9-10 am (PT) 10-11 am (MT) 11 am-12 pm (CT) 12-1 pm (ET)



January 29, 2019



For those participating that would like to use the Closed Captioning Service:

- Use this link to access the CC service: <u>http://www.captionedtext.com/client/event.as</u> <u>px?CustomerID=1519&EventID=3849131</u>
- You will also need this passcode 3849131.
- This information is also in the Chat box with a clickable link.



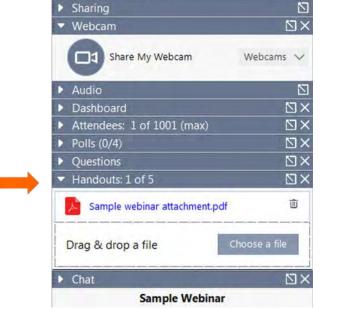
At the end of this session, participants will be able to:

- Apply concepts learned about the new Clinical Quality Language (CQL) expression language for the STK-5 & AMI-8a eCQMs
- Identify common issues and questions regarding STK-5 & AMI-8a eCQMs and
- Prepare to implement the CQL expression language for the 2019 eCQM reporting year (2020 data submission)

Slides are available for download now!

 To access the slides, see the GoToWebinar "Handouts" Section is your participant dashboard

 Click the downward triangle to open the Handouts list, select the slides for today's session, and download.



Audience view 100%



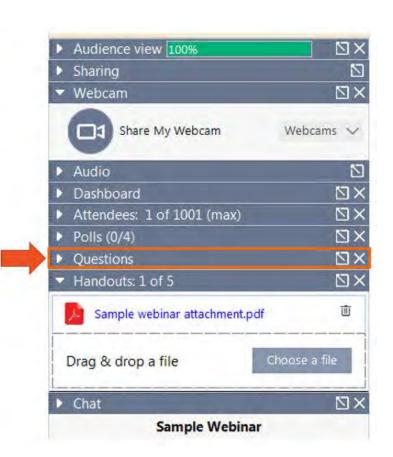
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Pioneers in Quality[™] Expert to Expert Series: STK-5 and AMI-8a

This program is designed to be interactive.

- All participants are connected in listen-only mode; we are not using the raised hands feature
- Ask questions through the Questions function in the Dashboard
- Visit any links or resources noted in the slides
- Download the slides and share the recording





Pioneers in QualityTM The Joint Commission **Expert to Expert Series: STK-5 and AMI-8a** lantana CMS Contact Us | Careers | JCR Web Store | Press Room Log In | Request Guest Access The Joint Commission Forgot password? | Log In Help Go Search About Us Accreditation Certification Standards Measurement Topics **Daily Update** Home > Measurement > Pioneers in Quality 🕒 Twitter 🚺 Facebook 💟 Vimeo 🛅 linkedIn 😂 Share Print Wednesday 11:52 CST, November 21, 2018 Pioneers in Quality PIONEERS IN QUALITY. Pioneers in Quality - Home Proven Practices Webinar 2018 Proven Practices Collection and Webinar Series Series Four hospitals and/or health systems were recognized as 2018 Pioneers in Quality™ Expert Contributors for their efforts to advance the evolution and utilization of Pioneers in Quality: eCQM Pioneers in Quality™ electronic clinical quality measures (eCQMs). These organizations presented during the Joint Commission's Pioneers in Quality™ 2018 eCQM Proven Practices webinar "Expert to Expert" Series Recognition series and are featured within the 2018 Proven Practice Collection along with the five Series Information/Session Replays 2018 Pioneers in Experts Contributors recognized in 2017. You can access the 2018 Proven Practices Quality Expert and Collection here. **Promotional Video** Solution Contributors

In February, the webinar recording and slide deck will be accessible on The Joint Commission website via the Expert to Expert landing page

(<u>https://www.jointcommission.org/piq_expert_to_expert_series/</u>).

As follow-up items are posted, an email will be sent to all individuals that registered.



CE credits are provided for the Expert to Expert Series Webinars.

This webinar is approved for 1.0 Continuing Education Credit for:

- Accreditation Council for Continuing Medical Education (ACCME)
- American Nurses Credentialing Center (ANCC)
- American College of Healthcare Executives (ACHE)
- California Board of Registered Nursing
- International Association for Continuing Education and Training (IACET) (.1 credit)
- Certified Joint Commission Professional (CJCP) Recertification Credit Continuing Education credits are available for the <u>live webinar</u> presentation only. Credits <u>will not</u> be available for webinar replays.



To claim credits, you must have:

- 1) Individually registered for the webinar.
- 2) Listened to the webinar in its entirety. Only those listening live during the session are eligible to receive credit*.
- 3) Completed a post-program evaluation/attestation**.

* If you are listening with colleagues and did not use your own link/phone line to join, you can still claim CE credit if you meet these three criteria. An automated email after this session will provide information how to access the survey.

** A program evaluation/attestation survey link will be sent to participants' emails after the webinar. For those completing the evaluation - *printable certificates will be emailed 2 weeks after the session*; all participant CE certificates will be sent at the same time.

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Disclosure Statement

These staff and speakers have disclosed that neither they nor their spouses/partners have any financial arrangements or affiliations with corporate organizations that either provide educational grants to this program or may be referenced in this activity:

- Lisa Anderson, MSN, RN Project Director, eClinical, Department of Quality Measurement
- Mia Nievera, MSN, RN Associate Project Director, eClinical, Department of Quality Measurement
- Karen Kolbusz, MBA, BSN, Associate Project Director, Department of Quality Measurement
- Lynn Perrine, MSN, RN, Senior Nurse Informaticist, Lantana Consulting Group

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Mia Nievera, MSN, RN Karen Kolbusz, MBA, BSN STK 5- Antithrombotic Therapy By the End of Hospital Day 2 (CMS72v7)

January 29, 2019







- Stroke is the No. 5 cause of death and a leading cause of serious, long-term disability in America (American Heart Association, 2018).
- The effectiveness of antithrombotic agents in reducing stroke mortality, stroke-related morbidity and recurrence rates has been studied in several large clinical trials. Aspirin is the antithrombotic agent that has been tested the most extensively.
- Early antithrombotic therapy, unless contraindicated, is recommended to reduce morbidity and mortality in patients with acute ischemic stroke.
- Oral administration of aspirin (initial dose is 325 mg) within 24 to 48 hours after stroke onset is recommended for treatment of most patients (Class I; Level of Evidence A) (Powers WJ, et. al., 2018).

Mia Nievera, MSN, RN

CQL Basics Overview

January 29, 2019



Electronic Clinical Quality Measures (eCQM)

Evolving eCQM Standards



	Metadata	Data Model	Logic
Calendar Year 2018	HQMF (Metadata, Population Structure	Quality Da	ata Model
Calendar Year 2019	HQMF (Metadata, Population Structure	Quality Data Model	Clinical Quality Language

- C<u>QL</u> 13

eCQM HUMAN READABLE

Building

Blocks

The Joir	nt Commission
CCMS	Lantana CONSULTING GAOUP

Population Criteria

4 Initial Population

TJC. "Encounter with Principal Diagnosis and Age"

4 Denominator

TJC."Ischemic Stroke Encounter"

Denominator Exclusions

TJC. "Ischemic Stroke Encounters with Discharge Status" union TJC. "Comfort Measures during Hospitalization"

A Numerator

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with "Antithrombotic Therapy at Discharge" DischargeAntithrombotic such that DischargeAntithrombotic.authorDatetime during IschemicStrokeEncounter.relevantPeriod

Definitions

Antithrombotic Not Given at Discharge

["Medication, Not Discharged": "Antithrombotic Therapy"] NoAntithromboticDischarge where NoAntithromboticDischarge.negationRationale in "Medical Reason" or NoAntithromboticDischarge.negationRationale in "Patient Refusal"

Antithrombotic Therapy at Discharge

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

4 Denominator

TJC. "Ischemic Stroke Encounter"

Denominator Exceptions

TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with "Antithrombotic Not Given at Discharge" NoDischargeAntithrombotic such that NoDischargeAntithrombotic.authorDatetime during IschemicStrokeEncounter.relevantPeriod

Functions

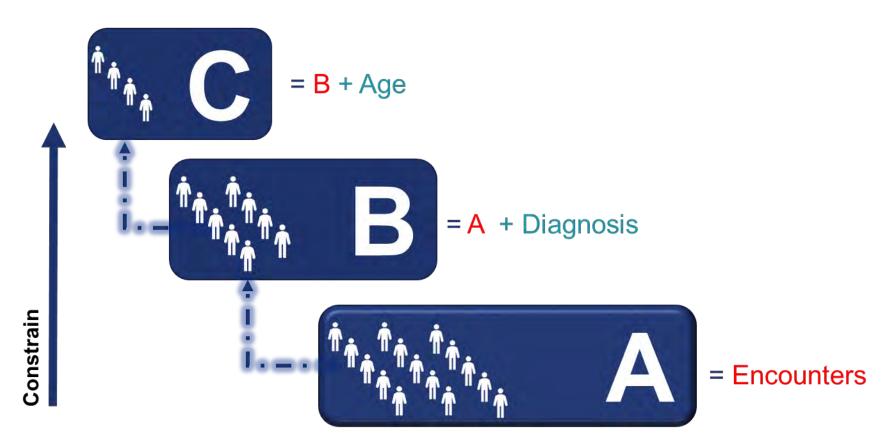
Global.CalendarAgeInYearsAt(BirthDateTime DateTime, AsOf DateTime)

years between ToDate(BirthDateTime)and ToDate(AsOf)

- Global.Hospitalization(Encounter "Encounter, Performed")
 - (singleton from (["Encounter, Performed": "Emergency Department Visit"] EDVisit
 - where EDVisit relevantPeriod ends 1 hour or less on or before start of Encounter relevantPeriod
 -)) X return if X is null then Encounter.relevantPeriod else Interval[start of X.relevantPeriod, end of Encounter.relevantPeriod]

CQL _____ 14





CQL Definition



Initial Population:

TJC.Encounter with Principal Diagnosis and Age

TJC.Encounter with Principal Diagnosis and Age

"All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod) >= 18

4 TJC.All Stroke Encounter

"Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

▲ TJC.Non Elective Inpatient Encounter

["Encounter, Performed": "Non-Elective Inpatient Encounter"] NonElectiveEncounter where Global."LengthInDays"(NonElectiveEncounter.relevantPeriod)<= 120 and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"





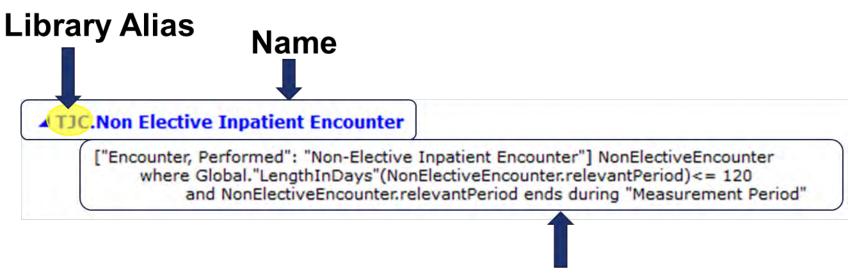


B

Definition Anatomy



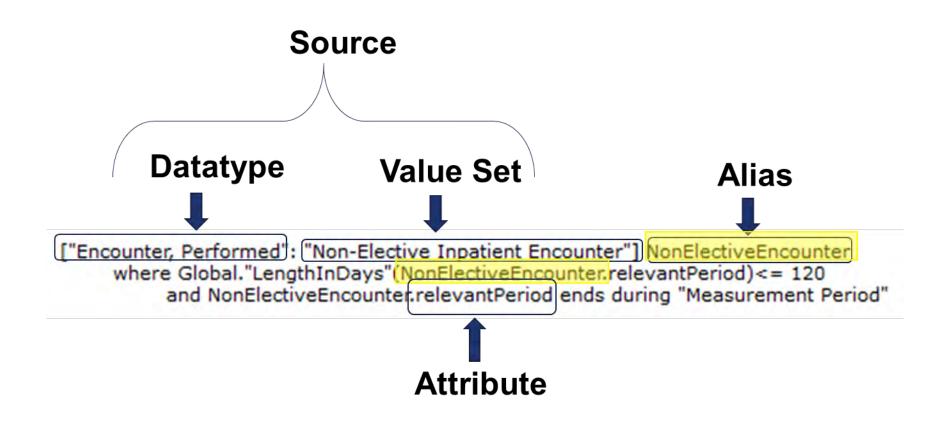
Definitions are made up of:



Expression





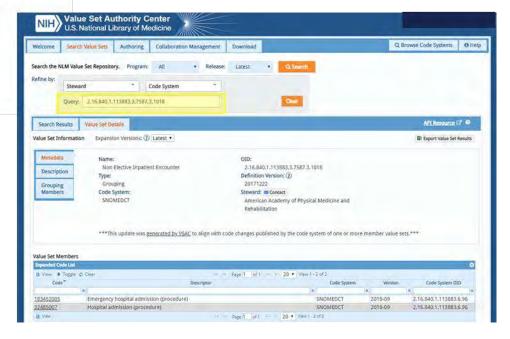


Definition Anatomy- Value Sets



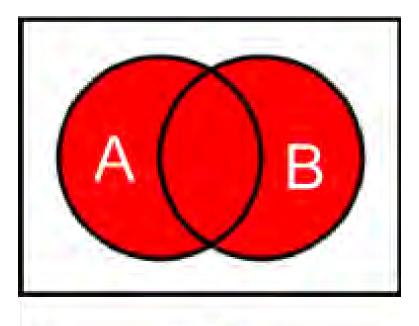
Terminology

- valueset "Antithrombotic Therapy" using "2.16.840.1.113883.3.117.1.7.1.201"
- valueset "Comfort Measures" using "1.3.6.1.4.1.33895.1.3.0.45"
- valueset "Discharge To Acute Care Facility" using "2.16.840.1.113883.3.117.1.7.1.87"
- valueset "Discharged to Health Care Facility for Hospice Care" using "2.16.840.1.113883.3.117.1.7.1.207"
- valueset "Discharged to Home for Hospice Care" using "2.16.840.1.113883.3.117.1.7.1.209"
- valueset "Emergency Department Visit" using "2.16.840.1.113883.3.117.1.7.1.292"
- valueset "Ethnicity" using "2,16.840.1.114222.4.11.837"
- valueset "Hemorrhagic Stroke" using "2.16.840.1.113883.3.117.1.7.1.212"
- valueset "Ischemic Stroke" using "2.16.840.1.113883.3.117.1.7.1.247"
- valueset "Left Against Medical Advice" using "2.16.840.1.113883.3.117.1.7.1.308"
- valueset "Medical Reason" using "2.16.840.1.113883.3.117.1.7.1.473"
- valueset "Non-Elective Inpatient Encounter" using "2.16.840.1.113883.3.117.1.7.1.424"
- valueset "ONC Administrative Sex" using "2.16.840.1.113762.1.4.1"
- valueset "Patient Expired" using "2.16.840.1.113883.3.117.1.7.1.309"
- valueset "Patient Refusal" using "2.16.840.1.113883.3.117.1.7.1.93"
- valueset "Payer" using "2.16.840.1.114222.4.11.3591"
- valueset "Race" using "2.16.840.1.114222.4.11.836"



Common CQL Operators





union

Example: Combining a list of Diagnoses

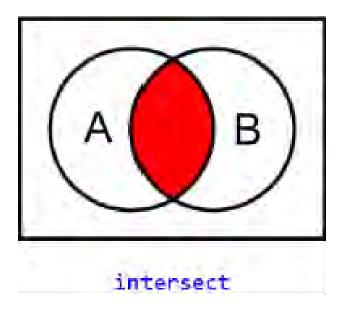
History of Uterine Surgery Diagnosis

["Diagnosis": "Perforation of Uterus"] union ["Diagnosis": "Uterine Window"] union ["Diagnosis": "Uterine Rupture"] union ["Diagnosis": "Cornual Ectopic Pregnancy"]



Common CQL Operators





Example:

List A= All inpatient encounters with age \geq 18 List B= All encounters with a CBC level

Result of intersection=

a list of any inpatient encounters with age \geq 18 and a CBC level

Initial Population- STK-5 (CMS72v7)



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of lschemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

Initial Population:

TJC.Encounter with Principal Diagnosis and Age

TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:





Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of lschemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

Initial Population:

TJC.Encounter with Principal Diagnosis and Age

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TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:

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

where Global."<u>LengthInDays</u>"(NonElectiveEncounter.relevantPeriod)<= <u>120</u> and NonElectiveEncounter.relevantPeriod ends during "Measurement Period"



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

Initial Population:

TJC.Encounter with Principal Diagnosis and Age

TJC.Encounter with Principal Diagnosis and Age:

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TJC.Non Elective Inpatient Encounter:



Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

Initial Population:

TJC.Encounter with Principal Diagnosis and Age

TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" *NonElectiveEncounter* where *NonElectiveEncounter*.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:





Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of lschemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

Initial Population:

TJC.Encounter with Principal Diagnosis and Age

TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

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 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:





Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of lschemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

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TJC.Encounter with Principal Diagnosis and Age

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 "All Stroke Encounter' AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:





Patients age 18 and older discharged from inpatient care (non-elective admissions) with a principal diagnosis of Ischemic or Hemorrhagic Stroke and a length of stay less than or equal to 120 days that ends during the measurement period

Initial Population:

TJC.Encounter with Principal Diagnosis and Age

TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:



Denominator



Patients with a principal diagnosis of Ischemic Stroke

Denominator:

TJC."Ischemic Stroke Encounter"

TJC.Ischemic Stroke Encounter:

 "Encounter with Principal Diagnosis and Age" EncounterWithAge where EncounterWithAge.principalDiagnosis in "Ischemic Stroke"



Denominator



Patients with a principal diagnosis of Ischemic Stroke

Denominator:

TJC."Ischemic Stroke Encounter"

TJC.Ischemic Stroke Encounter:

 "Encounter with Principal Diagnosis and Age" EncounterWithAge where EncounterWithAge.principalDiagnosis in "Ischemic Stroke"

TJC.Encounter with Principal Diagnosis and Age:

 "All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

TJC.All Stroke Encounter:

• "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:

Denominator



Patients with a principal diagnosis of Ischemic Stroke

Denominator:

TJC."Ischemic Stroke Encounter"

TJC.Ischemic Stroke Encounter:

"Encounter with Principal Diagnosis and Age" EncounterWithAge

where **EncounterWithAge.principalDiagnosis in** *"Ischemic Stroke"*

TJC.Encounter with Principal Diagnosis and Age:

"All Stroke Encounter" AllStrokeEncounter with ["Patient Characteristic Birthdate"] BirthDate such that Global."CalendarAgeInYearsAt"(BirthDate.birthDatetime, start of AllStrokeEncounter.relevantPeriod)>= 18

TJC.All Stroke Encounter:

 "Non Elective Inpatient Encounter" NonElectiveEncounter where NonElectiveEncounter.principalDiagnosis in "Hemorrhagic Stroke" or NonElectiveEncounter.principalDiagnosis in "Ischemic Stroke"

TJC.Non Elective Inpatient Encounter:





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions:	"Encounter Less Than Two Days"
	union "Encounter with Thrombolytic Therapy Medication or Procedures"
	union "Encounter with Thrombolytic Medication"
	union "Encounter with Comfort Measures"





Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

Encounter Less Than Two Days:

TJC."Ischemic Stroke Encounter" *IschemicStrokeEncounter* where Global."Hospitalization Length of Stay" (IschemicStrokeEncounter) < 2



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter Less Than Two Days:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter where Global."Hospitalization Length of Stay"(IschemicStrokeEncounter)< 2





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global."Hospitalization" (IschemicStrokeEncounter)

Thrombolytic Therapy Medication or Procedures:

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





Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global."Hospitalization"(IschemicStrokeEncounter)

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



Patients who have a duration of stay less than 2 days

Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization

Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global. "Hospitalization" (IschemicStrokeEncounter)

Thrombolytic Therapy Medication or Procedures:

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

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global."Hospitalization"(IschemicStrokeEncounter)

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global."Hospitalization"(IschemicStrokeEncounter)

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that <u>ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of</u> <u>Global."Hospitalization"(IschemicStrokeEncounter)</u>

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that <u>ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of</u> <u>Global."Hospitalization"(IschemicStrokeEncounter)</u>

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that <u>ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of</u> <u>Global."Hospitalization"(IschemicStrokeEncounter)</u>

Thrombolytic Therapy Medication or Procedures:

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

 Z92.82
 Status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility
 ICD10CM



Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

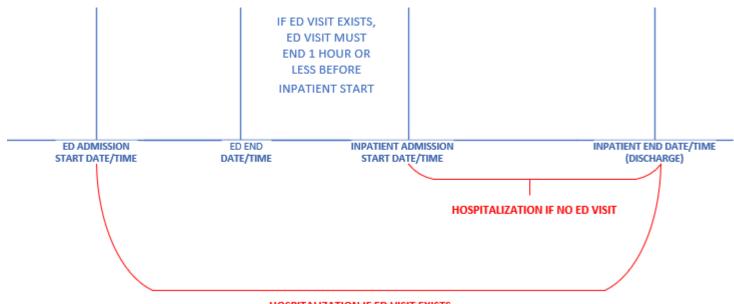
 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global."Hospitalization"(IschemicStrokeEncounter)





Global.Hospitalization(Encounter "Encounter, Performed"):

 (singleton from (["Encounter, Performed": "Emergency Department Visit"] EDVisit where EDVisit.relevantPeriod ends 1 hour or less on or before start of Encounter.relevantPeriod)) X return if X is null then Encounter.relevantPeriod else Interval[start of X.relevantPeriod, end of Encounter.relevantPeriod]



HOSPITALIZATION IF ED VISIT EXISTS



Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Therapy Medication or Procedures:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Therapy Medication or Procedures" ThrombolyticTherapy such that ThrombolyticTherapy.relevantPeriod starts 24 hours or less before start of Global. "Hospitalization" (IschemicStrokeEncounter)





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days" union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Medication:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Medication" Thrombolytic such that Thrombolytic.relevantPeriod starts during *Global.*"Hospitalization" (IschemicStrokeEncounter)

Thrombolytic Medication:

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival *or anytime during hospitalization* Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days" union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Thrombolytic Medication:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "Thrombolytic Medication" Thrombolytic such that Thrombolytic.relevantPeriod starts *during Global.*"Hospitalization" (IschemicStrokeEncounter)

Thrombolytic Medication:

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



Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

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union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

- TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC."Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)
- less
- TJC.Intervention Comfort Measures:
 - ["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

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- TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC."Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or
- less

on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter) TJC.Intervention Comfort Measures:

 ["Intervention, Order": "Comfort Measures"] <u>union</u> ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days'

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

- TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC. "Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures. on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)
- less

TJC.Intervention Comfort Measures:

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





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

- TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC. "Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures. *relevantPeriod*, ComfortMeasures.authorDatetime)1 day or on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)
- less
- TJC.Intervention Comfort Measures:
 - ["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

less

- TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC. "Intervention Comfort Measures" ComfortMeasures such that *Coalesce*(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter) TJC.Intervention Comfort Measures:
 - ["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

less

- TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC. "Intervention Comfort Measures" ComfortMeasures such that <u>Coalesce</u>(start of ComfortMeasures. <u>relevantPeriod</u>, ComfortMeasures.<u>authorDatetime</u>)1 day or on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter) TJC.Intervention Comfort Measures:
 - ["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days"

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Encounter with Comfort Measures:

- TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC. "Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)¹ day or
- less

on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

TJC.Intervention Comfort Measures:

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



Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days" union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

- TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC."Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)1 day or
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 ["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

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Encounter with Comfort Measures:

- TJC. "Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC. "Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)¹ day or
- less

- on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)
- TJC.Intervention Comfort Measures:
 - ["Intervention, Order": "Comfort Measures"] union ["Intervention, Performed": "Comfort Measures"]





Patients who have a duration of stay less than 2 days Patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours prior to arrival or anytime during hospitalization Patients with comfort measures documented on day or the day after arrival

Denominator Exclusions: "Encounter Less Than Two Days" union "Encounter with Thrombolytic Therapy Medication or Procedures" union "Encounter with Thrombolytic Medication" union "Encounter with Comfort Measures"

Encounter with Comfort Measures:

- TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with TJC."Intervention Comfort Measures" ComfortMeasures such that Coalesce(start of ComfortMeasures.relevantPeriod, ComfortMeasures.authorDatetime)¹ day or
- less

on or after day of start of Global. "Hospitalization" (IschemicStrokeEncounter)

TJC.Intervention Comfort Measures:

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



Numerator



Patients who had antithrombotic therapy administered the day of or day after hospital arrival

Numerator:

"Encounter with Antithrombotic Therapy"

Encounter with Antithrombotic Therapy:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with ["Medication, Administered": "Antithrombotic Therapy"] Antithrombotic such that Antithrombotic.relevantPeriod starts 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)



Numerator



Patients who had antithrombotic therapy administered the day of or day after hospital arrival

Numerator:

"Encounter with Antithrombotic Therapy"

Encounter with Antithrombotic Therapy:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with ["Medication, Administered": "Antithrombotic Therapy"] Antithrombotic such that Antithrombotic.relevantPeriod starts 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)





Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

No Antithrombotic Ordered During Hospitalization:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

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

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



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

No Antithrombotic Ordered During Hospitalization:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

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

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



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

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TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

 ["Medication, Not Administered": "Antithrombotic Therapy"] NoAntithromboticGiven where NoAntithromboticGiven.negationRationale in "Medical Reason" or NoAntithromboticGiven.negationRationale in "Patient Refusal"

STK 5 — 63



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

No Antithrombotic Ordered During Hospitalization:

 TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

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

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



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

No Antithrombotic Ordered During Hospitalization:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

 ["Medication, Not Administered": "Antithrombotic Therapy"] NoAntithromboticGiven where NoAntithromboticGiven.negationRationale in "Medical Reason" or NoAntithromboticGiven.negationRationale in "Patient Refusal" - STK 5 - 65



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

No Antithrombotic Ordered During Hospitalization:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

 ["Medication, Not Administered": "Antithrombotic Therapy"] NoAntithromboticGiven where NoAntithromboticGiven.negationRationale in "Medical Reason" or NoAntithromboticGiven.negationRationale in "Patient Refusal" STK 5 — 66



Patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival

Denominator Exceptions: "No Antithrombotic Ordered During Hospitalization"

No Antithrombotic Ordered During Hospitalization:

TJC."Ischemic Stroke Encounter" IschemicStrokeEncounter with "No Antithrombotic Ordered" NoAntithrombotic such that NoAntithrombotic.authorDatetime 1 day or less on or after day of start of Global."Hospitalization"(IschemicStrokeEncounter)

No Antithrombotic Ordered:

 "No Antithrombotic Ordered for Medical Reason or Patient Refusal" union "No Antithrombotic Administered"

No Antithrombotic Ordered for Medical Reason or Patient Refusal:

 ["Medication, Not Ordered": "Antithrombotic Therapy"] NoAntithromboticOrder where NoAntithromboticOrder.negationRationale in "Medical Reason" or NoAntithromboticOrder.negationRationale in "Patient Refusal"

No Antithrombotic Administered:

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

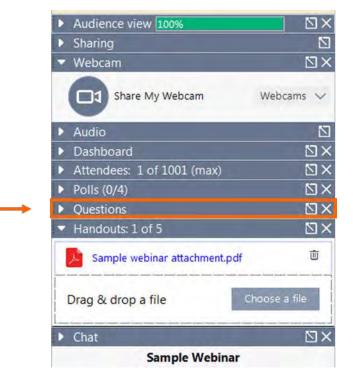
where NoAntithromboticGiven.negationRationale in "Medical Reason" or NoAntithromboticGiven.negationRationale in "Patient Refusal"

Pioneers in Quality[™] Expert to Expert Series: STK₋5 and AMI-8a





- Please submit questions now. Click the triangle next to "Questions" in your GoToWebinar participant dashboard to expand the Questions pane.
- Include your name and organization with your question.



Lynn Perrine, MSN, RN Angela Flanagan, MSN, RN, CPHIMS AMI 8a - Primary PCI Received Within 90 Minutes of Hospital Arrival (CMS53v7)

January 29, 2019

Lantana CONSULTING GROUP



Changes specific to AMI-8a



Logic

- Updated measure logic from Quality Data Model (QDM)-based logic to Clinical Quality Language (CQL)-based logic.
- Information on CQL can be found at the eCQI Resource Center at <u>https://ecqi.healthit.gov/cql</u>.

Header

- Updated the measure description to make the language clear and concise. This is a language update only.
- Removed guidance statement related to the inability to explicitly express the primary percutaneous coronary intervention (PCI) with QDM-based logic.
- Updated the numerator statement to better align with the CQL-based logic and for consistency with the denominator statement.

Value Sets

Updated to add new codes and delete inactive codes.

Measure description



Acute myocardial infarction (AMI) patients with a diagnostic ECG and ST-segment elevation, who receive a primary percutaneous coronary intervention (PCI) during their hospital stay, and the time from hospital arrival to PCI is 90 minutes or less





Narrative

Patients age 18 and older at the time of hospital admission with a principal diagnosis of an Acute or Evolving Myocardial Infarction (ST-segment elevation MI) with hospital stays <= 120 days during the measurement period

Initial Population

"Inpatient Encounters" intersect "AMI Encounter"

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Initial Population

Definitions

Inpatient Encounters

["Encounter, Performed": "Encounter Inpatient"] Encounter where Global."LengthInDays"(Encounter.relevantPeriod) <= 120 and Encounter.relevantPeriod ends during "Measurement Period"

A Global.LengthInDays(Value Interval<DateTime>)

difference in days between start of Value and end of Value

AMI Encounter

["Encounter, Performed": "Encounter Inpatient"] Encounter with ["Patient Characteristic Birthdate"] BirthDate such that Global.CalendarAgeInVearsAt(BirthDate.birthDatetime, start of Encounter, relevantPeriod)>= 18 and Encounter principal Diagnosis in "Acute or Evolving MI"

4 Global.CalendarAgeInYearsAt(BirthDateTime DateTime, AsOf DateTime)

years between ToDate(BirthDateTime)and ToDate(AsOf)







Narrative

Initial population with an ECG performed and a primary PCI procedure closest to the inpatient admission that does not start after fibrinolytic therapy

Denominator

```
"Initial Population" QualifyingEncounter
let FirstPCI: First("PCI Procedure" FirstPCI
where FirstPCI.relevantPeriod starts on or after Global."Hospital Arrival Time"(QualifyingEncounter)
sort by start of relevantPeriod
)
with "Diagnostic Electrocardiogram" ECG
such that ECG.relevantPeriod starts during Global."Hospitalization"(QualifyingEncounter)
or ECG.relevantPeriod starts 1 hour or less on or before Global."Hospital Arrival Time"(QualifyingEncounter)
where FirstPCI.relevantPeriod starts 1440 minutes or less on or after Global."Hospital Arrival Time"(QualifyingEncounter)
and not exists ("Fibrinolytic" FibrinolyticTherapy
where FibrinolyticTherapy.relevantPeriod starts after Global."Hospital Arrival Time"(QualifyingEncounter)
and FibrinolyticTherapy.relevantPeriod starts before start of FirstPCI.relevantPeriod
```

Denominator



Definitions

PCI Procedure

["Procedure, Performed": "PCI"]

A Diagnostic Electrocardiogram

["Diagnostic Study, Performed": "Electrocardiogram (ECG)"]

Fibrinolytic

["Medication, Administered": "Fibrinolytic Therapy"]

Denominator Exclusions



Narrative

Patients who transferred from another hospital's inpatient, outpatient, or emergency department and ambulatory surgery center facilities are excluded

Denominator Exclusions

"Denominator" DenominatorEncounter

where DenominatorEncounter.admissionSource in "Ambulatory surgical center"

or DenominatorEncounter.admissionSource in "Transfer From Outpatient"

or DenominatorEncounter.admissionSource in "Transfer From Emergency Department (ED) Locations"

or DenominatorEncounter.admissionSource in "Transfer From Inpatient"

Denominator Exclusions



Terminology

- valueset "Acute or Evolving MI" using "2.16.840.1.113883.3.666.5.3022"
- valueset "Ambulatory surgical center" using "2.16.840.1.113883.3.666.5.687"
- valueset "Aortic balloon pump insertion" using "2.16.840.1.113883.3.666.5.1151"
- valueset "Cardiopulmonary arrest" using "2.16.840.1.113883.3.666.5.748"
- valueset "Electrocardiogram (ECG)" using "2.16.840.1.113883.3.666.5.735"
- valueset "Emergency Department Visit" using "2.16.840.1.113883.3.117.1.7.1.292"
- valueset "Encounter Inpatient" using "2.16.840.1.113883.3.666.5.307"
- valueset "Endotracheal Intubation" using "2.16.840.1.113762.1.4.1045.69"
- valueset "Ethnicity" using "2.16.840.1.114222.4.11.837"
- valueset "Fibrinolytic Therapy" using "2.16.840.1.113883.3.666.5.736"
- valueset "ONC Administrative Sex" using "2.16.840.1.113762.1.4.1"
- valueset "Payer" using "2.16.840.1.114222.4.11.3591"
- valueset "PCI" using "2.16.840.1.113762.1.4.1045.67"
- valueset "Race" using "2.16.840.1.114222.4.11.836"
- valueset "Transfer From Emergency Department (ED) Locations" using "2.16.840.1.113883.3.666.5.3006"
- valueset "Transfer From Inpatient" using "2.16.840.1.113883.3.666.5.3013"
- valueset "Transfer From Outpatient" using "2.16.840.1.113883.3.67.1.101.950"
- valueset "Ventricular Assist Device placement" using "2.16.840.1.113883.3.666.5.3015"





Narrative

Initial population whose time from hospital arrival to primary PCI is 90 minutes or less

A Numerator

"Initial Population" QualifyingEncounter with "PCI Procedure" PCI such that PCI.relevantPeriod starts 90 minutes or less on or after Global."Hospital Arrival Time"(QualifyingEncounter)

Numerator



Definitions

PCI Procedure

["Procedure, Performed": "PCI"]

Functions

4 Global.Hospital Arrival Time(Encounter "Encounter, Performed")

start of First(("Hospitalization Locations"(Encounter))HospitalLocation sort by start of locationPeriod).locationPeriod

Denominator Exceptions



Narrative

Patients who did not receive PCI within 90 minutes and have a documented reason. Documented reasons include:

- "Diagnosis: Cardiopulmonary arrest"
- "Procedure, Performed: Endotracheal Intubation"
- "Procedure, Performed: Aortic balloon pump insertion"
- "Procedure, Performed: Ventricular Assist Device placement"

Denominator Exceptions

```
( "Procedure Exceptions Within 90 Minutes of Arrival"
union "Diagnosis Exception"
)
```

Denominator Exceptions



Definitions

Procedure Exceptions Within 90 Minutes of Arrival

"Inpatient Encounters" Encounter

with "Exception Procedures" ExceptionProcedures

such that ExceptionProcedures.relevantPeriod starts 90 minutes or less on or after Global."Hospital Arrival Time" (Encounter)

4 Exception Procedures

4 Diagnosis Exception

"Inpatient Encounters" Encounter with ["Diagnosis": "Cardiopulmonary arrest"] CardiacArrest such that CardiacArrest.prevalencePeriod starts 90 minutes or less on or after start of Global.Hospitalization(Encounter)

Frequently asked questions









Question

Should ICD-10 code I21.9 be included in the AMI value set (2.16.840.1.113883.3.666.5.3022)? It seems as though it should be included.

Answer

The logic was changed during the 2018 Annual Update to capture acute or evolving myocardial infarctions (MI) within the initial population. An acute or evolving MI is an ST-segment elevation MI. Since ICD-10-CM code I21.9 is for an unspecified acute MI it is not included.





Question

For CMS53v7 numerator condition:

"Initial Population" QualifyingEncounter with "PCI Procedure" PCI such that PCI.relevantPeriod starts 90 minutes or less on or after Global."Hospital Arrival Time" (QualifyingEncounter) Do we have to check the first Arrival time irrespective of the location (ED or IP)?

Answer

Yes. The intent of the measure is to determine if a PCI procedure was performed within 90 minutes of hospital arrival – either from the start of the ED encounter if the ED visit ends one hour or less before the start of the inpatient encounter, or the start of the inpatient encounter with no preceding ED visit.

Resources



- 1. eCQI Resource Center: <u>https://ecqi.healthit.gov/cql</u>
 - One stop shop for all information related to eCQM's
 - Find EH program information via: <u>https://ecqi.healthit.gov/eligible-hospital/critical-access-hospital-ecqms</u> such as:
 - Measure specifications
 - Technical Release Notes- which states all changes made to each measure during annual updates and during the addendum (code updates)
 - eCQM Measure Flows- to help understand the measure algorithms
 - Links to many Educational Resources such as:
 - CQL Standards: <u>https://ecqi.healthit.gov/cql-clinical-quality-language</u>
 - QDM (Quality Data Model): <u>https://ecqi.healthit.gov/qdm-quality-data-model</u>
 - QDMv5.3 Annotated is used for the 2019 reporting
 - eCQM Implementation Check List: <u>https://ecqi.healthit.gov/ecqm-implementation-checklist</u>
 - Previous recordings & slide deck presentations: <u>https://ecqi.healthit.gov/cql/cql-educational-resources</u>
 - Events page to see and register for upcoming educational events <u>https://ecqi.healthit.gov/ecqi/ecqi-events</u>
- 2. Value Set Authority Center (VSAC): <u>https://vsac.nlm.nih.gov/</u>
 - To look up the codes listed in the value sets of a measure
 - Requires license but free of charge
 - Quick link to download valuesets/Direct reference codes from the VSAC: <u>https://vsac.nlm.nih.gov/download/ecqm?rel=20180917</u>

Resources



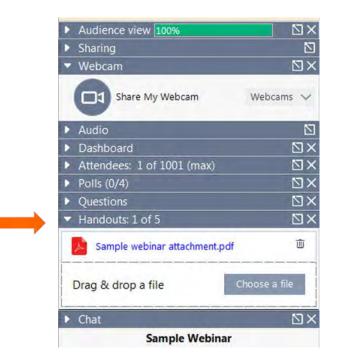
- 3. Technical CQL Resources:
 - Formatting and Usage: <u>https://github.com/esacinc/CQL-Formatting-and-Usage-Wiki/wiki</u>
 - CQL GitHub Tools Repository: <u>https://github.com/cqframework/clinical_quality_language</u>
 - CQL Specification CQL Release 1, Standard for Trial Use (STU) 2
 - http://www.hl7.org/implement/standards/product_brief.cfm?product_id=400
 - <u>http://cql.hl7.org/STU2/index.html</u>
 - CQL-Based HQMF IG Release 1, STU 2.1
 - <u>http://www.hl7.org/implement/standards/product_brief.cfm?product_id=405</u>
- 4. To submit an issue ticket for a CQL specific question, please visit the ONC JIRA site
 - <u>https://oncprojectracking.healthit.gov/support/projects/CQLIT</u>
- 5. To submit an issue ticket for a measure specific question, please visit the ONC JIRA site
 - <u>https://oncprojectracking.healthit.gov/support/projects/CQM/issues</u>
- 6. Pioneers in Quality Expert to Expert Replays and Slides: <u>https://www.jointcommission.org/piq_expert_to_expert_series/</u>
- 7. Pioneers in Quality Portal: <u>https://www.jointcommission.org/topics/pioneers_in_quality.aspx</u>

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Pioneers in Quality

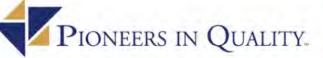




2017 Annual Report on Quality and Safety

America's Hospitals: Improving Quality and Safety – The Joint Commission's Annual Report 2017

Press Releases



2018 Proven Practices Collection and Webinar Series

Four hospitals and/or health systems <u>were recognized</u> as 2018 Pioneers in Quality[™] Expert Contributors for their efforts to advance the evolution and utilization of electronic clinical quality measures (eCQMs). These organizations presented during the Joint Commission's Pioneers in Quality[™] 2018 eCQM Proven Practices webinar series and are featured within the 2018 Proven Practice Collection along with the five Experts Contributors recognized in 2017. You can access the 2018 <u>Proven Practices Collection here</u>.

- August 23, 11 a.m. CT: "Electronic health record (EHR) refinement and system EHR transition," presented by Expert Contributors Medstar St. Mary's Hospital and BJC Healthcare. For more information, including the session recording, slides, and Q&A visit the <u>webinar landing page</u>.
- September 18, 1 p.m. CT: "An evolutionary approach and a model of collaboration," presented by Expert Contributors Vail Health Hospital and Texas Health Resources. For more information, including the session recording, slides, and Q&A visit the <u>webinar landing page</u>.
- Proven Practices Webinar Series. For more information, including links to all 2017 and 2018 session's recordings, slides, and Q&A, see the <u>Proven</u> <u>Practices landing page</u>.

About the Program

Pioneers in Quality (PIQ) is a Joint Commission program to assist hospitals on their journey towards electronic clinical quality measure adoption that includes educational programs (e.g., webinars for CEUs), a resource portal, recognition



Friday 11:46 CST, November 30, 2018



evolutionary approach and a

model of collaboration

Visit <u>https://www.jointcommission.org/topics/pioneers_in_quality.aspx</u> for additional information about Pioneers in Quality and the Proven Practices Program.

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Thank you for attending this session.

