

Transforming Clinical Quality Measures for EHR Use

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NQF Refines eMeasures for Use in EHRs and Meaningful Use Program

The meaningful use incentive program and increasing emphasis on improving healthcare quality have highlighted the need for clinical quality measures that are EHR-compatible. To address this need and advance these efforts, the National Quality Forum (NQF), under contract with the Department of Health and Human Services (HHS), worked with a number of measure development organizations to establish a process for retooling existing paper-based clinical quality measures into a format that can be interpreted and used by electronic applications.

Through this process, NQF delivered 113 electronic measure specifications, or eMeasures, to HHS in 2010. The eMeasures have the potential to:

- Reduce the burden associated with manual data collection
- Address ambiguity in existing measure specifications
- Advance meaningful use of EHR systems

The eMeasures are represented using Health Level Seven's Health Quality Measure Format, a standard for representing quality measures as an electronic document.¹

However, transforming quality measures into an EHR-compatible format may alter the intent of the original NQF-endorsed measure. As a result, NQF convened an eMeasure review panel to evaluate the measures following the retooling process to ensure that the intent of the original endorsed measures was maintained.

Refining the eMeasures for EHR Use

The panel included a wide range of expertise, including HIM leadership. The 113 measures were divided among four review cycles that were managed over the course of nine months.

During each cycle, the panel evaluated the eMeasures against a set of criteria to ensure the meaning between the original measure specification and the retooled eMeasure was preserved. Specifically, the panel addressed the following components:

- **Consistency with endorsed measure logic.** The panel ensured each measure's logic makes sense and preserves the original intent of the NQF-endorsed measure.
- **Appropriate use of quality data model elements.** The panel ensured that the application of quality data model data types in the eMeasure fit a given data type's definition in the model.
- **Appropriate use of accepted value sets.** The panel ensured that the value set used in the eMeasure matches the recommended taxonomy.

In addition to the panel's evaluation, the eMeasures were posted for public comment between February and April 2011.

During this time, AHIMA convened a group of member volunteers to review a subset of the 113 measures. The group spent a majority of its time validating the ICD-9-CM, ICD-10-CM, and SNOMED CT code sets associated with approximately 22 eMeasures from four disease domains, including diabetes, coronary artery disease, ischemic vascular disease, and heart failure.²

NQF received more than 600 comments from the public, in addition to the comments obtained through the panel's review. All public and panel comments were sorted into five categories: code lists, logic, meaning, quality data model elements, readability, and other.

A large number of the comments (35 percent) were related to issues with code lists, such as use of appropriate taxonomies and errors of omission or commission within each code list (value set).³

NQF documented the comments and corresponding resolutions in a formal report, which will be made available on NQF's Web site, www.qualityforum.org.

The 113 eMeasures are being updated by the measure stewards based on comments and panel recommendations. Upon completion, these measures will be delivered to HHS in December 2011.

Notes

1. Health Level Seven. "HL7 Version 3 Standard: Representation of the Health Quality Measure Format (eMeasure), Release 1, Draft Standard for Trial Use." 2010. www.hl7.org/dstucomments/index.cfm.
2. AHIMA. "AHIMA Comments on NQF eMeasure Format Review." April 2011. Available in the AHIMA Body of Knowledge at www.ahima.org.
3. National Quality Forum. "NQF eMeasure Feedback Summary." July 2011.

Additional Resources

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Department of Health and Human Services. "Report to Congress: National Strategy for Quality Improvement in Health Care." March 2011. www.healthcare.gov/law/resources/reports/quality03212011a.html.

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NQF. "eMeasure Format Review." www.qualityforum.org/Projects/e-g/eMeasure_Format_Review/eMeasure_Format_Review.aspx#t=2&s=&p=4%7C.

NQF. "Guide to Reading Eligible Provider (EP) and Hospital Measures." December 2010. www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=52706.

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