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HITSP Quality Measure Reference Document for Public Comment on the Quality Interoperability Specification

HITSP/REF12

Healthcare Information Technology Standards Panel

Submitted to:

Healthcare Information Technology Standards Panel

Submitted by:

Quality Measures Tiger Team

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FIGURES AND TABLES

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

This reference document provides an example of using HITSP/IS06 Quality to specify a quality measure. The example is the Anticoagulation Therapy for Atrial Fibrillation/Flutter STK-3 measure in the Stroke set of quality measures provided to HITSP by the Centers for Medicare and Medicaid Services (CMS). This example includes a description of the measure STK-3, the set of data elements needed to address the measure (including any derived data elements), the associated value sets, the eMeasure representation, and the HL7 Quality Reporting Document Architecture (QRDA) representation required for the measure. Note that QRDA enables providers to use the same data constructs developed for information exchange to report on quality measures directly out of the Electronic Health Record (EHR). This document also provides an example of the XML eMeasure populated with STK-3 sample data. This document is intended to exemplify the use of the HITSP specifications in specifying and reporting on a quality measure. This document is also intended to serve as guidance for the implementation of STK-3 using HITSP standards.

1.2 COPYRIGHT PERMISSIONS

1.3 VERSION 3.0 ACKNOWLEDGEMENT

The *Specifications Manual for National Hospital Inpatient Quality Measures (Specifications Manual)* is the result of the collaborative efforts of CMS and The Joint Commission to publish a uniform set of national hospital quality measures. A primary objective of this collaborative effort is to promote and enhance the utility of these measures for all hospitals.

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Example Acknowledgement: The *Specifications Manual for National Hospital Inpatient Quality Measures* [Version xx, Month, Year] is the collaborative work of the Centers for Medicare & Medicaid Services and The Joint Commission. The *Specifications Manual* is periodically updated by the Centers for Medicare & Medicaid Services and The Joint Commission. Users of the *Specifications Manual for National Hospital Inpatient Quality Measures* must update their software and associated documentation based on the published manual production timelines.

2.0 HOW TO USE HITSP/IS06 QUALITY FOR IMPLEMENTING MEASURES: STK-3

2.1 MEASURE DESCRIPTIONS

2.1.1 STROKE STK-3 MEASURE DESCRIPTION

Table 2-1 Stroke STK-3 Measure Description

Measure Name	Stroke STK3 - Anticoagulation Therapy for Atrial Fibrillation/Flutter
Creating Organization	The Joint Commission
Measure Definition	'Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.'
Measure Rationale	Nonvalvular Atrial Fibrillation (NVAF) is a common arrhythmia and an important risk factor for stroke. It is one of several conditions and lifestyle factors that have been identified as risk factors for stroke. It has been estimated that over 2 million adults in the United States have NVAF. While the median age of patients with atrial fibrillation is 75 years, the incidence increases with advancing age. For example, the Framingham Heart Study noted a dramatic increase in stroke risk associated with atrial fibrillation with advancing age, from 1.5% for those 50 to 59 years of age to 23.5% for those 80 to 89 years of age. Furthermore, a prior stroke or transient ischemic attack (TIA) are among a limited number of predictors of high stroke risk within the population of patients with atrial fibrillation. Therefore, much emphasis has been placed on identifying methods for preventing recurrent ischemic stroke as well as preventing first stroke. Prevention strategies focus on the modifiable risk factors such as hypertension, smoking, and atrial fibrillation. Analysis of five placebo-controlled clinical trials investigating the efficacy of Warfarin in the primary prevention of thromboembolic stroke, found the relative risk of thromboembolic stroke was reduced by 68% for atrial fibrillation patients treated with Warfarin. The administration of anticoagulation therapy, unless there are contraindications, is an established effective strategy in preventing recurrent stroke in high stroke risk-atrial fibrillation patients with TIA or prior stroke.

2.2 QUALITY MEASURE DATA DICTIONARY: [STK-3]

This measure requires the following data elements:

2.2.1.1 CROSS REFERENCE TABLE KEY

The following mapping tables include data element and information requirements derived from the list of quality measures provided by HITEP I and supplemented with data elements associated with Measures provided to HITSP by CMS (as noted following the data element in parenthetical notation). An update to this list is under public comment through HITEP II, and therefore the final list of information requirements is pending. The final data dictionary from HITEP II will be used to inform the Interoperability Specification constructs. The following list is not exhaustive, but reflects a consistent representation of common measure data concepts. This section briefly describes the document and section constraints in the HL7 QRDA framework and references the specific section of the HL7 QRDA standard where the constraints are described in detail.

Note that in the Data Mapping Tables,

- *HITSP Data Element ID and Name* provides identifier and name of the data element from HITSP/C83 CDA Content Modules.
- *HITSP Opt*/Repeat column* indicates whether the data element is required or not, and whether it is repeatable. Whether a module may be repeated is defined for various entries in the tables, with Y meaning repetition does occur and N meaning that there is no repetition.

2.2.1.2 MAPPING TABLE

The table below describes the patient data elements required for STK-3.

Table 2-2 Patient Data Mapping for STK-3

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[1]/Repeat	Additional Constraints[2]
Pseudonymized Data Linker	2.2.2.1 Personal Information: 1.02 Person ID	R/Y	Required in every document
Patient HIC# (CMS): Patient's Medicare health insurance claim number	2.2.2.1 Personal Information: 1.02 Person ID	R/Y	HITSP Assumed name is anonymous, CMS requires name
Vendor Tracking ID (CMS)	2.2.2.1 Personal Information: 1.02 Person ID	R/N	
Payment Source (CMS)	Payer Section 2.2.2.1 2.2.2.5 InsuranceProvider: 5.03 Health Plan Insurance Information Source ID	RY	Constrained to the HITSP value set for Health Insurance Type
history-birth	2.2.2.1 Personal Information: 1.07 Person Date of Birth	R/N	
history-sex	2.2.2.1 Personal Information: 1.06 Gender	R/N	Constrained to the HITSP value set for Administrative Gender
First Name (CMS)	2.2.2.1 Personal Information: 1.05 Person Name	R/Y	HITSP Assumed name is anonymous, CMS requires name
Last Name (CMS)	2.2.2.1 Personal Information: 1.05 Person Name	R/Y	HITSP Assumed name is anonymous, CMS requires name
Ethnicity (CMS)	2.2.2.1 Personal Information: 1.11 Ethnicity	R/Y	Joint Commission Hispanic Ethnicity; Constrained to the HITSP value set for Ethnicity
Race	2.2.2.1 Personal Information: 1.10 Race	R/Y	HITSP assumed race to be anonymous. CMS requires race to be transmitted. Constrained to the HITSP value set for Race
Postal Code	2.2.2.1 Personal Information: 1.03 Person Address	R/N	HITSP Assumed name is anonymous, CMS requires name; Constrained to the HITSP value set for Postal Code

Table 2-3 Visit Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[3]/Repeat	Additional Constraints[4]
location-source/current/target : Patient Class	Encounters section 2.2.2.27 2.2.2.16 Encounter 2.2.2.16.2 Encounter Type Constraints Patient	R/N	location-source/current/target* was identified by HITSP to have multiple data elements needed to represent the concept, including Patient Class Defined as the type of encounter for modeling; Constrained to the HITSP value set for Patient Class

[1] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[2] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions"

[3] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[4] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions".

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[3]/Repeat	Additional Constraints[4]
Location-source/current/target: Point of Origin for Admission or Visit = Admission Source	Encounters section 2.2.2.27 2.1.2.16 ENCOUNTER 16:06 Admission source	R/N	location-source/current/target was identified by HITSP to have multiple data elements needed to represent concept, including Point of Origin for Admission or Visit which is equivalent to Admission Source. Note: This data element is UB04 Field 15 or Admission Source Constrained to HITSP value set for Admission Source
Discharge Date/Time	Encounters section 2.2.2.27 2.2.2.16 Encounter 16.04 Encounter Date/Time (high)	R/N	For hospital stays, effectiveTime/high should be used to represent the discharge time. 00:00 = next day, 11:59 pm = previous
location-transfer type (AMA, routine): Discharge Disposition	Encounters section 2.2.2.27 2.2.2.16 Encounter 16.11 Discharge Disposition	R/N	Expected for hospital encounters when the encounter is complete; Constrained to the HITSP value set Discharge Disposition
Admit Date/Time	Encounters section 2.2.2.27 2.1.2.16 ENCOUNTER 16.14 Admit Date/time	R/N	OPEN ISSUE: COMMENT WELCOME on the modeling and the following: Admission Date of record must be by policy based on the original order for admit by the physician Joint Commission/CMS definition: A patient of a hospital is considered an inpatient upon issuance of written doctor's orders to that effect. (Refer to the Medicare Claims Processing Manual, Chapter 3, Section 40.2.2.) NOTE: Modeled as a component in an encounter as an order (RQO) with an author time
Facility Identifier	2.1.2.16 ENCOUNTER 16.15 Facility id	R/N	A facility may have many identifiers and cda:id = 1..*

Table 2-4 Problem Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[5]/Repeat	Additional Constraints[6]
diagnosis-outpt (problem list); history-behavioral (smoker); history-enrollment trial; history-symptoms: Problem	2.1.2.7 CONDITION 7.01-7.09	R/Y	diagnosis-outpt (problem list); history-behavioral (smoker); history-enrollment trial; history-symptoms were identified by HITSP to have multiple data elements needed to represent the concept, including Problem NOTE: Problem needs to be identified as patient-level, encounter-level, active or inactive Need to reflect the concept of 'present on admission' Need an appropriate problem model used across the board to be able to include active/inactive patient-level/encounter-level, etc
problem list; history-behavioral (smoker); history-enrollment trial; history-symptoms: Problem Date	2.1.2.7 CONDITION 7.01 Problem Date	R/Y	diagnosis-outpt (problem list); history-behavioral (smoker); history-enrollment trial; history-symptoms were identified by HITSP to have multiple data elements needed to represent the concept, including Problem Date
problem list; history-behavioral (smoker); history-enrollment trial; history-symptoms: Problem Code	2.1.2.7 CONDITION : 7.04 Problem Code	R/Y	diagnosis-outpt (problem list); history-behavioral (smoker); history-enrollment trial; history-symptoms were identified by HITSP to have multiple data elements needed to represent the concept, including Problem Code
adverse_ adverse_drug_event-intolerancedrug_event-allergy	2.2.1.2 ALLERGIES AND OTHER ADVERSE REACTIONS SECTION 2.1.2.6 ALLERGY/DRUG SENSITIVITY	R/Y	

Table 2-5 Discharge Diagnosis Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[7]/Repeat	Additional Constraints[8]
diagnosis-inpt (admission/discharge); diagnosis-outpt (billing)	2.2.1.11 Discharge Diagnosis Section Condition 2.1.2.7 7.04 Problem Code	R/Y	Expecting mostly ICD-9 diagnosis codes, but SNOMED CT or other vocabulary may be used
Diagnosis Type	2.2.1.11 Discharge Diagnosis Section : Condition 2.1.2.7 7.02 Problem Type	R/Y	

[5] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[6] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions".

[7] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[8] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions".

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[7]/Repeat	Additional Constraints[8]
Diagnosis Priority	2.2.1.11 Discharge Diagnosis Section : 2.1.2.7 CONDITION 7.10 Discharge Diagnosis Priority	R/Y	

Table 2-6 Vital Signs Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[9]/Repeat	Additional Constraints[10]
Not applicable for this measure			

Table 2-7 Procedures and Diagnostic Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[11]/Repeat	Additional Constraints[12]
procedure-inpatient (end/closure); procedure-inpatient (start/incision); procedure-outpatient; procedure-past procedure history (pacer)	List of Surgeries section 2.2.2.8 2.2.2.17 Procedure: 17.01 Procedure Performed	R/Y	Need policy - all of these types of procedures need to be reflected in the procedures performed using the selected vocabulary/codelist NOTE: For some procedures, may need to look to : HITSP/CDA type for the OT/PT/Speech language pathology list
Procedure Date/Time (CMS)	2.2.2.17 Procedure: 17.04 Procedure Date/Time	R/Y	

Table 2-8 Other Clinical Data Elements Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[13]/Repeat	Additional Constraints[14]
Not applicable for this measure			

[9] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[10] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions".

[11] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[12] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions".

[13] Optionality = "R" for Required, "R2" for Required if Known or "O" for Optional, or "C" for Conditional. Repeatable = "Y" for yes, "N" for No.

[14] May have constraints that identify "Limit/Range of values", Data Source, and/or "Requirements/Pre-conditions".

Table 2-9 Other Clinical Data Elements Data Mapping

SDO Identifier and Name	HITSP Data Element ID and Name	HITSP Opt[15]/Repeat	Additional Constraints[16]
Discharge medication ordered (CMS)	2.2.1.14 Hospital Discharge Medications Section Enounters Section 2.2.2.27 C83 Section 2.2.2.16 Encounter 16.13 Discharge medication ordered	R/Y	Expect that prescriptions at discharge are included in the discharge summary Used to compute: Anticoagulation Therapy Prescribed At Discharge

2.3 QUALITY MEASURE VALUE SETS: [STK-3]

The following value sets that support this exemplar can be found in the Appendix Section 3.1,

- Admission Source
- Discharge Disposition
- Ethnicity
- Health Insurance Type
- Hispanic Ethnicity
- Postal Code
- Race
- Administrative Gender
- Joint Commission Anticoagulant Medications-Stroke
- Joint Commission Atrial Fib/Flutter - Findings
- Joint Commission Atrial Fib/Flutter - History
- Joint Commission Atrial Fib/Flutter - Procedure
- Joint Commission Comfort Measures Only
- Joint Commission Carotid Intervention
- Joint Commission Elective Surgery
- Joint Commission Ischemic Stroke Code
- Joint Commission Hemorrhagic Stroke
- Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Finding/Situation
- Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Anticoagulant Allergy
- Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Procedure

2.4 QUALITY MEASURE DERIVED DATA: [STK-3]

2.4.1 DATA ELEMENTS CROSS REFERENCE

The following tables describe the derived data needed to support STK-3.

[15] Optionality = “R” for Required, “R2” for Required if Known or “O” for Optional, or “C” for Conditional. Repeatable = “Y” for yes, “N” for No.

[16] May have constraints that identify “Limit/Range of values”, Data Source, and/or “Requirements/Pre-conditions”.

Table 2-10 Data Elements Cross Reference

Column	Definition
Data Element	This column contains data elements provided to HITSP by HITEP or by CMS. For HITEP data elements, this reflects the Data Element name/identifier as listed by Health Information Technology Expert Panel of the National Quality Forum (NQF) for the Identification of Core Data Elements and Prioritization of AQA and HQA Performance Measures for Electronic Healthcare Information Systems. For CMS supplied data elements, CMS is noted in parentheticals, and the definitions is the element as referenced in measures supplied for Stroke, VTE, and ED. This Column also reflects the definitions associated with the data element
Definition	Data element description as listed by American Health Information Community Expert Panel for the Identification of Core Data Elements and Prioritization of AQA and HQA Performance Measures for Electronic Healthcare Information Systems
Logic	The logical representation of the value sets and the underlying data elements from which the concept is derived
Derived From	Indicates the underlying data elements used to derive the concept and HITSP/C83 reference
Measures Supported	Indicates the Quality Measure(s) supported by the concept
Comments	Comments noting issues or constraints on the data elements supporting the concept
Value Set	Value Set(s) needed to derive the concept and associated link to value set detail

Table 2-11 Derived Data

Data Element	Definition	Logic	HITSP/C83 Data Element(s) Derived from	Measures Supported	Comments	Value Set
(TEMPID) Id: 2.2.2.2 Principal Diagnosis of Ischemic Stroke	Patient with a Principal Diagnosis of Ischemic Stroke as identified by the Joint Commission Ischemic Stroke Value Set	IF (DischargeDiagnosis code CONTAINS (ValueSet (Joint Commission Ischemic Stroke)))AND (DischargeDiagnosisPriority EQ (1)) THEN 'Y' ELSE 'N'	Diagnoses: 2.2.1.11 Discharge Diagnosis Section 7.04 Problem Code Diagnosis Priority: 2.2.1.11 Discharge Diagnosis Section : 2.1.2.7 CONDITION 7.10 Discharge Diagnosis Priority			Joint Commission Ischemic Stroke
(TEMPID) Id: 2.8.8.8 Anticoagulation Therapy Prescribed At Discharge	Documentation that anticoagulation therapy was prescribed at hospital discharge. The administration of anticoagulation therapy, unless there are contraindications, is an established effective strategy in preventing recurrent stroke in high stroke-risk atrial fibrillation patients with TIA or prior stroke.	IF Discharge Medication(Coded Product Name) CONTAINS ValueSet (Joint Commission Anticoagulant Medications – Stroke) THEN 'Y', ELSE 'N'	Discharge medication ordered - Discharge Medications Section 2.2.1.14: 2.1.2.8 MEDICATION	STK-3		Joint Commission Anticoagulant Medications - Stroke

Data Element	Definition	Logic	HITSP/C83 Data Element(s) Derived from	Measures Supported	Comments	Value Set
TEMPID) Id: 2.5.5.5 Atrial Fibrillation/Flutter	Documentation that the patient has a history of any atrial fibrillation (e.g., remote, persistent, or paroxysmal) or atrial flutter in the past OR current atrial fibrillation or flutter on EKG.	IF (Problem code CONTAINS ValueSet (Joint Commission Atrial Fib/Flutter – Findings)) OR (DischargeDiagnosis code CONTAINS (ValueSet (Joint Commission Atrial Fib/Flutter – Findings)) OR (Problem code CONTAINS ValueSet (Joint Commission Atrial Fib/Flutter – History)) OR (DischargeDiagnosis code CONTAINS (ValueSet (Joint Commission Atrial Fib/Flutter – History)) OR ProcedurePerformed CONTAINS ValueSet (Joint Commission Atrial Fib/Flutter – Procedure)) THEN 'Y' ELSE 'N'	Problem code: 2.2.1.3 Problem List Section: 7.04 Problem Code Diagnoses: 2.2.1.11 Discharge Diagnosis Section 7.04 Problem Code Procedure Performed: 2.2.2.17 Procedure: 17.01 Procedure Performed	STK-3	Need an implementation guide to make sure that the problems identified in a CDA for quality reporting came from a problem list and not elsewhere in a record Active Problem List must be available and Used in the Inpatient Setting. This may be a "Meaningful Use" measure candidate. The Problem List must also be mapped to the appropriate SNOMED codes, or some mapping occurs in the background to enable measurement and clinical decision support.	Joint Commission Atrial Fib/Flutter - Findings Joint Commission Atrial Fib/Flutter History Joint Commission Atrial Fib/Flutter - Procedure
TEMPID) Id: 2.6.6.6 Clinical Trial (HITEP-II all measures)	Documentation 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 (i.e. AMI, CAC, HF, PN, PR, SCIP, STK, VTE).	IF (Problem code CONTAINS ValueSet (Joint Commission Clinical Trial)) OR (DischargeDiagnosis code CONTAINS (ValueSet (Joint Commission Clinical Trial)) THEN 'Y' ELSE 'N'	Problem code: 2.2.1.3 Problem List Section: 7.04 Problem Code Diagnoses: 2.2.1.11 Discharge Diagnosis Section 7.04 Problem Code	All	Need an implementation guide to make sure that the problems identified in a CDA for quality reporting came from a problem list and not elsewhere in a record GAP: No clear location for clinical trial determination, and when documented often the type (class) of trial is not identified. Look for registry number tied to clinical trials.gov	Joint Commission Clinical Trial

Data Element	Definition	Logic	HITSP/C83 Data Element(s) Derived from	Measures Supported	Comments	Value Set
Id: 2.7.7.7 Comfort Measures Only	Physician/advanced practice nurse/physician assistant (physician/APN/PA) documentation of comfort measures only. Commonly referred to as "palliative care" in the medical community and "comfort care" by the general public. Palliative care includes attention to the psychological and spiritual needs of the patient and support for the dying patient and the patient's family. Comfort Measures Only are not equivalent to the following: Do Not Resuscitate (DNR), living will, no code, no heroic measure	IF ProcedurePerformed CONTAINS ValueSet (Joint Commission Comfort Measures Only) THEN 'Y' ELSE 'N'	Procedure Performed: 2.2.2.17 Procedure: 17.01 Procedure Performed	All	GAP: Physician note or order - no consistent model for documentation Need a policy to assure a consistent method of coding - e.g. that the order for comfort measures only is applied;	Joint Commission Comfort Measures Only
TEMPID) Id: 2.4.4.4 Elective Carotid Intervention	Documentation demonstrates that the current admission is solely for the performance of an elective carotid intervention (e.g., elective carotid endarterectomy, angioplasty, carotid stenting)	IF (ProcedurePerformed CONTAINS ValueSet (Joint Commission Carotid Intervention)) AND (ProcedurePerformed CONTAINS ValueSet (Joint Commission Elective Surgery)) THEN 'Y' ELSE 'N'	Procedure Performed: 2.2.2.17 Procedure: 17.01 Procedure Performed	All STK		Joint Commission Carotid Intervention Joint Commission Elective Surgery
Hispanic Ethnicity		F (Ethnicity CONTAINS ValueSet (Joint Commission Hispanic Ethnicity) THEN 'Y' ELSE 'N'	Ethnicity: 2.2.2.1 Personal Information: 1.11 Ethnicity	All HITEP II		Joint Commission Hispanic Ethnicity

Data Element	Definition	Logic	HITSP/C83 Data Element(s) Derived from	Measures Supported	Comments	Value Set
(TEMPID) Id: 2.9.9.9 Reason For Not Prescribing Anticoagulation Therapy at Discharge	Reason for not prescribing anticoagulation therapy was prescribed at hospital discharge •Anticoagulant medication allergy •Other reason documented by physician/APN/PA or pharmacist The administration of anticoagulation therapy, unless there are contraindications, is an established effective strategy in preventing recurrent stroke in high stroke risk-atrial fibrillation patients with TIA or prior stroke.	IF (ProcedurePerformed CONTAINS ValueSet (Joint Commission Reason for Not Prescribing Anticoagulation Therapy at Discharge Procedure)) OR (Allergy CONTAINS (ValueSet (Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Situation - Anticoagulant Allergy)) OR (Problem code CONTAINS ValueSet (Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge –Finding/Situation)) OR (DischargeDiagnosis code CONTAINS (ValueSet (Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge – Finding/Situation)) THEN 'Y' ELSE 'N'	Procedure Performed: 2.2.2.17 Procedure: 17.01 Procedure Performed Allergy 2.2.1.2 Allergies and other adverse reactions section 2.1.2.6 Allergy/Drug Sensitivity Problem code: 2.2.1.3 Problem List Section: 7.04 Problem Code Diagnoses: 2.2.1.11 Discharge Diagnosis Section 7.04 Problem Code	STK-3	Need an implementation guide to make sure that the problems identified in a CDA for quality reporting came from a problem list and not elsewhere in a record	Joint Commission Reason for Not Prescribing Anticoagulation Therapy at Discharge Procedure Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Situation - Anticoagulant Allergy Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge – Finding/Situation
(TEMPID) Id: 2.11.11.11 Patient condition deceased	Patient has expired	IF Discharge Disposition CONTAINS (ValueSet (Joint Commission Death)) THEN 'Y' ELSE 'N'	Discharge Disposition: Encounters section 2.2.2.27 2.2.2.16 Encounter 16.11 Discharge Disposition			Joint Commission Death
TEMPID) Id: 2.1.1.1 Completed Inpatient encounter	The patient has completed the inpatient encounter	IF DischargeDate <> NULL THEN 'Y' else 'N'	Discharge Date: Encounters section 2.2.2.27 2.2.2.16 Encounter 16.04 Encounter Date/Time (high)			NA

2.5 QUALITY MEASURE EMEASURE SPECIFICATION: [STK-3]

2.5.1 EMEASURE METADATA

Data elements corresponding to eMeasure metadata are shown in the following table, along with their mapping into the HQMF RMIM.

Table 2-12 eMeasure Metadata

Data Element Name	XPath	Definition	Example: STK-3
Adopted By	QualityMeasureDocument / verifier	Regulatory bodies and programs using this measure	eMeasure authoring organization
Approval Date	QualityMeasureDocument / verifier / time	Date of approval	May 14, 2009 (20090515)
Approved By	QualityMeasureDocument / verifier	Person(s) and/or Organization(s) that have endorsed or approved the measure. There can be many approvals – e.g. by the authoring organization, by the National Quality Forum, etc	National Quality Forum
Contact	QualityMeasureDocument / custodian	See Measure Steward	NOT IN EXAMPLE
Copyright	QualityMeasureDocument / subjectOf / MeasureAttribute	Copyright information for the measure	NOT IN EXAMPLE
Disclaimer	QualityMeasureDocument / subjectOf / MeasureAttribute	A statement intended to specify or delimit the scope of rights and obligations associated with the measure	NOT IN EXAMPLE
Improvement Notation	QualityMeasureDocument / subjectOf / MeasureAttribute	Information on whether an increase or decrease in score is the preferred result. This should reflect information on which way is better, an increase or decrease in score	Improvement noted as
Measure Description	QualityMeasureDocument / text	Narrative description of the measure	Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.
Measure Developer	QualityMeasureDocument / author	Person and/or organization who authored the measure	eMeasure authoring organization
Measure Developer ID	QualityMeasureDocument / author / responsibleParty/ id	Globally unique identifier of the measure developer	2.16.840.1.113883.19.5
Measure Effective Time	QualityMeasureDocument / effectiveTime	Time period for which the measure is effective	Reporting period: Jan 01 2008 - Mar 31 2008
Measure ID	QualityMeasureDocument / id	Globally unique measure identifier	STK-3
Measure Name	QualityMeasureDocument / title	Title of the quality measure	Anticoagulation therapy for atrial fibrillation/flutter
Measure Set ID	QualityMeasureDocument / componentOf / QualityMeasureDocumentSet / id	Globally unique identifier of the measure set that this measure is a part of	88414c01-715a-45bb-83bb-db7ac860fe9d

Data Element Name	XPath	Definition	Example: STK-3
Measure Steward	QualityMeasureDocument / custodian	The custodian of the measure, bearing overall responsibility for the measure, and serving as primary contact for issues or concerns about the measure	NOT IN EXAMPLE
Measurement Period	QualityMeasureDocument / component / section / code / @code=55187-9 (LOINC code for Reporting Parameters section)	Period of time or duration of measurement interval	Reporting period: Jan 01 2008 - Mar 31 2008
Notice of Use	QualityMeasureDocument / subjectOf / measureParameter	Usage notes	NOT IN EXAMPLE
Rationale	QualityMeasureDocument / subjectOf / MeasureAttribute	Description of why this measure is important, particularly from a clinical perspective	Nonvalvular Atrial Fibrillation (NVAF) is a common arrhythmia and an important risk factor for stroke. It is one of several conditions and lifestyle factors that have been identified as risk factors for stroke. It has been estimated that over 2 million adults in the United States have NVAF. While the median age of patients with atrial fibrillation is 75 years, the incidence increases with advancing age. For example, the Framingham Heart Study noted a dramatic increase in stroke risk associated with atrial fibrillation with advancing age, from 1.5% for those 50 to 59 years of age to 23.5% for those 80 to 89 years of age. Furthermore, a prior stroke or transient ischemic attack (TIA) is among a limited number of predictors of high stroke risk within the population of patients with atrial fibrillation. Therefore, much emphasis has been placed on identifying methods for preventing recurrent ischemic stroke as well as preventing first stroke. Prevention strategies focus on the modifiable risk factors such as hypertension, smoking, and atrial fibrillation. Analysis of five placebo-controlled clinical trials investigating the efficacy of Warfarin in the primary prevention of thromboembolic stroke, found the relative risk of thromboembolic stroke was reduced by 68% for atrial fibrillation patients treated with Warfarin. The administration of anticoagulation therapy, unless there are contraindications, is an established effective strategy in preventing recurrent stroke in high stroke risk-atrial fibrillation patients with TIA or prior stroke

Data Element Name	XPath	Definition	Example: STK-3
Reference	QualityMeasureDocument / bibliographicDesignationText	Bibliographic citations	Goldstein LB, et al. Stroke. 2006;37:1583 Sacco RL, et al. Stroke Vol 37, 2006:577
Reporting Instructions	QualityMeasureDocument / component / section / code / @code=55187-9 (LOINC code for Reporting Parameters section)	Includes frequency, timeframes, applicability, etc	Reporting period: Jan 01 2008 - Mar 31 2008
Topic Type	QualityMeasureDocument / subjectOf / MeasureAttribute	Clinical condition, specialty or activity for which the measure was developed to address	topic type
Version	QualityMeasureDocument / versionNumber	Version number	2
Version Date	QualityMeasureDocument / availabilityTime	Version date	March 15, 2009 (20090315)
Version Status	QualityMeasureDocument / statusCode	States if the current document is final, draft, etc	Completed

2.5.2 JOINT COMMISSION STROKE 3 QUALITY EMEASURE EXAMPLE

```
<QualityMeasureDocument xmlns="urn:hl7-org:v3" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:hl7-org:v3 Schemas\eMeasure.xsd">
  <!--
**********************************************************
eMeasure Header
**********************************************************
-->
  <typeId root="2.16.840.1.113883.1.3" extension="eMeasureHD000040"/>
  <id root="88414c01-715a-45bb-83bb-db7ac860fe9d" extension="STK-3"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1" displayName="Measure"/>
  <title>Anticoagulation therapy for atrial fibrillation/flutter</title>
  <text>Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.</text>
  <statusCode code="completed"/>
  <availabilityTime value="20090315"/>
  <versionNumber value="2"/>
  <bibliographicDesignationText>Goldstein LB, et al. Stroke. 2006;37:1583.</bibliographicDesignationText>
  <bibliographicDesignationText>Sacco RL, et al. Stroke Vol 37, 2006:577.</bibliographicDesignationText>
  <author>
    <time value="20090315"/>
    <responsibleParty classCode="ASSIGNED">
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5"/>
        <name>eMeasure authoring organization</name>
      </representedOrganization>
    </responsibleParty>
  </author>
  <verifier>
    <time value="20090315"/>
    <responsibleParty>
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5"/>
        <name>eMeasure authoring organization</name>
```

```
      </representedOrganization>
    </responsibleParty>
  </verifier>
  <verifier>
    <time value="20090515"/>
    <responsibleParty>
      <representedOrganization>
        <id root="2.16.840.1.113883.19.8"/>
        <name>National Quality Forum</name>
      </representedOrganization>
    </responsibleParty>
  </verifier>
  <componentOf>
    <qualityMeasureSet>
      <id root="88414c01-715a-45bb-83bb-db7ac860fe9d" extension="STK"/>
      <title>Stroke (STK)</title>
    </qualityMeasureSet>
  </componentOf>
  <subjectOf>
    <measureAttribute>
      <code displayName="topic type"/>
      <value/>
    </measureAttribute>
  </subjectOf>
  <subjectOf>
    <measureAttribute>
      <code displayName="measure rationale"/>
      <value xsi:type="ED" mediaType="text/plain">Nonvalvular Atrial Fibrillation (NVAF) is a common
arrhythmia and an important risk factor for stroke. It is one of several conditions and lifestyle factors that
have been identified as risk factors for stroke. It has been estimated that over 2 million adults in the
United States have NVAF. While the median age of patients with atrial fibrillation is 75 years, the
incidence increases with advancing age. For example, the Framingham Heart Study noted a dramatic
increase in stroke risk associated with atrial fibrillation with advancing age, from 1.5% for those 50 to 59
years of age to 23.5% for those 80 to 89 years of age. Furthermore, a prior stroke or transient ischemic
attacks (TIA) are among a limited number of predictors of high stroke risk within the population of patients
with atrial fibrillation. Therefore, much emphasis has been placed on identifying methods for preventing
recurrent ischemic stroke as well as preventing first stroke. Prevention strategies focus on the modifiable
risk factors such as hypertension, smoking, and atrial fibrillation. Analysis of five placebo-controlled
clinical trials investigating the efficacy of Warfarin in the primary prevention of thromboembolic stroke,
found the relative risk of thromboembolic stroke was reduced by 68% for atrial fibrillation patients treated
with Warfarin. The administration of anticoagulation therapy, unless there are contraindications, is an
established effective strategy in preventing recurrent stroke in high stroke risk-atrial fibrillation patients
with TIA or prior stroke.</value>
    </measureAttribute>
  </subjectOf>
  <subjectOf>
    <measureAttribute>
      <code displayName="Improvement noted as"/>
      <value/>
    </measureAttribute>
  </subjectOf>
  <!--
**********************************************************
eMeasure Body
```

```
**********************************************************
-->
  <!--
**********************************************************
Reporting parameters section
**********************************************************
-->
  <!-- Data elements include:
  Observation parameters (ActId=1.1.1.1);
  -->
  <component>
    <section>
      <code code="55187-9" codeSystem="2.16.840.1.113883.6.1"/>
      <title>Reporting parameters</title>
      <text>Reporting period: Jan 01 2008 - Mar 31 2008</text>
      <entry typeCode="DRIV">
        <act classCode="ACT" moodCode="EVN">
          <id root="1.1.1.1"/>
          <code code="252116004" codeSystem="2.16.840.1.113883.6.96" displayName="Observation
Parameters"/>
          <sourceOf typeCode="COMP">
            <act classCode="PCPR" moodCode="EVN">
              <effectiveTime>
                <low value="20080101"/>
                <!-- The first day of the period reported. -->
                <high value="20080331"/>
                <!-- The last day of the period reported. -->
              </effectiveTime>
            </act>
          </sourceOf>
        </act>
      </entry>
    </section>
  </component>
  <!--
**********************************************************
Data Dictionary section
**********************************************************
-->
  <!-- Data elements used as part of this eMeasure include:
    Anticoagulation therapy prescribed at discharge (Id: 2.8.8.8);
    Discharge disposition (Id: 16.11);
    Inpatient encounter (Id: 2.1.1.1);
    Inpatient principal diagnosis of stroke (Id: 2.2.2.2);
    Patient condition deceased (Id: 2.11.11.11);
    Patient date of birth (Id: 1.07);
    Patient is comfort care only status (Id: 2.7.7.7);
    Patient is in a clinical trial (Id: 2.6.6.6);
    Problem list entry of atrial fibrillation / atrial flutter (Id: 2.5.5.5);
    Reason for admission is elective carotid intervention (Id: 2.4.4.4);
    Reason for anticoagulation therapy not prescribed at discharge (Id: 2.9.9.9).
  -->
  <component>
    <section>
```

```
    <code displayName="Data Dictionary section"/>
    <title>Data element/template definitions</title>
    <text>Data elements used as part of this eMeasure include:
      <list>
        <item> Anticoagulation therapy prescribed at discharge (Id: 2.8.8.8);</item>
        <item>Inpatient encounter (Id: 2.1.1.1)</item>
        <item>Inpatient principal diagnosis of stroke (Id: 2.2.2.2)</item>
        <item>Patient date of birth (Id: 1.07)</item>
        <item>Patient is comfort care only status (Id: 2.7.7.7);</item>
        <item>Patient is in a clinical trial (Id: 2.6.6.6);</item>
        <item>Problem list entry of atrial fibrillation / atrial flutter (Id: 2.5.5.5);</item>
        <item>Reason for admission is elective carotid intervention (Id: 2.4.4.4);</item>
        <item>Reason for Anticoagulation therapy not prescribed at discharge (Id: 2.9.9.9).</item>
      </list>
    </text>
    <entry>
      <!-- Anticoagulation therapy prescribed at discharge (Id: 2.8.8.8) -->
      <!-- choice 1: observation with Preconditions -->
      <observation classCode="OBS" moodCode="DEF">
        <id root="2.8.8.8.1"/>
        <code code="ASSERTION"/>
        <value xsi:type="CD" displayName=" Anticoagulation therapy prescribed at discharge"/>
        <sourceOf typeCode="PRCN">
          <act classCode="ACT" moodCode="EVN.CRT">
            <code code="58000006" classCode="2.16.840.1.113883.6.96" displayName="patient
discharge"/>
            <sourceOf typeCode="COMP">
              <substanceAdministration moodCode="INT"> <!-- moodCode? -->
                <participant typeCode="CSM">
                  <role classCode="MANU">
                    <material classCode="MMAT" determinerCode="KIND">
                      <code code=".tbd." codeSystem=".tbd." displayName=" AnticoagulationTherapy"/>
                    </material>
                  </role>
                </participant>
              </substanceAdministration>
            </sourceOf>
          </act>
        </sourceOf>
      </observation>
    </entry>
    <entry>
      <!-- Anticoagulation therapy prescribed at discharge (Id: 2.8.8.8) -->
      <!-- choice 2: observation with Preconditions -->
      <act classCode="ACT" moodCode="DEF">
        <id root="2.8.8.8.2"/>
        <code code="58000006" classCode="2.16.840.1.113883.6.96" displayName="patient discharge"/>
        <sourceOf typeCode="COMP">
          <substanceAdministration moodCode="INT">  <!-- moodCode? -->
            <participant typeCode="CSM">
              <role classCode="MANU">
                <material classCode="MMAT" determinerCode="KIND">
                  <code code=".tbd." codeSystem=".tbd." displayName=" AnticoagulationTherapy"/>
                </material>
```

```
            </role>
          </participant>
        </substanceAdministration>
      </sourceOf>
    </act>
  </entry>
  <entry>
    <!-- Discharge disposition (Id:  16.11) -->
    <observation classCode="OBS" moodCode="DEF">
      <id root="2.10.10.10"/>
      <code code="loinc code for discharge disposition"/>
      <value xsi:type="CD" code=".tbd." codeSystem=".tbd." displayName="
DischargeDispositionCodes"/>
    </observation>
  </entry>
  <entry>
    <!-- Inpatient encounter (Id: 2.1.1.1) -->
    <encounter classCode="ENC" moodCode="DEF">
      <id root="2.1.1.1"/>
      <code code=".tbd." codeSystem=".tbd." displayName="NQF_InpatientEncounter"/>
      <dischargeDispositionCode code=".tbd." codeSystem=".tbd." displayName="
DischargeDispositionCodes"/> <!-- doesn't belong here - would need a new data element for discharge
disposition -->
    </encounter>
  </entry>
  <entry>
    <!-- Completed Inpatient encounter (Id: 2.1.1.1.x) -->
    <observation moodCode="DEF">
      <id root="2.1.1.1.1"/>
      <code code="ASSERTION"/>
      <derivationExpr>InpatientEncounter/effectiveTime/high is not null</derivationExpr>
      <value xsi:type="CD" displayName="completed inpatient encounter"/>
      <sourceOf typeCode="DRIV"> <!-- DRIV, but also GEN -->
        <localVariableName>InpatientEncounter</localVariableName>
        <encounter classCode="ENC" moodCode="DEF">
          <id root="2.1.1.1"/>
        </encounter>
      </sourceOf>
    </observation>
  </entry>
  <entry>
    <!-- Completed Inpatient encounter (Id: 2.1.1.1.x) -->
    <encounter classCode="ENC" moodCode="DEF">
      <id root="2.1.1.1.2"/>
      <code code=".tbd." codeSystem=".tbd." displayName="CompletedInpatientEncounter"/>
      <effectiveTime>
        <high ??/>
      </effectiveTime>
    </encounter>
  </entry>
  <entry>
    <!-- Completed Inpatient encounter (Id: 2.1.1.1.x) -->
    <encounter classCode="ENC" moodCode="DEF">
      <id root="2.1.1.1.3"/>
```

```
        <code code=".tbd." codeSystem=".tbd." displayName="CompletedInpatientEncounter"/>
        <derivationExpr>encounter/effectiveTime/high is not NULL</derivationExpr>
      </encounter>
    </entry>
    <entry>
      <!-- Inpatient principal discharge diagnosis of stroke (Id: 2.2.2.2)-->
      <act moodCode="DEF">
        <id root="2.2.2.2"/>
        <code code="11535-2" codeSystem="2.16.840.1.113883.6.1" displayName="Hospital discharge
diagnosis"/>
        <sourceOf typeCode="COMP">
          <priorityNumber value="1"/>
          <observation moodCode="EVN">
            <code code="ASSERTION"/>
            <value xsi:type="CD" code=".tbd." codeSystem=".tbd."
displayName="IschemicStrokeDiagnosis"/>
          </observation>
        </sourceOf>
      </act>
    </entry>
    <entry>
      <!-- Patient condition deceased (Id: 2.11.11.11) -->
      <act moodCode="DEF">
        <participant>
          <role classCode="PAT">
            <person classCode="PSN">
              <deceasedInd value="true"/>
            </person>
          </role>
        </participant>
      </act>
    </entry>
    <entry>
      <!-- Patient date of birth (Id: 1.07) -->
      <observation moodCode="DEF">
        <id root="2.3.3.3"/>
        <code code="DOB"/>
      </observation>
    </entry>
    <entry>
      <!-- Patient is comfort care only status (Id: 2.7.7.7) -->
      <observation moodCode="DEF">
        <id root="2.7.7.7"/>
        <code code="ASSERTION"/>
        <value xsi:type="CD" code=".tbd." codeSystem=".tbd." displayName="ComfortCare"/>
        <participant typeCode="SBJ">
          <role classCode="PAT"/>
        </participant>
      </observation>
    </entry>
    <entry>
      <!-- Patient is in a clinical trial (Id: 2.6.6.6) -->
      <observation moodCode="DEF">
        <id root="2.6.6.6.1"/>
```

```
        <code code="ASSERTION"/>
        <value xsi:type="CD" code="185923000" codeSystem="2.16.840.1.113883.6.96"
displayName="Patient in clinical trial"/>
        <participant typeCode="SBJ">
          <role classCode="PAT"/>
        </participant>
      </observation>
    </entry>
    <entry>
      <!-- Patient is in a clinical trial (they've signed a consent for a stroke-related clinical trial) (Id: 2.6.6.6)
-->
      <act classCode="CONS" moodCode="DEF">
        <id root="2.6.6.6.2"/>
        <participant typeCode="SBJ">
          <signatureCode code="S"/>
          <role classCode="PAT"/>
        </participant>
        <subjectOf typeCode="REFR">
          <act moodCode="EVN">
            <code code="110465008" codeSystem="2.16.840.1.113883.6.96" displayName="Clinical trial">
              <qualifier>
                <name code="363702006" displayName="has focus"/>
                <value code="230690007" displayName="stroke"/>
              </qualifier>
            </code>
          </act>
        </subjectOf>
      </act>
    </entry>
    <entry>
      <!-- MD problem list entry of atrial fibrillation / atrial flutter (Id: 2.5.5.5) -->
      <act classCode="ACT" moodCode="DEF">
        <id root="2.5.5.5"/>
        <code code="11450-4" displayName="Problem list" CodeSystem="2.16.840.1.113883.6.1"/>
        <sourceOf typeCode="COMP" moodCode="EVN">
          <act classCode="CONCERN" moodCode="EVN">  <!-- moodCode? -->
            <sourceOf typeCode="SUBJ">
              <observation moodCode="EVN">  <!-- moodCode? -->
                <code code="ASSERTION"/>
                <value xsi:type="CD" code=".tbd." codeSystem=".tbd." displayName="AFIBFLUTTER"/>
                <participant typeCode="AUT">
                  <role classCode="PHYS"/>
                </participant>
              </observation>
            </sourceOf>
          </act>
        </sourceOf>
      </act>
    </entry>
    <entry>
      <!-- Reason for admission is elective carotid intervention (Id: 2.4.4.4) -->
      <encounter classCode="CONS" moodCode="DEF">
        <id root="2.4.4.4"/>
        <code code=".tbd." codeSystem=".tbd." displayName="CompltedInpatientEncounter"/>
```

```
        <sourceOf typeCode="RSON">
          <procedure moodCode="INT">  <!-- moodCode? -->
            <code code=".tbd." codeSystem=".tbd."
displayName="ElectiveCarotidEndarterectomyProcedure">
              <qualifier>
                <name code="260870009" displayName="Priority"/>
                <value code="230690007" displayName="Elective"/>
              </qualifier>
            </code>
          </procedure>
        </sourceOf>
      </encounter>
    </entry>
    <entry>
      <!-- Reason for Anticoagulation therapy not prescribed at discharge (Id: 2.9.9.9) -->
      <act classCode="ACT" moodCode="DEF">
        <id root="2.9.9.9"/>
        <code code="58000006" classCode="2.16.840.1.113883.6.96" displayName="patient discharge"/>
        <sourceOf typeCode="COMP">
          <substanceAdministration moodCode="INT" negationInd="true">  <!-- moodCode? -->
            <participant typeCode="CSM">
              <role classCode="MANU">
                <material classCode="MMAT" determinerCode="KIND">
                  <code code="81839001" codeSystem="2.16.840.1.113883.6.96"
displayName="Anticoagulant product"/>
                </material>
              </role>
            </participant>
            <sourceOf typeCode="RSON"/>
          </substanceAdministration>
        </sourceOf>
      </act>
    </entry>
  </section>
 </component>
 <!--
*********************************************************
Measure-specific derived criteria section
*********************************************************
-->
 <!-- Derived data elements include:
 18+ at admission (ActId-1.2.2.2);
 Length of stay <= 120 days (ActId=1.3.3.3);
 Patient discharged/transferred to another hospital, federal health care facility, or hospice (ActId=1.4.4.4).
 -->
 <component>
  <section>
    <code displayName="Measure-specific derived criteria section"/>
    <title>Measure-specific derived criteria</title>
    <text>Measure-specific derived data elements include:
      <list>
        <item>18+ at admission (ActId-1.2.2.2);</item>
        <item>Length of stay &lt;= 120 days (ActId=1.3.3.3);</item>
```

```
        <item>Patient discharged/transferred to another hospital, federal health care facility, or hospice
(ActId=1.4.4.4).</item>
      </list>
    </text>
    <entry>
      <!-- 18+ at admission (ActId-1.2.2.2) -->
      <observation moodCode="DEF">
        <id root="1.2.2.2"/>
        <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
        <derivationExpr>
          InpatientEncounter/effectiveTime/low - DOB &gt;= 18 years.
        </derivationExpr>
        <value xsi:type="CD" displayName="18+ at admission"/>
        <sourceOf typeCode="DRIV">
          <localVariableName>InpatientEncounter</localVariableName>
          <!-- Inpatient encounter -->
          <encounter moodCode="DEF">
            <id root="2.1.1.1"/>
          </encounter>
        </sourceOf>
        <sourceOf typeCode="DRIV">
          <localVariableName>DOB</localVariableName>
          <!-- Patient date of birth -->
          <observation moodCode="DEF">
            <id root="2.3.3.3"/>
          </observation>
        </sourceOf>
      </observation>
    </entry>
    <entry>
      <!-- Length of stay &lt;= 120 days (ActId=1.3.3.3) -->
      <observation moodCode="DEF">
        <id root="1.3.3.3"/>
        <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
        <derivationExpr>
          InpatientEncounter/effectiveTime/high - InpatientEncounter/effectiveTime/low &lt;= 120 days.
        </derivationExpr>
        <value xsi:type="CD" displayName="Length of stay &lt;= 120 days"/>
        <sourceOf typeCode="DRIV">
          <localVariableName>InpatientEncounter</localVariableName>
          <!-- Inpatient encounter -->
          <encounter moodCode="DEF">
            <id root="2.1.1.1"/>
          </encounter>
        </sourceOf>
      </observation>
    </entry>
    <entry>
      <!-- Patient discharged/transferred to another hospital, federal health care facility, or hospice
(ActId=1.4.4.4) -->
      <observation moodCode="DEF">
        <id root="1.4.4.4"/>
        <code code="LOINC discharge disposition code"/>
```

```
        <value xsi:type="CD" code=".tbd." codeSystem=".tbd." displayName="Subset of
DischargeDispositionCodes"/>
        <sourceOf typeCode="GEN">
          <localVariableName>DischargeDisposition</localVariableName>
          <!-- Discharge disposition -->
          <observation moodCode="DEF">
            <id root="2.10.10.10"/>
          </observation>
        </sourceOf>
      </observation>
    </entry>
  </section>
 </component>
 <!--
*********************************************************
Assemblage of measure-specific parameters section
*********************************************************
-->
 <!-- Parameter data elements include:
 Initial Patient Population inclusion = [1] Principal inpatient diagnosis of stroke; AND [2] Patient 18+ at
admission; AND [3] Length of Stay &lt;= 120 days.
 Denominator inclusion = [1] Initial Patient Population; AND [2] Problem list entry of atrial fibrillation /
atrial flutter.
 Numerator inclusion = [1] Denominator; AND [2] Anticoagulation therapy prescribed at discharge.
 Denominator exclusion = [1] Denominator; ANDNOT [2] Numerator; AND [3] Patient is comfort care only
status; OR
   Patient is in a clinical trial; OR Reason for admission is elective carotid intervention; OR
   Reason for Anticoagulation therapy not prescribed at discharge; OR
   Patient discharged/transferred to another hospital, federal health care facility, or hospice; OR
   Patient condition deceased.
 -->
 <component>
  <section>
    <code displayName="Assemblage of measure-specific parameters section"/>
    <title>Assemblage of measure-specific parameters</title>
    <text>Measure-specific parameters include:
      <list>
        <item>Initial Patient Population inclusion: [1] Principal inpatient diagnosis of stroke; AND [2] Patient
18+ at admission; AND [3] Length of Stay &lt;= 120 days.</item>
        <item>Denominator inclusion: [1] Initial Patient Population inclusion; AND [2] Problem list entry of
atrial fibrillation / atrial flutter.</item>
        <item>Numerator inclusion: [1] Denominator inclusion; AND [2] Anticoagulation therapy prescribed
at discharge.</item>
        <item>Denominator exclusion: [1] Denominator inclusion; ANDNOT [2] Numerator inclusion; AND
[3] Patient is comfort care only status; OR Patient is in a clinical trial; OR Reason for admission is elective
carotid intervention; OR Reason for Anticoagulation therapy not prescribed at discharge; OR Patient
discharged/transferred to another hospital, federal health care facility, or hospice; OR Patient condition
deceased.</item>
      </list>
    </text>
    <entry>
      <observation moodCode="DEF">
        <id root="1.3.1.1.1"/>
        <code code="ASSERTION"/>
```

```
        <value xsi:type="CD" displayName="Initial Patient Population inclusion"/>
        <sourceOf typeCode="PRCN" conjunctionCode="AND">
          <act moodCode="EVN.CRT">
            <sourceOf typeCode="INST"> <!-- is Instantiates the right code to use here, to say that the
precondition is that there is an act in EVN.CRT that corresponds to the act in DEFN? -->
              <!-- Inpatient principal diagnosis of stroke -->
              <act moodCode="DEF">
                <id root="2.2.2.2"/>
              </act>
            </sourceOf>
          </act>
<!-- If there was no data dictionary entry for inpatient principal dx of stroke one could do this instead: -->
          <!-- Inpatient principal diagnosis of stroke (Id: 2.2.2.2)-->
          <act moodCode="EVN.CRT">
            <code code="11535-2" codeSystem="2.16.840.1.113883.6.1" displayName="Hospital discharge
diagnosis"/>
            <sourceOf typeCode="COMP">
              <priorityNumber value="1"/>
              <observation moodCode="EVN">
                <code code="ASSERTION"/>
                <value xsi:type="CD" code=".tbd." codeSystem=".tbd."
displayName="StrokePrincipalDiagnosis"/>
              </observation>
            </sourceOf>
          </act>
<!-- ------------------------------------------------------ -->
        </sourceOf>
        <sourceOf typeCode="PRCN" conjunctionCode="AND">
          <act moodCode="EVN.CRT">
            <sourceOf typeCode="INST">
              <!-- 18+ at admission -->
              <observation moodCode="DEF">
                <id root="1.2.2.2"/>
              </observation>
            </sourceOf>
          </act>
        </sourceOf>
        <sourceOf typeCode="PRCN" conjunctionCode="AND">
          <act moodCode="EVN.CRT">
            <sourceOf typeCode="INST">
              <!-- Length of stay <= 120 days -->
              <observation moodCode="DEF">
                <id root="1.3.3.3"/>
              </observation>
            </sourceOf>
          </act>
        </sourceOf>
      </observation>
    </entry>
    <entry>
      <observation moodCode="DEF">
        <id root="1.3.2.2.2"/>
        <code code="ASSERTION"/>
        <value xsi:type="CD" displayName="Denominator inclusion"/>
```

```
    <sourceOf typeCode="PRCN" conjunctionCode="AND">
     <act moodCode="EVN.CRT">
      <sourceOf typeCode="INST">
       <!-- Initial Patient Population -->
       <observation moodCode="DEF">
        <id root="1.3.1.1.1"/>
       </observation>
      </sourceOf>
     </act>
    </sourceOf>
    <sourceOf typeCode="PRCN" conjunctionCode="AND">
     <act moodCode="EVN.CRT">
      <sourceOf typeCode="INST">
       <!-- Problem list entry of atrial fibrillation / atrial flutter -->
       <act moodCode="DEF">
        <id root="2.5.5.5"/>
       </act>
      </sourceOf>
     </act>
    </sourceOf>
   </observation>
  </entry>
  <entry>
   <observation moodCode="DEF">
    <id root="1.3.3.3.3"/>
    <code code="ASSERTION"/>
    <value xsi:type="CD" displayName="Numerator inclusion"/>
    <sourceOf typeCode="PRCN" conjunctionCode="AND">
     <act moodCode="EVN.CRT">
      <sourceOf typeCode="INST">
       <!-- Denominator -->
       <observation moodCode="DEF">
        <id root="1.3.2.2.2"/>
       </observation>
      </sourceOf>
     </act>
    </sourceOf>
    <sourceOf typeCode="PRCN" conjunctionCode="AND">
     <act moodCode="EVN.CRT">
      <sourceOf typeCode="INST">
       <!-- Anticoagulation therapy prescribed at discharge -->
       <act moodCode="DEF">
        <id root="2.8.8.8"/>
       </act>
      </sourceOf>
     </act>
    </sourceOf>
   </observation>
  </entry>
  <entry>
   <observation moodCode="DEF">
    <id root="1.3.4.4.4"/>
    <code code="ASSERTION"/>
    <value xsi:type="CD" displayName="Denominator exclusion"/>
```

```
<sourceOf typeCode="PRCN" conjunctionCode="AND">
  <act moodCode="EVN.CRT">
    <sourceOf typeCode="INST">
      <!-- Denominator -->
      <observation moodCode="DEF">
        <id root="1.3.1.1.1"/>
      </observation>
    </sourceOf>
  </act>
</sourceOf>
<sourceOf typeCode="PRCN" negationInd="true" conjunctionCode="AND">
  <act moodCode="EVN.CRT">
    <sourceOf typeCode="INST">
      <!-- Numerator -->
      <observation moodCode="DEF">
        <id root="1.3.3.3.3"/>
      </observation>
    </sourceOf>
  </act>
</sourceOf>
<sourceOf typeCode="PRCN" conjunctionCode="OR">
  <act moodCode="EVN.CRT">
    <sourceOf typeCode="INST">
      <!-- Patient is comfort care only status (Id: 2.7.7.7) -->
      <observation moodCode="DEF">
        <id root="2.7.7.7"/>
      </observation>
    </sourceOf>
  </act>
</sourceOf>
<sourceOf typeCode="PRCN" conjunctionCode="OR">
  <act moodCode="EVN.CRT">
    <sourceOf typeCode="INST">
      <!-- Patient is in a clinical trial (Id: 2.6.6.6) -->
      <observation moodCode="DEF">
        <id root="2.6.6.6"/>
      </observation>
    </sourceOf>
  </act>
</sourceOf>
<sourceOf typeCode="PRCN" conjunctionCode="OR">
  <act moodCode="EVN.CRT">
    <sourceOf typeCode="INST">
      <!-- Reason for admission is elective carotid intervention (Id: 2.4.4.4) -->
      <encounter moodCode="DEF">
        <id root="2.4.4.4"/>
      </encounter>
    </sourceOf>
  </act>
</sourceOf>
<sourceOf typeCode="PRCN" conjunctionCode="OR">
  <act moodCode="EVN.CRT">
    <sourceOf typeCode="INST">
      <!-- Reason for Anticoagulation therapy not prescribed at discharge (Id: 2.9.9.9) -->
```

```
            <act moodCode="DEF">
              <id root="2.9.9.9"/>
            </act>
          </sourceOf>
        </act>
      </sourceOf>
      <sourceOf typeCode="PRCN" conjunctionCode="OR">
        <act moodCode="EVN.CRT">
          <sourceOf typeCode="INST">
            <!-- Patient discharged/transferred to another hospital, federal health care facility, or hospice
(ActId=1.4.4.4) -->
            <observation moodCode="DEF">
              <id root="1.4.4.4"/>
            </observation>
          </sourceOf>
        </act>
      </sourceOf>
      <sourceOf typeCode="PRCN" conjunctionCode="OR">
        <act moodCode="EVN.CRT">
          <sourceOf typeCode="INST">
            <!-- Patient condition deceased (Id: 2.11.11.11) -->
            <act moodCode="DEF">
              <id root="2.11.11.11"/>
            </act>
          </sourceOf>
        </act>
      </sourceOf>
    </observation>
  </entry>
 </section>
</component>
</QualityMeasureDocument>
```

2.6 QUALITY MEASURE QRDA SPECIFICATION: [STK-3]

2.6.1 OVERVIEW

This section describes constraints needed on the HL7 Quality Reporting Document Architecture (QRDA) framework to represent the measure, “Anticoagulation Therapy for Atrial Fibrillation/Flutter (STK-3)”. This measure is from the STROKE NATIONAL HOSPITAL INPATIENT QUALITY MEASURES set.

It will be necessary to refer to the HL7 Implementation Guide for CDA Release 2 QRDA which is based on HL7 CDA Release 2.0 (U.S. Realm) to understand the framework and base requirements for this measure specific guide.

This measure specific to QRDA provides specific instructions for modeling this measure’s data elements and provides an example for modeling the other quality measure data elements identified in HITSP/C105 Patient Level Quality Data Document into complete measure specific QRDAs.

2.6.2 MEASURE INFORMATION

2.6.2.1 MEASURE SET

NA

2.6.2.2 SET MEASURE ID

NA

2.6.2.3 PERFORMANCE MEASURE NAME

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

2.6.2.4 DESCRIPTION

Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.

2.6.2.5 RATIONALE

Improved consistency of prescribed anticoagulation therapy at hospital discharge in ischemic stroke patients with documented nonvalvular atrial fibrillation/flutter can substantially prevent recurrent ischemic stroke.

2.6.2.6 TYPE OF MEASURE

Process

2.6.2.7 IMPROVEMENT NOTED As Presented IN A CATEGORY III (CALCULATED) REPORT

An increase in percentage of prescribed anticoagulation therapy at hospital discharge for the ischemic stroke patients with documented atrial fibrillation/flutter indicates better prevention of recurrent ischemic stroke.

2.6.2.8 NUMERATOR STATEMENT

Ischemic stroke patients prescribed anticoagulation therapy at hospital discharge

2.6.2.9 INCLUDED NUMERATOR POPULATIONS

Not Applicable (same as numerator statement)

2.6.2.10 EXCLUDED NUMERATOR POPULATIONS

None

2.6.2.10.1 Numerator Data Elements

- Anticoagulation Therapy Prescribed at Discharge

2.6.2.11 DENOMINATOR STATEMENT

Ischemic stroke patients with documented atrial fibrillation/flutter

2.6.2.11.1 Included Denominator Populations

- Discharges with an ICD-9-CM Principal Diagnosis Code for ischemic stroke as defined in Appendix A, Table 8.1
- Patients with documented Atrial Fibrillation/Flutter

2.6.2.11.2 Excluded Denominator Populations

- Patients less than 18 years of age
- Patients who have a Length of Stay >120 days

- Patients with Comfort Measures Only documented
- Patients enrolled in clinical trials
- Patients admitted for Elective Carotid Intervention
- Patients discharged/transferred to another hospital for inpatient care
- Patients who left against medical advice or discontinued care
- Patients who expired
- Patients discharged/transferred to a federal health care facility
- Patients discharged/transferred to hospice
- Patients with a documented Reason For Not Prescribing Anticoagulation Therapy

2.6.2.11.3 Denominator Data Elements

- Admission Date
- Atrial Fibrillation/Flutter
- Birthdate
- Clinical Trial
- Comfort Measures Only
- Discharge Date
- Discharge Status
- Elective Carotid Intervention
- ICD-9-CM Principal Diagnosis Code
- Reason For Not Prescribing Anticoagulation Therapy

2.6.2.11.4 Risk Adjustment

- None

2.6.2.11.5 Sampling

- No Sampling. All eligible cases reported.

2.6.3 ADDITIONAL HEADER CONSTRAINTS

This section of the IG describes additional Header constraints needed beyond the QRDA Category I framework constraints.

CONF-QRDA_STK3-1: Category I Anticoagulation Therapy for Atrial Fibrillation/Flutter QRDA report **SHALL** contain exactly one ClinicalDocument/recordTarget/patientRole/patient/birthTime.

CONF-QRDA_STK3-2: The birthTime **SHALL** be precise to the day and **MAY** be precise to the second.

Figure 2-1 STK-3 recordTarget and birthTime example

```
<recordTarget>
  <patientRole>
    <id extension="987654321" root="2.16.840.1.113883.19.5" />
    <patient>
      <name>
        <given>Ned</given>
        <family>Nuclear</family>
      </name>
      <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" />
      <birthTime value="19780201"/>
    </patient>
  </patientRole>
</recordTarget>
```

2.6.4 ADDITIONAL BODY CONSTRAINTS

A Body Mass Index QRDA is a single measure report. It is not currently part of a measure set.

CONF-QRDA_STK3-3: An Anticoagulation Therapy for Atrial Fibrillation/Flutter QRDA **SHALL** contain a non-nested top-level Measure section containing information about the Anticoagulation Therapy for Atrial Fibrillation/Flutter measure.

2.6.5 ADDITIONAL SECTION CONSTRAINTS

2.6.5.1 MEASURE SECTION

CONF-QRDA_STK3-4: The value of the section templateId/@root **SHALL** be 2.16.840.1.113883.10.20.12.3 representing conformance to the Anticoagulation Therapy for Atrial Fibrillation/Flutter Measure section in a Category I QRDA.

CONF-QRDA_STK3-5: The Anticoagulation Therapy for Atrial Fibrillation/Flutter Measure section **SHALL** contain exactly one **SECTION/TITLE** valued with a case-insensitive, text string containing, "Measure: Anticoagulation Therapy for Atrial Fibrillation/Flutter".

2.6.5.1.1 Representation of the Measure

The Anticoagulation Therapy for Atrial Fibrillation/Flutter measure is represented as an act in definition mood. The version number or code of the professional society's definition of the measure is captured in the act's code.

2.6.5.1.1.1 Anticoagulation therapy prescribed at discharge [TemplateId: 2.16.840.1.113883.10.20.12.2.8.8.8; template context: act]

A list of discharge medications that represent Anticoagulation therapy.

SHALL contain 1..1 **@classCode** = ACT "Act" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2099).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2100).

SHALL contain 1..1 **code/@code** = 58000006 "Patient discharge" (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) **STATIC** (CONF: 2101).

SHALL contain 1..1 **actRelationship** (CONF: 2102), which

SHALL contain 1..1 **@typeCode** = COMP "Compnoent" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2103).

SHALL contain 1..1 **2.16.840.1.113883.10.20.1.24** (CONF: 2108), which

SHALL contain 1..1 **substanceAdministration/@moodCode** = INT (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2109).

SHALL contain 1..1 **substanceAdministration/consumable/manufacturedProduct**, which **SHALL** be selected from ValueSet 1.7.8.9.0 “Joint Commission Anticoagulant Medications - Stroke Value Set” **DYNAMIC** (CONF: 2110).

Figure 2-2 Anticoagulation Therapy Prescribed at Discharge Measure Section Example

```
<section>
  <!-- QRDA Category I Anticoagulation Therapy for Atrial Fibrillation/Flutter measure-specific template ID. -->
  <templateId root="2.16.840.1.113883.10.20.12.3"/>
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Measure: Anticoagulation Therapy for Atrial Fibrillation/Flutter</title>
  <text>Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital
discharge.</text>
  <entry>
    <!-- presribed anti-coagulation therap at discharge -->
    <act classCode="ACT" moodCode="DEF">
      <id root="6bf74b3d-3edb-4be8-aa21-a54552aa9040"/>
      <code code="58000006" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT"
displayName="Patient discharge"/>
      <text>Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital
discharge.</text>
      <statusCode code="completed"/>
      <entryRelationship typeCode="COMP">
        <substanceAdministration classCode="SBADM" moodCode="INT">
          <templateId root="2.16.840.1.113883.10.20.1.24"/>
          <id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66"/>
          <statusCode code="active"/>
          <effectiveTime xsi:type="PIVL_TS">
            <period value="24" unit="h"/>
          </effectiveTime>
          <routeCode code="PO" codeSystem="2.16.840.1.113883.5.112" codeSystemName="RouteOfAdministration"
displayName="swallow, oral"/>
          <doseQuantity value="2"/>
          <consumable>
            <manufacturedProduct>
              <manufacturedLabeledDrug>
                <code code="313735" displayName="Warfarin 2 MG Oral Tablet" codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm"/>
              </manufacturedLabeledDrug>
            </manufacturedProduct>
          </consumable>
        </substanceAdministration>
      </entryRelationship>
    </act>
  </entry>
...
</section>
```


2.6.5.2 REPORTING PARAMETERS SECTION

The reporting period for the Anticoagulation Therapy for Atrial Fibrillation/Flutter measure is quarterly. For The Joint Commission, the quarters are ending by 1/31, 4/30, 7/31 and 10/31. For CMS, the quarters are ending by 2/15, 5/15, 8/15 and 11/15.

CONF-QRDA_STK3-6: The reporting time period in a Reporting Period Observation **SHALL** be represented with an effectiveTime/low element with a value of the first day of the quarter combined with a high element with a value of the last day of the quarter representing respectively the first and last days of the period reported.

Figure 2-3 Anticoagulation Therapy for Atrial Fibrillation/Flutter Reporting Parameters Section Example

```
<section>
  <code code="55187-9" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Reporting Parameters</title>
  <text>Reporting period: 01 May 2008 - 31 Jul 2008</text>
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <code code="252116004" codeSystem="2.16.840.1.113883.6.96" displayName="Observation Parameters"/>
      <effectiveTime>
        <low value="20080501"/>
        <!-- The first day of the period reported. -->
        <high value="20080731"/>
        <!-- The last day of the period reported. -->
      </effectiveTime>
    </act>
  </entry>
</section>
```

2.6.5.3 PATIENT DATA SECTION

The Patient Data section in the Anticoagulation Therapy for Atrial Fibrillation/Flutter Measure section contains information about the encounter, the discharge diagnosis, clinical trial enrollment, comfort measures only, elective carotid intervention and reason for not prescribing anticoagulation therapy. Data elements in patient data section are modeled in clinical statement as listed below.

2.6.5.3.1 Clinical Statement - Inpatient principal discharge diagnosis of stroke [TemplateId: 2.2.2.2; template context: act]

SHALL contain 1..1 **@classCode** = ACT "Act" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2031).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2032).

SHALL contain 1..1 **code/@code** = 11535-2 "Hospital discharge diagnosis" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) **STATIC** (CONF: 2033).

SHALL contain 1..1 **actRelationship** (CONF: 2039), which

SHALL contain 1..1 **@typeCode** = COMP "Component" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2040).

SHALL contain 1..1 **observation** (CONF: 2041), which

SHALL contain 1..1 **@classCode** = ASSERTION (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2042).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2043).

SHALL contain 1..1 **code/@code** (CONF: 2044).

SHALL contain 1..1 **value**, which **SHALL** be selected from ValueSet 1.3.3.3.3.3.3 “Joint Commission Ischemic Stroke Value Set“ **DYNAMIC** (CONF: 2045).

SHALL contain 1..1 **priorityCode** (CONF: 2051).

2.6.5.3.2 Clinical Statement - Patient is comfort care only status
[TemplateId: 2.7.7.7; template context: observation]

SHALL contain 1..1 **@classCode** = OBS "Observation" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2090).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2091).

SHALL contain 1..1 **code/@code** = ASSERTION (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) **STATIC** (CONF: 2092).

SHALL contain 1..1 **value**, which **SHALL** be selected from ValueSet 1.6.7.8.7.6 “Joint Commission Comfort Measures Only Value Set” **DYNAMIC** (CONF: 2093).

SHALL contain 1..1 **participation** (CONF: 2094), which

SHALL contain 1..1 **@typeCode** = SBJ "Subject" (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) **STATIC** (CONF: 2095).

SHALL contain 1..1 **role** (CONF: 2096), which

SHALL contain 1..1 **@classCode** = PAT "Patient" (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) **STATIC** (CONF: 2097).

2.6.5.3.3 Clinical Statement - Patient is in a clinical trial
[TemplateId: 2.6.6.6; template context: observation]

SHALL contain 1..1 **@classCode** = OBS "Observation" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2082).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2083).

SHALL contain 1..1 **code/@code** = ASSERTION (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) **STATIC** (CONF: 2084).

MAY contain 0..1 **effectiveTime** (CONF: 2098).

SHALL contain 1..1 **value,** which **SHALL** be selected from ValueSet 1.6.7.8.7.7 “Joint Commission Clinical Trial Value Set” **DYNAMIC** (CONF: 2093).

SHALL contain 1..1 **participation** (CONF: 2086), which

SHALL contain 1..1 **@typeCode** = SBJ "Subject" (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) **STATIC** (CONF: 2087).

SHALL contain 1..1 **role** (CONF: 2088), which

SHALL contain 1..1 **@classCode** = PAT "Patient" (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) **STATIC** (CONF: 2089).

2.6.5.3.4 Clinical Statement - Problem list entry of atrial fibrillation/flutter
[TemplateId: 2.5.5.5; template context: act]

SHALL contain 1..1 **@classCode** = ACT (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2063).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2064).

SHALL contain 1..1 **code/@code** = 11450-4 "Problem list" (CodeSystem: 2.16.840.1.113883.6.1 LOINC) **STATIC** (CONF: 2081).

SHALL contain 1..1 **actRelationship** (CONF: 2065), which

SHALL contain 1..1 **@typeCode** = COMP "Component" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2080).

SHALL contain 1..1 **act** (CONF: 2076), which

SHALL contain 1..1 **@classCode** = CONCERN (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2077).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2078).

SHALL contain 1..1 **actRelationship** (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) (CONF: 2079), which

SHALL contain 1..1 **@typeCode** = SUBJ "Subject" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2066).

SHALL contain 1..1 **observation** (CONF: 2067), which

SHALL contain 1..1 **@classCode** = OBS "Observation" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2068).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2069).

SHALL contain 1..1 **code/@code** = ASSERTION (CodeSystem: 2.16.840.1.113883.5.4 HL7ActCode) **STATIC** (CONF: 2070).

SHALL contain 1..1 **value/@code** , which **SHALL** be selected from ValueSet 1.5.6.7.8.9 “Joint Commission Atrial Fib/Flutter Clinical Finding Value Set” or ValueSet 1.5.6.7.8.8 “Joint Commission Atrial Fib/Flutter History Value Set” or ValueSet 1.5.6.7.8.7 “Joint Commission Atrial Fib/Flutter Procedure Value Set” **DYNAMIC** (CONF: 2071).

SHALL contain 1..1 **participation** (CONF: 2072), which

SHALL contain 1..1 **@typeCode** = AUT "Author" (CodeSystem: 2.16.840.1.113883.5.90 HL7ParticipationType) **STATIC** (CONF: 2073).

SHALL contain 1..1 **role** (CONF: 2074), which

SHALL contain 1..1 **@classCode** = PHYS "Physician" (CodeSystem: 2.16.840.1.113883.5.110 HL7RoleClass) **STATIC** (CONF: 2075).

2.6.5.3.5 Clinical Statement - Reason for admission is elective carotid intervention [TemplateId: 2.4.4.4; template context: patientEncounter]

SHALL contain 1..1 **@classCode** = ENC "Encounter" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2052).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2053).

SHALL contain 1..1 **actRelationship** (CONF: 2054), which

SHALL contain 1..1 **@typeCode** = RSON "Reason" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2055).

SHALL contain 1..1 **procedure** (CONF: 2056), which

SHALL contain 1..1 **@classCode** = PROC "Procedure" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2057).

SHALL contain 1..1 **@moodCode** = INT "Intent" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2058).

SHALL contain 1..1 **code/@code**, which **SHALL** be selected from ValueSet 1.2.4.4.4 "Joint Commission Carotid Intervention Value Set" **DYNAMIC** (CONF: 2059), which

SHALL contain 1..1 **qualifier** (CONF: 2060), which

SHALL contain 1..1 **name/@code** = 260870009 "priority" (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) **STATIC** (CONF: 2061).

SHALL contain 1..1 **value/@code**, which **SHALL** be selected from ValueSet 1.5.6.7.8.6 "Joint Commission Elective Surgery" **DYNAMIC** (CONF: 2071).

2.6.5.3.6 Reason for Anticoagulation therapy not prescribed at discharge [TemplateId: 2.9.9.9; template context: act]

SHALL contain 1..1 **@classCode** = ACT "Act" (CodeSystem: 2.16.840.1.113883.5.6 HL7ActClass) **STATIC** (CONF: 2111).

SHALL contain 1..1 **@moodCode** = EVN "Event" (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2112).

SHALL contain 1..1 **code/@code** = 58000006 "Patient discharge" (CodeSystem: 2.16.840.1.113883.6.96 SNOMEDCT) **STATIC** (CONF: 2113).

SHALL contain 1..1 **actRelationship** (CONF: 2114), which

SHALL contain 1..1 **@typeCode** = COMP "Component" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2115).

SHALL contain 1..1 **2.16.840.1.113883.10.20.1.24** (CONF: 2116), which

SHALL contain 1..1 **substanceAdministration/@moodCode** = INT (CodeSystem: 2.16.840.1.113883.5.1001 HL7ActMood) **STATIC** (CONF: 2117).

SHALL contain 1..1 substanceAdministration/@negationInd = true (CONF: 2121).

SHALL contain 1..1 **substanceAdministration/consumable/manufacturedProduct** , which **SHALL** be selected from ValueSet 1.7.8.9.0 "Joint Commission Anticoagulant Medications - Stroke Value Set" **DYNAMIC** (CONF: 2071).

SHALL contain 1..1 substanceAdministration/actRelationship (CONF: 2119), which

SHALL contain 1..1 **@typeCode** = RSON "Reason" (CodeSystem: 2.16.840.1.113883.5.1002 HL7ActRelationshipType) **STATIC** (CONF: 2120).

2.7 USHIK SUPPORT: [STK-3]

USHIK will support the value sets for each of the STK-3 data elements and derived data elements supporting value sets. The USHIK HITSP Portal may be accessed through the link: ushik.ahrq.gov/HITSP

3.0 APPENDIX

3.1 EXEMPLAR EXAMPLE VALUE SETS

Table 3-1 Example Value Set Definition

Value Set Identifier	This is the unique identifier of the value set
Value Set Name	This is the name of the value set
Value Set Source	This is the source of the value set, identifying the originator or publisher of the information
Value Set URL	A URL referencing the value set members or its definition at the time of publication
Value Set Purpose	Brief description about the general purpose of value set
Value Set Definition	A text definition formally describing how concepts in the value set are (intensional) or were (extensional) selected
Value Set Version	This row contains a string identifying, where necessary, the specific version of the value set
Value Set Type	Extensional (Enumerated) or Intensional (Criteria-based)
Value Set Binding	Static or Dynamic
Value Set Status	Active (Current) or Inactive (Retired)
Value Set Effective Date	The date when the value set is expected to be effective
Value Set Expiration Date	The date when the value set is no longer expected to be used
Value Set Creation Data	The date of creation of the value set
Value Set Revision Date	The date of revision of the value set

3.1.1 HITSP ADMISSION SOURCE VALUE SET

Table 3-2 Admission Source Vocabulary

Value Set Identifier	2.16.840.1.113883.3.88.12.80.33
Value Set Name	Admission Source
Value Set Source	National Uniform Billing Committee (NUBC)
Value Set Definition	See www.nubc.org using (UB-04/NUBC CURRENT UB DATA SPECIFICATIONS MANUAL) UB-04 FL15 This indicates where the patient was admitted
Value Set Version	
Value Set Type	Criteria Based
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-3 Admission Code System

Code System Identifier	Not available at time of production
Code System Name	Uniform Bill
Code System Source	National Uniform Billing Committee (NUBC)
Code System HL7 Identifier	
Code System Version	

3.1.2 HITSP DISCHARGE DISPOSITION VALUE SET

Table 3-4 Discharge Disposition Vocabulary

Identifier	2.16.840.1.113883.3.88.12.80.33
Name	Discharge Disposition Value Set
Source	National Uniform Billing Committee (NUBC)
URL	www.nubc.org
Purpose	This is the patient's anticipated location or status following the encounter (e.g., death, transfer to home/hospice/snf/AMA) – uses standard claims-based codes
Definition	UB-04/NUBC CURRENT UB DATA SPECIFICATIONS MANUAL- UB-04 FL17 – Patient Status
Version	Unknown
Type	Extensional
Binding	Static
Status	Active
Effective Date	Unknown
Expiration Date	N/A
Creation Date	Unknown

Table 3-5 Discharge Disposition Code System

Code System Identifier	Not available at time of production
Code System Name	Uniform Bill
Code System Source	National Uniform Billing Committee (NUBC)
Code System HL7 Identifier	
Code System Version	

3.1.3 HITSP ETHNICITY VALUE SET

Table 3-6 Ethnicity Value Set

Value Set Identifier	2.16.840.1.113883.1.11.15836
Value Set Name	Ethnicity Value Set
Value Set Source	CDC Race and Ethnicity Code Set
Value Set URL	http://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.238&code=2133-7
Value Set Purpose	Demographic Information
Value Set Definition	Ethnicity is always reported at the discretion of the person for whom this attribute is reported, and reporting must be completed according to Federal guidelines for ethnicity reporting. Any code descending from the Ethnicity concept (2133-7) in that code may be used in the exchange
Value Set Version	
Value Set Type	Intensional
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	20081218
Value Set Expiration Date	
Value Set Creation Date	20081218
Value Set Revision Date	

Table 3-7 Ethnicity Code System

Code System Identifier	2.16.840.1.113883.6.238
Code System Name	CDC Race and Ethnicity Code Set
Code System Source	Centers for Disease Control & Prevention (CDC)
Code System HL7 Identifier	CDCREC
Code System Version	20070424

3.1.4 HITSP HEALTH INSURANCE TYPE VALUE SET

Table 3-8 Health Insurance Type Value Set

Value Set Identifier	2.16.840.1.113883.3.88.12.3221.5.2
Value Set Name	Health Insurance Type Value Set
Value Set Source	ASC X12
Value Set URL	http://www.x12.org/
Value Set Purpose	Administration & Financial
Value Set Definition	This value set uses the X12 vocabulary for Insurance Type Code (X12 Data Element 1336), as reproduced in Table 3-10 Health Insurance Type Value Set Definition. The type of health plan covering the individual, e.g., an HMO, PPO, POS, etc
Value Set Version	
Value Set Type	Extensional
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	20081218
Value Set Expiration Date	
Value Set Creation Date	20081218
Value Set Revision Date	

Table 3-9 Health Insurance Type Code System

Code System Identifier	2.16.840.1.113883.6.255.1336
Code System Name	Insurance Type Code
Code System Source	ASC X12
Code System URL	http://www.x12.org/
Code System HL7 Identifier	X12DE1336
Code System Version	4010

Table 3-10 Health Insurance Type Value Set Definition

Value	Display Name	Definition
12	Medicare Secondary Working Aged Beneficiary or Spouse with Employer Group Health Plan	Not Available
13	Medicare Secondary End-Stage Renal Disease Beneficiary in the 12 month coordination period with an employer's group health plan	Not Available
14	Medicare Secondary, No-fault Insurance including Auto is Primary	Not Available
15	Medicare Secondary Worker's Compensation	Not Available
16	Medicare Secondary Public Health Service (PHS)or Other Federal Agency	Not Available
41	Medicare Secondary Black Lung	Not Available
42	Medicare Secondary Veteran's Administration	Not Available
43	Medicare Secondary Disabled Beneficiary Under Age 65 with Large Group Health Plan (LGHP)	Not Available

Value	Display Name	Definition
47	Medicare Secondary, Other Liability Insurance is Primary	Not Available
AP	Auto Insurance Policy	Not Available
C1	Commercial	Not Available
CO	Consolidated Omnibus Budget Reconciliation Act (COBRA)	Not Available
CP	Medicare Conditionally Primary	Not Available
D	Disability	Not Available
DB	Disability Benefits	Not Available
EP	Exclusive Provider Organization	Not Available
FF	Family or Friends	Not Available
GP	Group Policy	Not Available
HM	Health Maintenance Organization (HMO)	Not Available
HN	Health Maintenance Organization (HMO) - Medicare Risk	Not Available
HS	Special Low Income Medicare Beneficiary	Not Available
IN	Indemnity	Not Available
IP	Individual Policy	Not Available
LC	Long Term Care	Not Available
LD	Long Term Policy	Not Available
LI	Life Insurance	Not Available
LT	Litigation	Not Available
MA	Medicare Part A	Not Available
MB	Medicare Part B	Not Available
MC	Medicaid	Not Available
MH	Medigap Part A	Not Available
MI	Medigap Part B	Not Available
MP	Medicare Primary	Not Available
OT	Other	Not Available
PE	Property Insurance – Personal	Not Available
PL	Personal	Not Available
PP	Personal Payment (Cash - No Insurance)	Not Available
PR	Preferred Provider Organization (PPO)	Not Available
PS	Point of Service (POS)	Not Available
QM	Qualified Medicare Beneficiary	Not Available
RP	Property Insurance – Real	Not Available
SP	Supplemental Policy	Not Available
TF	Tax Equity Fiscal Responsibility Act (TEFRA)	Not Available
WC	Workers Compensation	Not Available
WU	Wrap Up Policy	Not Available

3.1.5 HITSP HISPANIC ETHNICITY VALUE SET

Hispanic Ethnicity is the subset of the Ethnicity Value Set

Table 3-11 Hispanic Ethnicity Value Set

Value Set Identifier	2.16.840.1.113883.1.11.15836
Value Set Name	Ethnicity Value Set
Value Set Source	CDC Race and Ethnicity Code Set
Value Set URL	http://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.238&code=2133-7
Value Set Purpose	Demographic Information
Value Set Definition	Ethnicity is always reported at the discretion of the person for whom this attribute is reported, and reporting must be completed according to Federal guidelines for ethnicity reporting. Any code descending from the Ethnicity concept (2133-7) in that code may be used in the exchange
Value Set Version	
Value Set Type	Intensional
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	20081218
Value Set Expiration Date	
Value Set Creation Date	20081218
Value Set Revision Date	

Table 3-12 Hispanic Ethnicity Code System

Code System Identifier	2.16.840.1.113883.6.238
Code System Name	CDC Race and Ethnicity Code Set
Code System Source	Centers for Disease Control & Prevention (CDC)
Code System HL7 Identifier	CDCREC
Code System Version	20070424

Table 3-13 Hispanic Ethnicity Value Set Definition

Value	Display Name	Definition
2135-2	Hispanic or Latino	Not Available
2133-7	Ethnicity	Not Available
2155-0	Central American	Not Available
2182-4	Cuban	Not Available
2184-0	Dominican	Not Available
2178-2	Latin American	Not Available
2148-5	Mexican	Not Available
2180-8	Puerto Rican	Not Available
2165-9	South American	Not Available
2137-8	Spaniard	Not Available

3.1.6 HITSP PATIENT CLASS

This is used to categorize patients by site where encounter occurred.

Table 3-14 Patient Class Value Set

Identifier	2.16.840.1.113883.3.88.12.80.66
Name	Patient Class Value Set
Source	HITSP
URL	Not Available at Publication
Purpose	This is used to categorize patients by site where encounter occurred
Definition	The HL7 ActEncounterCode has been limited by HITSP to the value set reproduced below in Table 3-15 Patient Class Value Set Definition
Version	20090630
Type	Extensional
Binding	Static
Status	Active
Effective Date	20081218
Expiration Date	N/A
Creation Date	20081218
Revision Date	20090630
Code System Name	Act Encounter Code
Code System Source	Health Level Seven (HL7) Version 3.0 Vocabulary

Table 3-15 Patient Class Value Set Definition

Concept Code	Concept Name	Definition
EMER	Emergency	A patient encounter that takes place at a dedicated healthcare service delivery location where the patient receives immediate evaluation and treatment, provided until the patient can be discharged or responsibility for the patient's care is transferred elsewhere (for example, the patient could be admitted as an inpatient or transferred to another facility)
IMP	Inpatient encounter	A patient encounter where a patient is admitted by a hospital or equivalent facility, assigned to a location where patients generally stay at least overnight and provided with room, board, and continuous nursing service
AMB	Ambulatory	A comprehensive term for healthcare provided in a healthcare facility (e.g., a practitioners' office, clinic setting, or hospital) on a nonresident basis. The term ambulatory usually implies that the patient has come to the location and is not assigned to a bed. Sometimes referred to as an outpatient encounter

3.1.7 HITSP POSTAL CODE VALUE SET

Table 3-16 Postal Code Value Set

Value Set Identifier	2.16.840.1.113883.3.88.12.80.2
Value Set Name	Postal Code Value Set
Value Set Source	United States Postal Service
Value Set Purpose	Address Information
Value Set URL	http://zip4.usps.com/zip4/welcome.jsp
Value Set Definition	This identifies the postal (ZIP) Code of an address in the United States.
Value Set Version	
Value Set Type	Intensional
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	20081218
Value Set Expiration Date	
Value Set Creation Date	20081218
Value Set Revision Date	

Table 3-17 Postal Code Code System

Code System Identifier	2.16.840.1.113883.6.231
Code System Name	USPS
Code System Source	United States Postal Service
Code System URL	http://www.usps.com/ncsc/addressinfo/addressinfomenu.htm
Code System HL7 Identifier	USPS
Code System Version	Monthly and quarterly updates

3.1.8 HITSP RACE VALUE SET

Table 3-18 Race Value Set

Value Set Identifier	2.16.840.1.113883.1.11.14914
Value Set Name	Race Value Set
Value Set Source	CDC Race & Ethnicity Code Set from CDC Vocabulary Server PHIN VADS
Value Set URL	http://phinvads.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.238&code=1000-9
Value Set Purpose	Demographic Information
Value Set Definition	Race is always reported at the discretion of the person for whom this attribute is reported, and reporting must be completed according to Federal guidelines for race reporting. Any code descending from the Race concept (1000-9) in that terminology may be used in the exchange
Value Set Version	
Value Set Type	Intensional
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	20081218
Value Set Expiration Date	
Value Set Creation Date	20081218
Value Set Revision Date	

Table 3-19 Race Code System

Code System Identifier	2.16.840.1.113883.6.238
Code System Name	CDC Race and Ethnicity Code Set
Code System Source	Centers for Disease Control & Prevention (CDC)
Code System URL	http://phinvads.cdc.gov/vads/ViewCodeSystem.action?id=2.16.840.1.113883.6.238
Code System HL7 Identifier	CDCREC
Code System Version	20070424

3.1.9 HITSP SEX VALUE SET

HITSP Sex used the V2 Administrative Gender and V3 Administrative Gender as defined in C80

3.1.10 CDA AND HL7 V3 ADMINISTRATIVE GENDER (JOINT COMMISSION 'SEX')

Table 3-20 Administrative Gender Value Set

Value Set Identifier	2.16.840.1.113883.1.11.1
Value Set Name	V3 Administrative Gender Value Set
Value Set Source	Health Level Seven (HL7) Version 3.0
Value Set Purpose	Demographic Information
Value Set URL	http://www.hl7.org/v3ballot/html/infrastructure/vocabulary/AdministrativeGender.htm
Value Set Definition	Administrative Gender See below in Table 3-22 Administrative Gender Value Set Definition
Value Set Version	
Value Set Type	Extensional
Value Set Binding	
Value Set Status	Active
Value Set Effective Date	20081218
Value Set Expiration Date	
Value Set Creation Date	20081218
Value Set Revision Date	

Table 3-21 Administrative Gender Code System

Code System Identifier	2.16.840.1.113883.5.1
Code System Name	AdministrativeGenderCode
Code System Source	Health Level Seven (HL7) Version 3.0
Code System URL	http://www.hl7.org/v3ballot/html/infrastructure/vocabulary/AdministrativeGender.htm
Code System HL7 Identifier	Not applicable for V3 or CDA as they will use Code System OID. HL7 2.x message will use V2 Administrative Sex Code System mentioned above
Code System Version	V3NE08

Table 3-22 Administrative Gender Value Set Definition

Value	Display Name	Definition
F	Female	Not Available
M	Male	Not Available
UN	Undifferentiated	Not Available

3.1.11 JOINT COMMISSION ANTICOAGULANT MEDICATIONS STROKE

Table 3-23 Joint Commission Anticoagulant Medications Stroke Value Set

Value Set Identifier	(TEMPID): 1.7.8.9.0
Value Set Name	Joint Commission Anticoagulant Medications - Stroke Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	All medications identified in table 8.3 by the Joint Commission measure used for anticoagulation therapy for treatment of stroke. The measure developers explicitly selected Argatroban, Fondaparinux, Dalteparin, Enoxaparin, Tinzaparin, Heparin I.V. Warfarin and Warfarin Sodium. The data element criteria specifically excludes "Heparin SQ, Heparin Flush, Hep-Lock"
Value Set Definition	RxNorm Semantic Clinical Drugs that align with "Drug Product" concepts in NDF-RT that have may_prevent Thromboembolism association. Include tinzaparin. Exclude Ticlopidine, anisindione, ardeparin sodium, bivalirudin, calcium heparin, danaparoid, dicumarol, phenprocoumon based on measure developer expectations. Exclude semantic clinical drug heparin where the concept name equals "*FLUSH*"
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-24 Joint Commission Anticoagulant Medications Stroke Code System

Code System Identifier	
Code System Name	Medication Drug Class: Federal Medication Terminologies – NDF-RT Medication Clinical Drug Name Vocabulary: Federal Medication Terminologies – RxNorm
Code System Source	U.S. Department of Veterans Affairs, Veterans Health Administration (VHA). National Library of Medicine (NLM)
Code System URL	
Code System HL7 Identifier	
Code System Version	

Table 3-25 Joint Commission Anticoagulant Medications Stroke Value Set Definition

Value	Display Name	Definition
15202	Argatroban	Not Available
308351	argatroban 100 MG/ML Injectable Solution	Not Available
727838	0.4 ML Dalteparin 25000 UNT/ML Prefilled Syringe	Not Available
727383	1 ML Dalteparin 10000 UNT/ML Prefilled Syringe	Not Available
562130	Dalteparin 10000 UNT/ML Injectable Solution	Not Available
727859	0.5 ML Dalteparin 25000 UNT/ML Prefilled Syringe	Not Available
727861	0.6 ML Dalteparin 25000 UNT/ML Prefilled Syringe	Not Available
727860	0.72 ML Dalteparin 25000 UNT/ML Prefilled Syringe	Not Available
562550	Dalteparin 25000 UNT/ML Injectable Solution	Not Available

Value	Display Name	Definition
727384	0.2 ML Dalteparin 12500 UNT/ML Prefilled Syringe	Not Available
727718	0.2 ML Dalteparin 25000 UNT/ML Prefilled Syringe	Not Available
727719	0.3 ML Dalteparin 2500 UNT/ML Prefilled Syringe	Not Available
82137	Dalteparin Sodium	Not Available
67108	Enoxaparin	Not Available
282479	Enoxaparin 100 MG/ML Injectable Solution	Not Available
727723	1 ML Enoxaparin 100 MG/ML Prefilled Syringe	Not Available
727724	0.8 ML Enoxaparin 150 MG/ML Prefilled Syringe	Not Available
727725	1 ML Enoxaparin 150 MG/ML Prefilled Syringe	Not Available
727730	0.2 ML Enoxaparin 100 MG/ML Prefilled Syringe	Not Available
727726	0.3 ML Enoxaparin 100 MG/ML Prefilled Syringe	Not Available
349270	Enoxaparin 150 MG/ML Injectable Solution	Not Available
727727	0.4 ML Enoxaparin 100 MG/ML Prefilled Syringe	Not Available
727728	0.6 ML Enoxaparin 100 MG/ML Prefilled Syringe	Not Available
727729	0.8 ML Enoxaparin 100 MG/ML Prefilled Syringe	Not Available
321208	Fondaparinux	Not Available
727560	0.8 ML fondaparinux 12.5 MG/ML Prefilled Syringe	Not Available
727563	0.5 ML fondaparinux 5 MG/ML Prefilled Syringe	Not Available
727565	0.4 ML fondaparinux 12.5 MG/ML Prefilled Syringe	Not Available
727567	0.6 ML fondaparinux 12.5 MG/ML Prefilled Syringe	Not Available
616862	fondaparinux 12.5 MG/ML Injectable Solution	Not Available
349308	fondaparinux 5 MG/ML Injectable Solution	Not Available
545076	Fondaparinux sodium 12.5 MG/ML Injectable Solution	Not Available
5224	Heparin	Not Available
9877	Heparin sodium	Not Available
314659	HEPARIN SODIUM (PORK)	Not Available
849709	Heparin sodium 1 UNT/ML Injectable Solution	Not Available
848339	Heparin sodium 10 UNT/ML Injectable Solution	Not Available
848335	Heparin sodium 100 UNT/ML Injectable Solution	Not Available
849710	Heparin sodium 1000 UNT/ML Injectable Solution	Not Available
830698	Heparin sodium 10000 UNT/ML Injectable Solution	Not Available
849712	Heparin sodium 12500 UNT/ML Injectable Solution	Not Available
849715	Heparin sodium 2 UNT/ML Injectable Solution	Not Available
849722	Heparin sodium 20000 UNT/ML Injectable Solution	Not Available
849726	Heparin sodium 2500 UNT/ML Injectable Solution	Not Available
849768	Heparin sodium 40000 UNT/ML Injectable Solution	Not Available
849783	Heparin sodium 7500 UNT/ML Injectable Solution	Not Available
237057	Lepirudin	Not Available
200322	lepirudin 50 MG/ML Injectable Solution	Not Available
104466	Tinzaparin sodium	Not Available
313410	tinzaparin 20000 UNT/ML Injectable Solution	Not Available
11289	Warfarin	Not Available
313732	Warfarin 10 MG Oral Tablet	Not Available
313733	Warfarin 1 MG Oral Tablet	Not Available

Value	Display Name	Definition
313734	Warfarin 2.5 MG Oral Tablet	Not Available
313735	Warfarin 2 MG Oral Tablet	Not Available
314280	Warfarin 3 MG Oral Tablet	Not Available
198349	Warfarin 4 MG Oral Tablet	Not Available
314279	Warfarin 5 MG Oral Tablet	Not Available
313737	Warfarin 2 MG/ML Injectable Solution	Not Available
313738	Warfarin 6 MG Oral Tablet	Not Available
313739	Warfarin 7.5 MG Oral Tablet	Not Available
114194	Warfarin Sodium	Not Available
389189	Warfarin 0.5 MG Oral Tablet	Not Available

3.1.12 JOINT COMMISSION ATRIAL FIB/FLUTTER CLINICAL FINDING VALUE SET

Table 3-26 Joint Commission Atrial Fib/Flutter Clinical Finding Value Set

Value Set Identifier	(TEMP ID): 1.5.6.7.8.9
Value Set Name	Joint Commission Atrial Fib/Flutter Clinical Finding Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify Ischemic stroke patients with documented atrial fibrillation/flutter so that they can receive appropriate anticoagulation therapy. This medical condition can be detected through history (situation), diagnoses (clinical finding) or by procedures used to treat this condition (procedure)
Value Set Definition	Intensional definition: Includes all SNOMED CT concepts that contain "atrial fibrillation" or "atrial flutter" from clinical findings categories
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-27 Joint Commission Atrial Fib/Flutter Findings Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-28 Joint Commission Atrial Fib/Flutter Findings Value Set Definition

Value	Display Name	Definition
49436004	Atrial fibrillation (disorder)	Not Available
195080001	Atrial fibrillation and flutter (disorder)	Not Available
426749004	Chronic atrial fibrillation (disorder)	Not Available

Value	Display Name	Definition
300996004	Controlled atrial fibrillation (disorder)	Not Available
233910005	Lone atrial fibrillation (disorder)	Not Available
233911009	Non-rheumatic atrial fibrillation (disorder)	Not Available
282825002	Paroxysmal atrial fibrillation (disorder)	Not Available
440028005	Permanent atrial fibrillation (disorder)	Not Available
440059007	Persistent atrial fibrillation (disorder)	Not Available
314208002	Rapid atrial fibrillation (disorder)	Not Available
5370000	Atrial flutter (disorder)	Not Available
425615007	Chronic atrial fibrillation (disorder)	Not Available
427665004	Paroxysmal atrial fibrillation (disorder)	Not Available
425615007	Chronic atrial flutter (disorder)	Not Available
427665004	Paroxysmal atrial flutter (disorder)	Not Available
426814001	Transient cerebral ischemia due to atrial fibrillation (disorder)	Not Available
195082009	Atrial fibrillation and flutter NOS (disorder)	Not Available
164889003	Electrocardiogram: Atrial fibrillation (finding)	Not Available
164890007	Electrocardiogram: Atrial flutter (finding)	Not Available

3.1.13 JOINT COMMISSION ATRIAL FIB/FLUTTER HISTORY VALUE SET

Table 3-29 Joint Commission Atrial Fib/Flutter History Value Set

Value Set Identifier	(TEMP ID): 1.5.6.7.8.8
Value Set Name	Joint Commission Atrial Fib/Flutter History Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify Ischemic stroke patients with documented atrial fibrillation/flutter so that they can receive appropriate anticoagulation therapy. This medical condition can be detected through history (situation), diagnoses (clinical finding) or by procedures used to treat this condition (procedure)
Value Set Definition	Intensional description: Includes all SNOMED CT concepts that contain "atrial fibrillation" or "atrial flutter" from situation categories
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-30 Joint Commission Atrial Fib/Flutter History Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-31 Joint Commission Atrial Fib/Flutter History Value Set Definition

Value	Display Name	Definition
312442005	History of - atrial fibrillation (situation)	Not Available
428076002	History of atrial flutter (situation)	Not Available
429218009	History of maze procedure for atrial fibrillation (situation)	Not Available

3.1.14 JOINT COMMISSION ATRIAL FIB/FLUTTER PROCEDURE VALUE SET

Table 3-32 Joint Commission Atrial Fib/Flutter Procedure Value Set

Value Set Identifier	(TEMP ID): 1.5.6.7.8.7
Value Set Name	Joint Commission Atrial Fib/Flutter Procedure Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify Ischemic stroke patients with documented atrial fibrillation/flutter so that they can receive appropriate anticoagulation therapy. This medical condition can be detected through history (situation), diagnoses (clinical finding) or by procedures used to treat this condition (procedure)
Value Set Definition	Intensional definition: Includes all SNOMED CT concepts that contain "atrial fibrillation" or "atrial flutter" from procedure categories
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-33 Joint Commission Atrial Fib/Flutter Procedure Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-34 Joint Commission Atrial Fib/Flutter Procedure Value Set Definition

Value	Display Name	Definition
287695003	Pacer controlled atrial fibrillation (procedure)	Not Available
429211003	Maze procedure for atrial fibrillation (procedure)	Not Available
175146007	Implantation of intravenous pacemaker for atrial fibrillation (procedure)	Not Available

3.1.15 JOINT COMMISSION CLINICAL TRIAL VALUE SET

Table 3-35 Joint Commission Clinical Trial Value Set

Value Set Identifier	
Value Set Name	Joint Commission Clinical Trial Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify whether or not a patient is a part of a clinical trial as this relates to their medical condition in the measure under question. A clinical trial patient may be excluded.
Value Set Definition	Extensional definition: SNOMED CT concept/code Clinical trial participant (person)|428024001
Value Set Version	e.g. 1.0
Value Set Type	Extensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-36 Joint Commission Clinical Trial Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-37 Joint Commission Clinical Trial Value Set Definition

Value	Display Name	Definition
428024001	Clinical trial participant (person)	Not Available

3.1.16 JOINT COMMISSION COMFORT MEASURES ONLY VALUE SET

Table 3-38 Joint Commission Comfort Measures Only Value Set

Value Set Identifier	(TEMP ID): 1.6.7.8.7.6
Value Set Name	Joint Commission Comfort Measures Only Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	Identification of concepts that represent palliative care or comfort care.
Value Set Definition	Intensional Definition: SNOMED CT concept|code including descendants of Palliative care (regime/therapy)|103735009, Comfort measures (regime/therapy)|133918004
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	3/31/2009
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-39 Joint Commission Comfort Measures Only Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-40 Joint Commission Comfort Measures Only Value Set Definition

Value	Display Name	Definition
103735009	Palliative care (regime/therapy)	Not Available
395669003	Specialist palliative care treatment (regime/therapy)	Not Available
395670002	Specialist palliative care treatment - inpatient (regime/therapy)	Not Available
395694002	Specialist palliative care treatment - daycare (regime/therapy)	Not Available
395695001	Specialist palliative care treatment - outpatient (regime/therapy)	Not Available
133918004	Comfort measures (regime/therapy)	Not Available
386284008	Environmental management: comfort (regime/therapy)	Not Available
385728004	Spiritual comfort (regime/therapy)	Not Available

3.1.17 JOINT COMMISSION CAROTID INTERVENTION VALUE SET

Table 3-41 Joint Commission Carotid Intervention Value Set

Value Set Identifier	(TEMP ID) 1.2.4.4.4
Value Set Name	Joint Commission Carotid Intervention Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify patients who are admitted for ELECTIVE carotid procedures so that they can be excluded from the Ischemic stroke measure. These procedures must be identified as elective to distinguish them from similar procedures done in the context of a hospitalization for an acute stroke patient.
Value Set Definition	Includes TWO value sets--one to determine if the admission was ELECTIVE and another to describe the carotid procedure (e.g. carotid endarterectomy, angioplasty, carotid stenting, etc.) SNOMED concepts were included from the "Procedure on Artery" node containing the word"Carotid"; the list was further refined by the Joint Commission (measure developer)
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	3/31/2009
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-42 Joint Commission Carotid Intervention Code System

Code System Identifier	
Code System Name	
Code System Source	SNOMED CT®
Code System URL	IHTSDO
Code System HL7 Identifier	http://www.ihtsdo.org/snomed-ct/
Code System Version	

Table 3-43 Joint Commission Carotid Intervention Value Set Definition

Value	Display Name	Definition
31573003	Anastomosis of carotid-subclavian artery (procedure)	Not Available
209760000	Angiography of carotid artery, unilateral (procedure)	Not Available
55493009	Angiography of cervical carotid artery, unilateral (procedure)	Not Available
25007007	Angiography of external carotid artery, unilateral (procedure)	Not Available
75538004	Angiography of internal carotid artery, unilateral (procedure)	Not Available
429287007	Angioplasty of carotid artery (procedure)	Not Available
233259003	Angioplasty of external carotid artery (procedure)	Not Available
405326004	Angioplasty of internal carotid artery (procedure)	Not Available
405415006	Angioplasty of internal carotid artery with vein (procedure)	Not Available
427486009	Bypass of carotid artery by anastomosis of superficial temporal artery to middle cerebral artery (procedure)	Not Available
440221006	Bypass of carotid artery to brachial artery using vein graft (procedure)	Not Available
85088006	Bypass of carotid artery to carotid artery using vein graft (procedure)	Not Available
175362007	Carotid and/or cerebral and/or subclavian artery operations (procedure)	Not Available

Value	Display Name	Definition
66951008	Carotid endarterectomy (procedure)	Not Available
175471002	Carotid, cerebral and subclavian artery operations NOS (procedure)	Not Available
59012002	Carotid-subclavian artery bypass graft with vein (procedure)	Not Available
79507006	Carotid-vertebral artery bypass graft with vein (procedure)	Not Available
241218003	Common carotid arteriogram (procedure)	Not Available
420017001	Computed tomography angiography of aortic arch and carotid arteries (procedure)	Not Available
417986000	Computed tomography angiography of carotid artery (procedure)	Not Available
112823003	Creation of aorta-carotid-brachial vascular bypass (procedure)	Not Available
34214004	Creation of aorta-subclavian-carotid vascular bypass (procedure)	Not Available
51382002	Creation of carotid-carotid shunt (procedure)	Not Available
18674003	Creation of carotid-vertebral artery shunt (procedure)	Not Available
80102005	Creation of external-internal carotid bypass (procedure)	Not Available
302053004	Embolectomy of carotid artery (procedure)	Not Available
74720005	Embolectomy with catheter of carotid artery by neck incision (procedure)	Not Available
405411002	Endarterectomy and angioplasty of external carotid artery (procedure)	Not Available
405407008	Endarterectomy and angioplasty of internal carotid artery (procedure)	Not Available
405408003	Endarterectomy and angioplasty of internal carotid artery with prosthesis (procedure)	Not Available
405409006	Endarterectomy and angioplasty of internal carotid artery with vein (procedure)	Not Available
175367001	Endarterectomy of carotid artery and patch repair of carotid artery (procedure)	Not Available
175368006	Endarterectomy of carotid artery NEC (procedure)	Not Available
233298008	Endarterectomy of common carotid artery (procedure)	Not Available
233297003	Endarterectomy of external carotid artery (procedure)	Not Available
233296007	Endarterectomy of internal carotid artery (procedure)	Not Available
405412009	Endarterectomy of internal carotid artery with eversion and end-to-end anastomosis (procedure)	Not Available
428802000	Endovascular repair of carotid artery (procedure)	Not Available
87314005	Exploration of carotid artery (procedure)	Not Available
80104006	Exteriorization of carotid artery (procedure)	Not Available
241220000	External carotid arteriogram (procedure)	Not Available
440453000	Fluoroscopic angiography of aortic arch and carotid artery (procedure)	Not Available
420171008	Fluoroscopic angiography of carotid artery (procedure)	Not Available
418405008	Fluoroscopic angiography of carotid artery and insertion of stent (procedure)	Not Available
440518005	Fluoroscopic angiography of carotid artery with direct puncture (procedure)	Not Available
419906006	Fluoroscopic angiography of common carotid artery (procedure)	Not Available
432785007	Fluoroscopic angiography of common carotid artery using contrast with insertion of drug eluting stent (procedure)	Not Available
431519005	Fluoroscopic angiography of common carotid artery using contrast with insertion of stent (procedure)	Not Available
433591001	Fluoroscopic angiography of common carotid artery using contrast with insertion of stent graft (procedure)	Not Available
419113007	Fluoroscopic angiography of external carotid artery (procedure)	Not Available
433690006	Fluoroscopic angiography of external carotid artery using contrast with insertion of drug eluting stent (procedure)	Not Available
431515004	Fluoroscopic angiography of external carotid artery using contrast with insertion of stent (procedure)	Not Available
434159001	Fluoroscopic angiography of external carotid artery using contrast with insertion of stent graft (procedure)	Not Available
418838006	Fluoroscopic angiography of internal carotid artery (procedure)	Not Available

Value	Display Name	Definition
433683001	Fluoroscopic angiography of internal carotid artery using contrast with insertion of drug eluting stent (procedure)	Not Available
433056003	Fluoroscopic angiography of internal carotid artery using contrast with insertion of stent (procedure)	Not Available
434378006	Fluoroscopic angiography of internal carotid artery using contrast with insertion of stent graft (procedure)	Not Available
420046008	Fluoroscopic angioplasty of carotid artery (procedure)	Not Available
420026003	Fluoroscopic angioplasty of common carotid artery (procedure)	Not Available
417884003	Fluoroscopic angioplasty of external carotid artery (procedure)	Not Available
419014003	Fluoroscopic angioplasty of internal carotid artery (procedure)	Not Available
433061001	Fluoroscopic intravenous digital subtraction angiography of carotid artery (procedure)	Not Available
58920005	Imaging of carotid arteries (procedure)	Not Available
86410006	Imaging of carotid arteries by duplex scan with spectrum analysis (procedure)	Not Available
233405004	Insertion of carotid artery stent (procedure)	Not Available
241219006	Internal carotid arteriogram (procedure)	Not Available
175365009	Intracranial bypass to carotid artery (procedure)	Not Available
90931006	Introduction of catheter into carotid artery (procedure)	Not Available
175373000	Ligation of carotid artery (procedure)	Not Available
53412000	Ligation of common carotid artery (procedure)	Not Available
59109003	Ligation of external carotid artery (procedure)	Not Available
46912008	Ligation of external carotid artery for nasal hemorrhage (procedure)	Not Available
22928005	Ligation of internal carotid artery (procedure)	Not Available
432103005	Magnetic resonance angiography of carotid artery (procedure)	Not Available
175374006	Open embolectomy of carotid artery (procedure)	Not Available
175376008	Operation on aneurysm of carotid artery (procedure)	Not Available
175378009	Other open operation on carotid artery NOS (procedure)	Not Available
175371003	Other open operations on carotid artery (procedure)	Not Available
175470001	Other specified operations on carotid, cerebral or subclavian artery (procedure)	Not Available
175377004	Other specified other open operation on carotid artery (procedure)	Not Available
175382006	Other specified transluminal operation on carotid artery (procedure)	Not Available
303161001	Patch repair of carotid artery (procedure)	Not Available
233260008	Percutaneous balloon angioplasty of extracranial carotid artery (procedure)	Not Available
276951007	Percutaneous endarterectomy of common carotid artery (procedure)	Not Available
276950008	Percutaneous endarterectomy of external carotid artery (procedure)	Not Available
276949008	Percutaneous endarterectomy of internal carotid artery (procedure)	Not Available
175380003	Percutaneous transluminal angioplasty of carotid artery (procedure)	Not Available
431659001	Percutaneous transluminal angioplasty of common carotid artery using fluoroscopic guidance (procedure)	Not Available
431535003	Percutaneous transluminal angioplasty of external carotid artery using fluoroscopic guidance (procedure)	Not Available
432039002	Percutaneous transluminal angioplasty of internal carotid artery using fluoroscopic guidance (procedure)	Not Available
434433007	Percutaneous transluminal cutting balloon angioplasty of common carotid artery using fluoroscopic guidance (procedure)	Not Available
433711000	Percutaneous transluminal cutting balloon angioplasty of external carotid artery using fluoroscopic guidance (procedure)	Not Available

Value	Display Name	Definition
433734009	Percutaneous transluminal cutting balloon angioplasty of internal carotid artery using fluoroscopic guidance (procedure)	Not Available
425611003	Percutaneous transluminal insertion of stent into carotid artery (procedure)	Not Available
9339002	Perfusion of carotid artery (procedure)	Not Available
438615003	Procedure on carotid artery using imaging guidance (procedure)	Not Available
175363002	Reconstruction of carotid artery (procedure)	Not Available
175370002	Reconstruction of carotid artery NOS (procedure)	Not Available
175372005	Repair of carotid artery NEC (procedure)	Not Available
405379009	Repair of internal carotid artery (procedure)	Not Available
175364008	Replacement of carotid artery using graft (procedure)	Not Available
287606009	Selective carotid artery arteriography (procedure)	Not Available
39887009	Thrombectomy with catheter of carotid artery by neck incision (procedure)	Not Available
15023006	Thromboendarterectomy with graft of carotid artery by neck incision (procedure)	Not Available
175383001	Transluminal operation on carotid artery NOS (procedure)	Not Available
175379001	Transluminal operations on carotid artery (procedure)	Not Available

3.1.18 JOINT COMMISSION ELECTIVE SURGERY VALUE SET

Table 3-44 Joint Commission Elective Surgery Value Set

Value Set Identifier	(TEMP ID): 1.5.6.7.8.6
Value Set Name	Joint Commission Elective Surgery
Value Set Source	e.g. Joint Commission
Value Set Purpose	
Value Set URL	
Value Set Definition	
Value Set Version	e.g. 1.0
Value Set Type	
Value Set Binding	
Value Set Status	
Value Set Effective Date	3/31/2009
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-45 Joint Commission Elective Surgery Code System

Code System Identifier	
Code System Name	SNOMED CT® (Procedures)
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-46 Joint Commission Carotid Intervention Value Set Definition

Value	Display Name	Definition
8715000	Hospital admission, elective (procedure)	Not Available

3.1.19 JOINT COMMISSION ACUTE STROKE VALUE SET

Table 3-47 Joint Commission Acute Stroke Value Set

Value Set Identifier	
Value Set Name	Joint Commission Acute Stroke
Value Set Source	e.g. Joint Commission
Value Set Purpose	
Value Set URL	
Value Set Definition	
Value Set Version	e.g. 1.0
Value Set Type	
Value Set Binding	
Value Set Status	
Value Set Effective Date	3/31/2009
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-48 Joint Commission Acute Stroke Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-49 Joint Commission Acute Stroke Value Set Definition

Value	Display Name	Definition
29322000	Acute cerebrovascular insufficiency (disorder)	Not Available

3.1.20 JOINT COMMISSION ISCHEMIC STROKE VALUE SET

Table 3-50 Joint Commission Ischemic Stroke Value Set

Value Set Identifier	(TEMP ID): 1.3.3.3.3.3.3
Value Set Name	Joint Commission Ischemic Stroke Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify adult patients with Ischemic Stroke as the principal diagnosis for the measure
Value Set Definition	Based on ICD9 codes and text descriptions in the original measure, SNOMED CT concepts were selected from "Disorder of Brain" that included subnodes "Cerebrovascular accident", "Cerebral infarction" and "Occlusion of Artery"; the resulting value set was further refined by the Joint Commission (measure developer)
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-51 Joint Commission Ischemic Stroke Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-52 Joint Commission Ischemic Stroke Value Set Definition

Value	Display Name	Definition
230690007	Cerebrovascular accident (disorder)	Not Available
25133001	Completed stroke (disorder)	Not Available
230691006	CVA - cerebrovascular accident due to cerebral artery occlusion (disorder)	Not Available
371041009	Embolic stroke (disorder)	Not Available
413758000	Cardioembolic stroke (disorder)	Not Available
281240008	Extension of cerebrovascular accident (disorder)	Not Available
413102000	Infarction of basal ganglia (disorder)	Not Available
106016005	Intracranial sinus thrombosis, embolism AND/OR inflammation (disorder)	Not Available
16418006	Embolism of basilar sinus (disorder)	Not Available
56384000	Embolism of inferior sagittal sinus (disorder)	Not Available
80758005	Embolism of lateral venous sinus (disorder)	Not Available
40450001	Embolism of superior sagittal sinus (disorder)	Not Available
12853006	Embolism of torcular Herophili (disorder)	Not Available
422504002	Ischemic stroke (disorder)	Not Available
195216008	Left sided cerebral hemisphere cerebrovascular accident (disorder)	Not Available
111297002	Nonparalytic stroke (disorder)	Not Available

Value	Display Name	Definition
373606000	Occlusive stroke (disorder)	Not Available
116288000	Paralytic stroke (disorder)	Not Available
57981008	Progressing stroke (disorder)	Not Available
195217004	Right sided cerebral hemisphere cerebrovascular accident (disorder)	Not Available
270883006	Stroke and cerebrovascular accident unspecified (disorder)	Not Available
275434003	Stroke in the puerperium (disorder)	Not Available
313267000	Stroke NOS (disorder)	Not Available
230713003	Stroke of uncertain pathology (disorder)	Not Available
230714009	Anterior circulation stroke of uncertain pathology (disorder)	Not Available
230715005	Posterior circulation stroke of uncertain pathology (disorder)	Not Available
371040005	Thrombotic stroke (disorder)	Not Available
195212005	Brainstem stroke syndrome (disorder)	Not Available
195213000	Cerebellar stroke syndrome (disorder)	Not Available
432504007	Cerebral infarction (disorder)	Not Available
230693009	Anterior cerebral circulation infarction (disorder)	Not Available
14309005	Anterior choroidal artery syndrome (disorder)	Not Available
230695002	Partial anterior cerebral circulation infarction (disorder)	Not Available
230694003	Total anterior cerebral circulation infarction (disorder)	Not Available
195230003	Cerebral infarction due to cerebral venous thrombosis, non-pyogenic (disorder)	Not Available
195190007	Cerebral infarction due to embolism of cerebral arteries (disorder)	Not Available
195189003	Cerebral infarction due to thrombosis of cerebral arteries (disorder)	Not Available
266256009	Cerebral infarction NOS (disorder)	Not Available
230692004	Infarction - precerebral (disorder)	Not Available
195185009	Cerebral infarct due to thrombosis of precerebral arteries (disorder)	Not Available
195186005	Cerebral infarction due to embolism of precerebral arteries (disorder)	Not Available
230698000	Lacunar infarction (disorder)	Not Available
426107000	Acute lacunar infarction (disorder)	Not Available
230702001	Lacunar ataxic hemiparesis (disorder)	Not Available
307363008	Multiple lacunar infarcts (disorder)	Not Available
230699008	Pure motor lacunar infarction (disorder)	Not Available
230701008	Pure sensorimotor lacunar infarction (disorder)	Not Available
230700009	Pure sensory lacunar infarction (disorder)	Not Available
307766002	Left sided cerebral infarction (disorder)	Not Available
276219001	Occipital cerebral infarction (disorder)	Not Available
307767006	Right sided cerebral infarction (disorder)	Not Available
427296003	Thalamic infarction (disorder)	Not Available
86003009	Carotid artery thrombosis (disorder)	Not Available
425420004	Thrombosis of internal carotid artery (disorder)	Not Available
80606009	Carotid artery embolism (disorder)	Not Available
76402003	Carotid artery insufficiency syndrome (disorder)	Not Available
195180004	Basilar artery occlusion (disorder)	Not Available
195233001	Occlusion and stenosis of anterior cerebral artery (disorder)	Not Available
195234007	Occlusion and stenosis of posterior cerebral artery (disorder)	Not Available
408664007	Pontine artery occlusion (disorder)	Not Available

Value	Display Name	Definition
230694003	Total anterior cerebral circulation infarction (disorder)	Not Available
69798007	Carotid artery obstruction (disorder)	Not Available
266254007	Carotid artery occlusion (disorder)	Not Available
426651005	Bilateral carotid artery occlusion (disorder)	Not Available
195232006	Occlusion and stenosis of middle cerebral artery (disorder)	Not Available
95458005	Cerebellar artery occlusion (disorder)	Not Available
195235008	Occlusion and stenosis of cerebellar arteries (disorder)	Not Available
20059004	Cerebral artery occlusion (disorder)	Not Available
286956007	Cerebral artery occlusion NOS (disorder)	Not Available
230702001	Lacunar ataxic hemiparesis (disorder)	Not Available
230704000	Multi-infarct state (disorder)	Not Available
307363008	Multiple lacunar infarcts (disorder)	Not Available
195231004	Occlusion and stenosis of cerebral arteries, not resulting in cerebral infarction (disorder)	Not Available
195236009	Occlusion and stenosis of multiple and bilateral cerebral arteries (disorder)	Not Available
28790007	Obstruction of precerebral artery (disorder)	Not Available
67992007	Multiple AND bilateral precerebral artery obstruction (disorder)	Not Available
373606000	Occlusive stroke (disorder)	Not Available
266253001	Precerebral arterial occlusion (disorder)	Not Available
195183002	Multiple and bilateral precerebral arterial occlusion (disorder)	Not Available
195184008	Other precerebral artery occlusion (disorder)	Not Available
195187001	Precerebral artery occlusion NOS (disorder)	Not Available
195182007	Vertebral artery occlusion (disorder)	Not Available
89142007	Progressive intracranial arterial occlusion (disorder)	Not Available
43658003	Vertebral artery obstruction (disorder)	Not Available

3.1.21 JOINT COMMISSION HEMORRHAGIC ACUTE STROKE VALUE SET

Table 3-53 Joint Commission Hemorrhagic Stroke Value Set

Value Set Identifier	
Value Set Name	Joint Commission Hemorrhagic Stroke Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify adult patients with Hemorrhagic stroke as the principal diagnosis for the measure
Value Set Definition	Based on ICD9 codes and text descriptions in the original measure, there were three SNOMED codes for Hemorrhagic stroke; the concept list was expanded to Expanded list to include all concepts from the node "Intracranial Hemorrhage"; the resulting value set was further refined by the Joint Commission (measure developer)
Value Set Version	e.g. 1.0
Value Set Type	Intensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-54 Joint Commission Hemorrhagic Stroke Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-55 Joint Commission Hemorrhagic Stroke Value Set Definition

Value	Display Name	Definition
1386000	Intracranial hemorrhage (disorder)	Not Available
95454007	Brain stem hemorrhage (disorder)	Not Available
28837001	Bulbar hemorrhage (disorder)	Not Available
7713009	Intrapontine hemorrhage (disorder)	Not Available
28318001	Basilar hemorrhage (disorder)	Not Available
75038005	Cerebellar hemorrhage (disorder)	Not Available
276722003	Intracerebellar and posterior fossa hemorrhage (disorder)	Not Available
274100004	Cerebral hemorrhage (disorder)	Not Available
73020009	Cerebral hemisphere hemorrhage (disorder)	Not Available
195167002	External capsule hemorrhage (disorder)	Not Available
52201006	Internal capsule hemorrhage (disorder)	Not Available
20908003	Subcortical hemorrhage (disorder)	Not Available
195165005	Basal ganglia hemorrhage (disorder)	Not Available
266313001	Cerebral hemorrhage NOS (disorder)	Not Available
49422009	Cortical hemorrhage (disorder)	Not Available
230712008	Lacunar hemorrhage (disorder)	Not Available
230710000	Lobar cerebral hemorrhage (disorder)	Not Available
230709005	Massive supratentorial cerebral hemorrhage (disorder)	Not Available
230711001	Thalamic hemorrhage (disorder)	Not Available
42429001	Cerebromeningeal hemorrhage (disorder)	Not Available
195168007	Intracerebral hemorrhage, intraventricular (disorder)	Not Available
195169004	Intracerebral hemorrhage, multiple localized (disorder)	Not Available
195178005	Intracranial hemorrhage NOS (disorder)	Not Available
270907008	Spontaneous subarachnoid hemorrhage (disorder)	Not Available
195155004	Subarachnoid hemorrhage from carotid siphon and bifurcation (disorder)	Not Available
195160000	Subarachnoid hemorrhage from vertebral artery (disorder)	Not Available
23276006	Ventricular hemorrhage (disorder)	Not Available
425957003	Non-traumatic intracerebral ventricular hemorrhage (disorder)	Not Available
230706003	Hemorrhagic cerebral infarction (disorder)	Not Available
230707007	Anterior cerebral circulation hemorrhagic infarction (disorder)	Not Available
230708002	Posterior cerebral circulation hemorrhagic infarction (disorder)	Not Available

3.1.22 JOINT COMMISSION REASON FOR NOT PRESCRIBING ANTICOAGULATION THERAPY AT DISCHARGE PROCEDURE VALUE SET

Table 3-56 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Procedure Value Set

Value Set Identifier	
Value Set Name	Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge - Procedure Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify the reasons why a patient was not prescribed anticoagulation therapy at discharge as would be expected (applies to ischemic stroke patients with documented atrial fibrillation/flutter)
Value Set Definition	Includes reasons related to anticoagulant medication such as being allergic to all anticoagulant drug classes, medical and surgical contraindications as well as patient compliance issues; included concepts from clinical findings, procedure and situation categories.
Value Set Version	e.g. 1.0
Value Set Type	Extensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-57 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Procedure Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-58 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Procedure Value Set Definition

Value	Display Name	Definition
373148008	Thrombolytic agent not administered because contraindicated (procedure)	Not Available

3.1.23 JOINT COMMISSION REASON FOR NOT PRESCRIBING ANTICOAGULATION THERAPY AT DISCHARGE ANTICOAGULANT ALLERGY VALUE SET

Table 3-59 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Anticoagulant Allergy Value Set

Value Set Identifier	
Value Set Name	Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge - Anticoagulant Allergy Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify the reasons why a patient was not prescribed anticoagulation therapy at discharge as would be expected (applies to ischemic stroke patients with documented atrial fibrillation/flutter)
Value Set Definition	Includes reasons related to anticoagulant medication such as being allergic to all anticoagulant drug classes, medical and surgical contraindications as well as patient compliance issues; included concepts from clinical findings, procedure and situation categories. Note: Patient must be allergic to ALL anticoagulant drug classes if "Anticoagulant allergy (disorder)" is selected as the reason for not prescribing; Allergy to a single anticoagulant drug class is not adequate as other anticoagulant drug classes should be prescribed.
Value Set Version	e.g. 1.0
Value Set Type	Extensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-60 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Anticoagulant Allergy Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-61 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Situation Anticoagulant Allergy Value Set Definition

Value	Display Name	Definition
294869008	Anticoagulant allergy (disorder)	Not Available

3.1.24 JOINT COMMISSION REASON FOR NOT PRESCRIBING ANTICOAGULATION THERAPY AT DISCHARGE FINDING/SITUATION VALUE SET

Table 3-62 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Finding/Situation Value Set

Value Set Identifier	
Value Set Name	Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge - Finding/Situation Value Set
Value Set Source	The Joint Commission
Value Set Purpose	
Value Set URL	To identify the reasons why a patient was not prescribed anticoagulation therapy at discharge as would be expected (applies to ischemic stroke patients with documented atrial fibrillation/flutter)
Value Set Definition	Includes reasons related to anticoagulant medication such as being allergic to all anticoagulant drug classes, medical and surgical contraindications as well as patient compliance issues; included concepts from clinical findings, procedure and situation categories.
Value Set Version	e.g. 1.0
Value Set Type	Extensional
Value Set Binding	
Value Set Status	
Value Set Effective Date	
Value Set Expiration Date	
Value Set Creation Date	
Value Set Revision Date	

Table 3-63 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Finding/Situation Code System

Code System Identifier	
Code System Name	SNOMED CT®
Code System Source	IHTSDO
Code System URL	http://www.ihtsdo.org/snomed-ct/
Code System HL7 Identifier	
Code System Version	International Release January 2009

Table 3-64 Joint Commission Reason For Not Prescribing Anticoagulation Therapy at Discharge Finding/Situation Value Set Definition

Value	Display Name	Definition
373147003	Administration of medication not done due to contraindication (situation)	Not Available
406149000	Medication refused (situation)	Not Available
413311005	Patient non-compliant - refused intervention / support (situation)	Not Available
275936005	Patient noncompliance – general (situation)	Not Available
105480006	Refusal of treatment by patient (situation)	Not Available