

Testimony to the Health IT Policy Committee

Quality Measures Workgroup

Panel 2: Technology and Measure Developers

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Thank you for the opportunity to provide input on quality reporting using electronic health records. I am Sarah Corley, MD, FACP, Chief Medical Officer for NextGen Healthcare. NextGen Healthcare is proud to support more than 55,000 providers across the U.S. with our ONC-ATCB certified EHR, and work closely with them throughout the Meaningful Use attestation process. My background includes research on quality improvement using electronic health records. I firmly believe that the appropriate use of EHRs can facilitate rapid improvements in the quality of health care provided sensible steps are taken, and the Meaningful Use program is just the beginning of what is possible. The following addresses the questions asked of this panel.

What standards have enabled implementation of MU1 quality measures?

Currently available standards that are helpful in managing the calculation of Stage 1 Meaningful Use measures are CPT codes and ICD9 codes. Most of NextGen Healthcare's clients do not receive lab results using LOINC codes, so data mapping must be completed for each client to ensure that measures involving lab results are accurately reported.

The HL7 HQMF Standard has not (yet) been helpful, as the quality measures were not published in this format. We are hopeful that CMS and NQF can collaborate to enable all quality measures to be published in this format. This would cause much of the ambiguity of prose measures to be eliminated.

Explain the challenges and strengths of current e-specified clinical quality measures and the impact on your product development?

The current e-specified clinical quality measures for Stage 1 were not sufficiently adjusted from the prose versions for us to be in agreement with the premise that they are in fact e-measures. They are not. We applaud the recent re-tooling work that NQF, AMA-PCPI, NCQA and The Joint Commission have undertaken to address this. As they stand today, Stage 1 measures retain much of the ambiguity of paper/prose measures. There is room for interpretation in many of the measures, so our measures development team must evaluate each one carefully, interpret it, identify appropriate fields in the software and SQL tables, and create reports with all of the appropriate filters. The team then creates a white paper for each measure including the exact wording of the measure, our interpretation of the

measure, what codes and fields our tool will pull data from and recommended work flow to optimize collection of the data. If the specifications do not include specific CPT codes, our development team must interpret the measures and decide which codes are appropriate. A good example can be found when deciding which codes to use to calculate what constitutes an office visit.

If the information is not already collected, an enhancement request with complete specifications must be sent to development and the coding must be scheduled for inclusion in the next release. Software development done in a safe fashion requires approximately 18 months of lead time so that the specifications can be created and vetted by stakeholder clients; the software can be developed within a normal release cycle, tested in QA, and sent to clients for beta testing; and the product can be rolled out to clients after they have had time to do their own internal testing and training. The current process has been rushed, creating a challenge for both safe development by vendors and implementation by providers.

What are the challenges for encoding the electronic specifications?

The lack of specific data sets listed in all currently used standards in the specifications has been the biggest challenge for vendor development. While value sets that represent the data sets were published by NQF in March **2011**, this was far too late for any vendor to properly leverage them in development of certified EHR technology for Fall **2010**.

In most cases, current measures only include one code set where many may exist. Medication codes are a good example. Until suppliers of medication data and EHR vendors use one standard, measures developers should provide medication lists with all code sets, not just RxNorm. This will reduce the risk for mistakes when trying to bridge terminologies. As mentioned above, any measure that does not supply exact codes for things like office visits either requires a vendor to interpret the specification on their own (and in turn, require all users to follow that interpretation) or forces the vendor to create more complicated software so their clients can use their own definitions.

There is additional development work required when different programs have disparate specifications to cover the same quality measure. This additional work does not improve the care provided and can result in confusion. A provider will see a different numerator and denominator depending upon the clinical quality measure. They need to be harmonized so that specifications are identical.

From a clinician perspective, one of the biggest challenges arises when the data element to be collected is not clinically meaningful. In this situation, even if it is placed into the software in a structured data field, our clients may not use it. This can result in inaccurate reporting with some clinicians using the field while others do not. Most exclusions of patient preference fall into this category. Exclusions such as allergies do not, as that data is already collected and is relevant to the future care of the patient. While many providers will say they do not want their reports to show they are not providing care when there is a valid exclusion, most will not want to take the time to enter this data when it does not result in any clinical benefit to the patient and only takes additional documentation time. Indeed, some might look at an exclusion based on the patient not wanting something as a failure on the part of the physician to appropriately educate the patient on the need for the recommended care or service.

What are the challenges of data mapping of clinical processes to data elements in the EHR? (i.e. to achieve numerator and denominator counts).

Because different specialties have different workflows and may use unique template sets, NextGen Healthcare must provide detailed documentation identifying each place the data field might be entered - even if a field is shared across different templates. For data not currently collected in a structured field, optimal workflow must be identified as well as the likely type of care provider that would be entering the data, so the fields can be entered in the most logical template. Practices must then review our white papers to understand where the data is being pulled from. If they do not take the time to review the details of the specification as well as the locations of appropriate fields, their reports may not accurately reflect the care they provide.

Early on, another problematic area was the measure asking for documentation of smoking. Certifying bodies interpreted the certification test script to mean that we had to use the exact language for tracking smoking specifically called “current every day smoker,” “current some day smoker,” etc., but the quality measures did not mention all types of tobacco use. As a result of this interpretation, the typical clinical workflow for capturing and counseling on tobacco use had to be changed. The new workflow was not intuitive and would have missed addressing the significant risks of consuming tobacco via alternative methods to smoking. We were forced to translate the usual tobacco fields into these new fields. Where a translation could not be automated, it required a clinician to change the way they ask questions. There was tremendous push back from our clients on this change.

With the recent FAQs from CMS clarifying that clinicians did not have to use the exact workflow and terms required for EHR certification, we have now had to rewrite our reports to collect information from the existing tobacco fields as well as the new ones. This has resulted in unnecessary development work for NextGen with no clinical gain for our clients. Clearly stating that the use of tobacco information that already existed instead of just smoking status would have saved development time as well as reduced the burden on practices to change their workflow.

What can we do to improve the existing standards to optimize clinical quality measurement and reporting?

Across all reporting programs (PQRS, MU, NQF, etc.) data collection needs to be uniform. If an EHR does not use a specific coding structure it can be difficult to map. For example, to identify medications a vendor might use NDC, HICL, GCN, other proprietary codes, but not RxNorm. Providing a list of medications with all of the associated code sets would ensure accurate capturing and reporting of data. It is very difficult for a product to capture multiple quality measures from various sources when the specifications vary in small ways, but due to these variations require additional data elements to capture what is required. For the end user it becomes difficult to learn all the quality measures they report on because, for example, he or she wants to correctly document an exclusion. However, if the exclusions differ per measure, the user increases his/her time spent on entering the right data versus clinical usefulness. These differences impede the efficient care and documentation of a patient encounter.

It would also be helpful if labs reported results using LOINC so that data mapping to lab names would not be necessary. Development of a standard code set for ordering labs would also facilitate improved quality. Clinical decision support could be designed to be actionable without requiring additional mapping to a particular lab vendor's compendium.

Requiring measure developers to produce CQMs in both human-readable and HQMF formats should be imperative for MU Stage 2. All measure developers should also reference value sets for every required data element, and, as a public services, the reference value sets should be made freely available to the public, either as a download or as a web-based service.

What standards are needed to develop innovative or novel measures that take advantage of embedded information within your EHR, for example measures that are longitudinal, cross-setting, or patient reported outcomes?

A policy that allows vendors to define the existing data elements used and how they relate to a measure would certainly allow for reporting on historical data rather than reporting on newly created fields only. Areas where a vendor might use their own terminology and want to track longitudinal data include tobacco and alcohol use.

A standard definition of the elements contained in a longitudinal care plan need to be developed and there needs to be a clear understanding of where responsibilities would lie in terms of who is entering data and how outside data should be used in reporting on care across domains. Patient-reported outcomes would be particularly difficult to standardize.

Refinement of QRDA – and its adoption – would reduce pressure to re-invent this wheel. While we do have some concerns about the scalability and flexibility of QRDA – such concerns suggest that revision may be appropriate – rather than abandonment of the standard altogether.

There may be merit to a standard set of quality data queries for quality measure reporting. This would allow for the creation of standard queries based on HQMF-defined quality measures to request reports of an EHR, rather than requesting datasets, or require submission of granular data. For example, one might define a standard query as “how many patients with hypertension were well controlled,” with value sets properly defining “patient,” “hypertension” and “well controlled.” This could be expressed using a query syntax similar to HL7 Query messages.

In light of the importance of increasing the number of valid electronic clinical quality measures, how do you plan to gain greater efficiency for future product development in this area?

We have a dedicated quality measures team that regularly participates in CMS, federal and regulatory conferences and webinars to ensure that they are aware of any changes to the specifications. It is still a challenge when quality measures are added that do not draw upon data already collected in the system. Our registry process does allow us to reuse data by applying different conditions to it depending upon the specifications, but the work still has to be done to create and test the filters and reports.

How are you adapting your product to support end users in quality improvement?

NextGen® Ambulatory EHR has always included evidence-based clinical decision support and references to widely-accepted, evidence-based guidelines. The product has also always included an ad hoc report writer that allows a user to report on any data element. Those reports help a practice monitor and improve their performance.

NextGen® Dashboard also allows a user to follow their performance on a number of quality metrics. Because of the complexity of PQRI and MU quality measures, including their extensive exclusions, multiple numerators and denominators, users would have difficulty constructing reports that meet every detail. In response, we have created the NextGen Health Quality Measures registry and reporting tool, capable of performing the complicated calculations required for accurate reporting. Our clients, however, would prefer simpler quality measures that can be reported directly or allowing data fields only to be sent and any manipulation of the raw data to be done by the receiving organization. For example, data on medications, vital signs, labs, and diagnoses could be sent but the calculations would not be the responsibility of the clinician - they would be the responsibility of the consumer of the data.

What role do clinical quality measures play in informing development of practice guidelines or clinical decision support rules?

Clinical decision support (CDS) should facilitate guideline-based care. If quality measures are inconsistent in their specifications, it becomes difficult to match the CDS to the quality measure. Most vendors will include evidence-based guidelines and CDS based on those broadly accepted guidelines. However, if one organization wishes to identify a HGBA1c >7% as not optimally controlled and another labels it > 6.5%, a vendor either must pick one or allow the end user to change the CDS. The downside is that this can result in misaligned CDS with some of the quality programs.

What is required for a flexible, adaptive, technology environment to speed up the process of incorporating measures that reflect clinical guidelines?

Measures need to be uniform across all programs. When measures have different specifications for the same clinical guideline, additional work is created with no clinical benefit. Often, exclusions are not regularly collected if they are not clinically meaningful. The requirement to add them to the software increases development time and reporting complexity while not improving care. Since providers frequently will not enter that additional data, this could result in reports that are less accurate, not more. Exclusions for clinically relevant issues like allergies and a history of hysterectomy can remain but exclusions for patient preference should be removed. Until we have one standard for all types of information being collected - and that standard is widely used - measures need to include all possible

code sets to reduce the time spent on translating them as well as cut down the risk of mistranslations and inaccurate reports.

Using data that is already collected as part of routine care would speed the process, as would allowing vendors to use their current language for a particular measure, such as the example above of tobacco use versus smoking status. These changes can save development time as well as reduce the burden on practices to change their workflow.

Measures should not be added just so that every specialty will have a set number to select from. They should be meaningful, actionable, and result in improved outcomes.

Focusing on harmonizing measures using commonly captured clinical data for clinically meaningful measures with complete specification of the measures, implementation of any necessary additional standards and publishing in a true e-measure format should advance these goals. I am pleased at the attention being paid to this important benefit of the use of Electronic Health Records and its potential to improve the care provided to all citizens. Only by improving the care that we provide in an evidence based fashion can we hope to stem the costs of providing health care.