



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 0435e

Corresponding Measures: 0435

De.2. Measure Title: STK 02: Discharged on Antithrombotic Therapy

Co.1.1. Measure Steward: The Joint Commission

De.3. Brief Description of Measure: This measure captures the proportion of ischemic stroke patients prescribed antithrombotic therapy at hospital discharge.

This measure is a part of a set of eight nationally implemented measures that address stroke care (STK-1: Venous Thromboembolism (VTE) Prophylaxis, 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, and STK-10: Assessed for Rehabilitation) that are used in The Joint Commission's hospital accreditation and Disease-Specific Care certification programs. STK-2, Discharged on Antithrombotic Therapy, is one of six of the measures in this set that have been reengineered as eQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

1b.1. Developer Rationale: Stroke is the fourth leading cause of death in the United States and a leading cause of serious, long-term disability, associated with significant costs. The effectiveness of antithrombotic agents in reducing stroke mortality, stroke-related morbidity and recurrence rates has been studied in several large clinical trials. Studies have shown that antithrombotic therapy prescribed at discharge following acute ischemic stroke reduces stroke mortality and morbidity.

Healthcare organizations that track antithrombotic therapy prescribed at discharge for internal quality improvement purposes have seen an improvement in the measure rate over time. The chart-abstracted measure has been included in the CMS Hospital Inpatient Quality Reporting Program for three years (i.e., FY 2015, FY 2016, FY 2017) to which will also promote improvements in quality at the national level.

S.4. Numerator Statement: Patients prescribed antithrombotic therapy at hospital discharge.

S.7. Denominator Statement: Patients with a principal diagnosis of ischemic stroke.

S.10. Denominator Exclusions: Denominator Exclusions:

Patients with comfort measures documented.

Patients admitted for elective carotid intervention. This exclusion is implicitly modeled by only including non-elective hospitalizations.

Patients discharged to another hospital

Patients who left against medical advice

Patients who expired

Patients discharged to home for hospice care

Patients discharged to a health care facility for hospice care

Denominator Exceptions:

Patients with a documented reason for not prescribing antithrombotic therapy at discharge.

De.1. Measure Type: Process

S.23. Data Source: Electronic Health Data, Electronic Health Records, Other

S.26. Level of Analysis: Facility, Other

IF Endorsement Maintenance – Original Endorsement Date: Most Recent Endorsement Date:

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? [Not applicable.](#)

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form
[0435_Evidence_MSF5.0_Data-635827722515582215.doc](#)

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure) Stroke is the fourth leading cause of death in the United States and a leading cause of serious, long-term disability, associated with significant costs. The effectiveness of antithrombotic agents in reducing stroke mortality, stroke-related morbidity and recurrence rates has been studied in several large clinical trials. Studies have shown that antithrombotic therapy prescribed at discharge following acute ischemic stroke reduces stroke mortality and morbidity.

Healthcare organizations that track antithrombotic therapy prescribed at discharge for internal quality improvement purposes have seen an improvement in the measure rate over time. The chart-abstracted measure has been included in the CMS Hospital Inpatient Quality Reporting Program for three years (i.e., FY 2015, FY 2016, FY 2017) to which will also promote improvements in quality at the national level.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

This measure is a legacy eCQM that is currently included in the Hospital Inpatient Quality Reporting Program (HIQR) and the EHR Incentive Program. At present, no performance data for the electronic version of the measure are yet available.

In CY2016, CMS is requiring organizations participating in HIQR to electronically submit 1 quarter of data on 4 of 28 available eCQMs. This measure is one of the 28.

For more information, refer to CY2016 IPPS Final Rule, located here: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2016-IPPS-Final-Rule-Home-Page-Items/FY2016-IPPS-Final-Rule-Regulations.html>

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

The use of antithrombotic therapy after ischemic stroke is recommended for secondary stroke prevention. Earlier evidence supported substantial underutilization of this therapy, particularly among the very elderly, those admitted from skilled nursing facilities, and patients with functional dependence (Lichtman JH, 2011). An analysis of Medicare data for 31,554 non-terminally ill patients with ischemic stroke randomly selected from the Medicare Health Care Quality Improvement Program's National Stroke Project (1998 to 1999, 2000 to 2001) demonstrated that only 74.2% were discharged on an antithrombotic medication. Treatment rates decreased with age and were lowest for patients' age 85-years and older. Later data demonstrates that this previous

performance gap of 25% has narrowed significantly.

In October, 2009, The Joint Commission added the chart-abstracted stroke (STK) measure set as a new core measure option to meet performance measure requirements for Joint Commission hospital accreditation purposes. Below is the specified level of analysis for STK-2 beginning with discharges 4Q 2009 through December 31, 2014.

4Q 2009: 2034 denominator cases; 1995 numerator cases; 49 hospitals; 0.98083 national aggregate rate; 0.98731 mean of hospital rates; 0.2575 standard deviation; 1.0 90th percentile rate; 1.0 75th percentile rate/upper quartile; 1.0 50th percentile rate/median rate; 0.98601 25th percentile rate/lower quartile; and, 0.94737 10th percentile rate.

CY 2010: 19,889 denominator cases; 19,622 numerator cases; 137 hospitals; 0.98658 national aggregate rate; 0.97644 mean of hospital rates; 0.05765 standard deviation; 1.0 90th percentile rate; 1.0 75th percentile rate/upper quartile; 0.99711 50th percentile rate/median rate; 0.98276 25th percentile rate/lower quartile; and, 0.93436 10th percentile rate.

CY 2011: 24,053 denominator cases; 23,812 numerator cases; 157 hospitals; 0.98998 national aggregate rate; 0.97173 mean of hospital rates; 0.10346 standard deviation; 1.0 90th percentile rate; 1.0 75th percentile rate/upper quartile; 0.99803 50th percentile rate/median rate; 0.98529 25th percentile rate/lower quartile; and, 0.94915 10th percentile rate.

CY 2012: 24,420 denominator cases; 24,217 numerator cases; 158 hospitals; 0.99169 national aggregate rate; 0.98674 mean of hospital rates; 0.04061 standard deviation; 1.0 90th percentile rate; 1.0 75th percentile rate/upper quartile; 1.0 50th percentile rate/median rate; 0.98913 25th percentile rate/lower quartile; and, 0.97059 10th percentile rate.

CY 2013: 37,661 denominator cases; 37,363 numerator cases; 262 hospitals; 0.99209 national aggregate rate; 0.9885 mean of hospital rates; 0.02736 standard deviation; 1.0 90th percentile rate; 1.0 75th percentile rate/upper quartile; 1.0 50th percentile rate/median rate; 0.98913 25th percentile rate/lower quartile; and, 0.96667 10th percentile rate.

CY 2014: 180,048 denominator cases; 178,945 numerator cases; 1299 hospitals; 0.99387 national aggregate rate; 0.98632 mean of hospital rates; 0.06957 standard deviation; 1.0 90th percentile rate; 1.0 75th percentile rate/upper quartile; 1.0 50th percentile rate/median rate; 0.99254 25th percentile rate/lower quartile; and, 0.97674 10th percentile rate.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.*

Not applicable.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

According to a 2011 report from the American Heart Association/American Stroke Association, racial disparities in stroke care exist and are more predominant among people < 65 years of age. Evidence of disparities in stroke care between minority groups and whites include: lack of knowledge about the risk factors for stroke; lack of awareness about stroke signs and symptoms and the need for urgent treatment; and, access to care respecting prevention services, acute stroke treatment, and rehabilitation. Differences in care are also related to the socioeconomic status of minorities, insurance coverage, cultural beliefs and attitudes, language barriers, immigration status, mistrust of the healthcare system, and the number of providers representing minority groups. These are all factors contributing to the quality of stroke care (Cruz-Flores, et al., 2011).

Each year in the United States, ~ 55,000 more women than men have a stroke. Statistics reveal that women have a higher “life-time risk of stroke” than men. (Mozaffarian D, et al., 2015). In the Framingham Heart Study, lifetime risk of stroke among those 55 to 75 years of age was 1 in 5 for women (20% to 21%) and ~1 in 6 for men (14% to 17%).

The burden of stroke is higher in Blacks or African Americans and Hispanics than whites. Racial and ethnic minorities have excess deaths from stroke and also experience greater years of potential life lost than non-Hispanic whites. The risk ratio for stroke mortality in all racial and ethnic minorities is higher in the 35-to-64-year-old age group, however, this risk decreases as people age. After age 64 non-Hispanic whites have an equal risk for stroke when compared to Hispanics and American Indian-Alaskan Natives. This equalization of rate of stroke presents again after age 85 in blacks or African Americans (Cruz-Flores, et al., 2011).

In the national REasons for Geographic and Racial Differences in Stroke (REGARDS) cohort, 27,744 black and white men and women, aged > 45 years, followed over 4.4 years, and stroke-free at baseline, reported an overall age-adjusted and sex-adjusted black/white incidence rate ratio of 1.51. At ages 45 to 54 years, the rate ratio increased to 4.02 compared to 0.86 for > 85 years. A higher incidence of stroke is reported for blacks at younger ages.

The REGARDS investigators found that approximately half of racial disparity in stroke risk is attributable to traditional risk factors (primarily systolic blood pressure) and socioeconomic factors (Howard, et al., 2011). Brown and colleagues (2011) found a higher incidence of ischemic stroke in disadvantaged white neighborhoods, but found no significant associations between neighborhood socioeconomic status and ischemic stroke among blacks. A recent large population-based Canadian study examined gender-adjusted, age-adjusted prevalence of cardiovascular risk factors, heart disease and stroke in four ethnic groups: white (n=154,653); South Asian (N=3364); Chinese (n=3038); and, blacks (n=2742). Stroke incidence was highest in the South Asian group (1.7%) and lowest in the Chinese population (0.6%). The increased risk in the South Asian population was attributed to high susceptibility to insulin resistance and metabolic syndrome, and a tendency to develop diabetes mellitus at younger ages in both men and women as compared to other ethnic groups (Chiu, et al., 2010).

The BASIC (Brain Attack Surveillance in Corpus Christi) project (NINDS) demonstrated an increased incidence of stroke among Mexican Americans compared with non-Hispanic whites in a community in southeast Texas. The crude 3-year cumulative incidence (2000-2003) was 16.8 per 1000 in Mexican Americans and 13.6 per 1000 in non-Hispanic whites. Specifically, Mexican Americans had a higher cumulative incidence for ischemic stroke at younger ages (45-59 years of age: RR 2.04, 95% CI 1.55-2.69; 60-74 years of age: RR 1.58, 95% CI 1.31-1.91) but not at older ages (> 75 years of age : RR 1.12, 95% CI 0.94-1.32). Mexican Americans also had a higher incidence of intracerebral hemorrhage and subarachnoid hemorrhage than non-Hispanic whites, adjusted for age.

Temporal trend data from the BASIC Project for the time period 2000 through 2010 demonstrated that ischemic stroke rates declined significantly in people aged $\geq$ 60 years but remained largely unchanged over time in those aged 45 to 59 years. Rates of decline did not differ significantly for non-Hispanic whites and Mexican Americans in any age group. Therefore, ethnic disparities in stroke rates in the 45- to 59-year-old and 60- to 74-year-old age groups persist (Morgenstern, et al., 2013).

Data from the most recent Greater Cincinnati Northern Kentucky Stroke Study (GCNKSS) show that compared with the 1990s, when incidence rates of stroke were stable, stroke incidence in 2005 was decreased for whites. A similar decline was not seen in blacks. These changes for whites were driven by a decline in ischemic strokes. There were no changes in incidence of ischemic stroke for blacks or of hemorrhagic strokes in blacks or whites (Kleindorfer, et al., 2010).

In an analysis of temporal trends in ischemic stroke incidence stratified by age, the GCNKSS found an increased incidence of ischemic stroke over time for both blacks and whites aged 20 to 54 years, especially in 2005 compared with earlier time periods. There were declining incidence rates in the oldest age groups for both race groups (Kissela, et al., 2012).

Potential disparities in secondary pharmacological prevention for recurrent stroke have been identified. A study using the uniform data system for medical rehabilitation data from nursing homes in five states found that blacks or African Americans were significantly less likely to receive antithrombotic therapy (Ottenbacher KJ, et al, 2001). In a model adjusting for age, sex, physical function, and comorbidities, blacks or African Americans proved to be 80% as likely as whites to receive antithrombotic therapy.

Based on a national cross-sectional study of nursing home residents, the use of any antithrombotic (anticoagulant or antiplatelet) therapy was lower for Hispanics (45.5%), non-Hispanic blacks (49.4%), and Asian/Pacific Islanders (38.9%) than for whites (54.3%), although higher among a subsample of Native Americans (58.0%). Aspirin use was comparable across ethnic groups, and actually higher for Native American, blacks or African Americans, and Hispanic than for whites. In contrast, oral anticoagulation (warfarin) use was significantly lower for ethnic minority groups (25.4%-31.7%), except Native Americans whose proportion was only slightly lower (36.4%) than whites (39.6%)(Christian JB, et al. 2003).

Since the last endorsement date, Schwamm and colleagues (2010) found significant and important differences in quality of care related to antithrombotics at discharge when multivariate models were constructed adjusting for patient-level characteristics only. Race/ethnicity Black versus White: unadjusted OR 0.86 [95% CI 0.83-0.90]; adjusted for patient characteristics OR 0.81 [95% CI 0.78-0.85]; adjusted for patient and hospital characteristics OR 0.88 [95% CI 0.84-0.92]. Race/ethnicity Hispanic versus White: unadjusted OR 0.85 [95% CI 0.75-0.90]; adjusted for patient characteristics OR 0.80 [95% CI 0.75-0.86]; adjusted for patient and hospital

characteristics OR 0.90 [95% CI 0.82-0.97]. Total N=46,515; All n 94.98%; White 95.15%; Black 94.41%; Hispanic 94.31%.

A more recently published study (Qian F, et al, 2013) from Get With The Guidelines (GWTG) also noted racial and ethnic disparities for antithrombotics at discharge. Using patient data (n=200,900) from the American Heart Association/American Stroke Association GWTG-Stroke program from April 2003 through December 2008, the following performance measure rates were reported for discharged antithrombotic: non-Hispanic White (n=170,694) 95.3%; non-Hispanic Black (n=20,514) 94.3%; Hispanic (n=6632) 94.5%; and non-Hispanic Asian American (n=3060) 94.5%. Data from the Paul Coverdell National Acute Stroke Registry (PCNASR) were similar for antithrombotic therapy at discharge (n=58,823) White 98.4%; Other Race 98.3% (Centers for Disease Control and Prevention - Division for Heart Disease and Stroke Prevention, 2014).

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- Centers for Disease Control and Prevention - Division for Heart Disease and Stroke Prevention, Annual Report, 2014.
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- Christian JB, Lapane KL, Toppa RS. Racial disparities in receipt of secondary stroke prevention agents among nursing home residents. *Stroke*. 2003;34:2693-2697.
- Cruz-Flores S, Rabinstein A, Biller J, Elkind MSV, Griffith P, Gorelick PB, Howard G, Leira EC, Morgenstern LB, Ovbiagele B, Peterson E, Rosamond W, Trimble B, Valderrama AL, on behalf of the American Heart Association Stroke Council, Council on Cardiovascular Nursing, Council on Epidemiology and Prevention, and Council on Quality of Care and Outcomes Research. Racial-ethnic disparities in stroke care: the American experience. *Stroke*. 2011;42:2091-2116.
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- Howard G, Cushman M, Kissela BM, Kleindorfer DO, McClure LA, Safford MM, Rhodes JD, Soliman EZ, Moy CS, Judd SE, Howard VJ; REasons for Geographic and Racial Differences in Stroke (REGARDS) Investigators. Traditional risk factors as the underlying cause of racial disparities in stroke: lessons from the half-full (empty?) glass. *Stroke*. 2011;(12):3369-75.
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- Karve S, Balkrishnan R, Seiber E, Nahata M, Levine DA. Department of Health Economics, RTI Health Solutions, Research Triangle Park, North Carolina. Population trends and disparities in outpatient utilization of neurologists for ischemic stroke. *J Stroke Cerebrovasc Dis*. 2011.
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- Kleindorfer DO, Khoury J, Moomaw CJ, Alwell K, Woo D, Flaherty ML, Khatri P, Adeoye O, Ferioli S, Broderick JP, Kissela BM. stroke incidence is decreasing in whites but not in blacks: a population-based estimate of temporal trends in stroke incidence from the Greater Cincinnati/Northern Kentucky Stroke Study. *Stroke*. 2010;41:1326-1331.
- Morgenstern LB, Smith MA, Sánchez BN, Brown DL, Zahuranec DB, Garcia N, Kerber KA, Skolarus LE, Meurer WJ, Burke JF, Adelman EE, Baek J, Lisabeth LD. Persistent ischemic stroke disparities despite declining incidence in Mexican Americans. *Ann Neurol*. 2013;74:778-785.
- Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, Cushman M, de Ferranti S, Després JP, Fullerton HJ, Howard VJ, Huffman MD, Judd SE, Kissela BM, Lackland DT, Lichtman JH, Lisabeth LD, Simin L, Mackey RH, Matchar DB, McGuire DK, Mohler ER III, Moy CS, Muntner P, Mussolino ME, Nasir K, Neumar RW, Graham N, Palaniappan L, Pandey DK, Reeves MJ, Rodriguez CJ, Sorlie PD, Stein J, Towfighi A, Turan TN, Virani SS, Willey JZ, Woo D, Yeh RW, Turner JZ. Heart disease and stroke statistics--2015 update: a report from the American Heart Association. *Circulation*. 2015;131:e-151-e154.
- Ottenbacher KJ, Smith PM, Illig SB, Fiedler RC, Gonzales V, Granger CV. Characteristics of persons rehospitalized after stroke rehabilitation. *Arch Phys Med Rehabil*. 2001;82:1367-1374.
- Qian F, Fonarow GC, Smith EE, et al. Racial and ethnic differences in outcomes in older patients with acute ischemic stroke. *Circ Cardiovasc Qual Outcomes*. 2013;6: 284-292.
- Roger VL, Go AS, Lloyd-Jones DM, Benjamin EJ, Berry JD, Borden WB, Bravata DM, Dai S, Ford ES, Fox CS, Fullerton HJ, Gillespie C, Hailpern SM, Heit JA, Howard VJ, Kissela BM, Kittner SJ, Lackland DT, Lichtman JH, Lisabeth LD, Makuc DM, Marcus GM, Marelli A, Matchar DB, Moy CS, Mozaffarian D, Mussolino ME, Nichol G, Paynter NP, Soliman EZ, Sorlie PD, Sotodehnia N, Turan TN, Virani SS,

Wong ND, Woo D, and Turner MB. Heart disease and stroke statistics--2012 update: a report from the American Heart Association. *Circulation*. 2012;125:e78-e82.

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1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Affects large numbers, A leading cause of morbidity/mortality

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

Stroke ranks as the number four cause of death in the United States, following diseases of the heart, cancer, and chronic lung-related diseases. Each year, ~ 795,000 people experience a new or recurrent stroke. Approximately 610,000 of these are first attacks, and 185,000 are recurrent strokes. These numbers equate to one stroke victim every 40 seconds on average. From 2001 to 2011, the relative rate of stroke death fell by 35.1% and the actual number of stroke deaths declined by 21.2%; however, one of every 20 deaths in the United States remains attributable to stroke. More women than men die of stroke each year. Women accounted for almost 60% of US stroke deaths (Mozaffarian D, et al., 2015).

Stroke is also a leading cause of long-term disability (George M, et al., 2009). Stroke was among the top 18 diseases contributing to years lived with disability in 2010; of these 18 causes, only the age-standardized rates for stroke increased significantly between 1990 and 2010 (P<0.05) (US Burden of Disease Collaborators, 2013) . Among Medicare patients discharged from the hospital after stroke, ~45% return directly home, 24% are discharged to inpatient rehabilitation facilities, and 31% are discharged to skilled nursing facilities. Of stroke patients returning directly home, 32% use home healthcare services. In 2011, the direct and indirect cost of stroke was \$33.6 billion (Mozaffarian D, et al., 2015).

Antithrombotic agents significantly reduce the incidence of a recurrent vascular event after a stroke. The effectiveness of antithrombotic agents in reducing stroke mortality, stroke-related morbidity and recurrence rates has been studied in several large clinical trials (Kernan WN, et al, 2014; Sandercock P, et al, 2014)). While the use of these agents for patients with acute ischemic stroke and transient ischemic attacks continues to be the subject of study, substantial evidence is available from completed studies. Data at this time suggest that antithrombotic therapy should be prescribed at discharge following acute ischemic stroke to reduce stroke mortality and morbidity as long as no contraindications exist.

1c.4. Citations for data demonstrating high priority provided in 1a.3

- Adams HP, del Zoppo G, Alberts MJ, Bhatt DL, Brass L, Furlan A, Grubb RL, Higashida RT, Jauch EC, Kidwell C, Lyden PD, Morgenstern LB, Qureshi AI, Rosenwasser RH, Scott PA, Wijdicks E. Guidelines for the Early Management of Adults with Ischemic Stroke: A Guideline From the American Heart Association/American Stroke Association Stroke Council, Clinical Cardiology Council, Cardiovascular Radiology and Intervention Council, and the Atherosclerotic Peripheral Vascular Disease and Quality of Care Outcomes in Research Interdisciplinary Working Groups. *Stroke*. 2007;38:1655-1711.
- Albers GW, Amarenco P, Easton JD, Sacco RL, Teal P. Antithrombotic and Thrombolytic Therapy for Ischemic Stroke. *Chest* Vol. 119, 2001: 300-320.
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- Chen ZM, Sandercock P, Pan HC, et al. Indications for early aspirin use in acute ischemic stroke: a combined analysis of 40,000 randomized patients from the Chinese acute stroke trial and the international stroke trial. On behalf of the CAST and IST

collaborative groups, Stroke 2000;31:1240-1249.

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- Kernan WN, Ovbiagele B, Black HR, Bravata DM, Chimowitz MI, Ezekowitz MD, Fang MC, Fisher M, Furie KL, Heck DV, Johnston SC, Kasner SE, Kittner SJ, Mitchell PH, Rich MW, Richardson D, Schwamm LH, Wilson JA. Guidelines for the Prevention of Stroke in Patients With Stroke or Transient Ischemic Attack: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. Stroke. 2014;45:241-2160-2236.
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- Sandercock P, Counsell C, Tseng MC, Cecconi E. Oral antiplatelet therapy for acute ischaemic stroke. The Cochrane Database of Systematic Reviews. 2014;3:CD000029.

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

Not applicable.

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

Neurology : Stroke/Transient Ischemic Attack (TIA)

De.6. Non-Condition Specific (check all the areas that apply):

Primary Prevention, Safety : Complications

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

https://www.cms.gov/regulations-and-guidance/legislation/ehrincentiveprograms/ecqm_library.html

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of

the specifications)

This is an eMeasure Attachment: [STK2_MAT.zip](#)

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: [DischargedonAntithromboticThe_v4_Mon_Apr_06_11.08.32_CDT_2015.xls](#)

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

Changes have been made to the eCQM specifications in order to reflect revisions to the chart abstracted measure from which this measure is derived.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

[Patients prescribed antithrombotic therapy at hospital discharge.](#)

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

[Episode of care](#)

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

[Antithrombotic Therapy Prescribed at Discharge](#)

- [Antithrombotic Therapy is represented with the QDM datatype and value set of Medication, Discharge: Antithrombotic Therapy \(OID: 2.16.840.1.113883.3.117.1.7.1.201\)](#)

[Non-Elective Inpatient Encounter](#)

- [Non-Elective Inpatient Encounter is represented with the QDM datatype and value set of Encounter, Performed: Non-Elective Inpatient Encounter \(OID: 2.16.840.1.113883.3.117.1.7.1.424\)](#)

To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: <https://vsac.nlm.nih.gov/>.

S.7. Denominator Statement (Brief, narrative description of the target population being measured)

[Patients with a principal diagnosis of ischemic stroke.](#)

S.8. Target Population Category (Check all the populations for which the measure is specified and tested if any):

[Elderly](#)

S.9. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

[Principal Diagnosis of Ischemic Stroke](#)

- [Ischemic Stroke is represented with the QDM datatype and value set of Diagnosis, Active:](#)

[Ischemic Stroke \(OID: 2.16.840.1.113883.3.117.1.7.1.247\)](#)

- [Ordinality: Principal \(OID: 2.16.840.1.113883.3.117.1.7.1.14\)](#)

[Non-Elective Inpatient Encounter](#)

- [Non-Elective Inpatient Encounter is represented with the QDM datatype and value set of Encounter, Performed: Non-Elective Inpatient Encounter \(OID: 2.16.840.1.113883.3.117.1.7.1.424\)](#)

To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: <https://vsac.nlm.nih.gov/>.

S.10. Denominator Exclusions *(Brief narrative description of exclusions from the target population)*

Denominator Exclusions:

Patients with comfort measures documented.

Patients admitted for elective carotid intervention. This exclusion is implicitly modeled by only including non-elective hospitalizations.

Patients discharged to another hospital

Patients who left against medical advice

Patients who expired

Patients discharged to home for hospice care

Patients discharged to a health care facility for hospice care

Denominator Exceptions:

Patients with a documented reason for not prescribing antithrombotic therapy at discharge.

S.11. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

Denominator Exclusion Data Elements:

Non-Elective Inpatient Encounter

- Non-Elective Inpatient Encounter is represented with the QDM datatype and value set of Encounter, Performed: Non-Elective Inpatient Encounter (OID: 2.16.840.1.113883.3.117.1.7.1.424)

Discharge Status (modeled as Attributes of the above Non-Elective Inpatient Encounter)

- Discharge status: Left Against Medical Advice (OID: 2.16.840.1.113883.3.117.1.7.1.308)
- Discharge status: Patient Expired (OID: 2.16.840.1.113883.3.117.1.7.1.309)
- Discharge status: Discharge To Acute Care Facility (OID: 2.16.840.1.113883.3.117.1.7.1.87)
- Discharge status: Discharged to Home for Hospice Care (OID: 2.16.840.1.113883.3.117.1.7.1.209)
- Discharge status: Discharged to Health Care Facility for Hospice Care (OID: 2.16.840.1.113883.3.117.1.7.1.207)

Comfort Measures

- Comfort Measures are represented with the QDM datatypes and value set of:
- Intervention, Order: Comfort Measures (OID: 1.3.6.1.4.1.33895.1.3.0.45)
- Intervention, Performed: Comfort Measures (OID: 1.3.6.1.4.1.33895.1.3.0.45)

Emergency Department Visit

- Emergency Department Visit is represented with the QDM datatype and value set of Encounter, Performed: Emergency Department Visit (OID: 2.16.840.1.113883.3.117.1.7.1.292)

Denominator Exceptions Data Elements:

Reasons for Not Ordering Antithrombotic Medication

- Antithrombotic Ingredient Specific Medication is represented with the QDM datatype and value set of Medication, Discharge: Antithrombotic ingredient specific (OID: 2.16.840.1.113762.1.4.1021.8)
- Medical Reason is represented with the QDM datatype and value set of Medication, Discharge not done: Medical Reason (OID: 2.16.840.1.113883.3.117.1.7.1.473)
- Patient Refusal is represented with the QDM datatype and value set of Medication, Discharge not done: Patient Refusal (OID: 2.16.840.1.113883.3.117.1.7.1.93)

Emergency Department Visit

- Emergency Department Visit is represented with the QDM datatype and value set of Encounter, Performed: Emergency

Department Visit (OID: 2.16.840.1.113883.3.117.1.7.1.292)

Non-Elective Inpatient Encounter

- Non-Elective Inpatient Encounter is represented with the QDM datatype and value set of Encounter, Performed: Non-Elective Inpatient Encounter (OID: 2.16.840.1.113883.3.117.1.7.1.424)

To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: <https://vsac.nlm.nih.gov/>.

S.12. Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)
Not applicable, the measure is not stratified.

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)
Not applicable.

S.15. Detailed risk model specifications (must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications (if not provided in excel or csv file at S.2b)

Not applicable.

S.16. Type of score:

Rate/proportion

If other:

S.17. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)
Better quality = Higher score

S.18. Calculation Algorithm/Measure Logic (Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)
See attached HQMF file.

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)
Available at measure-specific web page URL identified in S.1

S.20. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Not applicable.

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

Not applicable. This measure is not based on a survey or a PRO-PM.

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

eMeasures are calculated using only the structured data collected in certified EHR technology (CEHRT). Data not present in the structured field from which the measure draws will not be included in the measure calculation.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

Electronic Health Data, Electronic Health Records, Other

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

If a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No data collection instrument provided

S.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility, Other

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

S.28. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

Not applicable.

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

NQF0435_CMS104v4_STK2_Bonnie_Testing.xlsx, STK2_eCQM_testing_attachment-635944378797869540.docx

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)

ALL data elements are in defined fields in electronic health records (EHRs)

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment **Attachment: STK2_eCQM_NQF_Measure_Feasibility_Assessment_Report.docx**

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.

Not applicable.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

Value sets are housed in the Value Set Authority Center (VSAC), which is provided by the National Library of Medicine (NLM), in coordination with the Office of the National Coordinator for Health Information Technology and the Centers for Medicare & Medicaid Services.

Viewing or downloading value sets requires a free Unified Medical Language System® (UMLS) Metathesaurus License, due to usage restrictions on some of the codes included in the value sets. Individuals interested in accessing value set content can request a UMLS license at (<https://uts.nlm.nih.gov/license.html>)

There are no other fees or licensing requirements to use the Joint Commission performance measures, all of which are in the public domain.

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Planned	Current Use (for current use provide URL)
	Payment Program Hospital Inpatient Quality Reporting Program https://www.cms.gov/medicare/quality-initiatives-patient-assessment-

instruments/hospitalqualityinits/hospitalrhqdapu.html

Regulatory and Accreditation Programs

Hospital Accreditation Program

<http://jointcommission.org>

EHR Incentive Program

[https://www.cms.gov/Regulations-and-](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/ehrincentivepr)

[Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/ehrincentivepr](https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/ehrincentivepr)

4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Name of program and sponsor: Hospital Inpatient Quality Reporting Program; Centers for Medicare & Medicaid Services
- Purpose: The Hospital Inpatient Quality Reporting (Hospital IQR) program was mandated by Section 501(b) of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003. This section of the MMA authorized CMS to pay hospitals that successfully report designated quality measures a higher annual update to their payment rates.
- Geographic area and number and percentage of accountable entities and patients included: Nationwide; 3500 hospitals (2015)
- Name of program and sponsor: EHR Incentive Program; Centers for Medicare & Medicaid Services
- Purpose: The American Recovery and Reinvestment Act of 2009 (ARRA) (Pub.L. 111–5) was enacted on February 17, 2009. Title IV of Division B of ARRA amends Titles XVIII and XIX of the Social Security Act (the Act) by establishing incentive payments to eligible professionals (EPs), eligible hospitals, and critical access hospitals (CAHs), and Medicare Advantage Organizations to promote the adoption and meaningful use of interoperable health information technology (HIT) and qualified electronic health records (EHRs). These incentive payments are part of a broader effort under the HITECH Act to accelerate the adoption of HIT and utilization of qualified EHRs.
- Geographic area and number and percentage of accountable entities and patients included: Nationwide; 4,847 active registrations (September, 2015)
- Name of program and sponsor: Hospital Accreditation Program; The Joint Commission
- Purpose: An accreditation program that recognizes hospitals that meet standard requirements to provide safe and effective patient care.
- Geographic area and number and percentage of accountable entities and patients included: Nationwide; 3300 Joint Commission-accredited hospitals (2014)

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

Not applicable.

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

Not applicable.

4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- **Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)**
- **Geographic area and number and percentage of accountable entities and patients included**

While the chart-abstracted version of this measure has indicated improvement over time, this measure is a legacy eQCM that is currently in use in the Hospital Inpatient Quality Reporting Program (HIQR) and the EHR Incentive Program. At present, no performance data are currently available.

In CY2016, CMS is requiring organizations participating in HIQR to electronically submit 1 quarter of data on 4 of 28 available eQCMs, one of which is this measure. Data will be accepted through February 28th, 2017.

For more information, refer to CY2016 IPPS Final Rule, located here: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2016-IPPS-Final-Rule-Home-Page-Items/FY2016-IPPS-Final-Rule-Regulations.html>

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

Not applicable.

4c. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

Not applicable.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

0068 : Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antiplatelet
 0325 : Stroke and Stroke Rehabilitation: Discharged on Antithrombotic Therapy
 0435 : STK 02: Discharged on Antithrombotic Therapy
 0438 : STK 05: Antithrombotic Therapy By End of Hospital Day Two

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

0325 : Stroke and Stroke Rehabilitation: Discharged on Antithrombotic Therapy – American Academy of Neurology

5a. Harmonization

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications completely harmonized?

No

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

Measures 0438 Antithrombotic Therapy By End of Hospital Day 2 is the fifth (STK-5) measure in The Joint Commission stroke core measure set and also targets the ischemic stroke population; however, the timeframe for antithrombotic administration is different in this measure than STK-2. STK-5 focuses on the early management of stroke care and antithrombotic therapy administered within the first 48 hours of acute ischemic stroke onset rather than discharge. All common data elements for these measures are completely harmonized. NQF#0435: STK 02: Discharged on Antithrombotic Therapy: The measures are completely harmonized to the extent possible, given the fact that the data source for #0435 is the paper medical record, and the data source for #2832 is the electronic health record. Measure 0068 is a physician performance measure and could extend to the outpatient setting. Measure 0068 encompasses a different target population, specifically patients with ischemic vascular disease who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI). As previously noted, both of these measures evaluate physician practice as opposed to hospital processes.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

Not applicable.

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

Available at measure-specific web page URL identified in S.1 Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): The Joint Commission

Co.2 Point of Contact: JohnMarc, Alban, jalban@jointcommission.org, 630-792-5304-

Co.3 Measure Developer if different from Measure Steward: The Joint Commission

Co.4 Point of Contact: Lisa, Anderson, landerson2@jointcommission.org, 630-792-5008-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

The role of the Technical Advisory Panel (TAP) is to provide advisory oversight in literature review, measure content and maintenance of the specifications.

Members are:

Harold P. Adams, Jr., MD
University of Iowa Health Care
Iowa City, IA

Mark J. Alberts, MD
University of Texas Southwestern
Dallas, TX

Anne W. Alexandrov, RN
Health Outcomes Institute
Fountain Hills, AZ

Nadine Allyn, RD
American Heart Association
Dallas, Texas

Mary G. George, MD
Centers for Disease Control and Prevention
Atlanta, GA

Martin Gizzi, MD
Legacy Health System
Portland, OR

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St. Vincent Mercy Hospital
Toledo, OH

Richard D. Zorowitz, MD
Medstar National Rehabilitation Network
Washington, DC

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2012

Ad.3 Month and Year of most recent revision: 04, 2015

Ad.4 What is your frequency for review/update of this measure? Annual

Ad.5 When is the next scheduled review/update for this measure? 04, 2016

Ad.6 Copyright statement: Measure specifications are in the Public Domain

LOINC(R) is a registered trademark of the Regenstrief Institute.

This material contains SNOMED Clinical Terms (R) (SNOMED CT(c)) copyright 2004-2014 International Health Terminology Standards Development Organization. All rights reserved.

Ad.7 Disclaimers: These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. The measures and specifications are provided without warranty.

Ad.8 Additional Information/Comments: Not applicable.