

Interoperability Scenarios

Care Theme: Quality Measure Deployment

Act 21 - Hospital Quality eMeasure Utilization

Scenario Primary Goal: To demonstrate ability to provide efficient and accurate quality measurement using eMeasures to assemble quality source data from Electronic Health Record sources.

Key Points:

- The demonstration will use HITSP constructs to demonstrate quality measurement reporting and exchange of performance measurements between providers and CMS and other payers for quality reporting.
- This scenario features advanced quality measurement where electronic measures are used to provide routine Quality Measurement to assess clinical process measures for Emergency Department and Stroke.

Meaningful Use Relevance

MU Objective 1: Improving Quality, Safety, Efficiency and Reducing Health Disparities

- Record demographics, record smoking status, Report quality measures to CMS

MU Objective 4: Improving Population and Public Health

Measure Number Identifier	Meaningful Use Measure Title	Description	Measure Developer
ED-1 NQF 0495	Emergency Department Throughput – admitted patients Median time from ED arrival to ED departure for admitted patients	Median time from emergency department arrival to time of departure from the emergency room for patients admitted to the facility from the emergency department	CMS/Oklahoma Foundation for Medical Quality (OFMQC)
ED-2 NQF 0497	Emergency Department Throughput – admitted patients Admission decision time to ED departure time for admitted patients	Median time from admit decision time to time of departure from the emergency department of emergency department patients admitted to inpatient status	CMS/OFMQ
Stroke-3 NQF 0436	Ischemic stroke – Anticoagulation for A-fib/flutter	Ischemic stroke patients with atrial fibrillation/flutter who are prescribed anticoagulation therapy at hospital discharge.	The Joint Commission

Clinical Workflow:

CMS Quality measures for the Emergency Department, Stroke, and VTE have been specified and re-tooled to support electronic measurement from the EHR. These electronic measures are made available to clinicians and others involved quality reporting measures as a Quality Electronic Measures. The patient presents to the ED with stroke symptoms and is treated for a principal diagnosis of stroke.

The patient is admitted as an inpatient for treatment. At discharge, a medical summary is published to the HIE which provides quality measurement and reporting as a value added service on behalf of the HIE participants. This service is leveraged to support the hospital's participation in a quality monitoring program using the CMS clinical performance measures for ED and for Stroke.

The value added information exchange retrieves patient clinical data from the HIE. Comparative quality reports are prepared and sent to CMS and /or other subscribing Quality Measure and Reporting Systems. The HIE has established an NHIN Gateway to support communications with Federal Agencies and other Quality Measure and Reporting Systems in support of its HIE members. On a defined periodic basis, Patient Level Quality Data is made available through the NHIN to Quality Measure and Reporting Systems.

Care Scenario Steps	Care Setting From	Care Setting To	IHE Profiles*	Title	HITSP Constructs	Title
21-1 Performance Measure Information Resource develops and publishes eMeasures	Performance Measure Information Resource	Hospital, Quality Report Processing Entity	PEQD (QRPH) QRPH (white paper)	Patient-level Export of Quality Data Performance Measurement Data Element Structured for EHR Extraction	HITSP/CAP130 HITSP/C106 HITSP/T66	Communicate Quality Measure Measurement Criteria Document Retrieve Value Sets
21-2 The medical summary of the Stoke patient admitted through the Emergency Department is submitted to the HIE	Hospital	HIE	XDS-MS (ITI) RFD (ITI)	Cross-Enterprise Sharing of Medical Summaries Retrieve Form for Data Capture	HITSP/CAP119 HITSP/C48, HITSP/CAP135 HITSP/TP50	Communicate Structured Document HITSP Encounter Document Using IHE Medical Summary (XDS-MS) Retrieve and Populate Form Retrieve Form for Data Capture
21-3 Retrieve clinical information from HIE using multi-patient queries. Data processed using Electronic Measure. Routine quality reports sent to CMS and other subscribing Quality Measure and Reporting Systems over the NHIN Gateway.	Quality Report Processing Entity	NHIN Connect Gateway	MPQ (ITI) DSUB (ITI) QRD (QRPH New Directions) PEQD (QRPH) QRPH (white paper)	Multi-Patient Query Document Subscription QRPH New Directions: Quality Report Sharing - Quality Report Document Patient-level Export of Quality Data	HITSP/CAP129 HITSP/C105 HITSP/T66 HITSP/CAP130 HITSP/C106 HITSP/T66	Communicate Quality Measure Data HITSP Patient Level Quality Data HL7 Quality Reporting Document Architecture (QRDA) Retrieve Value Sets Communicate Quality

				Performance Measurement Data Element Structured for EHR Extraction	NHIN/HIEM	Measure Measurement Criteria Document Retrieve Value Sets Health Information Event Messaging
21-4 The Quality Measure and Reporting System subscribes to Patient Level Quality Data. The measure is processed for reports using Electronic Measure	NHIN Connect Gateway	Quality Measure and Reporting System	DSUB (ITI) QRD (QRPH New Directions)	Document Subscription IHE New Directions: Quality Report Sharing Quality Report Document	NHIN/HIEM HITSP/CAP129 HITSP/C105 HITSP/T66	Health Information Event Messaging Communicate Quality Measure Data HITSP Patient Level Quality Data HL7 Quality Reporting Document Architecture (QRDA) Retrieve Value Sets

Health Information Exchange (HIE) Core Services			
IHE Profiles		HITSP Service Collaborations / Constructs	
XCA XDS/XDR/XDM	Cross-community and Cross-enterprise Document Sharing	SC112 / TP13, T31, T33	Healthcare Document Management Manage Transfer of Documents, Document Reliable Interchange, Transfer of Documents on Media
PIX	Patient Identity Cross-reference	SC112 / TP22	Patient ID Cross-Referencing
PDQ	Patient Demographics Query	SC112 / T23	Patient Demographics Query
ATNA	Audit Trail and Node Authentication	SC112 / T15, T17	Collect and Communicate Security Audit Trail, Secured Communication Channel
CT	Consistent Time	SC112 / T16	Consistent Time
		NHIN HIEM	Health Information Event Messaging