPMS searches its patient records for any of those items. If a patient has received any of the metformin prescriptions on the list, the audit report will reflect that.

DM AUDIT METFORMIN DRUGS

Items currently defined to this taxonomy:

METFORMIN HCL 500 MG TABLETS

METFORMIN 500MG XR

METFORMIN 1000MG

Press enter to continue:

Example of a drug taxonomy on the RPMS training server.

Look at the taxonomy check in your audit report

How: Each time you run an audit report, the system checks for empty taxonomies or panel tests that should not be included.

(You can also run the taxonomy check alone in the AS Audit Setup menu using TC23.)

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 ACARBOSE DRUGS] has no entries

DRUG taxonomy [DM AUDIT AMYLIN ANALOGUES] has no entries

LABORATORY TEST taxonomy [DM AUDIT CHOLESTEROL TAX] contains a panel test: LIPID PANEL and should not.

ADA CODE taxonomy [DM AUDIT DENTAL EXAM ADA CODES] has no entries

DRUG taxonomy [DM AUDIT GLP-1 ANALOG DRUGS] has no entries

LABORATORY TEST taxonomy [DM AUDIT P/C RATIO TAX] has no entries

LABORATORY TEST taxonomy [DM AUDIT TB LAB TESTS] has no entries

Some common error messages. Only the panel test error message needs to be dealt with. The rest are for medications or labs not used at this facility.

TB LAB TESTS refers to blood tests for tuberculosis, not PPD skin tests.

LMR–List Labs/Medications and Their Taxonomies

Run the LMR report to list lab/medications and their taxonomies

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **AS** Audit Setup...
2. Select Audit Setup Option: **LMR**
3. Do you wish to list: **L** (for LAB TESTS) or **M** (for MEDICATIONS)
4. Enter beginning Date for Search: **01/01/22** (go back at least to the beginning of the year)
5. Enter ending date for Search: **T** (shortcut for today's date)
6. Do you wish to: P// <enter> to print or B to browse

Hint: If you choose BROWSE, you can use the PL ("Print List") command to print the entire report.

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LAB TESTS Used at TRAINING

Date Range: Jan 01, 2022 - Jan 26, 2023

LAB TEST NAME TAXONOMIES	IEN	# DONE	UNITS	RESULT
1 HOUR GLUCOSE (PRENATAL GLUCO	1255	12	mg/dL	74
17-HYDROXYPROGESTERONE	616	1	ng/dL	54
CORTISOL	114	1	mcg/dL	9.4
CREATININE	173	2,128	mg/dL	.9
DM AUDIT CREATININE TAX				
CREATININE CLEARANCE	1242	1		
CREATININE, URINE	9999171	7	mls	2.0
CYSTINE	432	1		NORMAL
D-DIMER	1665407	1		<250
...				

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MEDICATIONS (DRUGS) Used at TRAINING

Date Range: Jan 01, 2022 - Jan 26, 2023

MEDICATION/DRUG NAME TAXONOMIES	IEN	# DONE
...		
IBUPROFEN 400MG TABLET	305	531
INDOMETHACIN 25MG CAPSULE	306	119
INSULIN NPH U-100	5177	216
DM AUDIT INSULIN DRUGS		
INSULIN REG.U-100	5176	216
DM AUDIT INSULIN DRUGS		
IPRATROPIUM BROMIDE HFA INHALE	84071	197
IRBESARTAN 300MG TABLET	84557	329
LISINOPRIL 10MG TABLET	84332	773
DM AUDIT ACE INHIBITORS		
LISINOPRIL 20MG TABLET	84333	541
DM AUDIT ACE INHIBITORS		

IEN: Internal Entry Number, a unique identifier used by the lab/pharmacy for that kind of test/medication.



Sample Bad Taxonomies & How to Fix Them

Example: Wrong item in the taxonomy

If the wrong items are in the wrong taxonomies, you may see values that look weird on reports.

Excerpt of an individual audit report

```
LABORATORY DATA during audit period
Total Cholesterol: 179. mg/dl Oct 20, 2022 CHOLESTEROL
HDL Cholesterol: 43. mg/dl Oct 20, 2022 HDL (CHOLESTEROL)
LDL Cholesterol: 179. mg/dl Oct 20, 2022 CHOLESTEROL
Triglycerides: 408. mg/dl Mar 15, 2022 TRIGLYCERIDE
```

The name of the test is printed on the right. Here, you can see that CHOLESTEROL is in the LDL taxonomy because it is showing up on the LDL line.

Why this happened

```
DIABETES TAXONOMY UPDATE JAN 26, 2023 17:17:43
Updating the DM AUDIT LDL CHOLESTEROL TAX taxonomy
```

- 1) LDL
- 2) CHOLESTEROL

```
Enter ?? for more actions
A Add Taxonomy Item R Remove an Item
Select Action:+//
```

This shows the LDL CHOLESTEROL taxonomy. You can get here by following steps 1-5 below.

Solution: Delete the extra items from the taxonomy.

How: From the Diabetes Management System Main Menu:

1. Select Diabetes Management System Option: **AS** (Audit Setup...)
2. Select Audit Setup Option: **TU** (Update/Review Taxonomies for 2023 DM Audit)
3. Select Action:+// **S** (Select Taxonomy)
4. Which Taxonomy: (1-44): **26** (DM AUDIT LDL CHOLESTEROL)
7. Select Action:+//R (Remove an Item)
8. Remove Which Item (1-5): 2
9. Are you sure you want to remove the LDL CHOLESTEROL lab test? N// Y
10. Select Action:+//Q (Quit)

The corrected taxonomy

```
DIABETES TAXONOMY UPDATE Jan 26, 2023 17:19:25
Updating the DM AUDIT LDL CHOLESTEROL TAX taxonomy
```

- 1) LDL

```
Enter ?? for more actions
A Add Taxonomy Item R Remove an Item
Select Action:+//
```

(Continued on next page)



Missing Taxonomy Item(s)

Individual audit report after correction

LABORATORY DATA during audit period			
Total Cholesterol:	179. mg/dl	Oct 20, 2020	CHOLESTEROL
HDL Cholesterol:	43. mg/dl	Oct 20, 2020	HDL (CHOLESTEROL)
LDL Cholesterol:	85. mg/dl	Mar 15, 2020	LDL
Triglycerides:	408. mg/dl	Mar 15, 2020	TRIGLYCERIDE

Example: Missing taxonomy item

When you know that patients are receiving care that is not showing up on reports, the taxonomy may need to be updated.

Excerpt from a cumulative audit report

DIABETES TREATMENT			
Diet and Exercise Alone	31	42%	
Insulin	8	11%	
...			
Metformin	25	34%	

Diet & Exercise is high, and metformin is low.

If you need a reference point, use the sample cumulative audit in this manual.

Solution: Add the missing item(s)

1. Run the LMR report for medications, as described in the previous section, to get the name(s) of the missing tests.

MEDICATIONS (DRUGS) Used at TRAINING		
Date Range: Jan 01, 2020 - Feb 25, 2021		
MEDICATION/DRUG NAME TAXONOMIES	IEN	# DONE
METAMUCIL WAFERS	84636	3
METFORMIN 1000 MG TABLET	84567	431
METFORMIN HCL 500MG TABLET	84486	714
DM AUDIT METFORMIN DRUGS		
METHADONE 10MG TAB	319	348

This metformin 1000 mg tablet should be in the METFORMIN taxonomy, but there is no taxonomy listed under it.

2. Select Diabetes Management System Option: **AS** (Audit Setup...)
3. Select Audit Setup Option: **TU** (Update/Review Taxonomies for 2023 DM Audit)
4. Select Action: +// **S** (Select Taxonomy)
5. Which Taxonomy: (1-44): **28** (DM AUDIT METFORMIN)
7. Select Action: +// **A** (Add Taxonomy Item)
8. Select DRUG GENERIC NAME: **METFORMIN 1000 MG TABLET**
9. Select Action: +// **Q** (Quit)

Update taxonomies at least once a year, or when —

- Elements of care are not showing up on patient summaries, even though you know that the patient received them.
- Results look weird (too high, too low, or exactly the same as another test)
- Percentages on the cumulative audit are unexpectedly high or low
- A new patch has been installed



ICD-9 Codes for DMS and QMAN Searches

DIABETES and PRE-DIABETES DIAGNOSES	
Type 1 and Type 2 diabetes	250.00-250.93
Type 1 diabetes	All 250 codes with a 5th digit of 1 or 3
Not stated as uncontrolled	250.01, 250.11, 250.21, 250.31, 250.41, 250.51, 250.61, 250.71, 250.81, 250.91
Uncontrolled	250.03, 250.13, 250.23, 250.33, 250.43, 250.53, 250.63, 250.73, 250.83, 250.93
Type 2 diabetes	All 250 codes with a 5th digit of 0 or 2
Not stated as uncontrolled	250.00, 250.10, 250.20, 250.30, 250.40, 250.50, 250.60, 250.70, 250.80, 250.90
Uncontrolled	250.02, 250.12, 250.22, 250.32, 250.42, 250.52, 250.62, 250.72, 250.82, 250.92
Diabetes Screening	V77.1
Metabolic syndrome, pre-diabetes	277.7
Abnormal glucose	790.21-790.29
Impaired fasting glucose (IFG)	790.21
Impaired glucose tolerance (IGT) test (oral)	790.22
Other abnormal glucose	790.29
Gestational Diabetes (GDM)	648.80-648.84
DIABETES COMPLICATIONS	
End Stage Renal Disease (ESRD)	585, V56.0 (hemodialysis encounter), V45.1 (s/p hemodialysis)
Lower Extremity Amputation (LEA)	895.0-897.7, V49.70-V49.77 (s/p LEA)
Hypertension (HTN)	401.0-405.99
Retinopathy	250.50-250.53, 362.01-362.02
Laser treatment for retinopathy	CPT 67228
Neuropathy	250.60-250.63, 337.1, 355.9, 357.2
Proteinuria (includes microalbuminuria)	791.0
Hyperlipidemia (cholesterol or triglycerides)	272.0-272.4
Stroke (CVA)	436
Transient Ischemic Attack (TIA)	435.9
Heart Attack (MI)	410.00-410.92 (acute MI)
Tuberculosis	010.00-018.96, 137.0-137.4, 795.5, V12.01
Non-compliance with medical treatment	V15.81
RISK FACTORS FOR DIABETES and RISK BEHAVIORS	
Obesity	278.00
Morbid obesity for surgical treatment	278.01
Acanthosis nigricans	701.2
Family history of diabetes	V18.0
Polycystic ovarian syndrome (PCOS)	256.4
Lack of exercise	V69.0
Inappropriate eating habits	V69.1
Smoking	305.1-305.13, V15.82 (history of smoking)
Depression	296.*, 300.*, 301.13, 308.3, 309.*, 311.*



ICD-10 Codes for DMS and QMAN Searches

DIABETES and PRE-DIABETES DIAGNOSES	
Type 1 and Type 2 diabetes	
Type 1 diabetes	E10.10-E10.9
With complications... E10.10-E10.8	ketoacidosis, nephropathy, CKD, retinopathy, diabetic cataract, neuropathy, amyotrophy, peripheral angiopathy, arthropathy, dermatitis, foot/skin ulcer, periodontal disease, hypoglycemia, hypersmolarity, unspecified
Without complications	E10.9
Type 2 diabetes	E11.01-E11.9
With complications... E11.01-E11.8	ketoacidosis, nephropathy, CKD, retinopathy, diabetic cataract, neuropathy, amyotrophy, peripheral angiopathy, arthropathy, dermatitis, foot/skin ulcer, periodontal disease, hypoglycemia, hypersmolarity, unspecified
Without complications	E11.9
Diabetes Screening	Z13.1
Metabolic syndrome, pre-diabetes	E88.81
Abnormal glucose	R73.09
Impaired fasting glucose (IFG)	R73.01
Impaired glucose tolerance (IGT) test (oral)	R73.02
Other abnormal glucose	R73.09
Gestational Diabetes (GDM)	O24.410-O24.439
DIABETES COMPLICATIONS	
End Stage Renal Disease (ESRD)	I12.0, I13.11, I13.2, N18.6
Lower Extremity Amputation (LEA)	T87.33-T87.54
Hypertension (HTN)	I10, I15.0-I15.9, I27.0-I27.2, I87.301-I87.399, I97.3, K76.6
Retinopathy	E08.311-E08.359, E09.311-E09.359, E10.311-E10.359, E11.311-E11.359, E13.311-E13.359
Neuropathy	E08.40, E08.43, E09.40, E09.43, E10.40, E10.43, E11.40, E11.43, E13.40, E13.43
Proteinuria (includes microalbuminuria)	N06.0-N06.9, R80.0-R80.9
Hyperlipidemia (cholesterol or triglycerides)	E78.2-E78.5
Stroke (CVA)	G46.3, G46.4
Transient Ischemic Attack (TIA)	G45.8, G45.9
Heart Attack (MI)	I21.01-I25.2
Tuberculosis	A15.0-A15.9, A17.89, A17.9, A18.01-A18.89, A19.0-A19.9, B90.0-B90.9, J65, O98.011-O98.03, P47.0
Non-compliance with...	Z91.11 (dietary regimen), Z91.14 (medication regimen), Z91.15 (renal dialysis), Z91.19 (medical treatment)
RISK FACTORS FOR DIABETES and RISK BEHAVIORS	
Obesity	E66.01-E66.9
Acanthosis nigricans	L83
Family history of diabetes	Z83.3
Polycystic ovarian syndrome (PCOS)	E28.2
Lack of physical exercise	Z72.3
Inappropriate eating habits	Z72.4



Section 3: Reference Materials



Indian Health Service
Standards of Care and Clinical Practice Recommendations:
Type 2 Diabetes

Diabetes Audit Logic Descriptions

IHS Standards of Care for Type 2 Diabetes (Updated 2022)

Diabetes Standards of Care and Resources for Clinicians and Educators Recommendations At-a-Glance

Component	Care/Test/Screening	Frequency/Which Patients “At diagnosis”=when <i>diabetes</i> is diagnosed
General Recommendations for Care	Perform diabetes-focused visit Review care plan: assess goals/strengths/barriers Assess nutrition, physical activity, BMI, and growth in youth	Every 3-6 months Each diabetes visit, revise as needed Each visit
Aspirin or Other Antiplatelet Therapy	Aspirin therapy 75-162 mg/day (unless contraindicated, or at increased risk of bleeding)	Prescribe if known ASCVD <i>Consider</i> if no known ASCVD but at increased risk for ASCVD (e.g., age 50-70 and 1 or more risk factors for ASCVD)
Autonomic Neuropathy	Assess CV symptoms; resting tachycardia, exercise intolerance, orthostatic hypotension Assess GI symptoms; gastroparesis, constipation, diarrhea Assess sexual health/function for men and women	At diagnosis, then annually At diagnosis, then annually At diagnosis, then annually
Behavioral Health	Assess emotional health (e.g., depression, substance abuse)	Each visit
Blood Pressure	Check blood pressure Adult goal: <140/<90 mmHg Youth goal: Varies with age	Each visit
Eye Care	Comprehensive dilated eye exam by an eye care professional or retinal imaging	At diagnosis, then annually or as directed by an eye care professional
Foot Care	Visual inspection of feet with shoes and socks off Perform comprehensive lower extremity/foot exam Screen for PAD (consider ABI)	Each visit; stress daily self-exam At diagnosis, then annually At diagnosis, then annually
Glycemic Control	Check A1C, set/review individualized goal Address medication adherence, hypoglycemia Review SMBG and/or CGM results, if prescribed	Every 3-6 months Each visit Each visit
Hep C Screening	Screen for hepatitis C with a hepatitis C antibody test	At least once for persons ≥ 18 years
Immunizations	Hepatitis B, influenza, pneumococcus, shingles, tetanus/diphtheria/pertussis	See Immunizations Standard of Care for schedules
Kidney Care	Check UACR Check serum creatinine and estimated GFR If HTN/CKD, prescribe ACE Inhibitor or ARB unless contraindicated	At diagnosis, then at least annually At diagnosis, then at least annually
Lipid Management	Check fasting lipid profile Lifestyle therapy Statin therapy	At diagnosis, then annually, as needed All patients with diabetes Patients with diabetes aged 40-75 and those with ASCVD regardless of age
Nutrition	Provide nutrition education and support (health care team) Refer to RD for MNT, if available	At diagnosis, then annually or more as needed At diagnosis, then annually or more as needed
Oral Care	Inspection of gums/teeth Dental exam by dental professional	At diagnosis, then at least annually At diagnosis, then at least annually
Preconception, Pregnancy, and Postpartum Care	Ask about reproductive intentions/assess contraception Provide preconception counseling Screen for undiagnosed type 2 diabetes Screen for GDM in all women not known to have diabetes Screen for type 2 diabetes in women who had GDM	At diagnosis, then each visit 3-4 months prior to conception At first prenatal visit At 24-28 weeks gestation At 6-12 weeks postpartum, then every 1-3 years lifelong
Tobacco Use	Assess smoking, oral tobacco use, e-cigarette use, and exposure to secondhand smoke For tobacco users, provide cessation counseling	Screen annually Each visit
Tuberculosis Screening	Screen for TB with a skin or blood test	At least once after diabetes diagnosis



Diabetes Risk Assessment Tools

Diabetes risk assessment tools can be used to identify asymptomatic individuals at increased risk for diabetes, and determine if a diagnostic test should be performed.

- ✧ 60-Second Type 2 Diabetes Risk Test of the American Diabetes Association, which can also be accessed with the Diabetes Risk Test from the National Institute of Diabetes and Digestive and Kidney Diseases
- ✧ Prediabetes Risk Test of the Centers for Disease Control and Prevention

Recommendations for Diagnosing Type 2 Diabetes and Identifying Prediabetes

How to Diagnose Type 2 Diabetes

Use one of the criteria below to diagnose type 2 diabetes in non-pregnant people:

- ✧ A1C level of 6.5% or higher
- ✧ Fasting plasma glucose (FPG) level of 126 mg/dL or higher, after the person has had no caloric intake overnight for at least 8 hours
- ✧ 2-hour plasma glucose (PG) level of 200 mg/dL or higher with a 75-gm oral glucose tolerance test
- ✧ Random plasma glucose test result of 200 mg/dL or higher in people with symptoms of hyperglycemia, such as increased thirst, increased urination, unexplained weight loss, fatigue, or blurred vision

Two abnormal results from the same or different tests are required for diagnosis (e.g. two A1C levels \geq 6.5% or an A1C value \geq 6.5% and an FPG test result \geq 126 mg/dL). However, a single random test result of 200 mg/dL or higher in a person with symptoms is diagnostic for diabetes.

→ **Note:** Although point-of-care capillary A1C and/or glucose tests can be used to screen people for diabetes, only laboratory-run tests should be used for diagnosis.

How to Identify Prediabetes

People with prediabetes have blood glucose levels that are above the normal range but not elevated to meet the criteria for diabetes. An individual with prediabetes may also have other risk factors related to diabetes such as obesity, abnormal blood lipid levels, and high blood pressure.

Use any one of the following criteria to identify people with prediabetes.:

- ✧ A1C level of 5.7% to 6.4%
- ✧ Fasting plasma glucose level of 100 mg/dL to 125 mg/dL
- ✧ 2-hour plasma glucose value of 140 mg/dL to 199 mg/dL during a 75-gm oral glucose test

Clinical Practice Recommendations (Updated 2022)

How Often to Test Non-pregnant, Asymptomatic AI/AN Adults for Diabetes

Test for diabetes in asymptomatic adults, and then every 3 years thereafter. Consider testing adults more often if they have additional risk factors (such as those listed below):

Overweight/obese (body mass index [BMI] ≥ 25 kg/m²), physical inactivity, type 2 diabetes in a first-degree relative, history of gestational diabetes, history of cardiovascular disease, signs of insulin resistance or conditions associated with it (e.g., acanthosis nigricans, polycystic ovarian syndrome, hypertension, or dyslipidemia with HDL cholesterol level lower than 35 mg/dL and/or triglycerides level higher than 250 mg/dL) Test people with **prediabetes** for diabetes each year.

Test people with **prediabetes** for diabetes each year.

How Often to Test Asymptomatic AI/AN Youth for Diabetes

Test overweight and obese youth (those with a BMI in the 85th percentile or higher) at the onset of puberty or after age 10 years (whichever comes first), and then every 3 years thereafter.

Consider testing children and adolescents more frequently if they have additional risk factors, such as:

- ✧ Increasing BMI over time
- ✧ Maternal history of diabetes or gestational diabetes during the child's gestation
- ✧ Family history of diabetes
- ✧ Signs of insulin resistance or conditions associated with it (e.g., acanthosis nigricans, polycystic ovarian syndrome, hypertension, dyslipidemia, or small-for-gestational-age birth weight)

Test children and adolescents with **prediabetes** for diabetes each year.

→ **Note:** In patients who present with hyperglycemic symptoms, testing for diabetes is warranted regardless of risk factors listed above.

For a copy of the complete version of the IHS Standards of Care visit: www.diabetes.ihs.gov

2023 Diabetes Audit Logic Descriptions

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.

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

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

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)

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.

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.

2023 Diabetes Audit Logic Descriptions

Audit Export Field Name and Details: REVIEWER

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.

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.

DATE OF BIRTH

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.

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

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.

DATE OF DIABETES DIAGNOSIS

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 PXR DIABETES SNOMED subset. For each problem on the problem list in these code ranges the date of onset is picked up. The earliest of all the dates of onset found is used. Where the date of onset was found is also displayed.

For the selected date: if year only documented, 0701 is used for month/day; if month/year are documented 15 is used for the day.

Audit Logic: The diabetes onset date. This date is used in the calculation of the duration of diabetes. The system obtains the date from three different dates in the following order:

- The date of onset from the Diabetes Register.
- The earliest date of onset from all diabetes related problems on the problem list. The problem list is scanned for all problems in the ICD diagnosis code ranges defined in the SURVEILLANCE DIABETES taxonomy or SNOMED code defined in PXR DIABETES SNOMED subset.
- The first recorded diagnosis (POV) of diabetes in PCC. ICD codes: SURVEILLANCE DIABETES taxonomy.

Audit Report: Duration of Diabetes: When calculating the duration of diabetes, the earliest of the date of onset from the diabetes register or the problem list date of onset is used. Duration of diabetes is calculated from that date to the Audit date. If neither the date of onset in the register nor the date of onset in the problem list is recorded, the duration of diabetes is not

2023 Diabetes Audit Logic Descriptions

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.

DM 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 2

See 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: DMType:

- 1=Type 1
- 2=Type 2 (or uncertain)

If the system cannot determine the diabetes type, Type 2 is assumed.

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 PXR M BGP TOBACCO SCREENED and PXR M BGP 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

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)



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**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 PXR M BGP TOBACCO SCREENED and PXR M BGP 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 PXR M BGP 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



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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:
- PXR M BGP TOBACCO SMOKER
- PXR M BGP TOBACCO SMOKELESS
- PXR M BGP TOBACCO SCREENED
- PXR M BGP 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

ELECTRONIC NICOTINE (ENDS)-SCREENED DURING AUDIT PERIOD

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

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.

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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

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.

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.

BMI

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)



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- 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.

HYPERTENSION DOCUMENTED

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

BLOOD PRESSURES (LAST 1, 2 or 3)

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.

FOOT EXAM - COMPLETE

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



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EYE EXAM (dilated or retinal imaging)

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: EYEEEXAM

- 1=Yes
- 2=No

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

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.

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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

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 SCRNXS]
- 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

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: DIETINST

- 1=Yes by RD
- 2=Yes by non-RD
- 3=Yes by RD & non-RD
- 4=None



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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

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

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

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.

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Therapy	Taxonomy Name
Insulin	DM AUDIT INSULIN DRUGS
Metformin	DM AUDIT METFORMIN DRUGS
Sulfonylurea	DM AUDIT SULFONYLUREA DRUGS
DPP4 inhibitor	DM AUDIT DPP4 INHIBITOR DRUGS
GLP-1 agonist	DM AUDIT GLP-1 ANALOG DRUGS
SGLT-2 inhibitor	DM AUDIT SGLT-2 INHIBITOR DRUG
Pioglitazone, rosiglitazone	DM AUDIT GLITAZONE DRUGS
Acarbose, miglitol	DM AUDIT ACARBOSE DRUGS
Rapaglinide, Nateglinide	DM AUDIT SULFONYLUREA-LIKE
Pramlintide	DM AUDIT AMYLIN ANALOGUES
Bromocriptine	DM AUDIT BROMOCRIPTINE DRUGS
Colesevelam	DM AUDIT COLESEVELAM DRUGS

Audit Report: Diabetes Treatment section

- Number of diabetes medications currently prescribed.
- Diabetes meds currently prescribed, alone or in combination:
 - Insulin
 - Metformin
 - Sulfonylurea
 - DPP-4 inhibitor
 - GLP-1 receptor agonist
 - SGLT-2 inhibitor
 - Pioglitazone or rosiglitazone
 - Tirzepatide [Mounjaro]
 - Acarbose or miglitol
 - Repaglinide or Nateglinide
 - Pramlintide
 - Bromocriptine
 - Colesevelam

Audit Report: Cardiovascular Disease (CVD) section

- CVD and GLP-1 receptor agonist currently prescribed
- CVD and SGLT-2 inhibitor currently prescribed

Audit Report: Chronic Kidney Disease (CKD) section

- CKD and GLP-1 receptor agonist currently prescribed
- CKD and SGLT-2 inhibitor currently prescribed

Audit Export Field Name and Details: See 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

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):

Audit Logic: The taxonomy used to find ACE Inhibitors and angiotensin receptor blockers (ARBs) is DM AUDIT ACE INHIBITORS. If



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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

ASPIRIN/ 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

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

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

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

2023 Diabetes Audit Logic Descriptions

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.

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.



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- 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

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 PXMR 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

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.

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

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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: TBTESTSLT2

- 1=Positive
- 2=Negative
- 3=No result documented
- Leave blank if value for TBTESTDONE3 is not 1 or 2

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 TBTESTSLT2 is not 1=Positive

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



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Leave blank if value for TBTESTSLT2 is not 2=Negative

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

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

RETINOPATHY (DIAGNOSED EVER)

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

LOWER LEG AMPUTATION (EVER)

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



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- 1=Yes
- 2=No

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, quadri
- 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

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



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- 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

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

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:

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:



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- 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

SHINGRIX 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

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



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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

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

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

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



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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

TRIGLYCERIDES

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

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

eGFR (ESTIMATED GFR)

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 result

Also used in the CKD Stage section.

Audit Export Field Name and Details: EGFRVALUE

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

QUANTITATIVE URINE ALBUMIN CREATININE RATIO (UACR) Value

Description: Most recent Quantitative Urine Albumin-to-Creatinine Ratio (UACR) value.



2023 Diabetes Audit Logic Descriptions

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 result

Also used in the CKD Stage section.

Audit Export Field Name and Details: UPACRVAL

All non-numeric characters are stripped from the value.

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.

EXTENDED LOCAL QUESTIONS

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.



This manual was created by the Western Tribal Diabetes Project
of the Northwest Portland Area Indian Health Board's (NPAIHB) Tribal Epidemiology Center.

Kerri Lopez, Director

Don Head, Specialist

Erik Kakuska, Specialist

2121 SW Broadway, Suite 300

Portland, OR 97201

www.npaihb.org

wtdp@npaihb.org

800-862-5497



Northwest Portland Area Indian Health Board
Toll Free: 800-862-5497
wtdp@npaihb.org
www.npaihb.org