

# **The Union of Performance Measures and Information Technology**

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# The Holy Grail

*for ambulatory care*

1. Data at the point of care to facilitate quality improvement
2. Data exported to outside stakeholders (eg, health plans, employers)



# We have charted a course

- ❖ Information technology integrated with standardized, evidence-based performance measures





measures

# Two Ingredients



Information  
technology

1. Clinical performance measures we all agree on
2. Performance measures that are integrated into IT, specifically electronic health record systems (EHRs)



First ingredient

measures

# Physician Consortium for Performance Improvement *Physician Performance Measurement Sets*

- Adult Diabetes<sup>1</sup>
- Asthma
- Chronic Stable Coronary Artery Disease<sup>2</sup>
- Heart Failure<sup>2</sup>
- Hypertension<sup>2</sup>
- Major Depressive Disorder
- Osteoarthritis of the Knee<sup>3</sup>
- Prenatal Testing
- Preventive Care and Screening



1 subset of Alliance

2 with ACC & AHA

3 with AAOS

# Hallmarks of Consortium Measures

- ❖ Evidence-based methodology
- ❖ Cross-specialty representation
- ❖ Solicitation of public comments
- ❖ Dual function of products  
(measurement tools & interventions)
- ❖ Enhanced relevance to clinical practice (eg, medical & patient reasons for not prescribing X)

# Enhanced relevance to clinical practice

## Well-designed measures: the need for exclusions

### ❖ Avoid “pitfalls”

In order for performance measures to be scientifically and clinically meaningful, they need to be applied to a more narrowly defined population than guidelines; measures must account for patient preference and clinical judgment.

- Walter, et al. JAMA 2004;291(20):2466-2470

### ❖ Avoid “inappropriate” care

Family practitioners may exclude patients from both the numerator and denominator if patients meet one of following criteria: newly diagnosed condition, pt declines intervention, treatment, allergy, terminal illness, etc.

- Roland M, NEJM 2004;351(14):1448-1454

# National Recognition and Alignment *of Consortium measures*

## CMS Initiatives

Doctors' Office Quality Project

Doctors' Office Quality-Information Technology Project

## National Quality Forum

Expedited review for ambulatory care project

## Bureau of Primary Healthcare

AMA is working with BPHC to align Consortium measures with measures for Health Disparities Collaboratives



# Second Ingredient



Information  
technology

## *How do we integrate these standardized performance measures into EHRs?*



?



# Early integration attempts

- ❖ Started with one office – retrofitted system
  - 6 months
  - \$50,000
- ❖ Successfully retrofitted a few large practices
- ❖ Soon realized need to involve EHR vendors at the front end

# Three Examples

## 1. CMS Initiatives

- DOQ-IT - CMS and AMA Vendor Specifications
- [www.doqit.org](http://www.doqit.org)

## 2. EQUIP Project\*

- Alliance of Chicago Community Health Services
- Network of 23 federally-qualified community health centers in Chicago

## 3. Testing data integrity\*

- Midwest Heart Specialists
- Northwestern Medical Faculty Foundation

\*Funded in part by grant from Agency for Healthcare Research and Quality

# Measure Example

## Heart Failure Measurement Set ( $\beta$ -blocker use)

- ❖ **Measure:** Percentage of heart failure patients who were prescribed beta-blocker therapy

Denominator = All heart failure patients with LVEF < 40% or with moderately or severely depressed left ventricular systolic function

Numerator = Patients who were prescribed beta-blocker therapy

- ❖ **Denominator exclusions:**

Documentation of medical reason(s) for not prescribing beta-blocker

Documentation of patient reason(s) for not prescribing beta-blocker

# Technical Specifications

*eg, HF Beta-blocker measure*

## Denominator Inclusions

All patients with a documented diagnosis of heart failure, patient is 18 years or older at the beginning of the measurement period and who also have LVSD (defined as ejection fraction < 40% - use most recent value)

TOPIC\_EVALUATION\_CODES Table lists applicable ICD-9 (I9) and CPT (C4) codes for inclusion:

PATIENT DX CODE (I9)	HF LVF ASSESS CODE (C4)
398.91, 402.01, 402.11, 402.91	78414, 78468, 78472, 78473,
404.01, 404.03, 404.11, 404.13	78480, 78481, 78483, 78494,
404.91, 404.93, 428.0, 428.1,	93303, 93304, 93307, 93308,
428.20-428.23, 428.30-428.33,	93312, 93314, 93315, 93317,
428.40-428.43, 428.9	93350, 93543, 93555

*Note: SNOMED CT and LOINC are being reviewed to identify applicable codes.*

Include in the Denominator where:

TOPIC\_TYPE = 'HF'

**AND**

TOPIC\_INDICATOR = '6'

**AND**

(PATIENT\_DX\_CODE\_SYS and PATIENT\_D on the TOPIC\_EVALUATION\_CODES Table)

**AND**

YEAR (ENCOUNTER\_DATE - BIRTHDATE) >= 18

**AND**

(HF\_LVF\_ASSESS\_CODE\_SYS and HF\_LVF\_ASSESS\_CODE exist on the TOPIC\_EVALUATION\_CODES table)

**AND**

(HF\_LVF\_RESULT\_QUAN < 40%)

Denominator inclusions

# Technical Specifications

## *eg, HF Beta-blocker measure*

Denominator Exclusions (*Exclusions only applied if the patient did not receive beta-blocker therapy*)

TOPIC\_MEDICAL\_EXCLUSION Table lists applicable ICD-9 (19) codes for medical reason exclusion:

EXCLUSION DXCODE (19)
493.xx, 498.xx, 426.0, 426.12,
426.13, 426.2, 426.3, 426.4, 426.51,
426.52, 426.53, 426.54, 426.7, 427.81,
427.89, 397.0, 491.20, 491.21, 492.0,
492.8, 498, 518.2, 506.4, V45.01

*Note: SNOMED CT and LOINC are being reviewed to identify applicable codes. (In particular – Class IV heart failure)*

**OR**

Any visit where -  
Excluded for Patient Reasons

**OR**

Physician reasons for exclusion (User Defined):

Exclude from the denominator where:

TOPIC\_TYPE = "HF"

**AND**

TOPIC\_INDICATOR = "6"

**AND**

((Patient's EXCLUSION\_DX\_CODE\_SYS and EXCLUSION\_DX\_CODE exist on the TOPIC\_MEDICAL\_EXCLUSION Table)

**OR**

((((HP6\_HEARTRATE1\_CODE\_SYS and HP6\_HEARTRATE1\_CODE exist on the TOPIC\_EVALUATION\_CODES table) AND HP6\_HEARTRATE1\_DATE is within MEASUREMENT\_DATE\_RANGE AND HP6\_HEARTRATE1\_RESULT < 50) AND ((HP6\_HEARTRATE2\_CODE\_SYS and HP6\_HEARTRATE2\_CODE exist on the TOPIC\_EVALUATION\_CODES table) AND HP6\_HEARTRATE2\_DATE is within MEASUREMENT\_DATE\_RANGE AND HP6\_HEARTRATE2\_RESULT < 50))))

Exclude from the denominator where:

Patient's PATIENT\_REASON\_CODE IS NOT NULL

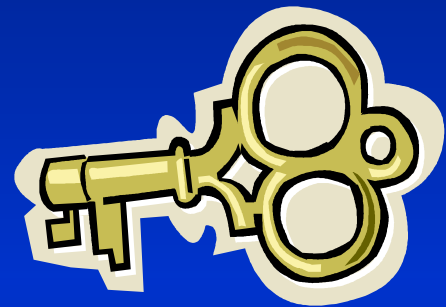
Exclude from the denominator where:

Patient's PHYSICIAN\_REASON IS NOT NULL

Denominator exclusions

# Keys

1. Common, standardized measures
2. Identical measure specifications
3. Consistent EHRS functionality



Same system, same data to meet needs of both efforts

**Your feedback is welcome**

**[www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality)**

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