Using Telemedicine to Enhance Meaningful Use Qualification

Beth DeStasio
Director, Regulatory Affairs & Strategy, REACH Health

September 2014
Key Takeaways

1. As of September 4, 2014, the Center for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator (ONC) published a Meaningful Use Final Rule in which CMS and the ONC built some flexibility in the timeline for providers, yet the criteria still does not explicitly include systems used for telemedicine.
2. Even though telemedicine systems are not included in the final rule, they can and are being used to enhance the Meaningful Use attestation by healthcare providers.
3. The design and capabilities of the telemedicine system can enable or hinder its ability to support Meaningful Use.

Providers: Eligible professionals, eligible hospitals and Critical Access Hospitals (CAH).

Introduction

Meaningful Use Overview
Meaningful Use (MU) is part of the American Recovery and Reinvestment Act of 2009 (ARRA). Outlined in the Healthcare Information Technology for Economic and Clinical Health Act (HITECH Act), a part of the ARRA, MU is essentially an incentive program to promote the use of Electronic Health Records (EHR) to improve quality, safety and efficiency in healthcare.

In the HITECH Act, MU has three stages, 1-2-3, and three main components:
   1. Use EHR in a meaningful manner which shall include electronic prescribing
   2. Use EHR in electronic exchange of health information to improve quality of healthcare
   3. Use EHR to submit clinical quality measures and other measures selected by the secretary

Each stage has core set objectives, menu set objectives and clinical quality measures for hospitals, critical access hospitals (CAH) and eligible professionals (EP). In Stage 1, the priorities are to:

   1. Improve quality, safety, efficiency and reduce health disparities
   2. Engage patients and families in their health care
   3. Improve care coordination
   4. Improve population and public health
   5. While maintaining privacy and security
In order to receive the incentive payments, hospitals, CAHs and EPs utilize Certified Electronic Health Record Technology (CEHRT) and report on the measures with results that demonstrate they are using the electronic health record (EHR) in a meaningful way. Capturing data, understanding data and acting on data is critical to Meaningful Use.

The timeline flexibility introduced in the final rule of September 4, 2014 was a response by CMS & the ONC to CEHRT vendor delays in developing the technology. As a result of vendor delays, many providers were not able to upgrade or fully implement the CEHRT and then attest in accordance with the original timeline. CMS and ONC stress the delay in 2014 Edition CEHRT availability must be attributable to the issues related to software development, certification, implementation, testing, or release of the product by the EHR vendor or developer that affected 2014 CEHRT availability, which then resulted in the inability of a provider to fully implement 2014 Edition CEHRT.iii The technology delay highlights the burdensome challenge hospitals, CAHs and EPs face in their efforts to achieve meaningful use.

Healthcare is evolving from episodic care to a continuum of care. As noted above, a Stage 1 priority is to improve care coordination and promote the continuum of care. Continuum of care is a concept involving an integrated system of care that guides and tracks patient care over time through a comprehensive array of health services spanning all care settings. The continuum of care is dependent upon establishing interoperability with the technologies used by various providers including the CEHRT. Simply put, interoperability is the ability of information from the various applications to exchange data and use the data exchanged. It’s not enough to look only at what is directly entered in the CEHRT. Hospitals and physician providers use other technologies and need to be able to exchange data with these other technologies as well.

Telemedicine and Meaningful Use

So, where does telemedicine fit with regard to Meaningful Use? It’s clear that in addressing the continuum of care and achieving interoperability, telemedicine has a role in Meaningful Use even though the regulations have to date, excluded telemedicine from direct consideration. So when providers assess telemedicine applications, they should scrutinize the applications with an eye toward broad support for Meaningful Use until the regulations are revised to include specific requirements.

Telemedicine devices, including software, are primarily regulated by the FDA. Many Telemedicine devices have little or no data and no distinct database; many Telemedicine devices basically provide secure audio/video connections. These are often referred to as telepresence solutions. As a result,
secure audio/video, while necessary for a quality patient-doctor face time, presents a gap in interoperability.

Consequently, the use of Telemedicine devices that are basically secure audio/video don’t allow for integration into the CEHRT because there is no data or database to integrate.

Data-rich telemedicine applications are better suited to attest to Meaningful Use requirements. Telemedicine software with data and a database can and should support the continuum of care and through interoperability provide the documentation necessary to document the substantiation of Meaningful Use.

Enhancing Meaningful Use

Since there is no formal authority at the national level, in order to incorporate telemedicine into MU providers need to identify forward thinking telemedicine vendors to gather the data necessary to address the continuum of care and therefore attest to MU. Perhaps the best way to understand how a data-rich telemedicine application can enhance Meaningful Use is to look at a specific example such as telestroke.

One of the most widely adopted and accepted uses of telemedicine, is telestroke. Indeed, telestroke is viewed by many as a backbone for acceptance by providers, payers and patients. In a telestroke scenario, a patient suspected of having a stroke arrives at a hospital. When a patient is having an Acute Ischemic Stroke, time is of the essence. According to the AHA/ASA guidelines, the goal is to treat the patient within an hour of arriving at the ED. If there is no neurologist where the patient is located, the time to transport the patient to a location with a neurologist often means the patient may not arrive within time to receive the clot-busting drug, tPA. Through a telestroke application, the ED provider can connect with a neurologist and treat the patient.

In a telestroke application the clinician with the patient in-person and the clinician consulting with the patient through the application both need to be able to have point-of-service clinical documentation. The documentation should follow a standard SOAP note: Subjective-Objective-Assessment-Plan. The Subjective section covers History of Present Illness, a Review of Symptoms & Systems, Past Medical History, Medications, Allergies, Social and Family History. The Objective includes the physical and neurological exam such as the National Institute of Health Stroke Scale (NIHSS), the Glasgow Coma Scale (GCS), the labs necessary to evaluate a patient for tPA and the CT Image. The Assessment includes the diagnosis. The Plan includes the recommendation regarding the use of tPA, follow-up Labs, X-rays, medications, patient education and disposition.
A telestroke application should have the data and documentation to enable reporting for Meaningful Use. Results show telestroke improves patient care.

The data-rich telestroke system captures and stores the data entered. The database then is available for extract to interface to the CEHRT and where appropriate data can interface from the CEHRT. The telestroke system should also provide documentation on demand for transition in care.

So let’s look at how a data-rich telestroke software application supports the Meaningful Use components.

The first MU component, electronic prescribing, might generate a question regarding the dose calculation for tPA. In a telestroke consult, the ED physician is the physician of record. The consulting neurologist can recommend tPA, provide documentation regarding the dose and support the prescribing process as a double check. The second component for the “electronic exchange of health information...” triggers the conversation regarding double documentation. In preparation for Meaningful Use, hospitals scrubbed and cleaned up their Master Patient Index (MPI) so that any duplicate patient medical records were consolidated. That helps to present all patient information in one location for quality, safety and efficiency. A data-rich telestroke software application can interface via HL-7 to the CEHRT, produce Continuity of Care documentation and establish interoperability. Continuity of Care Document (CCD) addresses the transfer of care scenario and satisfies Meaningful Use in that regard. HL-7 addresses the exchange of health information during the provision of care.

The third component needed to submit clinical quality measures is where a data-rich telestroke software solution can provide direct support for Meaningful Use but a telepresence application that only delivers secure video-conferencing cannot. In Meaningful Use Stage 1, there are 15 clinical quality measures that hospitals and CAHs must report. A data-rich telestroke application can address item #5 at a minimum. With the CCD or HL-7, this information can move into the CEHRT to support consolidated Meaningful Use reporting.

1. Emergency Department Throughput – admitted patients Median time from ED arrival to ED departure for admitted patients
2. Emergency Department Throughput – admitted patients – Admission decision time to ED departure time for admitted patients
3. Ischemic stroke – Discharge on anti-thrombotics
4. Ischemic stroke – Anticoagulation for A-fib/flutter
5. Ischemic stroke – Thrombolytic therapy for patients arriving within 2 hours of symptom onset
6. Ischemic or hemorrhagic stroke – Antithrombotic therapy by day 2
7. Ischemic stroke – Discharge on statins
8. Ischemic or hemorrhagic stroke – Stroke education
9. Ischemic or hemorrhagic stroke – Rehabilitation assessment
10. VTE prophylaxis within 24 hours of arrival
11. Intensive Care Unit VTE prophylaxis
12. Anticoagulation overlap therapy
13. Platelet monitoring on unfractionated heparin
14. VTE discharge instructions
15. Incidence of potentially preventable VTE

Telemedicine System Requirements

Selection of a telemedicine application should be based on a number of factors in order to identify the technology vendor(s) with the most appropriate solutions. All telemedicine applications should provide high quality and secure audio-video functionality. In order to select an application that is far-reaching and forward thinking, consider the factors that render the application flexible to meet the requirements of the ever-changing regulations.

Clinical Workflow and Documentation
In order for a telemedicine application to successfully improve quality, safety and efficiency, the application must support a defined clinical workflow with a SOAP note. It is no secret that there can be great variation in the practice of medicine. When treating a patient, identify the treatment steps that produce the best outcomes and do those consistently for all patients. A telemedicine application with documentation supports a clinical workflow. Simple telepresence doesn’t.

EMR Integration
The data documented in the telemedicine application should integrate data from the EMR at the patient location as well as at a transfer destination, should a transfer be necessary. In doing so, the application’s interoperability supports the continuum of care, improves care coordination, prevents errors in treatment and avoids duplication of tests. A telemedicine application with data can integrate with the EMR at the originating site, transfer site and physician specialist. Simple telepresence cannot.
Quality Improvement
The data documented in the telemedicine application should be available for analysis once care has been delivered. The application, therefore, should include the ability to extract the data in standard reports and/or custom reports for analysis. In addition, the integration to the EMR enables the data to be included in the overall care of the patient for analysis, such as with telestroke. A telemedicine application with data can generate a variety of reports from the application and from the EMR through integration of data. Simple telepresence cannot.

Conclusion
Meaningful Use is a structured program with incentives for healthcare providers, hospitals and physicians to improve quality, safety and efficiency in healthcare. 95% of all hospitals are participating in some aspect of Meaningful Use as are the vast majority of physicians. Telemedicine is proving to be a cost effective way to improve quality, safety and efficiency.

As the healthcare industry adapts to meet the needs of patients within the structure of regulations, technology is emerging to overcome the challenges. In particular, the US Telemedicine industry is expected to have a cumulative annual growth rate of 56% from 2014 – 2018vi. A data-rich telemedicine application offers a complete solution with flexibility to address the clinical needs and regulatory requirements.

In developing a strategic plan to address the evolution in healthcare from episodic care to a continuum of care, a data-rich telemedicine solution can support the continuum of care and Meaningful Use. Even though telemedicine is not included in the Meaningful Use regulations yet, it is a part of the continuum of care and requires attention by hospitals and providers to ensure the coordination of care.
Appendix

The following table is provided to use in assessing a Telemedicine application beginning with Meaningful Use Stage 1 Core Objectives as they relate to the policy priorities. In evaluating a Telemedicine Application, print and indicate in the column entitled “Telemedicine Application” the functionality of the various telemedicine applications you are reviewing.

### Meaningful Use Checklist

<table>
<thead>
<tr>
<th>Health Outcomes Policy Priority</th>
<th>Stage 1 Objective</th>
<th>Stage 1 Measure</th>
<th>Telemedicine Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving quality, safety, efficiency, and reducing health disparities</td>
<td>Use CPOE for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local, and professional guidelines</td>
<td>More than 30% of unique patients with at least one medication in their medication list seen by the EP or admitted to the eligible hospital or CAH have at least one medication entered using CPOE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Record demographics: preferred language, gender, race, ethnicity, date of birth, and date and preliminary cause of death in the event of mortality in the eligible hospital or CAH</td>
<td>More than 50% of all unique patients seen by the EP or admitted to the eligible hospital or CAH have demographics as recorded structured data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintain up-to-date problem list of current and active diagnoses</td>
<td>More than 80% of all unique patients seen by the EP or admitted to the eligible hospital or CAH have at least one entry or an indication that no problems are known for the patient recorded as structured data</td>
<td></td>
</tr>
</tbody>
</table>
# Meaningful Use Checklist

<table>
<thead>
<tr>
<th>Health Outcomes Policy Priority</th>
<th>Stage 1 Objective</th>
<th>Stage 1 Measure</th>
<th>Telemedicine Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving quality, safety, efficiency, and reducing health disparities</td>
<td>Maintain active medication list</td>
<td>More than 80% of all unique patients seen by the EP or admitted to the eligible hospital or CAH have at least one entry (or an indication that the patient is not currently prescribed any medication) recorded as structured data</td>
<td></td>
</tr>
<tr>
<td>Maintain Active medication allergy list</td>
<td>More than 80% of all unique patients seen by the EP or admitted to the eligible hospital or CAH have at least one entry (or an indication that the patient has no known medication allergies) recorded as structured data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record and chart vital signs: height, weight, blood pressure, calculate and display BMI, plot and display growth charts for children 2-20 years, including BMI</td>
<td>For more than 50% of all unique patients age 2 and over seen by the EP or admitted to the eligible hospital or CAH, height, weight, and blood pressure are recorded as structured data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record smoking status for patients 13 years old or older</td>
<td>More than 50% of all unique patients 13 years or older seen by the EP or admitted to the eligible hospital or CAH have smoking status recorded as structured data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implement one clinical decision support rule and the ability to track compliance with the rule</td>
<td>Implement one clinical decision support rule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report clinical quality measures to CMS or the States</td>
<td>For 2011, provide aggregate numerator, denominator, and exclusions through attestation; For 2012, electronically submit clinical quality measures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Meaningful Use Checklist

<table>
<thead>
<tr>
<th>Health Outcomes Policy Priority</th>
<th>Stage 1 Objective</th>
<th>Stage 1 Measure</th>
<th>Telemedicine Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage patients and families in their healthcare</td>
<td>Provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, medication allergies, discharge summary, procedures), upon request</td>
<td>More than 50% of all unique patients of the EP, eligible hospital or CAH who request an electronic copy of their health information are provided it within 3 business days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hospitals Only: Provide patients with an electronic copy of their discharge instructions at time of discharge, upon request</td>
<td>More than 50% of all patients who are discharged from an eligible hospital or CAH who request an electronic copy of their discharge instructions are provided it</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPs Only: Provide clinical summaries for each office visit</td>
<td>Clinical summaries provided to patients for more than 50% of all office visits within 3 business days</td>
<td></td>
</tr>
<tr>
<td>Improve care coordination</td>
<td>Capability to exchange key clinical information (ex: problem list, medication list, medication allergies, diagnostic test results), among providers of care and patient authorized entities electronically</td>
<td>Performed at least one test of the certified EHR technology’s capacity to electronically exchange key clinical information</td>
<td></td>
</tr>
<tr>
<td>Ensure adequate privacy and security protections for personal health information</td>
<td>Protect electronic health information created or maintained by certified EHR technology through the implementation of appropriate technical capabilities</td>
<td>Conduct or review a security risk analysis per 45 CFR 164.308(a)(1) and implement updates as necessary and correct identified security deficiencies as part of the EP’s, eligible hospital’s or CAH’s risk management process</td>
<td></td>
</tr>
</tbody>
</table>

---

i [http://www.gpo.gov/fdsys/pkg/BILLS-111hr1enr/pdf/BILLS-111hr1enr.pdf](http://www.gpo.gov/fdsys/pkg/BILLS-111hr1enr/pdf/BILLS-111hr1enr.pdf)


