

# Preliminary Evaluations of Measures Proposed for the Standard Quality Measure Set

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<b>EVALUATION SCORING SUMMARY</b>							
#	Measure Name	NQF #	Ease of Measure -ment	Reliability and Validity	Field Implement-ation	Amenable to Targeted Improvement	Score
1	STK-1 Venous Thromboembolism (VTE) Prophylaxis	434	4	4	4	4	4.00
2	STK-4 Thrombolytic Therapy	437	4	4	4	3	3.75
3	STK-6 Discharged on Statin Medication	439	4	4	4	3	3.75
4	STK-8 Stroke Education	N	4	2	4	2	3.00
5	VTE-1 Venous Thromboembolism (VTE) Prophylaxis	371	4	4	4	4	4.00
6	VTE-2 ICU VTE Prophylaxis	372	4	4	4	4	4.00
7	VTE-3 VTE Patients w/Anticoagulation	373	4	4	4	4	4.00
8	VTE-5 VTE Warfarin Therapy Discharge Instructions	N	4	4	4	3	3.75
9	VTE-6 Hospital Acquired Potentially-Preventable Venous Thromboembolism	N	4	4	4	3	3.75
10	SEP-1: Severe Sepsis and Septic Shock: Management Bundle	500	4	4	4	4	4.00
11	IMM 2 Influenza Immunization	1659	3	4	4	3	3.50
12	Acute Myocardial Infarction (AMI) 30-Day Readmission Rate	505	4	4	4	3	3.75
13	Heart Failure (HF) 30-Day Readmission Rate	330	4	4	4	4	4.00
14	Pneumonia (PN) 30-Day Readmission Rate	506	4	4	4	3	3.75
15	Stroke (STK) 30-Day Readmission Rate	N	4	3	4	3	3.50
16	Coronary Artery Bypass Graft (CABG) 30-Day Readmission Rate	2515	4	4	4	3	3.75
17	Chronic Obstructive Pulmonary Disease (COPD) 30-Day Readmission Rate	1891	4	4	4	3	3.75
18	Hip/Knee Readmission: Hospital-Level 30-Day all-Cause Risk-Standardized RSRR	1551	4	3	4	4	3.75
19	PC-01: Elective Delivery	469	4	4	4	4	4.00
20	PC-04: Health Care-Associated Bloodstream infections in newborns	1731	4	4	4	4	4.00
21	PC-05 Newborn Breast Milk Feeding	480	4	4	4	4	4.00

## Proposed Measure: STK-1 Venous Thromboembolism (VTE) Prophylaxis (NQF 434)

**Description:** This measure captures the proportion of ischemic or hemorrhagic stroke patients who received VTE prophylaxis or have documentation on why no VTE prophylaxis was given on the day of or the day after hospital admission.

This measure is a part of a set of eight nationally implemented measures that address stroke care and are used in the Joint Commission's hospital accreditation and Disease-Specific Care certification programs.

**Developer:** The Joint Commission, American Heart Association/American Stroke Association

### Measure Evaluation

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- **Ease of Measurement: 4**  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity: 4**  
This measure was evaluated by the Joint Commission and found to be both reliable and valid.
- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Accreditation
  - Certification
  - Collaborative inter-organizational quality improvement
  - External oversight/Other national programs
  - Internal quality improvement
  - Pay-for-reporting
  - Public reporting
- **Amenable to Targeted Improvement: 4**  
  
The FY 2016 IQR Hospital IPPS Final Rule has removed this measure because performance among hospitals has topped out. (For FFS only?)

### Overall Recommendation

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#### STK-1 Venous Thromboembolism Prophylaxis: STRONG

- Average Score: 4.0
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 434)
- Met minimum scores on each evaluation dimension: Y
- References

- The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a  
<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228774725171>
- National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. STK-1 VTE Prophylaxis. NQF #0434. May 15, 2008.

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## Proposed Measure: STK-4 Thrombolytic Therapy (NQF 437)

**Description:** This measure captures the proportion of acute ischemic stroke patients who arrive at this hospital within 2 hours of time last known well for whom IV t-PA was initiated at this hospital within 3 hours of time last known well.

This measure is a part of a set of eight nationally implemented measures that address stroke care and are used in the Joint Commission's hospital accreditation and Disease-Specific Care certification programs.

**Developer:** The Joint Commission, American Heart Association/American Stroke Association

### Measure Evaluation

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- **Ease of Measurement: 4**  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity: 4**  
This measure was reviewed by the Joint Commission and found to be both reliable and valid.
- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Accreditation
  - Certification
  - Collaborative inter-organizational quality improvement
  - External oversight/Other national programs
  - Internal quality improvement
  - Pay-for-reporting
  - Public reporting
- **Amenable to Targeted Improvement: 3**  
In 2008, European Cooperative Acute Stroke Study (ECASS)-3, a multi-center, prospective, randomized, placebo-controlled trial, studied the administration of rt-PA between three and 4.5 hours of stroke symptom onset (Hacke et al., 2008). The trial enrolled 418 patients treated with rt-PA per the current dosing guidelines) and compared them with 403 who were given placebo. The frequency of the primary efficacy outcome was significantly greater with rt-PA (52.4%) than with placebo.

### Overall Recommendation

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#### STK-4 Thrombolytic Therapy: **STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 437)
- Met minimum scores on each evaluation dimension: Y

- References

- National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. STK-4 Thrombolytic Therapy. NQF #0437. May 15, 2008.
- The Specifications Manual for National Hospital Inpatient Quality [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
- Hacke W, Kaste M, Bluhmki E, Brozman M, Davalos A, Guidetti D, Larrue V, Lees KR, Medeghri Z, Machnig T, Schneider D, von Kummer R, Wahlgren N, Toni D, ECASS Investigators. Thrombolysis with alteplase 3 to 4.5 hours after acute ischemic stroke. N Engl J Med. 2008 Sep 25;359(13):1317-29.

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### **Proposed Measure: STK-6 Discharged on Statin Medication (NQF 439)**

**Description:** This measure captures the proportion of ischemic stroke patients with LDL greater than or equal to 100 mg/dL, or LDL not measured, or who were on a lipid-lowering medication prior to hospital arrival who are prescribed statin medication at hospital discharge.

This measure is a part of a set of eight nationally implemented measures that address stroke care and are used in the Joint Commission's hospital accreditation and Disease-Specific Care certification programs.

**Developer:** The Joint Commission. American Heart Association/American Stroke Association

#### **Measure Evaluation**

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- **Ease of Measurement: 4**  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity: 4**  
This measure was evaluated by The Joint Commission and found to be both reliable and valid.
- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Accreditation
- Certification
- Collaborative inter-organizational quality improvement
- External oversight/Other national programs
- Internal quality improvement
- Pay-for-reporting
- Public reporting

- **Amenable to Targeted Improvement: 3**

The Stroke Prevention by Aggressive Reduction of Cholesterol Levels (SPARCL) trial (Amarenco et al., 2006) concluded that in patients with recent stroke or transient ischemic attack (TIA) and without known coronary heart disease, 80 mg of atorvastatin per day reduced the overall incidence of strokes and cardiovascular events, despite a small incidence of hemorrhagic stroke.

The five-year absolute reduction in the risk of major cardiovascular events was 3.5% after use of statin.

#### **Overall Recommendation**

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### **STK-6 Discharged on Statin Medication: STRONG**

- Average Score: 3.75

- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 439)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. STK-6 Discharged on Statin Medication. NQF #0439. May 15, 2008.
  - The Specifications Manual for National Hospital Inpatient Quality [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Amarenco P, Bogousslavsky J, Callahan A 3rd, Goldstein LB, Hennerici M, Rudolph AE, Silleesen H, Simunovic L, Szarek M, Welch KM, Zivin JA, Stroke Prevention by Aggressive Reduction in Cholesterol Levels (SPARCL). High-dose atorvastatin after stroke or transient ischemic attack. N Engl J Med. 2006 Aug 10;355(6):549-59

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## Proposed Measure: STK-8 Stroke Education

**Description:** Ischemic or hemorrhagic stroke patients or their caregivers who were given educational materials during the hospital stay addressing all of the following: activation of emergency medical system, need for follow-up after discharge, medications prescribed at discharge, risk factors for stroke, and warning signs and symptoms of stroke.

This measure is a part of a set of eight nationally implemented measures that address stroke care and are used in the Joint Commission's hospital accreditation and Disease-Specific Care certification programs.

**Developer:** The Joint Commission. American Heart Association/American Stroke Association

### Measure Evaluation

- **Ease of Measurement: 4**  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity: 2**  
Concerns exist regarding the validity of this measure. In 2012, NQF workgroup members reviewing this measure raised concerns about the relatedness of stroke education and the desired outcome.
- **Field Implementation: 4**  
Widespread implementation.

#### Current uses:

- Accreditation
  - Certification
  - Collaborative inter-organizational quality improvement
  - External oversight/Other national programs
  - Internal quality improvement
  - Pay-for-reporting
  - Public reporting
- **Amenable to Targeted Improvement: 2**  
The Joint Commission, which developed this measure, notes that there are “Many examples of how patient education programs for specific chronic conditions have increased healthful behaviors, improved health status, and/or decreased health care costs of their participants.” However, no examples are provided that specifically address stroke education and changes in behaviors, health statuses, or costs.

In 2012, NQF reviewed several measures as part of its Neurology Endorsement Maintenance Project. NQF noted that several workgroup members “voiced substantial concern about how stroke education is related to outcome and what the evidence suggests about stroke education and subsequent desired outcomes.”

NQF has subsequently withdrawn its endorsement of the measure.

In its final rule for FY16, CMS noted that this measure had topped out and would be used for electronic clinical quality measure submission.

### Overall Recommendation

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#### STK-8 Stroke Education: STRONG

- Average Score: 3
- Endorsed by NQF or included in nationally recognized measure set: Y (CMS), NQF withdrew endorsement of this measure on November 6<sup>th</sup>, 2012.
- Met minimum scores on each evaluation dimension:
- References
  - The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: Stroke Education. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48141>

## Proposed Measure: VTE-1 Venous Thromboembolism (VTE) Prophylaxis (NQF 371)

**Description:** This measure assesses the number of patients who received venous thromboembolism (VTE) prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission.

This measure is part of a set of six nationally implemented prevention and treatment measures that address VTE.

**Developer:** The Joint Commission

### Measure Evaluation

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- **Ease of Measurement:** 4  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity:** 4  
Before being endorsed by NQF, alpha testing was conducted to test face validity, broad scale pilot testing was conducted, and data elements were reviewed for validity.  
  
Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitors the national literature and environment in order to assess continued validity of this measure.
- **Field Implementation:** 4  
Widespread implementation.

Current uses:

- Accreditation
- Collaborative inter-organizational quality improvement
- Internal quality improvement
- Pay-for-reporting
- Public reporting

This measure is included among the clinical quality measures required in Stage 2 of Meaningful Use that must be reported by eligible hospitals and critical access hospitals in order to be eligible for the Medicare or Medicaid EHR incentive programs.

In addition, this measure is a component of the CMS Hospital Inpatient Quality Reporting Program.

In 2015, CMS will implement the HAC Reduction Program, as mandated by the Affordable Care Act. Low-performing hospitals face a 1% reduction in Medicare payments. VTE prophylaxis will be of the more heavily weighted indicators in calculating risk-adjusted HAC rates. Consequently, VTE prophylaxis is now subject to increased efforts and focus from hospitals.

- **Amenable to Targeted Improvement: 4**

According to the Joint Commission, most randomized trials of VTE prophylaxis demonstrate that event rates are reduced by 50%-75% in patients who receive prophylaxis. Further, the Joint Commission states in its “Measure Submission and Evaluation Worksheet” that these findings are relatively consistent across hundreds of clinical trials and for many patient populations.

From the hospital quality improvement perspective, measure rates are included in the Joint Commission’s Strategic Surveillance System (S3) product. The Joint Commission notes that aggregate measure results have improved over time, indicating that they are being used by hospitals to identify and address areas in need of improvement.

## Overall Recommendation

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### VTE-1 Venous Thromboembolism (VTE) Prophylaxis: **STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 371)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Venous Thromboembolism Prophylaxis. NQF #0371. May 15, 2008.
  - The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: Venous Thromboembolism. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48110#Section580>

## Proposed Measure: VTE-2 ICU VTE Prophylaxis (NQF 372)

**Description:** This measure assesses the number of patients who received venous thromboembolism (VTE) prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after the initial admission (or transfer) to the Intensive Care Unit (ICU) or surgery end date for surgeries that start the day of or the day after ICU admission (or transfer).

This measure is part of a set of six prevention and treatment measures that address VTE.

**Developer:** The Joint Commission

### Measure Evaluation

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- **Ease of Measurement: 4**  
Data sources are administrative claims and medical record documents, in EHR or paper records.

- **Reliability and Validity: 4**  
Before being endorsed by NQF, alpha testing was conducted to test face validity, broad scale pilot testing was conducted, and data elements were reviewed for validity.

Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitors the national literature and environment in order to assess continued validity of this measure.

- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Accreditation
  - Care coordination
  - Collaborative inter-organizational quality improvement
  - Internal quality improvement
  - Pay-for-reporting
  - Public reporting
- **Amenable to Targeted Improvement: 4**  
According to NQF, most randomized trials of VTE prophylaxis demonstrate that event rates are reduced by 50%-75% in patients who receive prophylaxis. Further, NQF states that these findings are relatively consistent across hundreds of clinical trials and for many patient populations.

In addition, NQF maintains that the target population for this measure is consistent with the body of evidence supporting the need for VTE prophylaxis in hospitalized patients.

From the hospital quality improvement perspective, measure rates are included in the Joint Commission's Strategic Surveillance System (S3) product. NQF notes that aggregate measure results

have improved over time, indicating that they are being used by hospitals to identify and address areas in need of improvement.

## Overall Recommendation

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### VTE-2 ICU VTE Prophylaxis: STRONG

- Average Score: 4
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 372)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. ICU VTE Prophylaxis. NQF #0372. May 15, 2008.
  - The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: ICU VTE Prophylaxis. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48111>

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### **Proposed Measure: VTE-3 VTE Patients w/Anticoagulation (NQF 373)**

**Description:** This measure assesses the number of patients diagnosed with confirmed VTE who received an overlap of Parenteral (intravenous or subcutaneous) anticoagulation and warfarin therapy.

This measure is part of a set of six prevention and treatment measures that address VTE.

**Developer:** The Joint Commission

#### **Measure Evaluation**

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- **Ease of Measurement: 4**  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity: 4**  
Before being endorsed by NQF, alpha testing was conducted to test face validity, broad scale pilot testing was conducted, and data elements were reviewed for validity.  
  
Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitors the national literature and environment in order to assess continued validity of this measure.
- **Field Implementation: 4**  
Widespread implementation.  
  
Current uses:
  - Accreditation
  - Collaborative inter-organizational quality improvement
  - Internal quality improvement
  - Pay-for-reporting
  - Public reporting
- **Amenable to Targeted Improvement: 4**  
According to NQF, previous studies indicate that implementation of this clinical intervention “would be expected” to decrease rates of recurrent thromboembolic events in patients being treated for an acute episode of VTE.

CMS reports that this measure has topped out but will be retained for ECQM data submission. Along with VTE-5 and VTE-6, CMs may remove this measure in CY17.

#### **Overall Recommendation**

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**VTE-3 VTE Patients w/Anticoagulation: STRONG**

- Average Score: 4
- Meets SQAC Priority: Y
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 373)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. VTE Patients w/Anticoagulation. NQF #0373. May 15, 2008.
  - The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: VTE Patients w/Anticoagulation. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48112>

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## Proposed Measure: VTE-5 VTE Warfarin Therapy Discharge Instructions

**Description:** This measure assesses the number of patients diagnosed with confirmed VTE that are discharged to home, home care, court/law enforcement or home on hospice care on warfarin with written discharge instructions that address all four criteria: compliance issues, dietary advice, follow-up monitoring, and information about the potential for adverse drug reactions/interactions

This measure is part of a set of six prevention and treatment measures that address VTE.

**Developer:** The Joint Commission

**SQAC Priority Areas:** Hospital Tiering

### Measure Evaluation

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- **Ease of Measurement:** 4  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity:** 4  
Alpha testing was conducted to test face validity, broad scale pilot testing was conducted, and data elements were reviewed for validity.  
Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitors the national literature and environment in order to assess continued validity of this measure.
- **Field Implementation:** 4  
Widespread implementation.

Current uses:

- o Accreditation
  - o Collaborative inter-organizational quality improvement
  - o Internal quality improvement
  - o Pay-for-reporting
  - o Public reporting
- **Amenable to Targeted Improvement:** 3  
Numerous studies (e.g. Colwell et al.) indicate that warfarin is effective in reducing the incidence of VTE. However, it appears that few studies exist examining whether this quality measure is amenable to targeted improvement at the provider level.

### Overall Recommendation

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**VTE-5 VTE Warfarin Therapy Discharge Instructions: STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (CMS), NQF withdrew endorsement of this measure on October 17th, 2012 (formerly NQF #375).
- Met minimum scores on each evaluation dimension: Y
- References:
  - The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - COLWELL, C. W., Collis, D. K., Paulson, R., McCUTCHEN, J. W., Bigler, G. T., Lutz, S., & Hardwick, M. E. (1999). Comparison of Enoxaparin and Warfarin for the Prevention of Venous Thromboembolic Disease After Total Hip Arthroplasty. Evaluation During Hospitalization and Three Months After Discharge\*. The Journal of Bone & Joint Surgery, 81(7), 932-40.

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## Proposed Measure: VTE-6 Incidence of Potentially Preventable VTE

(Joint Commission's title for this measure is "Hospital Acquired Potentially-Preventable Venous Thromboembolism")

**Description:** This measure assesses the number of patients diagnosed with confirmed VTE during hospitalization (not present at admission) who did not receive VTE prophylaxis between hospital admission and the day before the VTE diagnostic testing order date.

This measure is part of a set of six prevention and treatment measures that address VTE.

**Developer:** The Joint Commission

### Measure Evaluation

- **Ease of Measurement:** 4  
Data sources are administrative claims and medical record documents, in EHR or paper records.
- **Reliability and Validity:** 4  
Alpha testing was conducted to test face validity, broad scale pilot testing was conducted, and data elements were reviewed for validity.

Since the measure has been in national use, continued face validity of the measure has been determined through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitors the national literature and environment in order to assess continued validity of this measure.

- **Field Implementation:** 4  
Widespread implementation.

Current uses:

- o Accreditation
  - o Collaborative inter-organizational quality improvement
  - o Internal quality improvement
  - o Pay-for-reporting
  - o Public reporting
- **Amenable to Targeted Improvement:** 3  
A 2014 study in the journal *Hospital Practice* concluded that "Adhering to the evidence-based clinical practice guidelines from the American College of Chest Physicians is effective in improving prophylaxis and decreasing the rate of hospital-acquired VTE in hospitalized patients, and in decreasing the rate of preventable VTE cases based on the Joint Commission's core measure 6."

### Overall Recommendation

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**VTE-6 Hospital Acquired Potentially-Preventable Venous Thromboembolism: STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (CMS), NQF withdrew endorsement of this measure on December 13<sup>th</sup>, 2012 (formerly NQF #376).
- Met minimum scores on each evaluation dimension: Y
- References:
  - o The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - o Khoury, L., Dangodara, A. A., Lee, J. A., Lovejoy, M., & Amin, A. N. (2014). Implementation of a mandated venous thromboembolism clinical order set improves venous thromboembolism core measures. *Hospital practice (1995)*,42(5), 89-99.

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## **Proposed Measure: SEP-1: Severe Sepsis and Septic Shock: Management Bundle (NQF 500)**

**Description:** This measure focuses on patients aged 18 years and older with a diagnosis of severe sepsis or septic shock. These patients will be eligible for the 3 hour (severe sepsis) and/or 6 hour (septic shock) early management bundle.

**Developer:** Henry Ford Hospital in collaboration with: Infectious Diseases Society of America (IDSA) & Society of Critical Care Medicine (SCCM)

### **Measure Evaluation**

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- **Ease of Measurement: 4**

Data sources are administrative claims and medical record documents, in EHR or paper records.

- **Reliability and Validity: 4**

Prior to endorsement, measure was established to be both reliable and valid through analysis of data from the Surviving Sepsis Campaign (SSC) database.

- **Field Implementation: 4**

- External oversight/Medicare
- Public reporting

Newly required for CMS Inpatient Quality Reporting program in 2015.

- **Amenable to Targeted Improvement: 4**

Efforts to promote bundles of care for severe sepsis and septic shock were associated with improved clinical guideline compliance and lower hospital mortality (Ferrer, 2008). Coba et al. has shown that when all bundle elements are completed and compared to patients who do not have bundle completion, the mortality difference is 14% (2011).

Multiple studies have shown that when standardized order sets, enhanced bedside monitor display, telemedicine, and comprehensive CQI feedback are feasible, there is an associated decrease in hospital mortality for patients with severe sepsis. (Thiel, 2009; Micek, 2006; Winterbottom, 2011; Schramm, 2011; Nguyen, 2007; Loyola, 2011).

In a landmark study by Rivers et.al, it has been shown that an absolute and relative reduction in mortality from sepsis can be achieved with declines of 16 and 30%, respectively, when aggressive care is provided within 6 hours of hospital arrival. Furthermore, a recent study of a large national inpatient sample determined that patients admitted through the Emergency Department had a 17% lower likelihood of dying from sepsis than when directly admitted.

### **Overall Recommendation**

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**SEP-1: Severe Sepsis and Septic Shock: Management Bundle: STRONG**

- Average Score: 4
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 500)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Severe Sepsis and Septic Shock: Management Bundle. NQF #0500. October 05, 2012.
  - The Specifications Manual for National Hospital Inpatient Quality Measures Version 5.0a <http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228774725171> (Updated 05/29/15)
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  - Coba, Victor, et al. "Resuscitation Bundle Compliance in Severe Sepsis and Septic Shock Improves Survival, Is Better Late than Never." *Journal of intensive care medicine* 26.5 (2011): 304-313.
  - Ferrer, R., Artigas, A., Levy, M. M., Blanco, J., González-Díaz, G., Garnacho-Montero, J., ... & Edusepsis Study Group. (2008). Improvement in process of care and outcome after a multicenter severe sepsis educational program in Spain. *Jama*, 299(19), 2294-2303.

DRAFT

## Proposed Measure: IMM 2 Influenza Immunization (NQF 1659)

**Description:** Inpatients age 6 months and older discharged during October, November, December, January, February or March who are screened for influenza vaccine status and vaccinated prior to discharge if indicated.

**Developer:** CMS

### Measure Evaluation

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- **Ease of Measurement:** 3

Currently, this measure uses chart abstracted data. Some of the data elements can be found in EHR fields but others can only be found using chart abstraction at this time.

- **Reliability and Validity:** 4

Since 2005, CMS has conducted various reliability tests of data elements for quality measures, including Influenza Immunization for patients 50 years of age and older.

The most current accuracy result (May, 2011) showed a high agreement rate for all data elements for Influenza Immunization for inpatient discharges. For example, the agreement rates for two major data elements, pneumonia principal diagnosis code and Influenza Vaccination Status, were 98.61% and 95%, respectively.

The measure specifications come directly from the CDC's MMWR, Prevention and Control of Influenza with Vaccines (July, 2010).

This measure has face validity. A group of national experts reviewed the measure and evidence for NQF and all agreed that high measure scores will relate to higher quality.

Regarding the individual data elements, the abstractors have direct access to the medical record, which is the most authoritative source to extract the required information. The definitions of individual data elements have been constantly revised and clarified to avoid ambiguity. They are compiled in a "Manual Specification" document that is posted to various internet websites (CMS, Joint Commission, etc.). After ten years of clarification the likelihood of systematic error when assessing individual data elements should be minimal.

- **Field Implementation:** 4

Widespread implementation.

Current uses:

- Accreditation
- Collaborative inter-organizational quality improvement
- Internal quality improvement
- External oversight/Medicaid

- External oversight/Medicare
- Pay-for-performance
- Pay-for-reporting
- Public reporting

- **Amenable to Targeted Improvement: 3**

The majority of published evidence demonstrates that influenza vaccination saves lives and decreases illness.

For healthy adults (16-65), influenza vaccines have a modest effect in reducing influenza symptoms and working days lost.

Influenza vaccines are efficacious in children older than two but little evidence is available for children under two.

## **Overall Recommendation**

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### **IMM 2 Influenza Immunization: STRONG**

- Average Score: 3.5
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1659)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Influenza Immunization. NQF #1659. July 07, 2011.
  - The Specifications Manual for National Hospital Inpatient Quality Measures [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Jefferson T, Di Pietrantonj C, Rivetti A, Bawazeer GA, Al-Ansary LA, Ferroni E. Vaccines for preventing influenza in healthy adults. Cochrane Database of Systematic Reviews 2010, Issue 7. Art. No.: CD001269. DOI: 10.1002/14651858.CD001269.pub4



## Proposed Measure: Acute Myocardial Infarction (AMI) 30-Day Readmission Rate (NQF 505)

**Description:** The measure estimates a hospital-level 30-day risk-standardized readmission rate (RSRR) for patients discharged from the hospital with a principal diagnosis of acute myocardial infarction (AMI).

**Developer:** CMS/Yale-New Haven Hospital Center for Outcomes Research and Evaluation (Yale-CORE)

**SQAC Priority Areas:** Hospital Tiering

### Measure Evaluation

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- **Ease of Measurement:** 4

Data source: Medicare and VA claims data.

- **Reliability and Validity:** 4

This measure was tested by Yale-CORE and found to be both reliable and valid.

- **Field Implementation:** 4

Widespread implementation.

Current uses:

- Collaborative inter-organizational quality improvement
- External oversight/Medicare
- Monitoring and planning
- Pay-for-performance
- Pay-for-reporting
- Public reporting

In 2009, CMS began publicly reporting this measure as part of the Hospital Inpatient Quality Reporting Program (IQR). Beginning with Fiscal Year (FY) 2012, the measure was included in CMS' Hospital Readmissions Reduction Program (HRRP).

- **Amenable to Targeted Improvement:** 3

Reducing readmissions for patients with AMI appears to be more of an application of generalized, non-disease specific practices than a specific described set of disease specific practices.

Between July 2010 and June 2013 the median RSRR for AMI decreased from 18.6% to 17.0%, indicating that this measure may be amenable to targeted improvement.

### Overall Recommendation

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#### Acute Myocardial Infarction (AMI) 30-Day Readmission Rate: **STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 505)
- Met minimum scores on each evaluation dimension: Y

- References

- National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization. NQF #0505. October 25, 2012.
- The Specifications Manual for National Hospital Inpatient Quality [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
- Measure Summary: AMI. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48171#Section590>
- CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
- 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT

## Proposed Measure: Heart Failure (HF) 30-Day Readmission Rate (NQF 330)

**Description:** The measure estimates a hospital-level risk-standardized readmission rate (RSRR) for patients discharged from the hospital with a principal diagnosis of heart failure (HF)

**Developer:** CMS/Yale-New Haven Hospital Center for Outcomes Research and Evaluation (Yale-CORE)

### Measure Evaluation

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- **Ease of Measurement:** 4  
Data source: Medicare and VA claims data.
- **Reliability and Validity:** 4  
This measure was tested by Yale-CORE and found to be both reliable and valid.
- **Field Implementation:** 4  
Widespread implementation.  
  
Current uses:
  - Collaborative inter-organizational quality improvement
  - External oversight/Medicare
  - Monitoring and planning
  - Pay-for-performance
  - Pay-for-reporting
  - Public reporting

In 2009, CMS began publicly reporting this measure as part of the Hospital Inpatient Quality Reporting Program (IQR). Beginning with FY 2012, the measure was included in CMS' Hospital Readmissions Reduction Program (HRRP).

- **Amenable to Targeted Improvement:** 4  
There is extensive experience demonstrating practice and system changes can reduce HF-specific readmissions, as HF has been the prototypical pilot test diagnosis. Successful strategies focus on the appropriate management of HF across settings – especially post-hospital – to reduce HF readmissions.

### Overall Recommendation

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#### Heart Failure (HF) 30-Day Readmission Rate: **STRONG**

- Average Score: 4
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 330)
- Met minimum scores on each evaluation dimension: Y
- References:

- National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following heart failure (HF) hospitalization. NQF #0330. October 25, 2012.
- CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
- 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT

## Proposed Measure: Pneumonia (PN) 30-Day Readmission Rate (NQF 506)

**Description:** The measure estimates a hospital-level risk-standardized readmission rate (RSRR) for patients discharged from the hospital with a principal diagnosis of pneumonia.

**Developer:** CMS/Yale-New Haven Hospital Center for Outcomes Research and Evaluation (Yale-CORE)

### Measure Evaluation

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- **Ease of Measurement: 4**

Data source: Medicare and VA claims data.

- **Reliability and Validity: 4**

This measure was tested by Yale-CORE and found to be both reliable and valid.

- **Field Implementation: 4**

Widespread implementation.

Current uses:

- Collaborative inter-organizational quality improvement
- External oversight/Medicare
- Monitoring and planning
- Pay-for-performance
- Pay-for-reporting
- Public reporting

In 2009, CMS began publicly reporting this measure as part of the Hospital Inpatient Quality Reporting Program (IQR). Beginning with FY 2012, the measure was included in CMS' Hospital Readmissions Reduction Program (HRRP).

- **Amenable to Targeted Improvement: 3**

Reducing readmissions for patients with pneumonia appears to be more of an application of generalized, non-disease specific practices than a specific described set of disease specific practices. There is relatively less disease-specific evidence; the practices assumed to be relevant for PN are borne of a different disease-specific experience base or of a non-disease specific approach.

In 2015, Yale-CORE released a report describing readmissions measures used in IQR. This data includes all data publicly reported on Hospital Compare and thus encompasses nationwide performance. Between July 2011-June 2012 and July 2013-June 2014, the observed readmission rate for AMI decreased from 17.5% to 16.6%, indicating that this measure may be amenable to targeted improvement.

### Overall Recommendation

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**Pneumonia (PN) 30-Day Readmission Rate: STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 506)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following pneumonia hospitalization. NQF #0506. October 15, 2012.
  - CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
  - 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT

## Proposed Measure: Stroke (STK) 30-Day Readmission Rate

**Description:** This measure estimates a hospital-level 30-day risk-standardized readmission rate (RSRR) for patients discharged from the hospital with a principal discharge diagnosis of acute ischemic stroke.

**Developer:** CMS/Yale-New Haven Hospital Center for Outcomes Research and Evaluation (Yale-CORE)

### Measure Evaluation

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- **Ease of Measurement:** 4  
Data source: Medicare claims data.
- **Reliability and Validity:** 3
- **Field Implementation:** 4  
Widespread implementation.

Current uses:

- Collaborative inter-organizational quality improvement
- External oversight/Medicare
- Monitoring and planning
- Pay-for-reporting
- Public reporting

In 2014, CMS began publicly reporting this measure as part of the Hospital Inpatient Quality Reporting Program (IQR).

- **Amenable to Targeted Improvement:** 3

In 2015, Yale-CORE released a report describing readmissions measures used in IQR. This data includes all data publicly reported on Hospital Compare and thus encompasses nationwide performance. Between July 2011-June 2012 and July 2013-June 2014, the observed readmission rate for Stroke decreased from 13.3% to 12.1%, indicating that this measure may be amenable to targeted improvement.

### Overall Recommendation

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#### Stroke (STK) 30-Day Readmission Rate: **STRONG**

- Average Score: 3.5
- Endorsed by NQF or included in nationally recognized measure set: Y
- Met minimum scores on each evaluation dimension: Y
- References
  - The Specifications Manual for National Hospital Inpatient Quality  
[http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: Stroke. National Quality Measures Clearinghouse.  
<http://www.qualitymeasures.ahrq.gov/content.aspx?id=48202&search=30+day+readmissions>

- CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
- 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT



## Proposed Measure: Coronary Artery Bypass Graft (CABG) 30-Day Readmission Rate (NQF 2515)

**Description:** The measure estimates a hospital-level risk-standardized readmission rate (RSRR), defined as unplanned readmission for any cause within 30 days from the date of discharge of the index CABG procedure, for patients 18 years and older discharged from the hospital after undergoing a qualifying isolated CABG procedure.

**Developer:** CMS

### Measure Evaluation

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- **Ease of Measurement: 4**  
Data source: Medicare claims data.
- **Reliability and Validity: 4**  
This measure was tested by NQF and found to be both reliable and valid.
- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Collaborative inter-organizational quality improvement
- External oversight/Medicare
- Monitoring and planning
- Pay-for-performance
- Pay-for-reporting
- Public reporting

The Centers for Medicare and Medicaid Services (CMS) plans to publicly report the hospital-level 30-day all-cause risk-standardized mortality and readmission measures following CABG surgery on Hospital Compare beginning in Fiscal Year (FY) 2016. These measures will be included as a part of the Hospital Inpatient Quality Reporting (IQR) program in FY 2017. The CABG readmission measure will also be included in the Hospital Readmissions Reduction Program (HRRP) in FY 2017.

- **Amenable to Targeted Improvement: 3**

Several studies have concluded that clinical interventions can reduce readmission rates for HF. Evidence has been based primarily on a few settings that have been leaders in “bundled” payments for CABG, notably Geisinger ProvenCare.

Hospital RSRRs following CABG surgery decreased from 16.7% in July 2010 to 14.8% in June 2013 indicating that this measure may be amenable to targeted improvement.

### Overall Recommendation

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**Coronary Artery Bypass Graft (CABG) 30-Day Readmission Rate: STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 2515)
- Met minimum scores on each evaluation dimension: Y
- References:
  - CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
  - 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT

## Proposed Measure: Chronic Obstructive Pulmonary Disease (COPD) 30-Day Readmission Rate (NQF 1891)

**Description:** This measure estimates a hospital-level risk-standardized readmission rate (RSRR) for patients discharged from the hospital with either a principal diagnosis of COPD or a principal diagnosis of respiratory failure with a secondary diagnosis of acute exacerbation of COPD.

**Developer:** CMS/Yale-New Haven Hospital, Center for Outcomes Research and Evaluation (Yale-CORE)

### Measure Evaluation

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- **Ease of Measurement: 4**  
Data source: Medicare FFS claims data.
- **Reliability and Validity: 4**  
This measure was evaluated by Yale-CORE and found to be both reliable and valid.
- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Collaborative inter-organizational quality improvement
- External oversight/Medicare
- Monitoring and planning
- Pay-for-performance (HRRP)
- Pay-for-reporting
- Public reporting

In 2014, CMS began publicly reporting this measure as part of the Hospital Inpatient Quality Reporting Program (IQR). Beginning with Fiscal Year 2015, this measure was also included in the Hospital Readmissions Reduction Program (HRRP).

- **Amenable to Targeted Improvement: 3**

In 2015, Yale-CORE released a report describing readmissions measures used in IQR. This data includes all data publicly reported on Hospital Compare and thus encompasses nationwide performance. Between July 2011-June 2012 and July 2013-June 2014, the observed readmission rate for COPD decreased from 21.0% to 19.5%, indicating that this measure may be amenable to targeted improvement.

### Overall Recommendation

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**Chronic Obstructive Pulmonary Disease (COPD) 30-Day Readmission Rate: STRONG**

- Average Score: 3.75

- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1891)
- Met minimum scores on each evaluation dimension: Y
- References
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following chronic obstructive pulmonary disorder (COPD) hospitalization. NQF #1891. October 26, 2012.
  - The Specifications Manual for National Hospital Inpatient Quality [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: COPD. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48201#Section580>
  - CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
  - 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT

## Proposed Measure: Hip/Knee 30-Day Readmission Rate (NQF 1551)

**Description:** This measure estimates hospital-level 30-day RSRRs following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA) in patients 65 years and older.

**Developer:** CMS/Yale-New Haven Hospital Center for Outcomes Research and Evaluation (Yale-CORE)

### Measure Evaluation

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- **Ease of Measurement: 4**  
Data source: Medicare FFS claims data.
- **Reliability and Validity: 3**  
Measure developer performed reliability testing and yielded “fair” results but likely due to using split samples.

- **Field Implementation: 4**  
Widespread implementation.

Current uses:

- Collaborative inter-organizational quality improvement
- External oversight/Medicare
- Monitoring and planning
- Pay-for-performance (HRRP & VBP)
- Pay-for-reporting
- Public reporting

In 2013, CMS began publicly reporting this measure on Hospital Compare. In FY 2015, the measure will be included in HRRP, and in FY 2019 it will be included in the Hospital Value-Based Purchasing (HVBP) Program.

- **Amenable to Targeted Improvement: 4**

Evidence and experience for improvement is strong based on recent 1-2 years of experience in the Bundled Payments for Care Improvement Initiative (BPCI) . Hip/knee was the prototypical procedural bundle that most BPCI teams started with.

Between July 2011-June 2012 and July 2013-June 2014, the observed readmission rate for HF decreased from 22.7% to 21.2%, indicating that this measure may be amenable to targeted improvement.

### Overall Recommendation

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#### Hip/Knee 30-Day Readmission Rate: **STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1551)

- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following elective primary total hip arthroplasty (THA) and/or total knee arthroplasty (TKA). NQF #1551. October 25, 2012.
  - The Specifications Manual for National Hospital Inpatient Quality [http://www.jointcommission.org/specifications\\_manual\\_for\\_national\\_hospital\\_inpatient\\_quality\\_measures.aspx](http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures.aspx)
  - Measure Summary: Hip/Knee. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48176>
  - CMS Hospital Quality Chartbook. <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Downloads/Medicare-Hospital-Quality-Chartbook-2014.pdf>
  - 2015 Condition-Specific Measures Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Readmission Measures. Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation (YNHHSC/CORE)

DRAFT

## Proposed Measure: PC-01: Elective Delivery (NQF 469)

**Description:** This measure assesses patients with elective vaginal deliveries or elective cesarean sections at  $\geq 37$  and  $< 39$  weeks of gestation completed.

This measure is a part of a set of five nationally implemented measures that address perinatal care.

**Developer:** The Joint Commission

### Measure Evaluation

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- **Ease of Measurement: 4**

Data sources are administrative claims and medical records, in EHR or paper charts.

- **Reliability and Validity: 4**

This measure was adapted from an NQF-endorsed measure, “Elective Delivery Prior to 39 Completed Weeks Gestation.” Thus, The Joint Commission asserts that “initial data reliability would have been addressed during the original endorsement.”

Since the measure has been in national use, face validity of the measure has been determined by the Joint Commission through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitor the national literature and environment in order to assess measure validity.

- **Field Implementation: 4**

Widespread implementation.

Current uses:

- Accreditation (Joint Commission)
- Collaborative inter-organizational quality improvement
- Internal quality reporting
- Pay-for-reporting
- Public reporting

- **Amenable to Targeted Improvement: 4**

Targeted improvement at the level of measurement has reduced the rate of early elective deliveries in Massachusetts and across the country.

As CHIA reported in “*A Focus on Provider Quality*,” the Massachusetts Perinatal Quality Collaborative was formed in 2011 with the primary goal of early elective delivery rates in the Commonwealth. The Leapfrog Group subsequently reported that Massachusetts hospitals performed early elective deliveries at a rate of 0.9% in 2012-13. In contrast, the statewide rate for Massachusetts hospitals in 2010 was 15.0%

### Overall Recommendation

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**PC-01: Elective Delivery: STRONG**

- Average Score: 4
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 469)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. PC-01 Elective Delivery. NQF #0469. October 24, 2008
  - Measure Summary: PC-01. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48493#Section580>
  - Kotz, Deborah. "Fewer Babies Born before Full Term." *Boston Globe* 4 Mar. 2014. Web. 19 Aug. 2015. <https://www.bostonglobe.com/lifestyle/health-wellness/2014/03/04/dramatic-decline-early-scheduled-deliveries-mass-hospitals/DOXWjDRuMEX7qCrfeFo0pJ/story.html>

DRAFT



## Proposed Measure: PC-04: Health Care-Associated Bloodstream Infections in Newborns (NQF 1731)

**Description:** This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns.

This measure is a part of a set of five nationally implemented measures that address perinatal care.

**Developer:** The Joint Commission

### Measure Evaluation

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- **Ease of Measurement:** 4

Data sources are administrative claims and medical records, in EHR or paper charts.

- **Reliability and Validity:** 4

This measure was adapted from NQF-endorsed measure, “0478 Nosocomial Bloodstream Infection in Neonates.” Thus, the measure developer, The Joint Commission, asserts that “initial data reliability was addressed during the original endorsement.”

Since the measure has been in national use, face validity of the measure has been determined by the Joint Commission through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitor the national literature and environment in order to assess measure validity.

- **Field Implementation:** 4

Widespread implementation.

Current uses:

- Accreditation (Joint Commission)
- Collaborative inter-organizational quality improvement
- Internal quality improvement

- **Amenable to Targeted Improvement:** 4

The Joint Commission notes that several studies, which can be found in the measure’s NQF information form, indicate that this measure is amenable to targeted improvement.

For example, nine studies examining educational interventions aimed at neonatal nurses resulted in at least a 40% reduction in catheter-related bloodstream infections.

Similarly, several quasi-experimental studies have demonstrated that NICUs can lower their infection rates (based on positive blood cultures) from as high as 13.5 per 1,000 patient days to as low as 3.0 per 1,000 patient days.

The Joint Commission asserts that broad review of the clinical literature demonstrates that a wide variety of interventions or effective preventive measures have been shown to substantially reduce infection rates.

## Overall Recommendation

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### **PC-04: Health Care-Associated Bloodstream infections in newborns: STRONG**

- Average Score: 4
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 1731)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0. PC-04: Health Care-Associated Bloodstream infections in newborns. NQF #1731. October 24, 2008.
  - Measure Summary: PC-04. National Quality Measures Clearinghouse. <http://www.qualitymeasures.ahrq.gov/content.aspx?id=48496#Section593>

DRAFT

## Proposed Measure: PC-05: Newborn breast milk feeding (NQF 480)

**Description:** PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization.

This measure is a part of a set of five nationally implemented measures that address perinatal care. Note: PC-05-(a) measure that considers mother's choice is not being recommended as it will be removed from TJC measure set in fall 2015 (cited as a data collection challenge).

**Developer:** The Joint Commission

### Measure Evaluation

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- **Ease of Measurement: 4**

Data sources are administrative claims and medical record documents, in EHR or paper records.

- **Reliability and Validity: 4**

This measure was adapted from NQF-endorsed measure, "0480 Exclusive Breastfeeding During Birth Hospitalization." Thus, the measure developer, The Joint Commission, asserts that "initial data reliability was addressed during the original endorsement."

Since the measure has been in national use, face validity of the measure has been determined by the Joint Commission through analysis of feedback from measure users. Additionally, Joint Commission staff continually monitor the national literature and environment in order to assess measure validity.

- **Field Implementation: 4**

Widespread implementation.

Current uses:

- Accreditation (Joint Commission)
- Collaborative inter-organizational quality improvement
- Internal quality improvement
- Pay-for-reporting
- Public reporting

- **Amenable to Targeted Improvement: 4**

In the measure information form that it submitted to NQF, the Joint Commission notes that strong evidence exists indicating this measure is amenable to targeted improvement.

The Joint Commission highlights a study (Petrova 2007) which showed "significant association between initiation of exclusive breast milk feeding in-hospital and exclusive breast milk feeding at the end of the first month." Irrespective of race/ethnicity, the study demonstrated that mothers who practice exclusive breast milk feeding in-hospital are more likely to exclusively fed breast milk throughout the neonatal period.

A 2007 study (Shealy et al) concluded that institutional changes and individual interventions increase breastfeeding initiation and duration rates.

Finally, the Centers for Disease Control and Prevention (CDC) stated in a 2011 report that mothers who wish to breastfeed but do not receive hospital support, will stop breastfeeding earlier than recommended.

According to the Joint Commission, aggregate performance on this measure improved between 2010, when it was introduced nationally and 2012, the date of the measure information form submitted to NQF.

However, based on performance results and more knowledge regarding mothers' preferences, TJC reduced its target for performance from 100% to 70% in March 2015.

## Overall Recommendation

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### PC-05: Newborn breast milk feeding: **STRONG**

- Average Score: 3.75
- Endorsed by NQF or included in nationally recognized measure set: Y (NQF 480)
- Met minimum scores on each evaluation dimension: Y
- References:
  - National Quality Forum. Measure Submission and Evaluation Worksheet 5.0 PC-05: Newborn breast milk feeding. NQF #0480. October 24, 2008.
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