Analyzing Clinical Quality Measures for Meaningful Use

By Crystal Kallem, RHIA, CPHQ

One of the top health policy outcome priorities associated with meaningful use is to improve the quality and efficiency of care for Medicare and Medicaid populations. Eligible hospitals and providers that seek to apply for stage 1 meaningful use incentives will be required to capture and report clinical quality measures (CQMs) using certified EHR technology.[1]

However, technology is only a tool to support this critical meaningful use requirement. HIM professionals must understand the CQM specifications to ensure valid and reliable data are captured appropriately at the point of care.

Eligible Hospital CQMs

The Centers for Medicare and Medicaid Services (CMS) finalized 15 CQMs for eligible hospitals. Two measures target emergency department throughput processes, seven address the care of patients with ischemic stroke, and six address the care of patients with venous thromboembolism. Eligible hospitals must report numerators, denominators, and exclusions for all 15 CQMs, even if one or more of the values is zero.

Although these CQMs do not overlap with those currently required for the CMS Reporting Hospital Quality Data for Annual Payment Update program, they are included in the program's specification manual and some hospitals manually abstract data for these measures for the Joint Commission and other quality measurement initiatives. The hospital CQMs for meaningful use are a different set of specifications that enables electronic data capture and analysis using EHR systems.

It is important to understand that even though the meaning and intent of the quality measure remains intact between the two sets of specifications, the method for defining and capturing data in an electronic environment is much different.

Take for example, one data element from the ischemic stroke measure, Discharged on Antithrombotic Therapy (STK-2).

Both the National Hospital Inpatient Quality Measure Specifications (data abstraction requirements for the Joint Commission and other initiatives) and the Healthcare Information Technology Standards Panel Quality Measures Technical Note (electronic measure specifications for meaningful use) assess whether antithrombotic therapy was prescribed at discharge.

However, the electronic measure specification requires assessment of more granular, atomic data elements to electronically derive the answer value based on clinician documentation in the EHR (see "Ischemic Stroke 2 Sample Data Element Comparison," [below]).

Both sets of specifications also contain a permissible list of medications that define what is meant by an "antithrombotic medication." The manual data collection specifications provide a list of medication names and synonyms, whereas the electronic measure specifications provide a set of coded values using RxNorm.

When performing manual data abstraction, staff must review various sections of the medical record and mine data by searching for key terms. In some instances, there are gray areas where the abstractor must use intellect to analyze information and use judgment to appropriately answer specific abstraction questions.

For the data element discussed in the example, the National Hospital Inpatient Quality Measures Specification Manual states, "If [antithrombotic medication] documentation is contradictory…or after careful examination of circumstances, context, timing, etc., documentation raises enough questions, the case should be deemed 'unable to determine' (select No)."

Ischemic Stroke 2 Sample Data Element Comparison

Even though the meaning and intent of the quality measures specified for the meaningful use program match other industry standards, the method for defining and capturing data in an electronic environment may be very different.

In this example of a data element from the ischemic stroke measure, both specifications noted assess whether antithrombotic therapy was prescribed at discharge. However, the electronic measure specification requires assessment of more granular, atomic data elements to electronically derive the answer value based on clinician documentation in the EHR.

	Specifications Manual for National Hospital Inpatient Quality Measures Published by CMS and The Joint Commission[1]	**HITSP Quality Measures Technical Note ED, VTE, and Stroke Examples for Implementation of the HITSP Quality Interoperability Specification (TN 906)[2]**
Data Element	Antithrombotic Therapy Prescribed at Discharge	Derived Data Element: Antithrombotic Therapy Prescribed at Discharge Atomic Data Element: Discharge Medication Ordered (C83 Discharge Medications Section/ Medication Coded Product Name)
Allowable Answer Values	Y (Yes) – Antithrombotic therapy was prescribed at discharge N (No) – Antithrombotic therapy was not prescribed at hospital discharge OR unable to determine from medical record documentation.	Answer values are derived from the Atomic Data Elements using logic: If Discharge Medication (Coded Product Name) contains Value Set (Stroke Antithrombolytic Medications) then =Y, else =N
Medication Value Set Code System	N/A	RxNorm
Stroke Antithrombotic Medication Permissible Value Set (sample)	ASA Bayer Children's ASA Children's Aspirin Baby Aspirin Bayer Children's Aspirin Child Aspirin Child Chewable Aspirin Children's Bayer Children's Buffered Baby ASA Child's Aspirin Ecotrin Low Strength Adult Enteric Coated Baby Aspirin Low Dose Aspirin	308413 –Aspirin 65 MG Chewable Tablet 308414 –Aspirin 75 MG Chewable Tablet 308416 –Aspirin 81 MG Enteric Coated Tablet 318272 –Aspirin 81 MG Chewable Tablet
Data Source(s)	Consultation notes Discharge summary Medication reconciliation form Physician orders Progress notes	Discharge medications

Notes

1. Quality Net. "Specification Manual for National Hospital Inpatient Quality Measures." Available online at www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228754600169.
2. Healthcare Information Technology Standards Panel. "Technical Note: TN 906—TN906—Quality Measures Technical Note." Available online at www.hitsp.org/ConstructSet_Details.aspx?&PrefixAlpha=5&PrefixNumeric=906.

In an electronic environment, quality measure specifications and logic must be clearly defined and unambiguous to support automated analysis and reporting of quality measurement data. Instructions like these are difficult to implement in an electronic system due to the number of potential scenarios and corresponding logic that need to be specified.

Electronic capture and reporting of certain data elements is challenging and will require detailed review of electronic measure specifications and critical assessment of existing documentation practices. For instance, documentation of comfort (palliative) care is an exclusion criterion for eight of the 15 hospital CQMs. The electronic measure specification for STK-2 defines two permissible value sets for palliative care: a “procedure” value set and a “findings” value set, both defined using SNOMED CT. The electronic measure specification logic will look for palliative care procedures (as defined by the procedure value set) *or* an *active* finding in the problem list of “305496007—Under care of palliative care physician.”

Although eligible hospitals are not required to implement SNOMED CT in problem lists for stage 1 meaningful use, each organization should understand how this and other data requirements will be captured in their local EHR system to ensure exclusionary criteria are applied appropriately and CQM exclusion and denominator results are calculated and reported correctly.

Core and Alternate Core CQMs for All Eligible Providers

CMS finalized 44 CQMs for eligible providers, many of which overlap with the CMS Physician Quality Reporting Initiative. Three of the 44 measures are designated "core" and must be reported by all eligible professionals in stage 1. In instances where the denominator for one or more of the core CQMs is zero, the eligible provider is required to report results for up to three alternate core CQMs.

In total, eligible providers must report on six CQMs: three core measures (or alternate core measures) and three additional quality measures.

NQF & PQRI Identifier	CQM Title
	Core CQMs
NQF 0013	Hypertension: Blood Pressure Measurement
NQF 0028	Preventive Care and Screening Measure Pair: a) Tobacco Use Assessment; b) Tobacco Cessation Intervention
NQF 0421 / PQRI 128	Adult Weight Screening and Follow-up
	Alternate Core CQMs
NQF 0024	Weight Assessment and Counseling for Children and Adolescents
NQF 0041/PQRI 110	Preventive Care and Screening: Influenza Immunization for Patients >= 50 Years Old

NQF 0038	Childhood Immunization Status

Eligible Provider CQMs

CMS finalized 44 CQMs for eligible providers, many of which overlap with the CMS Physician Quality Reporting Initiative (PQRI). Four of the CQMs also align with the measure set selected under the Children's Health Insurance Program Reauthorization Act.

Three of the 44 CQMs are designated "core" and must be reported by all eligible professionals as part of stage 1 meaningful use. CMS expanded the core CQM set to include three "alternate core" measures (see "Core and Alternate Core CQMs for All Eligible Providers," above). In instances where the denominator for one or more of the core CQMs is zero, the eligible provider is required to report results for an alternate core CQM, up to a maximum of three alternate measures.

In total, eligible providers must report on six CQMs: three core measures (or alternate core measures) and three additional quality measures other than core or alternate. If all six core and alternate core CQMs have zeros in the denominators, the eligible professional is still required to report on three additional CQMs from the full measure set.

As with hospitals, eligible providers should clearly understand the meaningful use CQM specifications and how data will be captured and analyzed by their EHR. In addition, eligible providers must also understand which measures are best suited for their patient population while supporting multiple reporting and incentive programs.

CMS acknowledged the overlap between CQMs used for PQRI and meaningful use and clarified that eligible providers may qualify for both 2011 PQRI and stage 1 meaningful use incentives since the reporting periods for these two incentive programs are different. As with the current PQRI incentive program, CMS has proposed to offer six- and 12-month PQRI reporting options in 2011. The reporting period for the first payment year of meaningful use is 90 days (see table below).[2]

CMS proposed making 22 measures available for 2011 PQRI EHR-based reporting. Approximately half of these measures are included as part of the final set of stage 1 meaningful use CQMs (including the core and alternate core measures).

Eligible providers planning to pursue stage 1 meaningful use and 2011 PQRI incentives may want to evaluate the proposed 2011 PQRI EHR-based reporting measure set prior to selecting their three additional meaningful use CQMs to identify potential opportunities for alignment and efficiency. Providers should also explore whether these same CQMs can support other quality measurement initiatives, such as those conducted by private payers and employer groups.

2011 PQRI and Stage 1 Meaningful Use Reporting Periods

CMS recognizes the overlap between quality measure reporting in its existing Physician Quality Reporting Initiative (PQRI) program and the new meaningful use program. Eligible providers may qualify for both 2011 PQRI and stage 1 meaningful use incentives since the reporting periods for the programs are different. CMS has proposed six- and 12-month reporting options for PQRI in 2011. Within the meaningful use program, the reporting period for the first payment year is 90 days.

Proposed 2011 PQRI Reporting Periods	Stage 1 Meaningful Use Reporting Periods for Eligible Professionals
• 12-month reporting period for claims-based reporting and registry-based reporting (that is, January 1, 2011, through December 31, 2011) • 12-month reporting period for EHR-based reporting (that is, January 1, 2011, through December 31, 2011) • Six-month reporting period for claims-based reporting and registry-based reporting (that is, July 1, 2011, through December 31, 2011)	• Any continuous 90-day period for the first payment year • Full year reporting periods for subsequent payment years

• 12-month reporting period for the group practice reporting option for both PQRI and the eRx Prescribing Incentive Program (January 1, 2011, through December 31, 2011)	

Notes

1. Centers for Medicare and Medicaid Services (CMS). "Medicare and Medicaid Programs; Electronic Health Record Incentive Program Final Rule." *Federal Register* 75, no. 144 (July 28, 2010). Available online at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf.

2. CMS. "Medicare Program; Payment Policies under the Physician Fee Schedule and Other Revisions to Part B for CY 2011 Proposed Rule." *Federal Register* 75, no. 165 (Aug. 26, 2010). Available online at www.gpo.gov/fdsys/pkg/FR-2010-08-26/pdf/2010-21255.pdf.

Resources

AHIMA. "Health Care Reform and Health IT Stimulus: ARRA and HITECH." Available online at www.ahima.org/advocacy/arrahitech.aspx.

AHIMA. "Stage 1 Meaningful Use Objectives, Measures, and Corresponding Initial Set of Standards, Implementation Specifications, and Certification Criteria." Available online in the AHIMA Body of Knowledge at www.ahima.org.

CMS. "EHR Incentive Programs." Available online at www.cms.gov/EHRIncentivePrograms/01_Overview.asp#TopOfPage.

CMS. "Emergency Department Throughput Measures Stratification." Available online at www.cms.gov/QualityMeasures/Downloads/EH_EDThroughputStratificationTable.pdf

CMS. "Eligible Professional Clinical Quality Measure." Available online at www.cms.gov/QualityMeasures/03_ElectronicSpecifications.asp#TopOfPage.

Healthcare Information Technology Standards Panel. "HITSP Quality Measures Technical Note ED, VTE, and Stroke Examples for Implementation of the HITSP Quality Interoperability Specification." Available online at www.hitsp.org/Handlers/HitspFileServer.aspx?FileGuid=088df74b-3bac-49ef-9de4-b99e24879035.

Metzger, Jane, Melissa Ames, and Jared Rhoades. "Hospital Quality Reporting: The Hidden Requirements of Meaningful Use." August 2010. Available online at www.csc.com.

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Article citation:
Kallem, Crystal. "Analyzing Clinical Quality Measures for Meaningful Use" *Journal of AHIMA* 81, no.11 (November 2010): 56-59.