Checking the Checkboxes

Critical appraisal for appropriateness of clinical quality measures

Alan Drabkin, MD

Section Editor (Family Medicine), *DynaMed Plus*

Assistant Professor of Population Medicine, Harvard Medical School

Brian S. Alper, MD, MSPH, FAAFP

Founder of *DynaMed*

Vice President of Innovations and Evidence-Based Medicine Development, EBSCO Health

Clinical Research Assistant Professor, University of Missouri-Columbia Department of Family and Community Medicine

Disclosure- Both Dr Drabkin and Dr Alper are full-time employees at EBSCO, in the EBSCO Health division. They own no stock or options in the company.

Objectives

1) Understand setting for clinical quality measure use (also called performance measures)
2) Learn criteria for critical appraisal of a quality measure and how to apply them to evaluate a quality measure
3) Review results from analysis of several measure sets, including 2017 MIPS measures.

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Value of Health Care Quality Measures

- Quantify qualitative aspects of health care processes, outcomes, and patient perceptions and experience.
- Inform consumers, providers, regulators, and others about the quality of care being provided in a setting.
- Improve effective, safe, efficient, patient-centered, equitable, and timely care.
- Impact positively on health services and meaningful outcomes (longevity, quality of life, functioning)

→ **Benefits**

Harms Associated with Inappropriate Performance Measures

- Direct harms to patients
  - Falls associated with hypotension, hypoglycemia
  - False positives associated with excessive screening
  - Overdiagnosis/overtreatment of indolent conditions identified by screening
- Wasteful testing
  - Excess A1c tests, mammograms

Care That Matters

- A group of clinicians committed to better health for our patients and appropriate stewardship of health care resources.
- They seek to achieve these outcomes through advocacy regarding a new generation of health care quality measures.
- They advocate for quality measures that …
  - are supported by evidence that they correlate with better health.
  - do not create situations in which the doctor's interests conflict with those of the patient
  - acknowledge the importance of individual patient factors and promote shared decision-making

Saver, Martin, Adler et al. *PLOS Medicine*
DOI:10.1371/journal.pmed.1001902 Nov 17, 2015

Carethatmatters.org

Prior work on “appropriateness” criteria for CQMs

- National Quality Forum (NQF)
- American College of Physicians (ACP) Performance Measure Reviews

Criteria for appropriateness of a Process measure

1. Convincing evidence that action changes clinical outcomes (or, for a measure requiring lack of an action, that action does not improve clinical outcomes)
2. Desirable consequences of action outweigh undesirable consequences of action
3. Desirable consequences of quality measure implementation outweigh undesirable consequences of quality measure implementation*
4. Population adequately spec
   criteria
5. Intervention adequately spe
   intervals or frequency

* Undesirable consequences of quality measure implementation may include

- inappropriate use of diagnostic labels (to artificially meet or avoid the measure)
- effort shifting (away from higher value activities)
- inhibition of patient input for decision-making

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2. Desirable consequences of action outweigh undesirable consequences of action
3. Desirable consequences of quality measure implementation outweigh undesirable consequences of quality measure implementation*
4. Population adequately specified with appropriate exclusion criteria
5. Intervention adequately specified including appropriate intervals or frequency

Criteria for appropriateness of an Outcome measure

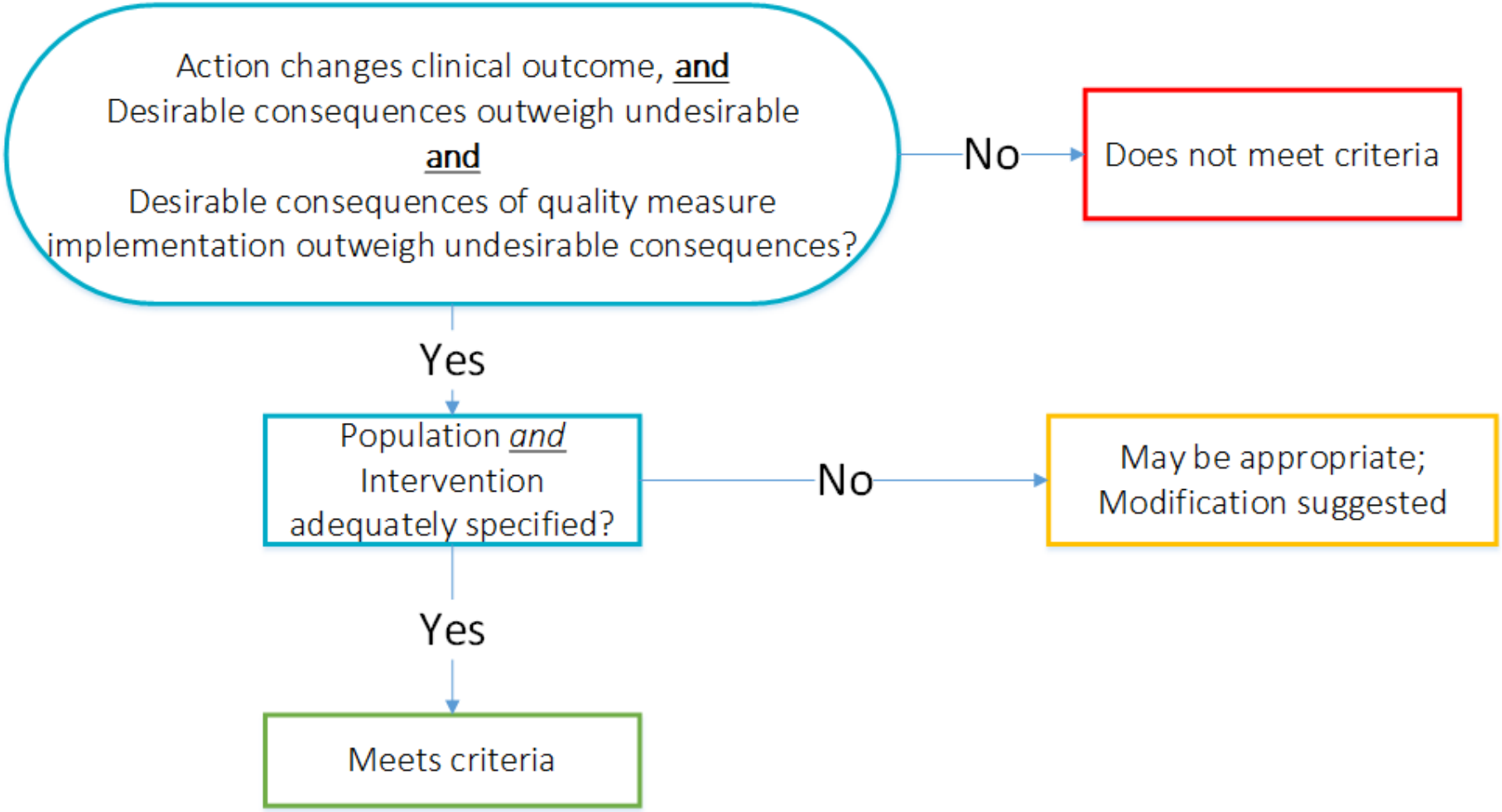
1. Measures a clinical outcome important to patients**

** Surrogate outcome may be used if it lies in the causal pathway to an effect on a clinical outcome and a change in the surrogate measure (for a defined magnitude and duration) is validated to predict the likelihood of a clinical outcome.

Criteria for appropriateness of an Outcome measure

1. Measures a clinical outcome important to patients**
2. Convincing evidence that clinical outcome can be changed by health care team actions
3. Desirable consequences of quality measure implementation outweigh undesirable consequences of quality measure implementation*
4. Population adequately specified with appropriate exclusion criteria
5. Outcome adequately specified including appropriate timeframe and assessment

Grading Methodology



Screening and counseling for tobacco use

Percentage of patients aged ≥ 18 years old who were screened for tobacco use at least once during the two-year measurement period AND who received cessation counseling intervention if identified as a tobacco user

1. Action changes outcome MET
2. Benefits outweigh harms MET
3. Implementation desirable MET
4. Population MET
5. Intervention MET

Meets criteria

Aspirin use for ischemic vascular disease (IVD)

Percentage of patients ≥ 18 years old

- discharged alive for acute MI, CABG or PCI in the 12 months prior to the measurement period, OR
- who had an active diagnosis of IVD during the measurement period, AND
- who had documentation of use of ASA or another antithrombotic during the measurement period

1. Action changes outcome MET
2. Benefits outweigh harms MET
3. Implementation desirable MET
4. Population Not Met
5. Intervention MET

Meets criteria with modification suggested

Aspirin use for ischemic vascular disease (IVD)

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1. Action changes outcome MET

- Exclude asymptomatic carotid artery disease or peripheral arterial disease
- Exclusion for contraindications

Meets criteria with modification suggested

HbA1c > 9% or missing in diabetics aged 18-75 years

Percentage of patients aged 18-75 years with diabetes

- whose most recent HbA1c level is greater than 9.0% or is missing a result, or
- for whom an HbA1c test was not done during the measurement year

1. Action changes outcome **Not MET**

- Higher HbA1c levels are associated with adverse clinical outcomes, but no evidence for a specific cutoff or threshold value as a specific target or measure for "good control" or "poor control". HbA1c not in the causal pathway of treatment effects.
- No studies comparing more vs. less intensive glycemic control compared a target HbA1c of < 9% with a target HbA1c ≥ 9%. No evidence for such effect on clinical outcomes.

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- whose most recent HbA1c level is greater than 9.0% or is missing a result, or
- for whom an HbA1c test was not done during the measurement year

1. Action changes outcome — Not MET
2. Benefits outweigh harms — MET
3. Implementation desirable — Not MET

A quality measure of the proportion of patients with "poor control" could have undesirable consequences of impacting patient selection for patient panels (further marginalizing at-risk groups) rather than the desirable consequences of improving surrogate measures of health for at-risk patients.

HbA1c > 9% or missing in diabetics aged 18-75 years

1. Action changes outcome — Not MET
2. Benefits outweigh harms — MET
3. Implementation desirable — Not MET
4. Population — Not MET

(exclude patients with life-limiting illness)

Percentage of patients aged 18-75 years with diabetes

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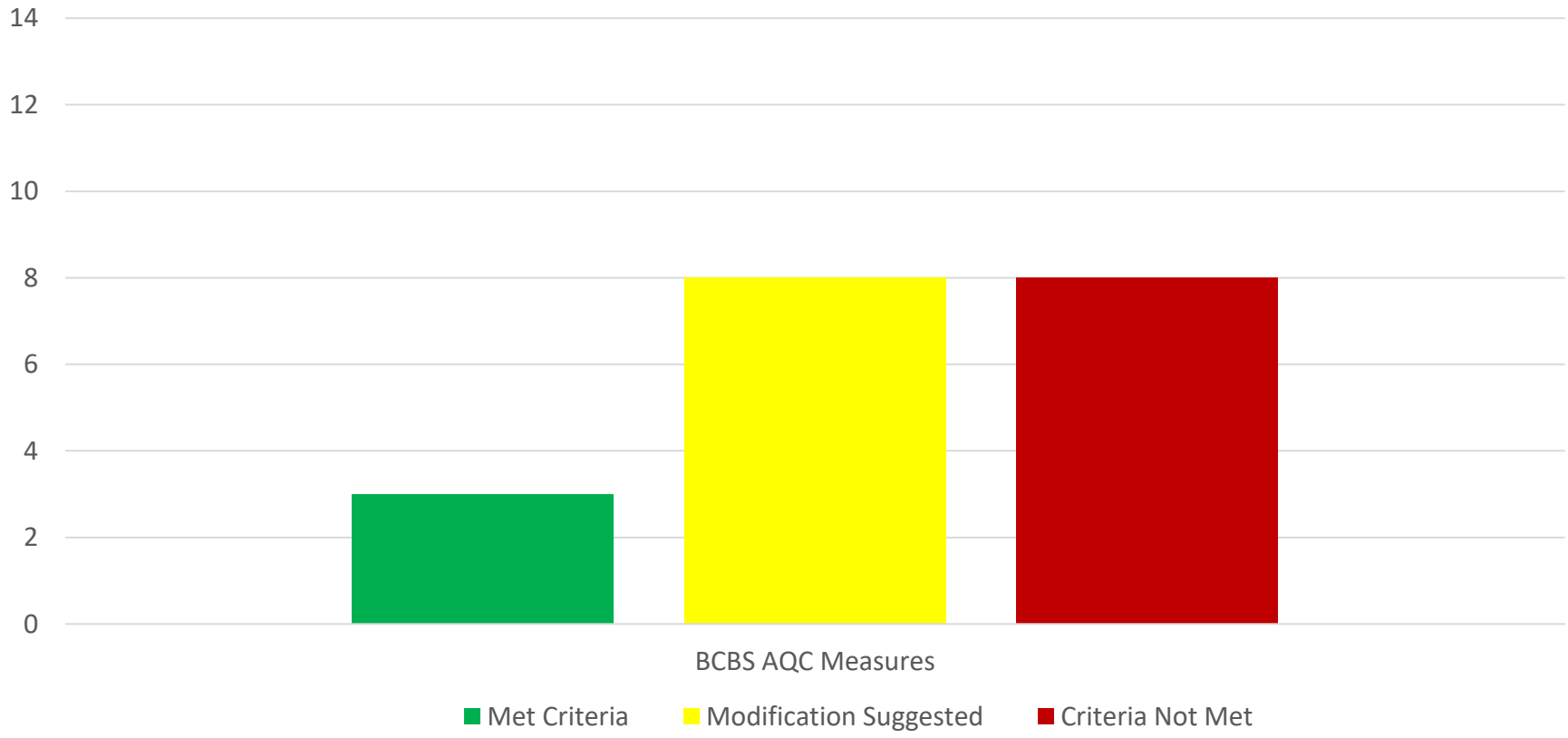
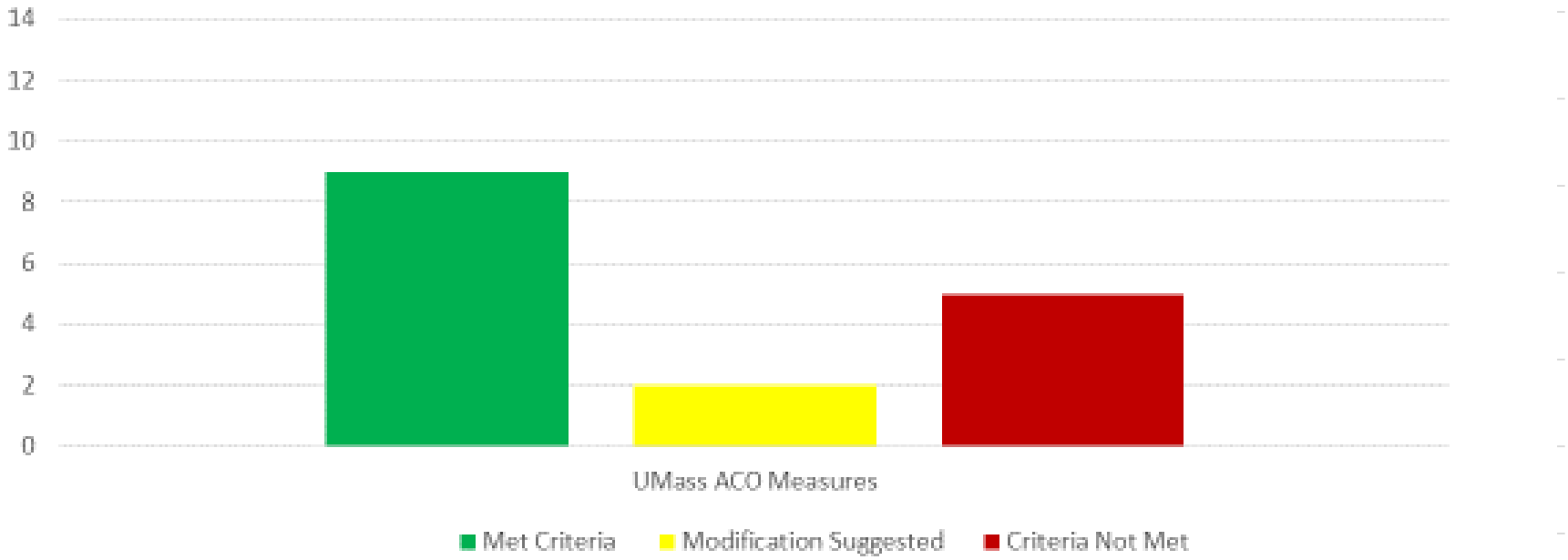
1. Action changes outcome Not MET
2. Benefits outweigh harms MET
3. Implementation desirable Not MET
4. Population Not MET
5. Intervention MET

Does not meet Criteria

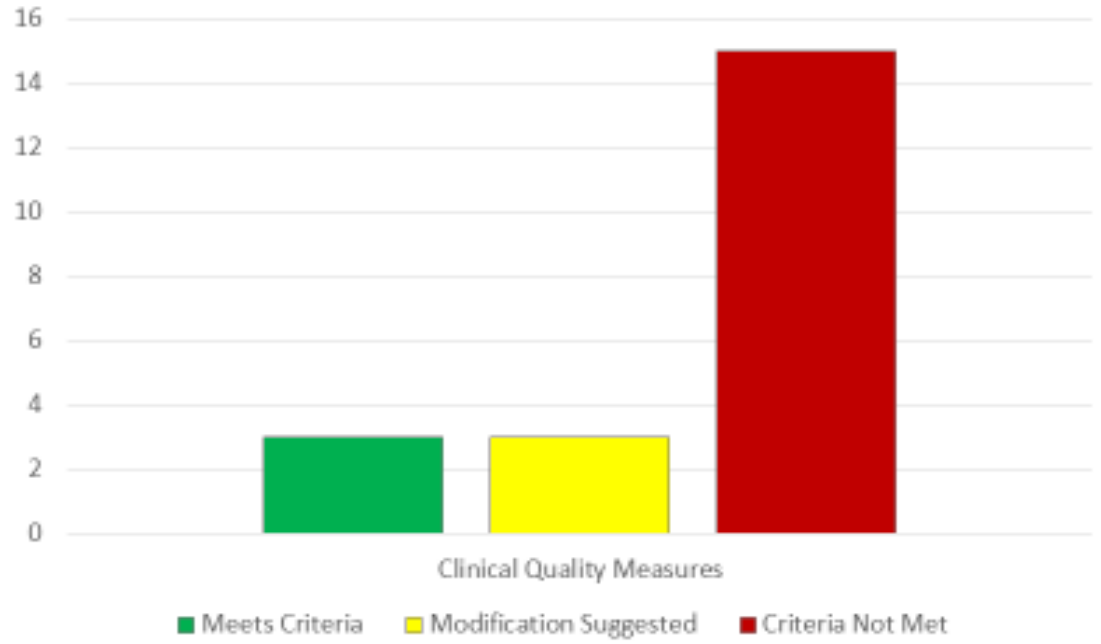
BCBS Alternative Quality Contract (n=19)



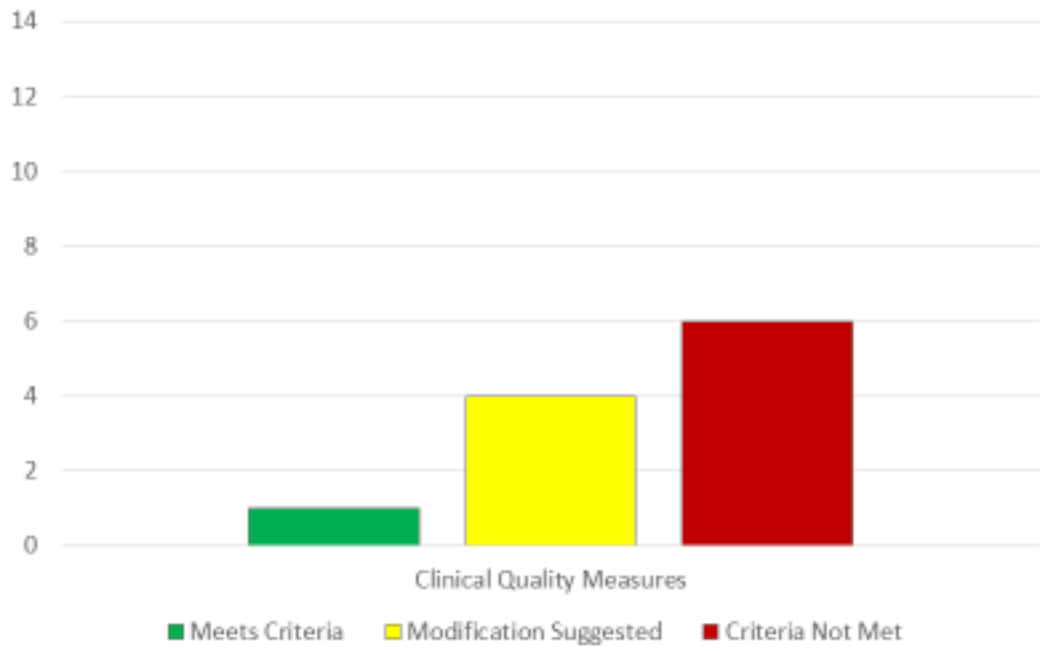
UMass Accountable Care Organization (n=16)



DynaMed Diabetes Quality Measures (n = 21)



DynaMed Heart Failure Quality Measures (n = 11)



MIPS 2017 Primary Care set

Met Criteria

- HIV Viral load suppression
- Tobacco Use and Help Quitting among adolescents

Modification Suggested

- Beta Blocker Therapy for Prior MI or LVEF < 40%
- ACE or ARB for Heart failure
- Aspirin for IVD patients

Criteria Not Met

- Diabetic Foot exam

Conclusions

- This is an innovative application of evidence based methodology for the evaluation of appropriateness of clinical quality measures
- In our initial experience across several measure sets, > 50% of common clinical quality measures regularly do not pass thresholds for appropriateness
- Implications for
  - clinical care
  - quality measurement policy, design and implementation