Pioneers in Quality

Expert to Expert Webinar Series

2023 Annual Updates STK-2, STK-3, STK-5, STK-6 eCQMs

October 25, 2022



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Welcome!

But first things first...

"Get Started with eCQMs"

https://ecqi.healthit.gov/ecqms?qttabs_ecqm=4

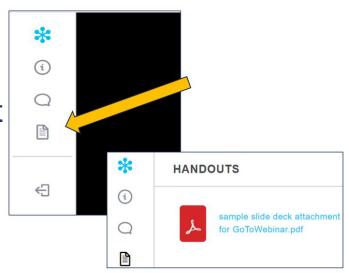




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Learning Objectives

- Navigate to the measure specifications, value sets, measure flow diagrams and technical release notes
- Apply concepts learned about the logic and intent for the STK-2, -3, -5, -6 eCQMs
- Prepare to implement the STK-2, -3, -5, -6 eCQMs for the 2023 eCQM reporting period
- Identify common issues and questions regarding the STK eCQMs



Topics Not Covered in Today's Webinar

- Basic eCQM concepts
- Topics related to chart abstracted measures
- Process improvement efforts related to this measure
- eCQM validation



Disclosure Statement

These staff and speakers have disclosed that they do not have any conflicts of interest. For example, financial arrangements, affiliations with, or ownership of organizations that provide grants, consultancies, honoraria, travel, or other benefits that would impact the presentation of today's webinar content.

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Pioneers in Quality Expert to Expert Webinar Agenda: STK eCQMs

- Demonstrate navigation to measure specifications, value sets, measure flow diagrams and technical release notes
- Review the measure flow/algorithm
- Review changes made to STK-2, STK-3, STK-5, STK-6
- FAQs
- Facilitated Audience Q&A Segment





eCQI Resource Center Website Demo

eCQI Resource Center Website https://ecqi.healthit.gov/

eCQM Resources	Short Description	Published \$
Implementation Checklist eCOM Annual Update	Implementation checklist (i)	
Guide for Reading eCQMs 8.0 (PDF)	Assists implementers and measured entities with information on how to read eCQM specifications ①	May 2022
Hospital Quality Reporting Table of eCOMs (PDF)	List of eCOMs available for use ①	May 2022
eCGM Specifications for Hospital Quality Reporting (ZIP)	eCQM technical specifications ③	May 2022
Measure Authoring Tool (MAT) Global Common Library (GCL) Technical Specifications and Technical Release Notes (ZIP)	MAT-CGL specifications and technical release notes (3)	May 2022
eCQM Value Sets (2)	Value sets used in eCQMs ①	May 2022
EH/CAH Pre-Rulemaking Value Sets CMS334 (ZIP)	Value sets used in CMS334v4 ②	May 2022
eCOM Direct Reference Codes List €	eCQM Direct Reference Codes used in eCQMs ()	May 2022
Binding Parameter Specification (BPS) (ZIP) [2]	Value set metadata ①	May 2022
eCOM Logic and Implementation Guidance v6.0 (PDF)	Assists implementers and measured entities with how to use eCOMs and report issues (3)	May 2022
Technical Release Notes (PDF)	Year over year changes to eCQM logic and terminology ①	May 2022
Technical Release Notes (ZIP)	Year over year changes to eCOM logic and terminology ③	May 2022
Standards and tool versions used for reporting period	Tools and standards versions measure developers used to create eCOMs and versions of standards and tools used for their reporting ①	May 2022
eCQM Flows (ZIP)	Assists implementers and measured entities with steps to take to calculate an eCOM ①	Aug 2022
2023 CMS QRDA I Implementation Guide for Hospital Quality Reporting (PDF)	Format for reporting eCQMs to CMS ③	May 2022
2023 CMS ORDA I Schematrons and Sample Files (ZIP)	Rules to validate eCOM reports with samples ①	May 2022
eCQM Annual Update Pre-Publication Document (PDF)	Standards and code system versions for the eCOM Annual Update ①	Mar 2022





Stroke Measure Set

- The stroke measure set consists of 4 measures:
- STK-2 Discharged on Antithrombotic Therapy
- STK-3 Anticoagulation Therapy for Atrial Fibrillation/Flutter
- STK-5 Antithrombotic Therapy by End of Hospital Day 2
- STK-6 Discharged on Statin Medication



STK Measure Set Rationale

- Three measures (STK-2, STK-3, STK-6) focus on therapies for secondary stroke prevention which should be prescribed prior to hospital discharge.
- One measure (STK-5) addresses an early intervention that should be taken when acute ischemic stroke is diagnosed.
- Updated clinical practice guideline recommendations from the American Heart Association / American Stroke Association, (Kleindorfer, et al., July 2021), reinforce the importance of these measures.



STK-2 Rationale Discharged on Antithrombotic Therapy

- Antithrombotic therapy includes both antiplatelet and anticoagulant medications.
- Long-term antithrombotic therapy is recommended after an ischemic stroke to reduce stroke morbidity and mortality.
- For patients with non-cardioembolic ischemic stroke, antiplatelet medications are preferred over anticoagulants.



STK-2 Rationale (continued) Discharged on Antithrombotic Therapy

- Aspirin 50 to 325 mg daily, clopidogrel 75 mg, or aspirin 25 mg / extendedrelease dipyridamole 200 mg twice daily are commonly prescribed medications for secondary stroke prevention.
- Dual antiplatelet therapy or concurrent administration of more than one antithrombotic medication is generally not recommended.
- Short-term combination treatment with ticagrelor and aspirin may be indicated for select patients (THALES trial, 2020).



STK-3 Rationale

Anticoagulation Therapy for Atrial Fibrillation/Flutter

- Ischemic stroke patients with a current finding or history of atrial fibrillation or flutter are at increased risk of experiencing another stroke compared to ischemic stroke patients without these arrhythmias.
- Anticoagulation therapy rather than antiplatelet therapy is recommended for these patients.
- Direct oral anticoagulant medications should be considered before warfarin for patients without moderate or severe mitral stenosis or a mechanical heart valve.



STK-3 Rationale (continued) Anticoagulation Therapy for Atrial Fibrillation/Flutter

- Several large clinical studies of DOACs have demonstrated a reduction in both thrombo-embolic stroke and bleeding risk compared to warfarin.
- FDA-approved DOACs include: apixaban, dabigatran, edoxaban, and rivaroxaban.
- When warfarin is selected for anticoagulation therapy, the international normalized ratio should be monitored and maintained within a range of 2.0 to 3.0 for most patients unless otherwise indicated, e.g., patients with a mechanical heart valve.



STK-6 Rationale Discharged on Statin Medication

- Hyperlipidemia is another significant risk factor for ischemic stroke.
- Statin therapy has been shown to reduce the risk of major cardiovascular events, including stroke.
- Two large randomized control trials provide high-level evidence supporting the STK-6 measure: SPARCL (Stroke Prevention by Aggressive Reduction in Cholesterol Levels, 2009) and TST (Treat Stroke to Target, 2019).



STK-6 Rationale (continued) Discharged on Statin Medication

- Target LDL cholesterol (LDL-c) levels depend on the presence and extent of atherosclerosis.
- Atorvastatin 80 mg daily is recommended for ischemic stroke patients with **no known** coronary heart disease, no major cardiac sources of embolism, and LDL-c > 100 mg/dL.
- For patients with ischemic stroke or TIA and atherosclerotic disease, statin therapy should aim for LDL-c < 70 mg/dL.



STK-5 Rationale

Antithrombotic Therapy By End of Hospital Day 2

- Aspirin administration is recommended within 24 to 48 hours of acute ischemic stroke onset.
- Aspirin slows the coagulation cascade, interrupting platelet aggregation and reducing the risk of blood clot formation.
- When IV alteplase treatment is administered, aspirin administration is generally delayed 24 hours to reduce bleeding risk.
- For patients unable to swallow or take aspirin by mouth, rectal or nasogastric administration is appropriate, (Powers, et al., 2018).



STK-2 Measure Changes from 2022 to 2023 - Clinical

Measure Components	2022 Reporting Year	2023 Reporting Year
Rationale and References	_	Added Reference: 'Kleindorfer, D. O., 2021 guideline for the prevention of stroke in patients with stroke and transient ischemic attack: A guideline from the American Heart Association/American Stroke Association. Stroke, 52(7)
Guidance	-	This statement was added to header Guidance for all Stroke measures: "The denominator population includes patients with inpatient hospitalizations and patients from Acute Hospital Care at Home programs, who are treated and billed as inpatients but receive care in their home." https://qualitynet.cms.gov/acute-hospital-care-at-home
Numerator (STK-2)	-	Ticagrelor (Brilinta) was added per the 2020 FDA-expanded indication.



STK-2 Measure Changes from 2022 to 2023 - Technical

Measure Components	2022 Reporting Year	2023 Reporting Year
Initial Population Logic to calculate patient's age	Global CalendarAgeInYearsAt function used to calculate patient's age.	Native CQL function AgeInYearsAt used to calculate patient's age LOINC code 21112-8 (Birth date) is no longer required and has been removed
Value sets		Added Ticagrelor to Numerator Value set "Antithrombotic Therapy" Removed Ticagrelor from Denominator Exceptions Value set "Pharmacological Contraindications For Antithrombotic Therapy"



Library Changes from 2022 to 2023

2022	2023
Global."ToDate" (Value DateTime): DateTime(year from Value, month from Value, day from Value, 0, 0, 0, 0, timezoneoffset from Value)	TJC."TruncateTime" (Value DateTime): DateTime(year from Value, month from Value, day from Value, 0, 0, 0, 0, timezoneoffset from Value)
TJC."CalendarDayOfOrDayAfter"(StartValue DateTime) Interval[Global."ToDate" (StartValue), Global."ToDate" (StartValue + 2 days))	TJC."CalendarDayOfOrDayAfter"(StartValue DateTime) Interval["TruncateTime"(StartValue), "TruncateTime"(StartValue + 2 days))

...and "day of" was added before CalendarDayOfOrDayAfter...
e.g. such that NoAntithrombotic.authorDatetime during
day of TJC."CalendarDayOfOrDayAfter" (...)



Stroke Population Criteria

	Initial Population	Denominator	Denominator Exclusions	Numerator	Denominator Exceptions
STK-2	Inpatient hospitalizations for patients • age 18 and older • discharged from inpatient care • non-elective admission	Initial Population plus Principal diagnosis of ischemic stroke	Admitted for elective carotid intervention Discharged to:	Prescribed or continuing to take antithrombotic therapy at hospital discharge	Reason documented during inpatient encounter for not prescribing antithrombotic therapy at discharge Patients who receive Prasugrel as antithrombotic therapy at discharge
STK-3	 principal diagnosis of ischemic or hemorrhagic stroke length of stay less than or equal to 120 days that ends during the measurement period 	Initial Population plus Principal diagnosis of ischemic stroke plus one of the following: • Atrial ablation procedure • History of Afib/flutter • Current Diagnosis of Afib/flutter)	Same as STK-2	Prescribed or continuing to take anticoagulation therapy at hospital discharge	Reason documented during inpatient encounter for not prescribing anticoagulation therapy at discharge
STK-5		Same as STK-2	Duration of stay < 2 days Comfort measures documented day-of-or-day-after arrival Intra-venous or intra-arterial Thrombolytic (t-PA) therapy administered within 24 hours before or during hospitalization	Antithrombotic therapy administered the day-of-or-day-after hospital arrival	Reason for not prescribing antithrombotic therapy day-of-or-day-after hospital arrival Patients who receive Prasugrel antithrombotic therapy day-of-or-day-after hospital arrival INR greater than 3.5
STK-6		Same as STK-2	Same as STK-2	Prescribed or continuing to take statin medication at hospital discharge	Reason documented for not prescribing statin medication at discharge Maximum LDL-c less than 70 mg/dL Statin allergy





Common Logic Across Stroke Measures

Initial Population – for all Stroke measures

TJC."Encounter with Principal Diagnosis and Age"

TJC."Encounter with Principal Diagnosis and Age"

"All Stroke Encounter" AllStrokeEncounter

where AgeInYearsAt (date from

(start of AllStrokeEncounter.relevantPeriod)) >= 18

TJC."All Stroke Encounter"

"Non Elective Inpatient Encounter" NonElectiveEncounter where exists (NonElectiveEncounter.diagnoses Diagnosis where Diagnosis.rank = 1

and (Diagnosis.code in "Hemorrhagic Stroke" or Diagnosis.code in "Ischemic Stroke"))



Initial Population – for all Stroke measures (continued)

TJC."Non Elective Inpatient Encounter"

["Encounter, Performed": "Non-Elective Inpatient Encounter"]
NonElectiveEncounter

where Global."LengthInDays" (NonElectiveEncounter.relevantPeriod) <= 120

and NonElectiveEncounter.relevantPeriod ends during day of "Measurement Period"



Denominator – STK-2, STK-5, STK-6

TJC."Ischemic Stroke Encounter"

"Encounter with Principal Diagnosis and Age"

EncounterWithAge

where exists (EncounterWithAge.diagnoses Diagnosis

where Diagnosis.code in "Ischemic Stroke"

and Diagnosis.rank = 1)



Denominator Exclusions – STK discharge measures (STK-2, STK-3, STK-6)

TJC."Ischemic Stroke Encounters with Discharge Disposition"

union

TJC."Encounter with Comfort Measures during Hospitalization"



Denominator Exclusions – STK discharge measures (STK-2, STK-3, STK-6) (continued)

```
TJC."Ischemic Stroke Encounters with Discharge Disposition"
    (("Ischemic Stroke Encounter" IschemicStrokeEncounter
          where IschemicStrokeEncounter.dischargeDisposition in
                                  "Discharge To Acute Care Facility"
              or IschemicStrokeEncounter.dischargeDisposition in
                                       "Left Against Medical Advice"
              or IschemicStrokeEncounter.dischargeDisposition in
                                                   "Patient Expired"
              or IschemicStrokeEncounter.dischargeDisposition in
                             "Discharged to Home for Hospice Care"
              or IschemicStrokeEncounter.dischargeDisposition in
               "Discharged to Health Care Facility for Hospice Care"
```



Denominator Exclusions – STK discharge measures (STK-2, STK-3, STK-6) (continued)

TJC."Encounter with Comfort Measures during Hospitalization"

TJC."Intervention Comfort Measures"

["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





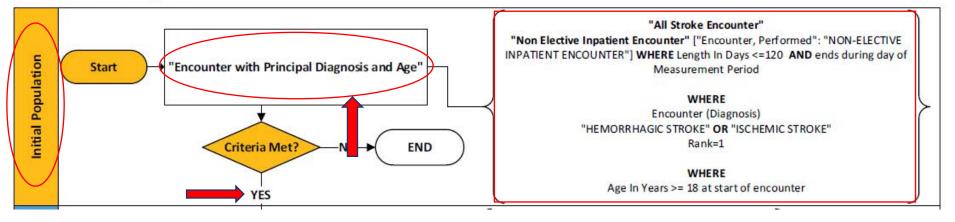
Logic Unique to Individual Stroke Measures

Measure Flow Diagram – STK-2 Discharged on Antithrombotic Therapy

2023 eCQM Flow - CMS104v11: Discharged on Antithrombotic Therapy (STK-02)*

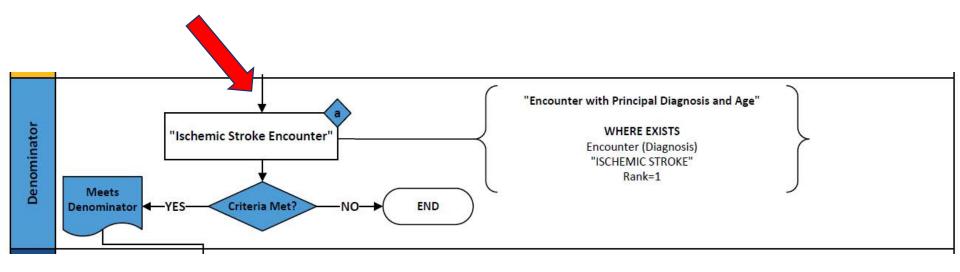
*This flow diagram represents an overview of population criteria requirements. Please refer to the eCQM measure specification for a complete list of definitions, direct reference codes, data or timing elements included in this measure and required for submission.

Measure Flow Diagram



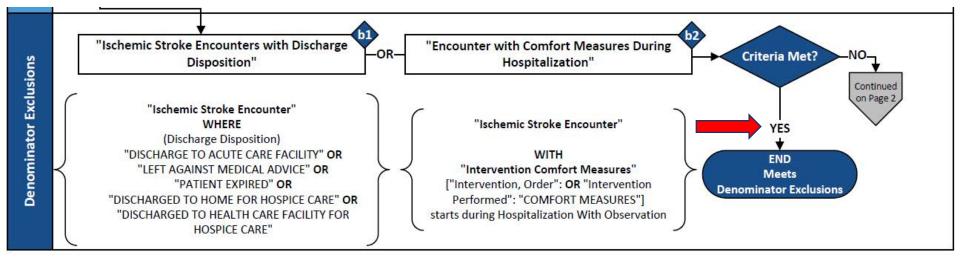


Measure Flow Diagram – STK-2

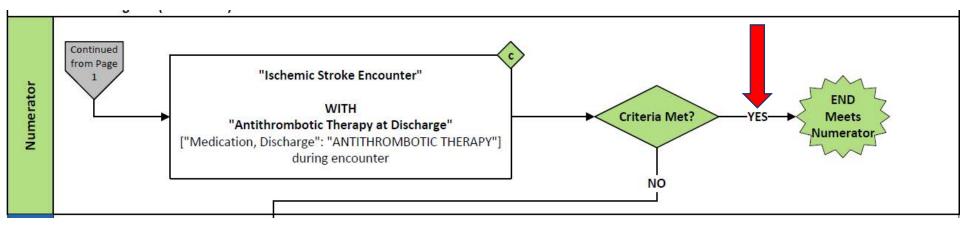




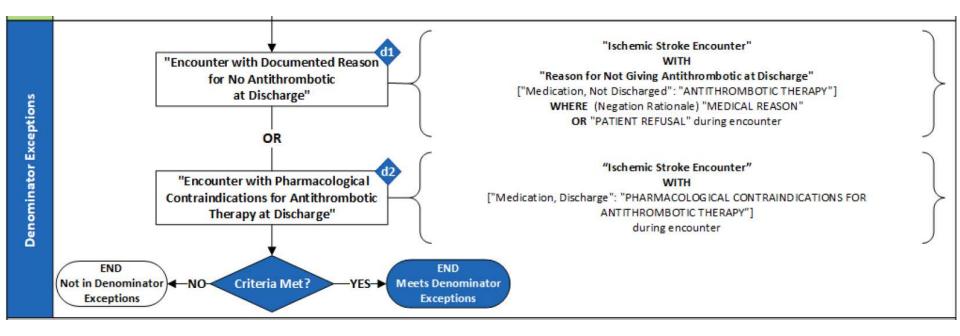
Measure Flow Diagram – STK-2



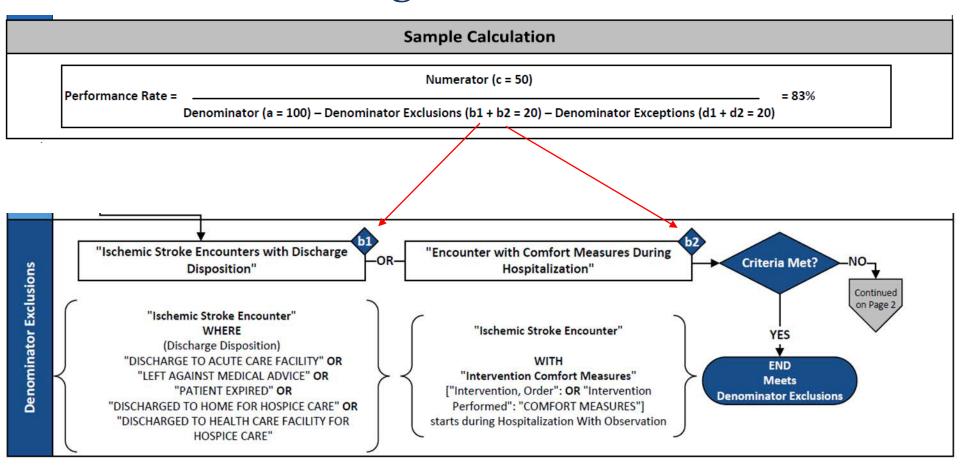














2023 eCQM Flow - CMS104v11: Discharged on Antithrombotic Therapy (STK-02)*

*This flow diagram represents an overview of population criteria requirements. Please refer to the eCQM measure specification for a complete list of definitions, direct reference codes, data or timing elements included in this measure and required for submission.

Measure Flow Narrative

The measure flow diagram on the preceding pages illustrates the steps to determine the population criteria for this measure.

Measure	This measure assesses ischemic stroke patients prescribed or continuing to take antithrombotic therapy at hospital discharge
Initial Population	Start by identifying the initial population criteria as inpatient hospitalizations with all of the following: patients age 18 and older discharged from inpatient care (non-elective admissions) a principal diagnosis of ischemic or hemorrhagic stroke a length of stay less than or equal to 120 days that ends during the measurement period
Denominator	The denominator criteria further constrains the initial population by inpatient hospitalizations for patients with a principal diagnosis of ischemic stroke
Denominator Exclusions	The denominator exclusions criteria are used to identify a subset of the denominator population by excluding inpatient hospitalizations for patients with any of the following: • admitted for elective carotid intervention (implicitly modeled by inclusion of only non-elective hospitalizations) • a documented discharge disposition of: • discharged to another hospital; or • left against medical advice; or • expired; or • discharged to either a health care facility or home, for hospice care • have comfort measures documented



2023 eCQM Flow - CMS104v11: Discharged on Antithrombotic Therapy (STK-02)*

*This flow diagram represents an overview of population criteria requirements. Please refer to the eCQM measure specification for a complete list of definitions, direct reference codes, data or timing elements included in this measure and required for submission.

Measure Flow Narrative (Continued)

The measure flow diagram on the preceding pages illustrates the steps to determine the population criteria for this measure.

Numerator

The numerator criteria identify a subset of the denominator population (that did not meet the denominator exclusions criteria) by including inpatient hospitalizations for patients prescribed or continuing to take antithrombotic therapy at hospital discharge

Denominator Exceptions

The denominator exceptions criteria identify a subset of the denominator population (that did not meet the denominator exclusions criteria or numerator criteria) by excluding inpatient hospitalizations for patients who have either:

- a documented reason for not prescribing antithrombotic therapy at discharge (either a qualifying medical reason or patient refusal)
- pharmacological contraindications for antithrombotic therapy (i.e., given Prasugrel) at discharge



Numerator – STK-2

Discharged on Antithrombotic Therapy

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Antithrombotic Therapy at Discharge"

DischargeAntithrombotic

such that DischargeAntithrombotic.authorDatetime during IschemicStrokeEncounter.relevantPeriod

"Antithrombotic Therapy at Discharge"

["Medication, Discharge": "Antithrombotic Therapy"]



Denominator Exceptions – STK-2

"Encounter with No Antithrombotic At Discharge"

union

"Encounter with Pharmacological Contraindications for Antithrombotic Therapy at Discharge"



" Encounter with No Antithrombotic At Discharge"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Reason for Not Giving Antithrombotic at Discharge"
NoDischargeAntithrombotic
such that
during IschemicStrokeEncounter.relevantPeriod

"Reason for Not Giving Antithrombotic at Discharge"

["Medication, Not Discharged": "Antithrombotic Therapy"]
NoAntithromboticDischarge

where NoAntithromboticDischarge.negationRationale in "Medical Reason" or NoAntithromboticDischarge.negationRationale in "Patient Refusal"



"Encounter with Pharmacological Contraindications for Antithrombotic Therapy at Discharge"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with ["Medication, Discharge":

"Pharmacological Contraindications For Antithrombotic Therapy]

Pharmacological

such that Pharmacological.authorDatetime during IschemicStrokeEncounter.relevantPeriod



Frequently Asked Questions (FAQs) for STK-2





Question: STK-2

The discharge summary and discharge medication list include one aspirin 81 mg chewable tablet to be taken for 2 days after discharge, followed by apixaban 5 mg tablet twice daily starting on day 3 post discharge. Will this meet "Antithrombotic Therapy at Discharge", since aspirin was prescribed for only two days?

Answer: Aspirin prescribed at discharge for 2 days will meet STK-2. Aspirin is in the "Antithrombotic Therapy" value set. As long as it is prescribed as a discharge medication and authored during the ischemic stroke encounter, it will be included in the Numerator.



Denominator – STK-3

Anticoagulation Therapy for Atrial Fibrillation/Flutter

"Encounter with Atrial Ablation Procedure"

union

"Encounter with a History of Atrial Fibrillation or Flutter"

union

"Encounter with Current Diagnosis Code of Atrial Fibrillation or Flutter"



Denominator – STK-3 (continued)

"Encounter with Atrial Ablation Procedure"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with ["Procedure, Performed": "Atrial Ablation"] AtrialAblation such that Global."NormalizeInterval" (AtrialAblation.relevantDatetime, AtrialAblation.relevantPeriod) starts before start of IschemicStrokeEncounter.relevantPeriod



Denominator – STK-3 (continued)

"Encounter with a History of Atrial Fibrillaton or Flutter"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with ["Diagnosis": "Atrial Fibrillation/Flutter"] AtrialFibrillationFlutter such that AtrialFibrillationFlutter.prevalencePeriod starts on or before end of IschemicStrokeEncounter.relevantPeriod

"Encounter with Current Diagnosis Code of Atrial Fibrillation or Flutter"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter Where exists (IschemicStrokeEncounter.diagnoses Diagnosis where (Diagnosis.code in "Atrial Fibrillation/Flutter")



Numerator – STK-3

"Denominator" Encounter

with "Anticoagulant Therapy at Discharge" DischargeAnticoagulant such that DischargeAnticoagulant.authorDatetime during Encounter.relevantPeriod

*Anticoagulant Therapy at Discharge"

["Medication, Discharge": "Anticoagulant Therapy"]



Denominator Exceptions – STK-3

"Denominator" Encounter
with "Reason for Not Giving Anticoagulant at Discharge"
NoDischargeAnticoagulant
such that NoDischargeAnticoagulant.authorDatetime
during Encounter.relevantPeriod

"Reason for Not Giving Anticoagulant at Discharge"

["Medication, Not Discharged": "Anticoagulant Therapy"]
NoAnticoagulant

where NoAnticoagulant.negationRationale in "Medical Reason" or NoAnticoagulant.negationRationale in "Patient Refusal"



Frequently Asked Questions (FAQs) for STK-3





Question: STK 3

If there is conflicting documentation of atrial fibrillation/flutter in the medical record, will it require the patient to be discharged on anticoagulation? For example, a patient had a history of atrial fibrillation documented by two providers, but the neurologist documented the patient did not have atrial fibrillation.

Answer: If there is any physician/APN/PA documentation of a diagnosis or a history of ANY atrial fibrillation/flutter in the record, then anticoagulation therapy should be prescribed at discharge to include the case in the numerator. If anticoagulation therapy was not prescribed for the patient at discharge, the case may be excluded if there is a reason for not prescribing anticoagulation therapy at discharge.



Numerator – STK-6

Discharged on Statin Medication

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Statin at Discharge" DischargeStatin such that DischargeStatin.authorDatetime during IschemicStrokeEncounter.relevantPeriod

- "Statin at Discharge"

["Medication, Discharge": "Statin Grouper"]



Denominator Exceptions – STK-6

Denominator Exceptions

(TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Reason for Not Giving Statin at Discharge"
NoDischargeStatin
such that NoDischargeStatin.authorDatetime
during IschemicStrokeEncounter.relevantPeriod)

union

(TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Statin Allergy" StatinAllergy such that StatinAllergy.prevalencePeriod starts on or before end of IschemicStrokeEncounter.relevantPeriod) union

"Encounter with Max LDL less than 70 mg per dL"



(TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Reason for Not Giving Statin at Discharge"

NoDischargeStatin such that NoDischargeStatin.authorDatetime during IschemicStrokeEncounter.relevantPeriod)

"Reason for Not Giving Statin at Discharge"

["Medication, Not Discharged": "Statin Grouper"] NoStatinDischarge where NoStatinDischarge.negationRationale in "Medical Reason" or NoStatinDischarge.negationRationale in "Patient Refusal"



(TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Statin Allergy" StatinAllergy such that StatinAllergy.prevalencePeriod starts on or before end of IschemicStrokeEncounter.relevantPeriod)

"Statin Allergy"

["Allergy/Intolerance": "Statin Allergen"]



"Encounter with Max LDL less than 70 mg per dL"

```
TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
where Max
    (["Laboratory Test, Performed": "LDL-c"] Ldl
where Ldl.resultDatetime
    during Interval [TJC."TruncateTime"
    (start of IschemicStrokeEncounter.relevantPeriod - 30 days),
    end of IschemicStrokeEncounter.relevantPeriod]
return Ldl.result as Quantity) < 70 'mg/dL'
```



Frequently Asked Questions (FAQs) for STK-6





Question: STK-6

The MD documents "lipid profile LDL 76 almost at goal, recommended for regular exercise and low cholesterol diet". Is this an acceptable Reason for Not Prescribing Statin Medication at Discharge?

Answer:

This is not an acceptable reason. There are 3 denominator exceptions for STK-6:

- 1. Statin allergy
- 2. Maximum LDL-c < 70 mg per dL
- 3. Documented (and appropriately mapped) medical reason for not prescribing statin on discharge or patient refusal.

Item #2 is not met due to the LDL-c of 76 (not < 70).

Item #3 would require that one of the choices in the Medical Reason value set are documented on the chart, authored during the encounter and mapped appropriately. Examples from the value set include "not indicated", "not needed".



Denominator Exclusions – STK-5

Antithrombotic Therapy By End of Hospital Day 2

Denominator Exclusions

"Encounter Less Than Two Days"

union

"Encounter with Comfort Measures during Day of or Day After Arrival"

union

"Encounter with Thrombolytic Therapy Given Prior To Arrival Or During Hospitalization"



"Encounter Less Than Two Days"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter where Global."HospitalizationWithObservationLengthofStay" (IschemicStrokeEncounter) < 2



"Encounter with Comfort Measures during Day of or Day After Arrival"

```
TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
   with TJC. "Intervention Comfort Measures" Comfort Measures
   such that Coalesce(start of Global."NormalizeInterval"(
                                     ComfortMeasures.relevantDatetime,
                                     ComfortMeasures.relevantPeriod),
                                     ComfortMeasures.authorDatetime)
   during day\of TJC."CalendarDayOfOrDayAfter"
       (start of Global."HospitalizationWithObservation"
      (IschemicStrokeEncounter))
                   TJC."Intervention Comfort Measures"
                   ["Intervention, Order": "Comfort Measures"]
                    union ["Intervention, Performed": "Comfort Measures"]
```



"Encounter with Thrombolytic Therapy Given Prior To Arrival Or During Hospitalization"

- "Encounter with Thrombolytic Therapy Medication or Procedures" union
- "Encounter with Thrombolytic Therapy Prior to Arrival" union
- "Encounter with Thrombolytic Therapy Documented As Already Given"



"Encounter with Thrombolytic Therapy Medication or Procedures

```
TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy
such that Global."NormalizeInterval"(ThrombolyticTherapy.relevantDatetime,
ThrombolyticTherapy.relevantPeriod)
starts during Interval [start of Global."HospitalizationWithObservation"
(IschemicStrokeEncounter) - 24 hours,
end of Global."HospitalizationWithObservation"(IschemicStrokeEncounter))
```

"Thrombolytic Therapy Medication or Procedures"

["Medication, Administered": "Thrombolytic (t-PA) Therapy"] union

["Procedure, Performed": "Intravenous or Intra-arterial Thrombolytic (t-PA) Therapy"]



"Encounter with Thrombolytic Therapy Prior to Arrival"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter where exists IschemicStrokeEncounter.diagnoses Diagnosis where Diagnosis.code in

"Intravenous or Intra arterial Thrombolytic (tPA) Therapy Prior to Arrival"



"Encounter with Thrombolytic Therapy Documented As Already Given"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with [Diagnosis: "Intravenous or Intra arterial Thrombolytic (tPA)
Therapy Prior to Arrival"] PriorTPA
such that PriorTPA.authorDatetime during
Global."HospitalizationWithObservation"
(IschemicStrokeEncounter)



Numerator – STK-5

"Encounter with Antithrombotic Therapy"

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with ["Medication, Administered": "Antithrombotic Therapy"]

Antithrombotic

```
such that Global."NormalizeInterval"

(Antithrombotic.relevantDatetime,
Antithrombotic.relevantPeriod)

starts during day of TJC."CalendarDayOfOrDayAfter"

(start of Global."HospitalizationWithObservation"

(IschemicStrokeEncounter))
```



Denominator Exceptions – STK-5

"No Antithrombotic Ordered or Administered Day Of or Day After Hospital Arrival"

union

"Encounter with Pharmacological Contraindications for Antithrombotic Therapy Given Day Of or Day After Hospital Arrival"

Union

"Encounter with An INR Greater Than 3.5"



"No Antithrombotic Ordered or Administered Day Of or Day After Hospital Arrival"

```
TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered or Administered" NoAntithrombotic such that NoAntithrombotic.authorDatetime during day of TJC."CalendarDayOfOrDayAfter" ( start of Global."HospitalizationWithObservation" ( IschemicStrokeEncounter ) )
```

"No Antithrombotic Ordered or Administered"

"Reason for Not Ordering Antithrombotic"

union "Reason for Not Administering Antithrombotic"



"Reason for Not Ordering Antithrombotic"

["Medication, Not Ordered": "Antithrombotic Therapy"]

NoAntithromboticOrder

where NoAntithromboticOrder.negationRationale in "Medical Reason"

or NoAntithromboticOrder.negationRationale in "Patient Refusal"

"Reason for Not Administering Antithrombotic"

["Medication, Not Administered": "Antithrombotic Therapy"]

NoAntithromboticGiven

where NoAntithromboticGiven.negationRationale in "Medical Reason"

or NoAntithromboticGiven.negationRationale in "Patient Refusal"



Denominator Exceptions – STK-5 (continued)

"Encounter with Pharmacological Contraindications for Antithrombotic Therapy Given Day Of or Day After Hospital Arrival"



Denominator Exceptions – STK-5 (continued)

"Encounter with An INR Greater Than 3.5"

```
TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter
with ["Laboratory Test, Performed": "INR"] INR
such that INR.resultDatetime during
day of TJC."CalendarDayOfOrDayAfter"
(start of Global."HospitalizationWithObservation"
(IschemicStrokeEncounter))
and INR.result > 3.5
```



Frequently Asked Questions (FAQs) for STK-5





Question: STK-5

Therapeutic enoxaparin was administered on the day after hospital arrival. Will a therapeutic dose of enoxaparin on Day 2 meet Antithrombotic Therapy Administered By End of Hospital Day 2?

Answer:

Enoxaparin is in the "Antithrombotic Therapy" value set and the code can be mapped to one of the RxNorm codes there. Also, the timing must meet the requirement of the day of or day after the start of the hospitalization. So, enoxaparin will meet STK-5 measure requirements.

However, enoxaparin at lower dosages used for VTE prophylaxis are not sufficient for early antithrombotic therapy. Stroke patients should receive BOTH antithrombotic therapy (usually aspirin) and VTE prophylaxis (usually enoxaparin 40 mg SQ).



Additional Resources

eCQI Resource Center - EH Measures:

https://ecqi.healthit.gov/eligible-hospital/critical-access-hospital-ecqms

Teach Me Clinical Quality Language (CQL) Video Series

https://ecqi.healthit.gov/cql?qt-tabs_cql=2

- Coalesce
- Normalize Interval
- Time Zone Considerations
- Latest, LatestOf, Earliest, EarliestOf, HasStart, HasEnd

Pioneers In Quality

https://www.jointcommission.org/measurement/pioneers-in-quality/

Expert to Expert

https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/expert-to-expert-webinars/

ONC Issue Tracking System

https://oncprojectracking.healthit.gov/

Previous Webinars

https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/



Live Q&A Segment



- Please submit questions via the question pane
- Click the Question mark icon in the audience toolbar
- A panel will open for you to type and submit your question
- Include slide reference number when possible
- All questions not answered verbally during the live event will be addressed in a written follow-up Q&A document
- The follow-up document will be posted to the Joint Commission website several weeks after the live event



Webinar recording

All Expert to Expert webinar recording links, slides, transcripts, and Q&A documents can be accessed within several weeks of the live event on the Joint Commission's webpage via this link:

https://www.jointcommission.org/me asurement/quality-measurementwebinars-and-videos/expert-toexpert-webinars/



Expert to Expert Webinars

The Joint Commission's Expert to Expert (EtoE) Webinar Series provides a deep-dive into measure intent, logic, and other clinical/technical aspects of electronic clinical quality measures (eCQMs) to assist hospitals and health systems in their efforts to improve eCQM data use for quality improvement. This series incorporates expertise from Joint Commission and other key stakeholders.

Notes: After clicking the link to view a recording, you will be taken to the event landing page and will be required to enter registration fields before the recording begins.

Clicking the links for the follow-up documents may automatically download the PDF rather than open a new internet browser window.

Expert to Expert Status	ΘX	Results 1-8 of 8 in 0.07 seconds	
EtoE Current	7		
EtoE Past	1	RESOURCE	



Coming Soon – Expert to Expert Webinars

began with an On Demand Webinar released in August on Joint Commission's PC-01 and PC-06 eCQMs and will continue until Jan 2023. The series incorporates expertise from The Joint Commission, Centers for Medicare & Medicaid Services, Mathematica, and other measure stewards to address the 2023 eCQM Annual Updates for: STK, VTE, PC, ED, Safe Opioid Use, and Hyper- and Hypo-Glycemia measures.

Information will be available at this link as each webinar is offered:
 https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/



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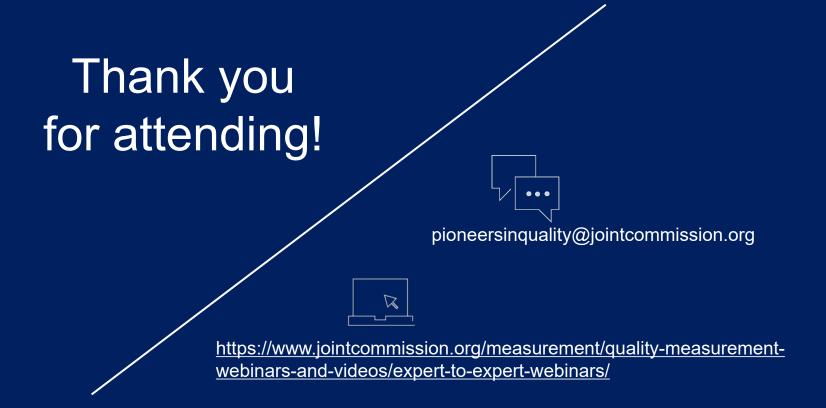
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Questions and Answers

Expert to Expert Series: 2023 Annual Update Webinar for Stroke (STK) eCQMs

Broadcast October 25, 2022

Question #	Question Asked	Answer Given
1	STK-3 Anticoagulation Therapy for Atrial Fibrillation/ Flutter: Does history of an ablation count as a reason for not prescribing anticoagulant?	No, history of an ablation does not count as a reason for not prescribing an anticoagulant. Even with patients that have ablation procedures, it is not uncommon for Atrial fibrillation to return.
2	STK-3 Anticoagulation Therapy for Atrial Fibrillation/Flutter: Some patients have a distant history of an episode of atrial fibrillation without recurrence. Can this be made an exception?	Distant history of atrial fibrillation without reoccurrence is not an appropriate exception for STK-3. There is no time limit on the atrial fibrillation/flutter diagnosis in STK-3. Clinically speaking, once patients have Afib/flutter they are always at risk. The nature of the arrhythmia is that it comes and goes, i.e., "paroxysmal". It can also be persistent/permanent. We do not know if patients are at greater risk for short runs of atrial fib (i.e.<30 sec) or longer.
3	CSTK-01 National Institutes of Health Stroke Scale (NIHSS Score Performed for Ischemic Stroke Patients): If it's an inpatient stroke, and NIHSS was done shortly after the stroke, why does it still fail CSTK-01?	CSTK-01 does not use the time of clinical diagnosis / stroke diagnosis to calculate the measure rate. Patients assigned an ICD-10-CM Principal Diagnosis Code for ischemic stroke are included in the measure. The clock starts with the patients Arrival Time at the hospital.
4	What is the current reporting time period for eCQMs?	The current reporting period is patients discharged during 2022. The information provided during this webinar is for the 2023 reporting period (patients discharged during 2023).
5	When will these electronic measures be publicly reported?	CMS has indicated that eCQM data for CY 2021and beyond will be publicly reported in the Provider Data Catalog beginning in January 2023.
6	Is there a crosswalk to match CMS measure name to certifying body measures such as TJC measures?	Joint Commission posts a document that shows measure lists for TJC requirements and indicates if the measure is also used by CMS. The 2023: ORYX Performance Measurement Reporting Requirements document is available at https://www.jointcommission.org/-/media/tjc/documents/measurement/oryx/2023-oryx-reporting_requirements.pdf

Question #	Question Asked	Answer Given
7	Will TJC look at late diagnosis strokes and how we can better represent that population in our data?	The Stroke measures include encounters with ICD-10-CM principal diagnosis code of ischemic stroke. Principal diagnosis is the reason for the patient's admission to the hospital. There is no denominator exclusion or exception for in-house strokes since in-house stroke most likely will not be the principal diagnosis.
8	Please explain eCQM measures vs. all The Joint Commission (TJC) STK measures (why are only some eCQMs)?	STK eCQMs are used by the CMS Inpatient Quality Reporting and Joint Commission Hospital Accreditation programs. At this time, four stroke eCQMs (STK-2, STK-3, STK-5, and STK-6) are measure options available for use in both programs. STK-4, STK-8 and STK-10 eCQMs were less frequently selected for reporting purposes and have been removed from both programs.
9	Do ischemic stroke with cardioembolic etiology require statin? Some of our physicians state research does not support statin benefits for embolic CVA. For example A-fib leading to CVA or VTE w/ PFO leading to CVA.	Statin therapy is recommended for all ischemic stroke patients based on current AHA/ASA guideline recommendations. If a statin medication is not indicated for a patient, then a medical reason for not prescribing statin therapy must be documented.
10	Platel is a platelet aggregation inhibitor. Is this being considered for anti-thrombotic therapy?	Platel is not being considered for addition to the Antithrombotic Therapy value set. Platel is not a medication recommended for long-term ischemic stroke prevention.
11	Is there consideration for hemorrhagic conversions to be excluded from antithrombotic therapy at discharge or anticoagulants at discharge? These are often not allowed to restart these meds for several weeks, if at all. Cases would be CODED with a hemorrhagic code, but it will not be primary, the ischemic stroke will be primary.	Hemorrhagic conversions are ischemic strokes with an ischemic stroke ICD-10-CM Principal Diagnosis Code assignment. As such, these cases are included in the antithrombotic/anticoagulant measures. Hemorrhage is a possible complication of reperfusion therapy/treatment for the acute ischemic stroke. If hemorrhagic stroke is assigned as the ICD-10-CM Principal Diagnosis Code, then patient would not be in the denominator that looks for a principal diagnosis of ischemic stroke. Otherwise, a medical reason or patient refusal of antithrombotic/anticoagulant therapy is needed to exclude the case.

Question #	Question Asked	Answer Given
12	How do we learn where the data is taken from in our charts? The mapping? Our ecqm results for stroke is lower than the chart abstracted.	The Quality Data Model guide (https://ecqi.healthit.gov/sites/default/files/QDM-v5.6-508.pdf) defines the QDM datatypes (e.g. "Encounter, Performed", "Medication, Administered") and these datatypes are used in the measure logic (please refer to the html humanReadable for the measure in question). From there it would be good to find examples of encounters that fail the measure that you expect to pass. Then ask your Vendor or IT person to verify that the data you think is mapped from your EHR to the datatype in the measure logic is correct. If it is, then you should submit a ticket with the QRDA issue tracker (https://oncprojectracking.healthit.gov/support/projects/QRDA) for an explanation of why the encounter did not give the expected result.
13	How does the time zone affect the stroke measures?	Time zones can be assigned an offset. An offset is the difference in hours and minutes between a particular time zone and the coordinated universal time (UTC). Time zones come in to play when considering the comparison of datetime elements with hours, minutes, seconds, or milliseconds attached to them. However, time zone offsets are not applied when comparisons are done at the date level. Datetime values are raised to the date level (i.e. time is ignored, and time zone is not applied) when 'date from' or 'day of' is used in the measure logic. Please watch a brief 6 minute video entitled Video #2: Time Zone Considerations for more details. The video can be found at: https://www.youtube.com/watch?v=KqeO7Fubc7s&ab_channel=CMSHHSgov
14	If a pt starts in observation on day of admit; then changes to inpatient the next day, does the observation status count as hospital day #1?	Yes. If a patient is in observation on the day of admit and then changes to inpatient status the next day, the day in observation is considered hospital day #1.
15	Can medication total dose per day be calculated now by eCQM? For example, the provider ordered lovenox 40 mg BID (technically 80 mg per day). Would this be a pass now?	No. The Stroke measures do not calculate medication total dose per day.

Question #	Question Asked	Answer Given
16	It would be very helpful to have a webinar that gives examples of how value sets are pulled from the EMR that meet the measures.	We appreciate this idea and would like to solicit more details about what would be most useful in this value set webinar. In the meantime, the complete list of value sets and codes can be downloaded for each year from site https://ecqi.healthit.gov/eh-cah?qt-tabs_eh=1 , tab "eCQM Resources" and link "eCQM and Hybrid Measure Value Sets".
17	We have had issues with medication route of D-tube when it comes to capturing the stroke medications on depart. We use Cerner as a vendor. JIRA stated that it is acceptable to use D-tube as an alternative to a PO route because the medication is being delivered the same way, just not being swallowed. Do you know of an easy fix for this for Cerner-using hospitals?	The stroke measures do not check the route of medication. We agreed that administering through a tube still meets intent because an oral tab would still be used for administration. Your Cerner vendor should be able to submit a question to CMS regarding any obstacles to this mapping.
18	Is there any plan to change the day 1 or day 2, to 24 hours or 48 hours from admit. Fallouts occur when a patient arrives at 2359 or slightly earlier and then VTE or antithrombotic by end of day 2 do not occur because actual admit has not occurred until after midnight.	There is no plan to change from day 1 or 2 to 24 or 48 hours. The STK-5 measure uses the day of or day after hospital admission. The clinical practice guideline states that aspirin should be administered within 24-48 hours of stroke onset. The eCQM uses the two-day time frame (day of or day after hospital arrival) to align with the chart-abstracted measure. With a manual abstraction, it is less burdensome to count days rather than hour and minutes.
19	Where can I find more info on medical reason for exclusion as far as" authored" and "mapping". I am new to the eCQMs	The author dateTime must occur during the inpatient encounter. To see a list of the "Medical Reason" value set (oid: 2.16.840.1.113883.3.117.1.7.1.473) codes, you can either look directly on VSAC, or download an excel spreadsheet of all of the value sets from site https://ecqi.healthit.gov/eh-cah?qt-tabs_eh=1 , tab "eCQM Resources" and link "eCQM and Hybrid Measure Value Sets". Then you can filter on "Medical Reason" for value set name and just see those codes.

Question #	Question Asked	Answer Given
20	STK-3 Anticoagulation Therapy for Atrial Fibrillation/Flutter If the patient has a stroke while inhouse are they still in the denominator population? For instance, if the pt is originally admitted for respiratory distress, had left sided weakness on day 2, MRI performed and showed "Acute ischemic MCA embolic infarct centered within the right posterior temporal lobe with petechial hemorrhagic conversion", would this fall under ischemic or hemorrhagic stroke?	STK-3 is not intended to capture strokes that occur during the inpatient stay. In the initial population logic, we use principal diagnosis of stroke which is defined in the QDM guide as "the coded diagnosis/problem established after study to be chiefly responsible for the admission of the patient to the hospital for care."
21	STK-2 Discharged on Antithrombotic Therapy STK-3 Anticoagulation Therapy for Atrial Fibrillation/Flutter STK-6 Discharged on Statin Medication STK-5 Antithrombotic Therapy By End of Hospital Day 2 Please explain the comfort measure exclusion.	Comfort Measures value set include concepts that identify an intervention for comfort measures, terminal care, dying care and hospice care. It excludes concepts that identify palliative care. Palliative care is support and symptom management and is not considered end of life care. As long as comfort measures are ordered or comfort measures are initiated in the appropriate timing the patient will meet the denominator exclusion for the stroke measures. The comfort measure timing for STK-2, STK-3, and STK-6 is anytime during the hospitalization. STK-5, however, looks for comfort measure timing of the day of or day after the start of hospitalization.

Question #	Question Asked	Answer Given
22	For STK-2, STK-3 and STK-6, can discharge medications be authored before the Inpatient Encounter? For example, sometimes the prescriptions are written during the observation (OBS) period and just need to be transmitted. These cases fail because the prescription was written in the OBS period. Is there any plan to include medications that are written in the OBS period (the scripts are transmitted during the inpatient period)?	If the medications are on the discharge medication list, and the discharge medication list was authored during the inpatient encounter, then the patients will meet the numerator. Anything written in the OBS or ED period would not necessarily be on the final list of discharge medications. Most patients with stroke diagnosis have average LOS 3-4 days. Medications written preadmission (during OBS) may not be indicated after discharge from the hospital.
23	"Thrombolytic Therapy Medication or Procedures" slide 66 mentions "Thrombolytic (t-PA) Therapy. What if the pt received Tenecteplase (TNK)?	Tenecteplase is a reasonable alternative for IV alteplase and is included in the Thrombolytic (t-PA) Therapy value set.
24	Can patient refusal be documented by a nurse for eCQM capturing or does the refusal documentation need to be from a physician, PA or advanced practice nurse?	Yes, nurses may document patient refusal of a medication.
25	Where can I found measure flow diagrams for VTE-1 and VTE-2?	Measure flow diagrams for VTE-1 and VTE-2 can be found on the eCQI Resource Center website: https://ecqi.healthit.gov/eh-cah?qt-tabs-eh=0&globalyearfilter=2023 .
26	How do we exclude patients who come in for ALOC which is more likely related to Sepsis, Renal Failure or other and Stroke is not detected/diagnosed until day 4 or 5 when other symptoms trigger an MRI?	The STK eCQMs are not intended to capture strokes that occur during the inpatient stay. In the initial population logic, we use principal diagnosis which as defined in the QDM guide is "the coded diagnosis/problem established after study to be chiefly responsible for the admission of the patient to the hospital for care.

Question #	Question Asked	Answer Given
27	For anticoagulation therapy for atrial fibrillation STK 3 measure, is there any information regarding a patient having a watchman procedure and that support the patient not receiving anticoagulants and being a reason to not prescribing anticoagulant at discharge and be in the denominator exception? Not sure if this is the proper place to ask, but wanted to see if there was any information.	Patients with a history of or current finding/diagnosis of atrial fibrillation/flutter (AF/F) are included in the measure. Some patients with AF/F may be eligible for a left atrial appendage (LAA) closure device or procedure to decrease the risk of developing cardiac emboli; however, anticoagulation therapy may be indicated prior to and after such procedures for select patients. Therefore, patients who undergo these procedures are not excluded from the measure, unless the procedure is linked with negation rationale for the patient refusal or medical reason value sets.
28	Is the atrial fibrillation diagnosis captured by ICD-10 code only or narrative?	The atrial fibrillation diagnosis is captured by ICD-10-CM or SNOMEDCT codes found in value set "Atrial Fibrillation/Flutter".
29	If the ablation occurs after the stroke diagnosis does that count as an atrial fibrillation intervention in place of anticoagulants?	Atrial ablation before the stroke encounter will qualify it for the STK-3 denominator. But it does not count as an atrial fibrillation intervention in place of anticoagulants. If "Anticoagulant Therapy" medication is not indicated for a patient, then a medical reason for not prescribing anticoagulant therapy must be documented.
30	Do you know if the specifications are going to match the CQL for eSTK-3 when it comes to h/o ablation? When I logged a JIRA ticket at the beginning of the year, they said they would consider it, and also adding a SNOMED code of h/o ablation procedure. Have you heard anything on this? Thanks!	This issue is being considered as an update to be made to the measure for the 2024 reporting year. These are situation codes and we need to determine if a mapping currently exists for them in the Quality Data Model (QDM). To determine history of ablation, the STK-3 logic currently looks for "Atrial Ablation" procedures that start before the start of the ischemic stroke encounter.
31	For STK-3, patients who have documented atrial fibrillation but have had numerous falls and are therefore not appropriate for anti-coagulants, are these patients excluded?	The "Medical Reason" value set provides a range of acceptable reasons for not prescribing a medication at discharge. Sites are able to map the discrete fields in their EMR that are most representative of the clinical concepts to this value set.

Question #	Question Asked	Answer Given
32	For STK-3, if Afib/Flutter had not been diagnosed during this encounter, and the patient states they had been diagnosed in the past at another hospital, they are coded with Z86.79 for Afib/Flutter. These patients are falling out of the numerator because Z codes are not included in the Value Sets. Why are the Z codes excluded from the VTE Value Set?	The history code of Z86.79 for Afib/Flutter (personal history of other diseases of the circulatory system) is not included in the value set of Atrial Fibrillation/Flutter because this code is too broad to represent concepts of disorders for atrial fibrillation/ flutter only.
33	Will The Joint Commission switch to the 4.5 Hour timeframe for IV thrombolytic (STK4)?	Please note STK-4 is not an eCQM and was not covered during this webinar. However, The Joint Commission does not plan to change the time frame for the chart-abstracted STK-4 Thrombolytic Therapy from 3 hours to 4.5 hours. Although IV tPA may be administered safely if initiated up to 4.5 hours after Time Last Know Well, time is brain and earlier initiation of IV tPA is recommended.
34	Is there any discussion about including thrombectomy procedures in the reason for delay to antithrombotic for STK 5. Like it looks for tPA being given.	Mechanical thrombectomy is not a contraindication to antithrombotic therapy by end of hospital day 2. Therefore, mechanical thrombectomy on its own will not exclude the case. If IV or IA t-PA is given prior to performing a mechanical thrombectomy, then the case is excluded.
35	Just verifying, although lower doses are not sufficient therapy, Enoxaparin given at any dose by end of day 2 would meet the eCQM STK-5 measure, correct? (slide 76)	This is correct. Enoxaparin is in the "Antithrombotic Therapy" value set and the code can be mapped to one of the RxNorm codes there. However, enoxaparin at lower dosages used for VTE prophylaxis are not sufficient for early antithrombotic therapy. Stroke patients should receive BOTH antithrombotic therapy (usually aspirin) and VTE prophylaxis (usually enoxaparin 40 mg SQ).
36	STK-5: I have gotten feedback that when a patient gets TPA we fall out if the antithrombotic was not given by day 2. please clarify.	Thrombolytic Therapy (tPA) administration is a denominator exclusion for STK-5 if administered within 24 hours prior to arrival or anytime during hospitalization.

Question #	Question Asked	Answer Given
37	Have you heard if the specifications CQL will be matched for STK-6 as it pertains to "transfer to another hospital" vs "transfer to an acute care facility"? There is a mismatch, it was also going to be considered per JIRA.	There has been no change in the specification for STK-6 related to the wording of the denominator exclusion "inpatient hospitalizations for patients discharged to another hospital". This logic uses the value set "Discharge to Acute Care Facility" which includes concepts that represent an encounter with discharge to a short-term acute care hospital, including a specialty hospital. This includes community hospital, tertiary referral hospital and acute care hospital.
38	STK Vol-1: If our Primary Stroke Center does not perform thrombectomies, do we select "0 cases attestation"? Or put 0 for numerator and volume for denominator.	STK-VOL-1 is not an eCQM or a measure that is addressed in today's presentation. STK-VOL-1 is a new performance measure requirement for Joint Commission Primary Stroke Centers. Questions about STK-VOL-1 should be submitted to the Performance Measure Q&A Network at: https://manual.jointcommission.org .
39	Updated Spec manual for 2022 indicates enoxaparin 40mg Q day is not sufficient for VTE prophylaxis	You are correct, enoxaparin 40 mg SUB Q daily is used for VTE prophylaxis dose but is not sufficient for STK-5 Antithrombotic Therapy by end of day 2.
40	Can you please go back to the first slide with the listing of resource web sites?	All Expert to Expert webinar recording links, slides, transcripts, and Q&A documents can be accessed within several weeks of the live event on the Joint Commission's webpage this link: https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/ . After you download the slides, all links are active.
41	Is there a way to download all the questions and answers?	For any questions left unanswered during the webinar broadcast, we'll compile and release a written Q&A document. You can find this document on this webinar landing page: EtoE webinars: https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/expert-to-expert-webinars/
42	Is this webinar being recorded?	Yes, this webinar is being recorded. All Expert to Expert webinar recording links, slides, transcripts, and Q&A documents can be accessed within several weeks of the live event on the Joint Commission's webpage this link: https://www.jointcommission.org/measurement/pioneers-in-quality/pioneers-in-quality-expert-to-expert-series/



Joint Commission Pioneers in Quality Expert to Expert Series: Annual Updates: STK-2, STK-3, STK-5, STK-6 eCQMs October 25, 2022

00:00

Welcome everyone and thank you for joining us today for this webinar Pioneers in Quality, Expert to Expert Series 2023 Annual Updates for Stroke-2, -3, -5 and -6 eCQMs.

00:16

Before we start, just a few comments about today's webinar platform. Audio is by Voice Over Internet Protocol only. Use the button that reads "Listen in", click for audio, then use your computer speakers or headphones to listen. There are no dial in lines. Participants are connected in listen-only mode. Feedback or dropped audio are common for live streaming events. Refresh your screen or rejoin the event if this occurs. We will not be recognizing the Raise a Hand or Chat features for today's session. To ask a question, click on the Question Mark icon in the Audience Toolbar. A panel will open for you to type your question and submit. We would like to welcome you to our webinar.

01:01

Before we get started, though, we do want to explain that this webinar is fairly technical in nature and requires a baseline understanding of eCQMs. Participant feedback from previous webinars indicated that the content may have been too technical for individuals that are new to eCQMs. If you are new to to eCQMs, this content might be too technically advanced for your comprehension. We recommend that those new to eCQMs visit the eCQI Resource Center at the hyperlink listed on this slide. You will find a collection of resources to help you get started with eCQMs.

01:39

The slides are available now and can be found within the viewer toolbar. To access the slides, click on an icon that looks like a document, select the file name, and the document will open in a new window. You can print or download and save the slides. Slides will also be available several weeks after the session at the link denoted on this slide.

02:03

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2:30

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An automated e-mail will also be sent from the survey platform after you complete the survey that includes the link to access the PDF Certificate. For more information on The Joint Commission's Continuing Education policies, visit the link at the bottom of this slide.

3:17

The learning set objectives for this session are:

- Navigate to the eCQI Resource Center for measure specifications, value sets, measure flow diagrams, and technical release notes
- Apply concepts learned about the logic and intent for the STK -2, -3, -5, and -6 eCQMs.
- Prepared to implement the STK-2, -3, -5 and -6 eCQMs for the 2023 eCQM reporting period and
- Identify common issues and questions regarding the stroke eCQMs.

03:48

This webinar does not address these topics basic eCQM concepts, topics related to chart-abstracted measures, process improvement efforts related to this measure and eCQM validation.

04:06

These staff and speakers have disclosed that they nor their spouses have any conflicts of interest. For example, financial arrangements, affiliations with or ownership of organizations that provide grants, consultancies, honoraria, travel or other benefits that would impact the presentation of today's webinar content.

Susan Funk, Marilyn Parenzan, Karen Kolbusz and Susan Yendro.

04:35

The agenda for today's discussion follows. Demonstrate navigation to the measure, measure specifications, value sets, measure flow diagrams, and technical release notes. Review the measure flow and algorithm run through the changes made to STK -2, -3, -5, and -6. Do a run through of some Frequently Asked Questions and we will close with a facilitated live Q&A segment. With that, we are going to share with you now a quick demo on navigating the eCQI Resource Center.

05:24

Before we dive into our measures, we would like to refer you to the eCQI Resource Center website here you can find the measure specifications, measure flow diagrams, value sets and technical release notes for all the measures in the CMS program. Click on the link indicated up here in the upper right-hand corner.

And this will take you to the landing page of the eCQI Resource Center, hovering over the eCQM item on the main menu. Click on the Eligible Hospital Critical Access Hospital eCQM link, select reporting period 2023 and you will see multiple resources listed. We will focus on the four items that were highlighted on the previous slide in red. Starting with the eCQM specifications for hospital quality reporting. Double click on this link. And you will see a zip file down in the lower left-hand corner. Go ahead and open up that zip file and you will see additional zip files listed for each of the measures included in the CMS program. Double click on the measure you are interested in viewing. I will choose CMS71 which is STK-3 Anticoagulation Therapy for Atrial Fib or flutter.

06:54

Now you see all the files in the measure package. I will not go into detail on all of these files but if you want to know more go to the get started with eCQM site on the eCQI Resource Center.

07:07

We will take a quick look at the HTML document. Which is also referred to as The Human Readable. By double clicking on the file name. The HTML file opens. This is where you will find all the details related to the measure. The top portion of the document highlighted in gray is referred to as the metadata or the header information. You'll find a lot of really useful information here, beginning with the title of the measure, the identifier, what version of the measure you're looking at. If it's NQF endorsed, you would have a number indicated here. Measurement Period, Steward Developer, a description of the measure and other really useful information you can see here. The rationale is very important part of the metadata. You can see all the different references that were used to compile the measure.

08:11

And then you get into guidance. That's really important when implementing the measure. Below that, you'll see the populations defined in a more narrative type format. And then if there's any supplemental data elements used to the measure, they would be indicated here. Scrolling down, you get into the logic of the measure.

08:31

First, you'll see the population criteria for any population used by this measure. So, this measure uses the Initial Population, Denominator, Denominator an Exclusions, Numerator. And Denominator Exceptions. If there were Stratification, it would be indicated here also. Below the population criteria is all the definitions that are used in the measure. And they are listed here in alphabetical order. And below the definitions are the functions. Again, listed in alphabetical order. Now we have the terminology, which is all of the different value sets used in the measure, and then we have the data criteria, also known as the QDM data elements, followed by the Supplemental Data Elements and the Risk Adjustment variables if appropriate to the measure.

09:26

This is your go to document for all of the measure details. I know I went through this very quickly but wanted you to be aware of how to locate this document and to have a basic understanding of its contents.

So now let's go back to the eCQI Resource Center. And we can download the value sets by clicking on the eCQM value set link. As this link takes us away from the eCQI Resource Center and takes us to the VSAC website, I'm going to right click and open the link in a new tab. You must be logged into the VSAC in order to use this functionality, so make sure that you are logged into the VSAC before you continue. Okay!

10:14

You will see value sets that listed all the way back to 2013. We're going to focus on the 2023 reporting period and therefore we'll click on the May 2022 release. So, click one time. You will see several available downloads. Choosing the first option I will select to see the data sorted by CMS ID and I'm going to choose the Excel format. By clicking on Excel, opening the Excel file. Which was downloaded here. Click one more time to open up the actual Excel file. And once the file opens up you will see, multiple measures tabs indicated down here on the bottom for all the CMS measures. Staying with CMS71. I'm going to click on that tab and now you see all the different data elements that are available for every value set used by this measure. So you'll see the CMS ID for the measure. If it's NQF endorsed, the measure would be indicated here. Then you'll see the value set name, the value set OID, which QDM category the value set uses, and in this case it's medication.

11:34

The definition, version date and a lot of other very useful information related to the value set. As you continue scrolling across the page you'll see the actual code that is used, the description of the code and what code system is used. In this case, this is a RX norm for a medication. Note that direct reference codes are not listed here as they are not included in value sets. You will find information on direct reference codes in the measure specifications.

12:07

Next, we will look at the Technical release Notes. You can either open a PDF file containing TRN's for all measures or a zip file containing TRN's in separate Excel files. I will choose the second option. And open up. The zip file. And once again select CMS71.

12:30

Here you'll find a nice concise list of all the changes to the measure for the 2023 reporting year Participant feedback from previous webinars asked for concise list of changes to the measure, so we hope this meets your needs. In addition to the information we will cover in this webinar.

12:53

Notice the first column contains the technical release note and the second column contains the area of the measure that was actually changed. For example, was it the header, was it the logic, or was it the value set? The measures section gets a little bit more specific and tells you exactly which area of the measure was changed, and then column D indicates the source of the change.

Okay, from there I will take you to the eCQI Resource Center page. And we will take a look at the eCQM flows. So once again, double click on the Zip file link, open up the zip file once again, you'll see all the measures listed. I'm going to choose CMS71 again. Okay. Here is the CMS flow for CMS71 anticoagulation therapy.

13:49

We're going to go through this flow in greater detail later in the presentation, but I did want you to look. Depth of measured flow at a very high level here. Please note that the EQM flows are designed to assist in interpretation of the eCQM logic and calculation methodology for the performance rates.

14:16

The eCQM flows provide an overview of each of the population criteria components and associated data elements that lead to the inclusion or exclusions into the measure.

14:29

These flows are intended to be used as an additional resource when implementing eCQMs and should not be used in place of the eCQM specifications. So, looking at the document, you'll see the CMS number indicated here, as well as the version number of the measure we're looking at. You'll see the title of the measure, and the diagram uses horizontal rows for every population applicable to the measure. So, this measure has Initial Population, has Denominator, Denominator exclusions, Numerator, and Denominator Exceptions.

14:51

You will see an algorithm guiding you, through each population. Standard flow chart symbols are used, for example, a diamond is used to indicate a question or a decision, and input and output symbols are indicated to denote inputs and outputs.

15:35

After the flow diagram you will find a sample calculation right here. And after that, two pages describing each population using a narrative approach. Stay tuned for more details on the measure flows later in the presentation.

Now I will turn the presentation over to Karen, who will introduce the stroke measures.

16:23

Thank you, Marilyn.

The Stroke Measure set consists of four measures. STK-2 Discharged on Antithrombotic Therapy, STK-3 Anticoagulation Therapy for Atrial Fibrillation or Flutter, STK-5 Antithrombotic Therapy by End of Hospital Day Two and STK-6 Discharged on Statin Medication. STK-2, STK-3, and STK-6 focus on medications that should be taken after discharge to prevent a second stroke. These measures capture the percentage of Ischemic stroke patients prescribed the appropriate medication at discharge.

The clinical practice guidelines for secondary stroke prevention supporting these measures were updated in 2021. There is strong evidence for the recommendations supporting these three measures, with recommendations graded class one level of evidence a by the American Heart Association and American Stroke Association.

17:31

STK-5 is also supported by Class One Level of Evidence: A Recommendations. This measure captures the percentage of Ischemic stroke patients who are administered Antithrombotic Therapy on the day over day after hospital arrival, as recommended for the early treatment of Acute Ischemic stroke.

18:00

STK-2 measure focuses on long term Antithrombotic therapy. Multiple clinical studies have demonstrated that Antithrombotic medications help improve patient outcomes after an Ischemic stroke by thinning the blood and reducing the possible clot formation that can result in another stroke. Although both antiplatelet and anticoagulant medications are included in the Antithrombotic drug category, antiplatelet agents are preferred for Ischemic stroke patients that do not have nonvalvular atrial fibrillation.

18:40

Aspirin, clopidogrel and also the compound Aspirin extended-release dipyridamole are frequently prescribed Antithrombotic medications for long term Antithrombotic therapy. Dual antiplatelet therapy for example, aspirin and clopidogrel are not generally recommended after an Ischemic stroke. However, short term administration of ticagrelor and aspirin may be appropriate for some patients. The THALES Trial concluded that in patients with mild to moderate acute non cardioembolic Ischemic stroke as defined by National Institute for Health Stroke Scale Score of less than or equal to five who are also not candidates for IV Thrombolytic therapy or Mechanical Thrombectomy.

19:30

The risk of stroke or death within 30 days was lower with ticagrelor or aspirin than with aspirin alone. However, severe bleeding was more frequent with ticagrelor, ticagrelor alone without aspirin is not recommended.

19:49

In Ischemic stroke patients that have nonvalvular atrial fibrillation, anticoagulation therapy is preferred over Antithrombotic therapy. These patients are at significantly increased risk of stroke due to an embolic event. Stroke risk for this group has been estimated to be five times higher.

20:09

For this reason, more potent blood thinners are recommended. Updated American Heart Association, American Stroke Association. Clinical guideline recommendations from Klein Dorfer and colleagues last year now suggests that DOAC should be considered for most of these patients. Ischemic stroke patients with moderate or severe mitral stenosis or a mechanical heart valve would be an exception.

Although these medications are more costly than warfarin, they may be taken once or twice a day and do not require the routine INR monitoring and drug dosage adjustments needed with warfarin therapy. So, there may be advantages in TRN's of long-term patient compliance.

20:56

Several large clinical trials have demonstrated the safety and efficacy of DOACS. For example, the Rely trial, Rocket AF, Aristotle and Engage Afib Timmi Trials. DOACs includes several different FDA approved medications, specifically apixaban, edoxaban and rivaroxaban, which are all oral factor 10A inhibitors and also one direct thrombin inhibitor dabigatran. The updated CPG is also recommend maintaining an INR between 2.0 and 3.0 if warfarin is the selected agent for anticoagulation therapy.

21:37

This range is acceptable for most Ischemic stroke patients with atrial fib/flutter. However, if the patient has mitral stenosis or a mechanical heart valve, that patient may require higher INR values greater than three. The rationale for stroke six is based on a known association between high blood cholesterol and atherosclerosis. Atherosclerosis can cause narrowing of cerebral blood vessels and subsequently result in an Ischemic stroke. Most Ischemic stroke patients have some degree of atherosclerosis. SPARCL was the foundational clinical trial that demonstrated the benefit of Statin therapy following Ischemic stroke. TST is another pivotal trial Both of these studies provide high level evidence supporting STK-6.

22:36

The SPARCL trial included adult Ischemic stroke patients with an LDL-c of 100 to 190 milligrams per DL and found that atorva Statin 80 milligrams daily reduced stroke recurrence in patients without another indication for Statin therapy. The TST trial also included adult Ischemic stroke patients in TST patients were randomly assigned to two LDL-c target groups. A lower target group with an LDL C target of less than 70 and a higher target group with LDL between 90 and 110. Statin therapy was intensified to attain the lower target. Over a 3 1/2 year follow up fewer major cardiovascular events incurred in the lower target group than in the higher target group 8.5% versus 10.9% which is statistically significant. While STK-6 measures the percentage of Ischemic stroke patients who are prescribed as Statin medication at discharge, high intensity Statin therapy is recommended for most patients.

23:54

Early Antithrombotic therapy is recommended to reduce morbidity and mortality following an acute Ischemic stroke event. Aspirin is the recommended drug. Two large clinical trials establish the safety and benefit of aspirin administered within the first 48 hours of stroke onset and doses between 160 and 300 milligrams. Aspirin is usually given orally but may also be administered via an Ng tube or rectal Suppository for patients who are NPO or have difficulty swallowing.

Limited data exist on the use of alternative antiplatelet agents in the treatment of acute Ischemic stroke. However, patients with a contraindication to aspirin administering alternative antiplatelet agents may be reasonable. Aspirin is not recommended as a substitute treatment for acute. Ischemic stroke in patients who are eligible for IV Thrombolytic therapy. However, aspirin administration may be delayed up to 24 hours to reduce the risk of bleeding in patients who receive IV TPA. For this reason, patients who receive IV Thrombolytic therapy at the hospital or within 24 hours prior to hospital arrival are excluded from STK-5.

25:18

In summary, we want to highlight clinical changes for 2023 which have been made to the measures.

25:28

First, a reference was added to the to include the 2021 AHA guideline for secondary stroke prevention. This change applies to STK-2, -3 and -6 also. Also, all of this stroke measures have a new statement in the header guidance that patients in the CMS Acute Hospital Care at Home programs are included in the Denominator population.

25:53

Hospital Care at Home was a program initiated by CMS to provide reimbursement to hospitals that provided at home acute care hospital services to patients during the COVID pandemic. The program requires each hospital to submit its own individual waiver and request the program under its unique CCN. No specification changes were needed as care at home patients are treated and billed as inpatients. For more information about this program, please see the quality net link.

And finally, the last change was to add Ticagrelor to the Antithrombotic therapy value set for the 2021 FDA indication.

Over to you, Marilyn.

26:44

Okay, thanks Karen. Next we will talk about technical changes to STK-02.

First, we replace the Global.Calendar AgeInYears at function with the native CQL function AgeInYearsAt to take advantage of existing CQL features and increase Human Readability. As a result of this change, the LOINC code representing birth date is no longer required and has been removed from the terminology section of The Human Readable specification. In addition to the annual value set updates, Ticagrelor was added to the Numerator value set Antithrombotic therapy and removed from the Denominator Exceptions as per the new FDA approved indication for its use in excrement stroke.

Next we will talk about library changes that affect the stroke measures.

The "ToDate" function was retired from the global library, however it is used by STK-5. So, we moved the Global."ToDate" function to the TJC library and renamed it to truncate time. We then changed TJC dot calendar day of or day after to use the TJC dot TruncateTime. Rather than the retired Global."ToDate". Then day of was added before every call to the calendar "day of" or "day after".

28:19

"Day of" tells the measure to compare only the dates and to ignore time and time zone offset. This guarantees consistent results even around daylight savings time. The logic works exactly the same with the same outcomes.

28:39

Now we will dive into the stroke population definitions. This table shows a side-by-side comparison of all four stroke measures and their corresponding population descriptions. We apologize for the small font, but we thought this might be a handy reference tool to compare and contrast the measures. The stroke measures all use the same Initial Population. The table shows that the Denominator for STK-2, -5, and -6 is the same, and it's basically the Initial population narrowed down to Ischemic stroke patients only. In other words, the Hemorrhagic stroke patients are dropped.

29:20

The Denominator Exclusions for STK-2, -3, AND -6 are the same. The Numerator and Denominator exceptions are specific to each of the stroke measures.

29:34

As you have already seen, the stroke measures share the same Initial Population, and STK-2, -5, and -6 share the same Denominator. STK-2, -3, and -6 share the same Denominator Exclusion. So, at this time we'll review the common logic.

29:52

Let's start with the Initial Population changes for reporting year 2023 are highlighted in red throughout this webinar. Value sets are indicated in aqua blue. The Initial Population for all stroke measures consist of the definition encounter with principal diagnosis in age, and that definition is found in the TJC library. As mentioned before, the function Global.CalendarAgeInYears at was retired, and the native CQL function AgeInYearsAt is used instead. This native function knows where to find patient birth date. So even though birth date is not mentioned as an argument. Birth date is used as the starting date for the age calculation. Encounter with principal diagnosis and age calls the TJC definition All Stroke Encounter to return all encounters with the principal diagnosis of either Hemorrhagic or Ischemic stroke. On the next slide we will look at the Non Elective Inpatient Encounter definition called by the all stroke encounter. Please note that although this function changed, the result will be the same.

All stroke encounters calls the "Non Elective Inpatient Encounter". Non Elective Inpatient Encounter gathers all Non Elective Inpatient Encounters.

31:26

Please note that the Non Elective admission implicitly excludes patients with elective procedures such as carotid procedures. The Non Elective Encounter value said intends to capture all non-scheduled hospitalizations. This value set is a subset of the inpatient encounter value set, excluding concepts that specifically refer to elective hospital admissions. Non elective admissions include emergency, urgent and unplanned admissions, whose length of stay is less than or equal to 120 days. And the encounter ends during a day in the measurement period. There were no changes to this logic.

32:18

STK -2, -5, and -6 share the same Denominator. Their Denominator uses the same definitions as the Initial population. But requires only Principal Diagnosis of Ischemic Stroke are selected. In other words, Initial Population contains principal diagnosis of both Ischemic and hemorrhagic stroke, whereas Denominator has only Principal Diagnosis of Ischemic Stroke.

32:47

There were no changes to the Denominator logic. STK-2,-3 and -6 check discharge medications and they use Denominator, uses the same Denominator Exclusions. Denominator Exclusions occur if either definition TJC "Ischemic Stroke Encounters with Discharge Disposition" is true. Or "Encounter with Comfort Measures during the Hospitalization" is true.

33:18

Let's look at the TJC library definition "Ischemic Stroke Encounters with Discharge Disposition". An encounter is excluded from the Denominator if one of the following is true. The discharged disposition is to an acute care facility. The patient left against medical advice. The patient expired. The patient was discharged to home for Hospice Care. Or to a healthcare facility for Hospice Care. There were no changes to this logic.

33:56

Now let's look at the second definition that qualifies encounters for stk-2, -3, or -6 Denominator exclusions. TJC Encounter with Comfort Measures during the Hospitalization.

34:09

First selects encounters that have a Principal Diagnosis of Ischemic Stroke. Then it checks to see if there was a Comfort Measure Intervention. Let's take a look at the intervention comfort measure definition. This gathers all comfort measure interventions ordered or performed. The Coalesce logic looks complicated, but basically Coalesce in Global. "NormalizedInterval" interval ensure that the available data is used in a consistent manner. First, Global. "NormalizedInterval" looks for a relevant date, time or period. And creates an interval from that at the start of the interval is then used by the Coalesce. Choosing...where the... Note that the Coalesce chooses the first not null value that it finds. If Global. "NormalizedInterval" returns a null because both relevant date time and period start were null and Coalesce would select the author date and time.

Please see the resources slide at the end of the presentation for links to excellent video shorts on the Coalesce and normalize interval functions.

35:30

Lastly, the comfort measure intervention timing must be during the hospitalization. No changes to this logic for 2023.

35:44

Now we will transition to presenting Logic Unique to the individual stroke measures. But first, let's circle back to the measure flow diagram that we briefly looked at earlier while on the eCQI Resource Center. In the interest of time, we will only review the STK-2 flow diagram in detail, but we encourage you to study the measure flow diagrams on your own time to gain a better understanding of the measures. At the top of the document you will see that this is the measure flow diagram for 2023 and the CMS number and version numbers for the measures are indicated here also.

36:24

Let's start with the Initial Population. Generally speaking, the measure flow diagram shows the definitions on the left hand side of the page. For example, encounter with principal, diagnosis and age.

36:38

On the right-hand side of the diagram you see definitions that are called in the logic expressed at a very high-level. The purpose of the measure flow diagram is to show at a high level which populations the patient qualifies for. So, in order to be in the Initial Population, the patient must have a Non Elective Inpatient encounter with the length of stay. Less than or equal to 120 days in the encounter ends during the measurement period. There must be a principal diagnosis of Hemorrhagic or Ischemic stroke as indicated with the rank of 1. The patient must be 18 years or older.

37:22

If the Initial Population criteria is not met, processing ends. If the Initial Population is met, the encounter is in the Initial Population. Please note that this slide in subsequent slides are excerpts from the measure flow diagram. So, where you see the yes with the line below it, the processing continues on the next page.

37:48

Now we check the Denominator criteria. The red arrow indicates where the algorithm continues from the previous slide. If the principal diagnosis Ischemic stroke, then the patient encounter is in the Denominator population and processing continues to look for any Denominator Exclusions.

38:10

Here we look to see if the patient with the Ischemic stroke has a discharge disposition, meaning criteria or comfort measures during the hospitalization. If either of these criteria are met, the patient is excluded from the Denominator. If they are not met, processing continues to the Numerator.

In the Numerator looks to see if it Antithrombotic was prescribed at discharge. If it was the case, meets the Numerator. If not, processing continues to look for a Denominator exception.

38:52

1st is there a medical reason or patient refusal for not prescribing Antithrombotic at discharge? Or is there a pharmacological contraindication for not prescribing Antithrombotics? If either of these exceptions are met, the case meets the Denominator Exception and processing ends.

39:16

A sample calculation shows how the performance rate is calculated. The Numerator is divided by the Denominator. Less Denominator Exclusions, less Denominator Exceptions. The letter values in the formula that is A, B1, B2, B, D1 and D2 are indicated on the previous slides and represent the various populations.

39:43

So, looking back at the Denominator exclusion portion of the algorithm, B1 and B2 are used to indicate the Denominator Exclusions.

39:55

The next two pages are the measure, flow, narrative. Here you will see the population criteria displayed in a narrative format.

40:05

And this is the second page of the measure flow narrative, and this is the end of the measure flow diagram.

40:14

So now let's dive into the logic in detail. We will start with the Numerator for STK-2 discharge on the Antithrombotic therapy. The Numerator calls the Denominator, which is encounters with Principal Diagnosis of Ischemic Stroke, then if an Antithrombotic therapy discharge medication was prescribed. That is authored during the encounter. It passes the Numerator.

40:43

If the Numerator does not pass, Denominator Exceptions are checked. For STK-2, we can see that there are two definitions that could qualify as an exception. Encounters with no Antithrombotic at discharge and encounters with pharmacological contraindications for Antithrombotic therapy at discharge. The only changes made to the Denominator Exceptions were definition name changes. No logic changes.

41:16

Let's look at the first definition Encounter with No Antithrombotic at Discharge. The definition name was modified to fit a standard that conjunction should be lower case. Therefore, the W in width was changed to be a lower case. Encounter with No Antithrombotic at Discharge checks to see if there was a documented reason for not giving Antithrombotic therapy. This documentation must be authored during the relevant period of the Ischemic encounter.

The definition reason for not giving Antithrombotic at discharge is called by encounter with no Antithrombotic at discharge, and it checks to see if the negation rationale matches any of the value set codes in medical reason or patient refusal. The red highlighting shows that the definition name changed also in order to align with definitions with similar functionality in the other stroke measures.

42:25

Now let's talk about the second definition that could qualify and encounter for stroke to Denominator exceptions.

Encounter with pharmacological contraindications for Antithrombotic therapy at discharge. This definition checks to see if a discharge medication was authored during the Ischemic encounter that would contraindicate ordering one of the medications in the Antithrombotic therapy value set. For reporting year 2023, Prasugrel is the only medication in the Pharmacological Contraindications for Antithrombotic Therapy value set.

43:10

Now we will take a look at a Frequently Asked Question for STK-2.

Okay, the question,

43:16

"Is the discharge summary and discharge medication list include one aspirin 81 milligram chewable tablet to be taken for two days after discharge followed by apixaban 5 milligram tablet twice daily starting on day three post discharge. Will this meet Antithrombotic therapy at discharge since asthma was was prescribed for only two days?"

43:44

Aspirin prescribed at discharge for two days will meet STK-2. Aspirin is in the Antithrombotic therapy value set, and as long as it is prescribed as a discharge medication and authored during the Ischemic stroke encounter, it will be included in the Numerator.

44:08

Great. Thanks, Karen. Okay, let's move on STK-3. STK-3 is Anticoagulation Therapy for Atrial Fib or Flutter. As mentioned previously, all stroke measures show the same Initial Population, so we won't cover that logic again. So let's look at the Denominator for STK-3.

It differs from the other stroke measures in that it has three more filters and if any one of them are true, then the encounter is in the Denominator. The three filters are a history of atrial ablation, a history of atrial fib or flutter or current atrial fib or flutter. No changes made to the Denominator this year.

44:52

The first definition is Encounter with Atrial Ablation Procedure. Note that it starts by calling the TJC. Ischemic Stroke Encounter, which is the Denominator population for the other stroke measures. Then it looks to see if there was an atrial ablation procedure that started before the Ischemic stroke encounter.

Now let's look at the other two definitions called by the Denominator for STK-3. Encounter with a History of Atrial Fib or Flutter. Again starts with TJC. Ischemic Stroke Encounter. And then filters these encounters down to those where diagnosis of atrial fib or flutter exist, whose prevalence period starts on or before the end of the Ischemic stroke encounter. Note we use the diagnosis data type to capture patients with a history of Afib or flutter.

45:53

The last definition that qualify for the STK-3 Denominator is encounter with current diagnosis code of Afib or flutter. And it filters TJC Ischemic stroke encounters down to only those with an encounter diagnosis of Afib or Flutter.

Now we use the diagnosis attribute on the encounter data type to capture patients with a current diagnosis of Afib or Flutter.

46:24

We already covered Denominator exclusions for STK-3 as they are in common with STK-2 and -6. So we will look at the logic for the STK-3 Numerator.

The Numerator calls to the Denominator definition and crosses that with Anticoagulant Therapy at Discharge to check if any of the discharge medications match a code in the anticoagulant therapy value set. If a match is found, then the author, date and time is also checked to make sure that it was authored during the encounter relevant period.

47:02

The Denominator Exceptions for stroke three are similar to STK-2, but they check if a different value set of anticoagulant therapy was not prescribed on discharge due to a documented medical reason or patient refusal that was authored during the encounter.

47:24

Okay, now we'll review a frequently asked question for STK-3.

"If there is conflicting documentation of Afib or flutter in the medical record, will it require the patient to be discharged on anticoagulation? For example, a patient had a history of Afib documented by two providers, but the neurologist documented the patient did not have Afib."

47:50

If there is any physician, advanced practice nurse, or physician assistant documentation of a diagnosis of atrial fibrillation flutter or a past history of Afib flutter in the record, then anticoagulation therapy should be prescribed at discharge to include the case in the Numerator.

If anticoagulation therapy was not prescribed for the patient at discharge, the case may be excluded if there is a medical reason for not prescribing. Anticoagulation therapy at discharge or documentation of patient refusal.

Okay. Thanks, Karen.

48:31

Okay, we're moving on to STK-6 now Discharged on Statin Medication. Again has the same Initial Population Denominator and Denominator exclusions as STK-2.

So we will start right in with the Numerator which looks for a Statin prescribed at discharge. The Numerator for STK-6 looks at Ischemic Stroke Encounters for Discharge Medication found in the Statin Grouper value set and authored during the. Ischemic Stroke Encounter no changes were made to the Numerator logic this year.

49:09

If the Numerator is not met, we move on to the Denominator Exceptions, of which there are three. The first clause looks to see if a Reason for Not Giving the Statin at discharge was documented. The Red Letter show where the definition was renamed, 2 standardized similar definition names. The second clause looks for Statin allergy. And the third class is a definition that looks for an Encounter with Maximum LDL Less Than 70. The only changes made to STK-6 Denominator Exceptions were definition name changes.

49:50

Let's look at the first clause, The Ischemic stroke encounters are crossed with Reason for Not giving Statin at Discharge.

50:00

This definition looks for cases where Statin was not prescribed at discharge, but there is either a medical reason or patient refusal explaining why Statin was not given. The reason for not giving a Statin at discharge must be authored during the encounter.

50:20

The second clause in the STK-6 Denominator Exceptions checks if the patient is allergic to Statins. The Ischemic stroke encounters are crossed with Statin allergy. And this definition looks for cases where Statin Allergy intolerance is present.

50:40

The Statin Allergy prevalence period must start on or before the end of the encounter.

50:50

The third definition that can qualify an encounter for STK-6 Denominator Exceptions is encounter with maximum LDL less than 70 milligrams per deciliter. We start with the Denominator cases of Ischemic stroke. Then all LDL-c results are gathered.

51:12

Where the LDL-c result date and time is during the interval of 30 days prior to the start of the encounter through the end of the encounter. Recall that the TJC."TruncateTime" replaces the retired Global."ToDate" function The maximum LDL-c less than 70 during this time period is returned

Okay, one FAQ for STK-6.

"The empty documents lipid profile LDL 76 almost at goal recommended for regular exercise and low cholesterol diet. Is this an acceptable reason for not prescribing Statin medication at discharge?"

52:01

Yeah, the MD note is not an acceptable reason. There are three Denominator exceptions for STK-6 Statin allergy, a maximum LDL-c that would not exceed 70 milligrams per DL, and then appropriately mapped and documented medical reasons for not prescribing Statin on discharge or patient refusal. Would be considered another acceptable reason.

53.31

So, in this example, the LDL-c is 76. It's greater than the allowed value of 70, less than 70, and then you would be required to have a medical reason from the medical reason value set documented in the chart and authored during the encounter, as well as mapped appropriately.

52:57

Okay. Thanks, Karen.

52:59

Okay STK-5 is Antithrombotic Therapy, but end of Hospital Day 2. STK-5 shares the same IP and Denominator as STK-2 and STK-6. So, let's talk about the three Denominator Exclusions. Denominator Exclusions called 3 definitions. If any are true, the encounter is in the Denominator Exclusions population.

The three definitions are encounter less than two days, encounters with comfort measures, and encounters with Thrombolytic therapy given prior to arrival or during the hospitalization.

53:37

The red letters show where the definition was renamed to clarify that comfort measures must be documented the day of or the day after hospital arrival. No changes were made to the logic.

53:52

The first definition is named encounter less than two days. It simply checks whether the hospitalization is less than two days long using the hospitalization with observation length of stay function. Recall that this function returns the total interval from the start of any immediately prior emergency department visit or observation to the discharge of the given encounter.

The second definition called by STK-5 Denominator Exclusions is named "Encounter with Comfort Measures During the Day of or Day After Arrival", it checks to see if there was an intervention ordered or performed for comfort measures. This definition is very similar to the Denominator Exclusion for STK-2, -3, and -6.

54:47

For STK-2, -3, -6, the comfort measure intervention timing is anytime during the hospitalization. For STK-5, the comfort measure timing must be the day of or day after the hospitalization. The reason for this difference in STK-5 is due to the fact that this measure is looking for Antithrombotic by the end of hospital day two. So if comfort measures are in place within this time frame, the case will be excluded.

55:19

The third definition to qualify for STK-5 Denominator Exclusions is named encounter with Thrombolytic therapy given prior to arrival or during the hospitalization. This definition calls three more definitions and we will look at each one of them. We see that they're linked with union, which means the same thing as or. Again, we see the lower-case red W where W in width was made lower case.

55:52

The first definition in Encounter with Thrombolytic Therapy given prior to arrival or during hospitalization is named Encounter with Thrombolytic Therapy Medication or Procedures. It looks very Ischemic stroke encounters with Thrombolytic therapy medication or procedures.

56:18

The definition named Thrombolytic therapy, medication or procedure, checks medication administered against the Thrombolytic

Therapy value set and checks procedure performed against the IV or IA Thrombolytic therapy value set.

And these therapy timings must be drawing the 24 hours before the hospitalization through the end of the hospitalization.

56:47

The second definition called by Encounter with Thrombolytic Therapy with Thrombolytic Therapy Prior to Arrival. It checks the Ischemic Stroke encounter diagnosis against the value set IV or IA TPA therapy prior to arrival.

The third definition is named Encounter with Thrombolytic therapy. Documented is already given. It checks for diagnosis of IV or IA TPA Prior to Arrival. Authored during the Hospitalization.

57:32

The STK-5 Numerator looks for Antithrombotic therapy, medications administered the day of or day after the start of the hospitalization it's described earlier, day of was added in order to restrict the comparison to the dates and not the time or time zone offset.

Now we have reached the Denominator Exceptions for STK-5. It costs 3 definitions that are connected by the Union operator. If the encounter does not pass the Numerator, and if any of these three definitions are true, then the encounter qualifies for the Denominator Exceptions population.

58:16

The first definition No Antithrombotic Ordered or Administered Day of or Day After hospital arrival. We see from the red or administered that that this definition was renamed. This definition calls No Antithrombotic Ordered or Administered, which we will look at on the next slide. The logic checks that the reason for not ordering or not administering an Antithrombotic. Was authored on the day of or the day after the start of the hospitalization. Please note again, the day of was added before the calendar day of or day after function.

58:59

These two called definitions check for when no Antithrombotic therapy is ordered or administered. Was there a medical reason or patient refusal documented.

59:13

Now we will look at the second definition. It is named "Encounter with Pharmacological Contraindications for Antithrombotic Therapy Given Day of or Day After Hospital Arrival" It checks to see if any of the medications in the value set Pharmacological Contraindications for Antithrombotic therapy were given. During the day of or day after the start of the hospitalization. Again, we see the day of was inserted before the calendar day of or day after function.

59:52

And the third definition, checks if there were any INR laboratory test resulted the day of or the day after the start of the hospitalization in the INR results are greater than 3.5. The only change is renaming of the lower-case W and adding day of before the calendar day of or day after function. Okay.

1:00:20

And one question for STK-5.

"Therapeutic enoxaparin was administered on the day after hospital arrival. Will a therapeutic dose of enoxaparin on day two meet Antithrombotic therapy administered by end of hospital day two?"

1:00:38

Enoxaparin is in the Antithrombotic therapy value set and the code can be mapped to one of the RX norm codes. Also, the timing must meet the requirement of the day of or the day after the start of hospitalization. So, if these conditions are met and Enoxaparin appear and we'll meet STK-5 measure requirements.

However, enoxaparin at lower dosages used for VTE prophylaxis are not sufficient for Antithrombotic therapy. Stroke patients should receive both Antithrombotic therapy, usually aspirin and VTE prophylaxis usually enoxaparin 40 milligrams SQ.

1:01:21

Okay. Now we'll turn the presentation back to Susan. Great.

1:01:42

Thanks so much, Marilyn. Sorry about that. I was muted. Thank you, Marilyn and Karen for your parts in the presentation.

1:01:47

We've included an additional resource slide here to direct you to the eCQI Resource Center of the eligible hospital measures page, the Teach Me Clinical Quality Language Video Series that includes shorts on several clinical quality language concepts that are listed on this slide. The Pioneers in Quality landing area on The Joint Commission's website. The landing page for the Expert to Expert webinar series and a link to the ONC Issue Tracking System where the clinical and technical questions about these eCQMs should be submitted. And finally our Previous Webinar section on the Joint Commission website.

1:02:30

We will now move into our live Q&A segment. You've been really great about submitting questions as the presentation proceeded. Please continue to submit your questions via the question pane. You click on the question mark and the audience toolbar. A panel will open for you to type and submit your question. If it's possible, please include this slide reference number or the measure that you are asking your question about. All questions not answered verbally during this live event will be addressed in a written follow up Q&A document and the follow up Q&A document will be posted to The Joint Commission website within several weeks after the live event.

1:03:08

With that, I'll turn it over to Marilyn and Susan Yendro for you guys to go ahead and start grabbing questions out of the queue.

1:03:16

Thank you, Susan. This is Susan Yendro, and I will begin to look at our questions that we received live today.

We also received questions that were submitted ahead of time and we will also answer those issues as Susan said with the document that we will be posting in a couple weeks.

1:03:36

So, the first question is, "Will the Joint Commission switch to the 4.5-hour time frame for the IV Thrombolytic for STK-4?"

1:03:43

The answer to this question is that we do not have any plan to change the time frame for the stroke for Thrombolytic therapy from 3 to $4\frac{1}{2}$ hours, although IV TPA may be administered safely and initiated up to four hours 4.5 hours. After the time last known well time is brain and earlier initiation of IV TPA is recommended.

Thank you. Okay.

1:04:14

Next question, "Does history have an ablation count as a reason for not prescribing anticoagulant?"

1:04:22

The answer to that would be no. History of an ablation does not count as a reason for not prescribing an anticoagulant. Even with patients that have ablation procedures, it is not uncommon for Afib to return.

Okay. Thanks, Marilyn.

1:04:40

The next question, "Is there a measure flow chart for VTE-1 and -2?"

1:04:44

Yes, there are measure flow charts for the VTE measures. Those are also available from the eCQI Resource Center and that link will be provided in the written Q&A document. Thank you.

1:05:00

Okay, next question is regarding STK-3. "Some patients have a distant history, excuse me, a distant history of an episode of Afib without recurrence. Can this be made an exception?"

1:05:15

The answer to that is there is no time limit on the Afib or flutter diagnosis for STK-3 Clinically speaking, once patients have Afib or flutter, they are always at risk. The nature of the arrhythmia is that it comes and goes. In other words, it's paroxysmal. It can also be persistent or permanent. We do not know if patients are at greater risk for short runs of Afib that is less than 30 seconds, or longer.

1:05:48

Okay, here's another STK-3 question.

"If a patient has a stroke while in house, are they still in the Denominator populations? For instance, if the patient is originally admitted for respiratory distress, had left sided weakness on day two, MRI performed and showed Acute Ischemic MCA embolic infarct centered within the right posterior temporal lobe with petechial hemorrhage conversion. If so, does this fall under Ischemic stroke or hemorrhagic?"

1:06:25

So, for STK-3, it is not intended to capture strokes that occurred during the inpatient stay. In the Initial patient population logic, we use principal diagnosis, which is defined in the QDM guide. Is the code, coded diagnosis problem established after study to be chiefly responsible for the admission of the patient to the hospital for care.

Thank you. Okay. The next question states,

1:06:57

"We feel our low-performance is likely related to a historical diagnosis of Afib or flutter that is no longer clinically relevant. Could you address this?"

1:07:08

This is similar to the previous question that I answered that that was posed. Some of the ways that patients may be excluded from STK-3 are: If they're admitted for an elective, carotid intervention, they are not included in the measure or patients with a documented reason for not prescribing anticoagulants, excuse me, anticoagulation therapy at discharge, including medical reason or patient refusal.

1:07:42

Okay, this question asks,

"Is a platelet aggregation inhibitor? Is this being considered for Antihrombolytic, I'm sorry Antithrombotic Therapy?"

Platel is not being considered for an addition to the Antithrombolytic robotic therapy value set. Platel is not a medication recommended for long term Ischemic stroke prevention.

Thank you.

1:08:03

Next question, "If our primary stroke center does not perform thrombectomies, do we select zero cases attestation or put zero for the Numerator in volume for Denominator?"

1:08:27

Stroke -volume one, STK VOL-1 is not an eCQM or a measure that is addressed in today's presentation. STK VOL-1 one is a new performance measure requirement for the Joint Commission Primary Stroke Center advanced certification. Questions about STK VOL-1 should be submitted to the performance measure Q&A network at HTTPSManual.jointcommission.org.

1:09:02

Okay, this question is,

"Do Ischemic stroke with cardio metabolic etiology requires Statin. Some of our Physicians state research does not support Statin benefit for embolic CVA. For example, A-fib leading to CVA or VTE with PFOA leading to CVA."

1:09:24

So, Statin therapy is recommended for all Ischemic stroke patients based on the current AHA. ASA guideline recommendations. If a recommendation, if a Statin medication is not indicated for a patient, then the Physician or APN, PA or pharmacist must provide a medical reason for not prescribing that Statin therapy.

Okay. Next question.

1:09:57

"I have gotten feedback that when a patient gets TPA we fall out if the Antithrombotic was not given by day two. Please clarify."

Okay.

1:10:08

The answer to that would be Thrombolytic therapy. TPA administration is a Denominator exclusion for STK-5 if administered within 24 hours prior to arrival or anytime during the hospitalization.

1:10:28

Okay, this question asks, "What is the current reporting time period for eCQMs?

The current reporting period is 2022. The information that we're providing in today's webinar is for the 2023 reporting period.

Okay.

1:10:47

"STK-3 Afib Flutter had not been diagnosed during this encounter and the patient states they had been diagnosed in the past at another hospital. They are coded with Z86.79 for Afib or flutter. These patients are failing are failing, falling out of the Numerator because Z codes are not included in the value sets. Why are the Z codes excluded from the VTE value set?"

1:11:16

The answer to that is the history code of Z 86.79 for A-fib flutter. Is a personal history of other diseases of the circulatory system. And at that is not included in the value set of Afib/flutter because the code is too broad to represent concepts. Or discharges or excuse me or disorders for atrial fib flutter only.

1:11:51

Okay. We'll take one more question live today.

This question asks, "Is there any discussion about including thrombectomy procedures in the reason for delay to anything Antithrombotic STK-5 like it looks for TPA being given?"

1:12:07

The answer is mechanical thrombectomy is not a contraindication to Antithrombotic therapy by the end of hospital day two. Therefore, mechanical thrombectomy on its own will not exclude the case. If IV or IA-TPA is given prior to performing mechanical thrombectomy, then the case is excluded.

1:12:25

And with that, we'll turn it back over to Susan to close out today's webinar.

1:12:31

Thanks so much Susan and Marilyn for fielding all of those questions.

1:12:35

All Expert to Expert webinar recording links, slides, transcripts and Q&A documents can be accessed for previous and on demand webinars on The Joint Commission's web page via this link shown on the slide. And just a quick promotion for some additional webinars that are coming. We are the 2023 eCQM annual update webinar series began with an On Demand webinar that we released in August that was on Joint Commission's PC-01 and PC-6 eCQMs and the series will continue until February 2023.

1:13:10

This series incorporates expertise from Joint Commission, Centers for Medicare and Medicaid Services, Mathematica and other Measures Stewards to address the 2023 eCQM annual updates for STK, VTE, PC, Emergency department, Safe Opioid Use, and Hyper and Hypoglycemia Measures. Information will be available at the link displayed on this slide as each webinar is offered.

1:13:27

And one last thing that we want to tell you before we conclude the session, a few words about the CE survey. We use your feedback to inform future content and assess the quality of our educational programs. Tomorrow, an automated e-mail will be sent to each participant's e-mail address. It will be the same e-mail address that you used to register, and that e-mail will include the survey link. At the end of the survey when you click submit, you are redirected to a page from which you can print or download and save your PDF CE Certificate. You will also receive an automated e-mail that includes the same link to a printable downloadable PDF CE Certificate. And with that I would like to thank all of our presenters the presented on the webinar today and everybody in the background answering questions.

1:14:16

And thanks to everyone who participated today. Have a great day.