

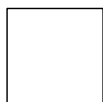


Electronic Health Records (EHR) Demonstration

Clinical Quality Data Collection

Michael Trisolini, PhD, MBA
Musetta Leung, PhD

RTI International

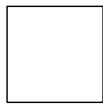


Presentation Outline

Clinical measures for assessing quality performance:

- (1) Review of measure categories and definitions
- (2) Options for reporting
 - a. Medicare claims data
 - b. EHR-PAT: Clinical record abstraction
 - manual
 - import from EHR
 - audit
 - training
 - c. Claims/Chart Hybrid
- (3) Quality performance assessment

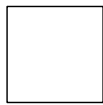




Presentation Outline

Clinical measures for assessing quality performance:

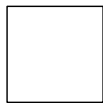
- ⇒ (1) Review of measure categories and definitions
- (2) Options for reporting *Handout: Listing of EHR Demonstration quality measures*
 - a. Medicare claims data
 - b. EHR-PAT: Clinical record abstraction
 - manual
 - import from EHR
 - audit
 - training
 - c. Claims/Chart Hybrid
- (3) Quality performance assessment



EHR Quality Measures

- 26 quality measures total
- Based on Doctors Office Quality (DOQ) project
- Use has precedence in other CMS demonstrations:
 - Medicare Care Management Performance (MCMP) demonstration, and
 - Physician Group Practice (PGP) demonstration
- Updated to comply with measure owners (AMA, NCQA, CMS) for the measurement period

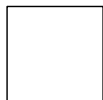




EHR Condition Modules

	<u>Measures</u>
■ Coronary Artery Disease (CAD)	6
■ Diabetes Mellitus (DM)	8
■ Heart Failure (HF)	7
■ Preventive Care (PC)	5

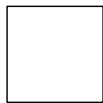
Total	26



Measure Owners

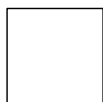
- AMA -- CAD (except LDL-C control)
-- HF (except LVF testing-hosp)
-- Blood pressure measurement, colorectal cancer screening, flu shot
- NCQA -- DM
-- Mammogram, pneumococcal vaccination
- CMS -- LVF testing-hosp, LDL-C control
- Maintain and update the quality measures to preserve consistency and check evidence base





Denominator Exclusions

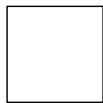
- Medical reasons
- Patient reasons
- System reasons
- Clinical data
- Age, gender
- Applied for selected quality measures, based on measure owners' guidelines



Measure Specifications

- Detailed specifications will be provided in the EHR Quality Measurement Specifications Report
- Measures may be updated during EHR demonstration based on changes made by measure owners
- Summary descriptions of the 26 EHR quality measures on the following slides



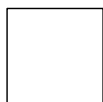


CAD Quality Measures

CAD-1: Percentage of patients (18 years and older) with CAD who were prescribed antiplatelet therapy

CAD-2: Percentage of patients with CAD who were prescribed a lipid-lowering therapy

CAD-3: Percentage of patients with CAD with prior MI at any time who were prescribed beta-blocker therapy



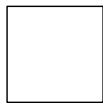
CAD Quality Measures (cont.)

CAD-5: Percentage of patients with CAD who received at least one lipid profile (or all component tests)

CAD-6: Percentage of patients with CAD with most recent LDL cholesterol < 100 mg/dL

CAD-7: Percentage of patients with CAD who also have diabetes and/or LVSD who were prescribed ACE Inhibitor or ARB Therapy



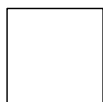


DM Quality Measures

DM-1: Percentage of patients (18 - 75 years of age) with diabetes (type 1 or type 2) with one or more Hemoglobin A1c test(s)

DM2: Percentage of patients with diabetes with most recent A1c level >9.0% (poor control)

DM-3: Percentage of patients with diabetes who had a blood pressure < 140/80 mmHg



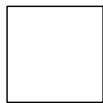
DM Quality Measures (cont.)

DM-4: Percentage of patients with diabetes who had LDL-C screening performed

DM-5: Percentage of patients with diabetes who had LDC-C testing < 100 mg/dL

DM-6: Percentage of patients with diabetes who had medical attention for nephropathy





DM Quality Measures (cont.)

DM-7: Percentage of patients with diabetes who had a retinal eye exam performed

DM-8: Percentage of patients with diabetes who had a foot exam (visual inspection, sensory exam with monofilament, or pulse exam)



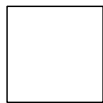
HF Quality Measures

HF-1: Percentage of patients (18 years and older) with HF with quantitative or qualitative results for LVEF assessment recorded

HF-2: Percentage of HF patients who were hospitalized with a principal diagnosis of HF during the measurement period who had LVEF testing during the current year

HF-3: Percentage of HF patient visits with weight measurement recorded



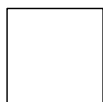


HF Quality Measures (cont.)

HF-5: Percentage of patients with HF who were provided with patient education on disease management and health behavior changes during one or more visit(s)

HF-6: Percentage of patients with HF who were prescribed beta-blocker therapy

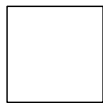
HF-7: Percentage of patients with HF who were prescribed ACE inhibitor or ARB therapy



HF Quality Measures (cont.)

HF-8: Percentage of patients with HF with paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy





PC Quality Measures

PC-1: Percentage of patient visits (for patients 18 years and older with chronic conditions) with blood pressure measurement recorded for patients

PC-5: Percentage of women 40-69 years of age who had a mammogram to screen for breast cancer

PC-6: Percentage of patients 50 years and older screened for colorectal cancer during the one-year measurement period

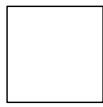


PC Quality Measures (cont.)

PC-7: Percentage of patients 50 years and older who received an Influenza immunization

PC-8: Percentage of patients 65 years and older who ever received a pneumococcal vaccination





Presentation Outline

Clinical measures for assessing quality performance:

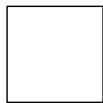
- (1) Review of measure categories and definitions
- ⇒ (2) Options for reporting
 - ⇒ a. Medicare claims data
 - b. EHR-PAT: Clinical record abstraction
 - manual
 - import from EHR
 - audit
 - training
 - c. Claims/Chart Hybrid
- (3) Quality performance assessment



Data collection: Options for reporting EHR quality measures

- Medicare claims data
 - *By RTI*
- EHR-PAT (Performance Assessment Tool)
 - *By practices*
 - Clinical record abstraction:
 - ◆ Manual medical record abstraction
 - ◆ Importing from an electronic health record
- Claims/chart hybrid
 - *By RTI and practices*





Claims-based quality measures

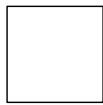
- Seven EHR quality measures can have data collected from either claims or medical records
 - HbA1c Testing (DM-1), LDL-C screening (DM-4), Attention for Nephropathy (DM-6), Eye Exam (DM-7)
 - LVF-testing among patients hospitalized with HF (HF-2)
 - Lipid Profile (CAD-5)
 - Breast Cancer Screening (PC-5)
- All eligible assigned beneficiaries are assessed for the 7 claims-based measures
- The other 19 EHR quality measures require medical records data, either manual or electronic



Patients pre-populated into the EHR-PAT

- Using Medicare claims, RTI samples, assigns, and ranks patients for chart abstraction for each practice
- Up to 327 patients randomly selected for each of the 4 condition topics (218 required plus 50% oversampling)
- If less than 327 eligible patients per topic, then all patients pre-populated





Pre-populated claims data into EHR-PAT

- “Yes” flags for the 7 claims-based quality measures
- Dates of lab tests where values needed from charts, whether provided inside practice
- Available claims data for chart-based measures to reduce practice workloads
 - Influenza vaccination
 - Pneumonia vaccination
- Physicians treating patients according to claims data

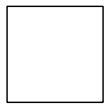


Presentation Outline

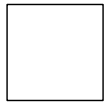
Clinical measures for assessing quality performance:

- (1) Review of measure categories and definitions
- ⇒ (2) Options for reporting
 - a. Medicare claims data
 - ⇒ b. EHR-PAT: Clinical record abstraction
 - manual
 - import from EHR
 - audit
 - training
 - c. Claims/Chart Hybrid
- (3) Quality performance assessment





IFMC



Presentation Outline

Clinical measures for assessing quality performance:

(1) Review of measure categories and definitions

⇒ (2) Options for reporting

a. Medicare claims data

b. EHR-PAT: Clinical record abstraction

- manual

- import from EHR

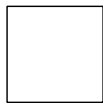
- audit

- training

⇒ c. Claims/Chart Hybrid

(3) Quality performance assessment





Data collection: Hybrid option

- Performance of the 7 claims-based measures may be boosted by using a hybrid approach
- Information can be collected from both claims and medical records:
 - (1) “Yes” from claims data are pre-populated into the EHR-PAT
 - “No Medicare claims found” is pre-populated if no hits are found in the claims for the patient in the measure
 - (2) If no hits found in the claims, search medical records data to:
 - a. Change “No Medicare claims found” to “Yes”; (numerator change)
 - *Example: Mammogram documented in the patient’s record*
 - b. Change “No Medicare claims found” to “No, for medical, patient or system reason”; (denominator change)
 - *Example: Woman had a bilateral mastectomy*

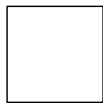


Presentation Outline

Clinical measures for assessing quality performance:

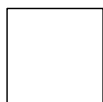
- (1) Review of measure categories and definitions
- (2) Options for reporting
 - a. Medicare claims data
 - b. EHR-PAT: Clinical record abstraction
 - manual
 - import from EHR
 - audit
 - training
 - c. Claims/Chart Hybrid
- ⇒ (3) Quality performance assessment





Assessing Quality Performance

- Twenty-six quality measures:
 - 7 claims-based/hybrid measures
 - (1) From Medicare claims calculated by RTI
 - (2) Hybrid data from EHR-PAT collected by practices
 - Higher score from (1) and (2) prevails
 - 19 EHR-PAT only measures
- Only measures that are fully *COMPLETED* are assessed



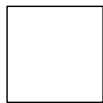
Assessing Quality Performance (cont.)

For each measure:

$$\text{Quality performance} = \frac{\text{Counts of Numerator hits}}{\text{Counts of Denominator hits}} \times 100\%$$

- Denominator: All cases eligible for assessment for the measure
 - *Example: All patients with diabetes between the ages of 18 and 75*
- Numerator: All cases in the denominator that meet the intention of the measure ("YES" flags)
 - *Example: All patients with diabetes between the ages of 18 and 75 who had an HbA1c test in the measurement year*





Assessing Quality Performance (cont.)

- Results to CMS for review
- Results to ARC for further scoring, reporting and payment determination
- Results to MPR for evaluation purposes
- No data will be made public at the beneficiary, provider, or practice level