

Rural Wisconsin
Health Cooperative

Stage 1 Meaningful Use QI Objective Manual

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I. Introduction

In September 2010, the Wisconsin Office of Rural Health (WORH) and the Rural Wisconsin Health Cooperative (RWHC) partnered to produce a report titled “Final HIT Incentive Rule Stage 1 Quality Metrics Objective Summary and Challenge Identification.”

The report focused on what is considered by many to be one of the most challenging of the 14 core objectives required for hospitals to achieve Stage 1 meaningful use: namely, the collection, calculation, and eventual submission of 15 Clinical Quality Measures in the 3 QI measure sets: ED Throughput, Stroke, and VTE.

The 2010 report (<http://worh.org/files/muQualityMetricsRequirementsReport.pdf>) included a summary of the hospital quality reporting requirements and a detailed description of each of the quality measures, with commentary regarding associated challenges. It also promised a follow-up report identifying strategies for the electronic capture of the required data elements. This is that follow-up report.

The overarching goal of this project is to provide rural hospitals with a guidebook that helps QI managers navigate the process of implementing an effective MU quality program. Our project objectives include:

A. Project Objectives:

- Provide a recap of the key milestones in quality and HIT over the last decade that have led to the current state of events
- Provide an overview of quality data reporting programs (including CMS, The Joint Commission, and MU), with high-level descriptions of their rules and regulations as they apply to rural hospitals

- Discuss the intersection of quality and EHRs (e-Measures/HITSP) and provide an overview of the hospital EHR and quality submission modules that are associated with meeting quality data collection and submission goals
- Review the Stage 1 MU hospital quality measures, with clarifications and new material published since our first report
- Provide strategies for meeting the MU objective, including a data capture tool to help identify where the required MU measure data elements are likely to be found within the EHR system
- Provide strategies for utilizing the MU quality data to actually improve patient safety and clinical outcomes
- Provide an assessment of proposals for Stage 2 and 3 MU quality objectives and goals, with output eventually to be incorporated in comments to CMS once a proposed rule is issued.

B. Stakeholders and Intended Audience:

The primary audience for this report will be hospital QI managers, CNOs, clinical-focused executives, and clinical department managers.

II. The “Quality Chasm” and “Meaningful Use”

If you ask ten people to define and describe healthcare quality, you are likely to hear ten responses, each unique to that person – usually quantified by their unique healthcare history and perspective. Our values and the importance we assign to them are reflected in our perception of a quality healthcare experience. If I believe that my surgeon possesses unique and exceptional technical prowess, I may be more accepting of delays in timeliness of scheduling appointments, or waiting room delays. I may even excuse gaps in effective communication because I am staking my healthcare experience solely in the skill of the surgeon and the outcome of the

surgery. Thus, I could still express my healthcare experience as being great, because I have come to expect that I can't have a skillful surgeon AND timeliness AND effective communication.

Even as we acknowledge this inherent personal subjectivity, we must also accept that the community of healthcare stakeholders is responsible for establishing a common vision and a common set of goals for systemic quality improvement. Stakeholders may not always agree on the details (and from a rural perspective, we will keep emphasizing the reality that not every intervention that has proven successful in a large tertiary center will necessarily have the same effect in a small rural hospital), but we agree on the fundamental principles, which center on keeping our patients safe and providing effective care.

A. IOM's report/"Crossing the Quality Chasm"

Over the last decade, the recognized arbiter of this common vision has been the Institute of Medicine (IOM). The IOM's "To Err is Human" (1999) put the issue of patient safety high on the public policy map by reporting that up to 98,000 Americans die every year from preventable medical errors. Two years later, the seminal "Crossing the Quality Chasm" went on to lay out a comprehensive strategy for addressing this and other quality issues through transformative care delivery redesign.

Among many recommendations, the Quality Chasm identified six aims for improving healthcare quality, including that care should be:

- Safe: avoiding injuries to patients from the care that intended to help them.
- Effective: providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit.
- Patient-centered: providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions.
- Timely: reducing waits and sometimes harmful delays for both those who receive and those who give care.
- Efficient: avoiding waste, including waste of equipment, supplies, ideas, and energy.

- Equitable: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

Additionally, the Quality Chasm identified various policy strategies through which these aims could be realized, including:

- Promote utilization of evidence-based practice
- Focus on chronic disease management
- Emphasize consumer involvement
- Initiate payment restructuring toward reimbursement based on quality
- Encourage utilization of informatics (EHRs, etc.)
- Foster an interdisciplinary approach

Now, ten years after the Quality Chasm was published, each of these policy strategies has a decade-long narrative of associated interventions and challenges. The American Recovery and Reinvestment Act (ARRA) and the Affordable Care Act (ACA) mark an unprecedented acceleration of focus and investment into making the Quality Chasm aims a reality.

B. Advent of EHR

Along with this increased quality focus, we have also seen the increased development and utilization of EHR systems and applications. The history of EHRs goes back to the 1960s, with the development of Medical Information System (MIS) by Lockheed Martin. But it wasn't until the mid to late 90s that commercial vendors began to intensely focus on developing clinical systems that offered complete (or near-complete) paperless hospital record environments with advanced patient safety components.

Meditech's client/server platform was introduced in 1994. Eclipsys (then called IHS), with its CPOE system, was founded in 1995. Epic launched its inpatient clinical product in 1999. Cerner launched Millennium in 2003. GE's Centricity arrived in 2005. Community hospital information system vendors (such as CPSI, Healthland and HMS), which are heavily utilized by small rural hospitals, developed their versions of CPOE and bedside medication verification, among other clinical modules, between 2003 and 2006.

In an attempt to standardize the functionality and performance of existing and emerging vendor products, the Office of the National Coordinator for Information Technology (ONC) launched a temporary certification program in 2010. This program requires vendors to demonstrate that they can meet the meaningful use requirements as identified in the ONC Final Rule on Standards, Implementation Specifications, and Certification. Providers must utilize certified technology in order to be eligible for HIT incentives.

All of the above-mentioned vendors have achieved ONC certification as “complete EHRs.” Most of the vendors had significant development work to do before achieving certification, and all will be stretching their resources to (1) convert existing clients to their certified product versions, (2) develop their clinical system functionality toward meeting future stage requirements, (3) address ICD-10 conversion requirements, and (4) meet their clients’ numerous other system development goals.

Even with a long and growing list of certified “complete EHRs” and “EHR modules,” there remains significant stakeholder and clinician concern that the products won’t be user-friendly, won’t necessarily enhance patient safety, and will take more time to use than their existing processes. Some of the greatest challenge areas are likely to include CPOE application usability, inpatient physician documentation, advanced decision support, patient portals, integration of exchanged information into the EHR system, and quality metric data capture.

There’s much development work to be done for EHRs to meet their full promise as envisioned by the IOM, but the HIT incentive program, in conjunction with the ONC-ATCB certification program, has for the first time forced vendors to coordinate efforts and start rowing in the same direction on behalf of providers and patients.

C. ARRA (HIT Incentives/RECs/Information Exchange)

The American Recovery and Reinvestment Act (ARRA) of 2009 includes several provisions designed to accelerate the adoption and implementation of the electronic health records in hospitals and physician clinics, addressing and engaging each of the IOM’s identified elements of healthcare quality.

Under ARRA (the HIT provisions of which are called HITECH), CMS is authorized to make incentive payments to eligible providers and hospitals to promote the adoption and meaningful use of interoperable certified EHR technology. In order to allow for incremental adoption, CMS has divided the meaningful use requirements into three stages, only Stage 1 of which has been finalized. Examples of Stage 1 objectives include requirements to record patient demographics, vital signs and problem lists, to perform CPOE, to provide patients with electronic health information, and to report on clinical quality measures (Stroke, VTE, ED Throughput). The quality measure requirement is considered to be one of the most challenging of the 24 Stage 1 hospital objectives, and is the focus of this detailed report. For more information on the HIT Incentive Program, please visit <http://www.cms.gov/EHRIncentiveprograms/>.

In addition to the HIT Incentive program, ARRA established the Health Information Technology Extension Program, which created **Regional Extension Centers** (RECs). Now established in nearly every state, RECs are responsible for providing meaningful use and EHR-related technical assistance to particularly disadvantaged providers, such as physicians that practice in small clinics and rural hospitals with less than 50 beds. RECs perform a variety of EHR support services, such as meaningful use education and gap assessments, EHR implementation assistance and related workflow redesign activities, security assessments, and others. To locate your state's regional extension center, please visit www.regionalextensioncenters.com. Or for Wisconsin's REC, visit <http://www.whitec.org/>.

ARRA also established State Health **Information Exchanges** – which support states or state-designated entities in establishing health information exchange capability among providers, hospitals, and patients. The goal of the information exchange program is to improve healthcare delivery across institutional boundaries, so that ultimately a patient's health information can be securely accessed by providers in different locations using different systems, as well as by patients and their designated entities through patient health portals. For more information on the Wisconsin HIE program, please visit <http://wishin.org/index.html>.

ARRA also funds **workforce development** through community college HIT training programs. The goal of these programs is to develop a workforce of skilled professionals trained to support the adoption of electronic health records, exchange health information among providers, and

redesign workflows to gain quality and efficiency while improving health outcomes and maintaining individual privacy and security. For more information on Wisconsin's training programs, please visit http://matc.edu/student/offerings/health_information_technology.html and <http://matcmadison.edu/hit>.

Through this multipronged strategy, CMS and ONC have worked to accelerate the adoption of EHRs. And there is no question that the effort has led to a sea change in provider and vendor strategies and activities. Since the passage of ARRA, HIT adoption has clearly accelerated, as has healthcare providers' focus on quality data capture and submission.

III. Short History of Hospital Quality Reporting Programs

Standardized hospital quality measurement and reporting is a relatively recent trend in the US healthcare industry. It began in the late 1990s at about the same time that the Institute of Medicine published "To Err is Human." Its overarching aims correlate to the IOM's policy strategies of promoting evidence-based medicine and reimbursing providers based on outcomes rather than volume. Due to case mix adjustment challenges relating to outcome measures (i.e. readmission or mortality), the focus of QI reporting has largely been on process measures (i.e. are hospitals following procedures that are likely to improve outcomes?).

A. The Joint Commission

The first coordinated effort to establish standardized hospital quality measures began in the late 1990s, when the Joint Commission (TJC) launched its ORYX quality measurement program. As part of this initiative, TJC invited a wide variety of healthcare stakeholders—providers, hospital associations, consumers, payers, and QI experts—into strategic conversations to identify focused measures that would be included as part of the hospital accreditation process.

In 2001, the Joint Commission announced the four initial core measure areas for hospitals, focusing on the adult inpatient population: (1) acute myocardial infarction (AMI), heart failure (HF), pneumonia (PN), and pregnancy and related conditions (PR). The following year, JTC accredited hospitals were required to collect and report data on at least two of these four measure

sets. In 2004, TJC launched its Quality Check program, through which the submitted data was made publically available.

Since then, TJC has continued to develop additional quality measure sets: SCIP (Surgical Care Improvement Project) measures in 2004, Children’s Asthma Care in 2007-8, Outpatient (AMI, Chest Pain, Surgical) in 2008, VTE and Stroke in 2009, and Perinatal Care (which replaced Pregnancy) in 2010.

All of these measure sets are defined and explained in the “Specifications Manual for Hospital Inpatient Quality Measures” and the “Hospital Outpatient Quality Reporting Specifications Manual.” The manuals are utilized for both TJC and CMS reporting, and can be accessed at: <http://www.qualitynet.org/dcs/ContentServer?cid=1196289981244&pagename=QnetPublic%2FPage%2FQnetTier2&c=Page>

New TJC measures are slated to take effect in January 2012. These will include a number of new outpatient measures (Pain Management, ED Throughput, and Stroke), as well as the so-called “global” inpatient measures (Immunizations, Tobacco Use, and Substance Abuse).

To achieve TJC accreditation, most participating hospitals must now collect and report data on four of the core measure sets. This rule applies to all hospitals except critical access hospitals (CAHs), which make up the majority of US rural hospitals. CAHs are expected to collect data on four of the core measure sets (or if they do not have sufficient volume for the core measures, to select from a list of non-core measures), but they are not required to report the data. This double-standard is a bit of a Catch-22 for CAHs, as we will discuss later in this section.

B. CMS

CMS began its own hospital quality measures reporting program (called Reporting Hospital Quality Data for Annual Payment Update—*RHQDAPU*) in 2003, initially utilizing the Joint Commission measures for AMI, Heart Failure, and Pneumonia. Submission was performed through the CMS QualityNet Clinical Data Warehouse; and hospitals that participated by submitting the required data avoided reimbursement penalties: the era of “pay for reporting” was underway.

In 2005, CMS initiated the Hospital Compare program, expanding public quality reporting beyond Joint Commission accredited hospitals to nearly all hospitals in the country.

Since then, CMS has added SCIP measures (starting in 2006), patient satisfactions measures through its HCAHPS program (in 2007), as well as claims-based measures that assess 30-day hospital mortality and readmission rates, among other measures. In 2010, CMS renamed the RHQDAPU program to the Hospital Inpatient Quality Reporting (IQR) Program.

In early 2011, CMS published the proposed rule for a new Hospital Inpatient Value-Based Purchasing Program. Required under the Patient Protection and Affordability Act, this program will provide incentive payments to acute care hospitals based either on how well the hospitals perform on certain quality measures or on how much the hospitals' performance improves from their performance during a baseline period. The higher a hospital's performance or improvement during the performance period for a fiscal year, the higher the hospital's value-based incentive payment will be. CMS has estimated that roughly one-half of the participating hospitals will receive a net increase of payments and one-half will receive a net decrease in payments.

As with The Joint Commission clinical quality data submission program, CAHs are exempted from participating in these CMS's reporting requirements and incentive programs.

C. Quality Reporting in Critical Access Hospitals

Even though CAHs are not required to submit quality data to the above discussed programs, many participate voluntarily. According to a 2010 Flex Monitoring Team study¹ that examined 2005-2008 participation and quality measure results of CAHs that submitted quality data to Hospital Compare, 70% of CAHs submitted data for at least one inpatient process of care measure.

The study also found that over the previous five years, CAHs had improved their performance on nearly all of Hospital Compare inpatient process of care measures, though PPS hospitals had also improved their performance and continued to have on average higher scores on several measures. However, CAHs on average had significantly higher HCAHPS (patient satisfaction) scores than all US hospitals.

The primary reasons that CMS quality reporting has been voluntary for CAHs include concerns about the rural relevance of some of the quality measures and the difficulty of reliably measuring quality for low volume providers. The Flex study acknowledges these challenges but argues for the importance of pursuing solutions.

According to the study, “The health reform proposals being considered by Congress call for changes that would move the US toward a health system that rewards the provision of high quality care. Health care providers will increasingly be required to demonstrate the quality of the care they are providing to qualify for reimbursement incentives and avoid penalties for poor care. In this environment, CAHs that are unwilling to participate in quality reporting and benchmarking activities will be at a disadvantage.”ⁱⁱ

The meaningful use quality measure objective (Stroke, VTE, and ED Throughput) is the first example of a CMS quality reporting requirement that CAHs must meet in order to take advantage of incentives. For those CAHs without a history of reporting (let alone the decade-long history of required reporting that many PPS hospitals have experienced), it will be one of the greatest challenges of the HIT incentive program. But CAHs that have dedicated resources to developing processes for quality reporting, analysis and provider accountability will be well prepared to assimilate new measures and initiatives. CAHs using Core Measures reporting as a “starter set” have positioned themselves for success in the HIT Incentive and other programs.

IV. Merging of Quality Imperatives and EHR

The use of electronic health record data to accurately report on patient care is changing the landscape of quality measurement. Existing quality reporting programs, including those described in the previous chapter, as well as emerging stakeholders, are beginning to ally and align to develop standards and methodologies to utilize EHR technology to automate the capture, calculation, and interpretation of health information. Good electronic quality measurement programs will require effective measures, defined data elements that exist in electronic form, accurate data, minimal inference or interpretation of narrative documentation, and output reports

that foster meaningful drill-down and facilitate decision support and process improvement. The Stage 1 meaningful use QI measures are certainly a big step in this direction.

A. HITSP, e-Measures, Meaningful Use

The adoption and implementation of the electronic health record in hospitals redefines how data is entered, stored, viewed, reported, and analyzed. Each of these domains must be considered in the design and construction of electronically-generated clinical quality measures. In April of 2010, the Healthcare Information Technology Panel (HITSP) released a manual of technical “notes” for implementing the clinical quality measures required for Stage One Meaningful Use certification. These specifications gave us one of the first models of e-measure structure, with common data elements and standardized taxonomies (i.e. HL7, SNOMED, ICD-9, ICD-10) that result in the calculable numerators and denominator populations that we have discussed in our earlier MU QI Metrics Report. This first look at the HL7 and SNOMED code tables let us know that we are “not in Kansas anymore” and that the days of retrospective, manual data abstraction are numbered.

The National Quality Forum (NQF), the American Medical Association (AMA), The Joint Commission (TJC), and the National Committee for Quality Assurance (NCQA) are some of the organizations that are investing in the process of creating “e-measures”. The components of an e-measure are similar to traditional quality measures. As with traditional QI measures, constructing an e-measure begins with identifying whether a QI goal can be achieved. What is it that you want to measure and why? Is the data available in the EHR in its current state? Will the output be meaningful for the consumer that will be using it? Will the output be appropriate for a clinician who is looking for decision support? Will the data need to be re-formatted before it can be interpreted by hospital stakeholders: medical staff, board of directors, community consumers? The Stroke, VTE, and ED Throughput clinical quality measures were deemed to be good fits for e-measure status, but significant challenges remain.

It should be noted here that it was indicated in the Final Rule that CMS expected to have the capability to receive e-measure data in 2012, but it was recently announced that the target date has changed to 2015. This is no doubt because despite the innovative work of the initial measure

developers, e-measures are still in their relative infancy. Most systems, even certified ones, are not yet optimized to deal with them. As we have indicated previously, capturing, calculating and submitting the data—a major challenge in and of itself—is ultimately not enough. True quality measurement must eventually do more than generate threshold reports. It must provide clinicians with real-time information that can inform decision-making at the point of care.

B. Relevant EHR Modules/Applications

Driven by the requirements in ONC's Final Rule for Standards, Specification, and Certification Criteria for EHRs, most EHR vendors have now thrown their hats into the QI e-measure game. Some EHR vendors have had a history of working on data extraction for core measure reporting, and so were well positioned to tackle the Stage 1 meaningful use QI requirements; others are relative newcomers and have needed to develop their QI functionality from the ground floor. The result of this is that the EHR landscape contains a spectrum of QI functionality: from basic (which technically meets the certification requirements without optimizing workflow) to robust (which captures the QI data as part of workflow and may provide reporting and alert mechanisms to maximize QI rule compliance).

Hospital complete EHRs generally utilize various modules or applications to collect, calculate, and report on the data required to achieve the Stage 1 QI objective. These may include several of the following:

- Registration module: to collect demographic data and possibly other data elements, such as date and time of arrival
- Lab module: to collect lab values, such as INR value for VTE
- Pharmacy module: to collect medication and administration time information, such as for VTE prophylaxis
- Order Entry module: to collect ordering information, such as order to admit times for ED Throughput
- Clinician Documentation modules: to collect various data elements documented by clinicians, such as discharge instruction information
- ED modules: to collect various data elements generated in the ED

- Medical Records or Data Repository module: to collect diagnosis codes and other information
- QI Measure Module: to perform the data calculation and generate threshold reports (this will optimally also have data scrubbing/error correction capabilities, as well as guidance on improving compliance rates)
- QI data submission module: to send XML of QI data output to CMS or State agencies once they are capable of receiving
- Decision support module: to optimize compliance with recommended practices

C. QIs Role in Managing the New Environment

In this new automated QI environment, the role of the QI Director and department shifts from one in which the primary task is to search for and abstract data that is buried in the paper record, to one in which the primary task is to ensure that the automated process is producing valid data that maximizes compliance with recommended practices.

Moving to this new QI paradigm will require a number of skill-sets, some of which have not been previously emphasized in the QI arena. To achieve success with the QI components of Stage 1 and future meaningful use stages, we recommend a focus on the following areas:

- Knowledge of the QI aspects of meaningful use rule-making (as it evolves), related FAQs, and the specifications for any required QI measures. To help with this, we've developed the previously-mentioned Stage 1 QI Measure Report that covers these topics, and we'll continue to develop analogous reports for future stages.
- Understanding how the EHR functions to collect the required QI data, including where the data elements are located within the medical record. As indicated above, this may involve working with multiple EHR modules. To help with this, we've developed an Excel-based tool that will allow QI personnel to track QI data element locations. This tool is discussed in Section VI. A., and is included as Appendix 1 of this manual.
- Understanding current workflow through which the QI data elements are entered (or not), and helping to design new more optimal workflows (including relating to decision support functions) to achieve QI goals. This is one of the greatest challenges we all face,

as specific workflows will be dependent on the EHR vendor in use, as well as clinician input on the best ways to utilize the system.

- Understanding and overseeing how the vendor aggregates the QI data and makes the calculations, and verifying that the output is an accurate representation of the care provided. Ideally vendors will have error-checking mechanisms, but this will not always be the case.
- And as always, keeping the focus on ensuring that all of these new tools and capabilities actually translate into improved patient care and safety.

V. Review of the Clinical Quality Measures Requirements

In the 2010 report, “Final HIT Incentive Rule Stage 1 Quality Metrics Objective Summary and Challenge Identification,” we outlined in detail each of the 15 required clinical quality measures that eligible hospitals must report to fulfill the “core” hospital quality reporting objective, and discussed the challenges we believed many rural community hospitals would face in their efforts to comply with the QI objective. In the months since that initial report there have been several updates to programs and the measures themselves.

In this section we’ll review each of the measures and identify any issues and updates that have occurred since 2010. We’ll also discuss any changes that have taken place in the stakeholder (CMS, The Joint Commission, and ONC) community. Finally we will identify resources that the reader can access to track future changes and updates related to the QI objective.

ED Throughput

ED-1 (NQF #0495) Median Time from ED Arrival to ED Departure for admitted patients

ED-2 (NQF #0496) Median Time from Decision to Admit to ED Departure Time for admitted patients

As posted in our 2010 report, these measures require calculations in aggregate, and by median calculation for all of the cases in the eligible population for the reporting period. The other

clinical quality measures are rate-based so that the numerators, denominators, and exclusions for each measure can be simply tallied and reported for each of the measure populations.

Since our 2010 report, several challenges for both hospitals and vendors have become noteworthy. Hospitals continue to struggle with being able to capture data that identifies that the patient may have been placed in “observation status” prior to being admitted as an inpatient. This is especially challenging for facilities that assign multiple accounts as a patient’s care transitions from ED to Observation to Inpatient status. Hospitals and vendors need to work together to make sure that as the patient’s acuity and the intensity of care evolves over the first hours after the patient arrives in the ED, the input of those changes is accurately captured and included in the calculation of the ED Throughput measures.

Capturing the “Decision to Admit Time” data element has also proved to be challenging. Workflows and locations of the data are as unique as the hospital itself. In our experience seeing multiple vendor applications, we note that while there may be a discrete location for the time value to be entered, workflows that we have seen generally involve a staff person (nurse or unit support staff) manually entering that data into the application’s screen. While this creates a rather straightforward export process for inclusion into the calculation of the measure, the accuracy of that data may depend upon the data entry person’s memory or best guess, especially if that decision to admit time is not entered in close proximity to the actual communication of that decision by the provider.

The addition of the ED Throughput core measure set into CMS’ Inpatient Quality Reporting (IQR) requirements beginning January 2012 may be a period of enlightenment for hospitals and vendors alike. These are the first Stage 1 Meaningful Use measures that will be required for both the IQR and MU programs. PPS hospitals (and CAHs who voluntarily submit these measures) may need to rely on manual clinical data abstraction to complete the IQR data submission requirement, and this could offer the perfect opportunity for hospitals that are collecting the data for both the IQR and the Stage 1 MU quality objective to compare the results of the vendor calculations against those that are reported to CMS through the IQR program. In our earlier report, we highlighted several instances where abstraction guidance as well as data inclusions

and exclusions found in the specifications manual might differ from the methodology for gathering, calculating, and reporting the measures by EHR vendors. The opportunity to calculate the same measures using two different processes will either give QI and IT professionals relief that their ED Throughput timing measure methodologies are similar, or will identify that there are discrepancies that need to be addressed in one or both, including potentially by the vendor.

Stroke Measures

The stroke process measures describe clinical decision-making and care for two adult inpatient populations: ischemic (caused by thrombosis or embolism) stroke or hemorrhagic (rupture of a blood vessel with bleeding into the tissue of the brain) stroke. Some measures apply to both populations, while others focus specifically on the care process for ischemic stroke patients.

STK-2 (NQF #0435) Ischemic Stroke – Discharge on anti-thrombotics

STK-3 (NQF #0436) Ischemic Stroke – Anticoagulation for Atrial Fibrillation/Flutter

STK-4 (NQF #0437) Ischemic Stroke – Thrombolytic Therapy for patients arriving within 2 hours of symptom onset

STK-5 (NQF #0438) Ischemic Stroke - Antithrombotic Therapy by end of hospital day 2

STK-6 (NQF #0439) Ischemic Stroke – Discharge on Statins

STK-8 (NQF #0440) Ischemic or Hemorrhagic Stroke – Stroke Education

STK-10 (NQF #0441) Ischemic or Hemorrhagic Stroke – Rehabilitation Assessment

As with the ED Throughput Measures, the submission of Stroke data to CMS via the IQR program has been ruled on. Although the start date for reporting is not until January of 2013, the inclusion of these measures in the requirement, and the relatively few changes that occurred in these measures since our initial report likely means that the measures have been vetted for not only integrity and reliability, but also for ease of electronic data capture and reporting.

However, some noteworthy challenges still exist:

As we noted in our original report, being able to capture a “reason for not” ordering a specific drug or treatment continues to require a human reading of the record, since that reason could be located in a medication reconciliation form, dictated progress notes, the ED record, etc.

According to the national specifications manual for January 2012, a patient or family refusal of

an anti-thrombotic drug at discharge (STK-2) is allowed as an inclusion for this data element. Our contention remains that even the most sophisticated EHR product cannot yet capture these very complex data elements. Yet the accuracy of this data is critical to helping providers and hospitals depict the care that was given to their patients, as well as providing an opportunity to accurately assess and remedy failures and fallouts. This same comment applies to all Stroke measures, except STK-8 and STK-10.

Additionally, the ability to access information about the patient not generated at the hospital continues to pose challenges. Pre-arrival lab values and medication information (important for STK-6) and being able to ascertain a date and time that the Stroke patient in the ED was last known to be well can be very difficult, especially if the patient arrives unaccompanied. The hospitals must find ways to work collaboratively with patients and their providers outside of the hospital so that the information can be documented within the constraints of ownership and law. For now, many data elements allow the joining of the “unable to determine” response to the “no” response to allow the measure logic to continue. However, as we have seen with other core measures, it may be only a matter of time until an “unable to determine” response will signal a failure of the measure.

Venous Thromboembolism (VTE) Measures

The 6 VTE process measures describe clinical decision-making and care for three adult inpatient populations: patients who have no VTE, patients who have a principal diagnosis of VTE, and patients who have an “other” diagnosis of VTE.

The measures which apply to the “No VTE” subpopulation focus on prophylaxis (or prevention) of a VTE developing during hospitalization, while the measures for the other two subpopulations reflect VTE best practice diagnostic, treatment, and education.

Sub-population 1: No VTE

VTE-1: VTE Prophylaxis (NQF #0371)

VTE-2: Intensive Care Unit (ICU) VTE Prophylaxis (NQF #0372)

Sub-population 2: Principal VTE and Sub-population 3: Other VTE Only

VTE-3: VTE Patients with Anticoagulation Overlap Therapy (NQF #0373)

VTE-4: Venous Thromboembolism (VTE) Patients Receiving Unfractionated Heparin (UFH) with Dosages/Platelet Count Monitoring by Protocol (or Nomogram) (NQF #0374)

VTE-5: Venous Thromboembolism Discharge Instructions (NQF #0375)

Sub-population 3: Other VTE Only

VTE-6: Incidence of Potentially Preventable Venous Thromboembolism (NQF #0376)

Along with the Stroke measure set, the VTE measures will be required for reporting to CMS by PPS hospitals (voluntarily by CAHs) beginning January 2013. The inclusion of these measures in the requirement, and the relatively few changes that occurred in these measures since our initial report likely means that the measures have been vetted for not only integrity and reliability, but also for ease of electronic data capture and reporting.

Worthy of mention here is the continuing challenge by hospitals and vendors to accurately assign patients to the proper sub-population, and thus the applicable measures, and ultimately generate the correct numerator and denominator calculations. We continue to urge hospitals to do calculations of the VTE measure sub-populations and compare those lists to those patients that the vendor lists, with discrepancies being brought to the vendor's attention. We believe that a collegial, collaborative, and informed working relationship between the hospital and vendor will benefit the hospital's quality improvement landscape.

In terms of the measures themselves, the notable challenges are certainly in the interfaces between lab, pharmacy, and the transitions of care that patients in subpopulations 2 and 3 encounter. In the rural setting, the severity and location of the embolism often require transfer of the patient to an acute care hospital or tertiary setting. In that case, a comprehensive transition of care document is also required. Being able to easily locate diagnostic results, medication administration records, and other documentation and get them in a printed or electronic format for the next provider of care is a critical function of the EHR.

Other Resources

In summary, we continue to encourage hospital quality professionals to engage vendors toward building efficient and user-friendly quality modules that capture the complexity of patient care and ensure accessibility of that data to multiple providers and stakeholders. We also recommend that hospitals be diligent and vigilant in their knowledge of the quality measures, running reports, and understanding how the vendor calculates and produces the numerators, denominators, and exclusions for each of the measures.

Additional information and updates regarding these Stage One Meaningful Use clinical quality measures can be found at the following sites:

Quality Net: The Specifications Manual for National Hospital Inpatient Quality Measures can be found at www.qualitynet.org. From the home page, click on the “Hospital-Inpatient” tab, and point to the Specifications Manual hyperlink. Choose the specifications manual version that correlates to the patient discharge date range. You can download specific measure sets or just parts of the manual. If you download the whole manual, it comes to you in a zipped .exe file. The data dictionary contains the data elements for each measure, along with the abstraction guidelines we have referenced here. There are also “Measure Information Forms” that contain measure population inclusions and exclusions, as well as literature references for the measures, and the logic algorithms.

The Joint Commission: You can also access the same manuals from www.jointcommission.org. From the home page, hover your cursor over the “Measurement” tab, then as the window opens, move your cursor down the right “Quick Links” menu to The Specifications Manual for National Hospital Inpatient Quality Measures. You will be re-directed to the Quality Net site, where you can follow the directions under #1 to access the manual.

ONC: The Office of the National Coordinator for Health Information Technology. The website address is: http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov_home/1204. This office is the source of news, updates, and most everything you need to read about the EHR

Incentive Program. From the HealthIT home page, you can browse to get access to FAQ's about the program and the measures, how to become certified, hear messages from national leaders about the scope of the work, etc.

The Center for Medicare and Medicaid Services: <https://www.cms.gov/ehrincentiveprograms/>.

This site provides an overview of the EHR incentive programs, the legislative rules, FAQs, and calendars of events, and more.

VI. Strategies for MU QI Measure Objective Success

Having reviewed the Stage 1 MU QI measures, we will now discuss a number of recommended activities (and an associated tool) to help with the process of implementing a MU QI program.

A. Identify Data Element Locations

As identified in our first MU QI Objective Report, there are scores of clinical data elements that need to be collected in order for certified EHRs to make the Stroke, VTE, and ED Throughput measure set calculations. One of the first steps in overseeing a meaningful use quality measure program is to understand where these data elements are located in the patient record.

To assist with this, we've developed the Hospital CQM MU Assessment tool (see Appendix 1 for pdf version), which is intended to help QI professionals document where and how the data is being captured. The Excel version of this tool is available at <http://worh.org/content/meaningful-use-resources>

The tool has a tab for each measure set. Each tab contains:

1. A list of every data element required to make the measure set calculation
2. Data element definitions and descriptions (provided)
3. Data element locations and workflow information (to be entered by users of the tool)

The pre-populated definition and description columns include:

1. The data element's measure affiliation (for example, "decision (order) to admit time" is affiliated with ED 2 but not ED 1)
2. The data collection question associated with the data element (for example, "what was the earliest documented time of the decision to admit?")
3. The data elements allowable values/format (for example, MM/DD/YYYY or UTD for "decision to admit time").

The unpopulated data element locations and workflow information columns include:

1. The data element's current form (electronic, structured, paper, or combination)
2. If paper, where in the paper chart?
3. If electronic, what is the associated EHR module?
4. If electronic, what is current location: field identification
5. Current workflow description
6. Planned/Future workflow description
7. Data element query-ability by vendor
8. Can the data element be cross-checked (is data mapping available from vendor)?
9. Name of vendor-generated report displaying this data element
10. Does vendor generate alert if this data element is missing or invalid?
11. Implications of unable to determine response
12. How does the EHR vendor support electronic entry of manually abstracted data?
13. If manually abstracted, who and how long does it take?
14. Source of abstraction guidance

This tool can be used independently by QI professionals to keep track of their MU data elements. Alternatively, Wisconsin hospitals seeking assistance populating the tool can contact us to learn more about our MU QI Assessment Service, which is provided through [WHITEC](#), Wisconsin's Regional Extension Center.

Ultimately, numerous hospital stakeholders (including IT, Registration, HIM, Lab and Nursing personnel) will need to participate in the process of identifying how the data is collected and inputted, as well as in answering the question of whether new workflows can be employed to optimize the data collection.

B. Understand the Current Workflow and Vendor Capabilities

For hospitals starting to examine their MU QI measure set data locations, an initial scan will reveal that a number of the data elements are collected in a straightforward manner through the EHR vendor's registration and HIM modules. But as indicated in the previous section, other data elements will pose particular challenges for collection. Examples of these include: (1) Decision to admit time for ED Throughput, (2) Reasons for not ordering a specific drug or treatment for Stroke, and (3) Documentation of information not generated at the hospital, such as when the patient was last known to be well.

Significant effort needs to be given to identify the specific moment(s) in the patient encounter when this type of information should be gathered, and then to determine how the certified EHR can best be utilized to efficiently input that information into the patient record to maximize data accuracy and workflow efficiency. As we have indicated previously, EHR vendors will have differing capabilities in this regard. If already on a vendor platform, hospitals will need to find the best possible solution within their vendor's data collection paradigm. If still in the selection phase, hospitals should be examining the differing capabilities of the vendors in their selection pool, and then using this information as one of the criteria in their EHR selection process.

How well vendors optimize workflow toward meeting the MU reporting requirements is a key vendor differentiator. Again, our experience is that vendors with a past history of working to automate core measure QI data submission are more likely to have the automation built into their MU measures; whereas vendors that are new to QI will have more limited automation. Our hope is that over time all vendors will add automation and error checking capabilities. We encourage readers to ask vendors to provide you with their related development plans and timelines.

C. Communicate with Your Vendor and Your Hospital's Implementation Team

Early involvement in the vendor selection process is a great way for QI staff to become actively engaged in communication with potential vendors and the hospital's implementation team.

Involving people with a good working knowledge of the organization's quality initiatives and related clinical workflow in the initial selection meetings will provide the selection committee with insight into what the products actually do to improve quality and safety. If your role as the quality staff is seen as an isolated data gatherer, you may find that meetings have gone on and the vendor selection process has been done with your office unaware. Actively inviting yourself to the table may be an approach that would benefit the process in the short and long run.

Once the build and implementation is underway, staying in touch with the overall strategy and schedules is critical to identifying potential productivity losses and possible gaps in patient safety. Transitions are difficult, and we know that breaking routine practices put patient care staff at risk for process lapses and failures. QI staff can make use of their QI tools of the trade to identify and mitigate the risks.

Throughout the implementation process, the vendor's implementation personnel should be viewed as short term partners and stakeholders in the hospital's patient safety priority. This being said, vendor fluency in the hospital's workflows and quality measures should never be taken for granted. As the vendor's staff begins to familiarize itself with the hospital workflows toward identifying an agreed-upon post implementation end-state, the hospital's QI perspective must be well represented in the conversations.

Building the workflows for reporting the clinical quality measures will be a critical element of the implementation. The hospital's QI department's thorough understanding of the technical specifications of the measures, the reporting requirements, and the related clinical processes will be valuable knowledge to bring to the table. Effectively communicating that knowledge to the entire implementation team will result in more appropriate and efficient input of the data, as well as accurately reporting out the data in a manner that is understandable and actionable.

For instance, knowing the time a stroke patient was last known to be well is a required data element in determining the eligibility and timing of subsequent care events for that patient. If

stroke patients are the only patients you will ask this question of, you would not be likely to add this question to a standard admission assessment form. Rather, you might want to work with your vendor to have the question only appear for patients who are admitted with stroke symptoms. On the other hand, this might be information that your hospital elects to ask of every patient, regardless of their admitting diagnosis. In that case, it would make sense to build that question into every ED encounter or admission assessment. The vendor should be expected to be flexible in the build so that data entry makes sense in its place, redundancy is minimized, and the data can be captured after it's entered to be used in the analysis of patient quality. Relative to the Stage One Meaningful Use clinical quality measures requirement, the time the stroke patient was last known well must be located in the EHR database so that it is retrieved and accurately used in the calculation and reporting of the stroke measures.

Positioning your hospital for success in the merging of the EHR and the existing quality imperatives will require the acquisition and application of a new knowledge skill set. Negotiating new relationships with stakeholders that are new to the world of patient quality and safety will require political prowess as well as a personal and professional resolve to be involved as a patient safety advocate.

D. Consider Other Function and Content Requirements

Many of the observations and recommendations we have made so far address the location of the MU quality data and the function of the vendor's tools for reporting the quality measures.

Quality and compliance officers should also be examining vendor offerings for templated nurse and physician documentation to make sure that local, state and federal requirements are met for the critical elements of documentation. Further, the vendor's solution should offer opportunities to modify or add to existing fields so that the hospital's unique and specific requirements for documentation can be met. Expertise from medical records, risk management, medical staff and nurse leaders will be required to assess the vendor's product against the hospital's standards, especially in light of accreditation body requirements. Clinical documentation needs to at least provide accurate information for coding and billing. At its best, it will guide informed, timely, and best practice care for the patient.

New requirements for reporting quality data to state, federal, and accrediting body entities are being posted for 2012 and beyond. Some of these are actual data submissions, some are structural (attestation of the function of the electronic medical record), still others are claims-based. Hospital-acquired conditions, sometimes called never-events, are being collected by CMS and others, and publicly reported. This information is being collected from claims data that is submitted for Medicare patients, and sometimes from hospital association clearinghouses. These data are entered by coders who must identify a patient's diagnosis as being "present on admission". A patient who contracts an infection that is not present on admission is coded to have a hospital-acquired condition (HAC).

Critical Access Hospitals in many states have not adopted this coding process, which is currently required of all PPS hospitals. Early CAH adopters of this process have already worked through the knowledge content and implementation procedures in anticipation of the eventual requirement of all hospitals to report HACs. There are many published resources and guides to help hospitals implement "present on admission" coding protocols, but whether your hospital already has a process or not, a study of the impact of the vendor product will be very important. Questions to ask the vendor would include any automated processes for communicating clarifying questions, called "queries", to providers. Hospitals will also want to know the information flow from the code sheet to the claim, making sure that what the coder has entered is accurately reflected. Last, an emerging best practice is the assignment of a "working" or "preliminary" code for the patient's presenting condition. Hospitals will need to understand the vendor's solution for this assignment and develop workflows accordingly.

Infection control is an emerging key stakeholder in quality data reporting. PPS hospitals are required to report infection incidence and prevalence using the National Healthcare Safety Network (NHSN). Many CAH hospitals have also adopted this software, and have staff trained to assess and report defined infection data there. We anticipate that all hospitals in the future will be required to report infection data to state and federal entities. The hospital's IC officer (in some cases, this is another "hat" for the quality professional) is best positioned to lead the project of adopting the software and discovering any interface opportunities that the vendor might have with NHSN.

New requirements for reporting in the years ahead, whether through CMS, the states, or The Joint Commission, will require vendors and hospitals to engage in evolving their products, workflows, and personnel in new ways. The quality professional, while not always leading each stage of that evolution, can certainly inform those changes by keeping an eye to the regulatory and accrediting bodies, as well as any rural health office, quality improvement organization (QIO) or state hospital association publication or educational offerings.

VII. Looking Beyond Stage 1

If it's not meaningful or useful, the implementation of an electronic medical record in any hospital, regardless of size, location, or payment structure can be an expensive waste of resources. The intent and potential of the electronic medical record will only be realized if patients receive efficient, effective, and safe healthcare. Meeting the most basic core objectives (like recording patient demographics and vital signs or active medications or medication allergy lists) serves as only a starting point. Providers must ultimately use this information to guide decision-making and best practice care delivery.

A. Using the Output Data to Improve Care

The output of the clinical quality measures can serve to guide these decision-making functions and best practices. The ED Throughput measures (timing from ED arrival to ED departure and timing from decision to admit to ED departure) may point to systems and process issues that contribute to delays in patient care, information that is helpful at the 30,000 foot level. However, the content of the VTE and Stroke measures offer ample opportunity to make clinical data available to guide care, especially if that data is available for timely clinical decision-making.

Until recently, quality professionals have retrospectively collected and reported data on patient populations for VTE and Stroke, as well as many other quality measures. Retrospective data collection offers the opportunity to “tell the story” of the patient’s episode of care, but gives little benefit to the patient during the hospital stay. We have been satisfied in past years to report trends in patient care, and compare our hospital’s performance to benchmarks of peer hospitals’

performance. That methodology often facilitated better care through data analysis and the application of various performance improvement tools that we have learned over the years. But it did not necessarily benefit patients who did not receive the standard of care at the time they needed it most – at the point of care.

More hospitals are finding the challenges and benefits of moving toward a more “concurrent” system of data reporting, which requires data portability and availability. One of the hallmarks of a robust and nimble electronic health record system is the ability of that system to provide information just in time – that is, relevant information that guides process and practice.

For instance, a patient who is in the hospital for several days with a diagnosis unrelated to VTE could be eligible for VTE prophylaxis, since acquiring a blood clot during hospitalization prolongs the patient’s stay and endangers the patient. The type of prophylaxis that the patient is eligible for, as well as the order and delivery of that prophylaxis – whether mechanical or pharmaceutical – should be driven by a “just in time” system that supports clinical staff being able to access risk assessments, order sets, and care pathways. For a patient who presents with a VTE, the availability of lab values like a platelet count or INR would be key information to dosing the next anticoagulant administration. Clinicians should be able to employ dosing pathways automatically without the need for phone calls, messaging, telephone orders, etc. The use of CPOE and electronic prescribing, while a major challenge for many hospitals and providers, can help improve decisions by applying clinical logic and applying alerts to prevent medication errors.

For Stroke patients, being able to capture information collected from the emergency responders in the field, and simply being able to provide the last date and time the patient was known to be well can guide providers in planning for diagnostic and medical treatment while the patient is still en route to the hospital. If the patient is given the timely and appropriate care they need in the first few hours after arrival, not only is the patient’s outcome likely to be better, but key data elements will be able to be entered into the electronic health record to drive care well beyond that initial time frame.

Getting patients involved by providing them with information they need to continue care beyond their hospitalization, as well as working towards sharing data with ambulatory providers, can provide continuity of care that supports best practices for care improvement as well.

Using the output data to improve care is really at the crux of the program. The point is not to simply install the technology and run the threshold reports, and then wait for patient care to improve. The QI, clinical and support staff must keep the focus on using the data to drive best practice, and ultimately afford the patient the best possible outcome.

B. Stage-2 QI Measure Framework

The Health Information Technology Policy Committee's (HITPC) Quality Measures Workgroup published a letter on August 5th, 2011 to the National Coordinator for Health Information Technology that included a proposed framework for future clinical quality measures for eligible hospitals.

In addition to the list of measures to be considered for inclusion for MU Stages 2 and 3, is a description of the concepts that are the main drivers of the list. Some of the measures are more defined; others are still in the development phase. All reflect a focus on patient safety, care coordination, and patient/family engagement. The shift is from a "snapshot" of quality, measuring whether best practice or recommended care was or was not delivered to the eligible patients within a particular measure set, to using both process and outcome measures to illustrate patient care and outcomes more linearly and over time.

Performance data over time is now being utilized in initiatives such as CMS' value-based purchasing program, and it's possible that the clinical quality measure data captured in Stage One will be included in Stage Two with actual improvement or achievement thresholds linked to the incentive payment.

HITPC emphasizes that any efforts we aim toward measuring and reporting quality must make the patient's stay in the hospital safer. Whether those efforts involve adding or improving systems of information sharing or removing barriers and delays in the delivery of care, patient safety ranks as the most important aim.

One key topic HITPC discusses is Accountable Care Organizations and the concept of care coordination. Independent organizations and hospital systems using the care coordination model are increasingly incorporating financial and utilization metrics, as well as patient care and outcome measures, into their care model. The standardization of the structured data for internal and external communication required for robust care coordination is perhaps the most daunting challenge providers will face.

The HITPC also discusses patient/family engagement as part of the framework for Stages 2 and 3. We would assume that patient perception of care (a la H-CAHPS) would be included. Hospitals subject to the Value-Based Purchasing program already have H-CAHPS scoring as part of their performance threshold equation. H-CAHPS surveying, tabulating, and reporting currently exists apart from the electronic medical record, save the generation of the list of eligible patients and their addresses. Presumably, incorporating the survey and patient responses to the survey into the electronic medical record would be a future goal.

Attached to the letter is a “library” of proposed clinical quality measures that would be considered for future inclusion in Stages 2 and 3. Some are familiar and co-opted from current core measure sets, others would be claims or code-based, and some are focused on physician/provider accountability. The letter, as well as the library of possible measures is attached as Appendix 2 to this manual for you to review. This information is the most recent available, and is a great way to become familiar with the thinking and the intention of the workgroup that is tasked with providing recommendations for clinical quality measures for Stages 2 and 3.

We anticipate that we will be working with the Wisconsin Office of Rural Health to produce a “Stage 2 Quality Metrics Objective Summary and Challenge Identification” report as our next scope of work. For those receiving this report in PDF form, know that it is also available on the WORH HIT blog (<http://www.worh.org/hit/qi-objective-manual/>), where comments and questions can be posted.

ⁱ Critical Access Hospital Year 5 Hospital Compare Participation and Quality Measure Results (Flex Monitoring Team Briefing Paper No. 26) <http://flexmonitoring.org/documents/BriefingPaper26-HospitalCompare5.pdf>

ⁱⁱ Ibid

Appendix 1

Hospital MU CQM Assessment Tools

WHITEC Meaningful Use Clinical Quality Measures Input Page

This meaningful use (MU) assessment tool is intended to provide the hospital with a detailed description of the data elements used to calculate numerators and denominators for each of the MU clinical quality measures. It further captures current documentation and abstraction workflows and identifies opportunities for hospitals and vendors to reconcile and assure that the calculations submitted for Stage One accurately reflect the care given to patients at this hospital

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., specific order set, worksheet, protocol, risk assessment)
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
Arrival Time	ED-1/495, ED-2/497	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
ED Departure Date	ED-1/495, ED-2/497	What is the date the patient departed from the emergency department	MM-DD-YYYY or UTD		
ED Departure Time	ED-1/495, ED-2/497	What is the time the patient departed from the emergency department	HH:MM or UTD		
ED Patient	ED-1/495, ED-2/497	Was the patient an ED patient at the facility?	Yes or No/UTD		
Decision (Order) to Admit Date	ED-2/497	What was the earliest documented month, day, and year of the decision to admit?	MM-DD-YYYY or UTD		
Decision (Order) to Admit Time	ED-2/497	What was the earliest documented time of the decision to admit?	HH:MM or UTD		
Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
Arrival Time	ED-1/495, ED-2/497	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
ED Departure Date	ED-1/495, ED-2/497	What is the date the patient departed from the emergency department	MM-DD-YYYY or UTD		
ED Departure Time	ED-1/495, ED-2/497	What is the time the patient departed from the emergency department	HH:MM or UTD		
ED Patient	ED-1/495, ED-2/497	Was the patient an ED patient at the facility?	Yes or No/UTD		
Decision (Order) to Admit Date	ED-2/497	What was the earliest documented month, day, and year of the decision to admit?	MM-DD-YYYY or UTD		
Decision (Order) to Admit Time	ED-2/497	What was the earliest documented time of the decision to admit?	HH:MM or UTD		
Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
Arrival Time	ED-1/495, ED-2/497	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
ED Departure Date	ED-1/495, ED-2/497	What is the date the patient departed from the emergency department	MM-DD-YYYY or UTD		
ED Departure Time	ED-1/495, ED-2/497	What is the time the patient departed from the emergency department	HH:MM or UTD		
ED Patient	ED-1/495, ED-2/497	Was the patient an ED patient at the facility?	Yes or No/UTD		
Decision (Order) to Admit Date	ED-2/497	What was the earliest documented month, day, and year of the decision to admit?	MM-DD-YYYY or UTD		
Decision (Order) to Admit Time	ED-2/497	What was the earliest documented time of the decision to admit?	HH:MM or UTD		
Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
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Decision (Order) to Admit Date	ED-2/497	What was the earliest documented month, day, and year of the decision to admit?	MM-DD-YYYY or UTD		
Decision (Order) to Admit Time	ED-2/497	What was the earliest documented time of the decision to admit?	HH:MM or UTD		
Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if This DE is Missing or Invalid?
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
Arrival Time	ED-1/495, ED-2/497	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
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ED Departure Time	ED-1/495, ED-2/497	What is the time the patient departed from the emergency department	HH:MM or UTD		
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Decision (Order) to Admit Time	ED-2/497	What was the earliest documented time of the decision to admit?	HH:MM or UTD		
Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?	Implication of UTD Response or Missing Data on MU Calculation
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
Arrival Time	ED-1/495, ED-2/497	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
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Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU ED Throughput Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Principal Diagnosis Code	ED-1/495, ED-2/497	What was the ICD-9-CM Principal Diagnosis Code selected as the principal diagnosis code for this record?	Alphanumeric 6 character (with or without decimal)		
Arrival Date	ED-1/495	What is the earliest documented date the patient arrived at the hospital?	MM-DD-YYYY or UTD		
Arrival Time	ED-1/495, ED-2/497	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
ED Departure Date	ED-1/495, ED-2/497	What is the date the patient departed from the emergency department	MM-DD-YYYY or UTD		
ED Departure Time	ED-1/495, ED-2/497	What is the time the patient departed from the emergency department	HH:MM or UTD		
ED Patient	ED-1/495, ED-2/497	Was the patient an ED patient at the facility?	Yes or No/UTD		
Decision (Order) to Admit Date	ED-2/497	What was the earliest documented month, day, and year of the decision to admit?	MM-DD-YYYY or UTD		
Decision (Order) to Admit Time	ED-2/497	What was the earliest documented time of the decision to admit?	HH:MM or UTD		
Observation Services	ED-1/495, ED-2/497	Was there documentation that the patient was placed in observation services during the encounter or hospitalization?	Yes or No/UTD		

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This meaningful use (MU) assessment tool is intended to provide the hospital with a detailed description of the data elements used to calculate numerators and denominators for each of the MU clinical quality measures. It further captures current documentation and abstraction workflows and identifies opportunities for hospitals and vendors to reconcile and assure that the calculations submitted for Stage One accurately reflect the care given to patients at this hospital

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available From Vendor?
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available From Vendor?
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available From Vendor?
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available From Vendor?
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available From Vendor?
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available From Vendor?
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Denerate Alert if this DE is Missing or Invalid?
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Denerate Alert if this DE is Missing or Invalid?
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Denerate Alert if this DE is Missing or Invalid?
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Denerate Alert if this DE is Missing or Invalid?
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Denerate Alert if this DE is Missing or Invalid?
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU Calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU Calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU Calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU Calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU Calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU Calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Admission Date	All Sets	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anticoagulation Therapy Prescribed at Discharge	STK-3/436	Was anticoagulation therapy prescribed at discharge?	Yes or No/UTD		
Antithrombotic Therapy Prescribed by End of Hospital Day 2	STK-5/438	Was antithrombotic therapy administered by end of hospital day 2?	Yes or No/UTD		
Antithrombotic Therapy Prescribed at Discharge	STK-2/435	Was antithrombotic therapy prescribed at hospital discharge?	Yes or No/UTD		
Arrival Date	STK-4/437, STK-5/438	What is the earliest documented date the patient arrived at the hospital?	MM/DD/YYYY or UTD		
Arrival Time	STK-5/438	What is the earliest documented time the patient arrived at the hospital?	HH:MM or UTD		
Assessed for Rehabilitation Services	STK-10/441	Was the patient assessed for and/or did the patient receive rehabilitation services during this hospitalization?	Yes or No/UTD		
Atrial Fibrillation/Flutter	STK-3/436	Was history of atrial fibrillation/flutter or current finding of atrial fibrillation/flutter documented in the medical record?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Clinical Trial	All STK Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	STK-2/435, STK-3/436, STK-5/438, STK-6/439, STK-8/440, STK-10/441	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Date Last Known Well	STK-4/437	What was the date at which the patient was last known to be well or at his or her baseline state of health?	MM-DD-YYYY or UTD		
Discharge Disposition	STK-2/435, STK-3/436, STK-6/439, STK-8/440, STK-10/441	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
ED Patient	STK-4/437	Was the patient an ED patient at the facility?	Yes or No/UTD		
Education Addresses Activation of EMS	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address activation of the emergency medical system (EMS) if signs or symptoms of stroke occur?	Yes or No/UTD		
Education Addresses Follow-up After Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address follow-up with a physician/APN/PA after discharge?	Yes or No/UTD		
Education Addresses Medications Prescribed at Discharge	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address all discharge medications?	Yes or No/UTD		
Education Addresses Risk Factors for Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address risk factors for stroke?	Yes or No/UTD		
Education Addresses Warning Signs and Symptoms of Stroke	STK-8/440	Did the WRITTEN instructions or other documentation of educational material given to the patient/caregiver address warning signs and symptoms of stroke?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Elective Carotid Intervention	All STK measures	Was this admission for the sole purpose of performance of an elective carotid intervention?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All STK records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All STK records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All STK records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All STK records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All STK records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All STK records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		
IV or IA Thrombolytic (t-PA) Therapy Administered at this hospital or within 24 hours prior to arrival	STK-5/438	Did the patient receive IV or IA thrombolytic (t-PA) therapy at this hospital or within 24 hours prior to arrival?	Yes or No/UTD		
IV Thrombolytic Initiation	STK-4/437	Is there documentation that IV thrombolytic therapy was initiated at this hospital?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
IV Thrombolytic Initiation Date	STK-4/437	What is the date that IV thrombolytic therapy was initiated for this patient at this hospital?	MM-DD-YYYY or UTD		
IV Thrombolytic Initiation Time	STK-4/437	What was the time of initiation for IV thrombolytic therapy?	HH:MM or UTD		
Last Known Well	STK-4/437	Is there documentation that the date and time of last known well was witnessed or reported?	Yes or No/UTD		
LDL-c Greater Than or Equal to 100 mg/dL	STK-6/439	Was the patient's highest LDL-cholesterol (LDL-c) level greater than or equal to 100 mg/dL in the first 48 hours or within 30 days prior to hospital arrival?	Yes or No/UTD		
LDL-c Measured Within the First 48 Hours or 30 Days Prior to Hospital Arrival	STK-6/439	Was the LDL-cholesterol (LDL-c) measured within the first 48 hours or 30 days prior to hospital arrival?	Yes or No/UTD		
Pre-Arrival Lipid Lowering Agent	STK-6/439	Is there documentation that the patient was on a lipid-lowering medication prior to hospital arrival?	Yes or No/UTD		
Reason for Not Administering Antithrombotic Therapy by End of Hospital Day 2	STK-5/438	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not administering antithrombotic therapy by end of hospital day 2?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU Stroke Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Reason for Not Initiating IV Thrombolytic	STK-4/437	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not initiating IV thrombolytic?	Yes or No/UTD		
Reason for Not Prescribing Anticoagulation Therapy at Discharge	STK-3/436	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing anticoagulation therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Antithrombotic Therapy at Discharge	STK-2/435	Is there documentation by a physician/APN/PA or pharmacist in the medical record for not prescribing antithrombotic therapy at hospital discharge?	Yes or No/UTD		
Reason for Not Prescribing Statin Medication at Discharge	STK-6/439	Is there documentation of a reason for not prescribing a statin medication at discharge?	Yes or No/UTD		
Statin Medication Prescribed at Discharge	STK-6/439	Was a statin medication prescribed at discharge?	Yes or No/UTD		
Time Last Known Well	STK-4/437	At what time was the patient last known to be well or at his or her prior baseline state of health?	HH:MM or UTD		

Appendix 2

HIT Policy Committee's Stage 2 QI Measure Framework

WHITEC Meaningful Use Clinical Quality Measures Input Page

This meaningful use (MU) assessment tool is intended to provide the hospital with a detailed description of the data elements used to calculate numerators and denominators for each of the MU clinical quality measures. It further captures current documentation and abstraction workflows and identifies opportunities for hospitals and vendors to reconcile and assure that the calculations submitted for Stage One accurately reflect the care given to patients at this hospital

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All VTE records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All VTE records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All VTE records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Form: Electronic, Structured, Paper or Combination	If Paper, Where in the Paper Chart? (i.e., Specific Order Set, Worksheet, Protocol, Risk Assessment)
VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All VTE records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All VTE records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All VTE records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	If Electronic: Associated Application Module	If Electronic: Current Location: Field Identification
VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All VTE records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All VTE records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All VTE records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Current Data Entry Workflow Description	Future Workflow Description
VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All VTE records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All VTE records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All VTE records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Queriability by Vendor	Can DE be Cross-Checked - Is Data Mapping Available from Vendor?
VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All VTE records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All VTE records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All VTE records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Name of Vendor-Generated Report Displaying this Data/Element	Does Vendor Generate Alert if this DE is Missing or Invalid?
VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

WHITEC Meaningful Use Clinical Quality Measures Input Page

<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
ICD-9-CM Other Diagnosis Codes	All VTE records	What were the ICD-9-CM other diagnosis codes selected for this medical record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
ICD-9-CM Principal Procedure Code	All VTE records	What was the ICD-9-CM code selected as the principal procedure for this record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Principal Procedure Date	All VTE records	What was the date the principal procedure was performed?	MM-DD-YYYY or UTD		

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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Implication of UTD Response or Missing Data on MU calculation	How Does the Vendor Support Electronic Entry of Manually Abstracted Data Elements?
Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

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VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		

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Admission Date	All Measures	What is the date the patient was admitted to acute inpatient care?	MM-YY-YYYY (UTD is not allowed)		
Anesthesia Start Date	VTE-2/372	On what date did the anesthesia procedure start?	MM-DD-YYYY or UTD		
Clinical Trial	All VTE Measures	During the hospital stay was the patient enrolled in a clinical trial in which patients with the same conditional s the measure set were being studied?	Yes or No/UTD		
Comfort Measures Only	VTE-1/371, VTE-2/372, VTE-3/373, VTE-4/374, VTE-6/376	When was the earliest physician/APN/PA documentation of comfort measures only?	1 Day 0 or 1 2 Day 2 or after 3 Timing Unclear 4 Not Documented or Unable to Determine		
Discharge Disposition	VTE-5/375	What was the patient's discharge disposition on the day of discharge?	1 Home 2 Hospice-Home 3 Hospice-Health Care Facility 4 Acute Care Facility 5 Other Health Care Facility 6 Expired 7 Left Against Medical Advice/AMA 8 Not Documented or Unable to Determine		

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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Discharge Instructions Address Compliance Issues	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address compliance issues related to warfarin therapy prescribed at discharge?	Yes or No/UTD		
Discharge Instructions Address Dietary Advice	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address dietary advice related to warfarin therapy after discharge?	Yes or No/UTD		
Discharge Instructions Address Follow-up Monitoring	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address follow-up monitoring related to warfarin therapy after discharge?	Yes or No/UTD		

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Discharge Instructions Address Potential for Adverse Drug Reactions and Interactions	VTE-5/375	Did the WRITTEN discharge instructions or other documentation of educational material given to the patient/caregiver address potential for adverse drug interactions related to warfarin therapy after discharge?	Yes or No/UTD		
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ICD-9-CM Other Procedure Codes	All VTE records	What were the ICD-9-CM other procedure codes selected for this medical record?	Any valid ICD-9-CM procedure code		
ICD-9-CM Other Procedure Dates	All VTE records	What were the date(s) the other procedures were performed?	MM-DD-YYYY or UTD		
ICD-9-CM Principal Diagnosis Code	All VTE records	What was the ICD-9-CM code selected as the principal diagnosis for this record?	Any valid ICD-9-CM diagnosis code		
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Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
ICU Admission Date	VTE-1/371, VTE-2/372	What is the date of the ICU admission or transfer?	MM-DD-YYYY or UTD		
ICU Admission or Transfer	VTE-1/371, VTE-2/372	Was the patient admitted or transferred to the intensive care unit (ICU) during this hospitalization?	Yes or No/UTD		
ICU Discharge Date	VTE-1/371, VTE-2/372	What date was the patient physically discharged from the ICU, left AMA, or expired?	MM-DD-YYYY or UTD		
ICU VTE Prophylaxis	VTE-2/372	What type of VTE prophylaxis was initially administered in the ICU?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
ICU VTE Prophylaxis Date	VTE-2/372	What date was the initial VTE prophylaxis administered in the ICU?	MM-DD-YYYY or UTD		
INR Value	VTE-3/373	Was there documentation of an INR value greater than or equal to 2 prior to discontinuation of the parenteral anticoagulation?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
Monitoring Documentation	VTE-4/374	Was there documentation that the IV UFH AND platelet counts were managed by defined parameters using a nomogram or protocol?	Yes or No/UTD		
Overlap Therapy Start Date	VTE-3/373	What was the first date that parenteral anticoagulation therapy AND warfarin were both administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Administration	VTE-3/373	Was a parenteral anticoagulant medication administered?	Yes or No/UTD		
Parenteral Anticoagulant End Date	VTE-3/373	What was the last date that a parenteral anticoagulant medication was administered?	MM-DD-YYYY or UTD		
Parenteral Anticoagulant Prescribed at Discharge	VTE-3/373	Was a parenteral anticoagulant medication prescribed at discharge?	Yes or No/UTD		
Reason for Discontinuation of Overlap Therapy	VTE-3/373	Is there a reason documented by a physician/APN/PA or pharmacist for discontinuation of the overlap therapy?	Yes or No/UTD		
Reason for No VTE Prophylaxis-Hospital Admission	VTE-1/371	Is there documentation why prophylaxis was not administered at hospital admission?	Yes or No/UTD		

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Reason for No VTE Prophylaxis-ICU Admission	VTE-2/372	Is there documentation why prophylaxis was not administered at ICU admission or transfer?	Yes or No/UTD		
Surgery End Date	VTE-1/371	On what date did the surgical procedure end after hospital admission?	MM-DD-YYYY or UTD		
Surgery End Date-ICU Admission	VTE-2/372	On what date did the surgical procedure end after ICU admission or transfer?	MM-DD-YYYY or UTD		
Surgical Procedure	VTE-1/371	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after hospital admission?	Yes or No/UTD		
Surgical Procedure-ICU Admission	VTE-2/372	Was a surgical procedure performed using general or neuraxial anesthesia the day of or the day after ICU admission or transfer?	Yes or No/UTD		
UFH Therapy Administration	VTE-4/374	Was IV UFH administered?	Yes or No/UTD		
VTE Confirmed	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that the patient had a diagnosis of VTE confirmed in one of the defined locations?	Yes or No/UTD		
VTE Diagnostic Test	VTE-3/373, VTE-4/374, VTE-5/375, VTE-6/376	Is there documentation that a diagnostic test for VTE was performed?	Yes or No/UTD		

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<i>Hospital Name</i>	<i>MU VTE Data Element Definitions and Description</i>			<i>Data Element Detail Information</i>	
Data Element Name	Measure and Measure Set Affiliation	Data Collection Question (if applicable)	Allowable Values and Format	Manual Abstraction: Who and How Long Does it Take?	Source of Abstraction Guidance (if needed)
VTE Present at Admission	VTE-6/376	Was there any documentation by the physician/APN/PA that VTE was diagnosed or suspected on admission?	Yes or No/UTD		
VTE Prophylaxis	VTE-1/371	What type of VTE prophylaxis was documented in the medical record?	1 Low Dose Unfractionated Heparin (LDUH) 2 Low molecular weight heparin (LMWH) 3 Intermittent pneumatic compression devices (IPC) 4 Compression Stockings (GCS) 5 Factor Xa Inhibitor 6 Warfarin 7 Venous Foot Pumps (VFP) A None of the Above or UTD		
VTE Prophylaxis Date	VTE-1/371	What date was the initial VTE prophylaxis administered after hospital admission?	MM-DD-YYYY or UTD		
VTE Prophylaxis Status	VTE-6/376	Was VTE prophylaxis administered between the admission day and the day before the VTE diagnostic test order date?	1 Yes 2 No/UTD 3 There is documentation of a reason for no VTE Prophylaxis		
Warfarin Administration	VTE-3/373	Was warfarin administered during hospitalization?	Yes or No/UTD		
Warfarin Prescribed at Discharge	VTE-5/375	Was Warfarin prescribed at discharge?	Yes or No/UTD		



Health IT Policy Committee

A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT

August 5, 2011

Farzad Mostashari, MD, ScM
National Coordinator for Health Information Technology
U.S. Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, D.C. 20201

Dear Dr. Mostashari:

The Health Information Technology Policy Committee's (HITPC)/ Quality Measures Workgroup (Workgroup) developed several recommendations regarding the stage 2 clinical quality measure framework of Centers for Medicare and Medicaid Services' (CMS) EHR Incentive Program for the meaningful use (MU) of electronic health records (EHR). Clinical quality measures are critical in the evaluation of our delivery system and can assist providers and systems in the improvement of care. The growing adoption of EHR systems and emerging capabilities for health information exchange will allow our health system to measure clinical performance in critical areas previously considered infeasible.

In a series of public meetings, calls, and hearings, the Workgroup heard strong endorsement for measures that are patient-centered, harmonized across Federal programs (e.g., using the same measures for PQRS, ACOs and MU), parsimonious in nature and balanced between process and outcomes. We heard from multiple provider groups asking for a set of "measures that matter," relevant to high impact diseases, and not burdensome to report. The Workgroup followed a transparent and collaborative process engaging multiple stakeholders from diverse organizations including providers, health systems, measure developers, software vendors, patient/consumer groups, and policy experts. Multiple Federal agencies had ex-officio representation on the Workgroups as well. As a result, our recommendations include both well-established measures and new measure concepts in the new domain areas. Some of these new concepts also require methodological innovation including 'delta measures', computational measures (e.g., LDL assessment using Framingham risk score) and patient reported outcome measures.

Following the endorsement of the quality measures framework approach on June 8, 2011, and approval of the recommendations at the August 3, 2011, HITPC meeting, this letter provides recommendations to the Department of Health and Human Services (HHS) on: 1) a reporting framework that builds upon the Stage 1 core plus menu option for eligible providers; 2) a list of menu domains and measures to be developed, and 3) a list of methodological challenges/issues related to implementation of novel measures in the future.

We encourage CMS to implement this reporting framework for Stage 2 and Stage 3 of the EHR incentive program, and to populate the framework with appropriate measures as they become available. The Appendix to this letter provides ONC and CMS with a "library" of candidate

measures that can be used to populate the recommended framework. These recommendations include a number of “measure concepts” which are under development at this time. We are hopeful that a small number of measures consistent with these concepts will be available for inclusion in Stage 2, but expect that most of them will not be fully specified and endorsed for use until the Stage 3 cycle.

Background

In August 2010, the Quality Measures Workgroup was tasked to develop recommendations for potential clinical quality measure concepts/measures for Stage 2 and 3 in Meaningful Use. We had dozens of calls and in-person hearings with vendors, measure developers, providers, and hospitals regarding the implementation and use of the measures. Six subcommittees were formed to address our six priorities: 1) Patient and Family Engagement; 2) Patient Safety; 3) Population Health; 4) Care Coordination; 5) Clinical Appropriateness and Efficiency and 6) Methodological Issues. These domains are based on the National Priorities Partnership framework and supported the Meaningful Use priority areas identified by the HITPC.

The measures and concepts were selected from suggestions that range from aspirational concepts to existing endorsed measures. We also held a Request for Comment on the proposed measure concepts which generated over 491 measure suggestions from 114 unique organizations. All of this input has collectively contributed to the recommendations below.

Recommendations

I. Recommendations related to Core and Menu framework of Stage 2 (Figure 1)

The Quality Measures Workgroup recommends that providers be required to report two sets of quality measures. The first is to be drawn from a list of “core measures,” including those required for Stage 1. The second is to be drawn from a set of six “menus” of available and relevant measures for each specialty in each health priority area.

As in Stage 1, the provider will be required to complete all (or a specified number) of the core measures. The provider will also be required to complete at least one measure in each of the six menu domains. The menus can be constituted to map directly to the particular scope of practice for each designated specialty – so that a menu set of measures for cardiologists might be quite different than the menu set for radiologists, for example. We believe that our construct of core plus menu options of clinical quality measures would support HHS’ National Quality Strategy (NQS), intended to promote better care, healthy people and communities, and reduce the cost of quality health care. The NQS contains six aims (safer care, patient and family engagement, care coordination, effective prevention and treatment for leading causes starting with cardiovascular health, community health promotion, and affordable care) which correspond closely to the six domains of the menu set. Additionally, our decision to continue the current Stage 1 core set of measures is based on the NQS objective of focusing on the number one cause of mortality in the U.S.-- cardiovascular events. The continuation of Stage 1 core measures focusing on BMI, smoking cessation, and blood pressure control aligns Meaningful Use with a focused set of clinical quality measures that allows providers to focus on fundamental components of

cardiovascular health. Additionally, we have recommended two more core measures that reflect care coordination processes.

The Framework:

1. Core plus Menu for Eligible Providers (Figure 1)- a schematic depicting the core/menu framework for clinical quality measures for eligible providers. We have recommended a set of core measure items. Eligible Professionals (EPs) could be required to complete all of the core measures; alternatively, CMS could allow EPs to complete a smaller number (e.g., five) selected from the eight measures, which would allow for some recognition of variation across different practice types.

The framework is predicated on priorities identified in the National Priorities Partnership framework, the National Quality Strategy framework and domains found in the broader Meaningful Use framework. We recommend that providers be required to choose one or more measures from each domain. The Clinical Process domain was created to accommodate the many important quality measures recently identified by professional societies and other bodies seeking to improve clinical performance in areas of high consensus. The other domains address areas of increasing policy importance to the nation, but have received less attention from measurement developers. We encourage a requirement that every EP and hospital be required to report at least one measure from each domain in order to begin driving industry and professional attention to these areas of growing concern. We would also encourage CMS, working with professional specialty societies, to seek parsimony in the final construction of these menus, ideally identifying a small number of measures relevant to each specialty that can achieve general endorsement by affected providers and be perceived to add real value to quality of care in that area.

Domains

- 1) Patient and Family Engagement: measures/concepts that reflect potential impact to improve patient-centered care and quality of care delivered to patients, the importance of collecting patient-reported data, and measures with the ability to impact at the individual patient level as well as the population level.
- 2) Efficiency measures: measures/concepts that significantly improve outcomes and reduce errors and /or to impact and benefit a large number of patients with an emphasis on utilization, overuse and appropriate use of care.
- 3) Patient Safety: measures/concepts that reflect patient safety in both hospital and ambulatory settings and processes that would reduce harm to patients and reduce burden of illness; ability to enable longitudinal assessment of condition-specific, patient-focused episodes of care, and unmet needs of population/public health.
- 4) Population and Public Health: measures that are outcome focused, and delta-focused with the ability to achieve longitudinal measurement that will demonstrate improvement or lack of improvement of the health of the U.S. population.

5) Care Coordination: measures/concepts that reflect aspects of care coordination and can improve appropriate and timely patient and care team communication.

6) Clinical Processes: measures that reflect clinical care processes closely linked to outcomes, based on evidence and practice guidelines.

2. Eligible Hospital Measures. We've embedded the inpatient hospital measures within each domain. A list of inpatient hospital measures is included within a categorized framework. The Workgroup recommends that ONC and CMS require eligible hospitals to report a balanced mix of process and outcome measures distributed across a range of domains that we have highlighted (Patient Safety, Care Coordination, and Patient/Family Engagement).

II. Recommendations related to Methodological Issues

The HIT Policy Committee is committed to leveraging health IT to permit a more robust assessment of clinical quality in support of national health goals. Stage 1 focused on capturing the primary clinical data that could be used to evaluate quality performance. Most Stage 1 measures were long-accepted and followed established conventions for patient inclusion and computation of performance values, generally following a rate-based method comparing numerators and denominators. The HIT Policy Committee's interest in outcome measures, and the emerging focus on such domains as care coordination, patient engagement, and efficiency requires a consideration of the measurement methods appropriate to fair and objective measurement of performance in less "transactional" contexts. Early generation measures may have looked simply at whether a recommended service was or was not delivered to a qualifying population; the new measures may engage multiple measures of a biomarker over time, or reliable measurement of a patient's reported health status or symptom burden. In order for these new domains to be properly included in Stage 2 and 3, the Workgroup asked the methodological "Tiger Team" to identify areas where technical consensus needed to be developed. We recommend that the HIT Standards Committee or other appropriate bodies be asked to address the issues listed here and, where possible, to provide ONC and CMS with technical guidance in time for inclusion of new measures in Stage 2.

1) Standards and quality data vehicle

- a. A standard is needed to designate self-reported data with source tagged
- b. Standards should be in place to reduce the ambiguity of measure logic (e.g., need for standards for coding the problem list- inactive/active designation of problem; date of onset for a given disease process)
- c. CDA type standard and transport standard for self-reported data to address
 - i. race, ethnicity, language, and equity
 - ii. reported perception of experience
 - iii. structured data for m-health/home devices.

2) Longitudinal Measurement/ Delta measurement

Definition: The use of measures that assess patient change in outcomes across time, rather than only achievement of a threshold.

- d. Data may not be computed locally, and may consist of data points collected at various time frames as well as from multiple sources. How do we pick the data points? Need to determine the appropriate points in time for baseline and follow-up
- e. Many outcomes do not have a linear trajectory and may include a lower limit associated with harm
- f. Selecting best/worst/average when there are multiple results in given time period; analysis is needed to determine method(s) of communicating data.

3) Need guidance policy to promote capacity and scalability of EHRs to be in step with increasing complexity of quality measures

- g. Establish if computation should be a core function of EHR product
- h. Advise if/how architecture should support data management and analytic platforms
- i. Identify what requirements should be specified in certification requirements.

4) Standards are needed for coding of problem lists, which address:

- j. Reliance on the problem list for assessment of conditions/diagnoses over time with attention to sensitivity and specificity of problem list entries
- k. A patient centered problem list (broad range of problems not limited to traditional medical diagnoses with billing codes)
- l. Conventions
- m. Value sets that align to standard terminology (e.g. date of diagnosis, onset of symptoms)
- n. Reconciliation of problems—resolved; stable/maintenance of diagnosis.

5) Standards are needed to assign attribution of each member to a panel for measurement—provider, team/team member, payer-- unique identifier is needed for who is participating in care associated with particular problem

The Quality Measures Workgroup appreciates the opportunity to provide input into the development of stage 2 MU clinical quality measure recommendations. The Workgroup respectfully submits the recommendations contained in this letter, which we believe would support a framework for quality improvement, safer patient centered care, and a more efficient delivery system. We wish to express our particular appreciation for the extraordinary support provided by the ONC staff and the generous contribution of expertise and time by the many volunteer committee members, witnesses, and public commenters who have added substantially to the approach we recommend here.

We are available and willing to assist the Office and the Department in any way we can.

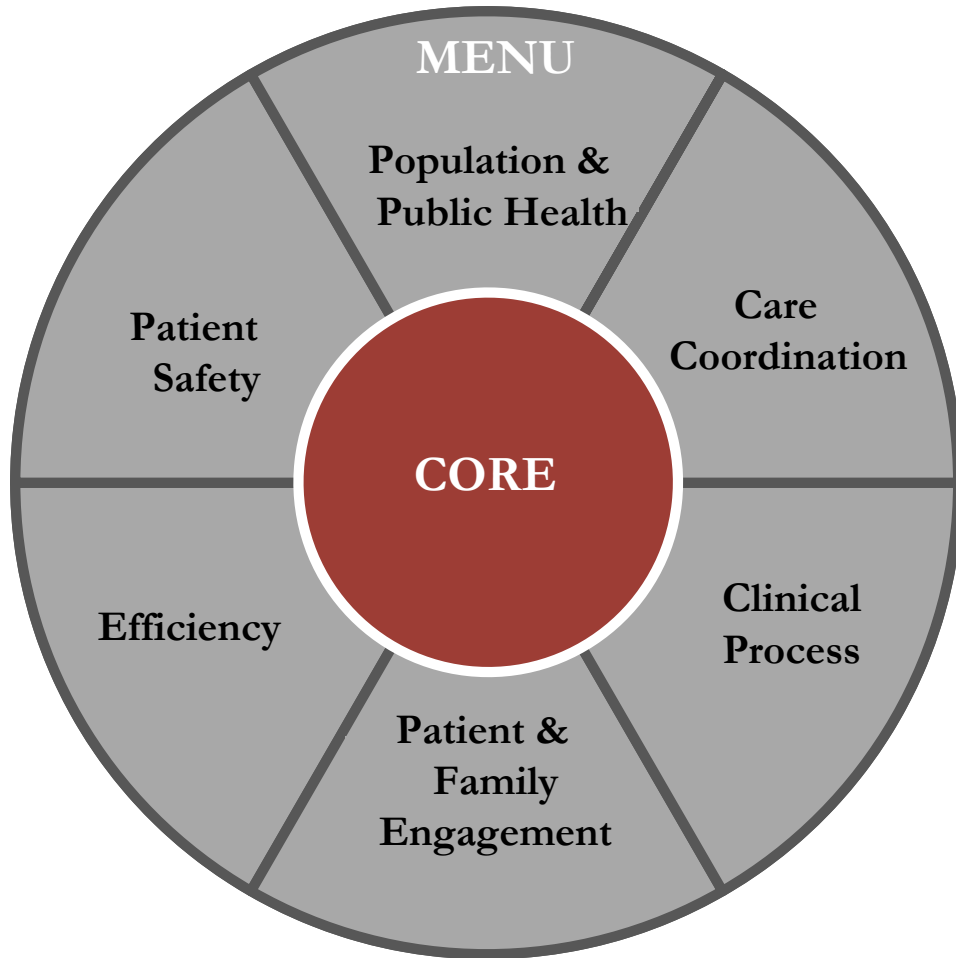
Sincerely yours,

/s/

Paul Tang, MD

Vice Chair, HIT Policy Committee

FIG. 1 PROPOSED ELIGIBLE PROVIDER CORE MENU FRAMEWORK



ELIGIBLE PROVIDER CORE MEASURES

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Hypertension: Blood Pressure Measurement	Percentage of patient visits for patients aged 18 years and older with a diagnosis of hypertension with blood pressure (BP) recorded.	MU Stage 1	Outpatient
Preventive Care and Screening Measure Pair: a. Tobacco Use Assessment	Percentage of patients aged 18 years or older who have been seen for at least 2 office visits, who were queried about tobacco use one or more times within 24 months.	MU Stage 1	Outpatient
Preventive Care and Screening Measure Pair: b. Tobacco Cessation Intervention	Percentage of patients aged 18 years and older identified as tobacco users within the past 24 months and have been seen for at least 2 office visits, who received cessation intervention.	MU Stage 1	Outpatient
Adult Weight Screening and Follow-Up	Percentage of patients aged 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record AND if the most recent BMI is outside parameters, a follow-up plan is documented.	MU Stage 1	Outpatient
Weight Assessment and Counseling for Children and Adolescents	The percentage of patients 2-17 years of age who had an outpatient visit with a PCP or OB/GYN and who had evidence of BMI percentile documentation, counseling for nutrition and counseling for physical activity during the measurement year.	MU Stage 1	Outpatient
Childhood immunization Status	The percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); two H influenza type B (HIB); three hepatitis B (Hep B), one chicken pox (VZV); four pneumococcal conjugate (PCV); two hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The percentage of children 2 years of age who had the complete series of vaccines by 2 years of age. There are 12 rates calculated for this measure 10 for the individual immunizations and 2 for the series of immunizations.	MU Stage 1	Outpatient
Preventive Care and Screening: Influenza Immunization for Patients >= 50 Years Old	Percentage of patients aged 50 years and older who received an influenza immunization during the flu season (September through February).	MU Stage 1	Outpatient
Medication Reconciliation		Recently Retooled	
Closing the Referral Loop		To be developed	

ELIGIBLE PROVIDER MENU MEASURES

Patient & Family Engagement

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the on-going care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.	MU Stage 1	Outpatient
Major Depressive Disorder (MDD): Suicide Risk Assessment	Percentage of patients who had a suicide risk assessment completed at each visit.	Recently Retooled	Outpatient
PICU Pain Assessment	Percentage of PICU patients receiving pain assessment on admission.	Recently Retooled	Inpatient
PICU Periodic Pain Assessment	Percentage of PICU patients receiving periodic pain assessment.	Recently Retooled	Inpatient
Diabetic Foot Care and Patient/Caregiver Education Implemented During Short Term Episodes of Care	Percentage of short term home health episodes of care during which diabetic foot care and education were included in the physician-ordered plan of care and implemented for patients with diabetes.	Recently Retooled	Outpatient
Depression Remission at Twelve Months	Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at twelve months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.	Recently Retooled	Outpatient
Depression Remission at Six Months	Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at six months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.	Recently Retooled	Outpatient
Depression Utilization of the PHQ-9 Tool	Adult patients age 18 and older with the diagnosis of major depression or dysthymia who have a PHQ-9 tool administered at least once during a 4 month period in which there was a qualifying visit.	Recently Retooled	Outpatient
Measure assessing the percent of qualifying patients that complete a health risk or health status assessment for 10 priority conditions that are sensitive to functional or symptom improvement		To be developed	

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Measure assessing functional status (for 10 priority conditions sensitive to functional or symptom improvement)		To be developed	
Measure assessing the experience of care provided by a practice using a composite survey tool		To be developed	

Efficiency

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Cesarean Rate for Low-Risk Birth Women	Cesarean Rate for low-risk first birth women (aka NTSV CS rate: nulliparous, term, singleton, vertex) identifies the portion of cesarean births that has the most variation among practitioners, hospitals, regions and states. Unlike other cesarean measures, it focuses attention on the proportion of cesarean births that is affected by elective medical practices such as induction and early labor admission. Furthermore, the success (or lack thereof) of management of the first labor directly impacts the remainder of the woman's reproductive life especially given the current high rate of repeat cesarean births. This is also the measure used in Healthy Person 2010 (Objective 16.9a, US DHS, 2000). and previously received endorsement from the American College of Obstetricians and Gynecologists (American College of Obstetricians and Gynecologists: Task Force on Cesarean Delivery, 2000). A recent European review of cesarean birth measures also identified that this measure pinpointed the portion of cesarean births that had the greatest variation and contributed the most to the rise in overall rates in every country studied (Brennan, 2009).	Recently Retooled	Inpatient
Use of Contrast: Thorax CT	This measure calculates the percentage of thorax studies that are performed with and without contrast out of all thorax studies performed (those with contrast, those without contrast, and those with both).	Recently Retooled	Outpatient
Asthma Medication Ratio: Percentage of members who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications		To be developed	
Lipid control using Framingham risk score		To be developed	
Lower Back Pain: Measure repeat imaging studies (extend beyond Medicare)		To be developed	
Appropriate Head CT Imaging in Adults with Mild Traumatic Brain Injury		To be developed	
Pulmonary CT Imaging for Pulmonary Embolism		To be developed	

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Cardiac Imaging appropriateness measures (pre-op evaluation for low-risk surgeries, for routine screening, for non-cardiac low-risk surgeries)		To be developed	

Care Coordination:

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement	The percentage of adolescent and adult patients with a new episode of alcohol and other drug (AOD) dependence who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis and who initiated treatment and who had two or more additional services with an AOD diagnosis within 30 days of the initial visit.	MU Stage 1	Outpatient
Diabetes: Foot Exam	The percentage of patients aged 18-75 years with diabetes (type 1 or type 2) who had a foot exam (visual inspection, sensory exam with monofilament, or pulse exam).	MU Stage 1	Outpatient
Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation	Percentage of patients aged 18 years and older with a diagnosis of POAG who have been seen for at least 2 office visits, who have an optic nerve head evaluation during one or more office visits within 12 months.	MU Stage 1	Outpatient
Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the on-going care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.	MU Stage 1	Outpatient
Medication Reconciliation	Percentage of patients aged 65 years and older discharged from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) and seen within 60 days following discharge in the office by the physician providing on-going care who had a reconciliation of the discharge medications with the current medication list in the medical record documented.	Recently Retooled	Inpatient
Chronic Obstructive Pulmonary Disease (COPD): Bronchodilator Therapy	Percentage of symptomatic patients aged 18 years and older with a diagnosis of COPD who were prescribed an inhaled bronchodilator.	Recently Retooled	Outpatient
Diagnosis of attention deficit hyperactivity disorder (ADHD) in primary care for school age children and adolescents	Percentage of patients newly diagnosed with ADHD whose medical record contains documentation of DSM-IV-TR or DSM-PC criteria.	Recently Retooled	Outpatient
Management of attention deficit hyperactivity disorder (ADHD) in primary care for school age children and adolescents	Percentage of patients treated psychostimulant with medication for the diagnosis of ADHD whose medical record contains documentation of a follow-up visit at least twice a year.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication	<p>a. Initiation Phase: Percentage of children 6 - 12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for and ADHD medication and who had one follow-up visit with a practitioner with prescribing authority during the 30-Day Initiation Phase.</p> <p>b. Continuation and Maintenance (C&M) Phase: Percentage of children 6 - 12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for ADHD medication who remained on the medication for at least 210 days and who in addition to the visit in the Initiation Phase had at least two additional follow-up visits with a practitioner within 270 days (9 months) after the Initiation Phase ends.</p>	Recently Retooled	Outpatient
Perioperative Care: Timing of Prophylactic Antibiotics - Ordering Physician	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic parenteral antibiotics who have an order for an antibiotic to be given within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required).	Recently Retooled	Inpatient
Perioperative Care: Discontinuation of Prophylactic Antibiotics (Non-Cardiac Procedures)	Percentage of non-cardiac surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic antibiotics AND who received a prophylactic antibiotic, who have an order for discontinuation of prophylactic antibiotics within 24 hours of surgical end time.	Recently Retooled	Inpatient
End Stage Renal Disease (ESRD): Plan of Care for Inadequate Peritoneal Dialysis	Percentage of patients aged 18 years and older with a diagnosis of ESRD receiving peritoneal dialysis who have a $Kt/V \geq 1.7$ OR patients who have a $Kt/V < 1.7$ with a documented plan of care 3 times a year (every 4 months) during the 12 month reporting period.	Recently Retooled	Outpatient
End Stage Renal Disease (ESRD): Plan of Care of Inadequate Hemodialysis in ESRD Patients	Percentage of patient calendar months during the 12 month reporting period in which patients aged 18 years and older with a diagnosis of ESRD and receiving hemodialysis have a $Kt/V \geq 1.2$ OR have a $Kt/V < 1.2$ with a documented plan of care.	Recently Retooled	Outpatient
All Cause Readmission Index (risk adjusted)	30-day Readmission Index for Non-Maternity and Non-Pediatric Discharges.	Recently Retooled	Inpatient
Iatrogenic Pneumothorax in Non-Neonates (risk adjusted) (PDI5)	Percent of medical and surgical discharges, age under 18 years, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.	Recently Retooled	Inpatient
Median Time from ED Arrival to ED Departure for Discharged ED Patients	Median time from emergency department arrival to time of departure from the emergency room for patients discharged from the emergency department.	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Depression Remission at Twelve Months	Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at twelve months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.	Recently Retooled	Outpatient
Depression Remission at Six Months	Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at six months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.	Recently Retooled	Outpatient
Depression Utilization of the PHQ-9 Tool	Adult patients age 18 and older with the diagnosis of major depression or dysthymia who have a PHQ-9 tool administered at least once during a 4 month period in which there was a qualifying visit.	Recently Retooled	Outpatient
Measure of self-management plan for patients with leading conditions		To be developed	
Measure of a documented advance care plan		To be developed	
Measure of medication reconciliation after any care transition		To be developed	
Measure of patient and family experience across a care transition		To be developed	
Composite measures assessing closing the "referral loop"		To be developed	

Patient Safety

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Drugs to be avoided in the elderly: a. Patients who receive at least one drug to be avoided, b. Patients who receive at least two different drugs to be avoided	Percentage of patients ages 65 years and older who received at least one drug to be avoided in the elderly in the measurement year. Percentage of patients 65 years of age and older who received at least two different drugs to be avoided in the elderly in the measurement year.	Recently Retooled	Outpatient
Urinary catheter-associated urinary tract infection for intensive care unit (ICU) patients	Standardized Infection Ration (SIR) of healthcare-associated, catheter-associated urinary tract infections (CAUTI) among patients in intensive care units (ICUs), excluding patients in neonatal ICUs (NICUs).	Recently Retooled	Inpatient
Central line catheter-associated blood stream infection rate for ICU and high-risk nursery (HRN) patients	Standardized Infection Ration (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) among patients in intensive care units (ICUs) and Neonatal Intensive Care Units (NICUs).	Recently Retooled	Inpatient
Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (when indicated in ALL patients)	Patient Age: All patients age 18 years and older Procedures: surgical procedures for which VTE prophylaxis is indicated in all patients who had an order for LMWH, LDUH, adjusted-dose warfarin, fondaparinux or mechanical prophylaxis given within 24 hours prior to incision time or 24 hours after surgery end time.	Recently Retooled	Inpatient
Perioperative Care: Selection of Prophylactic Antibiotic - First OR Second Generation Cephalosporin	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for a first OR second generation cephalosporin prophylactic antibiotic who had an order for cefazolin OR cefuroxime for antimicrobial prophylaxis.	Recently Retooled	Inpatient
Perioperative Care: Timing of Prophylactic Antibiotics - Ordering Physician	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic parenteral antibiotics who have an order for an antibiotic to be given within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required).	Recently Retooled	Inpatient
Central Line Bundle Compliance	The percentage of intensive care patients in the included ICUs with central lines for who all five elements of the central line "bundle" are documented on the daily goals sheet, central line checklist, patients medical record, or other documentation tool.	Recently Retooled	Inpatient
Cardiac Surgery Patients With Controlled 6 A.M. Postoperative Blood Glucose	Cardiac surgery patients with controlled 6 A.M. blood glucose (less than or equal to 200 mg/dL) on postoperative day one (POD 1) and postoperative day two (POD 2) with Anesthesia End Date being postoperative day zero (POD 0).	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Ventilator Bundle	The percentage of intensive care patients on mechanical ventilation for whom all five elements of the ventilator "bundle" are implemented and documented.	Recently Retooled	Inpatient
All Cause Readmission Index (risk adjusted)	30-day Readmission Index for Non-Maternity and Non-Pediatric Discharges.	Recently Retooled	Inpatient
Iatrogenic Pneumothorax in Non-Neonates (risk adjusted) (PDI5)	Percent of medical and surgical discharges, age under 18 years, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.	Recently Retooled	Inpatient
Foreign Body left after procedure (PDI3)	Discharges with foreign body accidentally left in during procedure per 1000 discharges.	Recently Retooled	Inpatient
Urinary catheter removed on Postoperative Day 1 (POD 1) or Postoperative Day 2 (POD 2) with day of surgery being day zero	Surgical patients with urinary catheter removed on Postoperative Day 1 or Postoperative Day 2 with day of surgery being day zero.	Recently Retooled	Inpatient
Cesarean Rate for Low-Risk Birth Women	Cesarean Rate for low-risk first birth women (aka NTSV CS rate: nulliparous, term, singleton, vertex) identifies the portion of cesarean births that has the most variation among practitioners, hospitals, regions and states. Unlike other cesarean measures, it focuses attention on the proportion of cesarean births that is affected by elective medical practices such as induction and early labor admission. Furthermore, the success (or lack thereof) of management of the first labor directly impacts the remainder of the woman's reproductive life especially given the current high rate of repeat cesarean births. This is also the measure used in Healthy Person 2010 (Objective 16.9a, US DHS, 2000). and previously received endorsement from the American College of Obstetricians and Gynecologists (American College of Obstetricians and Gynecologists: Task Force on Cesarean Delivery, 2000). A recent European review of cesarean birth measures also identified that this measure pinpointed the portion of cesarean births that had the greatest variation and contributed the most to the rise in overall rates in every country studied (Brennan, 2009).	Recently Retooled	Inpatient
Radiology: Exposure Time Reported for Procedures Using Fluoroscopy	Percentage of final reports for procedures using fluoroscopy that include documentation of radiation exposure or exposure time.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision	Surgical patients with prophylactic antibiotics initiated within one hour prior to surgical incision. Patients who received vancomycin or a fluoroquinolone for prophylactic antibiotics should have the antibiotics initiated within two hours prior to surgical incision. Due to the longer infusion time required for vancomycin or a fluoroquinolone, it is acceptable to start these antibiotics within two hours prior to incision time.	Recently Retooled	Inpatient
Prophylactic Antibiotic Selection for Surgical Patients	Surgical patients who received prophylactic antibiotics consistent with current guidelines (specific to each type of surgical procedure).	Recently Retooled	Inpatient
Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time	Surgical patients whose prophylactic antibiotics were discontinued within 24 hours after Anesthesia End Time. The Society of Thoracic Surgeons (STS) Practice Guideline for Antibiotic Prophylaxis in Cardiac Surgery (2006) indicates that there is no reason to extend antibiotics beyond 48 hours for cardiac surgery and very explicitly states that antibiotics should not be extended beyond 48 hours even with tubes and drains in place for cardiac surgery.	Recently Retooled	Inpatient
Measure of medication monitoring for patients on chronic medications		To be developed	
Measure of medication-disease or condition interactions in the elderly		To be developed	
Measure of adverse drug event reporting		To be developed	
Measure of falls screening		To be developed	
Measure of medication monitoring for patients on chronic medications		To be developed	

Population & Public Health

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Controlling High Blood Pressure	The percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose BP was adequately controlled during the measurement year.	MU Stage 1	Outpatient
Smoking and Tobacco Use Cessation, Medical assistance: a. Advising Smokers and Tobacco Users to Quit, b. Discussing Smoking and Tobacco Use Cessation Medications, c. Discussing Smoking and Tobacco Use Cessation Strategies	The percentage of patients 18 years of age and older who were current smokers or tobacco users, who were seen by a practitioner during the measurement year and who received advice to quit smoking or tobacco use or whose practitioner recommended or discussed smoking or tobacco use cessation medications, methods or strategies.	MU Stage 1	Outpatient
Breast Cancer Screening	The percentage of women 40-69 years of age who had a mammogram to screen for breast cancer.	MU Stage 1	Outpatient
Cervical Cancer Screening	The percentage of women 21-63 years of age who received one or more Pap tests to screen for cervical cancer.	MU Stage 1	Outpatient
Chlamydia Screening for Women	The percentage of women 15-24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.	MU Stage 1	Outpatient
Colorectal Cancer Screening	The percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer.	MU Stage 1	Outpatient
Pneumonia Vaccination Status for Older Adults	The percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine.	MU Stage 1	Outpatient
Diabetes: HbA1c Poor Control	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had HbA1c > 9.0%.	MU Stage 1	Outpatient
Diabetes: Blood Pressure Management	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had BP < 140/90 mmHg.	MU Stage 1	Outpatient
Diabetes: Urine Screening	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had a nephropathy screening test or evidence of nephropathy.	MU Stage 1	Outpatient
Diabetes: LDL Management & Control	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had LDL-C <100mg/dL.	MU Stage 1	Outpatient
Diabetes: HbA1c Control (<8%)	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had HbA1c <8.0%.	MU Stage 1	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Osteoporosis: Screening or Therapy for Osteoporosis for Women Aged 65 Years and Older	Percentage of female patients aged 65 years and older who have a central dual-energy X-ray absorptiometry measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months.	Recently Retooled	Outpatient
Bipolar Disorder: Monitoring change in level-of-functioning	Percentage of patients aged 18 years and older with an initial diagnosis or new episode/presentation of bipolar disorder.	Recently Retooled	Outpatient
Aspirin at Arrival	Acute myocardial infarction (AMI) patients who received aspirin within 24 hours before or after hospital arrival.	Recently Retooled	Outpatient
Aspirin Prescribed at Discharge	Acute myocardial infarction (AMI) patients who are prescribed aspirin at hospital discharge.	Recently Retooled	Inpatient
Hepatitis C: Counseling Regarding Risk of Alcohol Consumption	Percentage of patients aged 18 years and older with a diagnosis of hepatitis C who were counseled regarding the risks of alcohol consumption at least once within the 12 month reporting period.	Recently Retooled	Outpatient
Cesarean Rate for Low-Risk Birth Women	Cesarean Rate for low-risk first birth women (aka NTSV CS rate: nulliparous, term, singleton, vertex) identifies the portion of cesarean births that has the most variation among practitioners, hospitals, regions and states. Unlike other cesarean measures, it focuses attention on the proportion of cesarean births that is affected by elective medical practices such as induction and early labor admission. Furthermore, the success (or lack thereof) of management of the first labor directly impacts the remainder of the woman's reproductive life especially given the current high rate of repeat cesarean births. This is also the measure used in Healthy Person 2010 (Objective 16.9a, US DHS, 2000). and previously received endorsement from the American College of Obstetricians and Gynecologists (American College of Obstetricians and Gynecologists: Task Force on Cesarean Delivery, 2000). A recent European review of cesarean birth measures also identified that this measure pinpointed the portion of cesarean births that had the greatest variation and contributed the most to the rise in overall rates in every country studied (Brennan, 2009).	Recently Retooled	Inpatient
Proportion of Infants 22 to 29 Weeks Gestation Treated with Surfactant who are Treated within 2 Hours of Birth	Proportion of infants with gestational age between 22 and 29 completed weeks who were treated with surfactant and were treated within two hours of birth.	Recently Retooled	Inpatient
Pregnant women that had HBsAg testing	This measure reports compliance to hepatitis B surface antigen (HBsAg) testing during pregnancy; if the HBsAg test is absent, then the exclusion criteria (diagnosis of hepatitis B infection) is applied.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Measure of alcohol screening using a validated instrument, including documentation of a brief intervention		To be developed	
Measure tracking longitudinal change of individual patient BMI		To be developed	
Measure of depression screening using a validated instrument, including documentation of a follow-up plan		To be developed	
Measure assessing patients with undiagnosed hypertension using a calculated algorithm		To be developed	
Measure of longitudinal assessment of blood glucose control		To be developed	

Clinical Process

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Asthma Assessment	Percentage of patients aged 5 through 40 years with a diagnosis of asthma who were evaluated during at least one office visit within 12 months for the frequency (numeric) of daytime and nocturnal asthma symptoms.	MU Stage 1	Outpatient
Appropriate Testing for Children with Pharyngitis	The percentage of children 2-18 years of age who were diagnosed with Pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode.	MU Stage 1	Outpatient
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: (a) Initiation, (b) Engagement	The percentage of adolescent and adult patients with a new episode of alcohol and other drug (AOD) dependence who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization within 14 days of the diagnosis and who initiated treatment and who had two or more additional services with an AOD diagnosis within 30 days of the initial visit.	MU Stage 1	Outpatient
Prenatal Care: Screening for Human Immunodeficiency Virus (HIV)	Percentage of patients, regardless of age, who gave birth during a 12-month period who were screened for HIV infection during the first or second prenatal visit.	MU Stage 1	Outpatient
Prenatal Care: Anti-D Immune Globulin	Percentage of D(Rh) negative, unsensitized patients, regardless of age, who gave birth during a 12-month period who received anti-D immune globulin at 26-30 weeks gestation.	MU Stage 1	Outpatient
Controlling High Blood Pressure	The percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose BP was adequately controlled during the measurement year.	MU Stage 1	Outpatient
Smoking and Tobacco Use Cessation, Medical assistance: a. Advising Smokers and Tobacco Users to Quit, b. Discussing Smoking and Tobacco Use Cessation Medications, c. Discussing Smoking and Tobacco Use Cessation Strategies	The percentage of patients 18 years of age and older who were current smokers or tobacco users, who were seen by a practitioner during the measurement year and who received advice to quit smoking or tobacco use or whose practitioner recommended or discussed smoking or tobacco use cessation medications, methods or strategies.	MU Stage 1	Outpatient
Breast Cancer Screening	The percentage of women 40-69 years of age who had a mammogram to screen for breast cancer.	MU Stage 1	Outpatient
Cervical Cancer Screening	The percentage of women 21-63 years of age who received one or more Pap tests to screen for cervical cancer.	MU Stage 1	Outpatient
Chlamydia Screening for Women	The percentage of women 15-24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.	MU Stage 1	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Colorectal Cancer Screening	The percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer.	MU Stage 1	Outpatient
Use of Appropriate Medications for Asthma	The percentage of patients 5-50 years of age during the measurement year who were identified as having persistent asthma and were appropriately prescribed medication during the measurement year.	MU Stage 1	Outpatient
Pneumonia Vaccination Status for Older Adults	The percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine.	MU Stage 1	Outpatient
Asthma Pharmacologic Therapy	Percentage of patients aged 5 through 40 years with a diagnosis of mild, moderate, or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment.	MU Stage 1	Outpatient
Low Back Pain: Use of Imaging Studies	The percentage of patients with a primary diagnosis of low back pain who did not have an imaging study (plain X-ray, MRI, CT scan) within 28 days of diagnosis.	MU Stage 1	Outpatient
Diabetes: Eye Exam	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had a retinal or dilated eye exam or a negative retinal exam (no evidence of retinopathy) by an eye care professional.	MU Stage 1	Outpatient
Diabetes: Foot Exam	The percentage of patients aged 18-75 years with diabetes (type 1 or type 2) who had a foot exam (visual inspection, sensory exam with monofilament, or pulse exam).	MU Stage 1	Outpatient
Diabetes: HbA1c Poor Control	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had HbA1c > 9.0%.	MU Stage 1	Outpatient
Diabetes: Blood Pressure Management	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had BP < 140/90 mmHg.	MU Stage 1	Outpatient
Diabetes: Urine Screening	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had a nephropathy screening test or evidence of nephropathy.	MU Stage 1	Outpatient
Diabetes: LDL Management & Control	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had LDL-C <100mg/dL.	MU Stage 1	Outpatient
Coronary Artery Disease (CAD): Oral Antiplatelet Therapy Prescribed for Patients with CAD	Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed oral antiplatelet therapy.	MU Stage 1	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Ischemic Vascular Disease (IVD): Use of Aspirin or another Antithrombotic	The percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) from January 1 - November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had documentation of use of aspirin or another antithrombotic during the measurement year.	MU Stage 1	Outpatient
Coronary Artery Disease (CAD): Beta-Blocker Therapy for CAD Patients with Prior Myocardial Infarction (MI)	Percentage of patients aged 18 years and older with a diagnosis of CAD and prior MI who were prescribed beta-blocker therapy.	MU Stage 1	Outpatient
Ischemic Vascular Disease (IVD): Blood Pressure Management	The percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) from January 1-November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and whose most recent blood pressure is in control (<140/90 mmHg).	MU Stage 1	Outpatient
Coronary Artery Disease (CAD): Drug Therapy for Lowering LDL-Cholesterol	Percentage of patients aged 18 years and older with a diagnosis of CAD who were prescribed a lipid-lowering therapy (based on current ACC/AHA guidelines).	MU Stage 1	Outpatient
Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control	The percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) from January 1- November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had a complete lipid profile performed during the measurement year and whose LDL-C was < 100 mg/dL.	MU Stage 1	Outpatient
Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)	Percentage of patients aged 18 years and older with a diagnosis of heart failure and LVSD (LVEF < 40%) who were prescribed ACE inhibitor or ARB therapy.	MU Stage 1	Outpatient
Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	Percentage of patients aged 18 years and older with a diagnosis of heart failure who also have LVSD (LVEF < 40%) and who were prescribed beta-blocker therapy.	MU Stage 1	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Heart Failure (HF) : Warfarin Therapy Patients with Atrial Fibrillation	Percentage of all patients aged 18 and older with a diagnosis of heart failure and paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy.	MU Stage 1	Outpatient
Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation	Percentage of patients aged 18 years and older with a diagnosis of POAG who have been seen for at least 2 office visits, who have an optic nerve head evaluation during one or more office visits within 12 months.	MU Stage 1	Outpatient
Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits within 12 months.	MU Stage 1	Outpatient
Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.	MU Stage 1	Outpatient
Anti-depressant medication management: (a) Effective Acute Phase Treatment, (b)Effective Continuation Phase Treatment	The percentage of patients 18 years of age and older who were diagnosed with a new episode of major depression, treated with antidepressant medication, and who remained on an antidepressant medication treatment.	MU Stage 1	Outpatient
Oncology Colon Cancer: Chemotherapy for Stage III Colon Cancer Patients	Percentage of patients aged 18 years and older with Stage IIIA through IIIC colon cancer who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy, or have previously received adjuvant chemotherapy within the 12-month reporting period.	MU Stage 1	Outpatient
Oncology Breast Cancer: Hormonal Therapy for Stage IC- IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer	Percentage of female patients aged 18 years and older with Stage IC through IIIC, ER or PR positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period.	MU Stage 1	Outpatient
Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients	Percentage of patients, regardless of age, with a diagnosis of prostate cancer at low risk of recurrence receiving interstitial prostate brachytherapy, OR external beam radiotherapy to the prostate, OR radical prostatectomy, OR cryotherapy who did not have a bone scan performed at any time since diagnosis of prostate cancer.	MU Stage 1	Outpatient
Diabetes: HbA1c Control (<8%)	The percentage of patients 18-75 years of age with diabetes (type 1 or type 2) who had HbA1c <8.0%.	MU Stage 1	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Drugs to be avoided in the elderly: a. Patients who receive at least one drug to be avoided, b. Patients who receive at least two different drugs to be avoided	Percentage of patients ages 65 years and older who received at least one drug to be avoided in the elderly in the measurement year. Percentage of patients 65 years of age and older who received at least two different drugs to be avoided in the elderly in the measurement year.	Recently Retooled	Outpatient
Osteoporosis: Communication with the Physician Managing Ongoing Care Post-Fracture of Hip, Spine or Distal Radius for Men and Women Aged 50 Years and Older	Percentage of patients aged 50 years and older treated for a hip, spine, or distal radial fracture with documentation of communication with the physician managing the patient's on-going care that a fracture occurred and that the patient was or should be tested or treated for osteoporosis.	Recently Retooled	Outpatient
Osteoporosis: Screening or Therapy for Osteoporosis for Women Aged 65 Years and Older	Percentage of female patients aged 65 years and older who have a central dual-energy X-ray absorptiometry measurement ordered or performed at least once since age 60 or pharmacologic therapy prescribed within 12 months.	Recently Retooled	Outpatient
Osteoporosis: Management Following Fracture of Hip, Spine or Distal radius for Men and Women Aged 50 Years and Older	Percentage of patients aged 50 years or older with fracture of the hip, spine or distal radius that had a central dual-energy X-ray absorptiometry measurement ordered or performed or pharmacologic therapy prescribed.	Recently Retooled	Outpatient
Osteoporosis: Pharmacologic Therapy for Men and Women Aged 50 Years and Older	Percentage of patients aged 50 years and older with a diagnosis of osteoporosis who were prescribed pharmacologic therapy within 12 months.	Recently Retooled	Outpatient
Osteoarthritis: assessment for use of anti-inflammatory or analgesic over-the-counter (OTC) medications	Percentage of patient visits for patients aged 21 years and older with a diagnosis of OA with an assessment for use of anti-inflammatory or analgesic OTC medications.	Recently Retooled	Outpatient
Hemoglobin A1c Test for Pediatric Patients	Percentage of pediatric patients with diabetes with a HBA1c test in a 12-month measurement period.	Recently Retooled	Outpatient
Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Patients with CAD and Diabetes and/or Left Ventricular Systolic Dysfunction (LVSD)	Percentage of patients aged 18 years and older with a diagnosis of CAD who also have diabetes and/or left ventricular systolic dysfunction (LVSD) who were prescribed ACE Inhibitor or ARB therapy.	Recently Retooled	Outpatient
Treatment for Children with Upper Respiratory Infection (URI): Avoidance of Inappropriate Use	Percentage of children who were given a diagnosis of URI and were not dispensed an antibiotic prescription on or three days after the episode date.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Medication Reconciliation	Percentage of patients aged 65 years and older discharged from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) and seen within 60 days following discharge in the office by the physician providing on-going care who had a reconciliation of the discharge medications with the current medication list in the medical record documented.	Recently Retooled	Inpatient
Chronic Obstructive Pulmonary Disease (COPD): Bronchodilator Therapy	Percentage of symptomatic patients aged 18 years and older with a diagnosis of COPD who were prescribed an inhaled bronchodilator.	Recently Retooled	Outpatient
Major Depressive Disorder (MDD): Diagnostic Evaluation	Percentage of patients with a diagnosis of major depressive disorder who met the DSM-IV-TR™ criteria during the visit in which the new diagnosis or recurrent episode was identified.	Recently Retooled	Outpatient
Major Depressive Disorder (MDD): Suicide Risk Assessment	Percentage of patients who had a suicide risk assessment completed at each visit.	Recently Retooled	Outpatient
Diagnosis of attention deficit hyperactivity disorder (ADHD) in primary care for school age children and adolescents	Percentage of patients newly diagnosed with ADHD whose medical record contains documentation of DSM-IV-TR or DSM-PC criteria.	Recently Retooled	Outpatient
Management of attention deficit hyperactivity disorder (ADHD) in primary care for school age children and adolescents	Percentage of patients treated psychostimulant with medication for the diagnosis of ADHD whose medical record contains documentation of a follow-up visit at least twice a year.	Recently Retooled	Outpatient
ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication	<p>a. Initiation Phase: Percentage of children 6 - 12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for and ADHD medication and who had one follow-up visit with a practitioner with prescribing authority during the 30-Day Initiation Phase.</p> <p>b. Continuation and Maintenance (C&M) Phase: Percentage of children 6 - 12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for ADHD medication who remained on the medication for at least 210 days and who in addition to the visit in the Initiation Phase had at least two additional follow-up visits with a practitioner within 270 days (9 months) after the Initiation Phase ends.</p>	Recently Retooled	Outpatient
Bipolar Disorder: Monitoring change in level-of-functioning	Percentage of patients aged 18 years and older with an initial diagnosis or new episode/presentation of bipolar disorder.	Recently Retooled	Outpatient
Aspirin at Arrival	Acute myocardial infarction (AMI) patients who received aspirin within 24 hours before or after hospital arrival.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
ACEI or ARB for LVSD	Acute myocardial infarction (AMI) patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.	Recently Retooled	Outpatient
Urinary catheter-associated urinary tract infection for intensive care unit (ICU) patients	Standardized Infection Ration (SIR) of healthcare-associated, catheter-associated urinary tract infections (CAUTI) among patients in intensive care units (ICUs), excluding patients in neonatal ICUs (NICUs).	Recently Retooled	Inpatient
Central line catheter-associated blood stream infection rate for ICU and high-risk nursery (HRN) patients	Standardized Infection Ration (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) among patients in intensive care units (ICUs) and Neonatal Intensive Care Units (NICUs).	Recently Retooled	Inpatient
Aspirin Prescribed at Discharge	Acute myocardial infarction (AMI) patients who are prescribed aspirin at hospital discharge.	Recently Retooled	Inpatient
Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients	Immunocompetent patients with Community-Acquired Pneumonia who receive an initial antibiotic regimen during the first 24 hours that is consistent with current guidelines.	Recently Retooled	Inpatient
Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital	Pneumonia patients whose initial emergency room blood culture specimen was collected prior to first hospital dose of antibiotics. This measure focuses on the treatment provided to Emergency Department patients prior to admission orders.	Recently Retooled	Inpatient
Initial Antibiotic Received Within 6 Hours of Hospital Arrival	Pneumonia patients who receive their first dose of antibiotics within 6 hours after arrival at the hospital.	Recently Retooled	Inpatient
Beta-Blocker Prescribed at Discharge	Acute myocardial infarction (AMI) patients who are prescribed a beta-blocker at hospital discharge.	Recently Retooled	Inpatient
Primary PCI Received Within 90 Minutes of Hospital Arrival	Acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving primary PCI during the hospital stay with a time from hospital arrival to PCI of 90 minutes or less.	Recently Retooled	Inpatient
Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival	Acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving fibrinolytic therapy during the hospital stay and having a time from hospital arrival to fibrinolysis of 30 minutes or less.	Recently Retooled	Inpatient
Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (when indicated in ALL patients)	Patient Age: All patients age 18 years and older Procedures: surgical procedures for which VTE prophylaxis is indicated in all patients who had an order for LMWH, LDUH, adjusted-dose warfarin, fondaparinux or mechanical prophylaxis given within 24 hours prior to incision time or 24 hours after surgery end time.	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Stroke and Stroke Rehabilitation: Anticoagulant Therapy Prescribed for Atrial Fibrillation at Discharge	Percentage of patients aged 18 years and older with a diagnosis of ischemic stroke or transient ischemic attack (TIA) with documented permanent, persistent, or paroxysmal atrial fibrillation who were prescribed an anticoagulant at discharge.	Recently Retooled	Inpatient
Stroke and Stroke Rehabilitation: Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) Reports	Percentage of final reports for CT or MRI studies of the brain performed either: In the hospital within 24 hours of arrival, OR In an outpatient imaging center to confirm initial diagnosis of stroke, TIA or intracranial hemorrhage For patients aged 18 years and older with either a diagnosis of ischemic stroke or transient ischemic attack (TIA) or intracranial hemorrhage OR at least one documented symptom consistent with ischemic stroke or TIA or intracranial hemorrhage that includes documentation of the presence or absence of each of the following: hemorrhage and mass lesion and acute infarction.	Recently Retooled	Inpatient
Perioperative Care: Selection of Prophylactic Antibiotic - First OR Second Generation Cephalosporin	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for a first OR second generation cephalosporin prophylactic antibiotic who had an order for cefazolin OR cefuroxime for antimicrobial prophylaxis.	Recently Retooled	Inpatient
Perioperative Care: Timing of Prophylactic Antibiotics - Ordering Physician	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic parenteral antibiotics who have an order for an antibiotic to be given within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required).	Recently Retooled	Inpatient
Perioperative Care: Discontinuation of Prophylactic Antibiotics (Non-Cardiac Procedures)	Percentage of non-cardiac surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic antibiotics AND who received a prophylactic antibiotic, who have an order for discontinuation of prophylactic antibiotics within 24 hours of surgical end time.	Recently Retooled	Inpatient
Central Line Bundle Compliance	The percentage of intensive care patients in the included ICUs with central lines for who all five elements of the central line "bundle" are documented on the daily goals sheet, central line checklist, patients medical record, or other documentation tool.	Recently Retooled	Inpatient
Cardiac Surgery Patients With Controlled 6 A.M. Postoperative Blood Glucose	Cardiac surgery patients with controlled 6 A.M. blood glucose (less than or equal to 200 mg/dL) on postoperative day one (POD 1) and postoperative day two (POD 2) with Anesthesia End Date being postoperative day zero (POD 0).	Recently Retooled	Inpatient
Ventilator Bundle	The percentage of intensive care patients on mechanical ventilation for whom all five elements of the ventilator "bundle" are implemented and documented.	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
End Stage Renal Disease (ESRD): Plan of Care for Inadequate Peritoneal Dialysis	Percentage of patients aged 18 years and older with a diagnosis of ESRD receiving peritoneal dialysis who have a Kt/V \geq 1.7 OR patients who have a Kt/V $<$ 1.7 with a documented plan of care 3 times a year (every 4 months) during the 12 month reporting period.	Recently Retooled	Outpatient
End Stage Renal Disease (ESRD): Plan of Care of Inadequate Hemodialysis in ESRD Patients	Percentage of patient calendar months during the 12 month reporting period in which patients aged 18 years and older with a diagnosis of ESRD and receiving hemodialysis have a Kt/V \geq 1.2 OR have a Kt/V $<$ 1.2 with a documented plan of care.	Recently Retooled	Outpatient
All Cause Readmission Index (risk adjusted)	30-day Readmission Index for Non-Maternity and Non-Pediatric Discharges.	Recently Retooled	Inpatient
PICU Pain Assessment	Percentage of PICU patients receiving pain assessment on admission.	Recently Retooled	Inpatient
PICU Periodic Pain Assessment	Percentage of PICU patients receiving periodic pain assessment.	Recently Retooled	Inpatient
Iatrogenic Pneumothorax in Non-Neonates (risk adjusted) (PDI5)	Percent of medical and surgical discharges, age under 18 years, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.	Recently Retooled	Inpatient
Blood Cultures Performed Within 24 Hours Prior to or 24 Hours After Hospital Arrival for Patients Who Were Transferred or Admitted to the ICU Within 24 Hours of Hospital Arrival	Pneumonia patients transferred or admitted to the ICU within 24 hours of hospital arrival, who had blood cultures performed within 24 hours prior to or the day prior to arrival, the day of arrival, or within 24 hours after arrival to the hospital.	Recently Retooled	Inpatient
Foreign Body left after procedure (PDI3)	Discharges with foreign body accidentally left in during procedure per 1000 discharges.	Recently Retooled	Inpatient
Hepatitis C: Antiviral Treatment Prescribed	Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C who were prescribed peginterferon and ribavirin therapy within the 12 month reporting period.	Recently Retooled	Outpatient
Hepatitis C: Hepatitis A Vaccination in Patients with HCV	Percentage of patients aged 18 years and older with a diagnosis of hepatitis C who have received at least one injection of hepatitis A vaccine, or who have documented immunity to hepatitis A.	Recently Retooled	Outpatient
Hepatitis C: Hepatitis B Vaccination in Patients with HCV	Percentage of patients aged 18 years and older with a diagnosis of hepatitis C who have received at least one injection of hepatitis B vaccine, or who have documented immunity to hepatitis B.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Hepatitis C: Counseling Regarding Risk of Alcohol Consumption	Percentage of patients aged 18 years and older with a diagnosis of hepatitis C who were counseled regarding the risks of alcohol consumption at least once within the 12 month reporting period.	Recently Retooled	Outpatient
Diabetic Foot and Ankle Care, Ulcer Prevention - Evaluation of Footwear	Percentage of patients aged 18 years and older with a diagnosis of diabetes mellitus who were evaluated for proper footwear and sizing.	Recently Retooled	Outpatient
Urinary catheter removed on Postoperative Day 1 (POD 1) or Postoperative Day 2 (POD 2) with day of surgery being day zero	Surgical patients with urinary catheter removed on Postoperative Day 1 or Postoperative Day 2 with day of surgery being day zero.	Recently Retooled	Inpatient
Proportion of Infants 22 to 29 Weeks Gestation Treated with Surfactant who are Treated within 2 Hours of Birth	Proportion of infants with gestational age between 22 and 29 completed weeks who were treated with surfactant and were treated within two hours of birth.	Recently Retooled	Inpatient
Median Time from ED Arrival to ED Departure for Discharged ED Patients	Median time from emergency department arrival to time of departure from the emergency room for patients discharged from the emergency department.	Recently Retooled	Inpatient
Stenosis Measurement in Carotid Imaging Studies	Percentage of final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement.	Recently Retooled	Outpatient
Radiology: Inappropriate Use of "Probably Benign" Assessment Category in Mammography Screening	Percentage of final reports for screening mammograms that are classified as "probably benign".	Recently Retooled	Outpatient
Radiology: Exposure Time Reported for Procedures Using Fluoroscopy	Percentage of final reports for procedures using fluoroscopy that include documentation of radiation exposure or exposure time.	Recently Retooled	Outpatient
Nuclear Medicine: Correlation with Existing Imaging Studies for All Patients Undergoing Bone Scintigraphy	Percentage of final reports for all patients, regardless of age, undergoing bone scintigraphy that include physician documentation of correlation with existing relevant imaging studies (eg, x-ray, MRI, CT) that were performed.	Recently Retooled	Outpatient
Diabetic Foot Care and Patient/Caregiver Education Implemented During Short Term Episodes of Care	Percentage of short term home health episodes of care during which diabetic foot care and education were included in the physician-ordered plan of care and implemented for patients with diabetes.	Recently Retooled	Outpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision	Surgical patients with prophylactic antibiotics initiated within one hour prior to surgical incision. Patients who received vancomycin or a fluoroquinolone for prophylactic antibiotics should have the antibiotics initiated within two hours prior to surgical incision. Due to the longer infusion time required for vancomycin or a fluoroquinolone, it is acceptable to start these antibiotics within two hours prior to incision time.	Recently Retooled	Inpatient
Prophylactic Antibiotic Selection for Surgical Patients	Surgical patients who received prophylactic antibiotics consistent with current guidelines (specific to each type of surgical procedure).	Recently Retooled	Inpatient
Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time	Surgical patients whose prophylactic antibiotics were discontinued within 24 hours after Anesthesia End Time. The Society of Thoracic Surgeons (STS) Practice Guideline for Antibiotic Prophylaxis in Cardiac Surgery (2006) indicates that there is no reason to extend antibiotics beyond 48 hours for cardiac surgery and very explicitly states that antibiotics should not be extended beyond 48 hours even with tubes and drains in place for cardiac surgery.	Recently Retooled	Inpatient
Pregnant women that had HBsAg testing	This measure reports compliance to hepatitis B surface antigen (HBsAg) testing during pregnancy; if the HBsAg test is absent, then the exclusion criteria (diagnosis of hepatitis B infection) is applied.	Recently Retooled	Outpatient
Endoscopy & Polyp Surveillance: Colonoscopy Interval for Patients with a History of Adenomatous Polyps - Avoidance of Inappropriate Use	Percentage of patients aged 18 years and older receiving a surveillance colonoscopy, with a history of a prior colonic polyp in previous colonoscopy findings who had a follow-up interval of 3 or more years since their last colonoscopy documented in the colonoscopy report.	Recently Retooled	Outpatient
Depression Remission at Twelve Months	Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at twelve months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.	Recently Retooled	Outpatient
Depression Remission at Six Months	Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score > 9 who demonstrate remission at six months defined as PHQ-9 score less than 5. This measure applies to both patients with newly diagnosed and existing depression whose current PHQ-9 score indicates a need for treatment.	Recently Retooled	Outpatient
Depression Utilization of the PHQ-9 Tool	Adult patients age 18 and older with the diagnosis of major depression or dysthymia who have a PHQ-9 tool administered at least once during a 4 month period in which there was a qualifying visit.	Recently Retooled	Outpatient

ADDITIONAL MEASURES FOR ELIGIBLE PROVIDER MENU

Medicaid Measures to be Retooled

Measure	Measure Steward	Description
Prevention and Health Promotion		
1	Frequency of Ongoing Prenatal Care	NCQA/HEDIS
		Percentage of Medicaid deliveries between November 6 of the year prior to the measurement year and November 5 of the measurement year that received the following number of visits: < 21 percent of expected visits 21 percent – 40 percent of expected visits 41 percent – 60 percent of expected visits 61 percent – 80 percent of expected visits ≥ 81 percent of expected visits
2	Prenatal and Postpartum Care: Timeliness of Prenatal Care	NCQA/HEDIS
		The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year that received a prenatal care visit in the first trimester or within 42 days of enrollment in the organization.
3	Percent of live births weighing less than 2,500 grams	Centers for Disease Control and Prevention
		The measure assesses the number of resident live births less than 2,500 grams as a percentage of the number of resident live births in the State reporting period.
4	Cesarean rate for nulliparous singleton vertex	California Maternal Quality Care Collaborative
		Percentage of women who had a cesarean section among women with first live singleton births [also known as nulliparous term singleton vertex (NTSV) births] at 37 weeks of gestation or later.
5	Developmental Screening in the First Three Years of Life	Child and Adolescent Health Measurement Initiative and NCQA
		Assesses the extent to which children at various ages from 0-36 months were screened for social and emotional development with a standardized, documented tool or set of tools.
6	Well-Child Visits in the First 15 Months of Life	NCQA/HEDIS
		Percentage of members who received zero, one, two, three, four, five, and six or more well-child visits with a primary care practitioner during their first 15 months of life.

Measure		Measure Steward	Description
7	Well-Child Visits in the 3 rd , 4 th , 5 th , and 6 th Years of Life	NCQA/HEDIS	Percentage of members ages 3 through 6 years old who received one or more well-child visits with a primary care practitioner during the measurement year.
8	Adolescent Well-Care Visit	NCQA/HEDIS	Percentage of members ages 12 through 21 years who had at least one comprehensive well-care visit with a primary care practitioner or an OB/GYN practitioner during the measurement year.
9	Total Eligibles Who Received Preventive Dental Services	CMS	Total eligible children 1 through 20 years of age who received preventive dental services.
Management of Acute Conditions			
10	Otitis media with effusion (OME) – avoidance of inappropriate use of systemic antimicrobials in children – ages 2 through 12	American Medical Association /PCPI ¹	Percentage of patients ages 2 months through 12 years with a diagnosis of OME who were not prescribed systemic antimicrobials.
11	Total Eligibles who Received Dental Treatment Services	CMS	Total eligible children 1 through 20 years of age who received dental treatment services.
12	Ambulatory Care: Emergency Department Visits	NCQA/HEDIS	The number of visits per member per year as a function of all child and adolescent members enrolled and eligible during the measurement year.
13	Pediatric central-line associated blood stream infections – Neonatal Intensive Care Unit and Pediatric Intensive Care Unit	Centers for Disease Control and Prevention	Rate of central line-associated blood stream infections (CLABSI) identified during periods selected for surveillance as a function of the number of central line catheter days selected for surveillance in pediatric and neonatal intensive care units.
Management of Chronic Conditions			
14	Annual number of asthma patients ages 2 through 20 years old with 1 or more asthma-related emergency room visits	Alabama Medicaid	Asthma emergency department utilization for patients ages 2 through 20 years old diagnosed with asthma or treatment with at least 2 short-acting beta adrenergic agents during the measurement year who also had one or more asthma-related emergency room visits.

¹ Physician Consortium for Performance Improvement

Measure		Measure Steward	Description
15	Follow-Up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication	NCQA/HEDIS	Percentage of children ages 6 through 12 years of age with newly prescribed ADHD medication who had at least 3 follow-up care visits within a 10-month period, one of which was within 30 days from the time the first ADHD medication was dispensed.
16	Follow-up after hospitalization for mental illness	NCQA/HEDIS	Percentage of discharges for members 6 years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner.
17	Annual Pediatric hemoglobin A1C testing	NCQA	Percentage of pediatric patients with diabetes who had a hemoglobin A1c test in a 12-month measurement period.

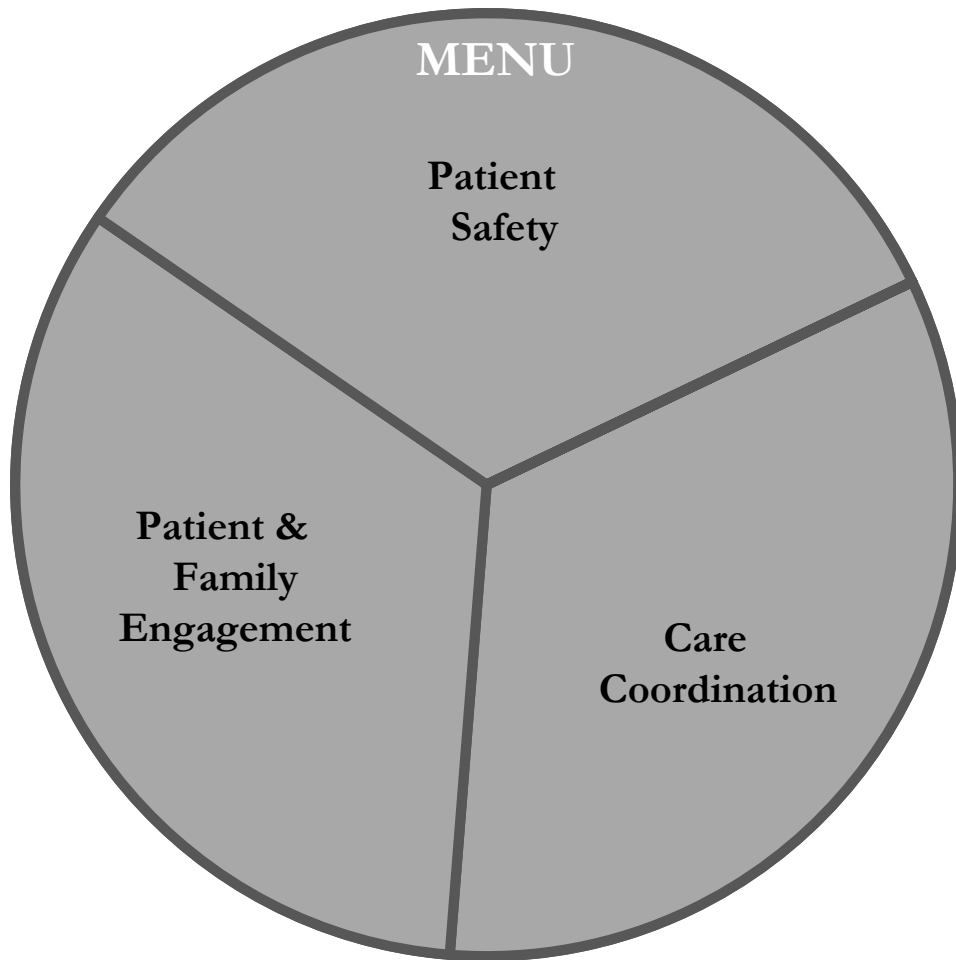
Availability			
18	Child and Adolescent Access to Primary Care Practitioners	NCQA/HEDIS	<p>Percentage of enrollees 12 months through 19 years of age who had a visit with a primary care practitioner (PCP). Four separate percentages are reported:</p> <ul style="list-style-type: none"> Children 12 months through 24 months and 25 months through 6 years who had a visit with a PCP during the measurement year. Children 7 through 11 years and adolescents 12 through 19 years who had a visit with a PCP during the measurement year or the year prior to the measurement year.

Recommended Behavioral Health Measures

NQF Measure #	Measure Title	Measure Description	Measure Steward	eMeasure
0104.0111	Bipolar Disorder and Major Depression: Suicide Risk Assessment	Percentage of patients with depression or bipolar disorder who had an initial assessment that includes an appraisal for suicide risk	The American Medical Association Center for Quality Assessment and Improvement in mental health	Measure needs to be eSpecified

NQF Measure #	Measure Title	Measure Description	Measure Steward	eMeasure
0110	Bipolar Disorder and Major Depression: Appraisal for Alcohol or Chemical Substance Use	Percentage of patients with depression or bipolar disorder with evidence of an initial assessment that includes an appraisal for alcohol or chemical substance use.	Center for Quality Assessment and Improvement in Mental Health	Measure needs to be eSpecified
N/A	Alcohol Screening and Brief Intervention (ASBI; adults)	Measure of alcohol screening using a validated instrument, including documentation of a brief intervention. Percentage of patients aged 18-21 years seen for a visit within the reporting period who were screened for any alcohol use. Percentage of patients aged 21 years and older seen for a visit within the reporting period who were screened for binge drinking (≥5 drinks per occasion for men; ≥4 drinks per occasion for women).	VA; IHS; AMA; TJC	Measure needs to be eSpecified
N/A	Depression Screening (PHQ-2 and PHQ-9) for primary care	Measure of depression screening using a validated instrument, including documentation of a follow-up plan. Percentage of patients aged 12 years and older who were seen for a visit within the reporting period who were screened for depression at least once.	VA; IHS; AMA; TJC	Measure needs to be eSpecified
NQF Review #1394	Depression Screening by 13 years of age	The percentage of adolescents who turn 13 years of age in the measurement year who had a screening for depression using a standardized tool.	VA; HIS; AMA; TJC	Measure needs to be eSpecified
NQF Review # 1365	Child and Adolescent Major Depressive Disorder Suicide Risk Assessment	Percentage of patient visits for those patients aged 6 through 17 years with a diagnosis of major depressive disorder with an assessment for suicide risk.	The American Medical Association	Measure needs to be eSpecified
N/A	Illicit substance use primary care single question screener (including illegal drugs and non-medical use of prescription drugs)		NIDA	Measure needs to be eSpecified
N/A	Trauma exposure single question screener		SAMHSA	Measure needs to be eSpecified

FIG. 2 PROPOSED ELIGIBLE HOSPITAL FRAMEWORK



ELIGIBLE HOSPITAL MEASURES

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Medication Reconciliation	Percentage of patients aged 65 years and older discharged from any inpatient facility (e.g. hospital, skilled nursing facility, or rehabilitation facility) and seen within 60 days following discharge in the office by the physician providing on-going care who had a reconciliation of the discharge medications with the current medication list in the medical record documented.	Recently Retooled	Inpatient
Urinary catheter-associated urinary tract infection for intensive care unit (ICU) patients	Standardized Infection Ration (SIR) of healthcare-associated, catheter-associated urinary tract infections (CAUTI) among patients in intensive care units (ICUs), excluding patients in neonatal ICUs (NICUs).	Recently Retooled	Inpatient
Central line catheter-associated blood stream infection rate for ICU and high-risk nursery (HRN) patients	Standardized Infection Ration (SIR) of healthcare-associated, central line-associated bloodstream infections (CLABSI) among patients in intensive care units (ICUs) and Neonatal Intensive Care Units (NICUs).	Recently Retooled	Inpatient
Aspirin Prescribed at Discharge	Acute myocardial infarction (AMI) patients who are prescribed aspirin at hospital discharge.	Recently Retooled	Inpatient
Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients	Immunocompetent patients with Community-Acquired Pneumonia who receive an initial antibiotic regimen during the first 24 hours that is consistent with current guidelines.	Recently Retooled	Inpatient
Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received in Hospital	Pneumonia patients whose initial emergency room blood culture specimen was collected prior to first hospital dose of antibiotics. This measure focuses on the treatment provided to Emergency Department patients prior to admission orders.	Recently Retooled	Inpatient
Initial Antibiotic Received Within 6 Hours of Hospital Arrival	Pneumonia patients who receive their first dose of antibiotics within 6 hours after arrival at the hospital.	Recently Retooled	Inpatient
Beta-Blocker Prescribed at Discharge	Acute myocardial infarction (AMI) patients who are prescribed a beta-blocker at hospital discharge.	Recently Retooled	Inpatient
Primary PCI Received Within 90 Minutes of Hospital Arrival	Acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving primary PCI during the hospital stay with a time from hospital arrival to PCI of 90 minutes or less.	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival	Acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving fibrinolytic therapy during the hospital stay and having a time from hospital arrival to fibrinolysis of 30 minutes or less.	Recently Retooled	Inpatient
Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (when indicated in ALL patients)	Patient Age: All patients age 18 years and older Procedures: surgical procedures for which VTE prophylaxis is indicated in all patients who had an order for LMWH, LDUH, adjusted-dose warfarin, fondaparinux or mechanical prophylaxis given within 24 hours prior to incision time or 24 hours after surgery end time.	Recently Retooled	Inpatient
Stroke and Stroke Rehabilitation: Anticoagulant Therapy Prescribed for Atrial Fibrillation at Discharge	Percentage of patients aged 18 years and older with a diagnosis of ischemic stroke or transient ischemic attack (TIA) with documented permanent, persistent, or paroxysmal atrial fibrillation who were prescribed an anticoagulant at discharge.	Recently Retooled	Inpatient
Stroke and Stroke Rehabilitation: Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) Reports	Percentage of final reports for CT or MRI studies of the brain performed either: In the hospital within 24 hours of arrival, OR In an outpatient imaging center to confirm initial diagnosis of stroke, TIA or intracranial hemorrhage For patients aged 18 years and older with either a diagnosis of ischemic stroke or transient ischemic attack (TIA) or intracranial hemorrhage OR at least one documented symptom consistent with ischemic stroke or TIA or intracranial hemorrhage that includes documentation of the presence or absence of each of the following: hemorrhage and mass lesion and acute infarction.	Recently Retooled	Inpatient
Perioperative Care: Selection of Prophylactic Antibiotic - First OR Second Generation Cephalosporin	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for a first OR second generation cephalosporin prophylactic antibiotic who had an order for cefazolin OR cefuroxime for antimicrobial prophylaxis.	Recently Retooled	Inpatient
Perioperative Care: Timing of Prophylactic Antibiotics - Ordering Physician	Percentage of surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic parenteral antibiotics who have an order for an antibiotic to be given within one hour (if fluoroquinolone or vancomycin, two hours) prior to the surgical incision (or start of procedure when no incision is required).	Recently Retooled	Inpatient
Perioperative Care: Discontinuation of Prophylactic Antibiotics (Non-Cardiac Procedures)	Percentage of non-cardiac surgical patients aged 18 years and older undergoing procedures with the indications for prophylactic antibiotics AND who received a prophylactic antibiotic, who have an order for discontinuation of prophylactic antibiotics within 24 hours of surgical end time.	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Central Line Bundle Compliance	The percentage of intensive care patients in the included ICUs with central lines for whom all five elements of the central line "bundle" are documented on the daily goals sheet, central line checklist, patient's medical record, or other documentation tool.	Recently Retooled	Inpatient
Cardiac Surgery Patients With Controlled 6 A.M. Postoperative Blood Glucose	Cardiac surgery patients with controlled 6 A.M. blood glucose (less than or equal to 200 mg/dL) on postoperative day one (POD 1) and postoperative day two (POD 2) with Anesthesia End Date being postoperative day zero (POD 0).	Recently Retooled	Inpatient
Ventilator Bundle	The percentage of intensive care patients on mechanical ventilation for whom all five elements of the ventilator "bundle" are implemented and documented.	Recently Retooled	Inpatient
All Cause Readmission Index (risk adjusted)	30-day Readmission Index for Non-Maternity and Non-Pediatric Discharges.	Recently Retooled	Inpatient
PICU Pain Assessment	Percentage of PICU patients receiving pain assessment on admission.	Recently Retooled	Inpatient
PICU Periodic Pain Assessment	Percentage of PICU patients receiving periodic pain assessment.	Recently Retooled	Inpatient
Iatrogenic Pneumothorax in Non-Neonates (risk adjusted) (PDI5)	Percent of medical and surgical discharges, age under 18 years, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.	Recently Retooled	Inpatient
Blood Cultures Performed Within 24 Hours Prior to or 24 Hours After Hospital Arrival for Patients Who Were Transferred or Admitted to the ICU Within 24 Hours of Hospital Arrival	Pneumonia patients transferred or admitted to the ICU within 24 hours of hospital arrival, who had blood cultures performed within 24 hours prior to or the day prior to arrival, the day of arrival, or within 24 hours after arrival to the hospital.	Recently Retooled	Inpatient
Foreign Body left after procedure (PDI3)	Discharges with foreign body accidentally left in during procedure per 1000 discharges.	Recently Retooled	Inpatient
Urinary catheter removed on Postoperative Day 1 (POD 1) or Postoperative Day 2 (POD 2) with day of surgery being day zero	Surgical patients with urinary catheter removed on Postoperative Day 1 or Postoperative Day 2 with day of surgery being day zero.	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Cesarean Rate for Low-Risk Birth Women	Cesarean Rate for low-risk first birth women (aka NTSV CS rate: nulliparous, term, singleton, vertex) identifies the portion of cesarean births that has the most variation among practitioners, hospitals, regions and states. Unlike other cesarean measures, it focuses attention on the proportion of cesarean births that is affected by elective medical practices such as induction and early labor admission. Furthermore, the success (or lack thereof) of management of the first labor directly impacts the remainder of the woman's reproductive life especially given the current high rate of repeat cesarean births. This is also the measure used in Healthy Person 2010 (Objective 16.9a, US DHS, 2000). and previously received endorsement from the American College of Obstetricians and Gynecologists (American College of Obstetricians and Gynecologists: Task Force on Cesarean Delivery, 2000). A recent European review of cesarean birth measures also identified that this measure pinpointed the portion of cesarean births that had the greatest variation and contributed the most to the rise in overall rates in every country studied (Brennan, 2009).	Recently Retooled	Inpatient
Proportion of Infants 22 to 29 Weeks Gestation Treated with Surfactant who are Treated within 2 Hours of Birth	Proportion of infants with gestational age between 22 and 29 completed weeks who were treated with surfactant and were treated within two hours of birth.	Recently Retooled	Inpatient
Median Time from ED Arrival to ED Departure for Discharged ED Patients	Median time from emergency department arrival to time of departure from the emergency room for patients discharged from the emergency department.	Recently Retooled	Inpatient
Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision	Surgical patients with prophylactic antibiotics initiated within one hour prior to surgical incision. Patients who received vancomycin or a fluoroquinolone for prophylactic antibiotics should have the antibiotics initiated within two hours prior to surgical incision. Due to the longer infusion time required for vancomycin or a fluoroquinolone, it is acceptable to start these antibiotics within two hours prior to incision time.	Recently Retooled	Inpatient
Prophylactic Antibiotic Selection for Surgical Patients	Surgical patients who received prophylactic antibiotics consistent with current guidelines (specific to each type of surgical procedure).	Recently Retooled	Inpatient

Measure Title	Measure Description	Measure Status	Outpatient Inpatient
Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time	Surgical patients whose prophylactic antibiotics were discontinued within 24 hours after Anesthesia End Time. The Society of Thoracic Surgeons (STS) Practice Guideline for Antibiotic Prophylaxis in Cardiac Surgery (2006) indicates that there is no reason to extend antibiotics beyond 48 hours for cardiac surgery and very explicitly states that antibiotics should not be extended beyond 48 hours even with tubes and drains in place for cardiac surgery.	Recently Retooled	Inpatient