Meaningful Use

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**Introduction/Purpose:**

Where other industries such as finance and air travel have been able to leverage information technology (IT) tools to cut costs and improve customer service, health care has lagged behind. It is easy to purchase tickets online for a trip around the world, yet securing an appointment for an imaging exam still requires a phone call during regular business hours in most instances. The latest music and movies can be streamed to mobile devices effortlessly, but obtaining lab results or radiology reports is still an arduous task. Online banking tools allow for the secure electronic transfer of funds to pay a majority of bills, except for the ones mailed out from the doctor’s office or hospital.

To accelerate the adoption of IT in health care, the government has instituted an incentive program known as Meaningful Use (MU). To receive the incentive payments, it is not enough to simply purchase an electronic health record (EHR); that EHR must be certified to meet certain standards, termed certified EHR technology (CEHRT). The purchaser of the EHR must also use it in a “meaningful way,” hence the term “meaningful use.”

The government’s MU program is staggered over multiple years (2011–2015) and includes three stages. Each stage of MU is intended to gradually phase in more stringent measures that, when adopted, will hopefully lead to a nationwide interoperable health information exchange network and improved patient care. Stage 1 focuses on the capturing and sharing of data. Stage 2 focuses on information exchange in a structured format and continuous quality improvement. Stage 3 attempts to achieve the ultimate goal of improved outcomes by building on the infrastructure established by Stages 1 and 2. Additional goals include clinical decision support, patient health portals, and population health improvement.

Both the Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health IT (ONC) oversee MU. CMS handles the program as it relates to physicians, who are to follow measures and meet objectives to receive incentive payments. The ONC develops corresponding criteria and software standards for manufacturers to follow. The ONC has approved a number of private authorized certification and testing bodies (ATCB) to certify that the software meets these standards. If any ATCB certifies that a product meets the ONC standards, that software is deemed CEHRT.

MU is divided into a separate program for physicians, who are designated as eligible professionals (EPs), and a separate program for hospitals, which are designated as eligible hospitals (EIHs). Each program has different but overlapping requirements along with
different incentive payments for both the Medicare and Medicaid versions. Most radiologists will qualify for the Medicare EP program, the focus of this document.

There is debate within the radiology community as to whether radiologists should participate in the government’s MU program. Arguments have been made that the measures within the program do not seem relevant to a radiologist’s daily workflow. While it is true that the Stage 1 measures appear to be more relevant to primary care providers, the main goals of Stage 1 are to merely capture common data elements, not improve workflow or efficiency for any specialty. Moreover, the MU program will likely become a cornerstone of health care IT adoption in the United States, providing an opportunity for radiology groups to better integrate imaging services with existing hospital EHRs with little out-of-pocket cost. Professional radiology associations such as the American College of Radiology (ACR) are addressing relevant concerns in an ongoing manner by providing comments to CMS and ONC upon release of proposed rules and advocating on behalf of radiologists to ensure that future rulemaking better reflects ways in which radiologists can provide higher quality care by leveraging data contained in the EHR.

Prior to more recent rulemaking, radiologists would be subject to penalties (1–3% of total Medicare reimbursement) for not participating in the program. In September of 2012, a significant hardship exemption was extended to all radiologists, meaning that they would not be subject to penalties as long as radiology was listed as their primary specialty. However, CMS maintains that this could change in subsequent rulemaking, and the significant hardship exemption will only apply for five years.

Legislation

MU legislation is included in the American Recovery and Reinvestment Act of 2009, better known as the “Stimulus bill.” Specifically, Title XIII of the bill outlines the Health Information Technology for Economic and Clinical Health (HITECH) Act that describes the incentive program (totaling up to $20 billion) for the MU of CEHRT. MU legislation is not part of the Patient Protection and Affordable Care Act of 2010 (“the health care reform bill”) and will not be affected directly by amendments or potential future repeal of the Affordable Care Act.

As EPs, radiologists are both eligible to receive incentive payments (up to $1.5 billion in aggregate) as well as face penalties for lack of compliance. It is thus imperative that radiologists understand the rules of MU and the incentive/penalty payment structure issued by CMS.

How and why does MU affect radiologists? To better understand how MU legislation impacts radiologists, it is best to examine the basic structure of the program. MU is divided into a program for EPs and a separate program for EHs. Each program has different but overlapping requirements, along with different incentive payments. CMS uses place of service (POS) codes to determine whether a particular physician would fall under the EH or EP part of the program. POS codes refer to where an imaging exam was done (See Eligibility Requirements). When the interim final rule for Stage 1 was released in 2010, POS code 22 (outpatient services rendered in the hospital) was part of the EH program. There was fear that because of this particular POS code, primary care physicians who saw outpatients in the hospital would lose out on incentive payments and the entire program could be jeopardized. To correct this potential problem, POS 22 was shifted from the EH to the EP part.
of the MU program (Continuing Extension Act of 2010, H.R. 4851). Because a large amount of the imaging done in the United States also falls under this POS code (outpatient hospital), most radiologists were inadvertently converted to EPs as well.

**Eligibility Requirements**

For a radiologist to be eligible for both incentives and liable to adjustments (“penalties”), 10% or greater of a radiologist's total CMS yearly billing must be outside of POS code 21 (inpatient hospital) or POS 23 (ER hospital). A radiologist who exclusively reads ER or inpatient studies would not be eligible for the program. However, a radiologist who reads 90% or less of their studies from either ER- or inpatient-derived studies would be eligible. This broad inclusion allows the majority of radiologists to be eligible for the program.

Eligibility is determined per physician and is not based on group size or group expertise. While attestation can be made for an entire group by an authorized employee, each MU metric will be measured on an individual physician basis.

CMS will not be issuing any feedback, nor will they accept or reject applications. The only enforcement of an EP's attestation will come from the risk of a future audit (42 CFR 495.8(c)). In addition, an attestation record for each EP must be maintained for 6 years. It is imperative to fully understand to what one is attesting to avoid penalties during a potential audit.

**Incentives and Penalties**

An EP needs to be compliant with MU for only the first 90 days in the initial reporting period to receive payment for the first year they participate in the program. A reporting period comprises the number of days a radiologist would have to comply with or meet the exclusion criteria of the objectives to successfully achieve MU. Subsequent years will require compliance for all 365 days. An additional caveat is the way CMS calculates an EP’s reimbursement. There is a threshold of $24,000 in CMS billing that must be done annually by an EP to receive the maximum incentive payment. If a particular physician’s CMS billing falls below $24,000, they will receive a percentage of the full incentive payment. This will be calculated separately for each year. For example, the maximum incentive payment in the first year is 75% of a physician’s total CMS billing up to $24,000; hence the maximum incentive an eligible professional can receive in 2012 is $18,000 as depicted in Table 1.

<table>
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<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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Table 1. Medicare Incentive Program for Eligible Providers by Year of Entry (Original graphic courtesy of Keith Dreyer, DO, PhD).

October 2012 was the latest point in time an EP could apply for and still receive the maximum incentive over five payment years. After 2012, the total sum of incentive
payments will be reduced as described in Table 1. Payment will be annual, lump sum, and per physician. Depending on the group structure, incentive payments may go directly to the individual radiologists, be reassigned to the group, or be reassigned to the hospital.

There is the additional danger of running into penalties in 2015 and beyond. These penalties will likely be further detailed in the Stage 3 regulations. There will be a 1–3% reduction of an EP’s total Medicare physician fee schedule payments starting in 2015, implemented in 1% yearly increments (i.e., 1% in 2015, 2% in 2016, 3% in 2017). Although not implemented in the Stage 1 regulations, the legislative language in the American Recovery and Reinvestment Act mandates that the penalties will be increased to 5% if less than 75% of all EPs are successful meaningful users in the future. Radiologists will not be liable for penalties as long as radiology is their main specialty listed with CMS. However, if a radiologist chooses exempt status, no incentives will be paid to that provider. It should be noted that noncompliance by EPs will incur penalties regardless of whether the EP participated in the program. Beyond the $44,000 incentive, this should be a major factor in any MU-relevant cost benefit analyses.

There is also the potential for a $63,750 per physician maximum incentive payment that can be obtained through Medicaid, provided that 30% of volume is through Medicaid, in addition to the Medicare requirements. This should be examined closely if an EP has a high volume of Medicaid patients. While CMS does give EPs an opportunity to switch from Medicare to Medicaid once, it is predominately due to the this high volume threshold that most radiologists will not be eligible for Medicaid incentives.

**Measures**

MU is achieved through utilizing certified software that has been built with core functionality. Possession of software that can capture relevant data points is not enough to qualify for the incentive payment. The end user must also demonstrate that they are using the certified technology to capture and record the data in a manner that can be reported to CMS at the time of attestation. CMS refers to these metrics as “measures” and “objectives.” A schema on how EPs and health IT vendors interact with their respective governing bodies is illustrated in Figure 1.

The MU measures that need to be met are divided into two categories: a mandatory core group that must be met and a menu set of items from which a physician may choose. The core group of items includes those patient data elements and EHR functionalities that are considered essential for all EPs. Based on predefined conditions as stipulated by CMS, some of the core measures may be excluded by radiologists. The menu set of items may eventually evolve into core items in future stages of MU, but for now, applicants are given latitude to select only certain items to attest to.

As of 2013, there are 14 core requirements and 10 menu set items. Many of the core measures are eligible for exclusion. Of the 10 menu set measures, an EP must pick five, with the remaining five being deferred. However, if an EP meets the exclusion criteria for one of the 10, they only have to fulfill four of the remaining nine criteria, and so on. Theoretically, an EP could be excluded from enough menu set measures such that they do not need to implement anything from the menu set of items and still remain eligible for the MU incentive payments. In the best case scenario, most remaining measures will be
straightforward and only a handful would be challenging. Starting in 2014, an EP will not be able to count an excluded menu set item as one of the five menu set items. They must select a different item from the menu set until no other measures can be selected.

CEHRT, either modular or full, is required for each of these measures. Modular certified technologies allow an EP to fulfill one or a series of measures but do not encompass a completely certified EHR. If a specific software program can perform all of the tasks but isn’t certified it will not count. Each certified module needs to meet specific privacy and security rules. Certification cannot be obtained for older technologies, nor is any manufacturer seeking certification for older versions of their technology. Check with the manufacturer of your product to learn their MU strategy.

Please refer to the ACR Meaningful Use Resource Center for up-to-date information regarding MU measures from a radiologist’s perspective. The “ACR Overview of Stage 1 Meaningful Objectives” and the “ACR Pocket Guide to Meaningful Use” are resources that contain measure-specific information regarding the MU program.

**MU Process Overview**

MU for a radiology group is easiest to implement if the group is affiliated with a hospital that has purchased CEHRT. The main hurdle in this case is integrating the radiology group’s eligible providers with the hospital EHR. MU implementation is more challenging for groups that have recently spent a large amount of time and capital in recent non-MU-certified upgrades and for stand-alone imaging centers that would be required to integrate with multiple, disparate hospital systems.

On January 3, 2011, the CMS website started accepting registrations of EPs for Stage 1 of MU. All participants must initially register through the website and then perform the attestation via the same website after the reporting period. Even if a department encompassing multiple EPs has no plans to meet the incentives, completing the process...
is crucial. As criteria are made more stringent, the department or group practice will at minimum have an understanding of the process.

It is also important that a practice has a methodology to measure what they have implemented. Even in Stage 1, attestation requires automated measure calculation by an EHR for percentage-based measures. For example: 1) What percentage of patients who request a CD of their images (or clinical summary) actually receive a CD within three business days, or 2) How will a group record smoking status for patients? Favoring MU-certified products that capture such measures in current purchasing decisions will make the future transition to Stage 3 and beyond much easier.

A 10-step strategic approach to complying with MU has been proposed by Dreyer and Dreyer in their book, *The Radiologist's Guide to Meaningful Use: A Step by Step Approach to the Stage 1 CMS EHR Incentive Program*. The abbreviated list below is an adaptation with permission:

1) **Understand the fundamentals of MU**
   In addition to the above overview of MU, a comprehensive explanation of requirements and criteria can be found on the government website: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/EHRIncentivePrograms/.

2) **Determine eligibility and financial impact**
   Sites such as www.healthmu.org provide online tools that will allow the calculation of who in a practice qualifies as an EP and determine the financial impact of participation. Read more at http://www.healthmu.org/radiology/analyze/index.php.

3) **Determine specific MU measure requirements for your particular practice**
   As all EPs within a practice do not perform the same procedures, MU requirements for individual EPs may differ.

4) **Meet with practice stakeholders**
   It is important to determine how to blend existing IT infrastructure with any new technology that must be purchased to achieve MU.

5) **Meet with Radiology IT vendors**
   Many existing RIS and PACS systems are not currently MU certified, and it will be important to work with existing vendors or consider alternatives to achieve MU with add-on products if necessary.

6) **Plan your MU technological and operational strategies**
   Consider enlisting the help of consultants who specialize in MU.

7) **Acquire and implement CEHRT**
   Once certified technology has been implemented, it will be important to measure the status of EPs using dashboards to assess compliance. A sample dashboard system implemented at a hospital-based practice is shown in Figure 2.

8) **Register online with CMS**
   Once certified technology has been acquired and implemented, it is critical that EPs are registered via the CMS website: http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/EHRIncentivePrograms/20_RegistrationandAttestation.asp.
9) **Monitor MU compliance regularly**
   Use dashboards as noted above to keep track of the status of all EPs in a practice.

10) **Attest online with CMS**
   To collect the incentive payments, the final step will be attesting that all MU criteria have been met.

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**How MU Affects Radiologists**

The ACR has been advocating on behalf of radiologists to the relevant government bodies to address radiologists’ concerns as well as to integrate imaging-based measures into the MU program. Please refer to the ACR Meaningful Use Resource Center for further advocacy information. The ACR has consistently maintained that more attention needs to be paid to radiologists’ concerns, such as how images are handled in an EHR. Electronic order entry for radiology studies linked to decision support engines based on ACR Appropriateness Criteria® as well as EHR tracking of radiation dose data are additional examples of measures the ACR hopes will be included in future stages of the MU program.

One particular source of frustration in Stage 1 is that EPs are required to “possess” certified products even for measures for which they have chosen to exclude. An additional frustration is that there are slight differences between measures required by EPs and measures required by EHs, leading many vendors to offer EP and EH versions of software. This has led to friction between EPs who wanted to be certified and hospitals that were only willing to purchase EH versions of software. These hurdles appear to have significantly decreased with the final Stage 2 rules. However, their impact is unknown until EPs begin attestation for Stage 2 in 2014.

Final Stage 2 regulations were published in September 2012. Product development and testing is currently underway. Eventual implementation of Stage 2 by either EPs or EHs is not expected to start until 2014. There are 17 core measures and six menu set items, of which three must be chosen. Stage 2 measures start off by increasing the required percentages for certain measures and moving some menu set items into the core set (i.e., follow-up visits). For example, in Stage 2 MU 80% of all patients must have their smoking history recorded.
Items specific to radiology include physician order entry of radiology exams and imaging results (i.e., reports available through the EHR). Further information relating to Stage 2 can be found on the CMS website. As the requirements for MU increase, it will become more difficult for a less-than-robust EHR (or a bloated RIS) to keep up.

Conclusion
The one-size-fits-all regulatory approach to MU does not translate easily into specialty care and has been a source of frustration among radiologists. Although the process of acquiring MU-certified technology and attesting to MU may seem difficult, a number of radiology groups have been able to achieve it without significantly altering workflow or hiring new employees. Several groups have reported that the incentive payments were higher than the cost for the upgrades required to achieve them. Private insurance companies and state medical boards are looking for ways to leverage MU and may begin to mirror the government payers in their reimbursement and credentialing structure. MU will also likely play a major role in Accountable Care Organizations going forward.

As the stages of MU become better defined, radiology’s role in the program will also become better defined. An important consideration is not just what a group will get from achieving MU but what can be done by a radiology group once they are integrated into a standardized, nationwide EHR. A future in which radiologists will have access to progress notes, lab data, and pathology for all of their patients may not be that far off. Computerized clinical decision support for radiology exams can lead to more appropriate exam ordering and exam protocols. Online exam scheduling, online bill payment, and searchable databases of the entire patient health care record are just some options that are made easier because a standard set of data elements and a standard set of protocols to query and organize this information will now be possible. As radiology’s role in MU evolves, the ACR will continue to advocate for the optimum integration of medical imaging into EHRs to provide the highest quality care to patients.

Real World Example
Alberto Goldszal, PhD, Chief Information Officer of University Radiology Group and Adjunct Assistant Professor, Robert Wood Johnson Medical School, has helped lead his group of radiologists in achieving Stage 1 MU. “Meaningful Use – A Practical Guide” was developed by his group and can be used as a roadmap on how to achieve Stage 1 MU.

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