Stroke Core Measure Update: STK-4 Thrombolytic Therapy

Karen Kolbusz, RN, BSN, MBA
Associate Project Director
Division of Healthcare Quality Evaluation
The Joint Commission
Disclosure

The following speakers have disclosed that they do not have any financial arrangements or affiliations with corporate organizations that either provide educational grants to this program or may be referenced in this activity:

- Karen Kolbusz, Associate Project Director
- MJ Hampel, Director, Clinical Services Certification
Continuing Education Credit

This course is approved for 1.0 hour CE credit by the Accreditation Council for Continuing Medical Education (ACCME), the American Nurses Credentialing Center’s Commission on Accreditation (ANCC), the American College of Healthcare Executives (ACHE), and the International Association for Continuing Education and Training (IACET).

To receive credit, participants must listen to the program in its entirety and submit a completed online evaluation after the program.
Objectives

- Recall performance measure requirements for primary (PSC) and comprehensive (CSC) stroke centers
- Discuss measure modifications for STK-4 Thrombolytic Therapy and the timeframe for implementation
- Provide opportunity for questions
DSC Stroke Certification Programs

**Structure**
DSC + PSC + CSC Standards

**Process**
TJC Onsite Review

**Quality & Safety of Care for Stroke Patients**

**Outcome**
STK Core + CSTK Measures
Stroke National Hospital Inpatient Quality Measures (Core Measures)

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

- **CSTK-01**: National Institutes of Health Stroke Scale (NIHSS) Score Performed for Ischemic Stroke Patients
- **CSTK-02**: Modified Rankin Score (mRS) at 90 Days
- **CSTK-03**: Severity Measurement Performed for Subarachnoid Hemorrhage (SAH) and Intracerebral Hemorrhage (ICH) Patients (Overall Rate)
- **CSTK-04**: Procoagulant Reversal Agent Initiation
- **CSTK-05**: Hemorrhagic Transformation (Overall Rate)
- **CSTK-06**: Nimodipine Treatment Administered
- **CSTK-07**: Median Time to Revascularization
- **CSTK-08**: Thrombolysis in Cerebral Infarction (TICI) Post-Treatment Reperfusion Grade
Joint Commission Performance Measure Requirements for Stroke Certification Programs

<table>
<thead>
<tr>
<th>CERTIFICATION DESIGNATION</th>
<th>PRIMARY STROKE</th>
<th>COMPREHENSIVE STROKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure Set</td>
<td>STK ONLY</td>
<td>STK and CSTK</td>
</tr>
<tr>
<td># Measures</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Data Submission</td>
<td>Quarterly</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Vendors</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>CMIP</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Data collection for the eight CSTK measures effective with discharges on and after January 1, 2015.
CMS Requirements

- CMS’s Hospital Inpatient Quality Reporting (IQR) Program FY 2017
  - STK-04, STK-06, STK-08 to be reported as an electronic clinical quality measure (ECQM) or chart abstracted
  - STK-01 chart abstracted
History of Stroke-Specific Data Collection Efforts & Performance Measurement

1998
- AHA launched GWTG-Stroke / PCNASR created
- Standardized Stroke Measures under development
- Stroke Practice Improvement Network (SPIN)
- TJC launched DSC Certification Program
- Stroke PM Consensus Panel: AHA/ASA/CDC/TJC

1999
- Brain Attack Coalition (BAC) published the first-ever Recommendations for the establishment of Primary Stroke Centers (PSCs)

2000
- The Joint Commission launched its Disease-Specific Care (DSC) Certification Program and began development of an advanced program for Primary Stroke Centers in collaboration with AHA/ASA/BAC
- Stroke (STK) added as a core measure set
- Stroke Practice Improvement Network (SPIN)

2001
- The American Heart Association’s (AHA) multidisciplinary panel recommended consideration of warfarin in atrial fibrillation, antithrombotic therapy on discharge, carotid imaging, use of stroke units and dedicated protocols, and heparin for prophylaxis of deep-vein thrombosis.
  - AHA/ASA launched Get With The Guidelines℠ – Stroke (GWTG)
  - CDC’s Paul Coverdell National Acute Stroke Registry (PCNASR) created
  - BAC Recommendations for PSCs

2002
- 2002-05 10 stroke measures tested at 30 pilot sites. Data collected for 4 priority measures at all certified PSCs
- 12-month Pilot Test

2003
- Measure harmonization

2004
- July 2008, National Quality Forum (NQF) endorsed eight of the ten stroke measures

2005
- December 2008, Hospital Quality Alliance (HQA) adopted NQF-endorsed™ stroke measures

2006
- 2004-05 10 stroke measures tested at 30 pilot sites. Data collected for 4 priority measures at all certified PSCs

2007

2008
- Stroke (STK) added as a core measure set

2009
- Stroke (STK) added as a core measure set

2000 Brain Attack Coalition (BAC) published the first-ever Recommendations for the establishment of Primary Stroke Centers (PSCs)

2001 The American Heart Association’s (AHA) multidisciplinary panel recommended consideration of warfarin in atrial fibrillation, antithrombotic therapy on discharge, carotid imaging, use of stroke units and dedicated protocols, and heparin for prophylaxis of deep-vein thrombosis.
  - AHA/ASA launched Get With The Guidelines℠ – Stroke (GWTG)
  - CDC’s Paul Coverdell National Acute Stroke Registry (PCNASR) created
Recent Years to Present

- CMS Hospital Inpatient Quality Reporting Program requires stroke (STK) data collection, January 1, 2013

- Stroke Measure Maintenance TAP workgroup (TJC, GWTG, Coverdell, CMS) convened to discuss modifications to STK-04

- Learning Lab of proposed changes conducted August-September, 2013, with 5 vendors, including GWTG, and 12 healthcare organizations
STK-04: Thrombolytic Therapy


- Changes made to measure specifications are summarized in the Release Notes section of the manual

- Effective for discharges on and after January 1 through September 30, 2015
STK-04 Thrombolytic Therapy

**Denominator**: Acute ischemic stroke patients whose time of arrival is within 2 hours (less than or equal to 120 minutes) of time last known well

**Numerator**: Acute ischemic stroke patients for whom IV thrombolytic therapy was initiated at this hospital within 3 hours (less than or equal to 180 minutes) of time last known well

Current Version 4.3b
STK-04 Algorithm
Current Version 4.3b

Measure Category
D – In Measure
B - Excluded
X - Missing
Timing I = *Arrival Date and Arrival Time* minus *Date Last Known Well* and *Time Last Known Well*
Timing II = IV Thrombolytic Initiation Date and Time minus DLKW and TLKW

D - In Measure
E – In Numerator
B - Excluded
X - Missing
2015 STK-04 Measure Changes

- Measure Information Form modified
- Algorithm change
  - Timing II calculation adjusted
  - New data element added
- New data element:
  - *Reason For Extending the Initiation of IV Thrombolytic* to 3 to 4.5 hours
2015 Changes Continued

- Last Known Well
- Date Last Known Well
- Time Last Known Well
- IV Thrombolytic Initiation
- Reason for Not Initiating IV Thrombolytic
Revised rationale to add:

- The European Cooperative Acute Stroke Study (ECASS) III trial indicated that intravenous r-tPA can be given safely to, and can improve outcomes for, carefully selected patients treated 3 to 4.5 hours after stroke; however, as the NINDS investigators concluded, the earlier that IV thrombolytic therapy is initiated, the better the patient outcome. Therefore, the target for IV t-PA initiation remains within 3 hours of time last known well. The administration of IV thrombolytic therapy beyond 3 hours of stroke symptom onset has not been FDA approved.

Removed table of contraindications and warnings regarding IV t-PA administration

STK-04 Algorithm Change

- Added new data element: *Reason For Extending the Initiation of IV Thrombolytic*

- Adjusted the measure flow logic to exclude cases who received IV thrombolytic therapy in 3 to 4.5 hours because a reason delayed initiation within 3 hours
  - Removed the abstraction guidelines from *IV Thrombolytic Initiation* previously used to exclude such cases
Timing II (in minutes) = IV Thrombolytic Initiation Date and IV Thrombolytic Initiation Time - Date Last Known Well and Time Last Known Well

Case Will Be Rejected

Timing II

≥ 0 and ≤ 270 minute(s)

Missing

STK-4

STK-4

STK-4

In Measure Population

Not In Measure Population

In Numerator Population

Reason for Extending the Initiation of IV Thrombolytic

> 180 and ≤ 270 minute(s)

≥ 0 and ≤ 180 minute(s)

Stop

© Copyright, The Joint Commission

Certification Disease-Specific Care

STK-04 Version 4.4
New Data Element

**Reason For Extending the Initiation of IV Thrombolytic to 3 to 4.5 hours**
- Documentation of treatment to lower BP prior to IV thrombolytic initiation
- Patient/family refusal recanted / reversed
- Cardiac/respiratory arrest, CPR, defibrillation, intubation in the ED prior to IV t-PA initiation

**Abstraction guidelines otherwise similar to Reason for No IV Thrombolytic Initiation**
Data Element Revisions
IV Thrombolytic Initiation

Removed the following guideline:

- When IV thrombolytic therapy is initiated beyond 3 hours (180 min.) because a reason for not initiating IV thrombolytic therapy existed during the 3 hour timeframe, select “No.”

Examples:

- Blood pressure management
- Patient refusal
Reason For No IV Thrombolytic Initiation

- Timeframe for reason documentation changed to day of or day after hospital arrival

- List of stand-alone reasons expanded
  - Added documentation of cardiac arrest, respiratory arrest, cardiopulmonary resuscitation, defibrillation, or intubation in the emergency department, and
  - *Comfort Measures Only* documented by a physician/APN/PA
Stand-Alone Reasons

List of stand-alone reasons expanded

- Documentation that intravenous (IV) or intra-arterial (IA) thrombolytic was initiated by a transferring hospital or EMS prior to hospital arrival
- Documentation of patient/family refusal of IV thrombolytic
- Documentation of National Institutes of Health Stroke Scale (NIHSS) score of zero in the emergency department
Stand-Alone Reasons

- List of stand-alone reasons expanded
  - Documentation of cardiac arrest, respiratory arrest, cardiopulmonary resuscitation, defibrillation, or intubation in the emergency department
  - *Comfort Measures Only* documented by a physician/APN/PA

Stand-Alone Reasons – do not need IV thrombolytic therapy linkage
Reason For No IV Thrombolytic Initiation

- Other reasons must be documented by MD/APN/PA or pharmacist and linked with IV t-PA. **EXCEPTION:**
  - Nursing documentation of a telemedicine/teleneurology reason for not initiating IV thrombolytic therapy is acceptable

- System reasons are NOT acceptable
- Delay in diagnosis does NOT count
Last Known Well

- Both a *Date Last Known Well* and *Time Last Known Well* must be documented.

- Select ‘NO’ if there is ANY MD/APN/PA documentation that LKW is *unknown* or *uncertain* (i.e., neuro/medical assessment).

- LKW or stroke symptoms that occur after hospital arrival (in-house stroke), select ‘NO’.
Date Last Known Well

Enter the date associated with the Time Last Known Well
Time Last Known Well

Goal is to abstract a Time Last Known Well and not exclude the case at Last Known Well

A specific time entered as Time Last Known Well on a “Code Stroke” form or electronic template is preferred over times documented elsewhere in the medical record
Time Last Known Well

If the time last known well is unable to be determined from medical record documentation, select “UTD”.

EXCEPTION:

- If the only TLKW is documented as a time immediately before hospital arrival without a specific time range in minutes, e.g., “symptoms started just prior to ED arrival”, and no other documentation mentioning TLKW is available in the medical record, use the Arrival Time for TLKW.
**Time Last Known Well**

- If both the time last known well and the time of symptom onset are documented, select the *Time Last Known Well*.
- If the only time documented is time of symptom onset without mention of when the patient was last known well, use the time of symptom onset for time last known well.
Time Last Known Well

- Removed hierarchy
- If there are multiple times of last known well documented, use physician documentation first in the absence of the TLKW on a “Code Stroke” form
Time Last Known Well

- If there is documentation of one or more episodes of stroke symptoms AND documentation of symptom resolution between episodes, use the time of the last episode prior to arrival, regardless if all symptoms resolved prior to arrival.
Welcome to the Performance Measurement Network Q&A Forum

Measure Specifications Manuals

<table>
<thead>
<tr>
<th>Joint Commission Only Measures</th>
<th>CMS and Joint Commission Aligned Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Future</strong>: Coming August 2014</td>
<td>• <strong>Future Specification Manual for National Hospital Quality Measures</strong></td>
</tr>
<tr>
<td>August 2014 (HBIPS, PC, AMI, HF and PN Measures: applicable to Discharges 01-01-15 (1Q15) through 09-30-15 (3Q15))</td>
<td>• <strong>Current Specification Manual for National Hospital Quality Measures</strong></td>
</tr>
<tr>
<td><strong>Current</strong>: Specifications Manual for Joint Commission National Quality Core Measures (version 2014A1)</td>
<td>• <strong>Historical Specification Manuals for National Hospital Quality Measures</strong></td>
</tr>
<tr>
<td>02 May 2014 (HBIPS and PC Measures: applicable to Discharges 01-01-14 (1Q14) through 12-31-14 (4Q14))</td>
<td></td>
</tr>
<tr>
<td><strong>Recent Past</strong>: Specifications Manual for Joint Commission National Quality Core Measures (version 2014A)</td>
<td></td>
</tr>
<tr>
<td>01 August 2013 (HBIPS and PC Measures: applicable to Discharges 01-01-13 (1Q14) through 09-30-13 (3Q14))</td>
<td></td>
</tr>
<tr>
<td>Specifications Manual for Joint Commission National Quality Core Measures (version 2013B)</td>
<td></td>
</tr>
<tr>
<td>04 February 2013 (HBIPS and PC Measures: applicable to Discharges 07-01-13 (3Q13) through 12-31-13 (4Q13))</td>
<td></td>
</tr>
</tbody>
</table>
Direct questions to https://www.qualitynet.org/
Thank you!