



STROKE REGISTRY DATA DICTIONARY

I. AUTHORITY:

Health and Safety Code, Division 2.5, Section 1798.170.

II. APPLICATION:

This policy provides data standards and entry criteria for Orange County Stroke Registry reporting by hospital personnel and provider facilities. The resources listed below provide general guidelines and specifications for data submission and defines data collection requirements for designated Stroke-Neurology Receiving Centers (SNRC) as noted in Policy 650.00, Section VII.

III. DEFINITIONS:

The definitions listed below provide a description of the types of information that are available for each data element.

Data Element Name: The label provided for each data element to provide identification and reference.

Collected For: The designation of which registry and which performance measure (when applicable) the data element is necessary for.

Required: Indicates that hospitals participating in the Orange County Stroke Registry are required to submit the corresponding data element.

Recommended: Indicates that hospitals participating in the Orange County Stroke Registry are recommended (but not required) to submit the corresponding data element. If the data element is not specified as Required, then it is by default Recommended.

Format: Technical definition of the data element as expressed on the electronic registry form.

Allowable Values: The comprehensive list of values or entries from which a hospital may choose to submit data for each data element.

Notes for Abstraction: Guidelines designed to aid hospital personnel when reviewing suggested data sources for the purpose of obtaining appropriate data for submission.

Suggested Data Sources: A list of data sources which may contain requested information. These lists may contain exact specifications of which sources are valid and which sources are invalid.

Inclusion Guidelines for Abstraction: Several data elements may be Required for specific populations such as Ischemic Stroke Patients, but not for others such as Stroke Mimics. This section will provide details as to which populations are to be included for chart review and data submission.

**STROKE REGISTRY DATA DICTIONARY****IV. PATIENT INCLUSION CRITERIA:**

- A. Each patient received by a SNRC via an EMS provider with a field-based primary or secondary impression of "Stroke".
 - i. Each participating facility will implement a mechanism to ensure accurate and complete capture of this patient population segment.
- B. Each patient cared for at a SNRC with a diagnosis of ischemic or hemorrhagic stroke.
 - i. ICD-10, I60.00 – I60.9 Non-Traumatic Subarachnoid Hemorrhage (SAH)
 - ii. ICD-10, I61.0 – I61.9 Non-Traumatic Intracerebral Hemorrhage (ICH)
 - iii. ICD-10, I63.00 – I63.9 Cerebral Infarction (Ischemic Stroke)
 - iv. ICD-10, G45.0 – G45.2, G45.8 – G45.9 TIA and related syndromes.
- C. Each patient referred by a SNRC to another acute care facility for stroke-related purposes..
 - i. Each participating facility will implement a mechanism to ensure accurate and complete capture of this patient population segment.
- D. General Inclusion Provisions
 - i. Patients admitted for a diagnosis noted above who are later transferred or expire.
 - ii. Patient directly admitted to inpatient units without first being seen in the ED.
 - iii. Patients who refuse treatment, have DNR/comfort care orders.
 - iv. Patients cared for in the ED but not admitted, i.e. death, left against medical advice, were evaluated/treated then transferred ("drip and ship"), or discharged after observation.
 - v. Patients who underwent a non-elective stroke-related procedure at your facility.
 - vi. More provisions are detailed within the specific data element descriptions with important notations within the Diagnosis and Discharge elements.
- E. Optional Inclusion Provisions: You may elect to use these criteria to screen for additional patients.
 - i. ICD-10, O99.411 – O99.43 Diseases of the circulatory system complicating pregnancy, childbirth and puerperium.
 - ii. ICD-10, G97.31 – G97.32 Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a procedure.
 - iii. ICD-10, G97.51 – G97.52 Post-procedural hemorrhage and hematoma of a nervous system organ or structure following a procedure.
 - iv. ICD-10, I97.810 – I97.821 Intraoperative and postoperative cerebrovascular infarction.
 - v. Patients who present with stroke-like symptoms but who do not end up being diagnosed with a stroke or TIA (stroke mimics).



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V. LIST OF DATA ELEMENTS: Grouped by sections as presented in electronic registry form.

Data Element	Definition	Usage	Page
Arrival Information			
EMS Incident Number	The unique identification number for the EMS incident.	Required	6
Medical Record Number	Number assigned by your hospital for tracking each patient.	Optional	7
Account/Visit Number	Number assigned by your hospital for tracking each care episode.	Optional	8
Arrival at ED (Date and Time)	Date and Time that the patient arrived at your Emergency Dept.	Required	9
Method of Arrival	How the patient arrived at your hospital.	Required	11
Advanced Stroke Notification	Indication that advanced notification was provided to your hospital by EMS regarding a potential stroke patient.	Required	12
Referring Hospital	The hospital that transferred the patient to your facility.	Required	13
Patient Demographics			
Name	Last Name, First Name, Middle Initial	Optional	14
Date of Birth	Date of Birth	Optional	15
Age	Patient's age at the time of incident.	Required	16
Age Units	The unit associated with the numerical value recorded for the patient's age, i.e. days, weeks, months, or years.	Required	16
Race	Census defined standard for racial categories.	Optional	17
Ethnicity	Census defined standard for ethnicity.	Optional	17
Gender	The patients gender (male, female, or unknown).	Required	18
Address	Street Address, City, County, State, Country and Postal Code.	Optional	19
Alternative Residence	Documentation if the patient does not have a traditional home street address.	Optional	20



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Evaluation and Tracking			
Last Known Well (Date and Time)	The date and time prior to hospital arrival at which it was witnessed or reported that the patient was last known to be without signs and symptoms of the current stroke or at his/her baseline state of health.	Required	21
NIH Stroke Scale	For Ischemic Stroke, measured at hospital admission and discharge. Note that the NIHSS may be utilized for stroke not otherwise specified and hemorrhagic stroke; if used please document.	Required	23
Glasgow Coma Scale	For Hemorrhagic Stroke, measured at hospital admission and at hospital discharge.	Required	25
Hunt and Hess Stroke Scale	For Subarachnoid Hemorrhage (SAH) Stroke, measured prior to surgical intervention or within 6 hours of arrival for patients who do not undergo surgical intervention.	Optional	27
ICH Score	For Intracerebral Hemorrhage (ICH) Stroke, measured prior to surgical intervention or within 6 hours of arrival for patients who do not undergo surgical intervention.	Optional	29
Modified Rankin Scale	For Ischemic Stroke, measured Pre-Event and at 90 days after diagnosis of stroke (not days after discharge).	Required	31
Treatment			
Brain Imaging	Determination (Yes/No) if brain imaging was performed at your hospital for this episode of care, then Date and Time that the brain imaging was initiated.	Required	33
IV tPA Initiation	Yes/No, and Date and Time that IV tPA therapy was initiated for a patient with ischemic stroke at your hospital.	Required	35
IV tPA Contraindications	Reason for NOT initiating IV tPA therapy must be documented on the day of or day after arrival.	Required	37
IA tPA Initiation	Yes/No, then Date and Time that IA tPA therapy was initiated for a patient with ischemic stroke at your hospital.	Required	39
IA tPA Contraindications	Reason for NOT initiating IA tPA therapy must be documented on the day of or day after arrival.	Required	41
MER Initiation	Yes/No, then Date and Time that mechanical endovascular reperfusion (MER) therapy was initiated for a patient with ischemic stroke at your hospital.		43
MER Contraindications	Reason for NOT initiating MER therapy must be documented on the day of or day after hospital arrival.	Required	45
Reason for Delayed Initiation >60min	Reason for delaying/extending the initiation of thrombolytic therapy >60 min after arrival.	Required	47



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Complications of Therapy	Complications of IV tPA, IA tPA, or MER therapy. If patient experienced no complications please document as such.	Required	49
Clinical Trial Participant	Documentation that during this care episode the patient was enrolled in a stroke related clinical trial that affected the performance of standard stroke protocols or practices.	Optional	51
Telemedicine	Was telemedicine utilized during this episode of care. Telemedicine includes any remote diagnosis or treatment of the patient by means of telecommunications technology and specifically includes teleradiology services.	Required	53

Diagnosis and Discharge			
Final Clinical Diagnosis	Descriptive documentation of the final clinical diagnosis related to stroke. Please see element details for description of values.	Required	54
If No Stroke Related Diagnosis	Descriptive documentation of the final clinical diagnosis of stroke mimics that in this care episode caused Advanced Stroke Notification by EMS and/or activation of your ED stroke protocols.	Required	56
Discharge Disposition	Patient's final disposition upon discharge from your facility.	Required	57
Destination Determination	If the patient was transferred from your facility to another acute care hospital, please document the reason that this action was taken.	Required	59
Hospital Transferred To	If the patient was transferred from your facility to another acute care hospital, please document the receiving hospital name.	Required	60
ICD-10 Codes	The International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) code associated with the diagnosis established for this patient during this specific care episode.	Required	61

Full data specifications are provided on the following pages corresponding to the noted page numbers listed in the above table.

Approved:

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**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** EMS Incident Number**Collected For:** OCEMS (Required)**Definition:**

This is the identification number assigned by the 911 dispatch system. This is a unique number assigned by the 911 EMS dispatch agency for each call. The incident number is the most reliable number. When providers are not documenting in OC-MEDS-You should use the PCR number as an alternative. (This may also be referred to as the BLS Number, Call Number, or Incident Number depending on the provider)

Suggested Data Collection Question: What is the EMS Incident Number associated with this patient's transport to your facility?**Format:****Length:** 1-20**Type:** Alphanumeric**Occurs:** 1**Allowable Values:** All valid identifiers as defined by 911 dispatch and/or EMS providers.**Notes for Abstraction:**

- Obtain from a valid data source and confirm through the OCEMS Hospital Hub or Stroke Registry EMS Search.

Suggested Data Sources:

- OCEMS Hospital Hub
- OCEMS Stroke Registry EMS Search
- Hospital or Health System Medical Records System

Inclusion Guidelines for Abstraction:

All patients who arrived via an EMS provider (911 Transport, Fire Service, Air Medical, IFT-ALS, BLS, etc) are required to have a documented EMS Incident Number. All patients transferred to your facility from another acute care facility via EMS Interfacility Transport should have a documented EMS Incident Number.

Exclusion Guidelines for Abstraction:

This element is to be left blank if the patient is a "walk-in" or if they arrived at your facility via private transport, taxi, or other non-EMS transport service.



STROKE REGISTRY DATA DICTIONARY

Data Element Name: Medical Record Number

Collected For: OCEMS (Optional)

Definition:

Number assigned by your hospital for tracking all medical care provided by your hospital and/or health system to each patient over an extended period of time typically consisting of multiple care episodes and multiple medical conditions.

Suggested Data Collection Question:

What is the medical record number associated with this patient?

Format:

Length: 1-20

Type: Alphanumeric

Occurs: 1

Allowable Values: All pertinent identifiers as defined by hospital and health system standards.

Notes for Abstraction: None

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have a documented Medical Record Number.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Account/Visit Number

Collected For: OCEMS (Optional)

Definition:

Number assigned by your hospital in order to link a patient with this specific and unique episode of care. This number will only be associated with a single discrete care episode.

Suggested Data Collection Question:

What is the account number associated with this patient's particular episode of care?

Format:

Length: 1-20

Type: Alphanumeric

Occurs: 1

Allowable Values: All pertinent identifiers as defined by hospital and health system standards.

Notes for Abstraction: None

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are recommended to have a documented Account/Visit Number.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Arrival at ED (Date and Time)**Collected For:** OCEMS (Required), JC STK-4, JC CSTK-02,03,04,05,06,07**Definition:**

The earliest documented date and time that the patient arrived at your emergency department or hospital if the patient was transferred directly to an inpatient unit.

Suggested Data Collection Question:

What was the earliest documented time that the patient arrived at your facility?

Format:**Length:** Date: 10, MM-DD-YYYY**Time:** 5, HH:MM (24hr/Military Time)**Type:** Date and Time**Occurs:** 1**Allowable Values:**

MM = Month (01-12)

HH = Hour (00-23)

Must be in 24hr/Military Format

DD = Day (01-31)

MM = Minute (00-59)

If the time is 12hr p.m. format, add

YYYY = Year (20xx)

12 to that number and record.

Notes for Abstraction:

- 00:00 = midnight. If the time is documented as 12midnight review supporting documentation to determine correct date. Incorrect: 24:00 1/1/2016. Correct: 00:00 1/2/2016.
- For times that include seconds, remove the seconds and record the time as is. Do not round up. Example: 15:00:35 would be recorded as 15:00
- If you are unable to determine the time based on provided documentation, leave the field blank.
- The medical record must be abstracted as documented (taken at "face value"). When the time documented is obviously in error and no other documentation is found that provides this information, leave the field blank.
- Arrival time should not be abstracted simply as the earliest time in one of the acceptable sources, without regard to other substantiating documentation. If the earliest time documented appears to be an obvious error, this time should not be abstracted.
- Arrival time may be different than admission time.
- If the patient is in either an outpatient setting of the hospital other than observation status (e.g., dialysis, chemotherapy, cardiac cath) or a SNF unit of the hospital, and is subsequently admitted to acute inpatient, use the time the patient arrived at the ED or on the floor for acute inpatient care as the arrival time.
- Observation status:
- If the patient was admitted to observation from an outpatient setting of the hospital, use the time the patient arrived at the ED or on the floor for observation care as the arrival time.
- If the patient was admitted to observation from the ED of the hospital, use the time the patient arrived at the ED as the arrival time.
- Direct Admits:
- If the patient is a "Direct Admit" to the cath lab, use the earliest time the patient arrived at the cath lab (or cath lab staging/holding area) as the arrival time.



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Data Element Name: Arrival at ED (Date and Time)

Notes for Abstraction (cont.):

- For "Direct Admits" to acute inpatient or observation, use the earliest time the patient arrived at the nursing floor or in observation (as documented in the Only Acceptable Sources) as the arrival time.
- If the patient was transferred from your hospital's satellite/free-standing ED or from another hospital within your hospital's system (as an inpatient or ED patient), and there is one medical record for the care provided at both facilities, use the arrival time at the first facility.

Suggested Data Sources:

Only Acceptable Sources

- Emergency department record
- Nursing admission assessment/admitting note
- Observation record
- Procedure notes
- Vital signs graphic record

Specifically Excluded Sources

- EMS Patient Care Report
- Physician Office Record
- H&P

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have an arrival time documented, however if no valid documentation is available leave the field blank.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.



STROKE REGISTRY DATA DICTIONARY

Data Element Name: Method of Arrival**Collected For:** OCEMS (Required)**Definition:** The method by which the patient arrived at your hospital.**Suggested Data Collection Question:** How did the patient arrive at your hospital?**Format:****Type:** Single-Select**Occurs:** 1**Allowable Values:**

- EMS from home/scene
- Private transportation/taxi/other from home/scene
- Transfer from another hospital
- Not Documented (ND) or unknown

Notes for Abstraction:

- Choose "EMS from home/scene" whenever the patient arrived at your hospital by public or private EMS. This method includes ground or air transport, public or private transport service, and 911 Emergent or Non-emergent transports. However do not include those patients being transferred from another acute care hospital. Those patients are grouped under the value: "Transfer from another hospital".
- Choose "Transfer from another hospital" when they are arriving from another hospital.
- If the patient had a stroke while an inpatient please select "Transfer from another hospital" and then select your own hospital from the referring hospital list.
- "Private transportation" includes cab, bus, car, bike, walk-in, etc.

Suggested Data Sources: Only acceptable sources**Inclusion Guidelines for Abstraction:**

All patients included in this registry are required to have this element documented. If no valid documentation is available please enter "Not Documented (ND) or unknown".

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Advanced Stroke Notification

Collected For: OCEMS (Required)

Definition:

Documentation that advanced notification was provided to your hospital by EMS regarding a potential stroke patient. Expectations in the prehospital environment are to test blood glucose, use a prehospital stroke assessment tool, and to notify appropriate receiving center of the incoming patient.

Suggested Data Collection Question:

Was advanced notification provided by the EMS crew or system that a stroke patient was en route to your facility?

Format:

Type: Single-Select

Occurs: 1

Allowable Values:

Yes Advanced Notification is documented as received by your hospital from EMS including MICN or other contact from the EMS unit's base hospital.

No/ND No Advanced Notification was received or is documented as received by your hospital from EMS including MICN or other contact from the EMS unit's base hospital.

N/A Not Applicable, select this choice when the patient is a "walk-in", or arrived by other private transportation (non EMS).

Notes for Abstraction:

- See above definitions of allowable values.
- Patients who were transferred from another acute care hospital should have Advanced Notification provided by EMS regarding patient condition and estimated time of arrival.
- This element is applicable to patients who were transferred from another acute care hospital.

Suggested Data Sources:

Only Acceptable Sources

- Emergency department record
- Nursing admission assessment/admitting note

Specifically Excluded Sources

- EMS Patient Care Report

Inclusion Guidelines for Abstraction:

All patients who arrive by EMS from home/scene or who are transferred from another acute care hospital are required to have this element documented. If EMS was uninvolved in the patient's arrival at your facility you should document this element as "N/A".

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Referring Hospital**Collected For:** OCEMS (Required)**Definition:**

The hospital that transferred the patient to your facility. This field is pertinent when the patient is being transferred from another acute care hospital to your facility via a planned or 911 interfacility EMS transport.

Suggested Data Collection Question: From what hospital was this patient referred?**Format:****Length:** 1-20**Type:** Alphanumeric**Occurs:** 1**Allowable Values:**

All pertinent identifiers as defined by the state of California. Any acute care hospital transferring a patient to a facility participating in this registry will be assigned a pertinent identifier.

Notes for Abstraction:

- If the patient is not being transferred to your facility from another acute care hospital please disregard this element and leave the value field blank.

Suggested Data Sources: Only acceptable sources**Inclusion Guidelines for Abstraction:**

All patients included in this registry who were transferred to your facility from another acute care hospital are required to have this element documented, however if no valid documentation is available leave the field blank.

Exclusion Guidelines for Abstraction:

For any patient not being transferred from another acute care hospital, please leave this field blank.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Patient Name (Last, First, Middle Initial)

Collected For: OCEMS (Optional)

Definition: The patient's full legal name.

Suggested Data Collection Question:

What is the patient's name documented as in your medical record, or associated medical documents?

Format:

Length: 1-20

Type: Alphanumeric

Occurs: 1

Allowable Values:

The patient's legal name or any valid identifier uniformly used in a similar field in your facility's medical record or associated medical documents.

Notes for Abstraction:

- While this element is not required it is recommended for quality improvement purposes requiring documentation and data reconciliation.
- This element will auto-populate from the OCEMS Prehospital Care Report (PCR), however please validate manually if required by your facility.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are recommended to have a documented name.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Patient Date of Birth

Collected For: OCEMS (Optional)

Definition: The patient's date of birth.

Suggested Data Collection Question: What is the patient's date of birth?

Format:

Length: 10, MM-DD-YYYY

Type: Date

Occurs: 1

Allowable Values:

- MM = Month (01-12)
- DD = Day (01-31)
- YYYY = Year (20xx)

Notes for Abstraction:

- While this element is not required it is recommended for quality improvement purposes requiring documentation and data reconciliation.
- This element will auto-populate from the OCEMS Prehospital Care Report (PCR), however please validate manually if required by your facility.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are recommended to have a documented date of birth.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Patient Age and Age Units

Collected For: OCEMS (Required)

Definition: The patient's age in appropriate units.

Suggested Data Collection Question: What is the patient's age?

Format:

Length: 1-3

Type: Alphanumeric

Occurs: 1

Allowable Values: 0-120, Years, Month, Days, Hours

Notes for Abstraction:

- This element is required and should be validated by cross-referencing multiple acceptable sources of data documentation.
- This element will be auto-populated from the OCEMS Prehospital Care Report for applicable patients. Note that this field should be validated with your facilities documentation to ensure a correct value.
- This element will auto-calculate from the date of birth element.
- While it may not seem applicable to include Age Units in a Stroke Registry, the OCEMS Prehospital Care Report will serve to auto-populate this field and is necessary as such. For entries which do not have an associated OCEMS Prehospital Care Report, the unit will be defaulted to years.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have a documented age and age unit.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.



STROKE REGISTRY DATA DICTIONARY

Data Element Name: Patient Race and Ethnicity

Collected For: OCEMS (Optional)

Definition:

Self-identification categories defined by the U.S Office of Management and Budget as race and ethnicity.

Suggested Data Collection Question: What is the patient's race?

Format:

Length: 1-20

Type: Multi-Select

Occurs: Multiple

Allowable Values:

Race	Ethnicity
American Indian or Alaska Native	Hispanic or Latino
Asian	Not Hispanic or Latino
Black or African American	Not Known
Native Hawaiian or Other Pacific Islander	
Other Race	
White	
Not Known	

Notes for Abstraction:

- People of any race may be of any ethnic origin and vice versa.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have a documented race and ethnicity. If documentation does not exist to categorize then please not as "Not Known."

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Patient Gender**Collected For:** OCEMS (Required)**Definition:**

The range of characteristics pertaining to, and differentiating between, masculinity and femininity.

Suggested Data Collection Question: Is the patient male, female, or unknown?**Format:****Length:** 1-20**Type:** Alphanumeric**Occurs:** 1**Allowable Values:**

- Male
- Female
- Not Known

Notes for Abstraction:

- This element is required and should be validated by cross-referencing multiple acceptable sources of data documentation.
- This element will be auto-populated from the OCEMS Prehospital Care Report for applicable patients. Note that this field should be validated with your facilities documentation to ensure a correct value.

Suggested Data Sources: Only acceptable sources**Inclusion Guidelines for Abstraction: Inclusion Guidelines for Abstraction:**

All patients included in this registry are required to have a gender documented. If documentation does not exist to categorize the patient, please document as "Not Known."

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Patient Address (Street, City, County, State, Country, Postal Code)

Collected For: OCEMS (Optional)

Definition: The patient's full home address.

Suggested Data Collection Question: What is the patient's home address?

Format:

Length: 1-20

Type: Alphanumeric

Occurs: 1

Allowable Values: All pertinent values.

Notes for Abstraction:

- While only recommended this information is particularly valuable in identifying and tracking geographic areas which may be underserved by our current healthcare system.
- This element will be auto-populated from the OCEMS Prehospital Care Report for applicable patients. Note that this field should be validated with your facilities documentation to ensure a correct value.
- If a home address is not known please leave only those fields blank for which no information exists. For example if no street address is listed, please try to provide a city, postal code, etc.
- If street address is left blank a response to Alternate Residence is requested.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry are recommended to have a home address documented. If documentation does not exist to categorize then please leave blank, but respond to the Alternate Residence field.

Exclusion Guidelines for Abstraction: No populations are excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Alternative Residence

Collected For: OCEMS (Optional)

Definition: Indication of the residency/home status of a patient without a typical home address.

Suggested Data Collection Question:

If the patient doesn't have a typical home address what is their residency/home status?

Format:

Length: 1-20

Type: Single Choice

Occurs: 1

Allowable Values:

- Undocumented Citizen
- Migrant
- Homeless
- Foreign Visitor
- Not Known
- Not Applicable

Notes for Abstraction:

- While only recommended this information is particularly valuable in identifying and tracking geographic areas which may be underserved by our current healthcare system.
- This element will be auto-populated from the OCEMS Prehospital Care Report for applicable patients. Note that this field should be validated with your facilities documentation to ensure a correct value.
- Even if a patient does not have a traditional home address, please try to obtain a city, postal code, etc. to aid in the assessment of our EMS system.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients included in this registry without a home street address are recommended to have an Alternative Residence documented.

Exclusion Guidelines for Abstraction: Patients who have a home street address.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Last Known Well (Date and Time)**Collected For:** OCEMS (Required), JC STK-4**Definition:**

The date and time prior to hospital arrival at which it was witnesses or reported that the patient was last known to be without signs and symptoms of the current stroke or at his/her baseline state of health.

Suggested Data Collection Question: What is the date and time that the patient was last known well?**Format:****Length:** Date: 10, MM-DD-YYYY**Time:** 5, HH:MM (24hr/Military Time)**Type:** Date and Time**Occurs:** 1**Allowable Values:**

MM = Month (01-12)

HH = Hour (00-23)

Must be in 24hr/Military Format

DD = Day (01-31)

MM = Minute (00-59)

If the time is 12hr p.m. format, add

YYYY = Year (20xx)

12 to that number and record.

Notes for Abstraction:

- The purpose of this data element is to identify the earliest possible time that stroke symptoms began. It is also known as "Onset Time". If a patient experiences the onset of their symptoms in the company of another individual who can verify that the patient was functioning normally up until the time of start of symptoms, then in this patient the time "last known well" is also the time of symptom onset. However, if no witness is present at the onset of symptoms, please document the time that the patient was last known to be well or at their baseline state of health.
- Please treat the date and time fields as a single element. A value in one field should not be entered if you do not have documentation of the other field. For example if you only know the date but not the time, do not enter any information into either the date or time fields.
- Leave this element blank if there is any documentation by a physician/PA/NP that the Last Known Well Date or Time is unknown/uncertain/unclear.
- If there is contradictory information documented and it is clear that clinical decisions were based on one set of documented elements and not the other, then base your data selection on that information which informed clinical decision making.
- Do not interpret vague statements as concrete date and time information. For example if "Patient OK last night" you should leave both the date and time fields blank.
- 00:00 = midnight. If the time is documented as 12midnight review supporting documentation to determine correct date. Incorrect: 24:00 1/1/2016. Correct: 00:00 1/2/2016.
- For times that include "seconds", remove the seconds and record the time as is. Example: 15:00:35 would be recorded as 15:00

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Data Element Name: Last Known Well (Date and Time)

Suggested Data Sources:

- Prehospital Care Report (only if congruent with hospital decision making)
- Code Stroke form/template
- Emergency Department records
- History and physical
- IV flow sheets
- Medication administration record
- Nursing flow sheets
- Progress notes
- Transfer sheet

Inclusion Guidelines for Abstraction:

Please attempt to document a Last Know Well (Date and Time) for every patient included in this registry. This is a required element. However if this element is not documented or is lacking per the above instructions please leave these fields blank.

Exclusion Guidelines for Abstraction:

Note that there are valid reasons why a stroke patient will not have a Last Know Well documented. For example, patients admitted for elective carotid interventions or patients who experienced a delay in stroke diagnosis may not have an applicable Date and Time of Last Known Well.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** NIH Stroke Scale**Collected For:** OCEMS (Required), JC CSTK-01**Definition:**

Documentation that NIH Stroke Scale (NIHSS) was performed as indicated at this hospital. The NIHSS serves several purposes, but its main use in clinical medicine is for the assessment of the degree of disability caused by a given stroke. Fields recorded for this element are whether or not an NIHSS assessment was performed on arrival at the hospital (Initial) and at discharge. Corresponding scores (0-42) are also documented.

Suggested Data Collection Question:

- Was the NIH Stroke Scale (NIHSS) performed as part of the patient's initial evaluation?
- Was the NIH Stroke Scale (NIHSS) performed as part of the patient's final (discharge) evaluation?

Format:**Length:** 1-3**Type:** Single-Select and Numeric**Occurs:** 1**Allowable Values:**

- Yes
- No/ND (Not Documented)
- Score may range from 0-42, per the structure of the NIH Stroke Scale.

Notes for Abstraction:

- The NIHSS element (all fields) is required for all stroke patients with an ischemic diagnosis.
- The NIHSS is commonly used and may have significant clinical value for all stroke patients regardless of specific diagnosis. If the patient has a documented NIHSS please record in the registry as such regardless of final discharge diagnosis.
- The NIHSS score may be documented by a physician/PA/NP/RN.
- The Initial NIHSS must be documented to have been performed prior to any acute recanalization therapy (i.e. IV thrombolytic (t-PA) therapy, IA thrombolytic (t-PA) therapy, or mechanical reperfusion therapy (MER)) or within 12 hours of arrival at the hospital for patients who do not undergo recanalization therapy at your hospital.
- Patients who are referred from another acute care hospital should have the NIHSS documented that was part of your facility's initial evaluation, not part of the referring hospital's initial assessment.
- The Discharge NIHSS must be documented to have been performed as part of the discharge evaluation or within two days of the patient's discharge date.
- If your facility discharges/transfers the patient to another acute care hospital for further treatment and/or care please provide entry of the discharge/transfer NIHSS regardless of the patient's length of stay at your facility, including patients who were referred to another hospital directly from your ED.
- If a total NIHSS score is documented then you may select "Yes" to document that an assessment was performed and enter a numerical value (0-42) to document the score.
- Total scores obtained by telemedicine and documented in your medical record are recorded as "Yes" and score value entered.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** NIH Stroke Scale**Notes for Abstraction (cont.):**

- If components of the NIHSS are scored but the total is not documented or left blank, select "No" and leave the score field blank.
- Do not infer or calculate a total NIHSS score from documented NIHSS category scores.
- If there is any documentation to suggest that the NIHSS score recorded is an estimate, select "No" and leave the score field blank.

Suggested Data Sources:

- Emergency Department Records
- History and Physical
- Nursing Flow Sheet
- Progress Notes
- Transfer Sheet
- Admitting Note
- Consultation form/note
- Nursing Assessment
- Discharge Summary (only for the Discharge NIHSS)

Inclusion Guidelines for Abstraction:

All patients who have a final diagnosis of ischemic stroke are required to be included in this data element. All patients who have a documented NIHSS, regardless of final diagnosis are recommended to be included in this data element.

Exclusion Guidelines for Abstraction:

Patients who do not have a final diagnosis of ischemic stroke are not required for inclusion in this element.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Glasgow Coma Scale**Collected For:** OCEMS (Required)**Definition:**

Documentation that Glasgow Coma Scale (GCS) was performed as indicated at this hospital. The GCS serves several purposes, but its main use for stroke patients is for the assessment of the degree of disability caused by a given stroke, particularly for hemorrhagic stroke. Fields recorded for this element are whether or not a GCS assessment was performed on arrival at the hospital (Initial) and at discharge. The corresponding scores (3-15) are also required.

Suggested Data Collection Question:

- Was the Glasgow Coma Scale (GCS) performed as part of the patient's initial evaluation?
- Was the Glasgow Coma Scale (GCS) performed as part of the patient's final (discharge) evaluation?

Format:**Length:** 1-3**Type:** Single-Select and Numeric**Occurs:** 1**Allowable Values:**

- Yes
- No/ND (Not Documented)
- Score may range from 3-15, per the structure of the Glasgow Coma Scale.

Notes for Abstraction:

- The GCS element (all fields) is required for all stroke patients with a hemorrhagic diagnosis.
- The GCS is commonly used and may have significant clinical value for all stroke patients regardless of specific diagnosis. If the patient has a documented GCS please record in the registry as such regardless of final discharge diagnosis.
- The GCS score may be documented by a physician/PA/NP/RN.
- The Initial GCS must be documented to have been performed prior to any surgical intervention (i.e. clipping, coiling, or any other pertinent surgical intervention) or within 6 hours of arrival at the hospital for patients who do not undergo surgical intervention at your hospital.
- Patients who are referred from another acute care hospital should have the GCS documented that was part of your facility's initial evaluation, not part of the referring hospital's initial assessment.
- The Discharge GCS must be documented to have been performed as part of the discharge evaluation or within two days of the patient's discharge date.
- If your facility discharges the patient to another acute care hospital for further treatment and/or care please provide entry of the discharge GCS regardless of the patient's length of stay at your facility, including patients who were referred to another hospital directly from your ED.
- If a total GCS score is documented then you may select "Yes" to document that an assessment was performed and enter a numerical value (3-15) to document the score.
- If components of the GCS are scored but the total is not documented or left blank, select "No" and leave the score field blank.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Glasgow Coma Scale**Notes for Abstraction (cont.):**

- Do not infer or calculate a total GCS score from documented GCS category scores.
- If there is any documentation to suggest that the GCS score recorded is an estimate, select "No" and leave the score field blank.

Suggested Data Sources:

- Emergency Department Records
- History and Physical
- Nursing Flow Sheet
- Progress Notes
- Transfer Sheet
- Admitting Note
- Consultation form/note
- Nursing Assessment
- Discharge Summary (only for the Discharge GCS)

Inclusion Guidelines for Abstraction:

All patients who have a final diagnosis of hemorrhagic stroke are required to be included in this data element. All patients who have a documented GCS, regardless of final diagnosis are recommended to be included in this data element.

Exclusion Guidelines for Abstraction:

Patients who do not have a final diagnosis of hemorrhagic stroke are not required for inclusion in this element.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Hunt and Hess Stroke Scale**Collected For:** OCEMS (optional), JC CSTK-03**Definition:**

Documentation that Hunt and Hess Scale (HHS) was performed as indicated at this hospital. The HHS use in clinical medicine is to classify the severity of a subarachnoid hemorrhage (SAH) based on the patient's clinical presentation. Fields recorded for this element are whether or not a HHS assessment was performed on arrival at the hospital (Initial) and at discharge. Corresponding scores (1-5) are also documented.

Suggested Data Collection Question:

- Was the Hunt and Hess Scale (HHS) performed as part of the initial evaluation for suspected SAH patients?
- Was the Hunt and Hess Scale (HHS) performed as part of the final (discharge) evaluation for confirmed SAH patients?

Format:**Length:** 1-3**Type:** Single-Select and Numeric**Occurs:** 1**Allowable Values:**

- Yes
- No/ND (Not Documented)
- Score may range from 0-5, per the structure of the Hunt and Hess Scale.

Notes for Abstraction:

- The HHS element is required for all stroke patients with an SAH diagnosis.
- The HHS may be used in patients with suspected SAH patients. If the patient has a documented HHS please record in the registry as such regardless of final discharge diagnosis.
- The HHS score may be documented by a physician/PA/NP/RN.
- The Initial HHS must be documented to have been performed prior to any surgical intervention (i.e. clipping, coiling, or any other pertinent surgical intervention) or within 6 hours of arrival at the hospital for patients who do not undergo surgical intervention at your hospital.
- Patients who are referred from another acute care hospital should have the HHS documented that was part of your facility's initial evaluation, not part of the referring hospital's initial assessment.
- The Discharge HHS must be documented to have been performed as part of the discharge evaluation or within two days of the patient's discharge date.
- If your facility discharges the patient to another acute care hospital for further treatment and/or care please provide entry of the discharge HHS regardless of the patient's length of stay at your facility, including patients who were referred to another hospital directly from your ED.
- If a total HHS score is documented then you may select "Yes" to document that an assessment was performed and enter a numerical value (0-5) to document the score.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Hunt and Hess Stroke Scale**Notes for Abstraction (cont.):**

- Total scores obtained by telemedicine and documented in your medical record are recorded as “Yes” and score value entered.
- Do not infer or calculate an HHS score from associated documentation. If an HHS score is not explicitly documented, select “No” and leave the score field blank.
- If there is any documentation to suggest that the HHS score recorded is an estimate, select “No” and leave the score field blank.

Suggested Data Sources:

- Emergency Department Records
- History and Physical
- Nursing Flow Sheet
- Progress Notes
- Transfer Sheet
- Admitting Note
- Consultation form/note
- Nursing Assessment
- Discharge Summary (only for the Discharge HHS)

Inclusion Guidelines for Abstraction:

All patients who have a final stroke diagnosis of Subarachnoid Hemorrhage (SAH) are required to be included in this data element. All patients who have a documented HHS, regardless of final diagnosis are recommended to be included in this data element.

Exclusion Guidelines for Abstraction:

Patients who do not have a final diagnosis of subarachnoid hemorrhagic stroke are not required for inclusion in this element.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Intracerebral Hemorrhage (ICH) Score**Collected For:** OCEMS (Optional), JC-CSTK-03**Definition:**

Documentation that Intracerebral Hemorrhage (ICH) Score was performed as indicated at this hospital. The ICH Score serves several purposes, but its main use in clinical medicine is to estimate mortality in intracerebral hemorrhage patients. Fields recorded for this element are whether or not an ICH Score was performed on arrival at the hospital (Initial) and at discharge. Corresponding scores (0-7) are also documented.

Suggested Data Collection Question:

- Was the Intracerebral Hemorrhage (ICH) Score performed as part of the patient's initial evaluation?
- Was the Intracerebral Hemorrhage (ICH) Score performed as part of the patient's final (discharge) evaluation?

Format:**Length:** 1-3**Type:** Single-Select and Numeric**Occurs:** 1**Allowable Values:**

- Yes
- No/ND (Not Documented)
- Score may range from 0-7, per the structure of the ICH Score

Notes for Abstraction:

- The ICH Score element (all fields) is required for all stroke patients with an intracerebral hemorrhage diagnosis.
- The ICH Score may be used in patients with suspected ICH patients. If the patient has a documented ICH please record in the registry as such regardless of final discharge diagnosis.
- The ICH Score may be documented by a physician/PA/NP/RN.
- The Initial ICH must be documented to have been performed prior to any surgical intervention (i.e. clipping, coiling, or any other pertinent surgical intervention) or within 6 hours of arrival at the hospital for patients who do not undergo surgical intervention at your hospital.
- Patients who are referred from another acute care hospital should have the ICH Score documented that was part of your facility's initial evaluation, not part of the referring hospital's initial assessment.
- The Discharge ICH Score must be documented to have been performed as part of the discharge evaluation or within two days of the patient's discharge date.
- If your facility discharges the patient to another acute care hospital for further treatment and/or care please provide entry of the discharge ICH Score regardless of the patient's length of stay at your facility, including patients who were referred to another hospital directly from your ED.
- If a total ICH Score is documented then you may select "Yes" to document that an assessment was performed and enter a numerical value (0-7) to document the score.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Intracerebral Hemorrhage (ICH) Score**Notes for Abstraction (cont.):**

- Total scores obtained by telemedicine and documented in your medical record are recorded as "Yes" and score value entered.
- If components of the ICH Score are scored but the total is not documented or left blank, select "No" and leave the score field blank.
- Do not infer or calculate a total ICH Score from documented ICH Score categories or from associated documentation. If an ICH score is not explicitly documented, select "No" and leave the score field blank.
- If there is any documentation to suggest that the ICH Score recorded is an estimate, select "No" and leave the score field blank.

Suggested Data Sources:

- Emergency Department Records
- History and Physical
- Nursing Flow Sheet
- Progress Notes
- Transfer Sheet
- Admitting Note
- Consultation form/note
- Nursing Assessment
- Discharge Summary (only for the Discharge ICH Score)

Inclusion Guidelines for Abstraction:

All patients who have a final stroke diagnosis of intracerebral hemorrhagic are required to be included in this data element. All patients who have a documented ICH Score, regardless of final diagnosis are recommended to be included in this data element.

Exclusion Guidelines for Abstraction:

Patients who do not have a final diagnosis of intracerebral hemorrhagic stroke are not required for inclusion in this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Modified Rankin Scale (mRS)

Collected For: OCEMS (Required), JC CSTK-02

Definition:

Documentation of a Modified Rankin Scale (mRS). For Ischemic Stroke Patients, measured Pre-Event and at 90 (≥ 75 and ≤ 105) days after diagnosis of stroke (not days after discharge). The mRS is a disability scale ranging from 0-6 and is the most widely used outcome measure for stroke patients. The mRS score should be obtained through standardized interviews.

Suggested Data Collection Question:

- Was a Pre-Event Modified Rankin Scale (mRS) determined as part of the patient's evaluation?
- Was a 90 Day Modified Rankin Scale (mRS) performed as part of the patient's clinical follow-up?

Format:

Length: 1-3

Type: Single-Select and Numeric

Occurs: 1

Allowable Values:

- Yes
- No/ND (Not Documented)
- Score may range from 0-6, per the structure of the Modified Rankin Scale.
- Entry of 7 = Unable to contact patient/caregiver

Notes for Abstraction:

- mRS may be documented by a physician, NP, RN, medical assistant or any individual specifically trained and tasked by your facility to record this information.
- Pre-Event means before the acute stroke event that initiated this care episode.
- Pre-Event mRS should be obtained with the same standardized interview as the 90 Day mRS but with a focus on the patient's functional status prior to the stroke event.
- If assessment was attempted but unsuccessful after at least three (3) attempts to contact the patient and/or caregiver, select "No" and enter value = 7.
- If the patient expired after discharge, 90 Day Post Stroke mRS value = 6.
- If a score range is indicated in the medical record, select the higher value. (2-3 = 3)
- Documentation of the 90 Day Post Stroke mRS must be obtained within the 90 day timeframe which is defined as ≥ 75 and ≤ 105 days after diagnosis, not after discharge.
- If the follow up was attempted but not completed within the 90 day timeframe listed above, please select "No/ND" and enter value = 7.
- If the patient expired prior to discharge, 90 Day Post Stroke mRS value = 6.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Modified Rankin Scale (mRS)**Notes for Abstraction (cont.):**

- Interview format should be standardized. Telephone or in-person interviews are acceptable.
- If the patient cannot be interviewed because of communication deficits or other limitation, an interview with the patient's caregiver is acceptable.
- If the patient and/or caregiver refuse to respond, please select "No/ND" and enter value = 7.
- Caregiver is defined as the patient's family or other person (i.e. home health, VNA provider, prison official, law enforcement personnel, etc.) who will be/is responsible for care of the patient.

Suggested Data Sources:

- History and Physical
- Progress Notes
- Care Transition Record
- Consultation Form
- Home Health Forms
- Logs from follow-up phone calls or other logs that record follow-up information
- Outpatient Record

Inclusion Guidelines for Abstraction:

All patients with a final diagnosis of ischemic stroke and have a documented recanalization intervention (IV t-PA, IA t-PA or MER) are required to be included in this element. All patients who have a documented mRS (initial or 90 Day Post), regardless of final diagnosis are recommended to be included in this data element.

Exclusion Guidelines for Abstraction:

Patients meeting exclusion criteria should have "No" entered for this element. Patients admitted for Elective Carotid Intervention.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Initial Brain Imaging**Collected For:** OCEMS (Required), GWTG**Definition:**

Documentation of whether or not initial brain imaging was performed (initiated and completed) at this hospital for this particular episode of care. And if initial brain imaging was performed at your hospital, what was the date and time that imaging was initiated.

Suggested Data Collection Questions:

- Was initial brain imaging performed at your hospital and if so, at what time and date was that brain imaging initiated?

Format:**Length:** 1-3 **Date:** 10, MM-DD-YYYY**Time:** 5, HH:MM (24hr/Military Time)**Type:** Single-Select, Date, and Time**Occurs:** 1**Allowable Values:**

- Yes
- No/ND

MM = Month (01-12)

HH = Hour (00-23)

Must be in 24hr/Military Format

DD = Day (01-31)

MM = Minute (00-59)

If the time is 12hr p.m. format, add

YYYY = Year (20xx)

12 to that number and record.

Notes for Abstraction:

- This data element seeks information regarding the brain image which was used to guide treatment and therapy decisions for this stroke event. In most cases this will be the initial brain imaging.
- However if the initial brain imaging was insufficient to guide treatment decisions please record information for that brain imaging which was definitive, such as when you receive a transfer patient from another hospital and choose to repeat the initial brain imaging which was produced by the sending facility because it was insufficient.
- If initial brain imaging has been completed at an outside hospital, and that imaging served as a definitive diagnostic for further care, you would select value = No/ND.
- For inpatient stroke, use the first brain image performed after discovery of stroke symptoms in the hospital. If patient had brain imaging performed in the hospital prior to stroke symptom onset, use the brain imaging performed after discovery of stroke symptoms in the hospital.

Data Element Name: Initial Brain Imaging

**STROKE REGISTRY DATA DICTIONARY****Notes for Abstraction (cont.):**

- If the patient arrives to the hospital with transient symptoms that resolve and brain imaging is completed, but later in the hospital stay the patient has new onset stroke symptoms and meets criteria to be entered as an inpatient stroke, new brain imaging should be performed. If new brain imaging is not performed, select value = No/ND. Do not use brain imaging performed for the prior resolved event.
- Initial brain imaging performed at your facility in combination with resources such as telemedicine (including teleradiology, teleneurology, etc) should be recorded as value = Yes.
- 00:00 = midnight. If the time is documented as 12midnight review supporting documentation to determine correct date. Incorrect: 24:00 1/1/2016. Correct: 00:00 1/2/2016.

Suggested Data Sources:

- Emergency Department Record
- Nursing Flow Sheet
- Progress Notes
- Radiology Records
- Neurology Records
- Telemedicine Records

Inclusion Guidelines for Abstraction:

Please attempt to document Initial Brain Imaging for every patient included in this registry. This is a required element. However if this element is not documented in the patient's chart or is lacking per the above instructions please leave these registry fields blank.

Exclusion Guidelines for Abstraction:

Note that there are valid reasons why a stroke patient will not have brain imaging performed and/or documented. This question is not designed to assess or represent all clinical presentations and standards of treatment and evaluation. Nonetheless it is an important part of the registry for all patients.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** IV tPA Initiation**Collected For:** OCEMS (Required), JC STK-4**Definition:**

Documentation that intravenous (IV) tPA therapy was initiated at this hospital. IV thrombolytics convert plasminogen to plasmin, which in turn breaks down fibrin and fibrinogen, thereby dissolving thrombus. IV tPA is the only FDA-approved IV thrombolytic for stroke.

Suggested Data Collection Question:

- Was IV tPA initiated at your hospital and if so, at what time and date was that initiation?

Format:**Length:** 1-20 **Date:** 10, MM-DD-YYYY **Time:** 5, HH:MM (24hr/Military Time)**Type:** Single-Select, Date, and Time**Occurs:** 1**Allowable Values:**

- Yes
- Not Performed

MM = Month (01-12)

HH = Hour (00-23)

Must be in 24hr/Military Format

DD = Day (01-31)

MM = Minute (00-59)

If the time is 12hr p.m. format, add 12 to that number and record.

YYYY = Year (20xx)

Notes for Abstraction:

- Either "IV tPA" or "IV thrombolytic therapy" are acceptable labels for this documentation.
- When a "hang time" or "infusion time" for IV tPA is documented in the medical record, select "Yes" and record the date and time.
- For times that include "seconds", remove the seconds and record the time as is. Example: 15:00:35 would be recorded as 15:00
- 00:00 = midnight. If the time is documented as 12midnight review supporting documentation to determine correct date. Incorrect: 24:00 1/1/2016. Correct: 00:00 1/2/2016.
- If IV tPA was administered at another hospital and the patient was subsequently transferred to another hospital, select "Not Performed" and make note within the element "IV tPA Contraindications".
- If the patient was transferred to this hospital with IV tPA infusing, select "Not Performed" and make note within the element "IV tPA Contraindications".
- Use the date/time at which IV tPA initiation was first documented. If a discrepancy exists between documentation from different sources, choose the earliest date/time. If there are two or more different IV tPA initiation dates/times (either different IV tPA episodes or corresponding with the same episode), enter the earliest date/time.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: IV tPA Initiation

Notes for Abstraction (cont.):

- If the date/time IV tPA was initiated is unable to be determined from medical record documentation, leave the date/times field blank, however "Yes" is still the correct response if IV tPA initiation can be confirmed/supported per a valid data source.
- The medical record must be abstracted as documented (taken at face value). When the date/time documented is obviously in error (i.e. not a valid date/format, prior to arrival at ED, or excessive time past Last Known Well date/time) please leave the date/time field blank.
- Various ICD-10 Procedure Code lists are available to help identify these patients. The Joint Commission Comprehensive Stroke Performance Measurement Implement Guide (current version) is the recommended source for validating your facility's list.
- Note that thrombolytics may be used to flush, open, or maintain patency of a central line (i.e. PICC line). Please assess documentation to validate that the thrombolytic was administered for a stroke.

Suggested Data Sources:

- Emergency Department Record
- Nursing Flow Sheet
- Progress Notes
- IV Flow Sheets
- Medication Administration Record

Inclusion Guidelines for Abstraction:

All patients with a diagnosis of ischemic stroke are required for inclusion in the base element. For the date and time components, include all patients who received IV thrombolytic therapy (i.e. tPA).

Exclusion Guidelines for Abstraction:

Patients without a diagnosis of ischemic stroke should be excluded from this element. Please ensure that IA tPA is not confused with IV tPA.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** IV tPA Contraindications**Collected For:** OCEMS (Required), JC STK-4, GWTG**Definition:**

Documented reason for NOT providing IV tPA at your hospital. The denominator for this element includes all ischemic stroke patients cared for by your hospital.

Suggested Data Collection Question:

If IV tPA was not provided at your facility, was a valid contraindication documented for the withholding of treatment?

Format:

Length: 1-20
Type: Multi-Select
Occurs: Multiple

Allowable Values:

- Thrombolytic Therapy Provided at Referring Hospital
- Other Therapy Utilized
- Patient / Family Refusal
- NIH Stroke Scale of Zero
- Stroke Severity Too Mild – Documentation by physician/APN/PA in Emergency Department that patient had “no neurological deficit” or “normal neurological exam”.
- Rapid Improvement
- Severe Hemodynamic Instability - Patient was in cardiac arrest and/or undergoing CPR.
- Severe Respiratory Instability - Patient was intubated.
- Comfort Measures Only – Documented by physician/APN/PA.
- Other - Reason explicitly documented by physician, APN, PA or pharmacist.
- Advanced Age
- Life Expectancy <1 Year or Severe Comorbid Illness
- Warnings: Conditions Leading to Unfavorable Outcomes
- CT Findings (ICH, SAH, or major infact signs)
- Care Team Unable to Determine Eligibility
- Current Severe Uncontrolled Hypertension
- Trauma Within 3 Months
- Delay in Arrival
- No Contraindication Documented

Notes for Abstraction:

- If IV tPA therapy was not provided by your facility, this element is required.
- Documentation of the contraindication must be done on the day or the day after hospital arrival. It is not necessary to review documentation outside of this timeframe to answer this data element.
- “Other” reasons for not providing therapy must be documented by a physician, APN, PA or pharmacist. Exception: Nursing documentation of telemedicine consult is valid.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** IV tPA Contraindications**Notes for Abstraction: Cont.**

- “Other” reasons must be explicitly documented in the context of withholding therapy.
 - “Frail 95 year old – will not give thrombolytics due to age.” Value = Advanced Age
 - “Patient with Stage IV cancer – No tPA.” Value = Life Expectancy <1 Year or Severe Comorbid Illness.
 - “Increased risk of bleeding – hold t-PA for further evaluation.” Value = Warnings: Conditions Leading to Unfavorable Outcomes.
 - “Symptoms resolving.” Value = No Contraindication Documented.
 - “No gait deficit.” Value = No Contraindication Documented.
 - “Metastatic brain tumor.” Value = No Contraindication Documented.
- Documentation by a physician/APN/PA or pharmacist that the patient was not a IV tPA therapy candidate, was not eligible for therapy, or that therapy was not indicated or that therapy was contraindicated, without mention of the underlying reason, is acceptable. Value = Other.
 - Documentation must be on the day or day after patient’s arrival.
- Reasons documentation which refers to intravenous medications only (i.e. “Hold IV medications,” “No IVs”, etc) is not acceptable. Value = No Contraindication Documented.
- System reasons are not acceptable as “other” reasons, regardless of any linkage to therapy.
 - CT not available, IV pump malfunction, etc. Value = No Contraindication Documented.
 - Thrombolytic agent not available from pharmacy. Value = No Contraindication Documented.
 - Unable to contact neuro consulting. Value =No Contraindication Documented.
- The medical record must be abstracted as documented (taken at face value). If any reason documented is not explicitly linked to the withholding of therapy within the appropriate timeframe record this element, value = No Contraindication Documented.

Suggested Data Sources:

- Consultation Notes
- Emergency Room Records
- History and Physical
- Medication Reconciliation Form
- Nursing Notes
- Physician Orders
- Progress Notes
- Transfer Forms

Inclusion Guidelines for Abstraction:

All patients with a diagnosis of ischemic stroke who did not receive IV tPA are required for inclusion.

Exclusion Guidelines for Abstraction:

Patients without a diagnosis of ischemic stroke should be excluded from this element.
Please ensure that IA tPA is not confused with IV tPA.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** IA tPA Initiation**Collected For:** OCEMS (Required), JC CSTK-05, JC CSTK-07(suspended), GWTG**Definition:**

Documentation that intra-arterial (IA) tPA therapy was initiated at your facility. IA tPA converts plasminogen to plasmin, which in turn breaks down fibrin and fibrinogen, thereby dissolving thrombus. Reperfusion therapies also include procedures utilizing mechanical thrombectomy devices with or without pharmacological thrombolysis.

Suggested Data Collection Question:

Was IA tPA or MER initiated at your hospital and if so, at what time and date was that initiation?

Format:

Length: 1-3 **Date:** 10, MM-DD-YYYY **Time:** 5, HH:MM (24hr/Military Time)

Type: Single-Select, Date, and Time

Occurs: 1

Allowable Values:

- Yes
- Not Performed

MM = Month (01-12)
DD = Day (01-31)
YYYY = Year (20xx)

HH = Hour (00-23)
MM = Minute (00-59)

Must be in 24hr/Military Format
If the time is 12hr p.m. format, add
12 to that number and record.

Notes for Abstraction:

- Acceptable labels include "IA thrombolytic", "IA t-PA", etc.
- When a "start time" or "infusion time" for IA t-PA is documented in the medical record, select "Yes" and record the date and time.
- For times that include "seconds", remove the seconds and record the time as is. Example: 15:00:35 would be recorded as 15:00
- 00:00 = midnight. If the time is documented as 12midnight review supporting documentation to determine correct date. Incorrect: 24:00 1/1/2016. Correct: 00:00 1/2/2016.
- If IA therapy was administered at another hospital and the patient was subsequently transferred to your hospital, select "Not Performed" and make note within the contraindications element.
- Use the date/time at which IA therapy initiation was first documented. If a discrepancy exists between documentation from different sources, choose the earliest date/time. If there are two or more different IA therapy initiation dates/times (either different IA therapy episodes or corresponding with the same episode), enter the earliest date/time.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: IA tPA Initiation**Notes for Abstraction (cont.):**

- If the date/time IA therapy was initiated is unable to be determined from medical record documentation, leave the date/times field blank, however "Yes" is still the correct response if IA therapy initiation can be confirmed/supported per a valid data source.
- The medical record must be abstracted as documented (taken at face value). When the date/time documented is obviously in error (i.e. not a valid date/format, prior to arrival at ED, or excessive time past Last Known Well date/time) please leave the date/time field blank.
- Various ICD-10 Procedure Code lists are available to help identify these patients. The Joint Commission Comprehensive Stroke Performance Measurement Implement Guide (current version) is the recommended source for validating your facility's list.

Suggested Data Sources:

- Consultation Notes
- Progress Notes
- Operative Notes
- Diagnostic Test Reports

Inclusion Guidelines for Abstraction:

All patients with a diagnosis of ischemic stroke are required for inclusion. For the date and time components, include all patients who received IA tPA.

Exclusion Guidelines for Abstraction:

Patients without a diagnosis of ischemic stroke should be excluded from this element. Please ensure that IA tPA is not confused with IV tPA.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** IA tPA Contraindications**Collected For:** OCEMS (required), GWTG**Definition:**

Documented reason for NOT providing IA therapy at your hospital. The denominator for this element includes all ischemic stroke patients cared for by your hospital.

Suggested Data Collection Question:

If IA therapy was not provided at your facility, was a valid contraindication documented for the withholding of treatment?

Format:**Length:** 1-3**Type:** Single-Select**Occurs:** 1**Allowable Values:**

- Yes
- No

Notes for Abstraction:

- If IA tPA therapy was not provided by your facility, this element is required.
- Documentation of the contraindication must be done on the day or the day after hospital arrival. It is not necessary to review documentation outside of this timeframe to answer this data element.
- Reasons for not providing therapy must be documented by a physician, APN, PA or pharmacist. Exception: Nursing documentation of telemedicine consult is valid.
- Reasons must be explicitly documented in the context of withholding therapy.
 - “Frail 95 year old – will not give thrombolytics due to age.”
 - “Patient with Stage IV cancer – No tPA.”
 - “Increased risk of bleeding – hold tPA for further evaluation.”
- Documentation by a physician/APN/PA or pharmacist that the patient was not a IA tPA candidate, was not eligible for therapy, or that therapy was not indicated or that therapy was contraindicated, without mention of the underlying reason, is acceptable.
- Documentation which refers generally to intra-arterial medications is not acceptable.
- System reasons are not acceptable as “other” reasons, regardless of any linkage to therapy.
 - CT not available, IV pump malfunction, Thrombolytic agent not available from pharmacy, Unable to contact neuro consulting, etc.
- The medical record must be abstracted as documented (taken at face value). If any reason documented is not explicitly linked to the withholding of therapy within the appropriate timeframe record this element.
- Documentation of the use of another therapy such as IV tPA or MER is considered valid = yes.



STROKE REGISTRY DATA DICTIONARY

Data Element Name: IA tPA Contraindications (cont.)

Suggested Data Sources:

- Consultation Notes
- Emergency Room Records
- History and Physical
- Medication Reconciliation Form
- Nursing Notes
- Physician Orders
- Progress Notes
- Transfer Forms

Inclusion Guidelines for Abstraction:

All patients with a diagnosis of ischemic stroke who did not receive IA tPA are required for inclusion. This includes ischemic stroke patients who received another form of thrombolytic therapy.

Exclusion Guidelines for Abstraction:

Patients without a diagnosis of ischemic stroke should be excluded from this element. Please ensure that IA tPA is not confused with IV tPA.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** MER Initiation**Collected For:** OCEMS (Required), JC CSTK-05, JC CSTK-07(suspended), GWTG**Definition:**

Documentation that mechanical endovascular reperfusion (MER) was initiated at your facility. Mechanical thrombectomy devices may be used with or without pharmacological thrombolysis.

Suggested Data Collection Question:

Was MER initiated at your hospital and if so, at what time and date was that initiation?

Format:

Length: 1-3 **Date:** 10, MM-DD-YYYY **Time:** 5, HH:MM (24hr/Military Time)

Type: Single-Select, Date, and Time

Occurs: 1

Allowable Values:

- Yes
- No

MM = Month (01-12)
DD = Day (01-31)
YYYY = Year (20xx)

HH = Hour (00-23)
MM = Minute (00-59)

Must be in 24hr/Military Format
If the time is 12hr p.m. format, add
12 to that number and record.

Notes for Abstraction:

- Acceptable labels include "MER", "endovascular reperfusion", etc.
- When a "start time" or "puncture time" for MER is documented in the medical record, select "Yes" and record the date and time.
- For times that include "seconds", remove the seconds and record the time as is. Example: 15:00:35 would be recorded as 15:00
- 00:00 = midnight. If the time is documented as 12midnight review supporting documentation to determine correct date. Incorrect: 24:00 1/1/2016. Correct: 00:00 1/2/2016.
- If MER therapy was administered at another hospital and the patient was subsequently transferred to another hospital, select value = No and make note within the element "MER Contraindications" = Yes.
- Use the date/time at which MER therapy initiation was first documented. If a discrepancy exists between documentation from different sources, choose the earliest date/time. If there are two or more different MER therapy initiation dates/times (either different IA therapy episodes or corresponding with the same episode), enter the earliest date/time.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: MER Initiation**Notes for Abstraction (cont.):**

- If the date/time MER therapy was initiated is unable to be determined from medical record documentation, leave the date/times field blank, however "Yes" is still the correct response if MER therapy initiation can be confirmed/supported per a valid data source.
- The medical record must be abstracted as documented (taken at face value). When the date/time documented is obviously in error (i.e. not a valid date/format, prior to arrival at ED, or excessive time past Last Known Well date/time) please leave the date/time field blank.
- Various ICD-10 Procedure Code lists are available to help identify these patients. The Joint Commission Comprehensive Stroke Performance Measurement Implement Guide (current version) is the recommended source for validating your facility's list.

Suggested Data Sources:

- Consultation Notes
- Progress Notes
- Operative Notes
- Diagnostic Test Reports

Inclusion Guidelines for Abstraction:

All patients with a diagnosis of ischemic stroke are required for inclusion. For the date and time components, include all patients who received MER.

Exclusion Guidelines for Abstraction:

Patients without a diagnosis of ischemic stroke should be excluded from this element. Please ensure that IA tPA is not confused with IV tPA.

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** MER Contraindications**Collected For:** OCEMS (Required), GWTG**Definition:**

Documented reason for NOT providing mechanical endovascular reperfusion (MER) therapy at your hospital. The denominator for this element includes all ischemic stroke patients cared for by your hospital.

Suggested Data Collection Question:

If IV or IA therapy was not provided at your facility, was a valid contraindication documented for the withholding of treatment?

Format:**Length:** 1-3**Type:** Single-Select**Occurs:** 1**Allowable Values:**

- Yes
- No

Notes for Abstraction:

- If MER therapy was not provided by your facility, this element is required.
- Documentation of the contraindication must be done on the day or the day after hospital arrival. It is not necessary to review documentation outside of this timeframe to answer this data element.
- Reasons for not providing therapy must be documented by a physician, APN, PA or pharmacist. Exception: Nursing documentation of telemedicine consult is valid.
- "Other" reasons must be explicitly documented in the context of withholding therapy.
 - "Frail 95 year old – will not give thrombolytics due to age."
 - "Patient with Stage IV cancer – No MER."
 - "Increased risk of bleeding – hold MER for further evaluation."
 - "Symptoms resolving."
 - "No gait deficit."
 - "Metastatic brain tumor."
- Documentation by a physician/APN/PA or pharmacist that the patient was not a MER candidate, was not eligible for therapy, or that therapy was not indicated or that therapy was contraindicated, without mention of the underlying reason, is acceptable.
- Reasons documentation which refers generally to intra-arterial medications is not acceptable.
- System reasons are not acceptable as "other" reasons, regardless of any linkage to therapy.
 - CT not available, IV pump malfunction, MER supplies not available, Unable to contact neuro consulting, etc.
- The medical record must be abstracted as documented (taken at face value). If any reason documented is not explicitly linked to the withholding of therapy within the appropriate timeframe record this element.
- Documentation of the use of another therapy such as IV tPA or MER is considered valid = yes.



STROKE REGISTRY DATA DICTIONARY

Data Element Name: MER Contraindications (cont.)

Suggested Data Sources:

- Consultation Notes
- Emergency Room Records
- History and Physical
- Medication Reconciliation Form
- Nursing Notes
- Physician Orders
- Progress Notes
- Transfer Forms

Inclusion Guidelines for Abstraction:

All patients with a diagnosis of ischemic stroke who did not receive MER are required for inclusion.

Exclusion Guidelines for Abstraction:

Patients without a diagnosis of ischemic stroke should be excluded from this element.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Reason Therapy Delayed or Withheld

Collected For: OCEMS (Required), JC STK-4, GWTG

Definition:

Documented reason for delaying initiation of thrombolytic therapy >60 minutes after arrival, or documented reason for withholding treatment. This element does not directly address the often associated time target of treatment within 3 hours of time last known well.

Suggested Data Collection Question:

If thrombolytic therapy (IV tPA, IA tPA, or MER) was not initiated within 60 minutes of arrival at your facility, was a valid reason documented for the delay?

Format:

Length: 1-20

Type: Multi-Select

Occurs: multiple

Allowable Values:

- Hypertensive Treatment –treatment to lower blood pressure prior to IV t-PA initiation.
- Patient / Family Refusal – which was recanted/reversed prior to IV t-PA initiation.
- Severe Hemodynamic Instability – patient was in cardiac arrest and/or undergoing CPR.
- Severe Respiratory Instability – patient was intubated.
- Other – reason explicitly documented by physician, NP, PA or pharmacist.
- Unable to diagnose or did not diagnose in 3 hour time frame
- No IV Access – IV access was unobtainable therefore IV t-PA could not be initiated (on time).
- In-Hospital Time Delay – Applicable for CQI. Not a valid Joint Commission response.
- Equipment-Related Time Delay - Applicable for CQI, Not a valid Joint Commission response.
- No Reason Documented
- Not Applicable

Notes for Abstraction:

- If therapy (IV tPA, IA tPA or MER) was administered at another facility prior to the patient's transfer to your facility, please leave this element blank.
- Documentation of a reason for delay must be done on the day or the day after hospital arrival and must refer to the time period prior to therapy initiation. It is not necessary to review documentation outside of this timeframe to answer this data element.
- "Other" reasons for delay must be documented by a physician, NP, PA or pharmacist. Exception: Nursing documentation of telemedicine consult is valid.
- "Other" reasons must be explicitly documented in the context of delaying therapy.
 - Documentation to initiate therapy for worsening symptoms following documentation to not give therapy because symptoms resolved after hospital arrival. Value = Other.
 - NIHSS score of "1" on arrival. Therapy ordered 4 hours after arrival. Value = No Reason Documented.
- System reasons are not acceptable as "other" reasons, regardless of any linkage to therapy.
 - CT not available, IV pump malfunction, etc. Value = Equipment-Related Time Delay.
 - Thrombolytic agent not available from pharmacy. Value = In-Hospital Time Delay.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Reason Therapy Delayed

Notes for Abstraction (cont.):

- System reasons are not acceptable as “other” reasons (cont.):
 - Unable to contact neuro consulting. Value = In-Hospital Time Delay.
- The medical record must be abstracted as documented (taken at face value). If any reason documented is not explicitly linked to the delay of therapy within the appropriate timeframe record this element, value = No Reason Documented.
- If therapy was provided within 60 min of arrival at your facility, document value = Not Applicable.

Suggested Data Sources:

- Consultation Notes
- Emergency Room Records
- History and Physical
- Medication Reconciliation Form
- Nursing Notes
- Physician Orders
- Progress Notes
- Transfer Forms

Inclusion Guidelines for Abstraction: All patients who received therapy >60 minutes after arrival.

Exclusion Guidelines for Abstraction: none

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Complications of Therapy**Collected For:** OCEMS (Required), JC CSTK-05, GWTG**Definition:**

Documentation of complications (adverse results) from IV tPA, IA tPA, or MER therapy. Specifically recording ischemic stroke patients who develop a symptomatic intracranial hemorrhage (i.e. clinical deterioration ≥ 4 point increase on NIHSS and brain image finding of parenchymal hematoma, or subarachnoid hemorrhage, or intraventricular hemorrhage) within 36 hours after the initiation of treatment with IV tPA, IA tPA or MER procedure.

Suggested Data Collection Question:

Are there any documented complications resulting from IV tPA, IA tPA, or MER therapy?

Format:**Length:** 1-20**Type:** Single-Select**Occurs:** 1**Allowable Values:**

- Symptomatic intracranial hemorrhage <36 hours
- Life threatening, serious systemic hemorrhage <36 hours
- Other serious complication
- No serious complications
- Unable to Determine

Notes for Abstraction:

- The complication must be documented to have been experienced within 36 hours of treatment or procedure. If multiple times exist, measure from the more recent time documentation, resulting in a longer window of time for review.
- Symptomatic intracranial hemorrhage is defined as the clinical deterioration of ≥ 4 point increase on NIHSS and brain image finding of parenchymal hematoma, or subarachnoid hemorrhage, or intraventricular hemorrhage.
- NIHSS score may be documented by the physician/APN/PA or nurse (RN).
- Look for the highest NIHSS score documented in less than or equal to (\leq) 36 hours following the initiation of therapy.
 - If a 5 point increase exists at 12 hours but is a 3 point increase at 20 hours, they are positive for the NIHSS criteria of a complication.
 - If a 3 point increase exists at 20 hours, but a 6 point increase exists at 40 hours, they are negative for the NIHSS criteria of a complication.
- If no NIHSS score is documented within 36 hours, value = Insufficient Documentation.
- If components of the NIHSS are scored but the total is not documented or left blank, select value = Unable to Determine.
- Do not infer or calculate a total NIHSS score from documented NIHSS category scores.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Complications of Therapy

Notes for Abstraction (cont.):

- If there is any documentation to suggest that the NIHSS score recorded is an estimate, select value = Unable to Determine.
- For the purposes of this data element, do not use brain imaging reports for CT/MRI performed prior to therapy. Abstract only brain imaging reports for tests done after these interventions.
- Reports of preliminary findings within the 36 hour timeframe may be used in abstraction.
- When conflicting information is documented, assume that there was intracranial hemorrhage.
- Terms to guide inclusion

Bleed	Hemorrhagic Conversion	Parenchymal Hematoma
Brain Hemorrhage	Hemorrhagic Expansion	Parenchymal Hemorrhage
Cerebral Hemorrhage	Hemorrhagic Transformation	Parenchymal Intracerebral Hemorrhage
ECASS criteria PH1 or PH2	Intracerebral Hemorrhage ICH	
Hemorrhage	Intraventricular Hemorrhage	Subarachnoid Hemorrhage SAH

- If the patient has documented evidence to suggest no complication was present, please select value = No Serious Complication.
- The medical record must be abstracted as documented (taken at face value). If the lack of any complication is not sufficiently documented (i.e. no follow up NIHSS within 36 hours), please select value = Unable to Determine.

Suggested Data Sources:

- Consultation Notes
- Emergency Department Record
- History and Physical
- Nursing Flow Sheet
- Progress Notes
- Admitting Note
- Nursing Assessment
- Brain Imaging Reports
- Diagnostic Test Reports
- Radiology Reports

Inclusion Guidelines for Abstraction:

All ischemic stroke patients who were treated with IV or IA recanalization therapy (IV or IA t-PA or who underwent an MER procedure).

Exclusion Guidelines for Abstraction: none

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Clinical Trial Participant**Collected For:** OCEMS (Optional), JC STK-4, JC CSTK-04, JC CSTK-06, GWTG**Definition:**

Documentation that during this care episode the patient was enrolled in a clinical trial that affected the performance of standard stroke protocols or practices.

Suggested Data Collection Question:

During this hospital stay (care episode, ED observation, etc), was the patient enrolled in a clinical trial that affected the performance of standard stroke protocols or practices?

Format:**Length:** 1**Type:** Alphanumeric**Occurs:** 1**Allowable Values:**

Yes There is documentation that during this hospital stay the patient was enrolled in a clinical trial that affected the performance of standard stroke protocols and practices.

No There is no documentation that during this hospital stay the patient was enrolled in a clinical trial that affected the performance of standard stroke protocols and practices.

Notes for Abstraction:

- To select "Yes" to this data element, BOTH of the following must be true:
 1. There must be a signed consent form for clinical trial. For the purposes of abstraction, a clinical trial is defined as an experimental study in which research subjects are recruited and assigned a treatment/intervention and their outcomes are measured based on the intervention received. Treatments/interventions most often include use of drugs, surgical procedures, and devices. Often a control group is used to compare with the treatment/intervention. Allocation of different interventions to participants is usually randomized.
 2. There must be documentation on the signed consent form that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied. Patients may either be newly enrolled in a clinical trial during the hospital stay or enrolled in a clinical trial prior to arrival and continued active participation in that clinical trial during this hospital stay.
- In the following situations, select "No":
 1. There is a signed patient consent form for an observational study only. Observational studies are non-experimental and involve no intervention (e.g., registries). Individuals are observed (perhaps with lab draws, interviews, etc.), data is collected, and outcomes are tracked by investigators. Although observational studies may include the assessment of the effects of an intervention, the study participants are not allocated into intervention or control groups.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Clinical Trial Participant

Notes for Abstraction (cont.):

- In the following situations, select "No": (cont.)
 2. It is not clear whether the study described in the signed patient consent form is experimental or observational.
 3. It is not clear which study population the clinical trial is enrolling. Assumptions that the clinical trial will affect the performance of standard stroke protocols and practices should not be made unless clearly specified and described.

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

Only capture patients enrolled in clinical trials studying patients with stroke.

Exclusion Guidelines for Abstraction: None

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Telemedicine**Collected For:** OCEMS (Required)**Definition:**

Documentation of whether or not telemedicine was used during this episode of care. Telemedicine includes any remote evaluation, diagnosis or treatment of a patient by means of telecommunications technology and specifically includes teleradiology and teleneurology services.

Suggested Data Collection Question:

Was telemedicine used to provide care for the patient during this episode of care at your facility?

Format:**Length:** 1-5**Type:** Single-Select**Occurs:** 1**Allowable Values:**

- Yes
- No/ND

Notes for Abstraction: None**Suggested Data Sources:** Only acceptable sources**Inclusion Guidelines for Abstraction:**

All patients included in this registry are required to have a documented value for this element.

Exclusion Guidelines for Abstraction: None

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Final Clinical Diagnosis**Collected For:** OCEMS (Required), GWTG**Definition:**

Descriptive documentation of the final clinical diagnosis related to stroke. This field is used to define the patient populations and may be the principle or secondary diagnosis assigned at discharge.

Suggested Data Collection Question: What is the final clinical diagnosis related to stroke?**Format:**

Length: 1-20
Type: Single-Select
Occurs: 1

Allowable Values:

- Ischemic Stroke
- Intracerebral Hemorrhage
- Subarachnoid Hemorrhage
- Stroke Not Otherwise Specified
- Transient Ischemic Attack (<24hrs)
- No Stroke Related Diagnosis
- Elective Carotid Intervention Only

Notes for Abstraction:

- For most cases the final clinical diagnosis related to stroke will be equivalent to the principal diagnosis code. However, for some cases such as in-patient or in-hospital stroke or TIA the principal diagnosis code and the final diagnosis related to stroke will differ. The final diagnosis related to stroke can be the principal or secondary diagnosis assigned at discharge.
- For patients whose symptoms resolve upon arrival to ED, but then later return later during the hospitalization (symptoms >24hrs or infarction on brain imaging while an inpatient) please select "Ischemic Stroke".
- For patients who arrive with symptoms of stroke and have a complete resolution after IV or IA therapy please select "Ischemic Stroke".
- For patients admitted with ischemic stroke who are treated with IV or IA therapy and develop the complication of intracerebral hemorrhage select "Ischemic Stroke".
- If a patient is transferred to your hospital for management of a hemorrhagic complication after treatment with IV or IA therapy for an ischemic stroke at the referring hospital select "Ischemic Stroke" as this is the stroke diagnosis that initially lead to the patient's hospitalization.
- For patients admitted for non-stroke related illness, but who experience a stroke after admission select the stroke diagnosis documented by the physician.

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Final Clinical Diagnosis

Notes for Abstraction (cont.):

- Patients who present with neurological symptoms, but after work-up are determined not to have suffered from an ischemic or hemorrhagic stroke, are not required to be entered into the Orange County Stroke Registry unless they arrived at your facility via EMS or underwent IV or IA treatment for stroke.
 - The patient presents with a stroke-like clinical picture and IV tPA is initiated, but the final clinical diagnosis is later determined not to be stroke related. This patient must be included.
 - The patient presents with a stroke-like clinical presentation and a 'stroke code' is activated and/or the patient is followed by a stroke service until the stroke diagnosis is ruled out, but did not arrive via EMS or receive any IV or IA treatment specific for stroke. This patient is not required, but is recommended for inclusion in this registry.
- Patients who are found to have incidentally discovered infarcts (silent, subclinical, or prior CNS infarction) are not required for this registry.
- For patients who are documented as having "CVA" or "Stroke" in their medical record, without any additional documentation regarding the stroke type and who have:
 - No evidence of hemorrhage on initial brain imaging select "Ischemic Stroke".
 - Evidence of both ischemic injury and brain hemorrhage on initial imaging select "Stroke Not Otherwise Specified."
 - Evidence of hemorrhagic injury only, select "Hemorrhagic Stroke".
- Select "Elective Carotid Intervention only" for patients with documentation that demonstrates that the current admission is solely for the performance of an elective carotid intervention (e.g., elective carotid endarterectomy, angioplasty, carotid stenting). Do not select this option for patients that present with an acute stroke event.

Suggested Data Sources:

- Discharge Summary
- Face Sheet
- UB-04

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have a documented value for this element.

Exclusion Guidelines for Abstraction: none

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** If No Stroke Related Diagnosis**Collected For:** OCEMS (Required), GWTG**Definition:**

Descriptive documentation of the final clinical diagnosis of stroke-like presentations (stroke mimics) that in this care episode caused Advanced Stroke Notification by EMS and/or the activation of your ED stroke protocols.

Suggested Data Collection Question:

What was the patient's final clinical diagnosis if it was not stroke-related?

Format:**Length:** 1-20**Type:** Alphanumeric**Occurs:** 1**Allowable Values:**

- Delirium
- Electrolyte or Metabolic Imbalance
- Functional Disorder – Includes conversion disorders.
- Migraine
- Seizure
- Other – Includes dizziness, giddiness, aphasia, other speech disturbance, dysarthria, dysphagia, altered mental status, peripheral vertigo, and others.
- Uncertain

Notes for Abstraction:

- Documentation must be provided by the physician/APN/PA that the neurological symptoms were the result of an alternative non stroke-related diagnosis.
- This data element can be used to capture the final diagnosis for those patients in whom stroke was initially suspected but after complete clinical work-up were determined not to have had a stroke.
- You are required to enter patients with no stroke related diagnosis if:
 - The patient presents with stroke mimic or a stroke-like clinical picture and IV tPA is initiated, but after neuroimaging studies and further work-up the final clinical diagnosis is later determined not to be stroke related.
 - The patient arrives via EMS and presents with stroke mimic or a stroke-like clinical presentation and a stroke code is activated and/or the patient is followed by the stroke service until the stroke diagnosis is ruled out.
- This assignment of diagnosis should be done independently of the ICD-10-CM code assigned. However, the diagnosis selected here should ideally be equivalent to the final ICD-10-CM code. In circumstances when another ICD-10-CM code has been chosen and there is a discrepancy, please consult your local Stroke Coordinator for direction.

Suggested Data Sources: Only acceptable sources**Inclusion Guidelines for Abstraction:**

All patients included in this registry are required to have a documented value for this element.

Exclusion Guidelines for Abstraction: none

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Discharge Disposition**Collected For:** OCEMS (Required), JC CSTK-02, GWTG**Definition:**

The final place or setting to which the patient was discharged on the day of discharge from your facility.

Suggested Data Collection Question: What was the patient's documented discharge disposition?**Format:**

Length: 1-20
Type: Single-Select
Occurs: 1

Allowable Values:

- Discharge to Home or Self-Care
- Home with Home Health Services
- Acute Care Hospital
- Acute Rehabilitation Facility
- Long Term Care Hospital (LTCH)
- Skilled Nursing Facility (SNF)
- Hospice – Home
- Hospice – Health Care Facility
- Deceased/Expired
- AMA - Left Against Medical Advice
- Other
- Unknown

Notes for Abstraction:

- Only use documentation written on the day prior to discharge through 30 days after discharge when abstracting this data element. Example:
 - Documentation in the Discharge Planning notes on 04-01-20xx state that the patient will be discharged back home. On 04-06-20xx the physician orders and nursing discharge notes on the day of discharge reflect that the patient was being transferred to skilled care. The documentation from 04-06-20xx would be used to select value "5" (Other Health Care Facility).
- The medical record must be abstracted as documented (taken at "face value"). Inferences should not be made based on internal knowledge.
- If there is documentation that further clarifies the level of care that documentation should be used to determine the correct value to abstract.
- If documentation is contradictory, use the latest documentation. Examples:
 - Discharge summary dictated 2 days after discharge states patient went home. Physician note on day of discharge further clarifies that the patient will be going home with hospice. Select value "2" (Hospice - Home).

**STROKE REGISTRY DATA DICTIONARY****Data Element Name:** Discharge Disposition**Notes for Abstraction (cont.):**

- Discharge planner note from day before discharge states XYZ Nursing Home. Discharge order from day of discharge states Discharge home. Contradictory documentation, use latest. Select value "1" (Home).
- Physician order on discharge states Discharge to ALF. Discharge instruction sheet completed after the physician order states patient discharged to SNF. Contradictory documentation, use latest. Select value "5" (Other Health Care Facility).
- If documentation is contradictory, and you are unable to determine the latest documentation, select the disposition indicating the highest level of care.
- Hospice values include discharges with hospice referrals and evaluations.
- If the medical record identifies the facility the patient is being discharged to by name only (e.g., Park Meadows), perform an internet search for that facility. If you are unable to make a definitive judgement on the type of facility, select "Other".
- If the medical record states only that the patient is being discharged and does not address the place or setting to which the patient was discharged, select "Home".
- When determining whether to select value "AMA", explicit "left against medical advice" documentation is not required:
 - Patient is refusing to stay for continued care - Select value "AMA".
 - Documentation suggesting that the patient left before discharge instructions could be given does not count. Documentation should still exist to indicate disposition.
 - A signed AMA form is not required, for the purposes of this data element.
 - Do not consider AMA documentation and other disposition documentation as contradictory. If any source states the patient left against medical advice, select "AMA", regardless of whether the AMA documentation was written last, i.e. AMA form signed and discharge instruction sheet states Discharged home with belongings - Select "AMA".

Suggested Data Sources:

Only acceptable sources

- Progress notes
- Physician orders
- Discharge summary
- Discharge instruction sheet
- Discharge planning notes
- Nursing discharge notes
- Social service notes
- Transfer record

Excluded Data Sources

- Any documentation prior to the last two days of hospitalization
- Coding documents
- UB-04

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have a documented value for this element.

Exclusion Guidelines for Abstraction: none

**STROKE REGISTRY DATA DICTIONARY**

Data Element Name: Destination Determination

Collected For: OCems (Required)

Definition:

If the patient was transferred from your facility to another acute care hospital, please document this determination.

Suggested Data Collection Question:

For what reason was this patient transferred from your facility to another acute care hospital?

Format:

Length: 1-20
Type: Single-Select
Occurs: 1

Allowable Values:

- Specialty Resource Center
- Hospital of Choice
- Not Known

Notes for Abstraction: none

Suggested Data Sources:

- Progress notes
- Physician orders
- Discharge summary
- Discharge instruction sheet
- Discharge planning notes
- Nursing discharge notes
- Social service notes
- Transfer record

Inclusion Guidelines for Abstraction:

All patients transferred from your facility to another acute care hospital are required to have this element documented.

Exclusion Guidelines for Abstraction: none



STROKE REGISTRY DATA DICTIONARY

Data Element Name: Hospital Transferred To

Collected For: OCEMS (Required)

Definition:

The name and location of the acute care hospital to which the patient is being transferred for the continuation of stroke care.

Suggested Data Collection Question:

What is the name of the acute care hospital that the patient is being transferred to?

Format:

Length: 1-20

Type: Single-Select

Occurs: 1

Allowable Values: All pertinent facilities as defined by the State of California.

Notes for Abstraction: none

Suggested Data Sources: Only acceptable sources

Inclusion Guidelines for Abstraction:

All patients transferred from your facility to another acute care hospital are required to have this element documented.

Exclusion Guidelines for Abstraction: none



STROKE REGISTRY DATA DICTIONARY

Data Element Name: ICD 10 Diagnosis

Collected For: OCEMS (Required), JC (all elements), GWTG

Definition:

The International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) code associated with the diagnosis established for this patient during this specific care episode.

Suggested Data Collection Question:

What are the ICD-10-CM diagnosis codes associated with this patients acute stroke event?

Format:

Length: 3-7

Type: Search Enabled Field

Occurs: Multiple

Allowable Values:

Any valid diagnosis code as per the CMS ICD-10-CM master code table (2016 Code Descriptions in Tabular Order): <https://www.cms.gov/Medicare/Coding/ICD10/2016-ICD-10-CM-and-GEMs.html>

Notes for Abstraction:

- The primary focus of this element is to record the Principle Diagnosis Code, however if the stroke-related diagnosis code is not the Principle Diagnosis Code, please enter both codes.
- The admission code or initial diagnosis code may be important for documentation of patients with dynamic progressions and especially important to identify if a patient is transferred to your hospital for management of a hemorrhagic complication after treatment with IV or IA therapy for an ischemic stroke at the referring hospital.
- Entering in multiple codes may enable more focused QI efforts by your hospital, however no ICD-10 codes unrelated to stroke are required by this registry.

Suggested Data Sources:

- Face Sheet
- Admission Form
- Code List
- Problem List
- Discharge Summary
- UB-04

Inclusion Guidelines for Abstraction:

All patients included in this registry are required to have a documented value for this element.

Exclusion Guidelines for Abstraction: none
