Performance Measurement for Disease-Specific Care Certification

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Talking Points

- Understanding the stages of performance measurement
- Utilizing core measures for DSC certification
- Selecting and developing performance measures for DSC certification
Components of DSC Certification

Standards

Quality & Safety of Disease-Specific Care

Guidelines

Performance Measures
Standards vs. Performance Measures

- **Standard**: statement that defines performance expectations, structures, or processes that must be substantially in place to enhance quality of care

- **Performance Measure**: provides an indication of the organization’s or service’s performance in relation to a specified process or outcome
Standards and Performance Measures Are Complementary

Complex inter-relationships exist among any given standard and an array of relevant performance measures.
Measuring Performance

- Performance measurement in health care represents what is done and how well it is done

- A performance measure is a quantitative tool calculated from a group of data elements
Domains of Performance Measures

- Clinical
  - Evaluate processes or outcomes of care

- Administrative/financial
  - Address organizational structure for coordinating and integrating services, functions & activities

- Perception of care/service
  - Patient/customer satisfaction

- Participants’ health status
Stages of Performance Measurement

Stage I

- Non-standardized measures selected by the DSC program
  - Most DSC programs

Stage II

- Standardized measures identified by The Joint Commission
  - Heart Failure (HF) and Stroke (STK)
Stage I Measures

- DSC certification requires data collection and analysis on at least 4 performance measures for each program or service related to or identified in clinical practice guidelines.

- Measures must be:
  - Evidence-based
  - Relevant
  - Valid
  - Reliable
Stage I Measures (cont’d)

2 of the measures must address clinical areas

Remaining measures may also be clinical or related to:
- Health status
- Administrative/financial areas
- Participant perception of care
Stage I Measures (cont’d)

- The Joint Commission is not prescriptive regarding which specific measures are to be implemented.
- Emphasis is on use of measures for improving care.
- At time of application, each program submits detailed descriptions of at least 4 performance measures (CMIP).
Stage II Measures

- Standardized sets of performance measures (service or program specific)
- Precisely defined specifications
- Uniformly embedded/adopted in certified programs
- Standardized data definitions
- Standardized data collection protocols
- Replace Stage I measures
Standardized Measure Identification Process

1. Determine measurement topic
2. Identify measure scope and framework (domains of care)
3. Expert Advisory Panel meets (identify additional domains, endorse framework, identify extant measures)
4. Additional measures solicited via 30 day public comment period & via list serves, etc.
5. Existing evidence-based measures submitted by public/stakeholders
6. Expert Advisory Panel review of submitted measures & recommendation of candidate measures
7. Public/Stakeholder Comment re. candidate measures
8. Expert Advisory Panel review of comment & final recommendation of measures
9. Develop measure specifications & data collection tools
10. Pilot test and reliability test of measures
11. Expert Advisory Panel review of pilot results & measure revision
12. Implementation of measure set

Responsible entity:
- TJC Staff
- Expert Panel
- Public/Stakeholders
Stroke National Hospital Inpatient Quality Measures (Core Measures)

- **STK-1**: Venous Thromboembolism (VTE) Prophylaxis
- **STK-2**: Discharged on Antithrombotic Therapy
- **STK-3**: Anticoagulation Therapy for Atrial Fibrillation/Flutter
- **STK-4**: Thrombolytic Therapy
- **STK-5**: Antithrombotic Therapy By End of Hospital Day 2
- **STK-6**: Discharged on Statin Medication
- **STK-8**: Stroke Education
- **STK-10**: Assessed for Rehabilitation
Heart Failure Core Measures

- **HF-1**: Discharge Instructions
- **HF-2**: Evaluation of LVS Function
- **HF-3**: ACEI or ARB for LVSD
Draft Measure Sets for DSC

- Advanced Certification in Heart Failure (ACHF)
  - Pending Joint Commission Board of Commissioners approval

- Comprehensive Stroke (CSTK)
  - Pilot test October 1, 2012 through March 31, 2013
Measure Development
What Makes a Good Measure?

- Relates to current medical evidence (CPGs)
- Resides under program/service control or scope of responsibility
- Possesses defined measure specifications (MIFs)
  - Rationale
  - Numerator and denominator statements
  - Measure type
  - Direction of improvement
What Makes Good Measure?

- Data collection calculations are logical
  - Consistent collection protocols and calculations can be replicated
  - Different reporting months are collected the same way
  - Data collection is ongoing and consistent over time

- Measure results demonstrate that improvement has occurred and can be sustained over time
Donabedian’s Model of Quality Assessment

Structure
Equipment & Personnel

Process
Actions to evaluate and treat patients

Outcome
Results for patients

Types of Performance Measures

- **Proportion**
  - Represented as a fraction
  - Numerator is a subset of the denominator

- **Ratio**
  - Represented as a fraction
  - Numerator is NOT a subset of the denominator

- **Continuous Variable**
  - Simple mathematical average
Proportion Measure Example

**VTE Prophylaxis Ordered**

-  Proportion / Clinical Process:
-  Denominator Statement: All TKR patients
-  Numerator Statement: TKR patients with recommended venous thromboembolism (VTE) prophylaxis ordered anytime from hospital arrival to 24 hours after *Anesthesia End Time*
  - Numerator is a subset of the denominator
  - Reported as a percentage
Ratio Measure Example

Stroke Fall Rate

- Ratio / Outcome:
- Denominator Statement: 30 stroke patient care days
- Numerator Statement: # Stroke falls
  - Numerator is not a subset of the denominator
- Reported as a decimal number
Continuous Variable Example

Median Time to Primary PCI

- Continuous Variable / Clinical Process:
- Continuous Variable Statement: Time (in minutes) from hospital arrival to primary PCI in patients with ST-segment elevation or LBBB on the ECG performed closest to hospital arrival
  - No numerator or denominator statement
  - Reported as a single numerical value
Selecting Non-Standardized Measures for DSC Certification
Tips for Getting Started

- Discuss issues important to the care, treatment and management of the patient population served as a team
- Review the clinical practice guidelines selected for the program
- Identify key guideline recommendations to use as topics for measure development
More Tips for Getting Started

- Draw on internal expertise, e.g., quality improvement staff and core measure abstractors within your hospital
- Find a standardized measure example
- Choose clinical process (proportion) measures first
Inpatient Diabetes Care
Management of Hypertension in Diabetes

**Recommendations**

- Patients with diabetes with hypertension (systolic BP ≥ 140 or diastolic ≥ 90 mm Hg) should:
  - Begin antihypertensive therapy with an angiotensin converting enzyme inhibitor (ACEI) or a diuretic [A]
  - If ACEI induced side-effects occur, consider switching to an angiotensin receptor blocker (ARB) [A]
Core Measure Example

NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE

Measure Information Form
Collected For: The Joint Commission Only
CMS Voluntary Only

Measure Set: Acute Myocardial Infarction (AMI)

Set Measure ID#: AMI-3

Performance Measure Name: ACEI or ARB for LVSD

Description: Acute myocardial infarction (AMI) patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

Rationale: ACE inhibitors reduce mortality and morbidity in patients with left ventricular systolic dysfunction (LVSD) after AMI (Fischer, 2000; Pfeffer, 1992; Top-Peterson, 1999; and Yusuf, 1992). Clinical trials have also established ARB therapy as an acceptable alternative to ACEI, especially in patients with heart failure and/or LVSD who are ACEI intolerant (Granger, 2003 and Pfeffer, 2003). National guidelines strongly recommend ACEI for patients hospitalized with AMI who have either clinical heart failure or LVSD (Antman, 2004 and Anderson, 2007). Guideline committees have also supported the inclusion of ARBs in performance measures for AMI (Antman, 2004; Antman, 2008; Anderson, 2007; and Smith, 2011).

Type of Measure: Process

Improvement Noted As: An increase in the rate

Numerator Statement: AMI patients who are prescribed an ACEI or ARB at hospital discharge.

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:
- ACEI Prescribed at Discharge
- ARB Prescribed at Discharge

Denominator Statement: AMI patients with LVSD

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
ACEI or Diuretic for Hypertension

**Denominator Statement**
- Diabetic patients with systolic BP ≥ 140 or diastolic BP ≥ 90

**Numerator Statement**
- Diabetic patients prescribed an ACEI or diuretic at hospital discharge
ACEI or Diuretic for Hypertension

Denominator (Included Populations):

- Patients on Unit X North with a primary or other diagnosis of diabetes mellitus, both Type 1 and Type 2
- Patients age $\geq 17$ Y/O
- Patients with a primary or secondary diagnosis of hypertension
- Patients with BP $\geq 140/90$ during the hospital stay
ACEI or Diuretic for Hypertension

**Denominator (Excluded Populations):**

- Patients age < 17 Y/O
- Patients with gestational diabetes mellitus (GDM)
ACEI or Diuretic for Hypertension

Type of Measure
- Proportion / Clinical Process

Direction of Improvement
- Improvement noted as an increase in rate
- Upward trend
Global Measure Example

Measure Information Form

Measure Set: Immunization

Set Measure ID#: IMM-1

Performance Measure Name: Pneumococcal Immunization

<table>
<thead>
<tr>
<th>Set Measure ID#</th>
<th>Stratified Measure Name</th>
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<tbody>
<tr>
<td>IMM-1a</td>
<td>Pneumococcal Immunization – Overall Rate</td>
</tr>
<tr>
<td>IMM-1b</td>
<td>Pneumococcal Immunization – Age 65 and Older</td>
</tr>
<tr>
<td>IMM-1c</td>
<td>Pneumococcal Immunization – High Risk Populations (Age 5 through 64 years)</td>
</tr>
</tbody>
</table>

Description: This prevention measure addresses acute care hospitalized inpatients 65 years of age and older (IMM-1b) AND inpatients aged between 5 and 64 years (IMM-1c) who are considered high risk and were screened for receipt of pneumococcal vaccine and were vaccinated prior to discharge if indicated. The numerator captures two activities; screening and the intervention of vaccine administration when indicated. As a result, patients who had documented contraindications to pneumococcal vaccine, patients who were offered and declined pneumococcal vaccine and patients who received pneumococcal vaccine anytime in the past are captured as numerator events.

Rationale: Pneumococcal infection causes an estimated 5,000 deaths from invasive disease annually in the United States (CDC). All pneumococcal infections, including invasive and non-invasive disease, result in approximately 2.4 million days of hospitalization. A sizable proportion of these cases and deaths are potentially preventable through vaccination. Case-fatality rates are highest for meningitis and bacteremia, and the highest mortality occurs among the elderly and patients who have underlying medical conditions. The overall case-fatality rate for invasive pneumococcal disease is 10-18% among adults (Plishchuk CID 2010;201:32-41). While there is limited evidence that pneumococcal vaccine can prevent pneumonia, multiple studies have demonstrated the effectiveness of that vaccine against pneumococcal bacteremia in vaccinated patients.

In the United States today, pneumococcal vaccine coverage is suboptimal. Although inpatient vaccine screening and administration are recommended, hospitalization is an underutilized opportunity for vaccination.

Type of Measure: Process

Improvement Noted As: An increase in the rate
Patient Education Example

NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE

Measure Information Form

Measure Set: Heart Failure (HF)
Set Measure ID#: HF-1

Performance Measure Name: Discharge Instructions

Description: Heart failure patients discharged home with written instructions or educational material given to patient or caregiver at discharge or during the hospital stay addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen.

Rationale: Patient non-compliance with diet and medications is an important reason for changes in clinical status. Healthcare professionals should ensure that patients and their families understand their dietary restrictions, activity recommendations, prescribed medication regimen, and the signs and symptoms of worsening heart failure. National guidelines strongly support the role of patient education (Jessup, 2009 and HFSA, 2010).

Type of Measure: Process

Improvement Noted As: An increase in the rate

Numerator Statement: Heart failure patients with documentation that they or their caregivers were given written discharge instructions or other educational material addressing all of the following:
- activity level
- diet
- discharge medications
- follow-up appointment
- weight monitoring
- what to do if symptoms worsen

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:
- Discharge Instructions Address Activity
- Discharge Instructions Address Diet

Specifications Manual for National Hospital Inpatient Quality Measures
Discharges 01-01-13 (1Q13) through 12-31-13 (4Q13)
Smoking Cessation Example

NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE

Measure Information Form

Measure Set: Acute Myocardial Infarction (AMI)
Set Measure ID#: AMI-4
Performance Measure Name: Adult Smoking Cessation Advice/Counseling

Description: Acute myocardial infarction (AMI) patients with a history of smoking cigarettes, who are given smoking cessation advice or counseling during hospital stay. For the purposes of this measure, a smoker is defined as someone who has smoked cigarettes anytime during the year prior to hospital arrival.

Rationale: Smoking cessation reduces mortality and morbidity in all populations. Patients who receive even brief smoking-cessation advice from their care providers are more likely to quit. National guidelines strongly recommend smoking cessation counseling for smokers hospitalized with AMI (Fiore, 2008; Antman, 2004; Anderson, 2007; and Smith, 2006).

Type of Measure: Process
Improvement Noted As: An increase in the rate

Numerator Statement: AMI patients (cigarette smokers) who receive smoking cessation advice or counseling during the hospital stay

Included Populations: Not Applicable
Excluded Populations: None

Data Elements:
Adult Smoking Counseling

Denominator Statement: AMI patients with a history of smoking cigarettes anytime during the year prior to hospital arrival
Measure References

- CMS/TJC Core Measures
  - Specifications Manual for National Hospital Quality Measures: Current, Future, and Historical Versions

- The Joint Commission Core Measures
  - Specifications Manual for Joint Commission National Quality Core Measures

- The Library of Other Measures
Measure References

CMS/TJC Specifications Manual

TJC Specifications Manual

Library of Other Measures
Welcome to the Performance Measurement Network Q&A Forum

Measure Specifications Manuals

<table>
<thead>
<tr>
<th>Joint Commission Only Measures</th>
<th>CMS and Joint Commission Aligned Measures</th>
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<td><strong>Recent Past</strong>: Specifications Manual for Joint Commission National Quality Core Measures (version 2012B) 01 February 2012 (HBIPS and PC Measures: applicable to Discharges 07-01-12 (3Q12) through 12-31-12 (4Q12))</td>
<td><strong>Historical Specification Manuals for National Hospital Quality Measures</strong></td>
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https://manual.jointcommission.org/bin/view/Manual/WebHome
The Joint Commission has established a collection of performance improvement measures that provides stakeholders with ready access to reliable and fully tested measures that can be used to improve the safety and quality of health care.

The collection is populated with measures recently developed or specified by The Joint Commission, such as the intensive care unit (ICU), nursing-sensitive care and patient blood management (PBM) measures. Most measures contained here include calculation algorithms and relevant data element definitions. In the future, the collection will be a fully automated, searchable web-based tool and will incorporate externally developed measures that have been evaluated by the Joint Commission and found to meet rigorous criteria.

http://www.jointcommission.org/library_of_other_measures.aspx
Measures, Reports & Tools

Find Measures
- NOF-Endorsed Measures (QPS)

Find Reports
- Final Reports
- Measure Endorsement Summaries
- Report to Congress

Find Tools
- Align Your Measures
- Health IT Knowledge Base
- My Dashboard
- Action Registry

NOF has what your organization needs to better measure, report on, and take action to improve healthcare quality.

Measures
Looking for measures? Check out QPS, NOF’s measure search tool that helps you find the endorsed measures you need quickly and easily. Search by measure title or number, as well as by condition, care setting, or measure steward. Use QPS to learn from other measure users about how they select and use measures in their quality improvement programs.

Reports
NOF reports cover a range of topics critical to healthcare quality improvement. Explore our Reports Directory to access reports regarding measure endorsement, measure use, and establishing national healthcare priorities.

Endorsement Summaries are designed to give you basic details on newly endorsed measures, where measures can be used, and what gaps they fill.

Tools
NOF offers a range of tools designed to help you achieve your goals and work with others:
- Our Alignment Tool helps you align, expand, or start your measurement and reporting efforts in ways that fit with key national programs.
- The Health IT Knowledge Base provides answers to some of the most technical questions surrounding NOF’s health IT and eMeasures initiatives.
- My Dashboard helps you track what is happening at NOF, and lets you personalize your experience on the web.
- NOF’s Action Registry is an online collaboration space designed to help people on the frontlines of making care safe connect with others, find new resources, and help proven ideas spread.
http://www.qualitymeasures.ahrq.gov
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Questions