RESOURCE AND PATIENT MANAGEMENT SYSTEM

PCC Management Reports
(APCL)

Patch 16 Addendum

Version 3.0 Patch 16
May 2005

Office of Information Technology
Albuquerque, New Mexico
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1.0 Introduction

Please review these changes and add a copy of them to any printed documentation your site may be using for PCC Patch Management Reports v3.0. These changes will be integrated into future versions of the software and user manuals and will no longer be considered an addendum at the time of the next release.

Patch 16 of PCC Management Reports version 3.0 contains the following changes:

- The new 2005 Diabetes Audit has been added to APCL version 3.0 (section 2.0)

**Note:** For a complete list of changes made by patch 16, please refer to the patch 16 notes file.
2.0 The 2005 RPMS Diabetes Audit

The 2005 Diabetes Audit has been distributed in PCC Managements Patch 16 (apcl0300.16k) and should be used by all IHS/Tribal or Urban facilities that wish to use the Resource and Patient Management System (RPMS) totally or in part for performing the 2005 Diabetes Audit.

The new DM05 menu option may be found either in PCC Management Reports under the DM Diabetes QA Audit Menu option or under the DA Diabetes QA Audit Menu option of the Diabetes Management System. Access the 2005 menu options by selecting DM05. Note that there are a number of new menu options that will be described in this document.

- DM Diabetes Management System
  - DA Diabetes QA Audit Menu
    - DM05 2005 Diabetes Program Audit

```
** PCC Management Reports       **
**   2005 Diabetes Audit Report Menu  **
****************************************
DM05   Run 2005 Diabetes Program Audit
D5TC   Check Taxonomies for the 2005 DM Audit
D5TU   Update/Review Taxonomies for 2005 DM Audit
EAUD   Run the 2005 Audit w/predefined set of Pts
PR05   Run 2005 PreDiabetes/Metabolic Syndrome Audit
PDTC   Check Taxonomies for the 2005 Pre-Diabetes Audit
PDTU   Update/Review Taxonomies for 2005 PreDiab Audit
****************************************
```

Select 2005 Diabetes Program Audit Option:

** Figure 2-1: New 2005 Diabetes Audit Report menu **

2.1 Check Taxonomies for the 2005 DM Audit (D5TC)

Begin the 2005 audit process by selecting the Check Taxonomies for the 2005 DM Audit (D5TC) option to review the taxonomies required for the 2005 audit.

To check taxonomies for the 2005 DM audit, follow these steps:
1. Type D5TC at the “Select 2005 Diabetes Program Audit Option:” prompt.
2. Type the name of an output device at the “Device:” prompt. Press the Enter key to accept the default response.

Select 2005 Diabetes Program Audit Option: D5TC  Check Taxonomies for the 2005 Diabetes Audit

Checking for Taxonomies to support the 2005 Audit.  
Please enter the device for printing. 

DEVICE: HOME// <enter> 
Checking for Taxonomies to support the 2005 Audit...

In order for the 2005 Diabetes Audit to find all necessary data, several taxonomies must be established. The following taxonomies are missing or have no entries:
A/C RATIO Lab Taxonomy [DM AUDIT A/C RATIO TAX] has no entries 
SDM providers Taxonomy [DM AUDIT SDM PROVIDERS] has no entries 
End of taxonomy check. HIT RETURN:

Figure 2-2: Using the D5TC option

Important note:

Even though only two taxonomies have been displayed as having no entries, ALL LAB, MEDICATION, EDUCATION and HEALTH FACTOR taxonomies should be reviewed and updated before attempting to run the 2005 audit. Please consult Pharmacy and Laboratory staff to ensure that the correct tests and medications are added to the taxonomies.

DM AUDIT SDM PROVIDERS
This taxonomy is not used for the 2005 audit so do not be concerned if there are no entries.

DM AUDIT A/C RATIO TAX
This taxonomy is a new taxonomy for 2005. It was added to differentiate between laboratory tests that measure urine microalbumin when results are reported in mg/L and tests for Microalbumin/Creatinine Ratio where results are measured in mg/g Creatinine. Assistance of your laboratory staff may be required to be sure that both the original DM AUDIT MICROALBUMINURIA TAX and the new DM AUDIT A/C RATIO TAX are correctly populated.
2.2 Update/Review Taxonomies for 2005 DM Audit (D5TU)

This is a new menu option that has been designed to assist the user in updating the taxonomies required for the audit. The option to Review or Edit the taxonomies has been removed. When the D5TU option is chosen, all taxonomies required for the 2005 audit are displayed with only two choices – Display the current contents of that taxonomy or Select that taxonomy for editing (Figure 2-3).

Note that there are actually 39 taxonomies that are available for reviewing or editing. The additional taxonomies that do not appear on the first screen may be displayed one at a time by pressing the down arrow key (↓) or pressing the plus key (+) and then the Enter key to display the entire second screen. The category of taxonomy is displayed on the far right side of each taxonomy name. Those taxonomies in the ICD DIAGNOSIS category do not need to be updated.

To REVIEW taxonomies for the 2005 DM audit, follow these steps:

1. Type D5TU at the “Select 2005 Diabetes Program Audit Option:” prompt.

2. The Taxonomies To Support 2005 Diabetes Audit Reporting screen will display (Figure 2-3)

3. Type D at the “Select Action:” prompt.

4. Type the number of the taxonomy you want displayed at the “Which Taxonomy:” prompt.
**TAXONOMIES TO SUPPORT 2005 DIABETES AUDIT REPORTING**

1. **SURVEILLANCE DIABETES**
   - Diabetes Diagnoses Codes
   - ICD DIAGNOS

2. **SURVEILLANCE HYPERTENSION**
   - Hypertension Diagnoses Codes
   - ICD DIAGNOS

3. **SURVEILLANCE TUBERCULOSIS**
   - Tuberculosis Diagnoses Codes
   - ICD DIAGNOS

4. **DM AUDIT DEPRESSIVE DISORDERS**
   - Depressive Disorders Diagnoses
   - ICD DIAGNOS

5. **DM AUDIT DIET EDUC TOPICS**
   - Diabetes Diet Education Topics
   - EDUCATION T

6. **DM AUDIT EXERCISE EDUC TOPICS**
   - Diabetes Exercise Education Topics
   - EDUCATION T

7. **DM AUDIT OTHER EDUC TOPICS**
   - Other Diabetes Education Topics
   - EDUCATION T

8. **DM AUDIT SMOKING CESS EDUC**
   - Smoking Cess Education Topics
   - EDUCATION T

9. **DM AUDIT TOBACCO HLTH FACTORS**
   - Tobacco Health Factors
   - HEALTH FACT

10. **DM AUDIT PROBLEM SMOKING DXS**
    - Smoking related diagnoses for
    - ICD DIAGNOS

11. **DM AUDIT PROBLEM HTN DIAGNOSES**
    - Hypertension Diagnoses
    - ICD DIAGNOS

12. **DM AUDIT PROBLEM DIABETES DX**
    - Diabetes Diagnoses
    - ICD DIAGNOS

13. **DM AUDIT SMOKING RELATED DXS**
    - Smoking related diagnoses for
    - ICD DIAGNOS

14. **DM AUDIT CESSATION HLTH FACTOR**
    - Smoking Cessation Health Factors
    - HEALTH FACT

15. **DM AUDIT SELF MONITOR DRUGS**
    - Self Monitoring Drugs Taxonomy
    - DRUG

16. **DM AUDIT TB HEALTH FACTORS**
    - TB Status Health Factors
    - HEALTH FACT

Enter ?? for more actions

---

5. The contents of the selected taxonomy will display (Figure 2-4). In this example the contents of the DM AUDIT DIET EDUC TOPICS taxonomy are displayed.

**DM AUDIT DIET EDUC TOPICS**

Items currently defined to this taxonomy:

- **DM-DIET**
- **DM-NUTRITION**
  - NUTRITION (SESSION 1: INTRODUCTION TO FOOD LABELS)
  - NUTRITION (SESSION 2: INTRODUCTION TO CARBOHYDRATE COUNTING)
  - NUTRITION (SESSION 3: INTRODUCTION TO EXCHANGE LISTS)
  - NUTRITION (SESSION 4: INTRODUCTION TO FOOD SHOPPING)
  - NUTRITION (SESSION 5: INTRODUCTION TO HEALTHY COOKING)
  - NUTRITION (SESSION 6: GUIDELINES FOR EATING AWAY FROM HOME)
  - NUTRITION (SESSION 7: GUIDELINES FOR THE USE OF ALCOHOL)
  - NUTRITION (SESSION 8: GUIDELINES FOR CHOOSING A HEALTHY DIET)
- **DMC-NUTRITION**

Press enter to continue:
To UPDATE taxonomies for the 2005 DM audit, follow these steps:

**Note:** All of the Education taxonomies will require updating to include the new Diabetes Curriculum codes (DMC). The taxonomy update process is similar to that used for previous audits.

1. Type **D5TU** at the “Select 2005 Diabetes Program Audit Option:” prompt.

2. The Taxonomies To Support 2005 Diabetes Audit Reporting screen will display (Figure 2-3)

3. Type **S** at the “Select Action:” prompt.

4. Type the number of the taxonomy you want to update at the “Which Taxonomy:” prompt.

5. The contents of the selected taxonomy will display (Figure 2-4) and you may add or remove entries from that taxonomy. In this example the contents of the DM AUDIT DIET EDUC TOPICS taxonomy are displayed.

6. To add a taxonomy item, type **A** at the “Select Action:” prompt.

7. Type the name of the new taxonomy item at the “Select TAXONOMY NAME:” prompt. For this example enter either DM or DMC to see a list of all topics in either the old DM education series or the new DMC series. The
topics will display in groups of 5 and the enter key must be pressed in order to see the next group of 5 topics.

8. A topic may be added to the list by typing the number preceding that topic and pressing the Enter key.

<table>
<thead>
<tr>
<th>Select EDUCATION TOPICS NAME: DMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1       DMC-ACUTE COMPLICATIONS    DMC-AC</td>
</tr>
<tr>
<td>2       DMC-BEHAVIORAL GOALS (MAKING HEALTHY CHANGES) DMC-BG</td>
</tr>
<tr>
<td>3       DMC-BLOOD SUGAR MONITORING, HOME DMC-BGM</td>
</tr>
<tr>
<td>4       DMC-CHRONIC COMPLICATIONS (PREVENTION &amp; TREATMENT) DMC-CC</td>
</tr>
<tr>
<td>5       DMC-DIABETES MEDICINE - INSULIN DMC-IN</td>
</tr>
</tbody>
</table>

Press <RETURN> to see more, '^' to exit this list, OR

CHOOSE 1-5: <enter>

| 6       DMC-DISEASE PROCESS         DMC-DP |
| 7       DMC-EXERCISE                DMC-EX |
| 8       DMC-FOOT CARE               DMC-FTC |
| 9       DMC-KNOWING YOUR NUMBERS (ABC) DMC-ABC |
| 10      DMC-MEDICATIONS             DMC-M |

Press <RETURN> to see more, '^' to exit this list, OR

CHOOSE 1-10: <enter>

| 11      DMC-MIND, SPIRIT AND EMOTION DMC-MSE |
| 12      DMC-NUTRITION               DMC-N |
| 13      DMC-PRE-PREGNANCY COUNSELING DMC-PPC |
| 14      DMC-N-AL NUTRITION (SESSION 7: GUIDELINES FOR THE USE OF ALCOHOL) DMC-N-AL |
| 15      DMC-N-CC NUTRITION (SESSION 2: INTRODUCTION TO CARBOHYDRATE COUNTING) DMC-N-CC |

Press <RETURN> to see more, '^' to exit this list, OR

CHOOSE 1-15: 14 <enter>

*Figure 2-6: Adding a taxonomy item*

9. **This process must be continued number by number until each education topic in that category has been added to the taxonomy list.**

10. When the updating of a single taxonomy has been completed, type Q then press the Enter key at the “Select action:” prompt to exit that taxonomy.

11. The next taxonomy requiring review and updating may then be selected and updated. See the PCC Management Reports Taxonomy Setup Guide from June 2003 for suggested members of each taxonomy.

**Note:** If you have not already done so, be sure that the STATIN drugs have been removed from the LIPID LOWERING DRUGS TAX and added to the DM AUDIT STATIN DRUGS TAX. Also, be sure that the Aspirin drugs are in the DM AUDIT ASPIRIN DRUG TAX and all other anti-platelet drugs are included in the DM AUDIT ANTI-PLATELET DRUG TAX. Drug taxonomies require extra care to ensure that each drug in that category has been added to the taxonomy. There may be two or more drugs with what appear to be the same name and same strength. However, each of these drugs will need to be added to the
Once the taxonomies have been updated, the DM 2005 audit may be run. There are two options for running the 2005 audit:

- Run 2005 Diabetes Program Audit (DM05)
- Run the 2005 Audit w/predefined set of Pts (EAUD)

The DM05 option must be used for the official audit. The EAUD option is a tool to compare the data on the DM Audit to that on the CRS/GPRA Report for Diabetes-Related Indicators.

2.3 Run 2005 Diabetes Program Audit (DM05)

This option is the equivalent of previous years’ electronic audits. Registers, templates, status, primary care providers, and communities may all be selected by the individual running the audit. The official 2005 Diabetes Audit should be run using this option.

To run the 2005 Diabetes Program Audit, follow these steps:
1. Type DM05 at the “Select 2005 Diabetes Program Audit Option:” prompt.
2. Enter the Official Diabetes Register Name
3. Identify whether your program has received Special Diabetes Program for Indian (SDPI) grant monies.
4. If your program has received grant monies, enter the program grant number.
5. Enter the audit date. All data in the year preceding this date will be reviewed. A date in the future may be used as the audit date to identify patients who may have specific care needs before the official audit date.
6. Determine whether the audit will be run for a specific register, a template of patients, or one or more individual patients.
7. If Register is selected, enter the name of the Register to be audited. If a template is selected, enter the name of the template. If one or more individual patients are to be audited, enter them by last name, first name or chart number.
8. Identify the status of the patient(s) to be included in the audit.
9. Determine whether you want to limit the audit to a particular primary care provider. This can only be done if patients are assigned to a designated or primary care provider at your facility.
10. Determine whether you want to limit the audit to patients who live in a particular community.

11. If you have selected a Register or Template to audit, determine whether you will audit all the patients in the Register or template or a random sample. A suggested number of patients to be included in the random sample can be determined from the chart distributed in the 2005 audit instructions.

12. If a random sample has been selected, identify how many patients will be included in the audit.

13. Determine what format is to used for the audit output –
   a. Individual audit sheet for each person.
   b. A cumulative audit summary report.
   c. An EPI INFO file.
   d. Both individual sheets as well as a cumulative audit. This option is most often chosen by facilities where the data in RPMS will need to be supplemented by manual chart reviews.

If the EPI INFO file option is chosen, supply a 5-8 character unique name for the EPI INFO file. Be sure to queue the report as shown below to run after hours or during a time when fewer users are using the RPMS system.

```
Enter Print option: 1// 2 Create EPI INFO file
Enter the name of the FILE to be Created (3-8 characters): DM_AUD05

I am going to create a file called dm_aud05.rec which will reside in the C:\EXPORT directory on your RPMS server. It is the same directory that the data export globals are placed. See your site manager for assistance in finding the file after it is created. PLEASE jot down and remember the following file name: ********** dm_aud05.rec **********

It may be several hours (or overnight) before your report and flat file are finished.

The records that are generated and placed in file dm_aud05.rec are in a format readable by EPI INFO. For a definition of the format please see your user manual.

Is everything ok? Do you want to continue? Y// <enter>

Won't you queue this ? Y// <enter>

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

Figure 2-7: Creating a file

Make arrangements to retrieve the file from your RPMS site manager as an email attachment, or on a CD, USB drive, or floppy disk.
Important changes for the 2005 audit:
1. PAP Smear has been dropped.
2. The logic for whether a urinalysis was done and whether proteinuria was present has been modified.
3. V04.81 has been added as a diagnosis check for Influenza vaccine given.
4. Chart Reviews have been eliminated from the check for Nutrition Education.
5. Two new audit items – Is Depression on the PCC Problem list and if not, Has depression screening been done, have been added.

A complete explanation for each of the audit data elements can be reviewed by choosing the menu option DAL Display Audit Logic for the 2005 audit year.

Figure 2-8 shows a sample 2005 Individual Audit and Figure 2-9 shows a sample Cumulative Audit.

2.4 Run the 2005 Audit w/predefined set of Pts (EAUD)

This option was developed to standardize the method in which patients are selected to be audited and duplicate figures generated for Diabetes-related indicators on the CRS 2005 reports. **Do not use this option for your official 2005 Diabetes Audit.**

The 2005 Electronic Diabetes Audit is run for a set of patients, defined as ‘Active Diabetic Patients,’ by the Clinical Reporting System (CRS). As an option, you may also specify that the patients must be an active member of the Diabetes register.

**The predefined list of patients is selected by the program based on the following criteria:**
1. Must reside in a community specified in the official GPRA community taxonomy.
2. Must be alive on the audit date.
3. Indian/Alaska Natives Only - based on Classification of 01.
4. Must have 2 visits to medical clinics in the 3 years prior to the audit date. At least one visit must be from: 01 General, 06 Diabetic, 10 GYN, 12 Immunization, 13 Internal Med, 20 Pediatrics, 24 Well Child, 28 Family Practice, 57 EPSDT, 70 Women's Health, 80 Urgent, or 89 Evening Clinics.
5. The patient must have been diagnosed with diabetes at least 1 year prior to the audit date.
6. The patient must have had at least 2 visits during the year prior to the Audit date, AND at least 2 DM-related visits ever.

**The steps for running the E Audit are similar to the DM05 Audit:**

1. Type `EAUD` at the “Select 2005 Diabetes Program Audit Option:” prompt.

2. Enter the Official Diabetes Register Name

3. Identify whether your program has received Special Diabetes Program for Indian (SDPI) grant monies.

4. If your program has received grant monies, enter the program grant number.

5. Enter the audit date. All data in the year preceding this date will be reviewed.

6. A date in the future may be used as the audit date to identify patients who may have specific care needs before the official audit date.

7. Identify the name of the GPRA taxonomy of communities used by your facility.

8. Determine whether only Active patients in the Register will be included in the audit

9. Determine what format is to used for the audit output –
   a. Individual audit sheet for each person.
   b. A cumulative audit.
   c. An EPI INFO file.
   d. Both individual and cumulative audit.
ASSESSMENT OF DIABETES CARE, 2005
DATE AUDIT RUN: Mar 01, 2005

AUDIT DATE: Mar 01, 2005   FACILITY NAME: CIMARRON HOSPITAL
AREA: 50   SU: 52   FACILITY: 01   # PTS ON DM REGISTER: 1745

Does you community receive SDPI grant funds?  Don't know

TRIBAL AFFIL: 022 CHEROKEE NATION OF 0   COMMUNITY: 4049658 SALINA
REVIEWER: CMI   CHART #: 100018   DOB: Feb 12, 1955   SEX: FEMALE

PRIMARY CARE PROVIDER:

DATE OF DIABETES DIAGNOSIS:           Lipid Lowering Agent:  None
CMS Register:
  Problem List: Mar 2003   IMMUNIZATIONS
  1st DX recorded in PCC: Jun 03, 1997   Flu vaccine (past yr): No
Diabetes Type: 2 Type 2   Pneumovax Ever: Yes - Oct 26, 1997
CMS Register:
  Problem List: 250.00   Td in past 10 yrs: No
PCC POV's:    Type 2   PPD Status: NEG
  If PPD Pos, INH Tx Complete:

TOBACCO USE: 1  Current User If PPD Neg, Last PPD date: Jun 19, 2000
  Referred for (or provided) Cessation
  Counseling: Yes-4/22/2004

VITAL STATISTICS
Height: 65.00 inches Oct 04, 2004   LABORATORY DATA
Last Weight: 213 lbs Nov 23, 2004   HbA1c (most recent): 10.0
BMI: 35.4                            Date Obtained: Nov 23, 2004
HTN (documented DX): Yes
Last 3 Blood Pressures (in past yr):
  120/66 Nov 23, 2004
  146/65 Oct 04, 2004
  140/69 Aug 09, 2004
EXAMINATIONS (in past year)
  Foot exam-complete:
  No

Eye exam (dilated/fundus):
  Yes - Optometrist/Opthalmalogist Visit
Dental exam:
  Yes-Dental Clinic visit-Apr 22, 2004 Urinalysis or A/C Ratio:
  Yes 10/4/2004 Urinalysis
  Proteinuria:
     No NEGATIVE 10/4/2004 URINE PROTEIN
EDUCATION (in past year)
  Diet Instruction: Yes (RD & Non RD - Other)
  Exercise Instruction: Yes
DM Education (Other): Yes
Self monitoring of blood glucose documented in chart:  No

DM THERAPY
Select all that currently apply     Supplemental Section
  1 Diet & Exercise Alone
  X 2 Insulin
  X 3 Sulfonylurea
  X 4 Metformin
     If 'No', has pt been screened for
     depression in the past year?
     No
  X 6 Glitazones
  9 Unknown/Refused
ACE Inhibitor/ARB Use: Yes

Figure 2-8: Sample 2005 Individual Audit
### **HEALTH STATUS OF DIABETIC PATIENTS**

**CIMARRON HOSPITAL**

**Reporting Period: Mar 01, 2004 to Mar 01, 2005**

---

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>182</td>
<td>61%</td>
</tr>
<tr>
<td>Male</td>
<td>118</td>
<td>39%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15 yrs</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>15-44 yrs</td>
<td>53</td>
<td>18%</td>
</tr>
<tr>
<td>45-64 yrs</td>
<td>151</td>
<td>50%</td>
</tr>
<tr>
<td>65 yrs and older</td>
<td>94</td>
<td>31%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diabetes Type</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>10</td>
<td>3%</td>
</tr>
<tr>
<td>Type 2</td>
<td>287</td>
<td>96%</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration of Diabetes</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10 years</td>
<td>76</td>
<td>25%</td>
</tr>
<tr>
<td>10 years or more</td>
<td>45</td>
<td>15%</td>
</tr>
<tr>
<td>Diagnosis date not recorded</td>
<td>179</td>
<td>60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight Control (BMI) - does not add up to 100%</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overweight or Obese (BMI&gt;85%ile)</td>
<td>211</td>
<td>70%</td>
</tr>
<tr>
<td>Obese (BMI&gt;95%ile)</td>
<td>165</td>
<td>55%</td>
</tr>
<tr>
<td>BMI could not be calculated</td>
<td>40</td>
<td>13%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blood Sugar Control - uses last HGB A1C value</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HbA1c &lt;7.0</td>
<td>99</td>
<td>33%</td>
</tr>
<tr>
<td>HbA1c 7.0-7.9</td>
<td>42</td>
<td>14%</td>
</tr>
<tr>
<td>HbA1c 8.0-8.9</td>
<td>39</td>
<td>13%</td>
</tr>
<tr>
<td>HbA1c 9.0-9.9</td>
<td>16</td>
<td>5%</td>
</tr>
<tr>
<td>HbA1c 10.0-10.9</td>
<td>12</td>
<td>4%</td>
</tr>
<tr>
<td>HbA1c 11.0 or higher</td>
<td>10</td>
<td>3%</td>
</tr>
<tr>
<td>Undocumented</td>
<td>82</td>
<td>27%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blood Pressure Control - based on mean of last 3 bp's</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;120/&lt;70</td>
<td>14</td>
<td>5%</td>
</tr>
<tr>
<td>120/70 - 130/80</td>
<td>41</td>
<td>14%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tobacco use</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Tobacco User</td>
<td>61</td>
<td>20%</td>
</tr>
<tr>
<td>Counselled - Yes</td>
<td>30</td>
<td>49%</td>
</tr>
<tr>
<td>Counseling Status</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Counseled - No</td>
<td>31</td>
<td>51%</td>
</tr>
<tr>
<td>Not a current tobacco user</td>
<td>230</td>
<td>77%</td>
</tr>
<tr>
<td>Tobacco use not documented</td>
<td>9</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Diabetes Treatment

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet and Exercise Alone</td>
<td>112</td>
<td>37%</td>
</tr>
<tr>
<td>Insulin</td>
<td>18</td>
<td>6%</td>
</tr>
<tr>
<td>Oral Med (monotherapy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfonylurea</td>
<td>40</td>
<td>13%</td>
</tr>
<tr>
<td>Metformin</td>
<td>31</td>
<td>10%</td>
</tr>
<tr>
<td>Acarbose</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Troglitazone</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Combination of Oral Meds</td>
<td>61</td>
<td>20%</td>
</tr>
<tr>
<td>Combination of Oral Meds + Insulin</td>
<td>36</td>
<td>12%</td>
</tr>
<tr>
<td>Unknown/Refused</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Anti-Platelet Therapy

<table>
<thead>
<tr>
<th>Therapy Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin</td>
<td>156</td>
<td>52%</td>
</tr>
<tr>
<td>Other Anti-platelet Rx</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>Both ASA &amp; Other Rx</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>None</td>
<td>137</td>
<td>46%</td>
</tr>
<tr>
<td>Refused</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

### ACE Inhibitor (OR ARB) Use

<table>
<thead>
<tr>
<th>Use Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use in pts with overt proteinuria</td>
<td>21</td>
<td>66%</td>
</tr>
<tr>
<td>Use in pts with known hypertension</td>
<td>176</td>
<td>75%</td>
</tr>
</tbody>
</table>

### Lipid Lowering Agent Use

<table>
<thead>
<tr>
<th>Use Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use in pts with total chol &gt;=240</td>
<td>7</td>
<td>58%</td>
</tr>
<tr>
<td>Use in pts with LDL chol &gt; 130</td>
<td>12</td>
<td>43%</td>
</tr>
</tbody>
</table>

Of the 87 pts taking a lipid agent:
- Statin drug prescribed: 69 (79%)
- Non-statin drug prescribed: 10 (11%)
- Statin AND non-statin prescribed: 8 (9%)

### Exams - Yearly

<table>
<thead>
<tr>
<th>Exam Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot Exam - Neuro &amp; Vasc</td>
<td>174</td>
<td>58% (0%)</td>
</tr>
<tr>
<td>Eye Exam - Dilated</td>
<td>173</td>
<td>58% (0%)</td>
</tr>
<tr>
<td>Dental Exam</td>
<td>157</td>
<td>52% (0%)</td>
</tr>
<tr>
<td>Pap Smear (Females Only)</td>
<td>0</td>
<td>0% (0%)</td>
</tr>
</tbody>
</table>

### Diabetes-Related Education - Yearly

<table>
<thead>
<tr>
<th>Education Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet Instruction</td>
<td>209</td>
<td>70% (0%)</td>
</tr>
<tr>
<td>Exercise Instruction</td>
<td>263</td>
<td>88% (0%)</td>
</tr>
<tr>
<td>Other Diabetes Education</td>
<td>218</td>
<td>73% (0%)</td>
</tr>
<tr>
<td>Any of the above topics</td>
<td>263</td>
<td>88%</td>
</tr>
</tbody>
</table>

### Immunizations

<table>
<thead>
<tr>
<th>Vaccine Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flu Vaccine - yearly</td>
<td>179</td>
<td>60% (0%)</td>
</tr>
<tr>
<td>Pneumovax - once</td>
<td>145</td>
<td>48% (0%)</td>
</tr>
<tr>
<td>Tetanus/Diptheria (q 10 yrs)</td>
<td>124</td>
<td>41% (0%)</td>
</tr>
</tbody>
</table>

### Laboratory Exams

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinalysis in the past 12 months</td>
<td>211</td>
<td>70%</td>
</tr>
<tr>
<td>Proteinuria present</td>
<td>32</td>
<td>11%</td>
</tr>
<tr>
<td>Proteinuria absent</td>
<td>177</td>
<td>59%</td>
</tr>
<tr>
<td>Proteinuria result unknown</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Test</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Proteinuria test not done</td>
<td>89</td>
<td>30%</td>
</tr>
<tr>
<td>Of the 177 without proteinuria:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microalbuminuria present</td>
<td>78</td>
<td>44%</td>
</tr>
<tr>
<td>Microalbuminuria absent</td>
<td>61</td>
<td>34%</td>
</tr>
<tr>
<td>Microalbuminuria not tested</td>
<td>38</td>
<td>21%</td>
</tr>
<tr>
<td>Creatinine obtained in the past 12 months</td>
<td>233</td>
<td>78%</td>
</tr>
<tr>
<td>Creatinine $\geq$ 2.0 mg/dl</td>
<td>10</td>
<td>3%</td>
</tr>
<tr>
<td>Creatinine &lt; 2.0 mg/dl</td>
<td>223</td>
<td>74%</td>
</tr>
<tr>
<td>Unable to determine result</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Creatinine not tested</td>
<td>67</td>
<td>22%</td>
</tr>
<tr>
<td>Total Cholesterol obtained in the past 12 months</td>
<td>143</td>
<td>48%</td>
</tr>
<tr>
<td>Desirable (&lt;200 mg/dl)</td>
<td>90</td>
<td>30%</td>
</tr>
<tr>
<td>Borderline (200-239 mg/dl)</td>
<td>41</td>
<td>14%</td>
</tr>
<tr>
<td>High (240 mg/dl or more)</td>
<td>12</td>
<td>4%</td>
</tr>
<tr>
<td>Unable to determine result</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Not tested</td>
<td>157</td>
<td>52%</td>
</tr>
<tr>
<td>LDL Cholesterol obtained in the past 12 months</td>
<td>143</td>
<td>48%</td>
</tr>
<tr>
<td>LDL &lt;100 mg/dl</td>
<td>58</td>
<td>19%</td>
</tr>
<tr>
<td>LDL 100-129 mg/dl</td>
<td>46</td>
<td>15%</td>
</tr>
<tr>
<td>LDL 130-160 mg/dl</td>
<td>24</td>
<td>8%</td>
</tr>
<tr>
<td>LDL &gt;160</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>Unable to determine result</td>
<td>8</td>
<td>3%</td>
</tr>
<tr>
<td>Not tested</td>
<td>160</td>
<td>53%</td>
</tr>
<tr>
<td>HDL Cholesterol obtained in the past 12 months</td>
<td>140</td>
<td>47%</td>
</tr>
<tr>
<td>HDL &lt;35 mg/dl</td>
<td>32</td>
<td>11%</td>
</tr>
<tr>
<td>HDL 35-45 mg/dl</td>
<td>58</td>
<td>19%</td>
</tr>
<tr>
<td>HDL 46-55 mg/dl</td>
<td>31</td>
<td>10%</td>
</tr>
<tr>
<td>HDL &gt;55</td>
<td>19</td>
<td>6%</td>
</tr>
<tr>
<td>Unable to determine result</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Not tested</td>
<td>160</td>
<td>53%</td>
</tr>
<tr>
<td>Triglycerides obtained in the past 12 months</td>
<td>144</td>
<td>48%</td>
</tr>
<tr>
<td>TG &lt;150 mg/dl</td>
<td>63</td>
<td>21%</td>
</tr>
<tr>
<td>TG 150-199 mg/dl</td>
<td>29</td>
<td>10%</td>
</tr>
<tr>
<td>TG 200-400 mg/dl</td>
<td>44</td>
<td>15%</td>
</tr>
<tr>
<td>TG &gt;400 mg/dl</td>
<td>8</td>
<td>3%</td>
</tr>
<tr>
<td>Unable to determine result</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Not tested</td>
<td>156</td>
<td>52%</td>
</tr>
<tr>
<td>EKG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performed in past 3 years</td>
<td>59</td>
<td>20%</td>
</tr>
<tr>
<td>Performed in past 5 years</td>
<td>117</td>
<td>39%</td>
</tr>
<tr>
<td>Ever performed</td>
<td>132</td>
<td>44%</td>
</tr>
<tr>
<td>Tuberculosis Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPD +, INH treatment complete</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>PPD +, untreated/incomplete or tx unknown</td>
<td>16</td>
<td>5%</td>
</tr>
<tr>
<td>PPD -, placed since DM dx</td>
<td>29</td>
<td>10%</td>
</tr>
<tr>
<td>PPD -, placed before DM dx or date unknown</td>
<td>56</td>
<td>19%</td>
</tr>
<tr>
<td>PPD status unknown</td>
<td>196</td>
<td>65%</td>
</tr>
</tbody>
</table>

Self monitoring of blood glucose documented
2.5 Check Taxonomies for the 2005 Pre-Diabetes Audit (PDTC)

Three new options have been added to the DM05 menu for 2005 to assist with management of patients with “Pre-Diabetes”. It is anticipated that a new Register for patients with Pre-Diabetes will be distributed during 2005 and some facilities have already developed separate Registers for patients with symptoms or diagnoses that indicate risk for development of diabetes. **This is an optional audit and is not required by the national programs during 2005.**

There is no diagnosis or ICD-9 code for pre-diabetes. It is a general term accepted for patients who have a diagnosis of impaired fasting glucose (ICD-9 code 790.21), impaired glucose tolerance (ICD-9 code 790.22), or Dysmetabolic Syndrome (277.7) all of whom are at greater risk for developing diabetes.

The tools already in the Diabetes Management System may be used for managing these patients if the word, DIABETES, is included in the name of the Register holding these patients. The additional taxonomies and an audit developed specifically for monitoring the care of these patients may be used regardless of whether the patients are included on a Register.

**To check taxonomies for the 2005 pre-diabetes audit, follow these steps:**
1. Type PDTC at the “Select 2005 Diabetes Program Audit Option:” prompt.
2. Type the name of an output device at the “Device:” prompt. Press the Enter key to select the default response.
2.6 Update/Review Taxonomies for 2005 PreDiab Audit (PDTU)

Your laboratory may not currently have tests that are identified as a Fasting Glucose or a Glucose drawn 2 hours after a 75 Gram glucose load. So the initial step in setting up these taxonomies may require a discussion with your laboratory staff to be sure that there is a standard protocol for ordering and naming these tests. Once the tests are in place, PDTU Update/Review Taxonomies for 2005 PreDiab Audit may be selected to view and update the taxonomy contents. You will notice that all the other taxonomies that identify data for the 2005 Diabetes Audit are displayed as well as the two new taxonomies. To display all of the taxonomies in the list, you may need to scroll down by pressing the down arrow (↓) or plus key (+) and then the Enter key.

To UPDATE taxonomies for the 2005 DM audit, follow these steps:

Note: All of the Education taxonomies will require updating to include the new Diabetes Curriculum codes (DMC). The taxonomy update process is similar to that used for previous audits.

1. Type PDTU at the “Select 2005 Diabetes Program Audit Option:” prompt.
2. The Taxonomies To Support Pre-Diabetes/Metabolic Syndrome Reporting screen will display (Figure 2-11)

3. Type S at the “Select Action:” prompt.

4. Type the number of the taxonomy you want to update at the “Which Taxonomy:” prompt.

```
PRE-DIABETES TAXONOMY UPDATE Apr 18, 2005 11:42:04         Page:    1 of    2
TAXONOMIES TO SUPPORT PRE-DIABETES/METABOLIC SYNDROME REPORTING
* Update Taxonomies
+ 12)  DM AUDIT SULfonyLurea DRUGS  Sulfonylurea Drug Taxonomy  DRUG
  13)  DM AUDIT METFORMIN DRUGS   Metformin Drug Taxonomy    DRUG
  14)  DM AUDIT ACARBOSE DRUGS    Acarbose Drug Taxonomy     DRUG
  15)  DM AUDIT LIPID LOWERING DRUGS  Lipid Lowering Drug Taxonomy  DRUG
  16)  DM AUDIT STATIN DRUGS      Statin Drug Taxonomy       DRUG
  17)  DM AUDIT TROGLITAZONE DRUGS  Troglitzaone Drug Taxonomy  DRUG
  18)  DM AUDIT ACE INHIBITORS   ACE Inhibitor Drug Taxonomy  DRUG
  19)  DM AUDIT ASPIRIN DRUGS     Aspirin Drug Taxonomy       DRUG
  20)  DM AUDIT ANTI-PLATELET DRUGS Anti-Platelet Drug Taxonomy DRUG
  21)  DM AUDIT FASTING GLUCOSE TESTS Fasting Glucose Tests Taxonomy LAB TEST
  22)  DM AUDIT CHOLESTEROL TAX  Cholesterol Lab Taxonomy  LAB TEST
  23)  DM AUDIT LDL CHOLESTEROL TAX LDL Cholesterol Lab Taxonomy  LAB TEST
  24)  DM AUDIT HDL TAX         HDL Lab Taxonomy               LAB TEST
  25)  DM AUDIT TRIGLYCERIDE TAX Triglyceride Lab Taxonomy     LAB TEST
  26)  DM AUDIT 75GM 2HR GLUCOSE  75 gm 2hr glucose test Taxonomy LAB TEST
```

5. The contents of the selected taxonomy will display (Figure 2-12) and you may add or remove entries from that taxonomy.

6. Use the Add a member option to identify the lab test(s) to be included in this taxonomy. Type A at the “Select Action:” prompt.

7. Add each test identified by your laboratory staff as being an appropriate member of the taxonomy. When all tests have been added, type Q then press the Enter key at the “Select action:” prompt to exit that taxonomy. Repeat the process for the DM AUDIT 75GM 2HR GLUCOSE taxonomy.
2.7 Run 2005 PreDiabetes/Metabolic Syndrome Audit (PR05)

Follow these steps to run the PreDiabetes Audit:

1. Select PR05.

2. Enter the Official Pre-Diabetes Register Name

3. Enter the audit date. All data in the year preceding this date will be reviewed.

4. A date in the future may be used as the audit date to identify patients who may have specific care needs before the official audit date.

5. Determine whether the audit will be run for a specific register, a template of patients, or one or more individual patients.

6. If Register is selected, enter the name of the Register to be audited. If a template is selected, enter the name of the template. If one or more individual patients are to be audited, enter them by last name, first name or chart number.

7. Identify the status of the patient(s) to be included in the audit.

8. Determine whether you want to run the audit by a particular primary care provider. This can only be done if patients are assigned to a designated or primary care provider at your facility.

9. Determine whether you want to limit the audit to patients who live in a particular community.
10. If you have selected a Register or Template to audit, determine whether you will audit all the patients in the Register or template or a random sample.

11. If a random sample has been selected, identify how many patients will be included in the audit.

12. Determine what format is to used for the audit output –
   
a. Individual audit sheet for each person.
   b. A cumulative audit.
   c. Both individual sheets as well as a cumulative audit. This option allows identification of the individual patients included in the audit if a random sample has been chosen.

Figure 2-13 shows an example of an individual Pre-Diabetes Audit. Notice that Waist Circumference will be displayed if it has been recorded and coded by Data Entry staff using the WC mnemonic.

**Note:** You do not need to have a Pre-Diabetes Register in order to run the Pre-Diabetes Audit. You may enter the official IHS Diabetes Register when prompted for a Register name.

Don’t be too disappointed in initial results of this audit. Because of lack of standardization of laboratory tests and diagnostic codes and narratives for pre-diabetes conditions, it may be some time before this audit can be used reliably for tracking patients at risk for development of diabetes.
## ASSESSMENT PRE-DIABETES/METABOLIC SYNDROME CARE, FY 2005

**Audit Date**: Mar 1, 2005  
**Reviewer**: CMI  
**Facility Name**: CIMARRON HOSPITAL  
**Area**: 50  SU: 52  **Facility**: 01  
**# PTS on Pre-Diabetes Register**: 1745  

**Tribal Affil**: 022 CHEROKEE NATION OF O  
**Community**: 4073955 WAGONER  
**Chart #**: 168923  
**DOB**: Sep 23, 1943  
**Sex**: Female  
**Primary Care Provider**:  

**Classification (all that apply)**:  
1. **IFG** - No  
2. **IGT** - No  
3. **Metabolic Syndrome** - Yes  
   - Last POV in PCC: 277.7  Date: Jan 11, 2005  
   - First POV in PCC: 277.7  Date: Sep 09, 2004  

**Other Abnormal Glucose (790.29)** - No  

**CMS Register DX**:  

**Height**: 66.0 inches  
**Last 3 Weights**:  

<table>
<thead>
<tr>
<th>Waist Circumference</th>
<th>ACE Inhibitor Use: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last 3 Blood Pressures:</td>
<td>Aspirin/Anti-Platelet Therapy: None</td>
</tr>
<tr>
<td>140/65 Sep 06, 2004</td>
<td>Lipid Lowering Agent: None</td>
</tr>
<tr>
<td>146/81 May 07, 2004</td>
<td>Date of Last EKG: May 30, 2003</td>
</tr>
<tr>
<td>131/65 May 07, 2004</td>
<td></td>
</tr>
</tbody>
</table>

**HTN (documented DX)**: Yes  

**Education (in past year)**:  
1. Diet Instruction: Yes (RD)  
2. Exercise Instruction: No  

**Laboratory Data**:  

| Fasting Glucose (most recent): | 176 mg/dl 9/6/2004 |  
| 75 gm 2 hour glucose (most recent): |  

**TOBACCO USE**: 2 Not a current user  
**Referred for (or provided)**: No  
**Cessation Counseling**: No  
**DM Therapy**:  
1. Select all that currently apply  
2. **1 Unknown/Refused/None**  
3. **2 Metformin**  
4. **3 Acarbose**  
5. **4 Glitazones**  
6. **5 Other: Sulfonylurea, Glyburide, glipizide, etc**

**Figure 2-13: Sample pre-diabetes audit**

---

**Patch 16 Addendum**: 21  
**The 2005 RPMS Diabetes Audit**:  
**May 2005**
3.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Service Center by:

Phone:   (505) 248-4371 or
         (888) 830-7280
Fax:      (505) 248-4363
Web:      http://www rpms.ihs.gov/TechSupp.asp
Email:    ITSCHelp@mail.ihs.gov