WHITE PAPER

Managing the Transition to Electronic Clinical Quality Measures

An Encore Point of View

By Randy L. Thomas, FHIMSS, Managing Director for Value Realization & Performance Analytics , Liz Richard, MBA, MHS, Managing Director for Value Realization Solutions, and Sophia Batallas, MSN, RN, Associate Director, Value Realization Solutions

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AN ENCORE POINT OF VIEW

With the increase in value-based contracts and government programs, it is essential that organizations understand, monitor and improve performance levels of electronic clinical quality measures (eCQMs). Given the level of effort needed to adjust workflow and capture all the data required for eCQMs appropriately, organizations are wise to begin the assessment and remediation process sooner rather than later.

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Quality reporting programs are shifting from abstracted measures to eCQMs, beginning with four eCQMs in 2016 required by the Inpatient Prospective Payment System.

EXECUTIVE SUMMARY

Quality reporting programs are shifting from abstracted to quality measures eCQMs. The 2016 Inpatient Prospective Payment System (IPPS) final rule requires hospitals to submit four eCQMs for 2016 under the Inpatient Quality Reporting (IQR) program, with 16 proposed for 2017. Prior to the 2016 IPPS final rule, the Electronic Health Record (EHR) Incentive Program addressed eCQMs, requiring that an organization attest to using certified technology to calculate eCQMs. The four eCQMs required in the 2016 IPPS final rule will satisfy the eCQM submission for both IQR and Meaningful Use (MU) programs. eCQMs will not be publicly reported in 2016 nor will thresholds apply, but both are likely in the future. [1]

As the healthcare market continues shifting to value-based payment models, patient satisfaction, quality and performance measures become even more important. CMS has signaled bold plans to shift increasing levels of reimbursement to alternative payment models, such as bundled payments and shared risk-based accountable care organizations. By the end of 2016, up to 30% of Medicare reimbursement will be made through incentive-based models; this percentage will increase to 50% by the end of 2018.[3] In addition, up to 85% of the remaining fee-for-service reimbursement will also have ties to quality metrics by the end of 2016, increasing to 90% by the end of 2018.[4] Value will be determined by clinical quality measures, which will shift from the currently reported abstracted measures to eCQMs.

Furthermore, commercial payers are increasingly engaging providers on a pay-for-value basis. In fact, providers are committing to accelerated adoption of value-based reimbursement arrangements. For example, the Healthcare Transformation Task Force, a consortium of patients, payers, providers and purchasers has committed to 80% value-based payment arrangements by 2020.[5] With the increase in value-based contracts and government programs, it is essential that organizations understand, monitor and improve their performance levels for the specified measures. Given the level of effort needed to adjust workflow and capture all of the data required for eCQMs appropriately, organizations are wise to begin the assessment and remediation process sooner rather than later.

Encore looked at the eCQM measure performance for several organizations and compared them to their abstracted measure counterparts. In many cases, the eCQM measure performance was lower than that reported to CMS through the IQR program and made publically available on the Hospital Compare website.[6] While the timeframes and the number of patient cases were different (abstracted measures use a sample of patients and eCQMs use the entire patient population), the precipitous drop in quality in eCQMs compared to abstracted measures was not due to a change in clinical practice. Rather, the data required to calculate the denominator, exclusions and numerator accurately for the

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eCQMs was either not available, inconsistently available or incorrect. Correcting these data issues requires collaboration between the quality specialists who understand the measure specifications, the IT experts who understand configuration and clinicians who understand the appropriate workflow.

To determine the gaps in transitioning from abstracted CQMs to eCQMs accurately, comparing IQR CQMs to MU eCQMs is an excellent place to start. Not only is there an existing point of comparison between the current IQR CQMs and the MU eCQMs, but also the IQR program is the first quality program to require electronic submission of eCQMs, tying that submission to an organization's future Medicare reimbursements.[7] The following table shows an actual comparison of nine measures from an Encore client (blinded and used with permission).

Measure	Description		
		MU eCQM	IQR Abstracted CQM
		10/14 - 1/15	4/14 - 6/14
AMI-2	Aspirin Prescribed at Discharge	88%	100%
PC-01	Elective Delivery	100.0%	4.3%
SCIP-1	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision	0.0%	99.0%
STK-2	Discharged on Antithrombotic Therapy	61%	100.0%
STK-3	Anticoagulation Therapy for Atrial Fibrillation/Flutter	0.0%	92.3%
STK-4	Thrombolytic Therapy	0.0%	100.0%
STK-6	Discharged on Statin Medication	61.5%	100.0%
VTE-1	Venous Thromboembolism Prophylaxis	49.6%	100.0%
VTE-2	Intensive Care Unit Venous Thromboembolism Prophylaxis	45.1%	100.0%

Although eCQM performance is not yet publically reported, and there are no thresholds, this organization was alarmed by the discrepancies between their abstracted CQMs and their eCQMs. This quality-focused IDN chose to address the eCQM performance rates immediately rather than waiting for the public reporting or threshold requirements.

ABSTRACTED VS. ELECTRONIC CLINICAL QUALITY MEASURES – COMPARING THE PROCESS

As shown above, an organization's eCQM performance can vary substantially from the abstracted measure performance. This variance is due to the differences in the measure definitions, how the required data is collected and how the measures are calculated.

The differences between eCQMs and abstracted measure performance arise through the measure definitions, how the data is collected, and how the measures are calculated.

ABSTRACTED MEASURES

The CQM IQR program has 45 currently required measures, summarized below:[8]

Topic	Number of Measures
Acute Myocardial Infarction Process Measure	1
Stroke Process Measures	4
Surgery Safety Process Measures	2
Structural Measures: Registry Participation	2
Venous Thromboembolism Process Measures	5
Emergency Department (ED) Throughput Measures	2
Immunization Measure	2
Hospital-Acquired Condition Outcome Measures	8
Mortality Measures*	6
Patient Experience of Care Measure	1
Readmissions Measures*	8
Cost Efficiency Measures*	4
Perinatal Care (PC)*	1
Total	45

*Asterisk denotes categories with new measures for FY 2017

Each measure has a narrative definition that describes the type of data needed to calculate the three components of the measure:

- *Denominator* – the total population of patients the measure applies to (e.g., all patients with a diagnosis of "ischemic stroke")
- *Exclusions* – patients the measure does not apply to (e.g., patients on comfort measures)
- *Numerator* – evidence that the desired clinical intervention occurred (e.g., anticoagulant prescribed at discharge)

The example below is excerpted from the "notes for abstraction" instructions for the "comfort measures only" exclusion from the 2014 Specifications Manual for National Hospital Inpatient Quality Measures for the STK-6 quality measure.[9]

While abstracted measures allow for the abstractor to look anywhere in the medical record for the required data, eCQMs require structured, codified data.

Physician/APN/PA documentation of comfort measures only (hospice, comfort care, etc.) mentioned in the following contexts suffices:

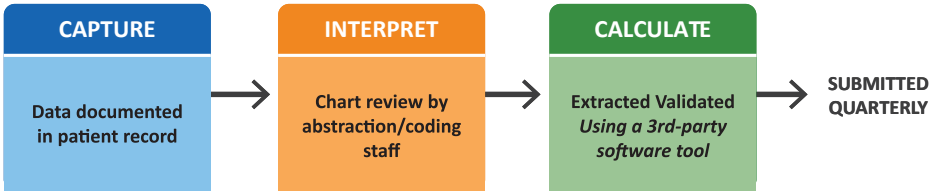
- Comfort measures only recommendation
- Order for consultation or evaluation by a hospice care service
- Patient or family request for comfort measures only
- Plan for comfort measures only
- Referral to hospice care service
- Discussion of comfort measures

Suggested Data Sources:
PHYSICIAN/APN/PA DOCUMENTATION ONLY

- Consultation notes
- Discharge summary
- DNR/MOLST/POLST forms
- Emergency Department record
- History and physical
- Physician orders
- Progress notes

For abstracted measures, the data needed to report all the measures can be documented **anywhere** in the medical record. While there may be a typical place where a particular piece of information is documented, such as discharge medications, the role of the abstracter is to look anywhere in the chart for evidence of the activity. The information may be in a transcribed discharge note, in the paper-based medical record, or on a "sticky note." In addition, the abstractor has the expertise to understand that a progress note that says "history of ablation" or "afib" written on an ECG means a diagnosis of atrial fibrillation was present, and the patient should qualify for certain measures. In the majority of cases, abstraction is conducted on only a random sample of patients, determined by facilities and their quality reporting vendors using CMS guidelines.[10] The process is summarized in the diagram below:

Rather than submitting the data for a sample of patients, the eCQM world requires data to be submitted for all patients.

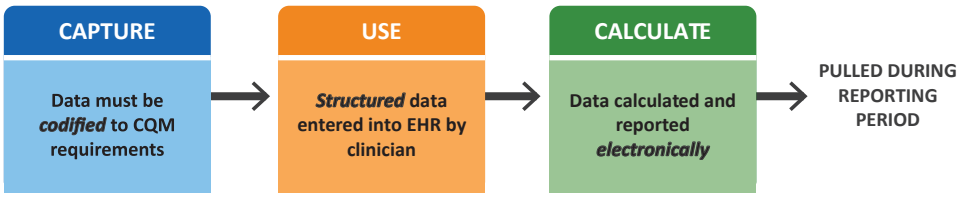


Abstracted Measure Process

Organizations are required to submit abstracted quality data on a quarterly basis. Typically, the software package used to collect and submit the data provides data checks to ensure that all data is present and will pre-calculate the rates to let the organization know if they are on target. If an organization is not meeting a target rate, they have the option to revisit the medical record to determine if the needed evidence was perhaps overlooked on the first review.

ELECTRONIC CLINICAL QUALITY MEASURES

While abstracted measures allow the abstractor to look anywhere in the medical record for the required data, eCQMs are far more structured. The data required for the denominator, exclusions and numerator must be in a structured data field in the Certified EHR. That data must be documented for **every** patient. For example, if a patient has no known allergies, a value must be entered in the allergy list indicating that fact. And, the data must always be documented in a field that will be captured in the report. Calculating the eCQM cannot involve hunting for data; the system will look in a specified place or in limited specified spaces. In addition, the captured data must conform to the value or clinical vocabulary that the eCQM measure specification requires. If clinicians were previously documenting allergies in narrative form, they will now need to select the correct diagnosis code from the value set. For example, documenting "egg allergy" in a progress note would be lost; instead, including a known "Allergy to eggs" in the Certified EHR allergy section will be required (SNOMED-CT code 9193004). The eCQM process is summarized below:



eCQM Process

Furthermore, rather than submitting the data for a sample of patients in the eCQM world, all required data for all patients is submitted.

In Encore's experience, organizations need to be aware of five primary areas of risk in the transition from abstracted to electronic measures.

RISKS IN THE TRANSITION TO eCQMS

Encore recommends that provider organizations compare their most recently reported IQR abstracted measures to the 28 eCQMs currently defined as part of the EHR Incentive Program, using as similar a timeframe as possible.[11] In some cases the performance between the types of measures may be close to the same, but there will likely be significant differences in performance for many measures. For each measure where there is a difference, organizations need to assess the cause of the differences.

In Encore's experience, organizations need to be aware of five primary areas of risk in the transition from abstracted measures to eCQMs, as shown below:

	Incomplete	Missing
Data	Not always documented (e.g., not documenting "no problem" in the problem list of a well newborn).	The data is not captured in a structured field; it may be in a narrative note or it may not be documented at all.
Workflow	Current processes are inconsistently followed or are not implemented to capture the needed data.	No process exists to capture the data.
Adoption	Current processes are defined to capture the data but not followed consistently.	Current processes are defined but never followed.
Reporting	Current reporting functions have gaps in the calculations or processing.	Measures are not calculated properly.
Functionality	Technology gaps exist in the certified application.	Technology does not calculate all the measures.

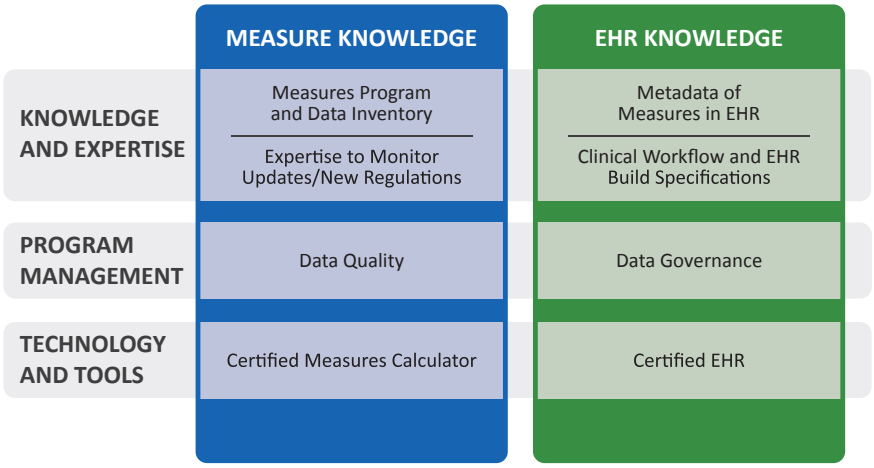
The process of tracing the data necessary for accurate eCQM calculation not only requires knowledge of the intent of the associated measure and definition of the data elements but also the ability to locate the appropriate place in the Certified EHR functionality – and associated workflow – where the data should be sourced.

To determine which of the risk areas is causing different results for each measure, the data need to be traced back from the eCQM definition to their source in the EHR. In the assessments Encore has conducted on behalf of provider organizations, most of these risks do not pertain to deficiencies in patient care. Rather, because of the strict and unforgiving nature of eCQM data requirements, one or more of these the five areas of risk may require remediation to ensure consistent, accurate data availability for the eCQMs.

In addition to these risks related to data and technology, organizations should not underestimate the cultural shift that needs to occur in transitioning the role of the measures abstractor. Once abstracted measures have been entirely replaced by eCQMs, the abstractor role will shift from abstracting to ensuring data quality and providing root cause analysis. This shift requires different, although related, skills. Organizations should develop and implement a change management process to support these staff in making the transition.

REQUIRED CAPABILITIES FOR MANAGING eCQMS

Organizations that succeed in managing the transition from abstracted to eCQMs embrace a range of necessary knowledge and expertise in two complementary areas – detailed understanding of both the eCQM definitions and the functionality of the implemented Certified EHR Technology (CERHT). The two knowledge areas are depicted below:



Measures Management Knowledge Needs

Data governance provides the forum for arbitrating decisions around the balance between appropriate workflow and the needs for structured data.

eCQM AND CEHRT KNOWLEDGE

Tracing the data needed for accurate eCQM calculation requires knowledge of the intent of the associated measure and measure specification. It also depends on the ability to locate the appropriate place in the EHR functionality – and associated workflow – where the data should be sourced. Tracing and sourcing the data requires close collaboration between the measures subject matter experts and the CEHRT "super users" who know how the EHR is used on the front lines of care. Encore recommends addressing problems with missing or inconsistently captured data by having all affected stakeholders decide how to adjust workflows for consistent, structured data capture in a way that supports care delivery.

DATA GOVERNANCE

Engaging these stakeholders and sustaining the flow of accurate, reliable data from the source EHR to the eCQM calculation requires enterprise-wide data governance. Data governance, while not a new discipline, is relatively new to healthcare. It can be defined as:

> *… the discipline of formally organizing and methodically managing data and information assets across an organization from a business, technical, and administrative perspective for the purpose of managing data as an asset, driving information quality and optimizing data outcomes that enhances decision making.*[12]

Data governance provides the forum for arbitrating decisions around the balance between appropriate workflow and the needs for structured data. It defines the process for changing or adding data, and identifies the individuals across the organization who are responsible for ensuring the ongoing accuracy of data (i.e., data stewards).

A cross-functional data governance structure and process helps an organization harness the value from its data assets. Data governance is not an IT function nor is it a department in the organizational hierarchy. Rather, data governance brings together the key stakeholders from quality, finance, administration, IT and other areas to make decisions on how data should be captured, standardized, used and secured. It documents, by data element, what systems capture the data. It makes decisions on how to rationalize inconsistencies in data that is allegedly the same. It governs how the data can be used to ensure appropriate access, security and patient privacy. And if needed data is not captured in the way that is usable (or not captured at all), it identifies the need for potential changes in workflow and system implementation, and engages the right stakeholders to effect the required modifications.

An essential aspect of managing eCQMs is using certified technology that accurately calculates all of the defined measures.

Data governance supports the ongoing tactical process of ensuring data quality. Data does not "stay put" once EHR configuration changes and workflow modifications are implemented to capture required data; it needs to be monitored on an ongoing basis to identify variations as early as possible. One way to effectively monitor data quality for eCQMs is to track the calculated rates on at least a weekly basis. Typically a sudden change in an eCQM rate indicates "broken data" rather than an aberration in clinical care.

Sometimes changes made to data outside of the data governance process result in inaccurate data. Early detection enables early intervention to get things back on track. For example, while monitoring electronic measures for MU, one organization saw a sudden decline in Computer Provider Order Entry (CPOE) adoption from 90% to 30%. Early detection found that someone had gone around the data governance process and added a provider type and then changed many providers to that type. This provider type was not supported by the measure, however. When the errant provider type was removed, the providers shifted back to the correct value – resulting in the rate returning to the correct level.

CERTIFIED TECHNOLOGY

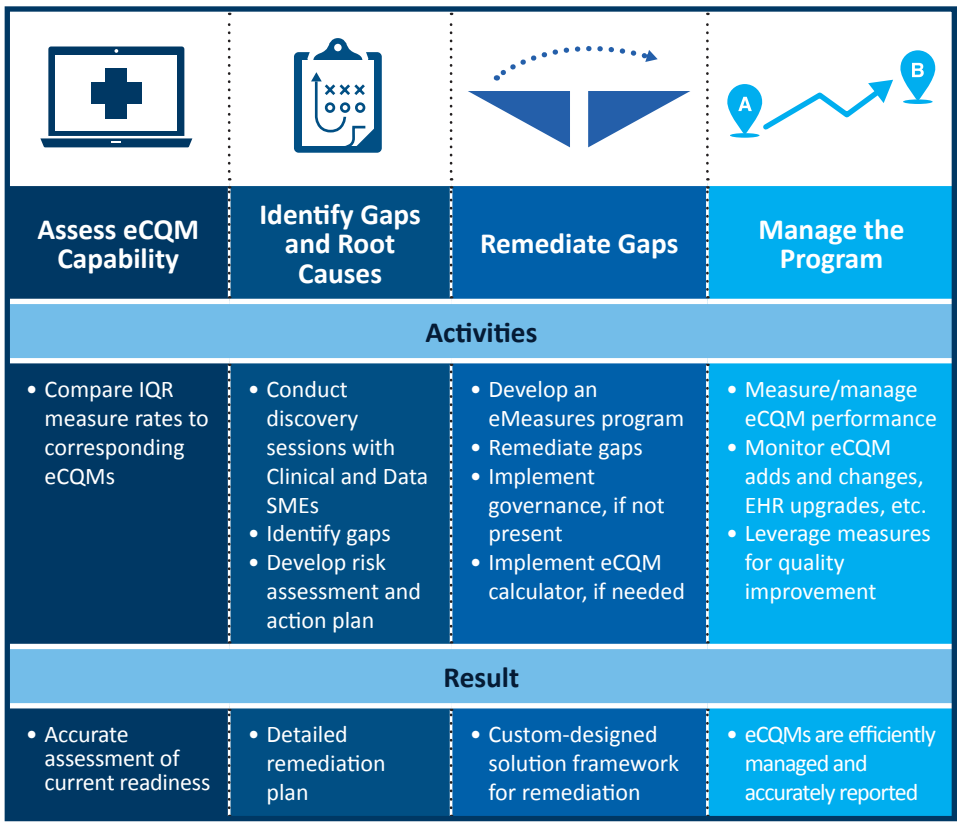
Finally, an essential aspect of managing eCQMs is using certified technology that accurately calculates all of the defined measures. CMS has signaled that the IQR program will require use of CEHRT to capture the needed data and use of certified technology to submit the eCQMs. Organizations are wise to take the approach of "trust but verify" when using their CEHRT vendor's eCQM capabilities: double-check the eCQM calculations because current EHR certification processes do not validate that the vendors calculate measures accurately. For example, in Stage 1 (Eligible Provider) CPOE for Medication Orders core measure, a client's EHR vendor incorrectly counted unique medication prescriptions for establishing the denominator when the CMS definition called for unique patients with at least one medication in their medication list.[13]

A PROGRAMMATIC APPROACH FOR THE TRANSITION TO eCQMS

Once the initial assessment is complete – comparing abstracted measure performance to eCQM performance – the organization needs to determine the cause for each underachieving measure. The five main risks for underachieving measures are defined above. Once the data gaps are identified, a remediation plan must be defined and executed. Tracking the required data and linking it to the most appropriate capture point in the workflow takes time and the combined exper-

Implementing the workflow changes requires training and continuous reinforcement until the new routines become automatic.

tise of CEHRT "super users" and eCQM experts. Designing the process change is best done in a collaborative team of stakeholders to ensure buy-in and therefore increase the likelihood the redesigned process will be followed. Implementing the workflow changes requires training and continuous reinforcement until the new routines become automatic. The diagram below summarizes the major steps in an eCQM program.



eCQM Process Change

Once the organization has completed its inaugural cycle to resolve the data issues and ensure accurate eCQM rates, an ongoing process should be implemented to:

- Monitor the eCQM rates for consistency
- Implement eCQM modifications (i.e., measure specifications are "tweaked" on an annual basis)
- Implement new eCQMs (i.e., new measures may require data not currently used in other measures, and that data may not be consistently accurate or available at all)

Deep comprehension of the eCQM specifications as well as the CEHRT functionality in place to support their calculation and reporting are required capabilities needed for managing the transition effort.

The monitoring process will highlight any rate variances so the gap analysis and remediation steps can be carried out as needed. This "wash, rinse, repeat" cycle allows any organization to efficiently manage their eCQMs in support of any regulatory reporting requirement (such as MU or IQR) or commercial at-risk contracts that also use eCQMs.

NOW IS THE TIME TO PREPARE

The level of difficulty in the transition of clinical measures from abstraction to the eCQM counterparts cannot be underestimated. Managing the transition effort requires understanding the eCQM specifications, the CEHRT functionality in place to support their calculation and reporting, and the differences between abstracted measures and eCQMs. Just as important is the dedication of time and resources to focus on assessing the risks fundamental to the transition. All of these efforts contribute to different measure results and require diligent study and remediation. Finally, organizations must recognize and embrace the importance of implementing a programmatic approach for eCQM reporting, not only for the initial transition to eCQMs, but also to maintain, monitor and adjust as eCQMs evolve and play an expanding role in quality measure reporting.

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7. CY 2016 IPPS Final Rule, pages 49757-49758
8. See 79 Federal Register 163 (22 August 2014), pg. 50246-50249 for a full list of all measures included in this program. Note that FY 2017 measures list is inclusive of measures finalized for payment determinations prior to FY 2017.
9. Specifications Manual for National Hospital Inpatient Quality Measures Discharges 01-01-15 (1Q15) through 09-30-15 (3Q15) 1-104
10. QualityNet, Population and Sampling Specifications, version 5.0
11. The IQR only utilizes 28 of the available 29 eCQMs. Encore recommends organizations look at the 29th eCQM to try and determine if the rate is “reasonable” (i.e., not zero).
12. Encore Health Resources definition derived from practical application of the Data Governance Institute definition and other industry leaders, such as IBM.
13. Encore client experience.