Stroke Core Measure Update: STK-4 Thrombolytic Therapy

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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:

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Continuing Education Credit

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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>
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<td>Measure Set</td>
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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

1998-2009

- 1998: 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
- 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 GuidelinesSM – Stroke (GWTG)
- • CDC’s Paul Coverdell National Acute Stroke Registry (PCNASR) created
- 2002: 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
- 2003: Measure harmonization
- 2004-05: 10 stroke measures tested at 30 pilot sites. Data collected for 4 priority measures at all certified PSCs
- 2004: Stroke PM Consensus Panel: AHA/ASA/CDC/TJC
- 2005: 12-month Pilot Test
- 2006: Stroke (STK) added as a core measure set
- 2007: Set of 10 Stroke Consensus Measures implemented
- 2008: NQF-endorsement
- 2009: Stroke (STK) added as a core measure set

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

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

April 2009, Stroke included in national specification manual with other core measure sets

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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
Version 4.4 Highlights
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 = \textit{IV Thrombolytic Initiation Date and Time} minus \textit{DLKW and TLKW}
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

Data element revisions:

- Last Known Well
- Date Last Known Well
- Time Last Known Well
- IV Thrombolytic Initiation
- Reason for Not Initiating IV Thrombolytic
Measure Information Form (MIF)

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

- < 0 minute(s)
- ≥ 0 and ≤ 270 minute(s)
- > 270 minute(s)

Reason for Extending the Initiation of IV Thrombolytic

STK-4 X
- STK-4 X
- STK-4 X
- STK-4 B
- STK-4 B

Case Will Be Rejected

In Numerator Population

Not In Measure Population

In Measure Population

Stop

E

D
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

Diagram:
- Neurology
- Attending MD
- Emergency Dept. MD
- ED Nurse
- EMS
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

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Direct questions to
https://www.qualitynet.org/
Thank you!