

Stroke Education (Measure)

Definition:	Ischemic or hemorrhagic stroke patients or their caregivers who were given educational materials during the hospital stay addressing all of the following: activation of emergency medical system, need for follow-up after discharge, medications prescribed at discharge, risk factors for stroke, and warning signs and symptoms of stroke.
Improvement Notation:	An increase in rate
Measurement Period:	January 1, 20xx through December 31, 20xx
Transmission Format:	None
Scoring:	Proportion
Type:	Process
ID:	107
Version:	3
NQF:	
GUID:	217fdf0d-3d64-4720-9116-d5e5afa27f2c
Measure Set:	eMeasure Stroke (eSTK)
Eligibility:	Eligible Hospitals
Domain:	Patient and Family Engagement

Population criteria

Initial Patient Population	AND: "Patient Characteristic Birthdate: birth date" >= 18 year(s) starts before start of "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter"
	AND: "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter (length of stay <= 120 day(s))"
	AND: "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter" ends during "Measurement Period"
	AND:
	OR: "Diagnosis, Active: Ischemic Stroke (ordinality: 'Principal')"
	OR: "Diagnosis, Active: Hemorrhagic Stroke (ordinality: 'Principal')"
	starts during "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter"
Denominator	AND: "Initial Patient Population"
	AND: "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter (discharge status: 'Discharge To Home Or Police Custody')"
Denominator Exclusions	AND:
	OR:
	AND: "Occurrence A of Encounter, Performed: Emergency Department Visit" <= 1 hour(s) ends before start of "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter"
	AND:
	OR: "Intervention, Order: Comfort Measures"
	OR: "Intervention, Performed: Comfort Measures"

	starts during "Occurrence A of Encounter, Performed: Emergency Department Visit"
	OR:
	OR: "Intervention, Order: Comfort Measures"
	OR: "Intervention, Performed: Comfort Measures"
	starts during "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter"
Numerator	AND:
	OR:
	AND: "Communication: From Provider to Patient: Activation of Emergency Medical System Education"
	AND: "Communication: From Provider to Patient: Instructions for Follow Up After Discharge"
	AND: "Communication: From Provider to Patient: Prescribed Medications Education"
	AND: "Communication: From Provider to Patient: Risk Factors Education"
	AND: "Communication: From Provider to Patient: Warning Signs and Symptoms Education"
	AND: "Communication: From Provider to Patient: Written Information Given"
	OR: "Communication: From Patient to Provider not done: Patient Refusal" for "Written Information Given "
	during "Occurrence A of Encounter, Performed: Non-Elective Inpatient Encounter"
Denominator Exceptions	None

Reporting Stratification

None	
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Value Set Disclaimer:	<p>Access to the Value Set Authority Center requires a free Unified Medical Language System® Metathesaurus License. It is expected that any use of value sets is consistent with these licensing requirements and copyright protections.</p> <p>To access the 2014 CQMs' value sets in USHIK, you need to have a free Unified Medical Language System® Metathesaurus License and abide by its conditions.</p>
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Data Criteria

Category	Data Element	Value Set
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Communication	Communication: From Patient to Provider not done: Patient Refusal	Value Set Name	Patient Refusal
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.93
		Value Set Version	20140401
		SNOMEDCT	105480006, 182890002, 182895007, 182896008, 182897004, 182898009, 182900006, 182901005, 182903008, 183944003, 183945002, 183947005, 183948000, 275936005, 371138003, 385648002, 406149000, 413312003, 416432009, 443390004
Communication	Communication: From Patient to Provider: Written Information Given	Value Set Name	Written Information Given
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.415
		Value Set Version	20140401
		SNOMEDCT	413318004
Communication	Communication: From Provider to Patient: Activation of Emergency Medical System Education	Value Set Name	Activation of Emergency Medical System Education
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.377
		Value Set Version	20140401
		SNOMEDCT	385867000, 428551000124102
Intervention	Intervention, Order: Comfort Measures	Value Set Name	Comfort Measures
		Value Set OID	1.3.6.1.4.1.33895.1.3.0.45
		Value Set Version	20140401
		SNOMEDCT	133918004, 182964004, 385736008, 385763009
Communication	Communication: From Provider to Patient: Instructions for Follow Up After Discharge	Value Set Name	Instructions for Follow Up After Discharge
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.378
		Value Set Version	20140401
		SNOMEDCT	428521000124106, 61342007
Intervention	Intervention, Performed: Comfort Measures	Value Set Name	Comfort Measures
		Value Set OID	1.3.6.1.4.1.33895.1.3.0.45
		Value Set Version	20140401
		SNOMEDCT	133918004, 182964004, 385736008, 385763009
Communication	Communication: From Provider to Patient: Prescribed Medications Education	Value Set Name	Prescribed Medications Education
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.379
		Value Set Version	20140401
		SNOMEDCT	386465007, 423076000
Communication	Communication: From Provider to Patient: Risk Factors Education	Value Set Name	Risk Factors Education
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.380
		Value Set Version	20140401
		SNOMEDCT	415233007

Communication	Communication: From Provider to Patient: Warning Signs and Symptoms Education	Value Set Name	Warning Signs and Symptoms Education
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.381
		Value Set Version	20140401
		SNOMEDCT	223413005
Communication	Communication: From Provider to Patient: Written Information Given	Value Set Name	Written Information Given
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.415
		Value Set Version	20140401
		SNOMEDCT	413318004
Diagnosis	Diagnosis, Active: Hemorrhagic Stroke	Value Set Name	Hemorrhagic Stroke
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.212
		Value Set Version	20140401
		ICD10CM	I60.00, I60.01, I60.02, I60.10, I60.11, I60.12, I60.20, I60.21, I60.22, I60.30, I60.31, I60.32, I60.4, I60.50, I60.51, I60.52, I60.6, I60.7, I60.8, I60.9, I61.0, I61.1, I61.2, I61.3, I61.4, I61.5, I61.6, I61.8, I61.9
		ICD9CM	430, 431
		SNOMEDCT	195155004, 195160000, 195165005, 195167002, 195168007, 195169004, 20908003, 230706003, 230707007, 230708002, 230709005, 230710000, 230711001, 230712008, 23276006, 270907008, 274100004, 276277008, 276278003, 276280009, 276281008, 276282001, 276283006, 276284000, 276285004, 276286003, 276722003, 28318001, 28837001, 42429001, 425957003, 449020009, 49422009, 52201006, 73020009, 75038005, 7713009, 95454007

Diagnosis	Diagnosis, Active: Ischemic Stroke	Value Set Name	Ischemic Stroke
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.247
		Value Set Version	20140401
		ICD10CM	I63.00, I63.011, I63.012, I63.019, I63.02, I63.031, I63.032, I63.039, I63.09, I63.10, I63.111, I63.112, I63.119, I63.12, I63.131, I63.132, I63.139, I63.19, I63.20, I63.211, I63.212, I63.219, I63.22, I63.231, I63.232, I63.239, I63.29, I63.30, I63.311, I63.312, I63.319, I63.321, I63.322, I63.329, I63.331, I63.332, I63.339, I63.341, I63.342, I63.349, I63.39, I63.40, I63.411, I63.412, I63.419, I63.421, I63.422, I63.429, I63.431, I63.432, I63.439, I63.441, I63.442, I63.449, I63.49, I63.50, I63.511, I63.512, I63.519, I63.521, I63.522, I63.529, I63.531, I63.532, I63.539, I63.541, I63.542, I63.549, I63.59, I63.6, I63.8, I63.9, I65.21, I65.22, I65.23, I65.29, I66.01, I66.02, I66.03, I66.09, I66.11, I66.12, I66.13, I66.19, I66.21, I66.22, I66.23, I66.29, I66.3, I67.89
		ICD9CM	433.01, 433.10, 433.11, 433.21, 433.31, 433.81, 433.91, 434.00, 434.01, 434.11, 434.91, 436
		SNOMEDCT	111297002, 116288000, 195185009, 195186005, 195189003, 195190007, 195212005, 195213000, 195216008, 195217004, 195230003, 230690007, 230691006, 230692004, 230693009, 230694003, 230695002, 230696001, 230698000, 230699008, 230700009, 233964008, 288723005, 300920004, 64586002, 71444005
Encounter	Encounter, Performed: Emergency Department Visit	Value Set Name	Emergency Department Visit
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.292
		Value Set Version	20140401
		SNOMEDCT	4525004
Encounter	Encounter, Performed: Non-Elective Inpatient Encounter	Value Set Name	Non-Elective Inpatient Encounter
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.424
		Value Set Version	20140401
		SNOMEDCT	183452005, 32485007
Communication	Communication: From Patient to Provider not done: Patient Refusal	Value Set Name	Written Information Given
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.415
		Value Set Version	20140401
		SNOMEDCT	413318004

Intervention	Intervention, Order: Comfort Measures	Value Set Name	Comfort Measures
		Value Set OID	1.3.6.1.4.1.33895.1.3.0.45
		Value Set Version	20140401
		SNOMEDCT	133918004, 182964004, 385736008, 385763009
Intervention	Intervention, Performed: Comfort Measures	Value Set Name	Comfort Measures
		Value Set OID	1.3.6.1.4.1.33895.1.3.0.45
		Value Set Version	20140401
		SNOMEDCT	133918004, 182964004, 385736008, 385763009
Characteristics (patient or provider)	Patient Characteristic Birthdate: birth date	Value Set Name	birth date
		Value Set OID	2.16.840.1.113883.3.560.100.4
		Value Set Version	20140401
		LOINC	21112-8
	Attribute: Discharge status: Discharge To Home Or Police Custody	Value Set Name	Discharge To Home Or Police Custody
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.82
		Value Set Version	20140401
		SNOMEDCT	10161009, 306689006, 306690002, 306691003, 306692005, 306705005, 65537008, 86400002
	Attribute: Ordinality: Principal	Value Set Name	Principal
		Value Set OID	2.16.840.1.113883.3.117.1.7.1.14
		Value Set Version	20140401
		SNOMEDCT	63161005

Supplemental Data Elements

Category	Data Element	Value Set	
Characteristics (patient or provider)	Patient Characteristic Sex: ONC Administrative Sex	Value Set Name	ONC Administrative Sex
		Value Set OID	2.16.840.1.113762.1.4.1
		Value Set Version	20140401
		AdministrativeSex	F, M, U
Characteristics (patient or provider)	Patient Characteristic Race: Race	Value Set Name	Race
		Value Set OID	2.16.840.1.114222.4.11.836
		Value Set Version	20140401
		CDCREC	1002-5, 2028-9, 2054-5, 2076-8, 2106-3, 2131-1
Characteristics (patient or provider)	Patient Characteristic Ethnicity: Ethnicity	Value Set Name	Ethnicity
		Value Set OID	2.16.840.1.114222.4.11.837
		Value Set Version	20140401
		CDCREC	2135-2, 2186-5

Characteristics (patient or provider)	Patient Characteristic Payer: Payer	Value Set Name	Payer
		Value Set OID	2.16.840.1.114222.4.11.3591
		Value Set Version	20140401
		SOP	1, 11, 111, 112, 113, 119, 12, 121, 122, 123, 129, 19, 2, 21, 211, 212, 213, 219, 22, 23, 24, 25, 29, 3, 31, 311, 3111, 3112, 3113, 3114, 3115, 3116, 3119, 312, 3121, 3122, 3123, 313, 32, 321, 3211, 3212, 32121, 32122, 32123, 32124, 32125, 32126, 322, 3221, 3222, 3223, 3229, 33, 331, 332, 333, 334, 34, 341, 342, 343, 349, 35, 36, 361, 362, 369, 37, 371, 3711, 3712, 3713, 372, 379, 38, 381, 3811, 3812, 3813, 3819, 382, 389, 39, 4, 41, 42, 43, 44, 5, 51, 511, 512, 513, 514, 515, 519, 52, 521, 522, 523, 529, 53, 54, 55, 59, 6, 61, 611, 612, 613, 619, 62, 63, 64, 69, 7, 71, 72, 73, 79, 8, 81, 82, 821, 822, 823, 83, 84, 85, 89, 9, 91, 92, 93, 94, 95, 951, 953, 954, 959, 96, 98, 99, 9999

Metadata

Measure Steward:	Joint Commission
Measure Developer:	Joint Commission
Endorsed By:	None
Copyright:	<p>Measure specifications are in the Public Domain</p> <p>LOINC(R) is a registered trademark of the Regenstrief Institute.</p> <p>This material contains SNOMED Clinical Terms (R) (SNOMED CT(c)) copyright 2004--2010 International Health Terminology Standards Development Organization. All rights reserved.</p>
Disclaimer:	<p>These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. The measures and specifications are provided without warranty.</p>
Stratification:	None
Risk Adjustment:	None
Rate Aggregation:	None

Rationale:	<p>There are many examples of how patient education programs for specific chronic conditions have increased healthful behaviors, improved health status, and/or decreased health care costs of their participants. Clinical practice guidelines include recommendations for patient and family education during hospitalization as well as information about resources for social support services. Some clinical trials have shown measurable benefits in patient and caregiver outcomes with the application of education and support strategies. The type of stroke experienced and the resulting outcomes will play a large role in determining not only the course of treatment but also what education will be required. Patient education should include information about the event (e.g., cause, treatment, and risk factors), the role of various medications or strategies, as well as desirable lifestyle modifications to reduce risk or improve outcomes.</p> <p>Family/caregivers will also need guidance in planning effective and realistic care strategies appropriate to the patient's prognosis and potential for rehabilitation.</p>
Clinical Recommendation Statement:	<p>Some clinical trials have shown measurable benefits in patient and caregiver outcomes with the application of education and support strategies. Patient education should include information about the event (e.g., cause, treatment, and risk factors), the role of various medications or strategies, as well as desirable lifestyle modifications to reduce risk or improve outcomes. Family/caregivers will also need guidance in planning effective and realistic care strategies appropriate to the patient's prognosis and potential for rehabilitation.</p>
Reference:	<p>Eames, S., T. Hoffmann, L. Worrall, and S. Read. "Stroke Patients' and Carers' Perception of Barriers to Accessing Stroke Information." [In eng]. <i>Top Stroke Rehabil</i> 17, no. 2 (Mar-Apr 2010): 69-78.</p>
Reference:	<p>Furie, K. L., S. E. Kasner, R. J. Adams, G. W. Albers, R. L. Bush, S. C. Fagan, J. L. Halperin, et al. "Guidelines for the Prevention of Stroke in Patients with Stroke or Transient Ischemic Attack: A Guideline for Healthcare Professionals from the American Heart Association/American Stroke Association." [In eng]. <i>Stroke</i> 42, no. 1 (Jan 2011): 227-76.</p>
Reference:	<p>Goldstein, L. B., C. D. Bushnell, R. J. Adams, L. J. Appel, L. T. Braun, S. Chaturvedi, M. A. Creager, et al. "Guidelines for the Primary Prevention of Stroke: A Guideline for Healthcare Professionals from the American Heart Association/American Stroke Association." [In eng]. <i>Stroke</i> 42, no. 2 (Feb 2011): 517-84.</p>
Reference:	<p>Hafsteinsdottir, T. B., M. Vergunst, E. Lindeman, and M. Schuurmans. "Educational Needs of Patients with a Stroke and Their Caregivers: A Systematic Review of the Literature." [In eng]. <i>Patient Educ Couns</i> 85, no. 1 (Oct 2011): 14-25</p>
Reference:	<p>Jauch, E. C., J. L. Saver, H. P. Adams, Jr., A. Bruno, J. J. Connors, B. M. Demaerschalk, P. Khatri, et al. "Guidelines for the Early Management of Patients with Acute Ischemic Stroke: A Guideline for Healthcare Professionals from the American Heart Association/American Stroke Association." [In Eng]. <i>Stroke</i> (Jan 31 2013).</p>
Reference:	<p>Lorig, K. R., D. S. Sobel, A. L. Stewart, B. W. Brown, Jr., A. Bandura, P. Ritter, V. M. Gonzalez, D. D. Laurent, and H. R. Holman. "Evidence Suggesting That a Chronic Disease Self-Management Program Can Improve Health Status While Reducing Hospitalization: A Randomized Trial." [In eng]. <i>Med Care</i> 37, no. 1 (Jan 1999): 5-14.</p>
Definition:	None

Guidance:	<p>The unit of measurement for this measure is an inpatient episode of care. Each distinct hospitalization should be reported, regardless of whether the same patient is admitted for inpatient care more than once during the measurement period. In addition, the eMeasure logic intends to represent events within or surrounding a single occurrence of an inpatient hospitalization.</p> <p>Written information given to the patient is required to address each and every one of the educational components. These components are modeled in the population criteria and data criteria as communication from provider to patient :activation of emergency medical system, follow-up after discharge, medications prescribed at discharge, risk factors and signs and symptoms, and are intended to be specific to stroke.</p> <p>The "Non-elective admissions" value set intends to capture all non-scheduled hospitalizations. This value set is a subset of the "Inpatient encounter" value set, excluding concepts that specifically refer to elective hospital admissions. Non-elective admissions include emergency, urgent and unplanned admissions, including patients admitted for observation.</p>
Measure Population:	Not Applicable
Measure Observations:	Not Applicable
Supplemental Data Elements:	For every patient evaluated by this measure also identify payer, race, ethnicity and sex.