EHR Cardiac Measures Report Guide

A Guide for Measuring and Improving Cardiovascular Disease Measures in an Electronic Health Record

HealthInsight UTAH

UTAH DEPARTMENT OF HEALTH

Healthy Living Through Environment Policy and Improved Clinical Care (EPICC)

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SECTION 1: GENERAL INSTRUCTIONS AND BACKGROUND

The purpose of this guide is to help health care providers, office managers and quality improvement staff use their electronic health record (EHR) data to identify processes to improve the delivery of health care. Specifically, this guide will focus on identifying quality reporting functions within an EHR that support the delivery of health care for patients diagnosed with diabetes, prediabetes, hypertension, hypercholesterolemia, those in need of antiplatelet therapy, and/or those who smoke, all of which are risk factors for heart attack and stroke[1]. The treatment of four of these conditions creates the ABCS of preventing heart attack and stroke. The clinical interventions of the ABCS are as follows: (A) an aspirin for those who need it; (B) blood pressure control; (C) cholesterol management; and quitting (S) smoking. Blood sugar levels, related to diabetes and prediabetes, contribute to the incidence of heart attack and stroke and should be monitored along with the ABCS.

[1] See Appendix A for definitions of risk factors

SECTION 2: CREATING REPORTS AND EHR-SPECIFIC EXAMPLES

All major EHR systems have a reporting function. The complexity of the reporting modules varies by EHR systems, but most have simple reports that can be run for quality improvement efforts. This guide is focused on the simple reports. The availability of built-in reports has increased because of federal reporting programs including Meaningful Use (MU) and the Physician Quality Reporting System (PQRS).

This section has two parts: 1) what cardiac, diabetes and blood pressure measures to look for in the EHR, and 2) instructions and screen shots on pulling reports from your EHR system. The two parts should be used together to successfully create reports.

Pulling Reports – Introduction

There are various ways to generate quality reports. Larger organizations, including Intermountain Healthcare and the University of Utah centralize their quality measures reporting with support from their information technology (IT) and quality departments. Clinics and providers in these systems receive internal dashboards and eReports on a regular basis. SelectHealth and other payers may offer quality feedback reports to participating providers based upon the claims the payer receives.

The infrastructure to generate quality reports centrally is generally not seen in smaller clinics, but modern EHR technology allows these entities to pull the same or similar reports as their larger integrated counterparts. eClinicalWorks, Greenway, and e-MDs are examples of EHR systems commonly used by independent clinic groups in Utah; all of which have the capacity to create quality reports. Screen shots and instructions of where to find the reporting modules are included in this guide. There are many other EHR systems used in Utah and similar functionality should be available in these systems.

ABCS Measures and Diabetes – Which report to run in our EHR?

The following is a list of preferred and related measures is based on the five conditions for clinical intervention using the ABCS and consists of federally-sanctioned measures, highlighting those for MU and PQRS. All EHRs certified by The Office of the National Coordinator (ONC) will be able to provide the user with prebuilt MU reports. Many of these MU reports will have quality reporting built into the output, though the measures will vary somewhat form EHR to EHR. Many EHR systems have custom quality reporting options, though prebuilt MU or PQRS reports are often simpler to use.

The measures listed below are used in both MU and PQRS reporting, unless noted otherwise.

Comprehensive Diabetes Care: Hemoglobin A1c - Percentage of members 18-75 years of age with diabetes (type 1 and type 2) whose most recent HbA1c level during the measurement year was greater than 9.0 percent (poor control) or was missing a result, or if an HbA1c test was not done during the measurement year.

Preferred measures:

- NQF 0059, PQRS 1, CMS 122v4 – Hemoglobin A1c (HbA1c) Poor Control (9.0%)

Related measure:

- NQF 0060, PQRS 265, CMS 148v4 – Hemoglobin A1c (HbA1c) Testing for Pediatric Patients

Blood Pressure Control - Percentage of patients with a diagnosis of coronary artery disease, hypertension or peripheral vascular disease whose most recent blood pressure during the measurement year is <140/90 mm Hg.

Preferred measures:

- NQF 0018, PQRS 236, CMS 165v4 – Controlling High Blood Pressure

Related measures:

- PQRS 373, CMS 65v5 – Hypertension: Improvement in Blood Pressure
- PQRS 317, CMS 22v4 – Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented

Lipids Management - Percentage of patients with a diagnosis of ischemic vascular disease whose most recent LDL-C screening had a result of <100.

Preferred measures:

- PQRS 241, CMS 182v5 – Ischemic Vascular Disease (IVD): Complete Lipid Profile and LDL-C Control (< 100 mg/dL)

Related measure:

- PQRS 121 – Adult Kidney Disease: Laboratory Testing (Lipid Profile)[2]

Aspirin - Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease (CAD) seen within a 12-month period who were prescribed aspirin or clopidogrel.

Preferred measure:

- NQF 0068, PQRS 204, CMS 164v4 – Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Related measure:

- NQF 0067, PQRS 6, – Coronary Artery Disease (CAD): Antiplatelet Therapy[2]

[2] PQRS Only

Smoking - Percentage of patients who receive smoking cessation counseling.

Preferred measures:

- NQF 0028, PQRS 226, CMS 138v4 – Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

Related Measure

- PQRS 404 – Anesthesiology Smoking Abstinence[3]

eClinicalWorks Example

eClinicalWorks (eCW) has three options for quality reporting. First, there is a web interface dashboard where many pre-built reports can be found, including their MU reports. Second, eCW has some pre-built reports within the EHR. Finally, eCW has an internal registry module where reports can be custom built. The Web dashboard and the pre-built reports are the easiest to use. An IT savvy user can figure out the custom built reports module, but some training may be needed to make it work optimally (See appendix D).

Option 1: Web-based Dashboard: eCW calls its Web-based dashboard the MAQ (eCW **M**eaningful Use, **A**doption, and **Q**uality Dashboards). For users of eCW, the dashboard can be found at https://my.eclinicalworks.com. See eCW Screen Shot 1. Once in the MAQ, the user can look for Clinical Quality Measures (CQMs) where cardiac measures can be found. There is some limited ability to change some criteria on the report.

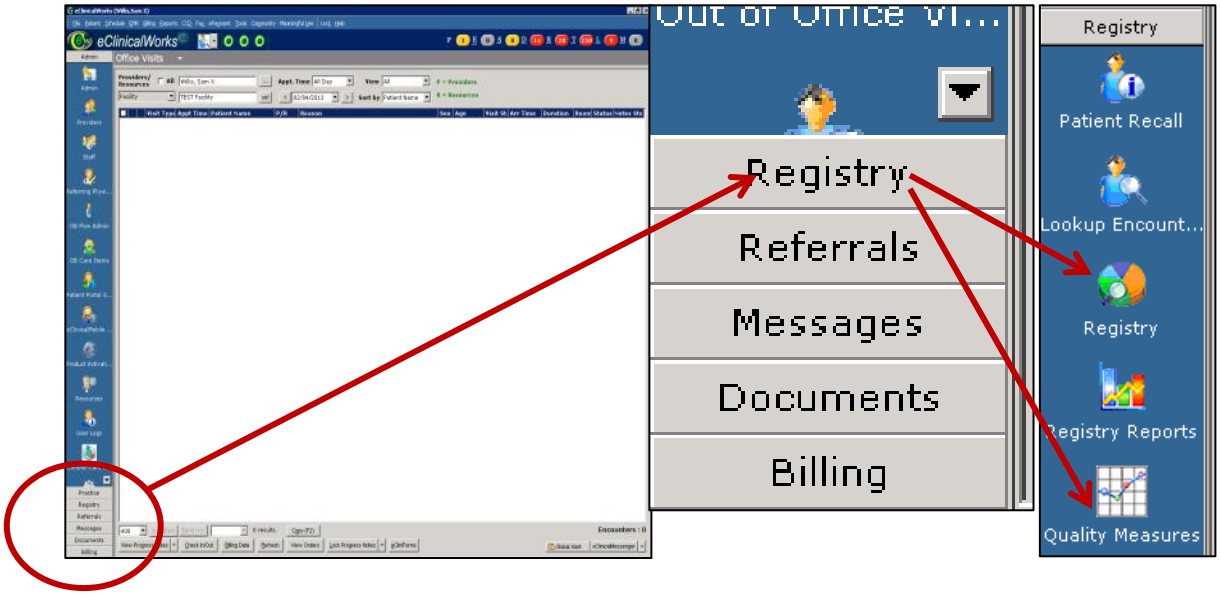
eCW Screen Shot 1 – MAQ Dashboard Example

[3] PQRS Only

Options 2 and 3: Built-in Reports: The reporting module is found on the left hand side of the startup screen (eCW Screen Shot 2) under "Registry."

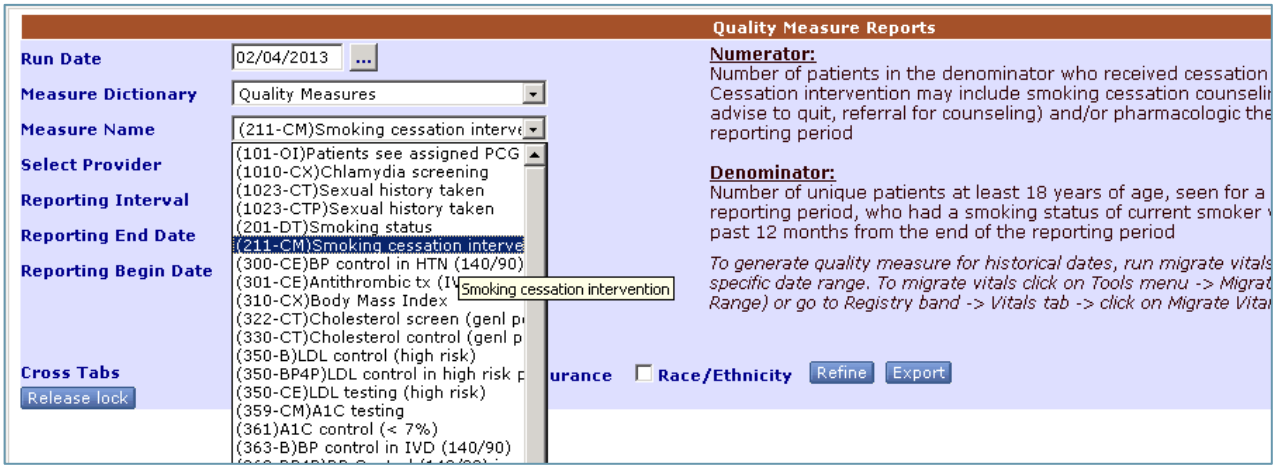
eCW Screen Shot 2 – Main Page – "Registry" on Left Column

The "Registry" tab will bring up various options on the left side. The two of interest are "Quality Measures," which has the pre-built reports, and "Registry Icon," where custom-built reports can be generated. The "Quality Measures" page (eCW Screen Shot 2) gives the user the option to select a measure, provider, and time frame and run the report. This is a simple way to get reports from eCW and can be used to identify patients that are not responding to treatment.



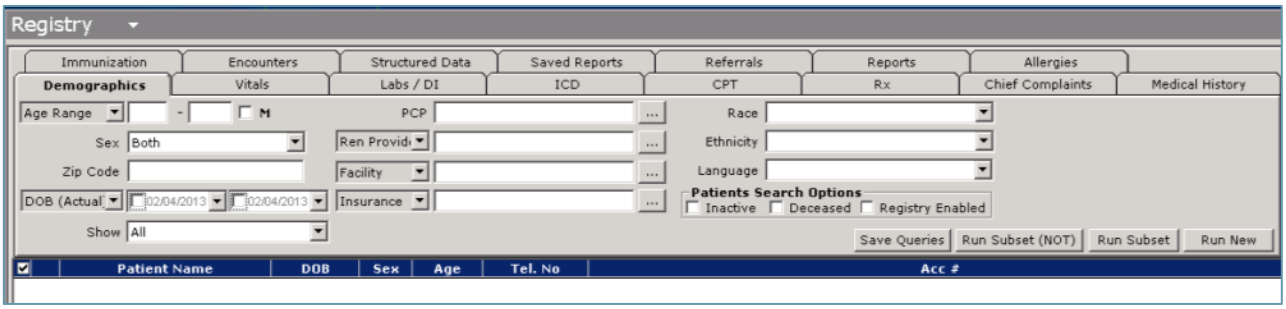
eCW Screen Shot 3 – "Quality Measures Reports" Page

The "Registry" icon brings up a set of customizable fields where various criteria can be used to create reports. This module takes considerable understanding of your system and may require training. However, this is a powerful way to create very specific queries from scratch and the time invested in training or understanding this method is time well spent. See eCW Screen Shot



4. Additional instructions for the registry are given in Appendix D.

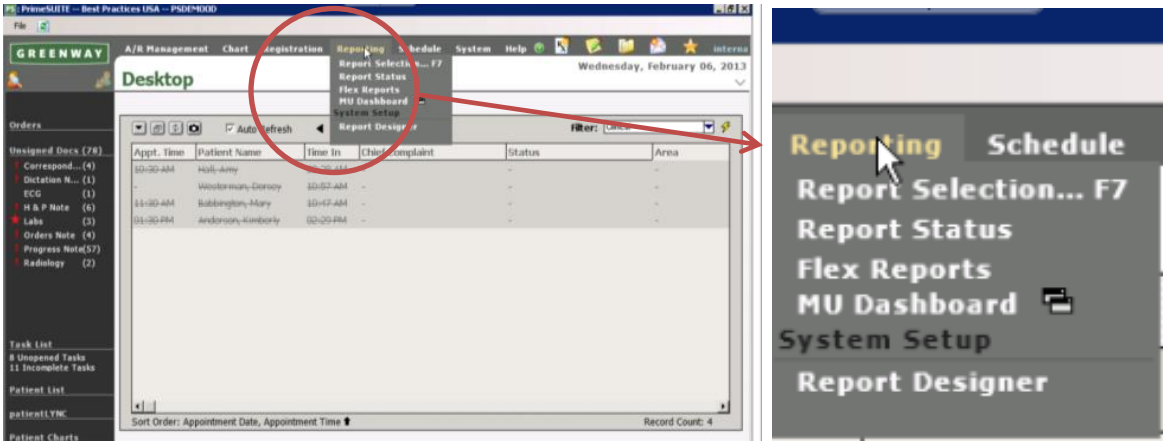
eCW Screen Shot 4 – "Registry" Icon – Custom Reports Built in This Module



Greenway Example

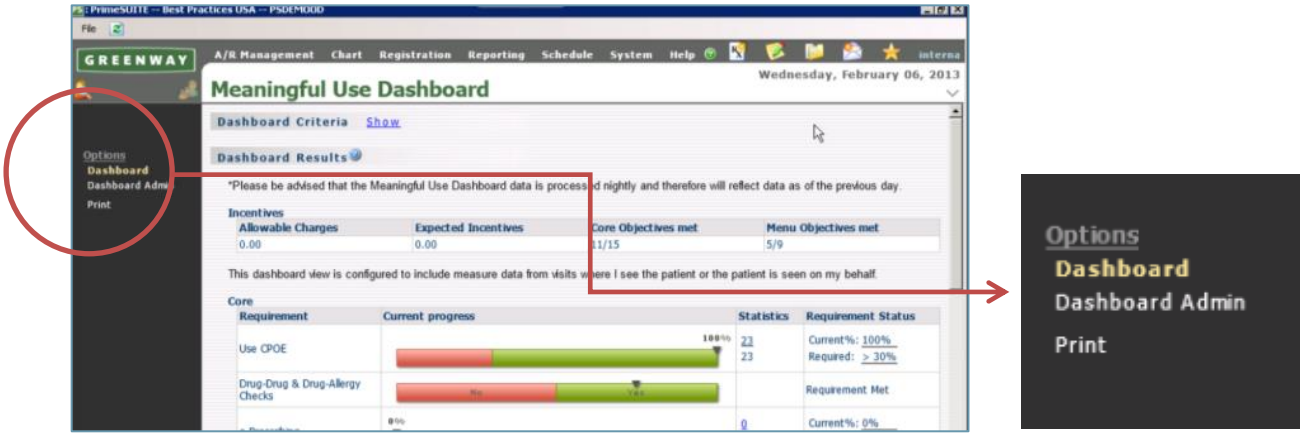
The Greenway EHR has two options for quality reporting. The most readily accessible way is through their MU Dashboard. At the top of the main page is their "Reporting" option. See Greenway Screen Shot 1.

Greenway Screen Shot 1 – Main Page – Reporting Drop Down at Top Center

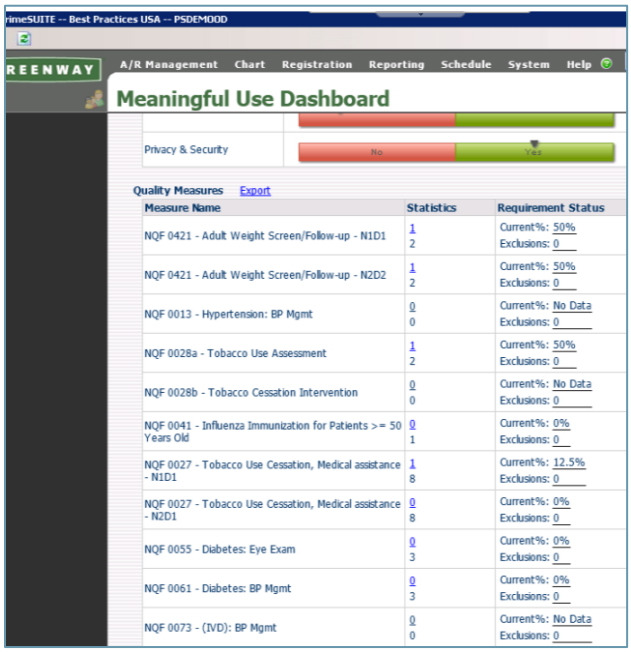


The MU Dashboard (See Greenway Screen Shot 2) shows indicators relevant to MU, including both the core and menu set measures. In the middle of the MU dashboard there is a section on Quality Measures (See Greenway Screen Shot 3). These Quality Measures can be added and deleted through the "Dashboard Admin" on the left side. Many of the cardiac measures are not included in the MU dashboard by default and must be added in the "Dashboard Admin" area. In practice, we have found that after the "Dashboard Admin" has been updated, it takes a day for the reports to reflect the changes. These reports are often run at the end of the day so the reports will be ready for review the next day.

Greenway Screen Shot 2 – Meaningful Use Dashboard



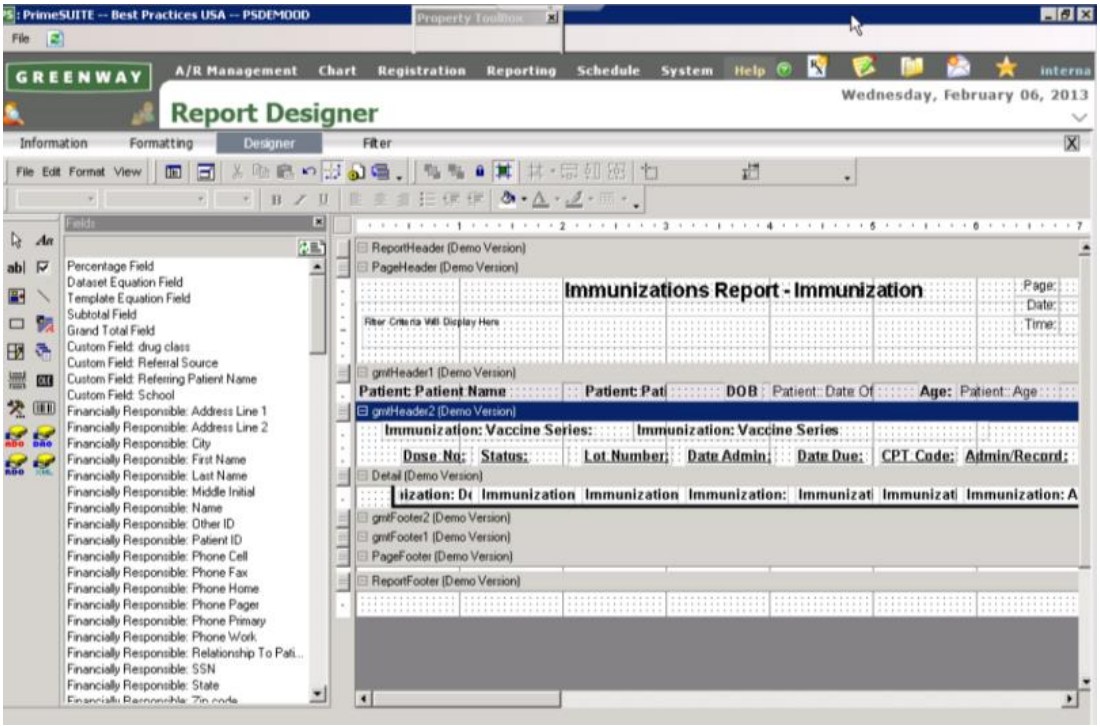
Greenway Screen Shot 3 – Quality Measures



The Greenway Screen Shot 3 – Quality Measures on the Greenway MU Dashboard include quick access to lists of patients who are not meeting the measure criteria.

Greenway also has a way to custom build reports with their "Report Designer." (See Greenway Screen Shot 4). This takes some savvy or training. There is also a good import function in Greenway and, if a report is found from Greenway or elsewhere, it can be imported and used in Greenway. The Vendor representative for Greenway can link the clinic in on these options.

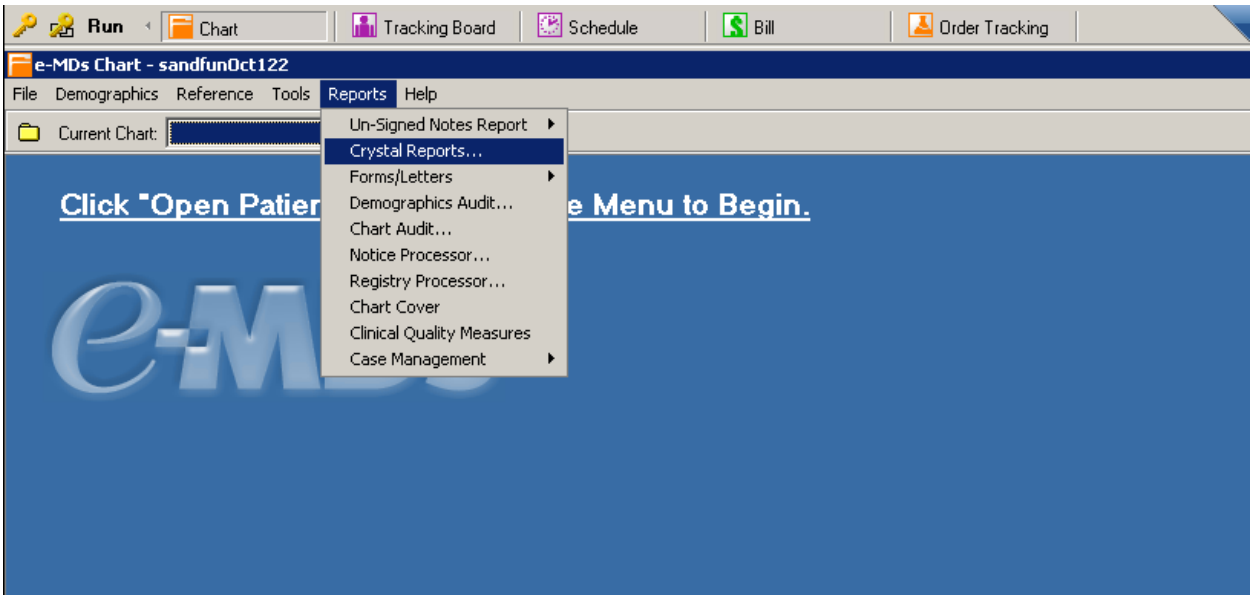
Greenway Screen Shot 4 – Report Designer



e-MDs Example

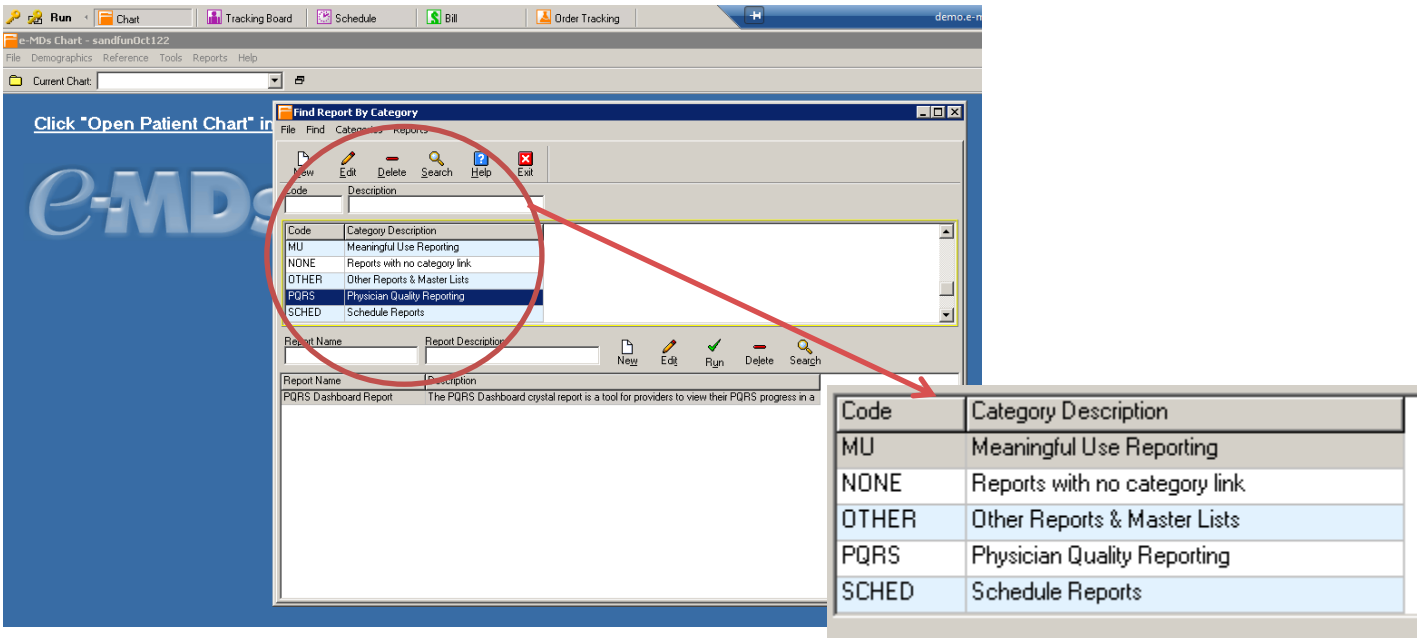
e-MDs has quality reporting functionality built into its EHR. Most reports are accessed through the "Crystal Reports" option from the "Reports" menu. See image below.

e-MDs Screen Shot 5 – Reports – Crystal Reports



The next screen is where the user will choose which reports to run. While one can search for a measure by name, e-MDs also has a series of prepopulated quality reports.

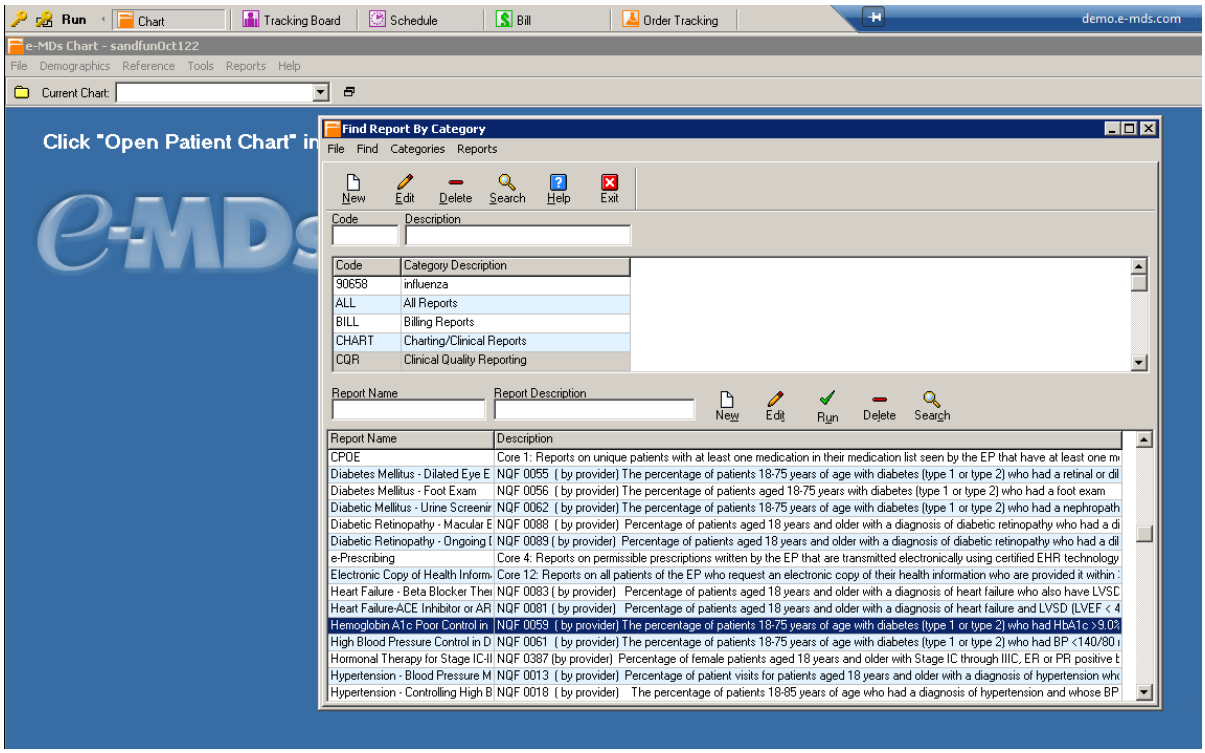
e-MDs Screen Shot 2 – Crystal Reports Measure Selection



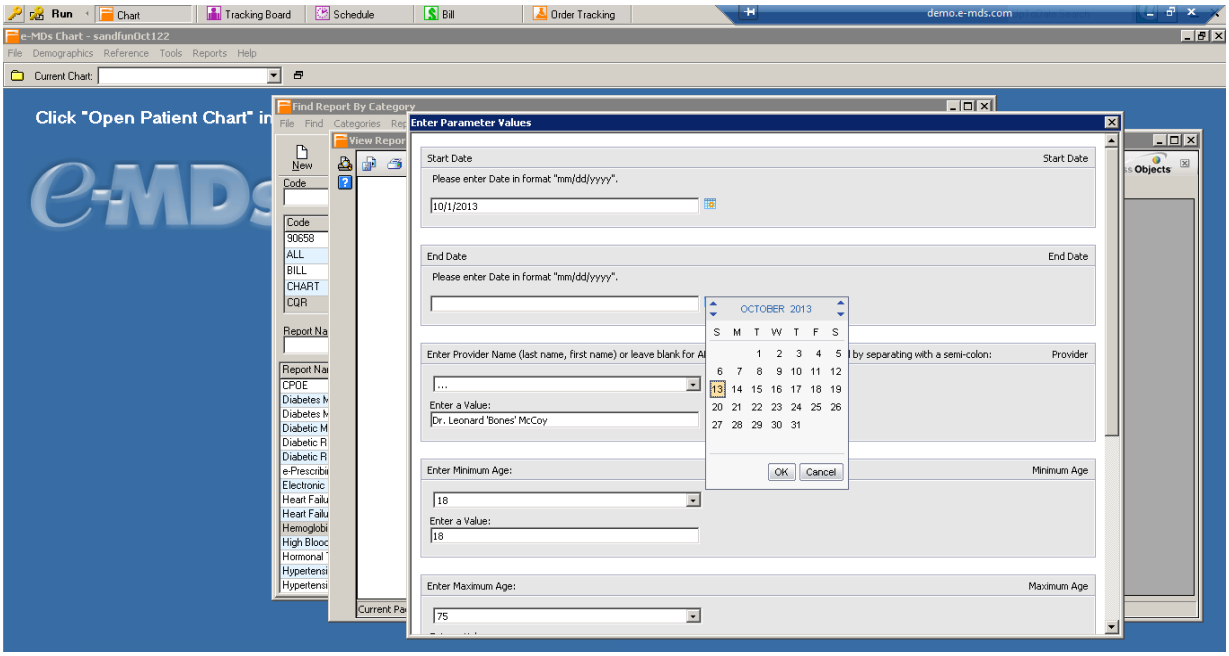
For example, you can see the grouping for PQRS measures along with the MU measures.

Once you find the measure, you simply select the measure (Screen Shot 3), input the time frame and the provider(s) and press ok to run the report (Screen Shot 4). In this example, we are looking at NQF 0059 Hemoglobin A1c Poor Control.

e-MDs Screen Shot 3 – Crystal Reports Measure Selection (continued)



e-MDs Screen Shot 4 – Enter the Date Range and the Provider(s) Name



Note that you must have permission indicated for each provider before you can run any reports. That is done with the edit button seen on e-MDs Screen Shot 2.

If you have any questions about how to operate the reporting functions through e-MDs, please contact the technical support line at 800-565-5564.

Troubleshooting

The quality reporting functions of an EHR may not work for a variety of reasons. If this happens, note that there is a solution. It is important to find the cause of the problem, and know who to call to remedy these problems. The first step is realizing there is a problem with a quality reports. One common example of a suspicious report would be one that shows perfect success or complete failure (100% or 0%). This is rare, particularly for outcome measures.

Errors in reports are frustrating, but normally can be fixed relatively quickly. Often, the report is abstracting data from the wrong field. If you suspect this could be the case, call your vendor and ask which fields are used to calculate the measure. Sometimes the vendor has the ability to abstract the data from multiple places and will need your guidance on where to pull the data for your clinic.

Errors in measures that are tied to lab values are common. The source of the problem could come from a number of factors. The first thing to consider is where the error is lab data is coming from. Many clinics have an electronic interface with their major lab providers. But, they often do some lab work internally. E.g., in-house HbA1c testing. In either case, you must determine where the lab values are going and verify that the values are being put into the EHR as structured data. If the lab is being done externally, call your lab vendor and make sure the interface is set up so the values are populating the appropriate fields. The same verification should be done if the clinic is keying in lab values. Finally, one should verify with their EHR vendor that the process is working as planned.

While each problem is unique, the solutions tend to follow the pattern described above:

1. Identify where the numbers for a quality measure are pulled with your EHR vendor.
2. Determine how those fields are populated (e.g., by the staff, by the lab interface).
3. Communicate with all parties (staff, lab provider, EHR vendor) to address the problem and verify the solution is implemented.

SECTION 3: IMPROVEMENT TECHNIQUES

Quality improvement is the purposeful change of a process to improve the reliability of achieving outcomes. As a general rule, what is measured is improved. This section focuses on improvement techniques and best practices for diabetes management, and each of the ABCS measures within the context of EHR use. Although this guide focuses on treatment of diabetes, prediabetes, heart disease, prevention of stroke and heart attack, these techniques can be applied to any condition. Now that you have pulled your ABCS or diabetes data, you can determine which, if any, of the measures require quality improvement efforts.

Many improvement projects begin with the goal of fixing a problem and proceed with a trial and error approach to achieving the goal. Along the way, the project team may become frustrated,

expend unnecessary resources, and may fail to find an effective solution to the problem. Instead of jumping from problem identification to proposed solutions, a clinic will enjoy more success in improvement if the employees understand the conditions or causes that lead a clinic to perform the way it currently does. Successful interventions often are designed when time is spent at the beginning of a project building an understanding of the deeper reasons why a problem exists in the first place, and the context in which improvement will occur. Workflow analysis, gap analysis, and actor analysis are techniques that can be used to analyze processes. Planning for improvement must then be a two-step process that entails diagnosing common system failures and identifying solutions that are most likely to address that failure in the work context surrounding it. Your local Medicare Quality Innovation Network Quality Improvement Organization (QIN-QIO) is a resource for this work.

1. Diagnose Causes of System Failure

1. Measurement errors – It is possible that the measure was designed incorrectly or is not set up correctly on your system. EHR vendors are still fine-tuning these reports. Most vendors are open to troubleshooting reports with their customers.
2. Documentation errors – These errors are common and are usually simple to correct. In this case the care is completed and not documented or documented incorrectly. One common error is documenting the care in a non-structured field, such as the provider notes, which cannot be queried by the EHR system.
3. Clinical errors – These errors happen with a missed care opportunity or when a clinic workflow issue arises and the care is not completed.

2. Identify Appropriate Process Redesign Strategies

You may already have a number of tools, strategies, and resources for improving processes in your setting. A straightforward and effective system improvement approach is "The Model for Improvement." Small changes are tested in PDSA (Plan-Do-Study-Act) cycles which inform a system wide change. The Model for Improvement comprises four steps: 1) Setting the aim, or answering the question, 'What are we trying to accomplish?'; 2) Establishing measures, or answering the question, 'How will we know that a change has led to improvement?'; 3) Creating an overall plan for improvement or selecting change; and 4) Testing changes or evaluating results.[4]

Identifying Patients

Generally, quality reports are dependent on particular diagnostic and billing codes. The codes for quality e-measures can be found here. These codes often determine the quality measure's denominator, or who is applicable for a measures. One can use this knowledge to look more closely at this underlying population: identifying individuals for treatment and creating real-time patient identification algorithms. The following are codes that one could use within the EHR registry to create lists of patients for treatment, by ABCS or diabetes measure. (registry use example in Appendix D).

[4] See Appendix B for more details on the Model for Improvement

(A) Aspirin for those who need it - This information is usually pulled from either the patient's medication list or, in some cases, the patient's problem list. Keeping the medication list current is necessary to generate accurate reports. Example ICD-10 diagnosis codes for conditions where aspirin may be indicated include:

I25.10 – Atherosclerotic heart disease of native coronary artery without angina pectoris

I25.82 – Chronic total occlusion of coronary artery

I25.90 – Chronic ischemic heart disease, unspecified

Z86.74 – Personal history of sudden cardiac arrest

I65.29 – Occlusion and stenosis of unspecified carotid artery

(B) Blood pressure control - This information is pulled from the patient's vital sign fields and the problem list. The problem list must be up-to-date with correct and current diagnoses. Frequently used ICD-10 diagnosis codes for hypertension include:

I10 – Essential (primary) hypertension

R03.0 – Elevated blood-pressure reading, without diagnosis of hypertension

I11 – Hypertensive heart disease

I12 – Hypertensive chronic kidney disease

I13 – Hypertensive heart and chronic kidney disease

(C) Cholesterol management - This information is pulled from the problem list and claims reporting data regarding labs or from a lab interface importing structured data. The problem list must be up-to-date with correct and current diagnoses. Frequently used ICD-10 diagnosis codes for hyperlipidemia include:
E78.0 – Pure hypercholesterolemia

E78.1 – Pure hyperglyceridemia

E78.2 – Mixed hyperlipidemia

E78.5 – Hyperlipidemia, unspecified

(S) Quitting smoking - This information will be pulled from the structured smoking status fields within your social or health histories. The problem list and medication list must be in a structured format.

Diabetes – The denominator information is usually pulled from a patient's problem list, with a diagnosis code of diabetes mellitus. Many of the control measures, including NQF 0059, correlate the diabetes diagnosis with an HbA1c value that should be less than one year old. It is important to have the HbA1c lab value mapped appropriately for these measures to function. Frequently used ICD-10 diagnosis codes for diabetes mellitus include:

E11.9 – Type II diabetes mellitus without complications

E10.9 – Type I diabetes mellitus without complications

E11.65 – Type II diabetes mellitus with hyperglycemia

E10.65 – Type I diabetes mellitus with hyperglycemia

Prediabetes – Quality improvement with respect to prediabetes is heavily dependent on identification. The main indication is impaired glucose tolerance. Other frequently used ICD-10 diagnosis codes include:

E66.0 – Obesity due to excess calories

Z83.3 – Family history; Diabetes mellitus (situation)

R73.02 – Impaired glucose tolerance

R73.09 – Other abnormal glucose

Z86.32 – Personal history of gestational diabetes

O99.810 – Abnormal glucose complicating pregnancy

R03.0 – Elevated blood pressure

I10 – Essential (primary) hypertension

E78.5 – Hyperlipidemia, unspecified

E28.2 – Polycystic ovarian syndrome

L83 – Acanthosis nigricans

120-25 – Codes for coronary disease

Resources for Clinical Practice for Health Care Providers

In many EHR reporting systems it is easy to drill down on the output report and find specific patients that did not show up in the numerator of the measure. Tags and reminders can be used with these patients so when the patient comes for the next visit, the agenda can be set to successfully complete the care steps needed. Below are suggested tactics for success around diabetes, prediabetes and the ABCS.

Tactics for Success:

- Focus on diabetes and the ABCS with your patients.[5]
- Create standard protocols around ABCS treatment in your clinic. Resources including http://healthinsight.org/bloodpressure can help you identify areas for standardization or improvement with respect to blood pressure.
- Treat high blood pressure and cholesterol. Prioritize control of high blood pressure and diabetes management (HbA1c), which help prevent heart attack, stroke, and kidney failure.

[5] See Appendix C for detailed treatment resources on the ABCS

- Use the A1C Control Causal Tree and HealthInsight Blood Pressure Control Causal Tree and HealthInsight LDL Control Causal Tree to look for root causes in clinical processes and develop interventions.[6]
- Additional tactics for success: Diabetes, Cardiac and Preventive Care

Self-management Education:

- Establish and discuss with patients their specific goals for treatment and the most effective ways that they can help control their risk factors for heart disease and stroke.
- Coach patients to develop heart-healthy habits, such as regular exercise and a diet rich in fresh fruits and vegetables, and stress reduction techniques.
- Ask patients about their smoking status and provide cessation support and medication when appropriate.
- Ask about barriers to medication adherence and find solutions including methods to reduce out-of-pocket costs for medications and services.
- Help patients follow treatment instructions and activate staff to emphasize the importance of taking medications as prescribed.
- Recognize the signs of prediabetes and consider recommending treatment including the CDC Diabetes Prevention Program (NDPP) – http://livingwell.utah.gov/
- Refer patients to evidenced based courses including Stanford Model Diabetes Self-Management Programs (DSMP) – these are often provided by the local health department at no charge – http://livingwell.utah.gov/
- Add use of home readings for blood pressure and glucose recording and reporting, and educate patients on using blood pressure monitors and glucometers
    - Refer to the Million Hearts® Self-Monitoring Guide

System Processes:

- Use health information technology, such as EHRs, patient portals, health maintenance and decision support tools, to improve the delivery of care and control of diabetes and the ABCS.
- Track and improve blood pressure control through health information technology and quality improvement techniques.
- Provide tools to show clinic progress - share across the team members to help them succeed.

[6] A causal tree is a visual representation of a process that maps what happened to why it happened, based in cause-and-effect logic. Causal trees highlight areas for further investigation by pinpointing evident gaps to help dig deeper. They are used to look for root causes in clinical processes and then develop interventions.

APPENDIX A – DEFINITIONS:

Diabetes

Diabetes is typically a chronic disease characterized by high blood glucose levels. Blood glucose is controlled at least in part by the activities of glucose and glucagon. The production of these hormones and the sensitivity of the cells to these hormones are correlated with blood sugar levels. There are a number of risk factors associated with diabetes including obesity.

Heart Disease

Heart disease refers to several types of heart conditions. The most common type in the United States is coronary artery disease, which can cause heart attack, severe chest pain, heart failure, and irregular heartbeat. Several factors contribute to heart disease, including genetics, high blood pressure, and cholesterol, and lifestyle factors such as smoking, unhealthy diet, and lack of exercise.

Stroke

Stroke is a brain attack that occurs when blood flow to the brain becomes blocked. This can be caused either by a blood clot or by a burst blood vessel in or around the brain. Lack of blood flow during stroke can cause portions of the brain to become damaged, often beyond repair.

Cardiovascular Disease

Cardiovascular disease is a broad term for all diseases that affect the heart or blood vessels. This includes heart attack and stroke as well as conditions such as high blood pressure, coronary artery disease, and aortic aneurism.

Ischemic Vascular Disease

Ischemic vascular disease is a condition characterized by the narrowing of blood vessels. It is a broad term that includes Coronary Artery Disease (CAD) and Peripheral Vascular Disease (PVD). Stroke, heart attack and dementia are some of the possible outcomes of this disease.

Prediabetes

A person with prediabetes has an elevated blood sugar level, but not such that it warrants a diagnosis of type II diabetes. Without lifestyle changes, the CDC reports that 15- 30 percent of people with prediabetes will develop type II diabetes.

APPENDIX B – THE MODEL FOR IMPROVEMENT:

Step 1: Setting the aim, or what are we trying to accomplish?

- State the aim clearly (SMART acronym)
- Include numerical goal and time frame that require fundamental system change
- Set stretch goals - A "stretch" goal is one to reach for within a certain time
- Avoid aim drift - Once the aim has been set, the team needs to be careful not to back away from it deliberately or "drift" away from it unconsciously
- Be prepared to refocus the aim

Step 2: Establishing measures, or how will we know that a change is an improvement?

- Plot data over time
- Seek usefulness, not perfection
- Use sampling
- Integrate measurement into the daily routine
- Use qualitative and quantitative data

Step 3: Create an overall plan for improvement or selecting change.

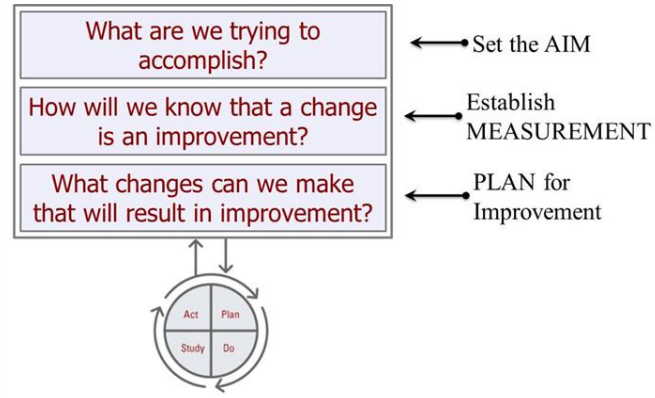
- Avoid "the same" responses – such as throwing more money and people at the problem
- Implement recommended practices guidelines
- Think processes and systems of work: simplify processes, reduce waste or unnecessary redundancies, strengthen hand offs
- Creative thinking
- Appropriate use of new or existing technology
- Describe change (strategies)
- Predict outcome
- List steps needed
- Plan for collection of data.

Resources

The following resources may be helpful in using the Model for Improvement:

- Institute for Healthcare Improvement website: http://www.ihi.org
- Langley G.J., Nolan K.M., Nolan T.W., Norman C.L., Provost L.P. (2009). The Improvement Guide. New York, NY: John Wiley and Sons.

The Improvement Guide is viewable online at http://books.google.com/. Type the title of the book into the search field and locate the most recent edition.



The Improvement Guide (Langley GJ, Nolan KM, Nolan TW, Norman CL, Provost LP. San Francisco, California, USA: Jossey-Bass Publishers, Inc.; 1996

APPENDIX C – ABCS TREATMENT RESOURCES:

- **Aspirin**:
  - U.S. Preventative Services Task Force (USPSTF) - Aspirin for the Prevention of Cardiovascular Disease – http://tinyurl.com/aou2c6n
  - NEJM – Aspirin in Secondary Prevention of Cardiovascular Disease - http://tinyurl.com/ad4yt7b
  - Centers for Disease Control (CDC) – Recommendations for Aspirin for Prevention of Cardiovascular Disease – http://tinyurl.com/hwtxfj5
  - PubMed.gov – Individual and Population Benefits of Daily Aspirin Therapy: a Proposal for Personalizing National Guidelines – http://tinyurl.com/agwdewm
- **Blood Pressure Control**:
  - JNC8 Resource page – http://tinyurl.com/jytsl2h
  - HealthInsight – Utah department of Health – http://healthinsight.org/bloodpressure
  - Million Hearts – http://millionhearts.hhs.gov/
  - NHLBI National Heart Lung and Blood Institute – http://www.nhlbi.nih.gov
- **Cholesterol Management**:
  - American Heart Association – http://tinyurl.com/23dtxvo
  - NIH ATPIII Guidelines – http://tinyurl.com/gnler4c
  - Information for patients – http://tinyurl.com/d2rzerc
- **Smoking Cessation:**
  - The 5 As – Ask, Advise, Assess, Assist, Arrange - U.S. Public Health Service, U.S. Department of Health and Human Services, AHRQ - http://tinyurl.com/lw2kv8q
  - Medicare.gov – Coverage – http://tinyurl.com/b6v4x9e
  - CDC – Smoking Cessation materials – http://tinyurl.com/afx5dww
  - Free resources including counseling and nicotine replacement therapy – 1.800.QUIT.NOW
  - Tobacco Control Journal - Interventions to Increase Smoking Cessation at the Population Level: How much progress has been made in the last two decades? – http://tinyurl.com/a3r6x8l

APPENDIX D – MANUAL REGISTRY METHOD FOR CARDIAC MEASURES (ABCS) DATA IN ECW:

(This is an example and may need modification based on software version, ICD 10 coding, and reporting needs)

Get to Registry option in eCW

1) Log in
2) Click the Registry option in the left panel
3) Click the Registry button in the left panel
4) Set up denominator (date range, age, and limit diagnosis to Ischemic Vascular Disease)
5) Click the **Encounters tab** in the center panel
6) Enter the **date range** (generally two years previous to the end of the desired reporting period is what is chosen here)
7) Enter the appropriate facility
8) Check Show Office Visits Only
9) Click the **Run New** button
10) Click the Demographics option in the center panel
11) Use the drop-down menu to choose **Age Range and enter 18** for the first number
12) Click the **Run Subset** button
13) Use the drop-down menu to choose **Age = and enter 18 by end of previous reporting period** (3/31, 6/30/,9/30,12/31)
14) Click the **Run Subset (NOT)** button
15) Click the ICD tab in the center panel
16) Place the following ICD code in the box (these are diagnosis codes for Ischemic Vascular Disease – IVD): I25 – I25.9
17) Choose the **appropriate date range** for the reporting period (quarterly, yearly)
18) Click the bubble for Search in Problem List
19) Click the **Run Subset** button (denominator – write this number down)
20) Run BP numerator to finish measure calculation
21) Click the Vitals tab in the center panel
22) Place a checkmark beside BP
23) In the first box place **00/00**
24) In the second box place **140/90**

25) Choose the **appropriate date range** for the reporting period (quarterly, yearly)
26) Click the **Migrate Vitals button** (this may take a while, click OK on the screens that appear)
27) When the last step is complete, click the **Run Subset** button (numerator – write this number down)
28) Run LDL measure to finish measure calculation
29) Repeat steps 4 through 18 (obtain denominator – write this number down)
30) Click the Labs/DI tab in the center panel
31) Click the Sel button to choose the LIPID PANEL WITH RATIOS lab
32) In the attributes section, scroll down to **LDL-CHOLESTEROL**
33) Enter **100 for the upper limit** (second box beside LDL-CHOLESTEROL)
34) Choose the **appropriate date range** for the reporting period
35) Place a checkmark beside Ignore Fasting Conditions
36) Click the **Run Subset** button (numerator number – write this number down)
37) Run Aspirin measure
38) Repeat steps 4 through 18 (obtain denominator – write this number down)
39) Click the RX tab in the center panel
40) Click the Sel button to choose drugs
41) Type **asp to look for aspirin** (you can pull one from each category on the left, 81 or 325 mg)
42) Click the category on the left-hand side
43) Choose the strength in the top list to add it to the bottom list
44) Continue to do this until you have **added all the aspirin dosages** to the bottom list
45) Type warf to look for **Warfarin**
46) Click the category on the left-hand side
47) Choose the strength in the top list to add it to the bottom list (2.5, 5, 7 mg tablet)
48) Type coum to look for **Coumadin**
49) Choose the strength in the top list to add it to the bottom list (2.5, 5, 7 mg tablet)
50) Continue to follow these steps to add Plavix, Aggrenox, Pradaxa, Dabigitran
51) Click OK at bottom of box
52) Fill in the bubble beside **Prescribed As Of Date**
53) Choose the **appropriate date range** for the reporting period (quarterly, yearly)
54) Click the **Run Subset** button (you now have your numerator for the measure)

55) Run Smoking Cessation measure
56) Repeat steps 4 through 13 (obtain denominator – write this number down)
57) Click the **Structured Data tab** in the center panel
58) Click the ellipsis button (with 3 dots on it) beside **Field Name**
59) Choose **Are you a:** beside Social History/Smoking Status
60) Click the ellipsis button (3 dots) beside Field Value
61) Checkmark **Current Smoker**, click OK
62) Click the **Run Subset** button
63) Change the Field Name to Patient Counseled on Dangers of Tobacco Use beside Preventive Medicine, click OK
64) Choose the appropriate **date range** for the reporting period (quarterly, yearly)
65) Click the **Run Subset** button (numerator number – write this number down)